



INVITATION TO BID
CITY OF NAPLES
PURCHASING DIVISION
CITY HALL, 735 8TH STREET SOUTH
NAPLES, FL 34102
PH: 239-213-7100 FX: 239-213-7105

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|--|---|--------------------------|---|
| NOTIFICATION DATE: 05/21/14 | <small>TITLE</small> Wastewater Treatment Bar Screens Replacement | NUMBER: 14-046 | OPENING DATE & TIME: 06/20/14 2:00 PM |
| PRE-BID DATE, TIME AND LOCATION: A Non-mandatory Pre-Bid Meeting and Walk Through will be held June 3, 2014; 10:00 AM local time at the Utilities Department, 380 Riverside Circle, Naples FL 34102 | | | |

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|---|--------------|
| LEGAL NAME OF PARTNERSHIP, CORPORATION OR INDIVIDUAL: | |
| MAILING ADDRESS: | |
| CITY-STATE-ZIP: | |
| PH: | EMAIL: |
| FX: | WEB ADDRESS: |

| | | |
|---|------------------|--------------------|
| <p>I certify that this bid is made without prior understanding, agreement, or connection with any corporation, firm, or person submitting a bid for the same materials, supplies, or equipment and is in all respects fair and without collusion or fraud. I agree to abide by all conditions of this bid and certify that I am authorized to sign this bid for the bidder. In submitting a bid to the City of Naples the bidder offers and agrees that if the bid is accepted, the bidder will convey, sell, assign or transfer to the City of Naples all rights, title, and interest in and to all causes of action it may now or hereafter acquire under the Anti-trust laws of the United States and the State of FL for price fixing relating to the particular commodities or services purchased or acquired by the City of Naples. At the City's discretion, such assignment shall be made and become effective at the time the City tenders final payment to the bidder.</p> <p style="text-align: center;">FEI/EIN Number _____</p> | | |
| AUTHORIZED SIGNATURE | DATE | PRINTED NAME/TITLE |
| <small>COVER SHEET - Please initial by all that apply. I acknowledge receipt / review of the following addendum</small> | | |
| ____ Addendum #1 | ____ Addendum #2 | ____ Addendum #3 |
| ____ Addendum #4 | | |

PLEASE NOTE THE FOLLOWING:

- > **This page must be completed and returned with your bid.**
- > **Bids must be submitted in a sealed envelope, marked with bid number & closing date.**
- > **Bids received after the above closing date and time will not be accepted.**
- > **If you do not have an email address and you want a copy of the Bid Tab, please enclose a stamped, self-addressed envelope with your bid.**

GENERAL CONDITIONS

TO INSURE ACCEPTANCE OF THE BID, PLEASE FOLLOW THESE INSTRUCTIONS. ANY AND ALL SPECIAL CONDITIONS, ATTACHED HERETO, HAVE PRECEDENCE.

- 1. SEALED BID:** All bids must be submitted in a sealed envelope. The face of the envelope shall contain the bid name and bid number. Bids not submitted on attached bid form shall be rejected. All bids are subject to the conditions specified herein. Those which do not comply with these conditions are subject to rejection.
- 2. EXECUTION OF BID:** Bid must contain a manual signature of authorized representative in the proposal section. Bid must be typed or printed in ink. Use of erasable ink is not permitted. All corrections made by bidder to his bid must be initialed.
- 3. NO BID:** If not submitting a bid, respond by returning the Statement of No Bid and explain the reason in the spaces provided. Failure to respond 3 times in succession without justification shall be cause for removal of the supplier's name from the bid mailing list. NOTE: To qualify as a respondent, bidder must submit a "NO BID," and it must be received no later than the stated bid opening date and hour.
- 4. BID OPENING:** Shall be public, on the date and at the time specified on the bid form. It is the bidder's responsibility to assure that his bid is delivered at the proper time and place of the bid opening. Bids which for any reason are not so delivered will not be considered. Offers by telegram, telephone; or fax are not acceptable. Bid files may be examined during normal working hours.
- 5. WITHDRAWAL OF BIDS:** Withdrawal of a bid within sixty (60) days after the opening of bids is subject to suspension or debarment in accordance with Section 2-668 of the City Code for up to three years.
- 6. PRICES, TERMS and PAYMENT:** Firm Prices include all packing, handling, shipping charges and delivery to the destination shown herein. Bidder is encouraged to offer cash discount for prompt invoice payment. Terms of less than 20 days will not be considered.

 - A. TAXES:** The City of Naples does not pay Federal Excise and Sales taxes on direct purchases of tangible personal property. See exemption number on face of purchase order. This exemption does not apply to purchases of tangible personal property made by contractors who use the tangible personal property in the performance of contracts for the improvement of City-owned real property.
 - B. MISTAKES:** Bidders are expected to examine the specifications, delivery schedule, bid prices, extensions, and all instructions pertaining to supplies and services. Failure to do so will be at bidder's risk. In case of mistake in extension, the unit price will govern.
 - C. CONDITION AND PACKAGING:** It is understood and agreed that any item offered or shipped as a result of this bid shall be a new, current standard production model available at the time of this bid. All containers shall be suitable for storage or shipment, and all prices shall include standard commercial packaging.
 - D. SAFETY STANDARDS:** Unless otherwise stipulated in the bid, all manufactured items and fabricated assemblies shall comply with applicable requirements of Occupational Safety and Health Act and any standards there under.
 - E. UNDERWRITERS' LABORATORIES:** Unless otherwise stipulated in the bid, all manufactured items and fabricated assemblies shall carry U.L. approval and re-examination listing where such has been established.
 - F. PAYMENT:** Payment will be made by the buyer after the items awarded to a vendor have been received, inspected, and found to comply with award specifications, free of damage or defect and properly invoiced. All invoices shall bear the purchase order number. Payment for partial shipments shall not be made unless specified in the bid. Failure to follow these instructions may result in delay in processing invoices for payment. In addition, the purchase order number must appear on bills of lading, packages, cases, delivery lists and correspondence.
- 7. DELIVERY:** Unless actual date of delivery is specified (or if specified delivery cannot be met), show number of days required to make delivery after receipt of purchase order in space provided. Delivery time may become a basis for making an award (see Special Conditions). Delivery shall be within the normal working hours of the user, Monday through Friday, unless otherwise specified.

8. MANUFACTURERS' NAMES AND APPROVED EQUIVALENTS: Any manufacturers' names, trade names, brand names, information and/or catalog numbers listed in a specification are for information and not intended to limit competition. The bidder may offer any brand for which he is an authorized representative, which meets or exceeds the specification for any item(s). If bids are based on equivalent products, indicate on the bid form the manufacturer's name and number. Bidder shall submit with his proposal, cuts, sketches, and descriptive literature, and/or complete specifications. Reference to literature submitted with a previous bid will not satisfy this provision. The bidder shall also explain in detail the reason(s) why the proposed equivalent will meet the specifications and not be considered an exception thereto. Bids which do not comply with these requirements are subject to rejection. Bids lacking any written indication of intent to quote an alternate brand will be received and considered in complete compliance with the specifications as listed on the bid form.

9. INTERPRETATIONS: Any questions concerning conditions and specifications shall be directed in writing to this office for receipt no later than ten (10) days prior to the bid opening. Inquiries must reference the date of bid opening and bid number. Failure to comply with this condition will result in bidder waiving his right to dispute the bid.

10. CONFLICT OF INTEREST: All bid awards are subject to Section 2-973 Conflict of Interest, City of Naples Code of Ordinances, which states: *"No public officer or employee shall have or hold any employment or contractual relationship with any business entity or any agency which is subject to the regulation of or is doing business with the city; nor shall an officer or employee have or hold any employment or contractual relationship that will create a continuing or frequently recurring conflict between his private interests and the performance of his public duties or that would impede the full and faithful discharge of his public duties. Any member of the city council or any city officer or employee who willfully violates this section shall be guilty of malfeasance in office or position and shall forfeit his office or position. Violation of this section with the knowledge, express or implied, of the person or corporation contracting with or making a sale to the city shall render the contract or sale voidable by the city manager or the city council."*

11. AWARDS: As the best interest of the City may require, the right is reserved to make award(s) by individual item, group of items, all or none, or a combination thereof; to reject any and all bids or waive any minor irregularity or technicality in bids received.

12. ADDITIONAL QUANTITIES: For a period not exceeding ninety (90) days from the date of acceptance of this offer by the buyer, the right is reserved to acquire additional quantities up to but not exceeding those shown on bid at the prices bid in this invitation. If additional quantities are not acceptable, the bid sheets must be noted "BID IS FOR SPECIFIED QUANTITY ONLY." (THIS PARAGRAPH DOES NOT APPLY FOR A TERM CONTRACT.)

13. SERVICE AND WARRANTY: Unless otherwise specified, the bidder shall define any warranty service and replacements that will be provided during and subsequent to this contract. Bidders must explain on an attached sheet to what extent warranty and service facilities are provided.

14. SAMPLES: Samples of items, when called for, must be furnished free of expense, on or before bid opening time and date, and if not destroyed may, upon request, be returned at the bidder's expense. Each individual sample must be labeled with bidder's name, manufacturer's brand name and number, bid number and item reference. Request for return of samples shall be accompanied by instructions which include shipping authorization and name of carrier and must be received with your bid. If instructions are not received within this time, the commodities shall be disposed of by the City of Naples.

