

PALM BEACH COUNTY
BOARD OF COUNTY COMMISSIONERS

AGENDA ITEM SUMMARY

Meeting Date: January 23, 2018 Consent [X] Regular []
Public Hearing []

Department: Water Utilities Department

I. EXECUTIVE BRIEF

Motion and Title: Staff recommends motion to approve: Work Authorization (WA) No. 11 for the Systemwide Safety Improvements Design-Build (Project) with Globaltech, Inc., in the amount of \$711,566.57.

Summary: On March 10, 2015 the Board of County Commissioners (BCC) approved the Water Utilities Department (WUD) Contract for Optimization and Improvements Design-Build with Globaltech, Inc., (R2015-0315) (Contract). WA No. 11 provides for safety improvements to upgrade 11 different facilities to currently established industry safety standards, thereby achieving a top priority of WUD's strategic initiatives. The Small Business Enterprise (SBE) participation goal established by the SBE Ordinance is 15% overall. The Contract provides for SBE participation of 75%. WA No. 11 includes 94.35% overall SBE participation. The cumulative SBE participation including WA No. 11 is 96.21% overall. Globaltech, Inc., is headquartered in Palm Beach County. The Project is included in WUD's FY18 budget. (WUD Project No. 17-050) District 2,3,5 and 6 (MJ)

Background and Justification: Safety is one of the five (5) strategic initiatives for WUD. A comprehensive safety study was performed by Stantec Consulting Services, Inc., to examine treatment plants, operations centers and regional pumping facilities. Pursuant to the recommendations of the safety study, WA No. 11 will upgrade 11 different facilities to current standards as part of the WUD safety-first culture. Globaltech, Inc., has previously completed major safety upgrades at the Southern Region Water Reclamation facility and the East Central Region Water Reclamation FPL Reclaimed Water Facility.

Attachments:

- 1. Three (3) Originals of WA No. 11
- 2. Location Map
- 3. Proof of Insurance from Insurance Tracking Service (ITS)

Recommended By: Jim Stiles 12-29-17
Department Director Date

Approved By: [Signature] 1-12-18
Deputy County Administrator Date

II. FISCAL IMPACT ANALYSIS

A. Five Year Summary of Fiscal Impact:

Fiscal Years		2018	2019	2020	2021	2022
Capital Expenditures		\$711,567	0	0	0	0
Operating Costs		0	0	0	0	0
External Revenues		0	0	0	0	0
Program Income (County)		0	0	0	0	0
In-Kind Match County		0	0	0	0	0
NET FISCAL IMPACT		\$711,567	0	0	0	0
# ADDITIONAL FTE						
POSITIONS (Cumulative)		0	0	0	0	0
Budget Account No.:	Fund 4001	Dept 720	Unit 2475	Object 4615		

Is Item Included in Current Budget? Yes X No

Does this item include the use of federal funds? Yes No ☒ X

Reporting Category **N/A**


B. Recommended Sources of Funds/Summary of Fiscal Impact:

One (1) time expenditure from user fees, connection fees and balance brought forward.

C. Department Fiscal Review: _____


III. REVIEW COMMENTS

A. OFMB Fiscal and/or Contract Development and Control Comments:


 OFMB
 8/12/17
 AK
 12/21

D. J. Jacoby 12/29/17
Contract Development and Control

B. Legal Sufficiency:

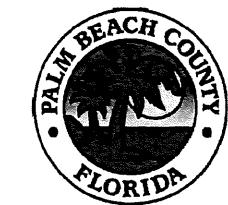

Assistant County Attorney

C. Other Department Review:

Department Director

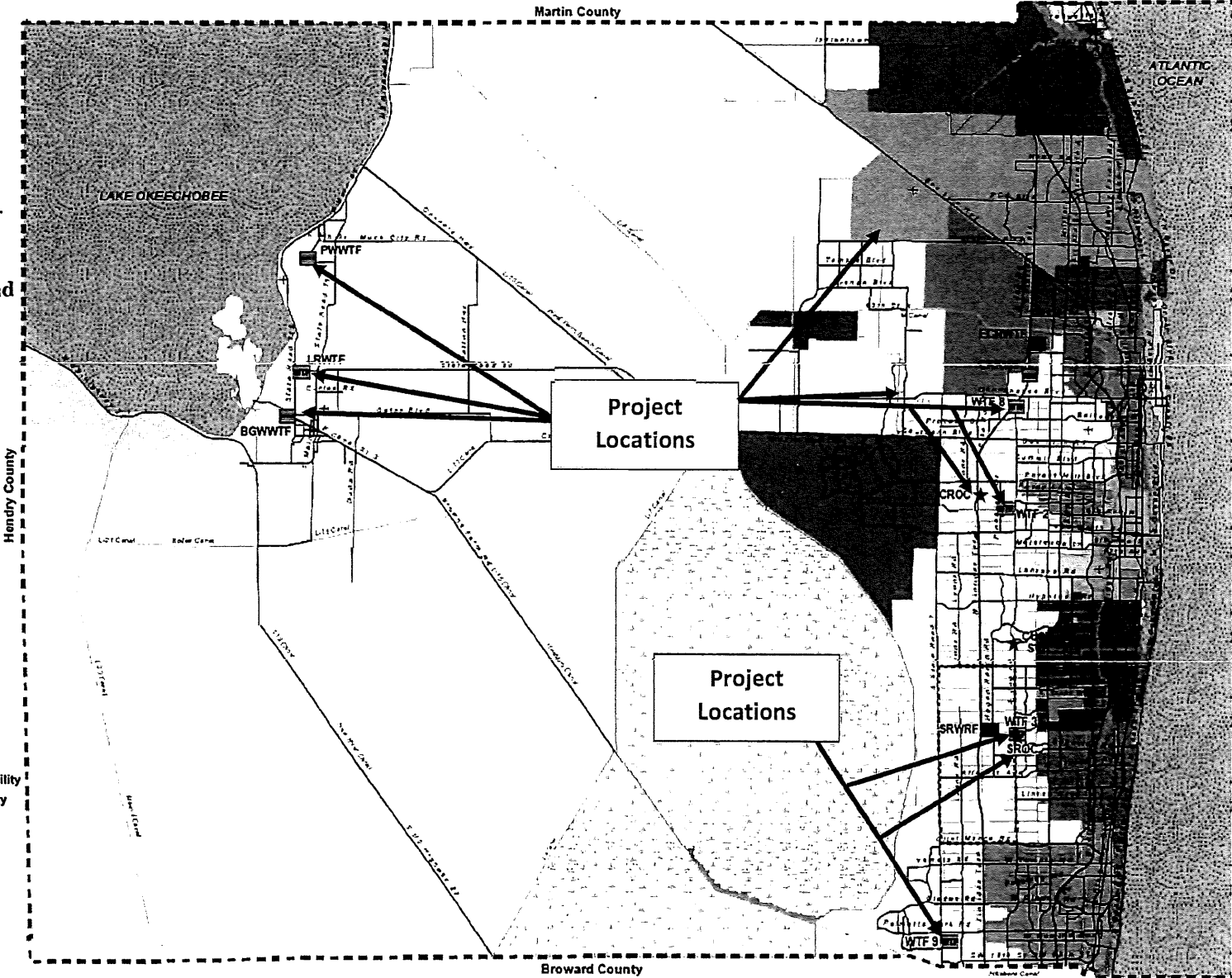
This summary is not to be used as a basis for payment.

ATTACHMENT #2



Palm Beach County
Water Utilities
Department
Service Area (SA) and
Major Facilities

- Legend
- ★ Administration
 - Water Treatment Facility
 - Reclamation Facility
 - Wastewater Reclamation Facility
 - Wastewater Treatment Facility
 - Mandatory Reclaimed SA
 - Palm Beach County Limits
 - P.B.C.W.U.D. Service Area



WUD 17-050 System Wide Safety Improvements

WORK AUTHORIZATION NO. 11

**Palm Beach County Water Utilities Department
Optimization and Improvements Design-Build Contract**

Project No.: WUD 17-050

District: 5

Budget Line Item No.: 4001-720-2475-4615

Project Title: System Wide Safety Improvements

THIS AUTHORIZATION #11 to the Contract for Optimization and Improvements Design-Build Services dated March 10, 2015 (R 2015-0315), by and between Palm Beach County and the Design-Build Entity identified herein, is for the Design/Build Services of this Work Authorization. The Design-Build Entity provides for 75% SBE participation overall. This Work Authorization includes 94.35% overall participation. The cumulative proposed SBE participation, including this authorization is 96.21% overall. Additional authorizations will be utilized to meet or exceed the stated overall participation goal.

1. Design-Build Entity: Globaltech, Inc.
2. Address: 6001 Broken Sound Parkway NW, Suite 610, Boca Raton, FL 33487
3. Description of Services (Scope of Work) to be provided by the Design-Build Entity:

See **ATTACHMENT - A.**

4. Services completed by the Design-Build Entity to date:

See **ATTACHMENT - G.**

5. Design-Build Entity shall begin work promptly or deliver ordered materials within the following calendar days from the receipt of Building Permit and Notice to Proceed with construction:

Substantial Completion 365 Calendar Days

Final Construction Completion 425 Calendar Days

Liquidated damages will apply as follows:

\$500 per day past substantial completion date.

\$250 per day past final completion date.

(For Liquidated Damages Rates see **ATTACHMENT - B**)

6. The compensation to be paid to the Design-Build Entity for providing the requested services in accordance with the Guaranteed Maximum Price is \$711,566.57
7. EXCEPT AS HEREBY AMENDED, CHANGED OR MODIFIED, all other terms, conditions and obligations of the Contract dated March 10, 2015 remain in full force and effect.

WORK AUTHORIZATION NO. 11

Project No.: WUD 17-050

Project Title: System Wide Safety Improvements

IN WITNESS WHEREOF, this Authorization is accepted, subject to the terms, conditions and obligations of the aforementioned Contract.

PALM BEACH COUNTY, A POLITICAL SUBDIVISION OF THE STATE OF FLORIDA

Sharon R. Bock, Clerk & Comptroller,
Palm Beach County

Palm Beach County,
Board of County Commissioners

ATTEST:

Signed: _____

Signed: _____

Melissa McKinlay, Mayor
JCS

Typed Name: _____
Deputy Clerk

Date

Approved as to Form and Legal
Sufficiency

Signed: _____


Typed Name: _____
County Attorney

DESIGN-BUILD ENTITY: Globaltech, Inc.

ATTEST:



Witness



(Signature)

Richard D. Olson, Director of Client Services
(Name and Title)

David Schuman, Vice President of Engineering
(Name and Title)

(CORPORATE SEAL)

December 7, 2017
Date

LIST OF ATTACHMENTS

WORK AUTHORIZATION NO. 11

Palm Beach County Water Utilities Department
Optimization and Improvements Design-Build Contract

ATTACHMENT - A	Scope of Work & Compensation
ATTACHMENT - B	Rate for Liquidated Damages
ATTACHMENT - C	Public Construction Bond
ATTACHMENT - D	Form of Guarantee
ATTACHMENT - E	Work Authorization Schedule of Bid Items
ATTACHMENT - F	SBE Schedule 1 & Schedule 2
ATTACHMENT - G	Authorization Status Report - Summary & Status of Authorizations
ATTACHMENT - H	Authorization Status Report - Summary of SBE/Minority Business Tracking
ATTACHMENT - I	Location Map
ATTACHMENT - J	Design-Build Criteria Report
ATTACHMENT - K	Vendor Quotes (Not Applicable)

ATTACHMENT – A

Scope of Work & Compensation

ATTACHMENT A

WORK AUTHORIZATION NO. 11

Palm Beach County Water Utilities Department

Optimization and Improvements Design-Build Contract

SCOPE OF WORK FOR

System Wide Safety Improvements

INTRODUCTION

Palm Beach County (County) entered into an agreement entitled Optimization and Improvements Design-Build Contract Project No. WUD 15-071 (CONTRACT) with Globaltech, Inc. (Design-Build Entity) to provide design-build services for various general activities on the Optimization and Improvements Design-Build Contract dated March 10, 2015, (R 2015-0315). This Work Authorization will be performed under that CONTRACT.

The County would like to implement System Wide Safety Improvements at several of their sites. Specific site locations for this project are as follows:

1. Belle Glade Waste Water Treatment Plant, 2055 W Canal St S Belle Glade FL 33430, PCN 04-36-43-36-01-003-0010.
2. Central Region Operations Center (CROC), 8100 Forest Hill Blvd West Palm Beach FL 33413, PCN 00-42-43-27-05-015-0490.
3. Northern Region Operations Center (NROC), 12500 40th St Royal Palm Beach 33411, PCN 72-41-43-15-12-001-0000.
4. Pahokee Waste Water Treatment Plant, 1001 Rim Canal Rd Pahokee FL 33476, PCN 48-37-42-19-00-000-7040.
5. Pump Station 9S, 22530 SW 65th Ave Boca Raton FL 33428, PCN 00-42-43-27-05-081-0380.
6. Mecca Pump Station, 10150 Seminole Pratt Whitney Rd. West Palm Beach FL 33412, PCN 00-41-42-05-01-001-0020.
7. Southern Region Operations Center (SROC), 13026 Jog Road Delray Beach FL 33446, PCN 00-42-46-10-00-000-1020.
8. Water Treatment Plant 2, 5956 Pinehurst Dr West Palm Beach FL 33413, PCN 00-42-43-27-05-021-0361.
9. Water Treatment Plant 8, 1500 N Jog Rd West Palm Beach FL 33417, PCN 00-42-43-27-05-004-0053.
10. Water Treatment Plant 9, 22530 SW 65th Ave Boca Raton FL 33428, PCN 00-42-43-27-05-081-0380.
11. Water Treatment Plant 11, 39700 Hooker Hwy Belle Glade FL 33430, PCN 00-37-43-19-00-000-3060.

This Work Authorization (WA) was developed based on the scope described in the Design Build Criteria as well as subsequent site visits with the County.

SCOPE OF SERVICES

Design-Build Entity shall perform the Scope of Services described in the ***Design-Build Criteria for System Wide Safety Improvements, TR09 Project No. WUD 17-050*** (PBCWUD, October 16, 2017) and as further described herein:

The proposed work to be performed by the Design-Build Entity generally includes furnishing all labor, equipment, materials, tools, supervision, and services required to design, permit, purchase, demolish, construct, train, test, and startup. The proposed work is generally described as follows:

1. Prepare an inventory of safety improvements required at various facilities, other than what is listed below. Each item on the inventory shall have a description of the item, applicable governing code/standard/guideline, recommended remedial action and budgetary estimate. This item is merely an inventory of additional recommendations and does not consist of corrective action. The safety inventory will focus on the following areas; grating, handrail, access platforms, fall protection, safety signage and safe working areas.
2. Belle Glade WWTP
 - a. Install safety latches on hooks of maintenance building hoist equipment (Photograph 1.3.3.a).
 - b. Provide and install sealed generator batteries for back-up generator. (Photographs 1.3.3.b).
 - c. Use yellow paint or caution tape to call attention to the tripping hazard near the injection well pumps. (Photographs 1.3.3.c).
 - d. Replace stair railing of Aeration Basin 2, clarifiers 3 & 4, and headworks so that it is the correct height. (Note OSHA has proposed that new installations have a handrail height of 42 inches above the tread).
 - e. Determine if all the handrails on Clarifier #3 perimeter walkway are suitable to resist a 200 lb force on the top rail and make repairs to concrete or railing systems that are required to comply with the calculations.
 - f. Install a PVC pipe riser with yellow tape into the jib crane base mounts to call attention to the tripping hazards on the digester walkway. (Photographs 1.3.3.d).
 - g. Relocate Security Camera termination box on the digester walkway rail so that it does not interfere with the rails.
 - h. Install fasteners to the head works grating. (Photographs 1.3.3.e).
 - i. Install guard bars to protect the unguarded opening in the head works stairway. (Photographs 1.3.3.f).
3. CROC
 - a. Provide and install sealed generator batteries for back-up generator or provide eyewash stations.
 - b. Paint piping and conduits of emergency generator room to identify tripping hazards.
 - c. Replace missing eyewash dust covers on meter repair shop eye wash stations.

