



WATER UTILITIES DEPARTMENT
301 COLLEGE STREET
LAKE WORTH BEACH, FL 33460
561.586.1710

CHANGE ORDER

Project Number: WO-06

Contractor: Globaltech, Inc.

Project Name: WTP Flash Mixer Improvements

Change Order Number: 01

Change Order Effective Date: _____

Contractor Phone: 561-997-6433

Change Order Type: Addition

Existing Purchase Order Number: 185740

Description of Change:

The work associated with this change order includes the following:

This change order includes the changes on WDC-1 and WDC-2. Attached are the backup documents.

Emergency structural engineering design for the repair of the top slab of the flash mixer:


- Design and take measurements on the existing rapid mix basin structure and the deteriorated steel that supports the elevated grating platform on top of the existing rapid mix basin structure.
- Design and construction shop drawings for the elevated grating platform emergency design repair.

Engineering design of the complete structural rehabilitation for the repair of the rapid mix basin/flash mixer:


- Site review and recommendations for basin rehabilitation
- Provide design calculations and construction documents for the deficient sections of the mix basin concrete structure.
- Design and construction drawings for the complete flash mixer structural rehabilitation.

Additional Construction Services:

- WGI SDC due to the structural changes
- Addition of degasifier sump level indicator and I&C
- Utilizing flanged reducers for the future valve being upsized from 12" to 16."
- Clearwell wall cores and vent piping
- Cleanout drain for raw water bypass and splash shield
- Utilize existing 24" 316 Stainless Steel pipe
- An additional 280 days to be added due to vendors increasing lead time to 6 months on ductile iron fittings and adding additional three months for construction duration.



1	2	3	4	5	6
Item No.	Description	Qty	Unit	Unit Price	Increase In Contract Price
1	Engineering	1	1	\$56,895.00	\$56,895.00
2	Construction & Bonds	1	1	\$107,771.14	\$107,771.14
	Total Amount:	<u>1</u>	<u>LS</u>	<u>\$164,666.14</u>	<u>\$164,666.14</u>



Price of Original Contract: \$563,912.58 (authorized by Commission on 5/19/21 Agenda Item (#X))

Current Price of Contract (including Change Orders): \$563,912.58

Price of Current Change Order: \$164,666.14

New Contract Price: \$728,578.72

Basis of Price Change: Unit Price Time & Material Lump Sum

Contract Time Change

No Change Extended Decreased by 280 work days

The CONTRACTOR and the OWNER agree that this CHANGE ORDER represents the parties' complete agreement concerning these matters as of the date of this CHANGE ORDER. By approving this Change Order, the CONTRACTOR releases any claims that it may have against the OWNER under the subject contract, including, but not limited to, claims for equitable adjustments, which occurred or accrued before the effective date of this CHANGE ORDER.

This Change Order may be executed in counterparts and is not effective until approved by the City Manager or City Commission (as designated on the last page of this Change Order).

Reviewed and accepted by Bruce Rahmani, P.E.
(Contractor Name)


Contractor Representative (Signature)

VP of Construction
Title

5/18/2022
Date

Approved by: _____
(Department Director) (Date)

IN WITNESS WHEREOF, the OWNER/CITY has approved this Change Order No. 1 to the _____ Project on _____, 2022.

CITY OF LAKE WORTH BEACH, FLORIDA

ATTEST:

By: _____
Melissa Ann Coyne, City Clerk

By: _____
Betty Resch, Mayor

APPROVED AS TO FORM AND
LEGAL SUFFICIENCY:

APPROVED FOR FINANCIAL
SUFFICIENCY

By: _____
Glen J. Torcivia, City Attorney

By: _____
Bruce T. Miller, Financial Services Director



City of Lake Worth Beach
172106 LW WTP Flash Mixer Improvements

Exhibit 2
Cost Breakdown
05/10/22

Assembly#	Description	Unit	Quantity	Cost	Ext. Cost	Ext. Price
Job: 172106 LW WTP Flash Mixer Improvements						
Bid Item: 100 Change of Scope						
CREDITS						
	Rapid-Mix Bypass Piping	LOT	-1	15,641.33	-15,641.33	-19,246.65
	DI pipe & Fittings	LOT	-1	4,659.60	-4,659.60	-5,733.64
	Flange Kits & Misc Materials Valves	LOT	-1	10,295.52	-10,295.52	-12,668.64
Permeate Flow Improvements						
	SS Pipe & Fittings	LOT	-1	70,388.16	-70,388.16	-86,612.63
	24" BFV	EA	-1	21,250.00	-21,250.00	-26,148.13
	Actuator & Startup	LOT	-1	12,850.00	-12,850.00	-15,811.93
ADDITIONS						
General Conditions (LW)						
	Progress Meetings	LOT	10.0	156.00	1,560.00	1,560.00
	Construction Scheduler	HR	10.0	94.00	940.00	940.00
	Project Estimating	HR	50.0	156.00	7,800.00	7,800.00
	Construction PM 4	HR	20.0	156.00	3,120.00	3,120.00
	Construction PM 3	HR	40.0	129.00	5,160.00	5,160.00
	Purchasing & Subcontract	HR	10.0	129.00	1,290.00	1,290.00
	Construction Assistant	HR	20.0	90.00	1,800.00	1,800.00
Rapid-Mix Bypass Piping						
	DI pipe & Fittings	LOT	1.00	41,558.69	41,558.69	51,137.97
	Flange Kits & Misc Materials	LOT	1.00	8,391.98	8,391.98	10,326.33
	Valves	LOT	1.00	12,881.25	12,881.25	15,850.38
	Flash Mixer Splash Guard	LOT	1.00	2,500.00	2,500.00	3,076.25

Takeoff Worksheet
Continued...

05/10/22

Assembly#	Description	Unit	Quantity	Cost	Ext. Cost	Ext. Price
	Installation	CR-D	3.00	1,800.00	5,400.00	5,400.00
	Construction Superintendent	HR	8.00	94.00	752.00	752.00
	Permeate Flow Improvements					
	SS Pipe & Fittings	LOT	1.00	78,911.42	78,911.42	97,100.50
	Flange Kits & Misc Materials	LOT	1.00	2,999.64	2,999.64	3,691.05
	12" BFV W/ Actuator & Startup	EA	1.00	15,966.25	15,966.25	19,646.47
	Grating Support Modification					
	Support Beam Fabrication	LOT	1.00	2,000.00	2,000.00	2,461.00
	Grout	LOT	1.00	250.00	250.00	307.63
	Installation & Concrete Repair	CR-D	5.00	1,800.00	9,000.00	9,000.00
	Construction Superintendent	HR	20.0	94.00	1,880.00	1,880.00
	Ultrasonic Transducer					
	PVC Pipe & Fittings	LOT	1.00	150.00	150.00	184.58
	Aluminum Stanchion & Sunshade	EA	1.00	1,500.00	1,500.00	1,845.75
	Misc Metals & Fasteners	LOT	1.00	150.00	150.00	184.58
	Installation	CR-D	1.00	1,800.00	1,800.00	1,800.00
	I&C & SCADA Programming					
	Electrical PM	LOT	1.00	16,610.00	16,610.00	20,438.61
		HR	40.0	110.00	4,400.00	4,400.00
	Engineering	LOT	1.00	56,895.00	56,895.00	56,895.00
	Bonds & Certifications	LOT	1.00	2,469.27	2,469.27	2,839.66
	Bid Item Totals:			153,050.89	153,050.89	164,666.14
	Grand Totals:			153,050.89	153,050.89	164,666.14