15. BID PROTEST: The city has formal bid protest procedures that are available on request.

16. INSPECTION, ACCEPTANCE AND TITLE: Inspection and acceptance will be at destination unless otherwise provided. Title and risk of loss or damage to all items shall be the responsibility of the contract supplier until accepted by the ordering agency, unless loss or damage results from negligence by the ordering

17. DISPUTES: In case of any doubt or difference of opinion as to the items to be furnished hereunder, the decision of the buyer shall be final and binding on both parties.

18. GOVERNMENTAL RESTRICTIONS: In the event any governmental restrictions may be imposed which would necessitate alteration of the material, quality, workmanship or performance of the items offered on this proposal prior to their delivery, it shall be the responsibility of the successful bidder to notify the buyer at once, indicating in his letter the specific regulation which required an alteration. The City reserves the right to accept any such alteration, including any price adjustments occasioned thereby, or to cancel the contract at no expense to the City.

19. LEGAL REQUIREMENTS: Applicable provision of all Federal, State, county and local laws, and of all ordinances, rules, and regulations shall govern development submittal and evaluation of all bids received in response hereto and shall govern any and all claims and disputes which may arise between person(s) submitting a bid response hereto and the City of Naples by and through its officers, employees and authorized representatives, or any other person, natural or otherwise; and lack of knowledge by any bidder shall not constitute a cognizable defense against the legal effect thereof.

20. PATENTS AND ROYALTIES: The bidder, without exception, shall indemnify and save harmless the City of Naples and its employees from liability of any nature or kind, including cost and expenses for or on account of any copyrighted, patented, or unpatented invention, process, or article manufactured or used in the performance of the contract, including its use by the City of Naples. If the bidder uses any design, device, or materials covered by letters, patent or copyright, it is mutually agreed and understood without exception that the bid prices shall include all royalties or cost arising from the use of such design, device, or materials in any way involved in the work.

21. ADVERTISING: In submitting a bid, bidder agrees not to use the results there from as a part of any commercial advertising.

22. ASSIGNMENT: Any Purchase Order issued pursuant to this bid invitation and the monies which may become due hereunder are not assignable except with the prior written approval of the buyer.

23. LIABILITY: The supplier shall hold and save the City of Naples, its officers, agents, and employees harmless from liability of any kind in the performance of this contract.

24. PUBLIC ENTITY CRIMES: A person or affiliate who has been placed on the convicted vendor list following a conviction for a public entity crime may not submit a bid on a contract to provide any goods or services to a public entity, may not submit a bid on a contract with a public entity for the construction or repair of a public building or public work, may not submit bids on leases of real property to a public entity, may not be awarded or perform work as a contractor, supplier, subcontractor, or consultant under a contract with any public entity, and may not transact business with any public entity in excess of the threshold amount provided in Section 287.017, for CATEGORY TWO for a period of 36 months from the date of being placed on the convicted vendor list.

25. DISCRIMINATION: An entity or affiliate who has been placed on the discriminatory vendor list may not submit a bid on a contract to provide goods or services to a public entity, may not submit a bid on a contract with a public entity for the construction or repair of a public building or public work, may not submit bids on leases of real property to a public entity, may not award or perform work as a contractor, supplier, subcontractor, or consultant under contract with any public entity, and may not transact business with any public entity.

26. COUNTY TAXES: No proposal shall be accepted from and no contract will be awarded to any person, firm or corporation that is in arrears to the government of Collier County, Florida.

27. OFFER EXTENDED TO OTHER GOVERNMENTAL ENTITIES: The City of Naples encourages and agrees to the successful bidder/proposer extending the pricing, terms and conditions of this solicitation or resultant contract to other governmental entities at the discretion of the successful bidder/proposer.

IF THIS BID IS FOR A TERM CONTRACT, THE FOLLOWING CONDITIONS SHALL ALSO APPLY

28. ELIGIBLE USERS: All departments of the City of Naples are eligible to use this term contract. Such purchases shall be exempt from the competitive bid requirements otherwise applying to their purchases.

29. PRICE ADJUSTMENTS: Any price decrease effectuated during the contract period by reason of market change shall be passed on to City of Naples. Price increases are not acceptable.

30. CANCELLATION: All contract obligations shall prevail for at least one hundred eighty (180) days after effective date of contract. After that period, for the protection of both parties, this contract may be cancelled in whole or in part by either party by giving thirty (30) days prior written notice to the other party.

31. RENEWAL: The City of Naples reserves the option to renew the period of this contract, or any portion thereof for up to two (2) additional periods. Renewal of the contract period shall be by mutual agreement in writing.

32. ABNORMAL QUANTITIES: While it is not anticipated, should any unusual or abnormal requirements arise, the City reserves the right to solicit separate bids thereon.

33. FISCAL NON-FUNDING CLAUSE: In the event sufficient funds are not budgeted for a new fiscal period, the City shall notify the contractor of such occurrence and the contract shall terminate on the last day of the current fiscal year without penalty or expense to the City.

IF THIS BID IS FOR PERFORMING A SERVICE, THE FOLLOWING CONDITIONS SHALL ALSO APPLY

34. ALTERNATIVE BIDS: Bidders offering service delivery methods other than those permitted by the scope of work may submit a separate envelope clearly marked "ALTERNATIVE BID". Alternative bids will be deemed non-responsive and will not be considered for award. All such responses will, however, be examined prior to award. Such examination may result in cancellation of all bids received to permit rewriting the scope of work to include the alternative method, or the alternative method may be considered for future requirements of the City of Naples.

35. ANTITRUST: By entering into a contract, the contractor conveys, sells, assigns and transfers to the City of Naples all rights, titles and interest it may now have or hereafter acquire under the antitrust laws of the United States and the State of Florida that relate to the particular goods or services purchased or acquired by the City of Naples under said contract.

36. BIDDER INVESTIGATIONS: Before submitting a bid, each bidder shall make all investigations and examinations necessary to ascertain all site conditions and requirements affecting the full performance of the contract and to verify any representations made by the City of Naples upon which the bidder will rely. If the bidder receives an award as a result of its bid submission, failure to have made such investigations and examinations will in no way relieve the bidder from its obligation to comply in every detail with all provisions and requirements of the contract documents, nor will a plea of ignorance of such conditions and requirements be accepted as a basis for any claim whatsoever by the contractor for additional compensation.

37. CERTIFICATES AND LICENSES: The Contractor, at time of proposal, shall possess the correct occupational licenses, all professional licenses or other authorizations necessary to carry out and perform the work required by the City of Naples and Collier County for this project pursuant to all applicable Federal, State and Local Laws, Statutes, Ordinances, and rules and regulations of any kind.

38. CHANGE IN SCOPE OF WORK: The City of Naples may order changes in the work consisting of additions, deletions or other revisions within the general scope of the contract. No claims may be made by the contractor that the scope of the project or of the contractor's services has been changed, requiring changes to the amount of compensation to the contractor or other adjustments to the contract unless such changes or adjustments have been made by written amendment to the contract signed by the City of Naples and the contractor. If the contractor believes that any particular work is not within the scope of the project, is a material change, or will otherwise require more compensation to the contractor, the contractor must immediately notify the City in writing of this belief. If the City believes that the particular work is within the scope of the contract as written, the contractor will be ordered to and shall continue with the work as changed and at the cost stated for the work within the scope.

39. CONTRACTOR PERSONNEL: The City of Naples shall, throughout the life of the contract, have the right of reasonable rejection and approval of staff or subcontractors assigned to the work by the contractor. If the City

reasonably rejects staff or subcontractors, the contractor must provide replacement staff or subcontractors satisfactory to the City in a timely manner and at no additional cost to the City. The day-to-day supervision and control of the contractor's employees and sub-contractors is the responsibility solely of the contractor.

40. COST REIMBURSEMENT: The contractor agrees that all incidental costs, including allowances for profit and tools of the trade, must be included in the bid proposal rates. If an arrangement is made between the contractor and the City to reimburse the contractor for the cost of materials provided in the performance of the work, the contractor shall be reimbursed in the following manner: The City shall reimburse the contractor on completion and acceptance of each assigned job, only for those materials actually used in the performance of the work that is supported by invoices issued by the suppliers of the contractor describing the quantity and cost of the materials purchased. No surcharge shall be added to the supplier's invoices or included in the contractor's invoice submitted to the City that would increase the dollar amount indicated on the supplier's invoice for the materials purchased for the assigned job.

41. EXCEPTIONS: Bidders taking exception to any part or section of the solicitation shall indicate such exceptions on the bid form. Failure to indicate any exception will be interpreted as the bidder's intent to comply fully with the requirements as written. Conditional or qualified bids, unless specifically allowed, shall be subject to rejection in whole or in part.

42. FAILURE TO DELIVER: In the event of the contractor to fail to deliver services in accordance with the contract terms and conditions, the City, after due oral or written notice, may procure the services from other sources and hold the contractor responsible for any resulting purchase and administrative costs. This remedy shall be in addition to any other remedies that the City may have.