4. NROC
 - a. Install new insulating rubber mats around switchgear to protect those who may be exposed to energized parts. (Photographs 1.3.5.a).
 - b. Replace grating in outdoor storage yard where damaged. (Photographs 1.3.5.b).
5. Pahokee
 - a. Replace missing grating clips on aeration basin 1.
 - b. Install self-closing gates on all guard rail openings of aeration basin 1.
 - c. Install self-closing gates on all guard rail openings of the secondary and primary clarifiers.
 - d. Extend bottom "step" of the secondary and primary clarifiers walkway horizontally so that it is at least 30 inches in length measured in the direction of travel and meets the definition of a platform landing.
 - e. Install a self-closing gate at the access to the lower platform of the walker plant.
 - f. Install (4) ring buoys with at least 90 ft of line so that they are readily available for emergency rescue situations plant wide.
 - g. Relocate effluent pump sample box on the secondary clarifier walkway rail so that it does not interfere with the rails.
6. Pump Station 9S
 - a. Provide and install a Class B fire extinguisher within 50 ft of the diesel fuel storage tank.
7. Mecca Pump Station
 - a. Install high visibility crossovers for piping and conduits of emergency generator to identify tripping hazards. (Photographs 1.3.11.a).
8. Water Treatment Plant 2
 - a. Install self-closing gates on all lime silos.
 - b. Relocate electrical disconnect mounted on the top rail of precipitator #1. (Photographs 1.3.12.a).
9. SROC
 - a. Install a Class B fire extinguisher within 50 ft of the propane fuel storage in warehouse.
 - b. Install cover over hole rear chemical containment area of deep well.
10. Water Treatment Plant 8
 - a. Provide and install sealed generator batteries for back-up generator or install eyewash stations.
 - b. Replace missing dust covers on ferric chloride eyewash stations. (Photographs 1.3.15.a).
 - c. Paint top and bottom treads of sand wash water recovery stairs to call attention to the non-uniform treads. (Photographs 1.3.15.b).
 - d. Install self-closing gates on ion-exchange access ladders. (Photographs 1.3.15.c).
 - e. Install traction tape on nosings of the stairs in the filter gallery. (Photographs 1.3.15.d).

- f. Install an emergency exit sign meeting OSHA and local fire codes on high service pump room exit door. (Photographs 1.3.15.e).

11. Water Treatment Plant 9

- a. Reposition toeboards on sand strainer access platform so that there is no more than 1/4" clearance from floor level. (Photographs 1.3.16.a).
- b. Install foam rubber padding, paint top of doorway frame yellow, and install a sign saying "Danger, Low Clearance" on corrosion inhibitor exit door. (Photographs 1.3.16.b).
- c. Install bollards on for truck charging station in the storage building. (Photographs 1.3.16.c).
- d. Reposition toeboards on degassifier access platform so that there is no more than 1/4" clearance from floor level. (Photographs 1.3.16.d).
- e. Repair railing on degassifier access stairway so that the top rail can withstand a 200lb force in any direction. (Photographs 1.3.16.e).

12. Water Treatment Plant 11

- a. Reposition toeboards on clearwell access area so that there is no more than 1/4" clearance from floor level. (Photographs 1.3.17.a).
- b. Install high visibility crossovers for piping and conduits of emergency generator to identify tripping hazards. (Photographs 1.3.17.a).

13. Handrail shall be three-rail complete with kick plate and be OSHA compliant.

Handrail materials shall be compatible for the intended service environment. Pop rivets are not allowed for handrail connections. Use expansion joints in kick plate and handrail to accommodate anticipated thermal expansion and contraction.

14. Materials of construction for installed safety devices shall be compatible for the intended service environment.

15. Emergency showers and eyewash stations to be Speakman SE-626-316 SS.

Emergency showers and eyewash stations shall be compatible with future installation of a flow switch for local and/or remote alarm(s). Each emergency shower and eyewash station installed shall be complete with 120/110 VAC supply installed adjacent to the emergency shower and eyewash station terminating in a junction box.

16. Wind Loading: System components shall be designed to meet or exceed the latest version of the Florida Building Code (FBC).

17. Location and routing of proposed equipment and facilities shall take into consideration the future facilities. Infrastructure to be constructed by the Design-Build Entity shall not interfere with these future planned facilities.

Permits and Fees

It shall be the Design-Build Entity's responsibility to secure all permits required to complete the work under this contract, except permits obtained by the Owner. The Design-Build Entity shall be responsible for all inspections and requirements to close-out the completed permits. The Owner shall pay all permit fees. The Design-Build Entity shall be responsible for all Business tax fees for work within the county or Municipalities.

SALVAGED MATERIALS

1. Material and equipment, which the County has identified to be salvaged in the Design-Build Criteria, shall be placed in a protected location at the project site, as directed by the County.
2. All other material and equipment removed from the existing work shall be hauled and legally disposed by Design-Build Entity.

ASSUMPTIONS

1. County will make available all existing record drawings as may be required to coordinate and complete this scope of services.
2. County will make available construction photographs, submittals, and record drawings as may be required to coordinate and complete this scope of services.
3. County will review all submittals and provide comments within one calendar week and notify Design-Build Entity of status.
4. Liquidated damages may be assessed at a rate of \$500 per day up to Substantial completion and \$250 per day from Substantial Completion until Final Completion (consistent with a Moderately Important Project as outlined in **Attachment B**).

COMPENSATION

Compensation for this Work Authorization shall not exceed the Guaranteed Maximum Price of **\$711,566.57** in accordance with the unit prices established in the Contract for construction services dated March 10, 2015, as approved by the Board of County Commissioners.

SBE/M-WBE PARTICIPATION

As described in the Contract (R 2015-0315), SBE/M-WBE participation is included in ATTACHMENT F under this Authorization. The attached Schedule 1 defines the SBE/M-WBE applied to this Authorization/Contract and Schedule 2 establishes the SBE/M-WBE contribution from each subcontractor (Letter of Intent to perform as an SBE/M-WBE).

ATTACHMENT – B

Rate for Liquidated Damages

ATTACHMENT - B

WORK AUTHORIZATION NO. 11

Palm Beach County Water Utilities Department Optimization and Improvements Design-Build Contract

Rates for Liquidated Damages

Palm Beach County Water Utilities Department shall establish liquidated damages rates for each Work Authorization based on the dollar amount and time sensitivity of the project. The rates shall be as follows according to a criticality rating of 1 through 3 assigned to each Work Authorization by the Department as established below:

Moderately Important Project (Criticality 2): Liquidated Damages

\$500 per day after Substantial Completion Date

\$250 per day after Final Completion Date

ATTACHMENT – C

Public Construction Bond

ATTACHMENT - C
PUBLIC CONSTRUCTION BOND

BOND NUMBER: SU1142494

BOND AMOUNT: \$711,566.57

CONTRACT AMOUNT: \$711,566.57

CONTRACTOR'S NAME: Globaltech, Inc.

CONTRACTOR'S ADDRESS: 6001 Broken Sound Parkway NW
Suite 610
Boca Raton, FL 33487

CONTRACTOR'S PHONE: (561) 997-6433

SURETY COMPANY: Arch Insurance Company

SURETY'S ADDRESS: 300 Plaza Three
Jersey City, NJ 07311

OWNER'S NAME: Palm Beach County

OWNER'S ADDRESS: 8100 Forest Hill Boulevard
West Palm Beach, FL 33413

OWNER'S PHONE: (561) 493-6000

DESCRIPTION OF WORK: System wide safety improvements at various PBCWUD facilities throughout Palm Beach County, Florida. Reference contract for additional details.

COUNTY'S PROJECT No: WUD 17-050, WA-11

PROJECT LOCATION: Multiple project locations throughout Palm Beach County, Florida:

- a. Belle Glade Waste Water Treatment Plant, 2055 W Canal St S Belle Glade FL 33430, PCN 04-36-43-36-01-003-0010.
- b. Central Region Operations Center (CROC), 8100 Forest Hill Blvd West Palm Beach FL 33413, PCN 00-42-43-27-05-015-0490.
- c. Northern Region Operations Center (NROC), 12500 40th St Royal Palm Beach 33411, PCN 72-41-43-15-12-001-0000.
- d. Pahokee Waste Water Treatment Plant, 1001 Rim Canal Rd Pahokee FL 33476, PCN 48-37-42-19-00-000-7040.
- e. Pump Station 9S, 22530 SW 65th Ave Boca Raton FL 33428, PCN 00-42-43-27-05-081-0380.

- f. Mecca Pump Station, 10150 Seminole Pratt Whitney Rd. West Palm Beach FL 33412, PCN 00-41-42-05-01-001-0020.
- g. Southern Region Operations Center (SROC), 13026 Jog Road Delray Beach FL 33446, PCN 00-42-46-10-00-000-1020.
- h. Water Treatment Plant 2, 5956 Pinehurst Dr West Palm Beach FL 33413, PCN 00-42-43-27-05-021-0361.
- i. Water Treatment Plant 8, 1500 N Jog Rd West Palm Beach FL 33417, PCN 00-42-43-27-05-004-0053.
- j. Water Treatment Plant 9, 22530 SW 65th Ave Boca Raton FL 33428, PCN 00-42-43-27-05-081-0380.
- k. Water Treatment Plant 11, 39700 Hooker Hwy Belle Glade FL 33430, PCN 00-37-43-19-00-000-3060.

LEGAL DESCRIPTION: See PCN numbers listed above.

PUBLIC CONSTRUCTION BOND

This Bond is issued in favor of the County conditioned on the full and faithful performance of the Contract.

KNOW ALL MEN BY THESE PRESENTS: that Contractor and Surety, are held and firmly bound unto

Palm Beach County Board of County Commissioners
301 N. Olive Avenue
West Palm Beach, Florida 33401

as Obligee, herein called County, for the use and benefit of claimant as herein below defined, in the amount of

Dollars **\$711,566.57**

Seven hundred eleven thousand five hundred sixty six dollars and fifty seven cents.

for the payment whereof Principal and Surety bind themselves, their heirs, personal representatives, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

WHEREAS,

Principal has by written agreement dated _____, 20____, entered into a contract with the County for:

Project Name: System Wide Safety Improvements
Project No.: WUD 17-050
Project Description: System wide safety improvements at various PBCWUD facilities throughout Palm Beach County, Florida. Reference contract for additional details.

Project Location: Multiple project locations throughout Palm Beach County, Florida:

- a. Belle Glade Waste Water Treatment Plant, 2055 W Canal St S Belle Glade FL 33430, PCN 04-36-43-36-01-003-0010.
- b. Central Region Operations Center (CROC), 8100 Forest Hill Blvd West Palm Beach FL 33413, PCN 00-42-43-27-05-015-0490.
- c. Northern Region Operations Center (NROC), 12500 40th St Royal Palm Beach 33411, PCN 72-41-43-15-12-001-0000.
- d. Pahokee Waste Water Treatment Plant, 1001 Rim Canal Rd Pahokee FL 33476, PCN 48-37-42-19-00-000-7040.
- e. Pump Station 9S, 22530 SW 65th Ave Boca Raton FL 33428, PCN 00-42-43-27-05-081-0380.
- f. Mecca Pump Station, 10150 Seminole Pratt Whitney Rd. West Palm Beach FL 33412, PCN 00-41-42-05-01-001-0020.
- g. Southern Region Operations Center (SROC), 13026 Jog Road Delray Beach FL 33446, PCN 00-42-46-10-00-000-1020.
- h. Water Treatment Plant 2, 5956 Pinehurst Dr West Palm Beach FL 33413, PCN 00-42-43-27-05-021-0361.
- i. Water Treatment Plant 8, 1500 N Jog Rd West Palm Beach FL 33417, PCN 00-42-43-27-05-004-0053.

- j. Water Treatment Plant 9, 22530 SW 65th Ave Boca Raton FL 33428, PCN 00-42-43-27-05-081-0380.
- k. Water Treatment Plant 11, 39700 Hooker Hwy Belle Glade FL 33430, PCN 00-37-43-19-00-000-3060.

in accordance with Design Criteria Drawings and Specifications prepared by:

Name of Design Firm: Globaltech, Inc.
Location of Firm: 6001 Broken Sound Parkway NW, Ste. 610, Boca Raton, FL 33487
Phone: (561) 997-6433
Fax: (561) 997-5811

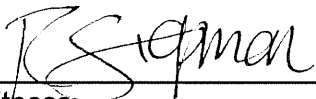
which contract is by reference made a part hereof in its entirety, and is hereinafter referred to as the Contract.

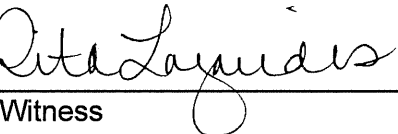
THE CONDITION OF THIS BOND is that if Principal:

1. Performs the contract dated _____, 20____, between Principal and County for the design and construction of **WUD 17-050**, the contract being made a part of this bond by reference, at the times and in the manner prescribed in the contract; and
2. Promptly makes payments to all claimants, as defined in Section 255.05, Florida Statutes, supplying Principal with labor, materials, or supplies, used directly or indirectly by Principal in the prosecution of the work provided for in the contract; and
3. Pays County all losses, damages (including liquidated damages), expenses, costs, and attorneys' fees, including appellate proceedings, that County sustains because of a default by Principal under the contract; and
4. Performs the guarantee of all work and materials furnished under the contract for the time specified in the contract, then this bond is void; otherwise it remains in full force.
5. Any changes in or under the contract documents and compliance or noncompliance with any formalities connected with the contract or the changes does not affect Surety's obligation under this bond and Surety waives notice of such changes.
6. The amount of this bond shall be reduced by and to the extent of any payment or payments made in good faith hereunder, inclusive of the payment by Surety of construction liens which may be filed of record against said improvement, whether or not claim for the amount of such lien be presented under and against the bond.
7. Principal and Surety expressly acknowledge that any and all provisions relating to consequential, delay and liquidated damages contained in the contract are expressly covered by and made a part of this Performance, Labor and Material Payment Bond. Principal and Surety acknowledge that any such provisions lie within their obligations and within the policy coverage's and limitations of this instrument.
8. Section 255.05, Florida Statutes, as amended, together with all notice and time provisions contained therein, is incorporated herein, by reference, in its entirety. Any action instituted by a claimant under this bond for payment must be in accordance with the notice and time limitation

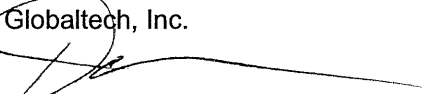
provisions in Section 255.05(2), Florida Statutes. This instrument regardless of its form, shall be construed and deemed a statutory bond issued in accordance with Section 255.05, Florida Statutes.

9. Any action brought under this instrument shall be brought in the state court of competent jurisdiction in Palm Beach County, Florida and not elsewhere.