**Attachment A
Change Order 1
Rapid Mix Improvements**

	E6	E5	E4	E2	E1	CADD	Admin1	Total Labor	Subconsultant Services	Subconsultant
Contractual Labor Rates \$/Hr.	\$190.00	\$176.00	\$157.00	\$109.00	\$88.00	\$112.00	\$55.00			
Task 1 Rapid Mix Bypass Piping										
Project Coordination		8		8				\$2,280.00		
Site review and recommendation				4				\$436.00	\$500.00	WGI
Structural Design						4		\$448.00	\$1,300.00	WGI
Structural Beam Repair								\$0.00	\$3,230.00	WGI
Mechanical Design				12		16		\$3,100.00		
Subtotal Task 1	0	8	0	24	0	20	0	\$6,264.00	\$5,030.00	
Task 2 West RW Flow Meter										
Project Coordination								\$0.00		
DP transmitter								\$0.00		
Sump Pump Design				2				\$218.00		
Subtotal Task 2	0	0	0	2	0	0	0	\$218.00	\$0.00	
Task 3 Degasifier Permeate Flow Improvements										
Project Coordination					6			\$654.00		
Piping Modification					4			\$436.00		
Control Valve								\$0.00		
I&C Degasifier Sump Control		2	6	2	12			\$2,568.00		
Programming						8		\$704.00		
Subtotal Task 3	0	2	6	12	20	0	0	\$4,362.00	\$0.00	
Task 4 DOH Permitting										
Project Coordination								\$0.00		
Permit Application								\$0.00		
Subtotal Task 4	0	0	0	0	0	0	0	\$0.00	\$0.00	
Task 5 Services During Construction										
Project Coordination								\$0.00		
Submittal Review/Coordination								\$0.00		
Construction Site Visit								\$0.00		
Record Drawing								\$0.00		
Progress Meetings				2				\$218.00		
Subtotal Task 5	0	0	0	2	0	0	0	\$218.00	\$0.00	
Task 6 Rapid Mix Basin-Structural Assessment										
Project Coordination	8	8		12				\$4,896.00		
Site Review and Recommendations	2	2	2	2	2			\$1,440.00	\$3,500.00	WGI
Design and Construction Drawings								\$0.00	\$22,500.00	WGI
Design of West RW Main Knife Gate		6	6	10	10	8		\$4,864.00		
Subtotal Task 6	10	16	8	24	12	8	12	\$11,200.00	\$26,000.00	
Total	10	26	14	64	32	28	12	\$22,262.00	\$31,030.00	
Subconsultants									\$31,030.00	
Markup									\$3,103.00	
Total Subconsultant									\$34,133.00	
Reimbursable Expenses									\$500.00	
Total									\$56,895.00	



Post Office Box 16039 - Tampa, FL 33687-6039
(813) 740-1144 - FAX (813) 627-9387

February 23, 2022

Serving the Water & Wastewater Plant Industry for over 30 Years, Please visit us at:
www.mcdadewaterworks.com

Globaltech Design Build
Attn: Bruce Rahmani

Net Price
 Cuts to follow

Project: Lake Worth Misc WTP Improvements (BUDGETARY)
Bid Date: N/A
Addendum: N/A
ARRA, AIS, or Domestic Requirement - No