43. FAILURE TO ENFORCE: Failure by the City at any time to enforce the provisions of the contract shall not be construed as a waiver of any such provisions. Such failure to enforce shall not affect the validity of the contract or any part thereof or the right of the City to enforce any provision at any time in accordance with its terms.

44. FORCE MAJEURE: The contractor shall not be held responsible for failure to perform the duties and responsibilities imposed by the contract due to legal strikes, fires, riots, rebellions and acts of God beyond the control of the contractor, unless otherwise specified in the contract.

45. INDEPENDENT CONTRACTOR: The contractor shall be legally considered an independent contractor and neither the contractor nor its employees shall, under any circumstances, be considered servants or agents of the City of Naples and the City of Naples shall be at no time legally responsible for any negligence or any wrongdoing by the contractor, its servants or agents. The City of Naples shall not withhold from the contract payments to the contractor any federal income taxes, Social Security tax, or any other amounts for benefits to the contractor. Further, the City shall not provide to the contractor any insurance coverage or other benefits, including Workers' Compensation normally provided by the City for its employees.

46. ORAL STATEMENTS: No oral statement of any person shall modify or otherwise affect the terms, conditions or specifications stated in this contract. All modifications to the contract must be made in writing by the City of Naples.

47. QUALIFICATIONS OF BIDDERS: The bidder may be required, before the award of any contract, to show to the complete satisfaction of the City of Naples that it has the necessary facilities, ability, and financial resources to provide the service specified therein in a satisfactory manner. The bidder may also be required to give a past history and references in order to satisfy the City in regard to the bidder's qualifications. The City may make reasonable investigations deemed necessary and proper to determine the ability of the bidder to perform the work, and the bidder shall furnish to the City all information for this purpose that may be requested. The City reserves the right to reject any bid if the evidence submitted by, or investigation of, the bidder fails to satisfy the City that the bidder is properly qualified to carry out the obligations of the contract and to complete the work described therein. Evaluation of the bidder's qualifications shall include:

- > The ability, capacity, skill and financial resources to perform the work or service.
- > The ability to perform the work service promptly or within the time specified, without delay.
- > The character, integrity, reputation, judgment, experience, and efficiency of the bidder.

> The quality of performance of previous contracts or services.

48. QUALITY CONTROL: The contractor shall institute and maintain throughout the contract period a properly documented quality control program designed to ensure that the services are provided at all times and in all respects in accordance with the contract. The program shall include providing daily supervision and conducting frequent inspections of the contractor's staff and ensuring that accurate records are maintained describing the disposition of all complaints. The records so created shall be open to inspection by the City.

49. RECOVERY OF MONEY: Whenever, under the contract, any sum of money shall be recoverable from or payable by the contractor to the City, the same amount may be deducted from any sum due to the contractor under the contract or under any other contract between the contractor and the City. The rights of the City are in addition and without prejudice to any other right the City may have to claim the amount of any loss or damage suffered by the City on account of the acts or omissions of the contractor.

50. REQUIREMENTS CONTRACT: During the period of the contract, the contractor shall provide all the services described in the contract. The contractor understands and agrees that this is a requirements contract and that the City shall have no obligation to the contractor if no services are required. Any quantities that are included in the scope of work reflect the current expectations of the City for the period of the contract. The amount is only an estimate and the contractor understands and agrees that the City is under no obligation to the contractor to buy any amount of services as a result of having provided this estimate or of having any typical or measurable requirement in the past. The contractor further understands and agrees that the City may require services in excess of the estimated annual contract amount and that the quantity actually used whether in excess of, or less than, the estimated annual contract amount and that the quantity actually used shall not give rise to any claim for compensation other than the total of the unit prices in the contract for the quantity actually used.

51. TERMINATION FOR CONVENIENCE: The performance of work under the contract may be terminated by the City in whole or in part whenever the City determines that termination is in the City's best interest. Any such termination shall be effected by the delivery to the contractor of a written notice of termination of at least seven (7) days before the date of termination, specifying the extent to which performance of the work under the contract is terminated and the date upon which such termination becomes effective. After receipt of a notice of termination, except as otherwise directed, the contractor shall stop work on the date of the receipt of the notice or other date specified in the notice; place no further orders or subcontracts for materials, services or facilities except as necessary for completion of such portion of the work not terminated; terminate all vendors and subcontracts; and settle all outstanding liabilities and claims.

52. TERMINATION FOR DEFAULT: The City of Naples reserves the right to terminate the contract if the City determines that the contractor has failed to perform satisfactorily the work required, as determined by the City. In the event the City decides to terminate the contract for failure to perform satisfactorily, the City shall give to the contractor at least seven (7) days written notice before the termination takes effect. The seven-day period will begin upon the mailing of notice by the City. If the contractor fails to cure the default within the seven (7) days specified in the notice and the contract is terminated for failure to perform satisfactorily, the contractor shall be entitled to receive compensation for all reasonable, allocable and allowable contract services satisfactorily performed by the contractor up to the date of termination that were accepted by the City prior to the termination. In the event the City terminates the contract because of the default of the contractor, the contractor shall be liable for all excess costs that the City is required to expend to complete the work under contract.

53. STATE AND FEDERAL EMPLOYMENT LAWS: Contractors providing service to the City are required to comply with all state and federal employment laws. This includes, but is not limited to, laws resulting from the Immigration and Reform and Control Act of 1986, wherein all employers are required to verify the identity and employment eligibility of all employees. The Department of Homeland Security, U.S. Citizenship and Immigration Services require employees and employers to complete Form I-9 and the employer must examine evidence of identity and employment eligibility within three business days of the date employment begins. Non compliant contractors will be subject to contract sanctions, up to and including contract termination.

54. CERTIFICATION REGARDING DEBARMENT, SUSPENSION, INELIGIBILITY, AND VOLUNTARY EXCLUSION: The contractor agrees to comply with Executive Order 12549 "Debarment and

Suspension” and 2 CFR 180 “OMB Guidelines to Agencies on Government wide Debarment and Suspension.” These rules require all contractors using federal funds not be debarred or suspended from doing business with the Federal Government. This includes sub-recipients and lower tier participant for covered transactions. Signing and submitting this document certified the organization and its principals are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction by any federal department or agency, and further have not within the preceding three-year period been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State or local) transaction .

THE CITY OF NAPLES IS AN EQUAL OPPORTUNITY EMPLOYER

GENERAL INSURANCE REQUIREMENTS

The Contractor shall not commence work until he has obtained all the insurance required under this heading, and until such insurance has been approved by the Owner, nor shall the Contractor allow any subcontractor to commence work until all similar insurance required of the subcontractor has also been obtained and approved by the Owner.

Certificates of insurance must be issued by an authorized representative of the insurance company at the request and direction of the policyholder and must include sufficient information so as to identify the coverage and the contract for Owner's improvements for which they are issued. Certificates of insurance must be issued by a nationally recognized insurance company with a Best's Rating of no less than B+VII, satisfactory to the Owner, and duly licensed to do business in the state of said Contract.

The Contractor shall procure and maintain, during the life of this Contract, Worker's Compensation Insurance for all of his employees to be engaged in work under this Contract, and he shall require any subcontractor similarly to provide Worker's Compensation Insurance for all of the latter's employees to be engaged in such work, unless such employees are covered by the protection afforded by the Contractor's insurance. In case any employees are to be engaged in hazardous work under this Contract, and are not protected under this Worker's Compensation statute, the Contractor shall provide, and shall cause each subcontractor to provide, adequate coverage for the protection of such employees. It is acceptable to use a State-approved Worker's Compensation Self-Insurance fund.

The Contractor shall take out and maintain during the life of this Contract, Public Liability and Property Damage and shall include Contractual Liability, Personal Injury, Libel, Slander, False Arrest, Malicious Prosecution, Wrongful Entry or Eviction, Broad Form Property Damage, Products, Completed Operations and XCU Coverage to be included on an occurrence basis, and to the full extent of the Contract to protect him, the Owner, and any subcontractor performing work covered by this Contract from damages for personal injury, including accidental death, as well as from claims for property damage, which may arise from operations under this contract, whether such operations be by himself or by a subcontractor, or by anyone directly or indirectly employed by either of them. The Contractor shall also maintain automobile liability insurance including "non-owned and hired" coverage. The entire cost of this insurance shall be borne by the Contractor.

The amount of such insurance shall be no less than \$1,000,000 annual aggregate for bodily injury and property damage combined per occurrence.

The City of Naples must be named as Additional Insured on the insurance certificate and the following must also be stated on the certificate. "This coverage is primary to all other coverage the City possesses for this contract only." The City of Naples shall be named as the Certificate Holder. The Certificate Holder shall read as follows:

The City of Naples
735 Eighth Street South
Naples, Florida 34102

No City Division, Department, or individual name should appear on the Certificate.

No other format will be acceptable.

The Certificate must state the proposal number and title.

When using the "Accord"- 25 Certificate of Insurance only the most current version will be accepted.

The City of Naples requires a copy of a cancellation notice in the event the policy is cancelled. The City of Naples shall be expressly endorsed onto the policy as a cancellation notice recipient.