Witness
Rachael stolpman
Print name


Witness
Rita Lazarides
Print name

Globaltech, Inc.


Principal (Seal)

David Schuman
Print name
Vice President of Engineering
Title

Arch Insurance Company


Surety (Seal)

Brett Rosenhaus
Print name
Attorney-in-Fact & FL Licensed Agent
Title

ATTACHMENT – D

Form of Guarantee

ATTACHMENT - D
FORM OF GUARANTEE


GUARANTEE FOR GLOBALTECH INC. (CONTRACTOR) AND ARCH INSURANCE COMPANY (SURETY)

We the undersigned hereby guarantee that the **System Wide Safety Improvements, WUD 17-050, WA-11**, Palm Beach County, Florida, which we have constructed and bonded, has been done in accordance with the plans and specifications; that the work constructed will fulfill the requirements of the guaranties included in the Contract Documents. We agree to repair or replace any or all of our work, together with any work of others which may be damaged in so doing, that may prove to be defective in the workmanship or materials within a period of one year from the date of Final Completion of all of the above named work by the County of Palm Beach, State of Florida, without any expense whatsoever to said County of Palm Beach, ordinary wear and tear and unusual abuse or neglect excepted by the County. When correction work is started, it shall be carried through to completion.


In the event of our failure to acknowledge notice, and commence corrections of defective work within five (5) calendar days after being notified in writing by the Board of County Commissioners, Palm Beach County, Florida, we, collectively or separately, do hereby authorize Palm Beach County to proceed to have said defects repaired and made good at our expense and we will honor and pay the costs and charges therefore upon demand.

DATED: _____
(notice of completion filing date)

SEAL AND NOTARIAL ACKNOWLEDGMENT OF SURETY

Globaltech, Inc. _____ (Seal)
(Contractor)
By:  _____
(Signature)

David Schuman
(Printed Name)

Arch Insurance Company _____ (Seal)
(Surety)
By:  _____
(Signature)

Brett Rosenhaus, Attorney-in-Fact & FL Licensed Agent
(Printed Name)

THIS POWER OF ATTORNEY IS NOT VALID UNLESS IT IS PRINTED ON BLUE BACKGROUND.

This Power of Attorney limits the acts of those named herein, and they have no authority to bind the Company except in the manner and to the extent herein stated. Not valid for Mortgage, Note, Loan, Letter of Credit, Bank Deposit, Currency Rate, Interest Rate or Residential Value Guarantees.

POWER OF ATTORNEY

Know All Persons By These Presents:

That the Arch Insurance Company, a corporation organized and existing under the laws of the State of Missouri, having its principal administrative office in Jersey City, New Jersey (hereinafter referred to as the "Company") does hereby appoint:

Arthur Lawrence Colley of Charlotte, NC
Brett Rosenhaus of Lake Worth, FL
Charles D. Nielson, Charles J. Nielson and David R. Hoover of Miami Lakes, FL (EACH)
F. Danny Gann, Edward T. Ward and Audria R. Ward of Atlanta, GA (EACH)
John R. Neu and Kevin Wojtowicz of St. Petersburg, FL (EACH)
Laura D. Mosholder of Orlando, FL

its true and lawful Attorney(s)in-Fact, to make, execute, seal, and deliver from the date of issuance of this power for and on its behalf as surety, and as its act and deed:

Any and all bonds, undertakings, recognizances and other surety obligations, in the penal sum not exceeding
Ninety Million Dollars (\$90,000,000.00)

This authority does not permit the same obligation to be split into two or more bonds in order to bring each such bond within the dollar limit of authority as set forth herein.

The execution of such bonds, undertakings, recognizances and other surety obligations in pursuance of these presents shall be as binding upon the said Company as fully and amply to all intents and purposes, as if the same had been duly executed and acknowledged by its regularly elected officers at its principal administrative office in Jersey City, New Jersey.

This Power of Attorney is executed by authority of resolutions adopted by unanimous consent of the Board of Directors of the Company on September 15, 2011, true and accurate copies of which are hereinafter set forth and are hereby certified to by the undersigned Secretary as being in full force and effect:

"VOTED, That the Chairman of the Board, the President, or the Executive Vice President, or any Senior Vice President, of the Surety Business Division, or their appointees designated in writing and filed with the Secretary, or the Secretary shall have the power and authority to appoint agents and attorneys-in-fact, and to authorize them subject to the limitations set forth in their respective powers of attorney, to execute on behalf of the Company, and attach the seal of the Company thereto, bonds, undertakings, recognizances and other surety obligations obligatory in the nature thereof, and any such officers of the Company may appoint agents for acceptance of process."

This Power of Attorney is signed, sealed and certified by facsimile under and by authority of the following resolution adopted by the unanimous consent of the Board of Directors of the Company on September 15, 2011:

VOTED, That the signature of the Chairman of the Board, the President, or the Executive Vice President, or any Senior Vice President, of the Surety Business Division, or their appointees designated in writing and filed with the Secretary, and the signature of the Secretary, the seal of the Company, and certifications by the Secretary, may be affixed by facsimile on any power of attorney or bond executed pursuant to the resolution adopted by the Board of Directors on September 15, 2011, and any such power so executed, sealed and certified with respect to any bond or undertaking to which it is attached, shall continue to be valid and binding upon the Company.

ATTACHMENT - E

Work Authorization Schedule of Bid Items

PBC Water Utilities Department
120045 PBC System Wide Safety Impro.

Description	Quote/Vendor	Unit	Quantity	Cost	Ext. Cost	Tax (%)	Markup*	Ext. Price
1 General Conditions								
Temporary Facilities		LOT						
Job Site Trailer		MONTH	12	500.00	6,000.00	7.00	1.1500	7,383.00
Trailer Pick up/Delivery		EA	2	400.00	800.00	7.00	1.1500	984.40
Sanitary		MONTH	18	200.00	3,600.00	7.00	1.1500	4,429.80
Job Site Office Supplies		LOT	1	2,000.00	2,000.00	7.00	1.1500	2,461.00
General Conditions		LOT						
Submittal Labor		HR	20	71.08	1,421.60		1.2992	1,846.94
O&M		HR	6	71.08	426.48		1.2992	554.08
Progress Meeting		HR	80	87.79	7,023.20		1.2992	9,124.54
Scheduling Labor		HR	80	71.08	5,686.40		1.2992	7,387.77
Construction PM		HR	300	71.08	21,324.00		1.2992	27,704.14
Construction Superintendent		HR	200	62.13	12,426.00		1.2992	16,143.86
Purchasing & Subcontracts		HR	40	71.08	2,843.20		1.2992	3,693.89
Office Admin		HR	80	38.89	3,111.20		1.2992	4,042.07
Bid Item Totals:					66,662.08			85,755.49
2 Sitework								
Mobilization		LOT						
Construction PM		HR	40	71.08	2,843.20		1.2992	3,693.89
Construction Superintendent		HR	40	62.13	2,485.20		1.2992	3,228.77
3 man Crew		CR-D	8	962.88	7,703.04		1.2992	10,007.79
Waste Hauling		LOT	12	600.00	7,200.00	7.00	1.1500	8,859.60
Punch Out Crew		CR-D	8	962.08	7,696.64		1.2992	9,999.47
Demob		LOT						

Takeoff Worksheet

12/06/17

Continued...

Description	Quote/Vendor	Unit	Quantity	Cost	Ext. Cost	Tax (%)	Markup*	Ext. Price
Construction PM		HR	20	71.08	1,421.60		1.2992	1,846.94
Construction Superintendent		HR	20	62.13	1,242.60		1.2992	1,614.39
3 man Crew		CR-D	5	962.88	4,814.40		1.2992	6,254.87
Bid Item Totals:					35,406.68			45,505.72
3 Concrete								
Belle Glade								
Repair Spalling Concrete Clarifier #3								
Chip Concrete and Expose Rebar (3-Man Crew)		CR-D	10	962.88	9,628.80		1.2992	12,509.74
Form & Materials		LOT	1	3,000.00	3,000.00	7.00	1.1500	3,691.50
Concrete & Grout		LOT	1	4,000.00	4,000.00	7.00	1.1500	4,922.00
Installation (4-Man Crew)		CR-D	12	1,166.16	13,993.92		1.2992	18,180.90
Pahokee Step								
Form & Materials		LOT	1	500.00	500.00	7.00	1.1500	615.25
Cast In Place Concrete		LOT	1	300.00	300.00	7.00	1.1500	369.15
Installation 4-Man Crew		CR-D	2	1,166.16	2,332.32		1.2992	3,030.15
Bid Item Totals:					33,755.04			43,318.69
5 Misc Metals								
Belle Glade WWTP								
Safety Latch on Hooks		LOT	1	600.00	600.00	7.00	1.1500	738.30
Ramp		EA	1	1,000.00	1,000.00	7.00	1.1500	1,230.50
Handrail, Post & Fasteners		LOT	1	16,739.00	16,739.00	7.00	1.1500	20,597.34
Installation (4-Man Crew)		CR-D	40	1,166.16	46,646.40		1.2992	60,603.00
Field Welding and Cutting		CR-D	10	962.88	9,628.80		1.2992	12,509.74
NROC								
Grating		LOT	1	2,000.00	2,000.00	7.00	1.1500	2,461.00
4-Man Crew		CR-D	1	1,166.16	1,166.16		1.2992	1,515.08
Field Welding and Cutting		CR-D	1	962.88	962.88		1.2992	1,250.97

Takeoff Worksheet

12/06/17

Continued...

Description	Quote/Vendor	Unit	Quantity	Cost	Ext. Cost	Tax (%)	Markup*	Ext. Price
Pahokee								
Handrail, Post, Clips & Fasteners		LOT	1	14,591.00	14,591.00	7.00	1.1500	17,954.23
Installation (4-Man Crew)		CR-D	12	1,166.16	13,993.92		1.2992	18,180.90
Field Welding and Cutting		CR-D	5	962.88	4,814.40		1.2992	6,254.87
Relocate Effluent Sample Box								
Post & Fasteners		LOT	1	1,000.00	1,000.00	7.00	1.1500	1,230.50
Electrical Wire and Connection		LOT	1	1,000.00	1,000.00	7.00	1.1500	1,230.50
Electrical Sub		LOT	1	1,750.00	1,750.00		1.1000	1,925.00
Installation (3-Man Crew)		CR-D	1	962.88	962.88	7.00	1.1500	1,184.82
Pump Station 9 S								
Fire Extinguisher, Box & Fastener		EA	1	500.00	500.00	7.00	1.1500	615.25
Installation (3-Man Crew)		CR-D	1	962.88	962.88		1.2992	1,250.97
Mecca Pump Station								
Ramp		EA	1	1,000.00	1,000.00	7.00	1.1500	1,230.50
Installation (4-Man Crew)		CR-D	1	1,166.16	1,166.16		1.2992	1,515.08
WTP 2								
Self-Closing Gates		LOT	3	2,000.00	6,000.00	7.00	1.1500	7,383.00
Installation (4-Man Crew)		CR-D	2	1,166.16	2,332.32		1.2992	3,030.15
Relocate Electrical Disconnect								
Post & Fasteners		LOT	1	1,000.00	1,000.00	7.00	1.1500	1,230.50
Field Welding and Cutting		CR-D	1	962.88	962.88		1.2992	1,250.97
Electrical Wire and Connection		LOT	1	1,000.00	1,000.00	7.00	1.1500	1,230.50
Electrical Sub		LOT	1	1,180.00	1,180.00		1.1000	1,298.00
Installation 4-Man Crew		CR-D	1	1,166.16	1,166.16		1.2992	1,515.08
Construction PM (Elec/I&C)		HR	10	50.52	505.20		1.2992	656.36
SROC								
Fire Extinguisher, Box & Fastener		EA	1	500.00	500.00	7.00	1.1500	615.25
Cover Over Hole		LOT	1	2,000.00	2,000.00	7.00	1.1500	2,461.00

Takeoff Worksheet

12/06/17

Continued...

Description	Quote/Vendor	Unit	Quantity	Cost	Ext. Cost	Tax (%)	Markup*	Ext. Price
Installation 4-Man Crew		CR-D	2	1,166.16	2,332.32		1.2992	3,030.15
WTP 8								
Self-Closing Gates		LOT	4	2,000.00	8,000.00	7.00	1.1500	9,844.00
Installation (4-Man Crew)		CR-D	4	1,166.16	4,664.64		1.2992	6,060.30
WTP 9								
Reposition Toeboards (4-Man Crew)		CR-D	4	1,166.16	4,664.64		1.2992	6,060.30
Bollards & Fasteners		LOT	1	1,500.00	1,500.00	7.00	1.1500	1,845.75
Installation (4-Man Crew)		CR-D	1	1,166.16	1,166.16		1.2992	1,515.08
Handrail, Post & Fasteners		LOT	1	3,000.00	3,000.00	7.00	1.1500	3,691.50
Field Welding and Cutting		CR-D	1	962.88	962.88		1.2992	1,250.97
4-Man Crew		CR-D	2	1,166.16	2,332.32		1.2992	3,030.15
WTP 11								
Reposition Toeboards (4-Man Crew)		CR-D	2	1,166.16	2,332.32		1.2992	3,030.15
Ramp		LOT	1	1,000.00	1,000.00	7.00	1.1500	1,230.50
Installation (3-Man Crew)		CR-D	1	962.88	962.88		1.2992	1,250.97
Bid Item Totals:					170,049.20			215,989.18
9 Finishes								
Signs & Labels		LOT	1	3,000.00	3,000.00	7.00	1.1500	3,691.50
Coatings		LOT	1	2,000.00	2,000.00	7.00	1.1500	2,461.00
Installation		CR-D	6	1,166.16	6,996.96		1.2992	9,090.45
Bid Item Totals:					11,996.96			15,242.95
11 Equipment								
Sealed Generator Battery & Accessories		EA	12	1,200.00	14,400.00	7.00	1.1500	17,719.20
Installation		CR-D	2	962.88	1,925.76		1.2992	2,501.95
NROC								
Insulating Rubber Mats		LOT	1	3,000.00	3,000.00	7.00	1.1500	3,691.50
Installation (4-Man Crew)		CR-D	1	1,166.16	1,166.16		1.2992	1,515.08

Takeoff Worksheet

12/06/17

Continued...

Description	Quote/Vendor	Unit	Quantity	Cost	Ext. Cost	Tax (%)	Markup*	Ext. Price
Pahokee								
Buoys		EA	4	310.00	1,240.00	7.00	1.1500	1,525.82
Post & Fasteners		LOT	4	1,000.00	4,000.00	7.00	1.1500	4,922.00
Handrail Modification		LOT	4	1,000.00	4,000.00	7.00	1.1500	4,922.00
Installation (3-Man Crew)		CR-D	4	962.88	3,851.52	7.00	1.1500	4,739.30
WTP 8								
Emergency Exit Sign		LOT	1	500.00	500.00	7.00	1.1500	615.25
Electrical Wire and Connection		LOT	1	2,000.00	2,000.00	7.00	1.1500	2,461.00
Electrical Sub		LOT	1	1,600.00	1,600.00		1.1000	1,760.00
Installation 4-Man Crew		CR-D	1	1,166.16	1,166.16		1.2992	1,515.08
Construction PM (Elec/I&C)		HR	10	50.52	505.20		1.2992	656.36
Belle Glade								
Relocate Security Camera								
Electrical Wire and Connection		LOT	1	2,000.00	2,000.00	7.00	1.1500	2,461.00
Electrical Sub		LOT	1	1,775.00	1,775.00		1.1000	1,952.50
Installation 4-Man Crew		CR-D	1	1,166.16	1,166.16		1.2992	1,515.08
Construction PM (Elec/I&C)		HR	10	50.52	505.20		1.2992	656.36
Bid Item Totals:					44,801.16			55,129.48
15 Mechanical								
Eyewash/Single Shower Head & Accessories		EA	2	3,500.00	7,000.00	7.00	1.1500	8,613.50
SCH 80 PVC Pipe & Fittings		LOT	1	500.00	500.00	7.00	1.1500	615.25
Installation (3-Man Crew)		CR-D	2	962.88	1,925.76		1.2992	2,501.95
Belle Glade								
PVC Pipe Riser		LOT	1	1,000.00	1,000.00	7.00	1.1500	1,230.50
Installation		CR-D	1	1,166.16	1,166.16		1.2992	1,515.08
Safety Inventory Preperation								
Construction PM		HR	80	71.08	5,686.40		1.2992	7,387.77

Takeoff Worksheet

12/06/17

Continued...