QTY	SIZE	DESCRIPTION	WEIGHT EACH	UNIT \$	EXT \$
RAPID MIX BYPASS PIPING					
1	24" X 18"	DI FLG TEE (C/L, PC)	1220	\$5,029.80	\$5,029.80 DI
2	24"	MEGA-FLANGE ADAPTER W/ 316SS HARDWARE	206.8	\$4,316.57	\$8,633.14
1	24"	FLG BUTTERFLY VALVE, AWWA IRON BODY & DISC (QUOTE DEZURIK – STANDARD BUILD)		\$8,791.25	\$8,791.25 Valves
4	24"	FLG ACCY SET (316SS FINISH HEX W/ 1/8" FULL FACE EPDM GASKET)		\$749.91	\$2,999.64
1	18"	FLG BUTTERFLY VALVE, AWWA IRON BODY & DISC (QUOTE DEZURIK – STANDARD BUILD)		\$4,090.00	\$4,090.00
1	18" X 18"	DI FLG TEE (C/L, PC)	665	\$2,271.99	\$2,271.99
1	18"	DI BLIND FLANGE W/ 2" TAP (C/L, PC)	185	\$806.21	\$806.21
1	18" X 13'-00"	FLG X FLG CLASS 53 DIP (C/L, PC)	1226	\$4,570.13	\$4,570.13
2	18"	DI FLG 90 ELL (C/L, PC)	450	\$1,585.30	\$3,170.60
1	18" X 05'-00"	FLG X FLG CLASS 53 DIP (C/L, PC)	581	\$2,575.89	\$2,575.89
10	18"	FLG ACCY SET (316SS FINISH HEX W/ 1/8" FULL FACE EPDM GASKET)		\$455.77	\$4,557.70 Flange Kit
RAPID MIX BYPASS PIPING					
1	12"	316SS LUG BUTTERFLY VALVE W/ EMO (FOR MODULATING SERVICE) (DEZ BHP WITH ROTORK EMO – MODULATING SERVICE, 460V/3PH		\$13,466.25	\$13,466.25 SS Valve
1	DAY	START-UP / TRAINING FOR EMO VALVE (8 HOURS MAX PER DAY)		\$2,500.00	\$2,500.00
1	24"	316SS DEPEND-O-LOK FOR SST PIPING (F X F)		\$14,665.27	\$14,665.27 SS Pipe & Fittings
1		HYDRAULIC CLOSURE TOOL (FOR DEPEND-LOK COUPLING)		\$2,384.69	\$2,384.69
1	16"/24"	316SS SCH 10 FABRICATED SPOOL (24" DEPEND-O-LOK RING PE X 24"X01'-06" SPOOL W/ (2EA) 2" THRD WELD-O-LET X 24"X16"ECCENTRIC REDUCER X 16"X01'-00" SPOOL X 16" FLANGE)		\$8,736.74	\$8,736.74
3	02" X 06"	316SS SCH 40 THRD NIPPLE		\$16.24	\$48.72
1	02"	316SS THRD FULL PORT BALL VALVE, 2 PCS W/ LEVER		\$193.01	\$193.01
2	02"	316SS 150# CASTING THRD 45 BEND		\$18.79	\$37.58
1	02"	SCH 80 PVC MALE ADAPTER (S X MIPT)		\$11.22	\$11.22
20	02"	SCH 80 PVC PIPE (BE)		\$3.38	\$67.60
2	LINK SEAL SET	LINK SEAL FOR 2" IPS IN 4" CORE HOLE (6 EA LS-300 LINK SEAL, PER SINGLE SEAL) (STANDARD EPDM RUBBER WITH NYLON PRESSURE PLATE AND 316SS HARDWARE)		\$58.53	\$117.06
2	16" X 12"	316SS SCH 10 FABRICATED FLG ECCENTRIC REDUCER		\$6,821.00	\$13,642.00