STATEMENT OF NO BID

If you will not be bidding on this product/service, please help us by completing and returning only this page to:

City of Naples, Purchasing Division
City Hall, 735 8th Street South
Naples, FL 34102
Fax 239-213-7105

Bid # _____ and Description: _____

We, the undersigned, decline to proposal on the above project for the following reason(s):

- ___ We are not able to respond to the Invitation to Bid or Request for Proposals by the specified deadline.
- ___ Our Company does not offer this product or service.
- ___ Our current work schedule will not permit us to perform the required services.
- ___ Specifications are incomplete or information is unclear (Please explain below).

___ Other (Please specify below)

Company Name _____ PH _____

Name and Title of individual completing this form:

(Printed Name) (Title)

(Signature) (Date)

REFERENCES

THIS SHEET MUST BE COMPLETED AND RETURNED WITH BID

PROVIDE AT LEAST THREE REFERENCES FOR WHOM YOUR COMPANY HAS PROVIDED SAME OR SIMILAR SERVICES WITHIN THE LAST 2 YEARS.

COMPANY NAME: _____

ADDRESS: _____

TELEPHONE: _____

CONTACT PERSON: _____

CONTACT E-MAIL ADDRESS: _____

COMPANY NAME: _____

ADDRESS: _____

TELEPHONE: _____

CONTACT PERSON: _____

CONTACT E-MAIL ADDRESS: _____

COMPANY NAME: _____

ADDRESS: _____

TELEPHONE: _____

CONTACT PERSON: _____

CONTACT E-MAIL ADDRESS: _____

Submitting Vendor Name: _____

CONSTRUCTION
SPECIAL CONDITIONS

A. **TERMS OF CONTRACT**

The resulting contract will commence on award and be in effect until completion of the project. All work included in the Contract Documents will be substantially completed within one hundred and eighty (180) days and finally complete two hundred and ten (210) days after the date when Contract Times commence to run.

B. **PROHIBITION OF CONTACT**

Under no circumstances should any prospective organization or individual, or anyone acting for or on behalf of a prospective organization or individual, seek to influence or gain the support of any member of the City Council, public official or City staff favorable to the interest of any prospective organization or individual. Likewise, contact with City Council, any public official or city staff against the interests of other prospective organization (s) and or individual(s) is prohibited. Any such activities will result in the exclusion of the prospective organization or individual from consideration by the City.

C. **REFERENCES**

Bidder must submit a minimum of three references on the form provided. Additionally, a signed and dated IRS W-9 form with EIN is required from all vendors.

D. **STATEMENT OF NO BID**

If you will not be bidding on this producer/service, please help us by completing and returning the Statement of No Bid.

E. **BID FORMAT**

The Contract, if awarded, will be awarded on the basis of material and equipment illustrated and described on the Drawings or specified in the Specification. If a substitution or an "or equal" item is proposed, Proposer must submit this information to the City of Naples Purchasing Department ten (10) days prior to the Proposal Date for evaluation as an acceptable substitution or an "or equal" item. If the substitution or the "or equal" item is accepted, the City of Naples will issue an Addendum to all Proposers listing the allowable substitution or the "or equal" item. The cost of changes in related work, additional drawings which may be required to illustrate or define the substitute or "or equal" equipment and its relationship to the other parts or portions of the Work shall be paid by the Contractor. No change will be made in the amount of time in which to complete the Work or in the liquidated damages.

F. **BID SECURITY / BID BOND**

It is the policy of the City of Naples to require a Bid Bond for all construction-related sealed bids estimated to be in excess of \$125,000. A bid bond or equivalent financial security in the amount of five (5) percent of the bid price shall be required and must accompany all bids. The Bid Bond is to be provided by a surety company authorized to do business in the State of Florida or otherwise supplied in a form satisfactory to the City. The bid bond must be submitted with the bid. When the invitation for bids requires a bid bond, noncompliance will result in rejection of the bid.

Note that failure or refusal of the awarded bidder to enter into a contract within twenty (20) calendar days after receipt of said contract will result in damages to the City and bid bond will be forfeited to the City as liquidated damages.

G. PROPOSAL CONSTRUCTION PERFORMANCE & PAYMENT BONDS

A Performance and Payment Bond will be required of the Awarded Proposer for any contract that is in excess of \$125,000.00 dollars and will be in an amount equal to 100 (%) percent of the price specified in the Contract.

The bond(s) shall be executed by a surety company authorized to do business in the State of Florida, or otherwise secured in a manner satisfactory to the City for the protection of all persons supplying labor and material to the contractor or its subcontractors for the performance of the work provided for in the contract.

Proof of insurance from the successful proposer is required at the time of issuance and award of a contract.

H. QUESTIONS

Questions regarding this proposer packet must be received in writing in the Purchasing Division NO LATER THAN TEN CALENDAR DAYS PRIOR TO THE PROPOSAL CLOSING DATE TO ENSURE AN ANSWER IS PROVIDED PRIOR TO CLOSING.

Direct all questions to:
Gerald "Jed" Secory, MBA / CPPO / CPM
Purchasing Manager
City of Naples, Purchasing Division
735 8th Street South
Naples, Florida 34102
PH: (239) 213-7102 FX: (239) 213-7105
Jsecory@naplesgov.com

SUBMISSION CHECKLIST

Bidder should check off each of the following items as completed and submit with bid response:

| CHECKLIST ELEMENTS | INCLUDED |
|---|----------|
| <ul style="list-style-type: none"> Submit one (1) original signature and one (1) copy of your original bid proposal / document AND a Windows© compatible PDF of the original document on a CD that is clearly labeled. | |
| <ul style="list-style-type: none"> Include any required drawings; descriptive literature; qualifications; schedules; product compliance / exceptions; alternatives; questionnaire; references, forms, tabs, pricing/cost; and any information required of the proposer identified in the text of the bid including information for bid evaluation. | |
| <ul style="list-style-type: none"> Include any delivery information. | |
| <ul style="list-style-type: none"> Mandatory FORMS from this document to be included are: <u>Cover Sheet</u>, <u>References Sheet</u>, <u>Submission Checklist Sheet</u>, and <u>Cost / Bid Schedule</u> as well as the firm's federal <u>W-9 Form</u>. | |
| <ul style="list-style-type: none"> Have an authorized individual sign the appropriate pages including the <u>Cover Sheet</u> with any bid addendums initialed. Also, examples of vendor contracts used by the City can be found on the Naples Purchasing web site and should be reviewed by the vendor. | |
| <ul style="list-style-type: none"> Bid proposal / document needs to be received by the OPENING DATE & TIME indicated on the Cover Sheet. The mailing envelope must be addressed to: <div style="text-align: center;"> City of Naples Purchasing Division 735 8th Street South Naples, Florida 34102 </div> | |
| <p style="text-align: center;">The mailing envelope should be sealed and marked with: BID Number: BID Title: BID Opening Date:</p> | |

ALL COURIER DELIVERED PROPOSALS MUST HAVE THE BID NUMBER AND TITLE ON THE OUTSIDE OF THE COURIER PACKET.

Submitting Vendor Name: _____

At the discretion of the Purchasing Manager, bids or proposals with minor irregularities may be accepted and allowed to be corrected when in the best interest of the City.

**SECTION 01010
SUMMARY OF WORK**

PART 1 GENERAL

1.01 WORK COVERED BY CONTRACT DOCUMENTS

- A. The completed Work will provide Owner with a new mechanically-cleaned Multiple Rake Screen and conveyor system at City's 10 mgd Wastewater Treatment Plant (WWTP). The work to be performed includes the following major tasks:
1. Removal and disposal of the existing mechanical bar screen and conveyor system. The City retains the right to keep any or all of the components removed.
 2. Furnish all labor, material, equipment and incidentals required to furnish, install, and test, complete and ready for operation, one (1) self-cleaning Rake screen, one (1) screenings conveyor, control panels to provide proper operation of the new mechanical screen system and conveyor system, and all connections to existing equipment including conveyors and chutes.
 3. Concrete work required to install the new mechanical bar screen and conveyor systems, including concrete repair and structural steel if required.
 4. Remove and dispose waste created from Contractor's operations.
 5. Remove and cap existing piping for existing wash system.
 6. Replace the existing power and control wiring from motors and drives to the control panel with like materials and sizes. Contractor to field measure the length of the wiring required prior to submitting a bid.
- B. **All electrical installation to be installed in a workman like manor meeting or exceeding standard industry practices and current codes. Contractor shall visit site and become familiar with existing conditions and include the following upgrades as a minimum requirements:**
1. Match all over current protection, all power and control conductors to the new equipment manufacturer's requirements including updating complete electrical installation to all current national electrical and local codes.
 2. Mount control panel to meet or exceed 140 plus 1.15 factor mile per hour wind load.
 3. All electrical hardware, strut, fasteners to be 316 stainless steel.
 4. All junction and pull boxes shall be 316 stainless steel.
 5. All panel and junction box penetrations to utilize Meyers hubs to maintain NEMA 4X integrity.

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6. Power conductors minimum standard shall be THWN or XHHW suitable for wet locations.
7. All control conductors shall match manufacturer's recommendations.
8. All signal conductors shall be twisted shielded pairs.