Description	Quote/Vendor	Unit	Quantity	Cost	Ext. Cost	Tax (%)	Markup*	Ext. Price
Office Admin		HR	40	38.89	1,555.60		1.2992	2,021.04
Bid Item Totals:					18,833.92			23,885.09
18 Rental Equipment								
Backhoe w/ forks		Month	4	2,400.00	9,600.00	7.00	1.1500	11,812.80
Misc Tools & Equipment		LOT	1	5,000.00	5,000.00	7.00	1.1500	6,152.50
Safety		HR	20	71.08	1,421.60		1.2992	1,846.94
Safety Equipment		LOT	1	1,500.00	1,500.00	7.00	1.1500	1,845.75
Bid Item Totals:					17,521.60			21,657.99
50 Engineering/Record Drawing								
Engineering		LOT	1	185,184.46	185,184.46		1.0000	185,184.46
Bid Item Totals:					185,184.46			185,184.46
60 Bonds, Insurance & Certifications								
Bonds & Certifications		LOT	1	13,667.96	13,667.96		1.1500	15,718.15
Builders Risk Insurance		LOT	1	3,634.24	3,634.24		1.1500	4,179.37
Bid Item Totals:					17,302.20			19,897.52
Grand Totals:					601,513.30			711,566.57

Note: CR-D=8Hrs

*Contract Markups Per Master Agreement:

Materials = 1.15, Subcontractors = 1.1, Labor at Burden = 1.2992

ATTACHMENT - E
WA-11: System Wide Safety Improvements
Engineering Fee Summary

Task	Task Description	E6	E5	E4	E3	Tech III	OS	Total Labor	*Sub-Consultant Services	Sub-Consultant
		\$77.33	\$65.24	\$57.37	\$42.97	\$32.99	\$35.43			
1	Project Coordination									
	Project Management/Coordination	4	24				16			
	Meet w/ staff to review project/collect info		8							
	Site visits - collect photos and info		60		42				\$ 10,950.00	JC
	Develop inventory list		40		40		4		\$ 9,450.00	JC
	Coordinate with equip vendors		16		10					
	Meet with staff to go over options		8		10					
	Subtotal Task 1	4	156	0	102	0	20	\$ 15,578.30	\$ 20,400.00	
2	60% Design									
	Mechanical Design (13-15 sheets)		48		40	96				
	Structural Design		12			8	2		\$ 11,555.00	WGI
	Site Visits		16		16					
	Equipment Selection/coordination		8		10					
	Cost Estimate		8		10					
	Meet with staff and review		4							
	Subtotal Task 2	0	96	0	76	104	2	\$ 13,030.58	\$ 11,555.00	
3	100% Design									
	Mechanical Design (13-15 sheets)		16		16	40	2			
	Structural Design		8		6	8	2		\$ 3,305.00	WGI
	Specification		8				4			
	Equipment Selection/coordination		4							
	Update construction estimate		8		8					
	QC/QA	4								
	Subtotal Task 3	4	44	0	30	48	8	\$ 6,335.94	\$ 3,305.00	
4	SDC									
	Site Visits		60		46		4			
	Submittals		8		10		4			
	Structural Subconsultant		8				2		\$ 4,950.00	WGI
	Record Drawings		8		16	24				
	Meetings		24		24					
	Office Admin						30			
	Subtotal Task 4	0	108	0	96	24	40	\$ 13,380.00	\$ 4,950.00	
	Labor Hours	8	404	0	304	176	70			
	Labor Costs	\$618.64	\$26,356.96	\$0.00	\$13,062.88	\$5,806.24	\$2,480.10	\$48,324.82		
	Labor Multiplier	3.00	3.00	3.00	3.00	3.00	3.00	3.00		
	Labor Total	\$1,855.92	\$79,070.88	\$0.00	\$39,188.64	\$17,418.72	\$7,440.30	\$144,974.46		
	Subconsultant Total								\$ 40,210.00	
	TOTAL ENGINEERING FEE								\$ 185,184.46	

Jest Consulting \$ 20,400.00
Wantman Group, Inc \$ 19,810.00
\$ 40,210.00

ATTACHMENT - F

SBE Schedule 1 & Schedule 2

ATTACHMENT - F

SCHEDULE 1

LIST OF PROPOSED SBE-M/WBE PRIME/SUBCONTRACTORS

PROJECT NAME: System Wide Safety Improvements

PROJECT No: WUD 17-050

NAME OF PRIME BIDDER Globaltech, Inc.

ADDRESS: 6001 Broken Sound Parkway NW, Suite 610

CONTACT PERSON: Bernard P. Gandy, President

PHONE NO.: 561-997-6433 FAX NO.: 561-997-5811

BID OPENING DATE: N/A

DEPARTMENT: N/A

PLEASE IDENTIFY ALL APPLICABLE CATEGORIES

Name, Address and Telephone Number of Minority Contractor	(Check one or both Categories)		PLEASE IDENTIFY ALL APPLICABLE CATEGORIES					
	Minority Business	Small Business	Black	Hispanic	Dollar Amount Women	Caucasian	Other (Please Specify)	
Globaltech, Inc., (561) 997-6433 6001 Broken Sound Parkway NW, Suite 610, Boca Raton, FL 33487	<input type="checkbox"/>	<input checked="" type="checkbox"/>	\$ -	\$ -	\$ -	\$ 665,051.57	\$ -	
Energy Efficient Electric, Inc. 1600 Mercer Ave., Suite 6, West Palm Beach, FL 33401, (561) 655- 7211	<input type="checkbox"/>	<input checked="" type="checkbox"/>	\$ -	\$ -	\$ -	\$ 6,305.00	\$ -	
	<input type="checkbox"/>	<input type="checkbox"/>	\$ -	\$ -	\$ -	\$ -	\$ -	
	<input type="checkbox"/>	<input type="checkbox"/>	\$ -	\$ -	\$ -	\$ -	\$ -	
	<input type="checkbox"/>	<input type="checkbox"/>	\$ -	\$ -	\$ -	\$ -	\$ -	
	<input type="checkbox"/>	<input type="checkbox"/>	\$ -	\$ -	\$ -	\$ -	\$ -	
	<input type="checkbox"/>	<input type="checkbox"/>	\$ -	\$ -	\$ -	\$ -	\$ -	
PRIME CONTRACTOR TO COMPLETE:	TOTAL		\$ -	\$ -	\$ -	\$ 671,356.57	\$ -	
BID PRICE: \$ 711,566.57	Total Value of SBE Participation:		\$ 671,356.57					

NOTE:

1. The amount listed on this form for a Subcontractor must be supported by price or percentage included on Schedule 2 or a proposal from each Subcontractor listed in order to be counted toward goal attainment.
2. Firms may be certified by Palm Beach County as an SBE and/or an M/WBE. If firms are certified as both an SBE and M/WBE, please indicate the dollar amount under the appropriate category.
3. M/WBE information is being collected for tracking purposes only.

ATTACHMENT - F

SCHEDULE 2

LETTER OF INTENT TO PERFORM AS AN SBE OR M/WBE SUBCONTRACTOR

PROJECT NO.: WUD 17-050

PROJECT NAME: System Wide Safety Improvements

TO: Globaltech, Inc.
(Name of Prime Bidder)

The undersigned is certified by Palm Beach County as a(n) – (check one or more, as applicable):

Small Business Enterprise ☒ Minority Business Enterprise ☐

Black ☐ Hispanic ☐ Women ☐ Caucasian ☒ Other (Please Specify)

Date of Palm Beach County Certification: November 24, 2015

The undersigned is prepared to perform the following described work in connection with the above project
(Specify in detail, particular work items or parts thereof to be performed):

Line Item/Lot No.	Item Description	Qty / Units	Unit Price	Total Price
1	Engineering	1	N/A	\$144,974.46
2	Construction of Safety Improvements	1	N/A	\$500,179.59
3	Bonds & Insurance	1	N/A	\$19,897.52

at the following price:

\$665,051.57 (Six Hundred Sixty-Five Thousand Fifty-One Dollars and Fifty-Seven Cents.

(Subcontractor's quote)

and will enter into a formal agreement for work with you conditioned upon your execution of a contract with Palm Beach County.

If undersigned intends to sub-subcontract any portion of this subcontract to a non-certified SBE subcontractor, the amount of any such subcontract must be stated: NONE.

The undersigned subcontractor understands that the provision of this form to prime bidder does not prevent subcontractor from providing quotations to other bidders

Globaltech, Inc.
(Print Name of SBE-M/WBE Subcontractor)

By: [Signature]
(Signature)

David Schuman, Vice President of Engineering
(Print name/title of person executing on
behalf of SBE-M/WBE Subcontractor)

Date: December 7, 2017

ATTACHMENT - F

SCHEDULE 2

LETTER OF INTENT TO PERFORM AS AN SBE OR M/WBE SUBCONTRACTOR

PROJECT NO.: WUD 17-050

PROJECT NAME: System Wide Safety Improvements

TO: Globaltech, Inc.
(Name of Prime Bidder)

The undersigned is certified by Palm Beach County as a(n) – (check one or more, as applicable):

Small Business Enterprise ☒ Minority Business Enterprise ☐

Black ☐ Hispanic ☐ Women ☐ Caucasian ☒ Other (Please Specify) ☐

Date of Palm Beach County Certification: September 4, 2015

The undersigned is prepared to perform the following described work in connection with the above project
(Specify in detail, particular work items or parts thereof to be performed):

Line Item/Lot No.	Item Description	Qty / Units	Unit Price	Total Price
<u>1</u>	<u>Electrical Subcontracting</u>	<u>1</u>	<u>N/A</u>	<u>\$ 6,305.00</u>

at the following price:

\$ 6,305.00 (Six thousand three hundred five dollars and zero cents)
(Subcontractor's quote)

and will enter into a formal agreement for work with you conditioned upon your execution of a contract with Palm Beach County.

If undersigned intends to sub-subcontract any portion of this subcontract to a non-certified SBE subcontractor, the amount of any such subcontract must be stated: NONE.

The undersigned subcontractor understands that the provision of this form to prime bidder does not prevent subcontractor from providing quotations to other bidders

Energy Efficient Electric, Inc.
(Print Name of SBE-M/WBE Subcontractor)

By: 
(Signature)

Rene Viau / Vice President
(Print name/title of person executing on
behalf of SBE-M/WBE Subcontractor)

Date: December 6th, 2017

ATTACHMENT – G

Authorization Status Report Summary & Status of Authorizations

AUTHORIZATION STATUS REPORT
December 6, 2017

Auth. No.	Description	Status	Project Total Amount	Date Approved	WUD No. Assigned
	WORK AUTHORIZATIONS				
WA - 1	WTP 11 Degasifier Cleaning System	Approved	\$1,051,189.81	4/21/15	WUD 14-073
WA - 1.1	WTP 11 Degasifier and Clearwell Improvements Supplement 1	Approved	\$135,714.04	2/09/16	WUD 14-073
WA - 1.2	WTP 11 Degasifier and Clearwell Improvements Supplement 2	Approved	\$16,333.64	5/17/16	WUD 14-073
WA - 1.3	WTP 11 Degasifier and Clearwell Improvements Supplement 3	Approved	\$0.00	8/17/16	WUD 14-073
WA - 2	WRWWTF Power Improvements - Phase 1	Approved	\$598,998.02	9/01/15	WUD 14-050
WA - 2.1	WRWWTF - Alternative Power Improvements Phase 2 - Supplement 1	Approved	\$212,499.48	5/17/16	WUD 14-050
WA - 3	Improvement to the Pahokee 0.5 MG Elevated Water Storage Tank	Approved	\$504,301.41	9/01/15	WUD 15-073
WA - 3.1	Improvement to the Pahokee 0.5 MG Elevated Water Storage Tank - Supplement 1	Approved	\$59,844.24	6/22/16	WUD 15-073
WA - 3.2	Improvement to the Pahokee 0.5 MG Elevated Water Storage Tank - Supplement 2	Cancelled	\$0.00	N/A	WUD 15-073
WA - 4	WTP 9 - Permeate Flush	Approved	\$1,999,288.00	5/16/17	WUD 13-003
WA - 5	WTP 3 - Chemical Improvements	Approved	\$658,262.64	7/11/16	WUD 16-054
WA - 5.1	WTP 3 - Chemical Improvements - Supplement 1	Approved	\$67,262.18	5/15/17	WUD 16-054
WA - 6	WTP 11 - Odor Control Improvements	Approved	\$1,536,373.00	7/11/16	WUD 16-057
WA - 6.1	WTP 11 - Odor Control Improvements - Supplement 1	Approved	\$0.00	8/15/17	WUD 16-057
WA - 6.2	WTP 11 - Odor Control Improvements - Supplement 2	Approved	\$0.00	11/8/17	WUD 16-057
WA - 6.3	WTP 11- Odor Control Improvements - Supplement 3	Pending	\$0.00		WUS 16-057
WA - 7	WTP 11 - Phase II WTP Improvements	Approved	\$1,965,625.00	9/13/16	WUD 16-058
WA-7.1	WTP 11- Phase II WTP Improvements - Supplement 1	Pending	\$0.00		WUD 16-058
WA - 8	ECRWRF Reclaimed Water Facility Improvements - Phase 1	Approved	\$1,490,603.00	9/13/16	WUD 16-056
WA - 8.1	ECRWRF Reclaimed Water Facility Improvements - Phase 1 - Supplement 1	Approved	\$24,878.72	8/28/17	WUD 16-056
WA - 8.2	ECRWRF Reclaimed Water Facility Improvements - Phase 1 - Supplement 2	Pending	\$0.00		WUD 16-056
WA - 9	SRWRF Safety Improvements	Approved	\$747,650.00	9/27/16	WUD 16-055
WA - 9.1	SRWRF Safety Improvements - Supplement 1	Approved	\$0.00	11/2/17	WUD 16-055
WA - 10	ECRWRF Reclaimed Water Facility Improvements - Phase 2	Approved	\$1,247,150.76	1/10/17	WUD 17-011
WA-11	System Wide Safety Improvements	Pending	\$711,566.57		WUD 17-050
Total WAs			\$13,027,540.51		