QTY	SIZE	DESCRIPTION	WEIGHT EACH	UNIT \$	EXT \$
1	16"/24"	316SS SCH 10 FABRICATED SPOOL (16" FLG X 16"X01'-06" SPOOL X 24"X16"TEE, FROM TOP SIDE OF TEE IS 24" CAP WITH 01" THRD WELD-O-LET, FROM BOTTOM SIDE OF TEE IS 24"X01'-06" SPOOL X FLANGE)		\$16,685.58	\$16,685.58
1	01"	316SS 150# CASTING THRD PLUG		\$4.81	\$4.81
2	16" X 08'-00"	316SS SQUARE TUBE "T" W/ STRAP FOR SST IPS PIPE (4" SQ 316SS TUBE, 3/8" WALL, 18" X 18" BASE PLATE, 360DEG PIPE STRAP ON TOP (3/8" X 4") CONNECTED TO WELDED STUDS ON TUBE)		\$7,658.57	\$15,317.14
4	24"	FLG ACCY SET (316SS FINISH HEX W/ 1/8" FULL FACE EPDM GASKET)		\$749.91	\$2,999.64 Flange Kit
ADDED ITEMS					
2	24"	MEGALUG W/ ACCY SET FOR DIP	8.9	\$1,949.07	\$3,898.14 DI
1	18" X 03'-00"	FLG X PE CLASS 53 DIP (C/L, PC)	331	\$1,423.74	\$1,423.74
1	24"	C153 MJ LP SLEEVE (C/L, BC)	306	\$1,123.82	\$1,123.82
1	24" X 05'-00"	FLG X FLG CLASS 53 DIP (C/L, PC)	878	\$3,741.73	\$3,741.73
1	18"	MEGA-FLANGE ADAPTER W/ 316SS HARDWARE	131.9	\$3,211.65	\$3,211.65
3	24" X 08"	316 STAINLESS STEEL FABRICATED TAPPING SLEEVE W/ 316SS HARDWARE		\$4,305.33	\$12,915.99
3	08"	316SS 150# BLIND FLANGE WITH 1" TAP		\$804.16	\$2,412.48
0	02"	FERCO COUPLING (CV-200)		\$6.47	\$0.00
2	16"	FLG ACCY SET (316SS FINISH HEX W/ 1/8" FULL FACE EPDM GASKET)		\$278.20	\$556.40
2	12"	FLG ACCY SET (316SS FINISH HEX W/ 1/8" FULL FACE EPDM GASKET)		\$139.12	\$278.24
TOTAL THIS BID ITEM - TAX NOT INCLUDED					\$167,935.85
<hr/>					
DUCTILE TOTAL ALL BID ITEM - TAX NOT INCLUDED			5842.00		\$24,713.91
RESTRAINT TOTAL ALL BID ITEM - TAX NOT INCLUDED			347.60		\$15,742.93
VALVE TOTAL ALL BID ITEM - TAX NOT INCLUDED					\$41,956.50
FAS TOTAL ALL BID ITEM - TAX NOT INCLUDED					\$11,391.62
COUPLING TOTAL ALL BID ITEM - TAX NOT INCLUDED					\$17,049.96
SMALL PVC TOTAL ALL BID ITEM - TAX NOT INCLUDED					\$78.82
STAINLESS TOTAL ALL BID ITEM - TAX NOT INCLUDED					\$41,567.91
SUPPORT TOTAL ALL BID ITEM - TAX NOT INCLUDED					\$15,317.14
MISC TOTAL ALL BID ITEM - TAX NOT INCLUDED					\$117.06
GRAND TOTAL ALL BID ITEM - TAX NOT INCLUDED					\$167,935.85

Notes:

- All Fitting and Valves Quoted Less Accessories
- All Flange Pipe and Fitting Quoted Prime Coated
- All Ductile Iron Pipe and Fitting Quoted Cement Lined
- All Ductile Iron Fitting (MJ & Flange) Quoted Are Globally Sourced
- Ductile Iron Pipe, Fittings, Fabrication, and Restraints prices will be held firm for 6 months from the date of this bid for all deliveries to the jobsite. All products delivered after 6 months from date of bid will include a 10% FIRM escalation in the unit prices. After 12 months, all remaining products will be re-quoted prior to shipment.
- Due to the volatile raw market All C-900 PVC, C-905 PVC, HDPE, SDR 35, Sch 80 PVC, Sch 40 PVC, Stainless Steel, Copper & Brass Pipe, Fittings, Valves, etc will/may need to be re-quoted at the time of purchase. Pricing Subject to Availability.
*** Stainless Steel prices are good till February 25, 2022
- McDade Waterworks, Inc. reserves the right to apply "Price in Effect" at time of delivery due to shortages and/or further "Force Majeure" declarations by manufacturer(s). McDade Waterworks, Inc will not be responsible for industry price changes or shortages beyond our control.
- Flange Accessories Set Prices are Firm for 14 Days from Bid Date, & Must Ship Within 28 Working Days from Bid Date.
- Stainless Steel Pipe Drawing are not Included in this Quotation. If Required Pipe Drawing, the Cost will be \$950.00
- Pipe Supports - Do not include engineering calculations (ie. wind, seismic, etc). We can recommend someone who can provide this information if requested.
- No Spare Parts for any components on take-off are included, unless noted otherwise.
- Electric Actuators are quoted Modulating service, Unless stated otherwise.
- DeZURIK, APCO standard warranty terms are two years from date of shipment. An additional 3rd year (36 month) warranty may be purchased at time of order placement only for an additional charge of 2% of order, 4th year (48 months) for 3% of net order value, 5th year (60 months) for 5% of net order value for a total of five years maximum.