PART 2 PRODUCTS

- A. See attached Specification Section 11331 and the City of Naples specifications and details located at the link below:
<http://www.naplesgov.com/DocumentCenter/>

PART 3 EXECUTION

- B. Contractor to field verify all dimensions prior to bid submittal and shop drawing submittal. Existing drawings have been provided for informational purposes.
- C. The City intends to replace the southern screen and may choose to replace the northern screen as well. If the City chooses to replace both screens, only one screen may be taken out of service at a time. Work on the second screen cannot begin until the first screen has been cleared for service as determined by the manufacture and the Owner and has successfully operated for a minimum of two week.
- D. All the work to be performed on a mechanical bar screen has to be coordinated with the WRF operations. Operation of the mechanical screen system not being replaced must be maintained while work is performed on the mechanical screen system to be replaced. It is estimated that the one mechanical screen system can be taken offline for a maximum of two weeks based on conditions at the plant.
- E. Contractor to plan and conduct the work such that down time of a mechanical screen system is minimized.
- F. Owner will provide staging area. Contractor to coordinate with the owner for details.
- G. Contractor to account for weather conditions while planning and performing the coating work.
- H. All Work included in the Contract Documents will be substantially completed within one hundred and eighty (180) days and finally complete two hundred and ten (210) days after the date when Contract Times commence to run.

END OF SECTION

SECTION 11331

MECHANICAL SCREENING SYSTEM

PART 1 - GENERAL

1.01 DESCRIPTION

- A. Scope of Work:** Furnish all labor, material, equipment and incidentals required to furnish, install, and test, complete and ready for operation, one (1) mechanically-cleaned Multiple Rake Screen, one (1) screenings conveyor, control panels to provide proper operation of the new mechanical screen system and conveyor system, and all connections to existing equipment including conveyors and chutes.
- 1.** The mechanically-cleaned multiple rake screen shall be manufactured from AISI 304L stainless steel and be furnished complete with bar rack, dead plate, discharge chute, side frames, covers, rakes, drive chains, bearings, scraper assembly, drive motor, gear reducer, anchor bolts, controls and all accessories and appurtenances specified or otherwise required for a complete and properly operating installation.
 - 2.** Each conveyor shall consist of a shaftless spiral screw, trough, inlet chutes, support legs, covers, electrical controls and new wiring; and all other appurtenances required to replace the existing conveyor system.
 - 3.** The new control panels provided for the rake screen and conveyors shall be located on top of the deck at the location of the existing controls. Existing conduit may be used, but new electrical wiring is required.
 - 4.** All hardware, straps, brackets, bolts, etc. shall be Type 304 stainless steel.
 - 5.** All work necessary, including concrete work, to install the new screen and conveyor systems into the existing southern influent waste channel of the preliminary treatment building. Contractor shall be responsible for all structural and other alterations required to accommodate equipment differing in dimensions or other characteristics from these specifications and existing site conditions.
 - 6.** Contractor shall install the equipment according to instructions and recommendations of the equipment manufacturer.

7. Power supply is 480 Volts, 60 Hz, 3-phase.

1.02 QUALITY ASSURANCE

- A. **Qualifications:** All of the equipment specified herein shall be furnished by a single manufacturer who regularly engages in the production of this type of equipment in the United States and who is fully experienced, reputable and qualified in the manufacture of the equipment to be furnished. Each component and ancillary equipment item furnished under this Specification shall be new and unused, of the type, size, design, and efficiency installed on previous projects and the product of a manufacturer having a successful record of manufacturing and servicing the equipment for a minimum of ten (10) years in the United States prior to bid date. Manufacturer shall have a minimum of ten (10) year experience producing equipment substantially similar to that required and shall submit documentation of at least fifteen (15) independent installations in the United States using the same size or larger equipment as detailed in the below. Each installation must have been in satisfactory operation for at least five (5) years
- B. The Contract Documents represent the minimum acceptable standards for the screening equipment for this project. All equipment shall conform fully in every respect to the requirements of the respective parts and sections of the drawings and specifications. The entire unit shall be Manufacturer's standard product, but shall be modified, redesigned, furnished with special features or accessories, made of materials or provided with finishes as may be necessary to conform to the quality mandated by the technical and performance requirements of the specification.
- C. The entire unit shall be manufactured from AISI 304L stainless steel shapes. All components made of stainless steel shall be passivated by full submergence in a pickling bath for perfect surface finishing as per ASTM A380 standards.
- D. Electric motors, gear reducers, and other self-contained or enclosed components shall have an acrylic enamel finish.
- E. All stainless steel parts of the unit shall be fully submerged into a pickling bath for at least 8 hours to remove welding spots and to protect the stainless steel against corrosion.
- F. Fabrication shall be done in compliance with all applicable ASTM standards or equivalent international standards.
- G. All welding in the factory shall use shielded arc, inert gas, MIG or TIG method. Filler wire shall be added to all welds to provide for a cross section

equal to or greater than the parent metal. Butt welds shall fully penetrate to the interior surface and gas shielding to interior and exterior of the joint shall be provided.

- H. Bolts, nuts and washers shall be selected from AISI 304L or 304L stainless steel such that they are anti-seizing.
- I. All welding is performed in accordance with American Welding Society (AWS) D1.1 Structural Welding Code, or equivalent.
- J. Manufacturer shall provide screen, motors, gear reducers, controls, control panels, and lifting attachments as a complete integrated package to ensure proper coordination, compatibility, and operation of the system. The manufacturer shall test-run the fully assembled machine in his factory before shipment.
- K. Manufacturer shall provide services by an employed and factory-trained Service Engineer, specifically trained on the type of equipment specified. The Service Engineer requirements include, but are not limited to the following:
 - 1. The Service Engineer shall be present during initial energizing of equipment to determine directional testing as described in Section 4.01 C (Installation).
 - 2. The Service Engineer shall inspect and verify location of anchor bolts, placement, leveling, alignment and field erection of equipment, as well as control panel operation and electrical connections.
 - 3. The Service Engineer shall provide classroom and/or field training on the Operation and Maintenance of the equipment to operator personnel. These instructions may include the use of slides, videos, literature, and/or oral presentations.
- L. Manufacturer shall state field service rates for a Service Engineer to Owner and Contractor. In the event that the field service time required by this section should not be sufficient to properly place the equipment into operation, and the requirement for additional time is beyond the manufacturer's responsibility, additional time shall be purchased by Contractor to correct deficiencies in installation, equipment, or material without additional cost to Owner.

Equipment Manufacturers:

| | | |
|-----------------------|----|-------|
| Manufacturer | | |
| RakeMax Technology | by | Huber |

| |
|------------------------------------|
| Multi-Rake Raketec by Aqualitec |
| ContFlo ER from John Meunier |

Alternates shall not be acceptable unless pre-approved. Costs for changes in design to accommodate alternative offers shall be borne by the alternate screen provider.

1.03 SUBMITTALS

A. Materials and Shop Drawings:

1. Copies of all material required to establish compliance with the Specifications shall be submitted in accordance with the provisions of the bidding documents. Submittals shall include at least the following:
 - a. Certified shop and erection drawings showing all important details of construction, dimensions and anchor bolt locations.
 - b. Descriptive literature, bulletins, and/or catalogs of the equipment.
 - c. The total weight of the equipment including the weight of the single largest item.
 - d. A complete total bill of materials of all equipment.
 - e. Complete motor data.
 - f. Wiring diagrams and electrical schematics for all control equipment to be furnished.
2. Submit drawings showing screen, conveyors, discharge chute and screenings washer/compactor and interconnections for each piece of equipment for Engineer's review.

B. Operating Instructions: Operating and maintenance manuals shall be furnished in accordance with the bidding documents.

1.04 DELIVERY, STORAGE AND HANDLING

- A. The screen system shall be factory assembled and tested, and shall be delivered to the site for installation into the channel fully assembled. The screen shall be capable of being set in place and field erected by the Contractor with minimal field assembly. Contractor shall be responsible for

unloading of the machinery and shall have equipment on-site available at the time of delivery permitting proper hoisting of the equipment

- B. All parts shall be properly protected so that no damage or deterioration will occur during a prolonged delay from the time of shipment to the site until installation is completed and the unit is ready for operation.**
- C. Each box or package shall be properly marked to show its net and tare weight in addition to its contents.**

1.05 WARRANTY AND GUARANTEES

- A. The equipment manufacturer shall provide a two (2) year warranty for all items furnished. The warranty shall run concurrently with the Contractor's warranty and commence at final completion and acceptance by the Owner.**
- B. The warranty shall cover all necessary labor, equipment, materials, and replacement parts resulting from faulty or inadequate equipment design, improper assembly or erection, defective workmanship and materials, leakage, breakage or other failure of all equipment and components furnished by the manufacturer.**