ATTACHMENT – H

Authorization Status Report Summary of SBE/Minority Business Tracking

ATTACHMENT - H

AUTHORIZATION STATUS REPORT
OPTIMIZATION AND IMPROVEMENTS DESIGN-BUILD CONTRACT

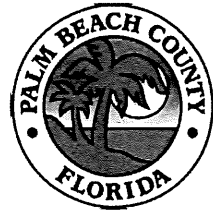
SUMMARY of SBE / M/WBE TRACKING

WUD 17-050 System Wide Safety Improvements

Total	
Current Proposal	
Value of Work Authorization	\$711,566.57
Value of SBE Minority Letter of Intent	\$671,356.57
Actual Percentages	94.35%
Signed / Approved Authorizations	
Total Value of Approved Work Authorization	\$12,315,973.94
Total Value of SBE Signed Subcontracts	\$11,862,667.74
Actual Percentages	96.32%
Signed Authorizations Plus Current Proposal	
Total Value of Approved WAs Plus Current WA Proposal	\$13,027,540.51
Total Value of SBE Subcontracts and Letters of Intent	\$12,534,024.31
Actual Percentages	96.21%
GOAL	75%

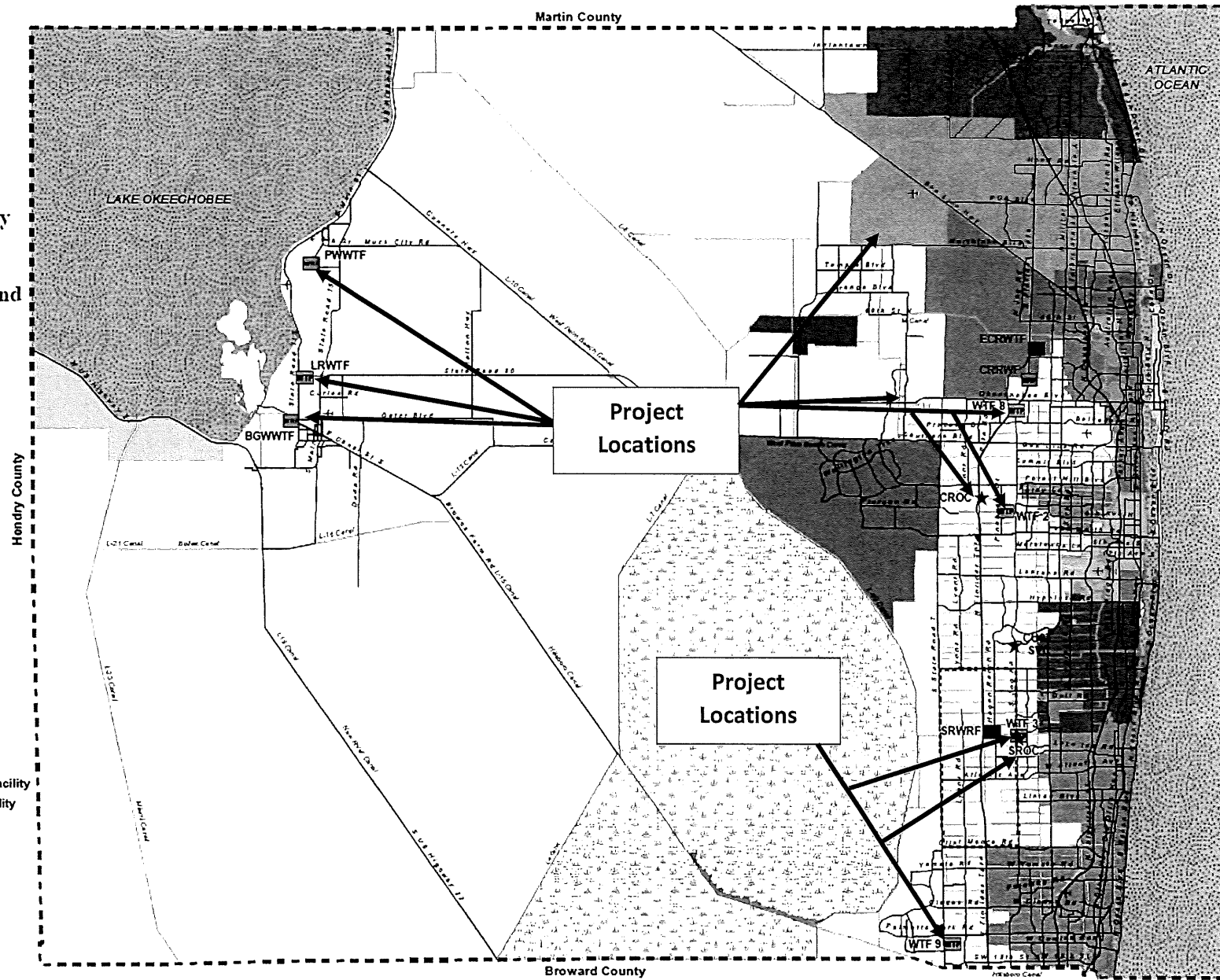
ATTACHMENT - I

Location Map



Palm Beach County
Water Utilities
Department
Service Area (SA) and
Major Facilities

- Legend
- ★ Administration
 - WTF Water Treatment Facility
 - Reclamation Facility
 - Wastewater Reclamation Facility
 - Wastewater Treatment Facility
 - Mandatory Reclaimed SA
 - - - - - Palm Beach County Limits
 - P.B.C.W.U.D. Service Area

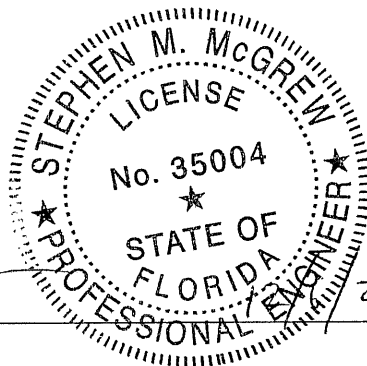
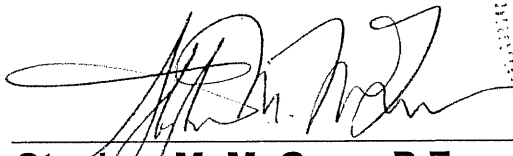


WUD 17-050 System Wide Safety Improvements

ATTACHMENT - J

Design – Build Criteria Report

**Design Build Criteria
System Wide Safety Improvements
Safety Improvements
TR09 – Project No. WUD 17-050**



2017

**Stephen M. McGrew, P.E.,
Palm Beach County Water Utilities
8100 Forest Hill Blvd.
West Palm Beach, FL 33413**

Date

**Design Build Criteria
System Wide Safety Improvements
Safety Improvements
TR09 – Project No. WUD 17-050**

PART 1 GENERAL REQUIREMENTS

1.1 Overview Information:

1.1.1. Locations:

- a. Belle Glade Waste Water Treatment Plant, 2055 W Canal St S Belle Glade FL 33430, PCN 04-36-43-36-01-003-0010.
- b. Central Region Operations Center (CROC), 8100 Forest Hill Blvd West Palm Beach FL 33413, PCN 00-42-43-27-05-015-0490.
- c. Northern Region Operations Center (NROC), 12500 40th St Royal Palm Beach 33411, PCN 72-41-43-15-12-001-0000.
- d. Pahokee Waste Water Treatment Plant, 1001 Rim Canal Rd Pahokee FL 33476, PCN 48-37-42-19-00-000-7040.
- e. Pump Station 9S, 22530 SW 65th Ave Boca Raton FL 33428, PCN 00-42-43-27-05-081-0380.
- f. Mecca Pump Station, 10150 Seminole Pratt Whitney Rd. West Palm Beach FL 33412, PCN 00-41-42-05-01-001-0020.
- g. Southern Region Operations Center (SROC), 13026 Jog Road Delray Beach FL 33446, PCN 00-42-46-10-00-000-1020.
- h. Water Treatment Plant 2, 5956 Pinehurst Dr. West Palm Beach FL 33413, PCN 00-42-43-27-05-021-0361.
- i. Water Treatment Plant 8, 1500 N Jog Rd West Palm Beach FL 33417, PCN 00-42-43-27-05-004-0053.
- j. Water Treatment Plant 9, 22530 SW 65th Ave Boca Raton FL 33428, PCN 00-42-43-27-05-081-0380.
- k. Water Treatment Plant 11, 39700 Hooker Hwy Belle Glade FL 33430, PCN 00-37-43-19-00-000-3060.

1.1.2. Survey information concerning the site: Refer to Section 1.8 Site elevations, Lines, and Grades for Design-Build Entity requirements.

1.1.3. Interior space requirements: This project is related to equipment in existing buildings.

1.1.4. Material quality standards: Adhere to current version of Palm Beach County Water Utility Department (PBCWUD) Minimum Design Standards and Approved Material List.

- 1.1.5. Schematic layouts: none
- 1.1.6. Cost or budget estimates: \$900,000.
- 1.1.7. Design and construction milestones:
 - 1.1.7.1. 60% Design Completion 90 days after receipt of executed Work Authorization and notice to proceed with design. Procurement of large lead time equipment shall start after 60% design.
 - 1.1.7.2. 100% Design Completion 180 days after receipt of executed Work Authorization and notice to proceed with design.
 - 1.1.7.3. Substantial Construction Completion 365 Calendar Days after receipt of executed Work Authorization and notice to proceed with construction.
 - 1.1.7.4. Final Construction Completion 60 Calendar Days after Substantial Construction Completion.
 - 1.1.7.5. Liquidated damages for design and construction will apply as follows:
 - 1) \$500 per day past substantial completion date.
 - 2) \$250 per day past final completion date.
- 1.1.8. The following items must be complete (at a minimum) to achieve substantial completion:
 - 1.1.8.1. Existing systems in place and operating as intended.
 - 1.1.8.2. Commissioning and Testing of all new equipment completed.
 - 1.1.8.3. O&M Manuals have been delivered to the Owner and equipment training is completed.
 - 1.1.8.4. PLC programming work complete (PBC WUD will perform HMI SCADA screens on IFIX).
 - 1.1.8.5. Release of applicable permits required to operate the facility.
- 1.1.9. Site development requirements: Not Applicable.
- 1.1.10. Provisions for utilities: Refer to Sections 1.3 Utilities and 1.7 Underground Utilities for Design-Build Entity requirements.
- 1.1.11. Storm water retention and disposal: Provide siltation barriers for all existing storm drainage catch basins impacted by construction activities.

- 1.1.12. Parking requirements: Only current Palm Beach County security badge holders can park inside secure facilities. Do not disrupt traffic flow for chemical deliveries. Project material deliveries shall be between 7:00 AM to 3:00 PM Monday through Friday excluding public holidays.
- 1.1.13. Staging Area: Coordination of required staging areas shall be conducted directly with the Owner.
- 1.1.14. Coordination: Design-Build Entity will need to coordinate its work activities with the Owner and other construction contractors performing work activities at this facility.
- 1.1.15. A shutdown plan, developed in conjunction with the OWNER must be prepared by the Design-Build Entity for any planned plant or process shutdowns shall be submitted to the Owner for review and approval at least 30 days prior to commencing any of these work activities.
- 1.1.16. Reference Documents: The following documents shall be used to develop signed and sealed Construction Documents.
 - 1.1.14.1. Palm Beach County Water Utility Department (PBCWUD) General Electrical Design Requirements
 - 1.1.14.2. Palm Beach County Water Utility Department (PBCWUD) Minimum Design Standards
 - 1.1.14.3. Palm Beach County Water Utility Department (PBCWUD) Approved Materials List
 - 1.1.14.4. Palm Beach County policy and procedures manual CW-P-070 (Fall Protection Policy)
 - 1.1.14.5. Building Code (most recent edition)
 - 1.1.14.6. Applicable OSHA and NEC Standards

1.2 Summary of Work

- 1.2.1 The proposed work to be performed by the Design-Build Entity generally includes furnishing and installing materials, labor, equipment and expertise including all necessary tools, supervision, and services required to design, permit, purchase, demolish, construct, train, test, and startup the proposed work to: make general safety improvements to handrails, access platforms, stairs, fall protection, concrete repairs, equipment mounting and safety related signage throughout the facilities listed in paragraph 1.1.1 to meet or exceed County PPM CW-P-070, applicable building code, OSHA and NEC standards and guidelines and other commonly accepted industry standards. The Design-Build Criteria for the proposed work to be performed is further

described below. Photographs and sketches referenced below are can be found in Attachment 1 of this Design Build Criteria document.

1.3 Design-Build Criteria

The following design criteria shall be used:

- 1.3.1. Prepare an inventory of safety improvements required at various facilities, other than what is listed below. Each item on the inventory shall have a description of the item, applicable governing code/standard/guideline, recommended remedial action and budgetary estimate. This item is merely an inventory of additional recommendations and does not consist of corrective action. The safety inventory will focus on the following areas; grating, handrail, access platforms, fall protection, safety signage and safe working areas.
- 1.3.2. Belle Glade WWTP
 - a. Install safety latches on hooks of maintenance building hoist equipment (Photograph 1.3.3.a).
 - b. Provide and install sealed generator batteries for back-up generator. (Photographs 1.3.3.b).
 - c. Use yellow paint or caution tape to call attention to the tripping hazard near the injection well pumps. (Photographs 1.3.3.c).
 - d. Replace stair railing of Aeration Basin 2, clarifiers 3 & 4, and headworks so that it is the correct height. (Note OSHA has proposed that new installations have a handrail height of 42 inches above the tread).
 - e. Determine if all the handrails on Clarifier #3 perimeter walkway are suitable to resist a 200 lb. force on the top rail and make repairs to concrete or railing systems that are required to comply with the calculations.
 - f. Install a PVC pipe riser with yellow tape into the jib crane base mounts to call attention to the tripping hazards on the digester walkway. (Photographs 1.3.3.d).
 - g. Relocate Security Camera termination box on the digester walkway rail so that it does not interfere with the rails.
 - h. Install fasteners to the head works grating. (Photographs 1.3.3.e).
 - i. Install guard bars to protect the unguarded opening in the head works stairway. (Photographs 1.3.3.f).
- 1.3.3. CROC

- a. Provide and install sealed generator batteries for back-up generator or provide eyewash stations.
 - b. Paint piping and conduits of emergency generator room to identify tripping hazards.
 - c. Replace missing eyewash dust overs on meter repair shop eye wash stations.
- 1.3.4. NROC
- a. Install new insulating rubber mats around switchgear to protect those who may be exposed to energized parts. (Photographs 1.3.5.a).
 - b. Replace grating in outdoor storage yard where damaged. (Photographs 1.3.5.b).
- 1.3.5. Pahokee
- a. Replace missing grating clips on aeration basin 1.
 - b. Install self-closing gates on all guard rail openings of aeration basin 1.
 - c. Install self-closing gates on all guard rail openings of the secondary and primary clarifiers.
 - d. Extend bottom "step" of the secondary and primary clarifiers walkway horizontally so that it is at least 30 inches in length measured in the direction of travel and meets the definition of a platform landing.
 - e. Install a self-closing gate at the access to the lower platform of the walker plant.
 - f. Install (4) ring buoys with at least 90 ft. of line so that they are readily available for emergency rescue situations plant wide.
 - g. Relocate effluent pump sample box on the secondary clarifier walkway rail so that it does not interfere with the rails.
- 1.3.6. Pump Station 9S
- a. Provide and install a Class B fire extinguisher within 50 ft. of the diesel fuel storage tank.
 - b. Replace portable ladder in pump room with a fixed permanent ladder.
- 1.3.7. Mecca Pump Station
- a. Install high visibility crossovers for piping and conduits of emergency generator to identify tripping hazards. (Photographs 1.3.11.a).
- 1.3.8. Water Treatment Plant 2
- a. Install self-closing gates on all lime silos.