1.06 ENGINEER'S APPROVAL OF ALTERNATE EQUIPMENT

- A. Manufacturer of alternate equipment shall submit a pre-approval package to Engineer at least two (2) weeks prior to bid date. Alternate manufacturer shall submit the following information and supporting documentation:**
 - a. Standard equipment drawings showing the equipment meeting the specifications in this section. If the proposed equipment does not meet these specifications, any deviation from the specification must be expressly noted. All deviations shall be listed on a single document.**
 - b. Detailed installation drawings illustrating how the proposed screen fits in the channel. The drawings shall include plan, elevation, and sectional views of the installation. Drawings shall include details of the discharge chute, details of the seal between screen and side walls of the channel, and details of anchor bolt locations.**
 - c. Hydraulic calculations and flow curves for the proposed screen verifying that the screen is capable of processing the peak flow.**
 - d. Motor characteristics and performance information.**
 - e. Reference list of all installations of same and similar equipment.**
 - f. Complete bill of materials for all equipment.**

- g. Certification by the manufacturer that all stainless steel equipment will be manufactured in a stainless steel only dedicated area of the factory.**
- h. Certification that the entire equipment will be passivated by submersion in an acid bath as per ASTM A380 standards.**
- i. Documentation of required maintenance for all equipment including an approved list of lubricants and the required quantities.**

PART 2 - PRODUCTS

2.01 GENERAL

- A. The equipment to be furnished and installed shall be fully automatic. The equipment shall be of the latest design and shall be fabricated of materials and in a fashion which shall fully perform the functions as described below.**
- B. The screen shall remove all suspended material larger than 3 mm in any dimension. The screened materials shall be automatically dewatered, compacted, and transported from the screen to the existing chute assembly.**
- C. Conveyors shall be suitable for installation and operation in the configuration with the new screen and existing conditions. The inlet shall be designed with a hopper to collect screenings from the discharge of the rake screen. A shaftless screw shall convey the solids to the discharge point. The conveyor shall discharge screenings into the existing discharge chute that direct screenings to the existing screenings dumpster below as shown in the Drawings.**
- D. The mechanical equipment, supports and accessories shall be designed to operate in a damp, wet and corrosive atmosphere. All parts of the equipment furnished herein shall be amply proportioned for all stresses that may occur during fabrication, shipment, erection and continuous operation. All parts subject to wear shall be standard pattern and easily replaceable. Adequate lubrication shall be provided for bearings with lubrication points readily accessible.**
- E. All materials shall be of quality to withstand the corrosion, abrasion and stresses to which this equipment will be subject during fabrication, erection and continuous operation.**
- F. All anchor bolts, nuts, washers and fasteners shall be made of Type 304 stainless steel unless otherwise noted and shall be of ample size and strength**

for the purpose intended. The equipment supplier shall furnish all anchor bolts, nuts, washers and fasteners required for the equipment.

- G. All stainless steel subassemblies shall be acid passivated after welding for corrosion resistance and to provide a superior surface finish. This shall be done by full dipping of weldments, electropolishing, or by using an acid passivation paste in the weld and heat affected areas and spray-on acid solutions elsewhere. After passivation, the elements shall be thoroughly rinsed with clean water and allowed to air dry. Bearings, electrical devices, motor and gear reducer shall be provided with the manufacturer's standard coating system. The drive shaft and spiral shall be prime coated carbon steel.**

2.02 SCREENING SYSTEM DESIGN

A. General Design:

1. All of the equipment specified herein is intended to be a fully-automatic, mechanically-cleaned and capable of removing miscellaneous suspended objects (screenings) greater in any dimension than 3 mm from raw sanitary wastewater.
2. All collected material shall be discharged from the rake screen into a screenings conveyor that discharges to a discharge chute into a washing/dewatering compactor that shall subsequently discharge the existing chute assembly, to the existing dumpster below.
3. There shall be no sprockets, bearings or drives required below the operating finished floor elevation. All maintenance shall be able to be accomplished at operating floor level.

2.03 RAKE SCREENS

A. General:

1. The bar screen shall remove debris (screenings) from the incoming wastewater by means of a positively cleaned bar rack that is installed in a concrete channel. The screen shall retain debris at the bar rack. A multitude of rake shall remove and lift the debris to a discharge mechanism. The bar rack shall be cleaned by a series of rakes engaging the bar rack from the upstream side (front) at the bottom of the channel and then moving up along the bar rack. The debris shall be lifted above the channel and dropped on a discharge chute at the downstream side (back) of the screen. Screens with single rakes shall not be approved. Screens employing brushes and spray water for screenings removal shall not be approved.
2. The bar rack shall consist of equally spaced, straight bars that are inclined from the horizontal with the inclination angle specified above. The lower ends of the bars shall be curved or shall be provided with a minimum 10/64" (4 mm) thick curved base plate such that the rakes positively remove all screenings from the bottom of the bar rack. Bars shall have a tapered orteadrop (up to a bar spacing of ½ inch or 12 mm) cross section. Tapered or Teardrop bars shall have a width of 5/16" (8 mm), a depth of minimum 2.4" (60 mm) and a tail width of 13/64" (5mm). The bar rack shall be made up of equally sized sections securely fastened to the frame of the screen and be readily removable. Screens without the ability to replace bar screen sections will not be acceptable for this project
3. **A discharge chute shall be provided that fully encloses the discharge section of the screen. An access hatch with hinges and a handle shall be provided in the chute permitting easy access. The discharge chute shall be mounted to direct screenings into the appropriate receiving container or conveyor. The chute shall have a slope of minimum 60 degrees. The discharge chute shall be made of a minimum 10/64 inch or 4 mm thick stainless steel plate.**

4. A frame shall be provided supporting all required loads. Side frames shall be made of 0.16" (4 mm) thick 304 stainless steel plates with a minimum of four axial edges and shall have a width of minimum 23 inches (584 mm). The side frames shall be connected with each other through channels having a minimum thickness of 10/64 inch (4 mm) and a minimum cross section of 4-1/4" x 2" (108 x 49 mm). The side frames shall be connected to support frames. The support frames shall be securely anchored onto the operating floor.
5. The screen shall be provided with easily removable, sufficiently stiffened covers made of 3/64 inch (1.5 mm) thick stainless steel plates with edges on all sides. The covers shall be provided with turn locks and handles.
6. 10/64 inch (4 mm) thick neoprene or rubber strips shall be fastened to the side frames to seal the lateral gaps between the side frames and the channel walls.
7. Rakes and rake profile and cross-section dimensions shall be as per manufactures standards. The rake blades shall have teeth matching and engaging the bars of the bar rack. Solid single piece rakes that require the entire width of the screen to be replaced are not acceptable. All rake material is to be of stainless construction. Plastic rakes are not acceptable.
8. A pivoting scraper mechanism shall be positioned at the point of discharge and shall be attached to the side frames. The scraper shall clean the rake on each pass and return to its rest position with minimal shock. The scraper shall be designed such that screenings do not wrap around the rake or scraper. The scraper shall be provided with a scraper bar made 10/64" inch (4 mm) minimum thick channel profile with a minimum cross section of 1-1/2" x 2-11/16" (39 x 68 mm) and an adjustable 3/8 inch (10 mm) thick wiper made of Polyethylene. The scraper shall be connected with the frame through a pair of minimum 20 inch (500 mm) long scraper arms that shall be made of 10/64" inch (4 mm) thick channel profile with a minimum cross section of 2-3/4" x 2-3/8" (68 x 59 mm). A pair of shock absorber elements made of neoprene shall be provided.
9. The drive shaft shall have a diameter of minimum 3-1/8 inch (80mm) and a wall thickness of minimum 13/64" (5 mm).
10. The drive unit shall be designed for continuous service and intermittent spray water contact.
11. A current metering system shall protect the equipment component against jamming. A continuous current reading (CMT) shall be monitored by an adjustable relay (CMR). The motor starting current being higher than the setting of the CMR, the jamming protection shall be put out of service by a time delay (TCM), for a predetermined adjustable motor start period, long enough to allow the current to fall below the CMR setting when it reaches its normal full load level. Upon detection of an over current, the dedicated motor shall stop and the "overload/blockage" alarm indicator light shall be activated. This system shall be reset manually by a push button. In the event of screen blockage, the control system shall stop the motor and sound an alarm. The reverse mode to try and clear the blockage is possible with manual mode only.
12. The parallel helical type gear reducer shall be a totally enclosed unit. Gear reducer shall have ball or roller bearings throughout with all moving parts immersed in oil. Gear reducers which require periodic disassembly of the unit and manual re-greasing of bearings are not acceptable. The nominal input power rating of the gear reducer shall be at least equal to the nominal horsepower of the drive motor. Gear reducer shall be designed and manufactured in compliance with applicable AGMA or equivalent standards. During continuous operation the oil temperature shall not exceed 200 degrees F (95 degrees C).
13. The rake assembly shall be driven by an electric motor. The motor shall be UL rated for operation in Class 1 Division 2 environment. The motor shall be inverter duty rated, 1.0 hp, 460 Volts, 60 Hz, 3-phase. The motor shall be rated for operation in a 104 degree F (40 degree C) environment.

14. All welds shall be cleaned and passivated to remove weld spatter, slag and discoloration. All stainless steel subassemblies shall be electro-polished to provide a superior surface finish. Bearings, electrical devices, drive chains and sprockets, drive and transmission shafts, motor and gear reducer shall be provided with the manufacturer's standard coating system.

15. Design Criteria

| | |
|---|---|
| Fluid: | Raw Sanitary Wastewater |
| Flow Rate (per screen): | Average 6.0 MGD Peak 10.0 MGD |
| Channel Width: | 48 in |
| Channel Depth: | 9'6" |
| Max Allowable Water Level Before Screen: | 50 in |
| Water Level After Screen: | 40 in |
| Angle of Inclination: | 60-75degrees |
| Bar Spacing (Filtration Opening): | 3 mm |
| Discharge Height: | per manufacturer (coordinate with screenings conveyor and existing conditions) |
| Dry Solids Content: | 5-10% |
| Effective free open-area | 60% (minimum) |
| Rake Travel Speed | 26-39 feet per minute |

B. Frame:

1. The frame shall provide support for all components of the screen. The unit shall rest on the top of the channel walls and the bottom of the channel and anchorage at the operating floor elevation.
2. The frame shall be supported at the operating floor elevation by a pair of support stands constructed from 0.16 inch thick Type 304 stainless steel. The support stands shall be designed such that the screen unit may be pivoted out of the channel (e.g. for bypass purposes). Routine service must be possible with the screen in the channel.
3. To prevent bypass around the sides of the unit, neoprene seals shall be mounted on the upstream face of the screen extending to the sidewalls on each side of the unit. The seals shall be secured in place by backing plates constructed from Type 304 stainless steel.
4. The base of the unit shall be supplied with a base plate to protect the area under the lamella pack. The plate shall direct heavy material onto the lamella pack, ensuring its capture and removal from the channel. The plate shall be constructed from Type 304 stainless steel.
5. The portion of the screen above the top of channel shall be fitted with covers and completely enclosed. The enclosures shall be 14 gauge constructed from Type 304 stainless steel. The covers shall be hinged for unobstructed access to the screening elements and any affected maintenance items. All enclosures shall be removable.

C. Drive Assembly:

1. The motor/reducer assembly shall be direct mounted to the drive shaft of the screen unit via the reducer's hollow shaft. The main drive shaft of the screen shall extend the width of the unit through the reducer and transmit motion to the end plates of the moveable pack located on each side of the unit. The drive shaft shall be connected to bearings at each end mounted to the frame of the unit. The drive shaft shall be constructed carbon steel and suitably machined for mounting to the bearings. Screens that utilize chain and sprocket systems or drive components located below the maximum downstream liquid level are not acceptable.
2. The reducer shall be a hollow shaft, helical-bevel gear type. The unit shall be provided with a cast iron frame and designed in accordance with AGMA recommendations for 24 hour, Class II service based on the horsepower required to operate the screen.

3. A mechanical anti-backward rotation device shall be located on the reducer output shaft to prevent the unit from coasting backwards off the home position. A release pin shall allow disengagement during initial startup.
4. The motor shall be TEFC, 2 Hp, 1800 RPM, 460 Volt, 3 phase, 60 Hz. The motor shall be NEMA design code B and be direct coupled to the reducer. Motor shall be suitable for installation in a Class 1, Division 2. Overload protection shall be provided by an electrical overload device that senses motor current draw.
5. A manual lubrication system shall be provided with lubrication lines and grease fittings extending from all grease points to a centrally located area accessible from the operating floor to facilitate lubrication of the equipment without requiring disassembly or the removal of covers and guards.
6. A proximity switch and lug shall be provided to detect the home position of the movable lamella pack in order to measure the number of operating cycles.
7. No lower sprockets.
8. Upper sprocket bearings shall have a paint coated cast iron casing and include ball bearings with grease nipples that are double-sealed with Nilos rings.

2.04 SCREENINGS CONVEYOR

A. General:

1. **Conveyors shall be suitable for installation and operation in the existing conditions. The inlet shall be designed with a hopper to collect screenings from the discharge of the rake screen. A shaftless screw shall convey the solids to the discharge point. The conveyor shall discharge screenings into the existing discharge chute that directs screenings to the existing screenings dumpster below.**
2. **The trough, support legs, hopper and any other metallic parts that will come in contact with wastewater or the moist environmental adjacent to the channel for the screen shall be of Type 304 stainless steel unless otherwise noted. The drive shaft and shafted screw shall be prime coated carbon steel.**
3. **All stainless steel subassemblies shall be fully passivated using electropolishing. Electropolishing shall produce a smooth uniform finish to achieve maximum corrosion resistance by removing all metallic inclusions and non-metallic inclusions on and beneath the surface. After passivation, the assemblies shall be thoroughly rinsed with deionized water, and allowed to air dry before. Bearings, electrical devices, motor and gear reducer shall be provided with the manufacturer's standard coating system.**

4. Design Criteria

| | |
|---|--|
| Inlet Solids Capacity (maximum): | As required to meet peak flow rate from barscreen |
|---|--|

| | |
|------------------------------|---|
| Angle of Inclination: | As required to meet existing conditions |
| Spiral OD: | Match existing conditions |
| Trough Length: | per manufacturer, coordinate with step screen, inlet hopper, discharge chute and existing field conditions |
| Configuration | pushing |
| Dry Solids Content: | 5-10% |

B. Shaftless Screw:

1. Each shaftless screw shall be constructed of 304 stainless steel. The spiral shall be supplied with a protective epoxy primer.

C. Drive Assembly:

1. The drive assembly consists of an electric motor, gear reducer and drive shaft.
2. The reducer shall be a helical gear type. The unit shall be provided with a cast iron frame and be designed in accordance with AGMA recommendations for Class II service based on the horsepower required to operate the screen.
3. The motor shall be TEFC, 1.5 Hp, 1800 RPM, 230-460 Volt, 3 phase, 60 Hz. The motor shall be NEMA design code B and be direct coupled to the reducer. Motor shall be suitable for installation in a Class 1, Division 2 area.
4. The motor/reducer assembly shall be a hollow shaft design and allow for direct insertion of the drive shaft.
5. The drive end of the shaftless screw shall be fitted with mounting flange to mate with the drive shaft connected to the motor/reducer assembly. This allows the screw to be replaced as an individual item without the need to disconnect the drive system from the unit, or removing the shaft from the gearbox.

D. Trough Assembly:

1. The trough assembly shall consist of an octagonal shaped trough, wear liner, inlet area, drainage zone, and trough cover. The octagonal shaped trough shall be constructed from 12 gauge Type 304 stainless steel.
2. Provide external slide brackets along the entire length of the conveyor to allow for attachment to leg assemblies to match site specific conditions with no welding or cutting required.

3. **Wear liner shall support the spiral throughout the trough length. Liner shall be constructed of 5/16 inch thick Ultra High Molecular Weight Polyethylene (UHMWP). Liner shall have a minimum density of 58 lb/ft³ and a Shore Hardness of 61. Wear liners shall be provided in 4 foot maximum lengths and held in place by clips for ease of replacement.**
4. **Coordinate inlet hopper dimensions and location with screen provided. Inlet hopper to be provided by the manufacturer.**
5. **Provide a 2 inch OD drain connection at the drive end. Pipe drain to discharge into channel below. Drain pipe shall be Type 304 stainless steel.**
6. **Except for the inlet area, the trough shall be supplied with covers. Trough covers shall be constructed from 12 gauge thick type 304 stainless steel and bolt to the flanges of the octagonal trough. Covers shall complete the octagonal shape of the trough assembly and act as hold downs.**

E. Support Legs:

1. **The unit shall have support legs constructed of Type 304 stainless steel to position and support the conveyor unit. Legs shall be field adjustable in position, height and angle without cutting or welding.**

2.05 DISCHARGE DROP CHUTE:

- A. **The existing discharge drop chute shall be reused. The Contractor is responsible for all modification necessary to make the new conveyor system discharge into the existing discharge drop chute.**

2.07 CONTROL SYSTEM

- A. **The control system shall be provided by the screen supplier.**
- B. **In addition to the drive motor, the equipment supplier shall furnish all electrical items required for proper operation and as specifically called for in this specification section.**
- C. **All electrical control equipment shall be mounted within a NEMA 4X Type 304 stainless steel enclosure with a dead front enclosure suitable for mounting as indicated in the drawings. The enclosure shall be equipped with a door and shall incorporate a removable back panel on which control components can be mounted. The back panel shall be secured to the enclosure with collar studs. The control panel shall be furnished by the manufacturer of the screening and compactor equipment and be designed to operate all appurtenant items**

associated with the equipment. The panel shall be designed and fabricated in accordance with all applicable provisions of NEMA and the National Electric Code.

D. Each control panel shall include the main circuit breaker, a breaker for each motor, a motor starter for each motor, repeat cycle timers, a liquid level actuated timer, delay timers, transformer, DIN Rail Mounted Mini Circuit Breakers, Hand/Off/Automatic switches, normal, off, and alarm lights, as applicable for proper operation of the screenings system. At a minimum the following control components shall be provided within the control panel to provide proper operation of the equipment:

1. Panel CP-1

a. Rake Screens

- Step down control transformer, and disconnect.
- Branch circuit protection.
- Screen drive motor starter.
- Emergency stop pushbutton.
- Hand-Off-Auto selector switch for the screen drive.
- True power monitor shall provide overload protection by sensing motor current draw.
- Hour meter for motor.
- Control power on, run and fault indicating lights.
- Alarm reset pushbutton.
- Programmable control relay provide necessary control logic and monitor equipment mounted electrical devices.
- Run and alarm auxiliary contacts for use by the customer.

b. Screenings Conveyors

- Branch circuit protection.
- Drive motor starter.
- Hand-Off-Auto selector switches for the drive.
- Load monitor for over torque protection of the drive motor.
- Hour meter for each motor.
- Control power and run indicating lights.
- Alarm light indicating over/under current and starter overload.
- Alarm reset pushbutton.
- Run and alarm auxiliary contacts for use by the customer.