- b. Relocate electrical disconnect mounted on the top rail of precipitator #1. (Photographs 1.3.12.a).
- 1.3.9. SROC
- a. Install a Class B fire extinguisher within 50 ft. of the propane fuel storage in warehouse.
 - b. Install cover over hole rear chemical containment area of deep well.
- 1.3.10. Water Treatment Plant 8
- a. Provide and install sealed generator batteries for back-up generator or install eyewash stations.
 - b. Replace missing dust covers on ferric chloride eyewash stations. (Photographs 1.3.15.a).
 - c. Paint top and bottom treads of sand wash water recovery stairs to call attention to the non-uniform treads. (Photographs 1.3.15.b).
 - d. Install toe-kicks on the sludge thickener platforms.
 - e. Install self-closing gates on ion-exchange access ladders. (Photographs 1.3.15.c).
 - f. Install traction tape on nosings of the stairs in the filter gallery. (Photographs 1.3.15.d).
 - g. Install an emergency exit sign meeting OSHA and local fire codes on high service pump room exit door. (Photographs 1.3.15.e).
- 1.3.11. Water Treatment Plant 9
- a. Reposition toeboards on sand strainer access platform so that there is no more than 1/4" clearance from floor level. (Photographs 1.3.16.a).
 - b. Install foam rubber padding, paint top of doorway frame yellow, and install a sign saying "Danger, Low Clearance" on corrosion inhibitor exit door. (Photographs 1.3.16.b).
 - c. Install bollards on for truck charging station in the storage building. (Photographs 1.3.16.c).
 - d. Reposition toe boards on degasifier access platform so that there is no more than 1/4" clearance from floor level. (Photographs 1.3.16.d).
 - e. Repair railing on degasifier access stairway so that the top rail can withstand a 200lb force in any direction. (Photographs 1.3.16.e).
- 1.3.12. Water Treatment Plant 11
- a. Reposition toeboards on clearwell access area so that there is no more than 1/4" clearance from floor level. (Photographs 1.3.17.a).
 - b. Install high visibility crossovers for piping and conduits of emergency generator to identify tripping hazards. (Photographs 1.3.17.a).

- 1.3.13. Handrail shall be three-rail complete with kick plate and be OSHA compliant. Handrail materials shall be compatible for the intended service environment. Pop rivets are not allowed for handrail connections. Use expansion joints in kick plate and handrail to accommodate anticipated thermal expansion and contraction.
- 1.3.14. Materials of construction for installed safety devices shall be compatible for the intended service environment.
- 1.3.15. Emergency showers and eyewash stations to be Speakman SE-626-316 SS. Emergency showers and eyewash stations shall be compatible with future installation of a flow switch for local and/or remote alarm(s). Each emergency shower and eyewash station installed shall be complete with 120/110 VAC supply installed adjacent to the emergency shower and eyewash station terminating in a junction box.
- 1.3.16. Wind Loading: System components shall be designed to meet or exceed the latest version of the Florida Building Code (FBC).
- 1.3.17. Location and routing of proposed equipment and facilities shall take into consideration the future facilities. Infrastructure to be constructed by the Design-Build Entity shall not interfere with these future planned facilities.

1.5 Permits and Fees

It shall be the Design-Build Entity's responsibility to secure all permits required to complete the work under this contract. The Design-Build Entity shall be responsible for all inspections and requirements to close-out the completed permits. The Owner shall pay all permit fees. The Design-Build Entity shall be responsible for all Business tax fees for work within Palm Beach County or Municipalities. The Design-Build Entity shall notify the County of the permit fees and allow three (3) weeks for a check for the permit fee(s) to be issued to the Design-Build Entity.

1.6 Utility Services

The Design-Build Entity shall obtain the necessary utility services by making application for the services and paying such fees and charges required by the utility companies, including construction water meters, if required.

1.7 Tests

The Design-Build Entity shall pay for all required tests. Labor, equipment and consumables for tests and testing shall be the responsibility of the Design-Build Entity. Water required for pressure/leakage tests shall be furnished by the Owner.

1.8 Site elevations, Lines, and Grades

Where the dimensions and locations of existing pipe and utilities are of critical importance in the installation or connection of proposed work, the Design-Build Entity shall verify such dimensions and locations in the field prior to the fabrication of any materials or equipment, which is dependent on the correctness of such information. The Design-Build Entity shall employ a land surveyor registered in the State of Florida. The Design-Build Entity shall locate and protect survey control and reference points. The Design-Build Entity shall be responsible to establish elevations, lines, and levels, utilizing recognized engineering survey practices. The Design-Build Entity shall provide all labor, instruments and stakes, templates, and other materials necessary for marking and maintaining all lines and grades. The Design-Build Entity shall submit a copy of as-built drawings signed/sealed by the land surveyor that the elevations and locations of the work in Florida State plane coordinates are in conformance with the contract documents and will reference geodetic datum NAD83. All elevations shall refer to North American Vertical Datum of 1988 (NAVD88) and include conversion from National Geodetic Vertical Datum of 1929 (NGVD29) as required.

1.9 Work Area

The Design-Build Entity shall confine his activities to the site(s) designated by Owner for the work or staging areas for materials storage. All debris, materials, pipe, and miscellaneous waste products from the proposed work shall be removed from the Project Site as soon as possible. They shall be disposed of in accordance with applicable federal, state, and local regulations. The Design-Build Entity shall be responsible for determining these regulations and shall bear all costs or retain any profit associated with disposal of these items.

The Design-Build Entity shall protect their work. When required to complete the work, the Design-Build Entity shall maintain of suitable lighting to maintain a safe working environment. Work performed outside of the established working hours requires the permission from the owner. The Design-Build Entity shall also comply with all laws or ordinances covering the protection of such work and the safety measures to be employed therein. The Design-Build Entity shall carry out his work so as not to deny access to private property. All utility access manholes, valves, and fire hydrants shall be kept accessible at all times. No trenches or holes near walkways, in roadways or road shoulders are to be left open during night hours without the permission of the Owner, and proper protection. The Design-Build Entity is responsible for the security of their work, equipment, and material at all times.

1.10 Underground Utilities

All water pipes, storm drains, force mains, gas or other pipe, telephone or power cables or conduits, and all other obstructions, whether or not shown, shall be temporarily removed from or supported across pipeline excavations. Before disconnecting any pipes or cables, the Design-Build Entity shall obtain permission from the Owner, or shall make suitable arrangements for their disconnection by the Owner. The Design-Build Entity shall be responsible for any damage to any such pipes, conduits or cables, and shall restore them to service promptly as soon as the work has progressed past the point involved. Approximate locations of known water, sanitary, drainage, power, and telephone installations along route of new pipelines or in vicinity of the work are shown on as-built drawings, but must be verified in the field by the Design-Build Entity. The Design-Build Entity shall uncover these pipes, ducts, cables, and other buried infrastructure, carefully, by hand, to verify location and depth of cover. Any discrepancies or differences found shall be brought to the attention of the Owner in order that necessary changes may be made. Where fences, walls, or other man made obstructions exist illegally in the public right-of-way, the Owner will have them removed upon adequate prior notice by the Design-Build Entity.

The Design-Build Entity shall notify "SUNSHINE STATE" at 1 (800)-432 4770 at least forty-eight (48) hours prior to performing any excavating activities. Evidence of such notice shall be furnished to the Owner prior to excavating. Design-Build Entity is responsible for all utility locates within the project site and will provide an independent locate service for all PBC WUD buried pipelines and electrical.

Design of all underground water, wastewater, and reclaimed water shall comply with the Palm Beach County Water Utilities Minimum Engineering Standards (latest edition), General Electrical Design Requirements, Palm Beach County Wellfield Protection Ordinance, Environmental Control Rule 1 (wastewater), Environmental Control Rule II (water), and applicable provisions of the Florida Administrative Code. Design submittal requirements shall be in accordance with the Palm Beach County Water Utilities Design Manual.

1.11 Maintenance of Operations

The Design-Build Entity's activities or any partial plant shutdowns shall minimize disruption to the treatment facilities and conveyance systems. The Design-Build Entity shall schedule and perform the proposed work in a manner such that the Owner can keep the existing treatment and conveyance facilities in continuous dependable operation. Operation of existing valves, gates and equipment shall be performed by Owner.

1.12 Plant Shutdowns

Owner shall approve all shutdowns. If, in the opinion of Owner, a shutdown is not required in order for the Design-Build Entity to perform the proposed work, the Design-Build Entity shall use alternative methods to accomplish the work. All

shutdowns shall be coordinated with and scheduled at times suitable to Owner. Owner shall be provided a minimum of 14 calendar days' notice of Design-Build Entity's need for any system or partial system shutdown. Additional notice may be required for certain shutdowns.

A shutdown work plan shall be prepared by the Design-Build Entity and submitted to the Owner for review 7 calendar days prior to the start of the shutdown event. The shutdown work plan shall include descriptions of the following at a minimum:

- Facilities to be shutdown,
- Duration of shutdown,
- Work to be conducted during shutdown (work sequence and activity descriptions),
- Special requirements and constraints (night work, temporary works, confined space etc.),
- Startup sequencing for facilities that have been shutdown.

1.13 Project Coordination

Design-Build Entity shall be solely responsible for coordination of all of the proposed work. He shall supervise, direct and cooperate fully with all sub-contractors, manufacturers, fabricators, suppliers, distributors, installers, testing agencies, and all others whose services, materials or equipment are required to ensure completion of the proposed work within the contract time.

Design-Build Entity shall cooperate with and coordinate his work with the work of any other contractor, utility service company, or Owner's employees performing additional work related to the project at the site. Design-Build Entity shall not be responsible for damage done by other contractors on site who are not under the Design-Build Entity's jurisdiction except where such loss or damage is caused by the negligence of Design-Build Entity. Design-Build Entity shall also coordinate his work with the work of others to assure compliance with schedules.

Design-Build Entity shall attend and participate in all project coordination or progress meetings and report on the progress of all work and compliance with schedules. The Design-Build Entity shall provide and maintain representative of his organization at the site at all time during performance of the work who may be reached at any time while work is in progress.

1.14 Project CPM Schedule

Design-Build Entity must prepare and maintain a project schedule using Primavera P6 software (P6) and the Critical Path Method (CPM) of scheduling. The following outlines the minimum schedule requirements. The schedule must be updated each month at a minimum and will be reviewed by the Owner to determine design and construction progress.

1.14.1 Design Schedules

The Design-Build Entity shall develop a detailed design schedule reflecting work elements at a package level by discipline. An estimate of the construction duration and staging be developed and linkages to other work packages will be clearly indicated. It will be updated at least monthly and at a minimum, milestones shall be depicted for:

- Notice-to-Proceed
- 60 percent submittal
- Issue for Construction submittal
- Each required permitting submittal

1.14.2 Construction Schedules

The basics of the construction schedule submittals are outlined below.

Baseline Requirement: The Construction Schedule shall use P6 and follow the Critical Path Method of scheduling, and shall reflect how the Design-Build Entity will build the project. The schedule shall show the duration of each activity so that the Project Manager can accurately monitor the progress of the work. Schedule activities must be consistent with work items listed in the Schedule of Values and be cost-loaded such that schedule updates provide an independent check on the amounts shown in the Design-Build Entity's monthly progress payment request.

Additionally, the schedule will address the logic of construction activities, including any work constraints due to:

- Operational or permit requirements
- Special requirements of the technical specifications
- Standard construction practices
- Safety of the work place
- Manpower loading and availability
- Key Resource or Materials quantity loading

Initial Construction Schedule Submittals: The Design-Build Entity shall be required to submit two schedule documents at the pre-construction conference. These are:

- The Plan of Operation for the initial 30-day period of the contract
- An initial draft of the P6 Baseline CPM schedule

The Project Managers for the Owner and the Design-Build Entity shall meet to review and discuss the 30-day plan of operation and Baseline CPM schedule shortly after submittal to the Owner's Project Manager. The

Owner Project Manager's review and comment on the schedules will be limited to conformance with the sequencing and milestone requirements in the Contract Documents. The Design-Build Entity shall be required to make corrections to the schedules necessary to comply with the requirements and adjust the schedules to incorporate any missing information requested by the Owner's Project Manager. Key elements of the schedule reviews will include:

- Production rates for reasonableness
- Appropriate level of detail
- Satisfaction of contractual constraints
- Accurately reflecting submittals, procurements, training and start-up tasks
- Conforms with approved schedule of values
- Complies with industry scheduling practices
- Schedule risk and critical path discussion

The Plan of Operation depicts accomplishment of the Contractor early execution activities (e.g. mobilization, permit acquisition, submittals necessary for early material and equipment procurement, submittals necessary for long lead equipment procurement, CPM submittals, initial site work and other submittals and activities required in the first 30 days).

Construction Schedule: The P6 Baseline schedule will be included in all subsequent schedule updates and will be the basis for measuring progress and performance. Schedule updates and other reporting requirements will be detailed in the schedule specifications. The construction schedule will provide information on major construction milestones and allow for quantity tracking. Related interface activities pertinent to facilities start-up and commissioning will also be shown. The associated Schedule of Values will delineate information related to quantity unit rate reporting, labor wage rates, bulk materials pricing and other costing/pricing information as requested. Specific schedules (e.g., 90 days to Completion, 4-week look-ahead) shall be provided.

The Project Manager's review of the schedule is to ensure basic compliance with requirements and reasonableness of plan, and does not constitute an approval of the approach or direction relative to means and methods of construction.

The Contractor's Progress Schedule, at a minimum, shall identify significant interim milestones that relate to the Project's Summary Schedule, in addition to:

- Notice-to-Proceed

- Mobilization
- Substantial Completion
- Commissioning Startup and Performance Testing
- Final Completion

1.14.3 Schedule Updates

On a regular basis, and not less than monthly, summary schedules should be updated to track and monitor progress of activities, completion of contract deliverables, interim milestone achievement, start and completion dates, and other related aspects of scheduling. Additionally, any approved changes to the scope of work will be reflected in the schedules.

Progress is monitored by comparing monthly work accomplished against both the baseline plan, and the progress of work from the prior month. Starting with the first month of status updating, progress for all projects will be measured against the baseline for start and finish dates, scheduled progress and cash flow, along with analysis for changes in logic and activities durations.

PART 2 ACCEPTANCE TEST REQUIREMENTS

The Design-Build Entity shall be responsible for coordinating and completing all commissioning activities including but not limited to the overall system startup and testing. The Design-Build Entity shall coordinate with the Owner and is responsible for providing all labor, equipment, and materials for conducting commissioning activities including but not limited to individual systems startup and testing.

2.1 Starting and Placing Equipment in Operation

Design-Build Entity shall initially start-up and place all installed equipment into successful operation according to manufacturer's written instructions and as instructed by manufacturer's field representative. Design-Build Entity shall provide all material, labor, tools, equipment, chemicals, lubricants, and expendables required to complete start-up. No system or subsystem shall be started up for continuous operation unless all components of that system or subsystem, including instrumentation, have been tested and proven to be operable as required for proposed work.

General system startup activities are anticipated to include but not be limited to cleaning; removing temporary protective coatings; flushing and replacing greases and lubricants as required by manufacturers; lubrication; checking shaft and coupling alignments and resetting where required; checking and setting motor, pump and other equipment rotation, safety interlocks, and belt tensions; checking and correcting if necessary leveling plates, grout, bearing plates, anchor bolts, fasteners and alignment of piping which may put stress on equipment; performing

any adjustments; providing chemicals and lubricants and all other required operating fluids; providing fuel, electricity, water, filters; and, other expendables required for startup of equipment.