E. All operating controls and instruments shall be securely mounted on the control compartment door. All controls and instruments shall be clearly labeled to indicate function.

- F. Indicator lamps shall be mounted in NEMA 4X modules, as manufactured by Allen-Bradley, or equal. Lamp modules shall be equipped to operate at 120 volt input and shall be press-to-test type. Lamps shall be easily replaceable from the front of the control compartment door without removing lamp module from its mounted position.**
- G. Mode selector switches shall be illuminated Hand/Off/Automatic type to permit over-ride of automatic control and manual actuation or shutdown of either motor. Switches shall be NEMA 4X, as manufactured by Allen-Bradley, or equal, providing three (3) switch positions, each of which shall be clearly labeled according to function. Separate press-to-test type indicator lamps, which shall operate at 120 volts input, shall be provided and mounted above Hand/Off/Automatic selector switches. Lamps shall be easily replaceable from the front of control compartment door without removing switch modules from their mounted positions.**
- H. Alarm relays shall be magnetic latching type, Bulletin 700HJ as manufactured by Allen-Bradley, or equal, with remote non-inductive alarm contacts. Time delays relays shall be electronic type.**
- I. A thermal-magnetic air circuit breaker, as manufactured by Allen-Bradley, or equal, shall be furnished for each motor and main breaker. All circuit breakers shall be sealed by the manufacturer after calibration to prevent tampering. Each circuit breaker shall be adequately sized to meet the equipment operating conditions.**
- J. In addition, provide the following:**
- 1. Rake Screens:**
 - a. Local Emergency Stop Pushbutton:** For each screen, a local emergency stop pushbutton station shall be provided in a NEMA 8 enclosure for field mounting at each screen unit. Local emergency stop pushbutton shall be rated for Class 1, Division 2, Group D.
 - b. Proximity Switch (Home Position Switch):** For each screen, an inductive proximity sensor shall be provided for control of the home position of the moveable lamella pack. The sensor shall have a chrome plate finish and be supplied with an integral 2m integral cable.
 - c. Level Control Devices:** For each screen; the unit shall be controlled by the use of Wastewater Heavy Duty Float Switches – One (1) “OFF”, One (1) “ON”, and One (1) “HIGH LEVEL”. The float switches shall be installed in the upstream

channel and mounted with the proper supports to allow proper operation during varying velocities in the channel. The float switch mounting support(s) shall allow for easy removal/re-installation for maintenance functions.

2. Conveyors:

- a. Local Emergency Stop Pushbutton:** For each conveyor, a local emergency stop pushbutton station shall be provided in a NEMA 4X polycarbonate enclosure to be field located by the customer in close proximity to the equipment. Local emergency stop push button shall be rated for Class 1, Division 2, Group D area.

2.08 SEQUENCE OF OPERATION

A. Rake Screen:

1. Hand Operation:

- a.** When the screen selector switch is in the Hand position, the rakes shall run continuously. Turning the screen selector switch to Off shall stop the unit. In HAND position the operator shall be able to run the rake assembly selecting the respective FORWARD or REVERSE direction from the FORWARD-OFF-REVERSE selector switch

2. Automatic Operation:

- a.** In AUTO position the screen shall be controlled by the water level sensors. Screen operation shall be started when the water level sensors monitor a certain water level difference, when the ultrasonic level sensor detects high water level, or when a certain time has passed since the last operation of the screen. Screen operation shall be stopped with an adjustable delay time after the water difference is below a certain value and after the ultrasonic level sensor ceases to indicate high water alarm, or after a certain run time has expired (if operation was started by timer).

3. Emergency Stop:

- a.** The unit shall stop immediately if any of the associated Emergency Stop pushbuttons are pressed. When the E-stops are closed the unit may cycle immediately.

4. Fault Conditions:

- a. Excessive motor current shall trip the starter overload relays, immediately stop the drive motor, and illuminate the alarm indicating light. This fault must be reset by depressing the motor starter overload reset internal to the control panel.**
- b. Momentary motor over current shall trip the current monitor, immediately stop the drive motor, and illuminate the alarm indicating light.**

B. Screenings Conveyor:

1. Hand Operation:

- a. When the screw selector switch is in the Hand position, the screw shall run continuously. Turning the screw selector switch to Off shall stop the unit.**

2. Automatic Operation:

- a. When the screw selector switch is in the Auto position, the screw shall cycle on and off on demand from the screen control panel. An off delay timer shall control the end of the conveyor operational sequence.**

3. Fault Conditions:

- a. Excessive motor current shall trip the starter overload relays, immediately stop the drive motor, and illuminate the alarm indicating light. This fault must be reset by depressing the motor starter overload reset internal to the control panel.**
- b. Momentary motor over or under current shall trip the power monitor, immediately stop the drive motor, and illuminate the alarm indicating light. Pushing the reset pushbutton shall reset this fault.**

2.09 TOOLS AND SPARE PARTS

- A. Spare parts shall be provided for the self-cleaning filter screen and conveyor. Such spare parts shall include all rings, gears, seals, and similar items needed for five (5) years of normal operation.**
- B. At a minimum provide the following:**

1. Two (2) sets of rake stainless steel links
 2. Two (2) link attachments
 3. Two (2) sets of scraper pads
 4. Two (s) sets of chains
- C. Special tools, if required for normal operation and maintenance, shall be furnished with the equipment by the manufacturer.
- D. Spare parts shall be properly bound and labeled for easy identification without opening the packaging and suitably protected for long-term storage.

PART 3 - EXECUTION

3.01 INSTALLATION

- A. Installation of the screening and conveyor systems shall be in strict accordance with the manufacturer's instructions and recommendations in the location shown on the Drawings. Installation shall include furnishing the manufacturer's recommended grades of oil and grease necessary for operation. All anchor bolts and other mounting or erection nuts, bolts, washers or other hardware shall be Type 304 stainless steel. Anchor bolts shall be set by the Contractor in accordance with the manufacturer's recommendations.
- B. Contractor shall verify all dimensions in the field to ensure compliance of equipment dimensions with the drawings. Contractor shall notify Engineer of significant deviations.

3.02 INSPECTION AND TESTING

- A. The manufacturer shall provide the services of a competent and experienced equipment manufacturer's factory field engineer to supervise start-up and provide training to the Owner's personnel. The field factory engineer shall be available for one (1) trip for two (2) 8-hour days to inspect the installed equipment and supervise the start-up demonstration and testing. The factory field engineer shall be available for a separate 8-hour day to provide training to the Owner's personnel. Training of the Owner's personnel will only be considered valid for approval by the Engineer if it takes place after the successful Start-up and Demonstration Test.

END OF SECTION

**CITY OF NAPLES WASTEWATER TREATMENT
PLANT BAR SCREEN REPLACEMENT
BID SCHEDULE**

| No. | Description | Unit | Quantity | Unit Price | Total |
|-------|-----------------------------------|------|----------|------------|-------|
| 1 | Mobilization/Demobilization | LS | 1 | | |
| 2 | General Requirements | LS | 1 | | |
| 3 | Bar Screen Replacement (Southern) | LS | 1 | | |
| 4 | Bar Screen Replacement (Northern) | LS | 1 | | |
| TOTAL | | | | | |

1. Price for Mobilization/Demobilization shall include all cost for preparatory work and operations in mobilizing and demobilizing for beginning/ending work, including movement of personnel, equipment, supplies and incidentals to/from the project site, and any other pre and/or post construction expense necessary for the work. Contractor shall be limited to a maximum of five percent (5.0%) of the total price bid for mobilization. The cost of mobilization shall be shown in the Schedule of Values. Demobilization shall be shown in the Schedule Of Values as a minimum of twenty-five percent (25.0%) of the value for mobilization

2. Price for General Requirements shall include all costs for insurance requirements, administrative costs, permitting, field engineering, construction schedules, construction photographs, shop drawings, temporary facilities, safety, and first aid supplies, sanitary and other facilities (as required by specifications), and all other related items as required to complete the proposed work, per the Drawings, Specifications, and City of Naples requirements.

3&4. Price for Bar Screen Replacement (Southern/Northern) shall include all costs for furnishing and installing a complete and operable bar screen and conveyor system and shall include demolish, removal, and disposal of existing appurtenances as required; wiring, cable, conduit, anchors, supports, straps, clamps, and connectors as required; connections to proposed and existing components; connection to existing power supply; concrete work, metal work, testing, startup, and all other related items as required per the Drawings, Specifications, and City of Naples requirements.

Note: The City of Naples retains the right to award a contract based on all, a portion, or none of the costs above.

Company Name _____ PH _____

Name and Title of individual completing this schedule:

(Printed Name) (Title)

(Signature) (Date)