Owner shall provide sufficient personnel to assist Design-Build Entity in the start-up, but the prime responsibility for proper mechanical operation shall belong to Design-Build Entity. Manufacturer's representatives shall be present during initial start-up and operation. Owner shall assume responsibility for operation of the equipment upon completion of start-up and placing equipment in operation.

2.2 Minimum Start-Up Requirements

- 2.2.1. The Design-Build Entity shall perform the following engine generator pre-start up checklist in accordance with manufacturer guidelines: Generator set equipment installation/mounting, engine oil level, engine coolant system level, engine radiator shroud installation, day tank fuel level (if applicable), fuel system installation, mechanical and electrical connections, battery installation, battery voltage, battery charger operations and installation, engine sensors and controls, all equipment interface interconnects, interface wiring with new main switchboard, remote annunciation/communication interface wiring, exhaust system installation and connections and all other fluids. Checklist is not limited to items listed above, others shall be performed as required by manufacturer.
- 2.2.2. The Design-Build Entity shall check each electrical control circuit to assure that operation complies with regulations and requirements of proposed work and to provide desired performance.
- 2.2.3. The Design-Build Entity shall inspect for cleanliness, and clean and remove all foreign materials, verify alignment, replace defective bearings and those, which run rough or noisy, and grease as necessary in accordance with manufacturer's recommendations.
- 2.2.4. After system has been placed in operation the Design-Build Entity shall clean strainers, drives, pockets, orifices, valve seats and headers in fluid system to assure freedom from foreign materials. He shall remove rust, scale and foreign materials from equipment and renew defaced surfaces. All visible leakage shall be repaired.
- 2.2.5. The Design-Build Entity shall vent gasses trapped in any part of systems and verify that liquids are drained from all parts of gas or air systems.
- 2.2.6. The Design-Build Entity shall adjust tension in V-belt drives, and adjust varipitch sheaves and drives for proper equipment speed,

- adjust drives for alignment of sheaves and V-belts, and clean and remove foreign materials before starting operation.
- 2.2.7. The Design-Build Entity shall check each motor for comparison to amperage nameplate value and correct conditions which produce excessive current flow and exist due to equipment malfunction.
 - 2.2.8. The Design-Build Entity shall check glands and seals for cleanliness and adjustment before running pump; inspect shaft sleeves for scoring; inspect mechanical faces, chambers, and seal rings, and replace if defective; and verify that piping system is free of dirt and scale before circulating liquid through the pump.
 - 2.2.9. The Design-Build Entity shall inspect both hand and automatic control valves, clean bonnets and stems; tighten packing glands to assure no leakage, but permit valve stems to operate without galling; replace packing on any valve that continues to leak; remove and repair bonnets that leak; and coat packing gland threads and valve stems with a surface preparation of "Moly-Cote" or "Fel-Pro" after cleaning. The Design-Build Entity shall verify that control valve seats are free from foreign material and are properly positioned for intended service.
 - 2.2.10. System start-up and operational testing procedures shall not be limited to those specified herein. Others shall be performed as required to prove that the system functions and performs as described and required by this Design-Build Criteria Package.

2.3. Equipment Startup and Performance Testing

- 2.3.1. The Design-Build Entity shall be responsible for performance testing during startup of all mechanical, electrical equipment and systems.
- 2.3.2. Provide a testing plan setting forth the sequence in which all testing work required for the proposed upgrades will be implemented.
- 2.3.3. Documentation of the results of all equipment and system tests shall be submitted to the Owner. Provide calibration tags for all Design-Build Entity furnished and installed equipment certifying the date of calibration.
- 2.3.4. The Design-Build Entity shall also be responsible for providing a Certificate of Proper Installation (COPI) for equipment from the

applicable equipment supplier/manufacturer. COPIs will be provided to the Owner or the Owner's Representative prior to commencing any commissioning, startup and testing activities. COPIs will be included in the O&M Manual.

2.4. Instruction of Operations and Maintenance Personnel

Training shall be provided prior to turning over the operation of the new generator, main switchboard and A/C units to the Owner. No system, unit process or any piece of equipment shall be started up for continuous operation without the approved operation and maintenance manuals being turned over to the Owner.

Design-Build Entity shall provide services of manufacturer's operation and maintenance training specialists to instruct Owner's personnel in recommended operation and maintenance procedures for products and equipment. Manufacturer's representative shall provide a combination of classroom and field training activities. All training shall be conducted at the site, unless otherwise stated in the Specifications. Owner reserves the right to videotape training sessions.

Training of Owner's personnel shall commence only after acceptable preliminary operation and maintenance data has been provided and, equipment has been started and placed into operation, equipment and system startup and performance testing has been completed. The Design-Build Entity shall provide written documentation and checklists outlining important training items, and provide spreadsheets needed to document new processes for input by operators.

PART 3 TECHNICAL REQUIREMENTS

3.1. Plant Site / Civil Requirements

The Design-Build Entity shall be responsible for becoming completely familiar with the site conditions in connection with developing the final site plan including all site investigations. If analysis of subsurface conditions, geotechnical conditions, and soil borings are required to complete the work, it shall be the responsibility of the Design-Build Entity to perform this work.

3.2 Demolitions and Equipment Removal (See Summary of Work)

Design-Build Entity shall be responsible for all labor, materials, equipment, and incidentals required for demolitions and pay for all disposal fees. Design-Build Entity shall not start removals without the permission of the Owner. At least 48 hours prior to commencement of any demolition activities, the Design-Build Entity shall advise the Owner, in writing, of the proposed schedule.

Design-Build Entity shall carry out operations so as to avoid interference with Owner's operations and work in the existing facilities. Design-Build Entity shall perform all demolition and removal work so as not to interfere with the use and safe passage to and from adjacent structures and shall prevent damage or injury to structures, occupants, and adjacent features, which might result from falling debris or other causes. Design-Build Entity shall erect and maintain barriers, lights, sidewalk sheds, and other necessary protective devices. The Design-Build Entity is responsible for repairing damage to the Owner's property or facilities, caused by the Design-Build Entity's activities.

Design-Build Entity shall not bring explosives on site or use explosives without written consent of authorities having jurisdiction. Design-Build Entity shall use water sprinkling, temporary enclosures, and other suitable methods for dust control within the lowest practical level in compliance with governing regulations.

Surfaces of walls, floors, ceilings, or other areas, which are exposed by any of the removals, and which will remain as architecturally finished surfaces shall be repaired and re-finished by Design-Build Entity with the same or matching materials as the existing adjacent surface. Adjacent structures, facilities, and improvements impacted by dust, dirt, and debris caused by demolition operations shall be cleaned and returned to pre-construction conditions.

Where piping that is to be removed passes through existing walls, the piping shall be cut off and properly capped on each side of the wall. When underground piping is to be altered or removed, the remaining piping shall be properly capped. Abandoned underground piping may be left in place and grouted under major structures/roadways, unless it interferes with the work. Any changes to potable water piping work shall be made in conformance with all applicable codes and under the same requirements as other underground piping.

All materials and equipment removed from existing work shall become the property of Design-Build Entity, except for those which Owner has identified and marked for their use. All materials and equipment marked by the Owner for its use shall be carefully removed by Design-Build Entity so as not to be damaged, and shall be cleaned and stored in a protected location specified by the Owner. Design-Build Entity shall dispose of all demolition materials, equipment, debris, and all other items not marked by the Owner, off the work site and in conformance with all existing applicable laws and regulations. Upon completion of the work, all materials, equipment, waste, and debris of every sort shall be removed and premises shall be left, clean, neat, and orderly.

3.3 Trenching, Excavation and Backfill

The Design Build Entity will adhere to all OSHA and PBC regulations when performing all excavating activities, including but not limited to cabling system and

generator pad. Written documentation shall be provided indicating compliance with Florida Trench Safety Act.

All remaining spoil piles shall be removed from site.

Design-Build Entity shall furnish all labor, materials, equipment and incidentals required to perform all excavating, backfilling and disposing of earth materials required for the purpose of constructing structures, conduits, pipelines, grading, and other facilities required to complete the work in every respect.

Design-Build Entity shall be solely responsible for designing, installing, operating and maintaining whatever system is required to satisfactorily accomplish all necessary sheeting, bracing, protection, underpinning and dewatering.

Design-Build Entity shall be responsible for all field test data and shall submit to Owner copies of all test reports from his testing laboratory.

Design-Build Entity shall perform excavation work in compliance with applicable requirements of governing authorities having jurisdiction. Design-Build Entity shall obtain all necessary permits including but not limited to work in roads and rights of way. Design-Build Entity shall also obtain permits as required by local, state and federal agencies for discharging water from excavations.

The use of explosives will not be permitted.

Data on subsurface conditions will be made available by Owner for the convenience of Design-Build Entity. The reports are not intended as a representation or warranty of continuity of such conditions between soil borings. Owner will not be responsible for interpretations or conclusions drawn by Design-Build Entity. Additional test borings and other exploratory operations may be made by Design-Build Entity at no cost to Owner.

Drawings from existing records showing certain surface and underground structures adjacent to the work will be made available by Owner. It is not guaranteed to be correct or complete and is shown for the convenience of the Design-Build Entity. Design-Build Entity shall explore ahead of the required excavation to determine the exact location of all structures. They shall be supported and protected from damage by the Design-Build Entity. If they are broken or damaged, they shall be restored immediately by the Design-Build Entity at its expense.

Design-Build Entity shall locate existing underground utilities in the areas of work. If utilities are to remain in place, Design-Build Entity shall provide adequate means of protection during earthwork operations. If uncharted or incorrectly charted piping

or other utilities are encountered during excavation, Design-Build Entity shall consult the Owner immediately for directions as to procedure. Design-Build Entity shall cooperate with Owner and utility companies in keeping respective services and facilities in operation. Design-Build Entity shall repair damaged utilities to the satisfaction of Owner.

Design-Build Entity shall not interrupt existing utilities serving facilities occupied and used by Owner or others, except when permitted in writing by Owner and then only after acceptable temporary utility services have been provided.

3.4 Cast-In-Place Concrete

Where required for wall penetrations, pipe supports, and other repair or replacements required to complete the work, the Design-Build Entity shall be responsible for providing concrete consisting of portland cement, fine and coarse aggregate, water, and approved admixtures; then combined, mixed, transported, placed, finished and cured to accommodate the proposed work. All admixtures, curing compounds, and related products used in concrete or the curing and repair of concrete, which can contact potable water, shall be certified as conforming to the requirements of ANSI/NSF 61 for contact with potable water when in the finished concrete.

3.5 Miscellaneous Metals

All metals shall be non-ferrous except of steel reinforcing and as approved by the Owner. All bolt, nuts and washers shall be 316 stainless steel and the nuts shall be coated to prevent galling. All anchor bolts shall be 316 stainless steel. Stanchions, pipe supports, equipment bases, braces, unistrut and straps shall be 316 stainless steel or aluminum. Dissimilar metal protection shall be provided through use of appropriate dielectric materials where required.

3.6 Painting and Coating

Design-Build Entity shall provide all labor, materials, tools, equipment, and incidentals as required to furnish and apply coating systems for surface preparation and coating of all new and existing interior and exterior surfaces identified as part of the work. Manufacturer's recommendations including surface preparation, cure times, application thickness, application method, applicability of selected paintings and coatings for their intended use shall be strictly followed. Items to be coated shall include but not be limited to walls, floors, piping, equipment, supports and other pertinent accessory items or area damaged by construction activity.

Owner's approval shall be required for all components of the surface preparation, selection of colors, and paint system application before the start of proposed work.

Color-coding of pipelines, valves, equipment and ducts shall comply with applicable standards of ANSI A13.1, ANSI Z535.1, and 40 CFR 1910.144. Finish coats of paint for pipelines and equipment shall be coded in basic colors. Colors shall be brilliant, distinctive shades matching safety and pipeline colors per ANSI Z535.1, Recommended Standards for Water Works; Recommended Standards for Wastewater Facilities, color specifications for safety colors and other primary colors.

Provide pipe labels with flow arrows at each change in direction, tees (all sides) and every 20 feet of straight run.

3.7 Valves and Piping Requirements

The Design-Build Entity is responsible for the final sizing and selection of all equipment, pipe, supports, and associated materials. The Design-Build Entity shall conform to the current version of the Palm Beach County Water Utilities Minimum Design Standards and Approved Materials List.

At a minimum, the following information shall be submitted to the Owner for review and approval prior to installation:

- Detailed drawings and manufacturer's data for valves, pipe, fittings, gaskets, harnessing, supports, bolt kits, couplings, and all other pertinent materials required to complete the work.;
- Certificates of compliance with applicable referenced standards and any provisions for valves, pipe, joints, fittings, coatings, linings, sleeves, gaskets, harnessing, and all other appurtenances;
- Field pressure testing;
- Flushing and disinfection plans; and
- Signed and sealed calculations for pipe support systems.

Materials shall be delivered to the site to ensure uninterrupted progress of the work. Pipe, fittings, valves and associated other materials shall be handled carefully with approved handling devices. Materials shall be stored on heavy wood blocking or platforms so they are not in contact with the ground. Delivered materials shall be inspected for cracked, gouged, chipped, dented or other damage to the packaging or materials. If such damage is found, damaged materials shall be rejected and immediately removed from the site. If in the process of manufacture, transportation, storage or handling, any valves, pipe, fittings, or associated other materials are damaged, such material shall be rejected and replaced at the Design-Build Entity's expense.

Pipe interiors shall be kept completely free from dirt and foreign matter. All pipe shall be installed in strict accordance with the manufacturer's instructions and recommendations. When pipe must be cut to fit in the field, the work shall be performed using tools and equipment specifically designed for cutting the pipe, so as to avoid damage to the pipe and to leave a smooth end. Improperly cut and/or fitted pipe will be rejected and replaced at the Design-Build Entity's expense.

The manufacturer's field representative shall certify the installations observed were satisfactorily completed and all installation crews were familiar with the proper methods and procedures for the pipeline installation.

3.8 Electrical Requirements

3.8.1. Basic Requirements

Design-Build Entity shall design and provide all labor, materials, equipment and incidentals to complete the electrical work. All systems shall be properly grounded. Exterior systems shall have lightning protection.

3.8.2. Codes

Material and equipment shall be installed in accordance with the current standards and recommendations of the National Electrical Code, the National Electrical Safety Code, and with local codes, which apply. Where discrepancies arise between codes, the most restrictive regulation shall apply.

3.8.3. Area Classifications

- 3.8.3.1. Wet Locations: The following areas shall be considered wet locations:
 - 3.8.3.1.1. All outdoor areas.
 - 3.8.3.1.2. All indoor areas below grade unless otherwise specified.
 - 3.8.3.1.3. Materials, equipment and incidentals in areas identified as wet locations shall meet NEC and NEMA requirements for wet locations. Enclosures shall meet NEMA 4 requirements as a minimum. Conduits shall be terminated at enclosures with watertight, threaded hubs.
- 3.8.3.2. Corrosive Locations: All chemical storage and pumping areas or rooms. Materials, equipment and incidentals in areas identified as corrosive shall meet NEC and NEMA requirements for corrosive locations. Conduit systems shall be PVC coated aluminum and enclosures shall meet NEMA 4X requirements. Conduits shall be terminated at enclosures with

watertight hubs. Independent supports shall be 316 stainless steel struts.

3.8.4. Electrical Equipment

All new electrical equipment shall be capable of operating successfully at full-rated load, without failure, with an ambient outside air temperature of 0 degrees F to 122 degrees F and an elevation of 400 feet (MSL). All electrical devices and equipment shall have ratings based on 75 degrees C terminations. All electrical equipment enclosures at a minimum shall meet NEMA 12 requirements.

3.8.5. Schematic Diagrams

Schematic diagrams shall be prepared by the Design-Build Entity to act as guidance in fulfilling the operational intent of the conceptual documents. It shall be the Design-Build Entity's responsibility to meet all safety and electrical codes, and to provide all equipment, appurtenances and specialty items required to provide for complete and operable systems. Review of control schemes submitted by Design-Build Entity shall not relieve Design-Build Entity of their contractual responsibility to provide complete and successfully operating systems.

3.8.6. Raceway Systems

Design-Build Entity shall furnish and install conduit and fittings to form complete, coordinated and grounded raceway systems. Design-Build Entity shall provide for the proper installation of all conduits for each system.

- 3.8.6.1. PVC coated rigid aluminum conduit for exposed indoor conduit runs in non-corrosive areas and PVC coated rigid aluminum at all other sites.
- 3.8.6.2. PVC Schedule 80 for individual conduit runs direct buried in earth
- 3.8.6.3. Schedule 40 PVC for conduit runs embedded in or under structural concrete slabs or in concrete ductbanks (all sites).
- 3.8.6.4. PVC schedule 80 conduit for exposed indoor and outdoor runs in corrosive areas.
- 3.8.6.5. Flexible conduit for connections to motors and equipment.

3.8.7. Inspections, Testing and Adjustments

Accompany the normal installation tests with inspections to demonstrate to the satisfaction of the required jurisdictional authorities the following:

- 3.8.7.1. Connections: All circuits are properly connected in accordance with the drawings and applicable approved shop drawings.
- 3.8.7.2. Operation: All circuits and devices are operable.
- 3.8.7.3. Identification: All conductors are properly identified at each terminal.

Test each electrical circuit after permanent cables are in place to demonstrate that the circuit and connected equipment perform satisfactorily and that they are free from improper grounds and short circuits. Individually test 600-volt cables for insulation resistance between phases and from each phase to ground. Test after cables are installed and before they are put in service with a Megger whose rating is suitable for the tested circuit. Tests shall meet with the applicable specifications of ICEA S 66 524 and NEMA WC7 1971. The insulation resistance for any given conductor shall not be less than 1 megohm for 600 volt and less service. Any cable not meeting this value or which fails when tested under full load conditions shall be replaced with a new cable for the full length. Megger testing reports shall be submitted and included in O&M Manual.

Test shielded instrumentation cable shields with an ohmmeter for continuity along the full length of the cable and for shield continuity to ground. Connect shielded instrumentation cables to a calibrated 4-20 milliamp DC signal transmitter and receiver. Test at 4, 12, and 20 milliamp transmitter settings.

Test the completed ground systems for continuity and for resistance to ground using an electrical ground resistance tester. Ground system resistance must be less than 5 ohms. Add up to two additional rods, spaced at 20 feet minimum from other electrodes, until resistance is less than 5 ohms.

Operate all starters, circuit breakers and associated equipment to demonstrate suitability and compliance with Specifications and reference standards, except for short circuit interrupting rating or other inherent design features covered by shop tests. Test all motors for direction of rotation and reverse connections if necessary. Check control circuits to determine that operation and sequence are correct and adjust limit switches, pressure switches, float switches, timers and other devices to give proper operation.

Generators shall be tested under load for 24 hours without failure or shutdown.

3.9 Instrumentation and Control Requirements

3.9.1. General

Design-Build Entity shall provide all labor, materials, equipment and incidentals as shown, specified and required to furnish, install, calibrate, test, start-up and

place in satisfactory operation a complete and operating system for proposed work, including programming of the PLC, SCADA, and all required wire terminations. Tag number, equipment number, and description shall match the Owners numbering convention standards.

3.9.2. Calibration, Start-Up and Testing

Field verify the calibration and performance of each instrument prior to start-up of the associated equipment, and document on a separate sheet for each.

3.9.3. System Check-Out and Start-Up Responsibilities

Design-Build Entity shall retain the services of a single system supplier to supervise and/or perform check out and startup of all system components. As part of these services, the system supplier shall coordinate and include check-out and start-up for those equipment items not manufactured or provided by him. The services of an authorized manufacturer's representative to check the equipment installation and place the equipment in operation may be required. The manufacturer's representative shall be thoroughly knowledgeable about the installation, operation and maintenance of the equipment.

Check and approve the installation of all instrumentation and control system components and all cable and wiring connections between the various system components prior to placing the various processes and equipment into operation. Conduct a complete system checkout and adjustment, including calibration of all instruments, tuning of control loops, checking operation functions, and testing of final control actions. When there are future operational functions included in this work, they should be included in the system checkout. All problems encountered shall be promptly corrected to prevent any delays in startup of the various unit processes.

System supplier shall provide all test equipment necessary to perform the testing during system checkout and start up. Design-Build Entity and system supplier shall be responsible for initial operation of monitoring and control system and shall make any required changes, adjustment or replacements for operation, monitoring and control of the various processes and equipment necessary to perform the functions intended.

Design-Build Entity shall furnish to the Owner certified calibration reports for field instruments and panel mounted devices specified in this Section as soon as calibration is completed. Design-Build Entity shall furnish Owner an installation inspection report certifying that all equipment has been installed correctly and is operating properly. The report shall be signed by authorized representatives of both Design-Build Entity and the system supplier.

3.9.4. Instrumentation and Control System Field Test

Following the plant monitoring and control system checkout and initial operation, system supplier, under the supervision of the Design-Build Entity, shall perform a complete system test to verify that all equipment and programmed software is operating properly as a fully integrated system, and that the intended monitoring and control functions are fully implemented and operational. Any defects or problems found during the test shall be corrected by system supplier, and then retested to demonstrate proper operation. Following demonstration of all system functions, the plant monitoring and control system including field sensors/transducers and instruments, and telemetry system shall be running and fully operational for a continuous 72-hour period.

3.9.5. Control Panels and Enclosures

Control panels located inside control or electrical room areas shall be NEMA 12 rated unless differently noted on drawings. All others shall be stainless steel or non-metallic NEMA 4 except in corrosive areas, which shall be NEMA 4X. Provide panel ventilation or air conditioning if required by ambient conditions. Use pan type construction for doors. Door widths shall not exceed 36-inches. Exterior panel with displays shall face north. Exterior control panels shall be 316 stainless steel with powder coated white epoxy exterior finish.

3.9.6. Surge Protection

Surge protection shall be provided to protect all electronic instrumentation from surges propagating along the signal, telephone, and power supply lines. Locate the suppression device as close as possible to the load device. The protection systems shall be such that the protection level shall not interfere with normal operation, but shall be lower than the instrument surge withstand level, and be maintenance free and self-restoring. Instruments shall be housed in suitable metallic cases, properly grounded. Ground wires for all surge protectors shall be connected to a good earth ground and where practical each ground wire run individually and insulated from each other.

PART 4 SUBMITTALS

4..1 Design-Build Entity submittals shall include but not be limited to:

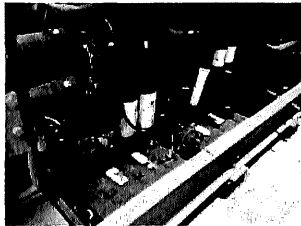
- 4.1.1. 60% Drawings
- 4.1.2. Shop Drawings
- 4.1.3. 100% Drawings
- 4.1.4. Permits
- 4.1.5. Warranty

ATTACHMENT No.1
Photographs and Sketches

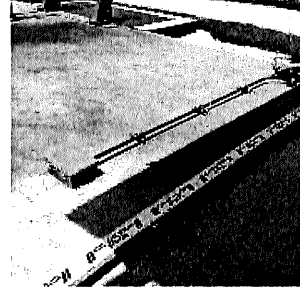
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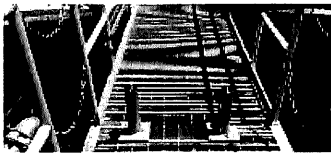
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Photograph 1.3.3.c



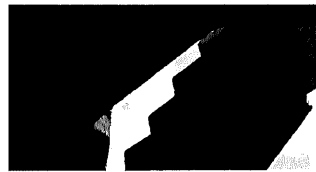
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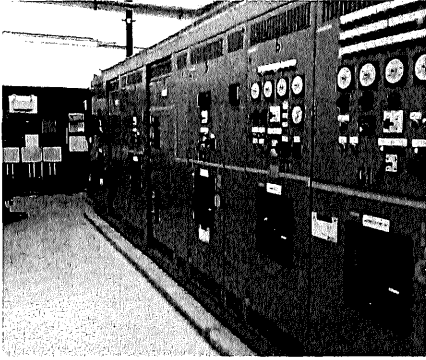
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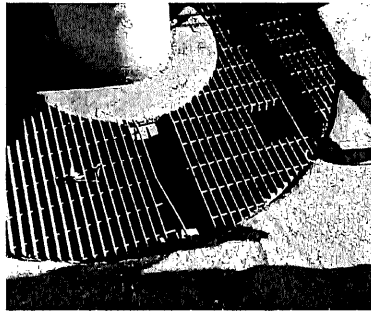
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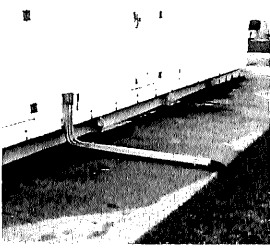
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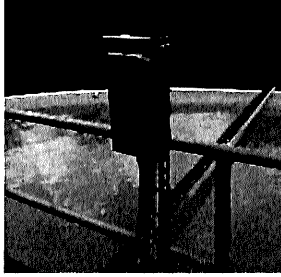
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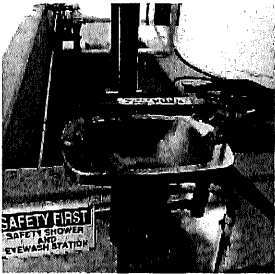
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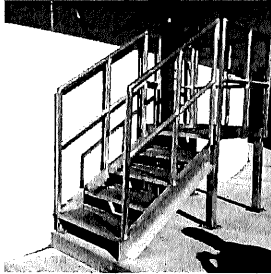
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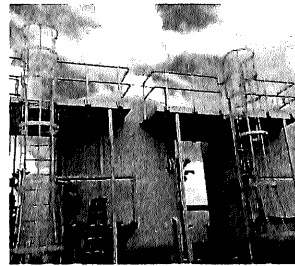
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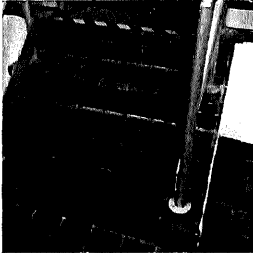
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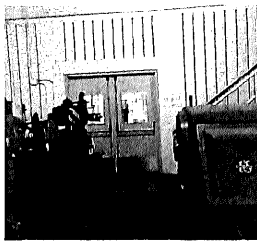
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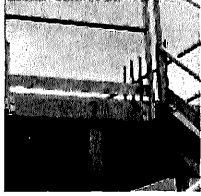
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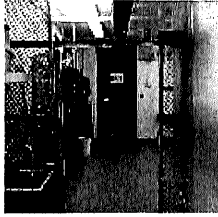
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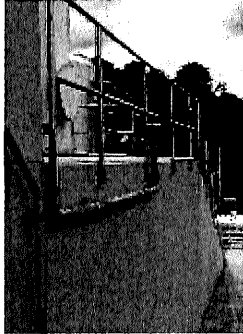
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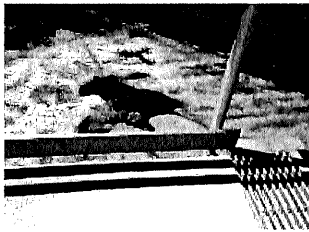
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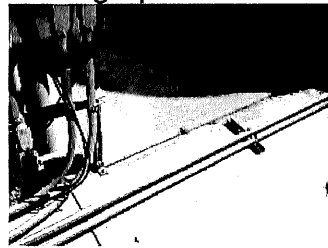
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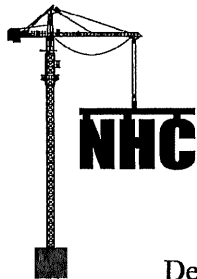


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Photograph 1.3.17.b





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Suite 610
Boca Raton, FL 33487

RE: Palm Beach County, as Obligee
System Wide Safety Improvements, Project No. WUD 17-050, as Project
Bond No. SU1142494

Dear Ladies and Gentlemen:

Please supply us with the following information for the above captioned final bond:

Executed Contract with Date: X _____

This letter is also giving **Globaltech, Inc.**, as Principal and/or **Palm Beach County**, as Obligee, the authority to complete these bonds and the Form of Guarantee with the contract date, execution and Power of Attorney dates. **The contract date MAY BE THE SAME date as the execution of the bond or PRIOR to the execution date of the bonds.**

We will forward this information onto your surety company upon our receipt. Please return as soon as possible.

Thank you for your cooperation.

Sincerely,

Brett Rosenhaus
Attorney-in-Fact

8401 Lake Worth Road
Suite 2-231
Lake Worth, FL 33467
P: 561.713.1453
F: 561.713.1455
www.nielsonbonds.com

SMART. UNCOMPROMISING. TIMELY EFFECTIVE. NIELSON, HOOVER & COMPANY, INC. SURETY SOLUTIONS THAT MAKE A DIFFERENCE.

Summary of Certificates

This report displays detailed Certificate of Insurance information for a selected Insured. Any items shown in red are deficient.

Monday, December 18, 2017

Simple View

Certificate Images

Documents

Insured: Globaltech, Inc. Insured ID: 17-050-PBC

Status: Compliant

ITS Account Number: PLC2939

Project(s): Palm Beach County - Water Utilities

Insurance Policy	Required	Provided	Override
<u>General Liability</u>			
Expiration: 11/1/2018			
General Aggregate:	\$1,000,000	\$2,000,000	
Products - Completed Operations Aggregate:	\$0	\$2,000,000	
Personal And Advertising Injury:	\$0	\$1,000,000	
Each Occurrence:	\$1,000,000	\$1,000,000	
Fire Damage:	\$0	\$100,000	
Medical Expense:	\$0	\$5,000	
<u>Automobile Liability</u>			
Expiration: 11/1/2018			
	All Owned Autos	Any Auto not provided	X
	Hired Autos	not provided	X
	Non-Owned Autos	not provided	X
Combined Single Limit:	\$1,000,000	\$1,000,000	
<u>Workers Compensation/Employers Liability</u>			
Expiration: 11/1/2018			
Each Accident:	\$100,000	\$1,000,000	
Disease - Policy Limit:	\$500,000	\$1,000,000	
Disease - Each Employee:	\$100,000	\$1,000,000	
<u>Professional Liability</u>			
Expiration: 11/1/2018			
Each Occurrence:	\$3,000,000	\$3,000,000	
Aggregate Limit:	\$3,000,000	\$3,000,000	
<u>Builders Risk</u>			
Expiration: 2/1/2018			
	All Risk, Replacement Cost Completed Value Form Loss Payee	All Risk, Replacement Cost Completed Value Form Loss Payee	

Notifications

There were no deficiency letters issued.