WATER UTILITIES DEPARTMENT
301 COLLEGE STREET
LAKE WORTH BEACH, FL 33460
561.586.1710

WORK DIRECTIVE CHANGE

WDC Number: 01
Date of Issuance: _____ P.O.: 185740
Project Number: WT2103
Project Name: WTP Flash Mixer Improvements
Contractor: Globaltech, Inc. Contractor Phone: 561-997-6433
Engineer: Globaltech, Inc.
Owner (Name, Address): City of Lake Worth Beach

You are directed to proceed promptly with the following Change(s):

Purpose of the work:

- 1) The scope includes emergency structural engineering design for repair of the top slab of the flash mixer. The work does not include additional construction or services during construction. The work associated includes the following:
 - a. Design and take measurements on the existing rapid mix basin structure and the deteriorated steel that supports the elevated grating platform on top of the existing rapid mix basin structure.
 - b. Design and construction shop drawings for the elevated grating platform emergency design repair.
- 2) The scope includes engineering design of the complete structural rehabilitation for repair of the rapid mix basin/flash mixer. The work associated includes the following:
 - a. Site review and recommendations for basin rehabilitation
 - b. Provide design calculations and construction documents for the deficient sections of the mix basin concrete structure.
 - c. Design and construction drawings for the complete flash mixer structural rehabilitation.

Attachments: WGI Scope

If a claim is made that the above change(s) have affected Contract Price or Contract Time, any claim for a Change Order based thereon will involve one of the following methods of determining the effect of the change(s).

Method of Determining change in Contract Price:

_____ Time & Materials
 Unit Price as Negotiated
 _____ Cost Plus Fixed Fee

Method of Determining change in Contract Price:

_____ Contractor's Records
 Engineer's Records
 _____ Other

Estimated Increase (decrease) in Contract Price: \$34,133
 If the change involves an increase, the estimated amount is not to be exceeded without further authorization.

Estimated Increase (decrease) in Contract Time: 0 Day(s).
 If the change involves an increase, the estimated time is not to be exceeded without further authorization.

1	2	3	4	5	6
Item No.	Description	Qty	Unit	Unit Price	Increase in Contract Price
1	WGI, Inc. – Emergency Structural Engineering Design	1	LS	\$5,533.00	\$5,533.00
2	WGI, Inc. – Flash Mixer Basin Rehabilitation – Site Review and Recommendations	1	LS	\$3,850.00	\$3,850.00
3	WGI, Inc. – Flash Mixer Basin Rehabilitation – Design and Construction Drawings	1	LS	\$24,750.00	\$24,750.00
	Total amount:				\$34,133.00

Accepted by:  12/3/2021
 Design Build Firm Date

Authorized by:  Julie Parham
 2021.12.08 11:31:15 -05'00' Date

Assistant Water Utilities Director

Authorized by:  Brian Shields
 2021.12.08 Date

Utilities Director

The CONTRACTOR and the OWNER agree that this WORK DIRECTIVE CHANGE represents the complete agreement of the parties with respect to these matters as of the date of this WORK DIRECTIVE CHANGE. By approving this WORK DIRECTIVE CHANGE, the CONTRACTOR releases any and all claims that it may have against the OWNER under the subject contract including, but not limited to claims for equitable adjustments, which occurred or accrued prior to the effective date of this WORK DIRECTIVE CHANGE except those claims made in writing to the OWNER prior to the effective date of this WORK DIRECTIVE CHANGE.



November 29, 2021

Troy Lyn, Executive Vice President
Globaltech, Inc
6100 Broken Sound Parkway NW
Suite 610
Boca Raton, FL 33487

llyn@globaltechdb.com

Re: Lake Worth Water Treatment Plant
Rapid Mix Basin-Structural Assessment and Rehabilitation

Dear Troy,

WGI, Inc. (WGI) is pleased to provide this proposal to Globaltech, Inc (CLIENT) for professional services on the above-referenced project. Our scope of services and corresponding fees are detailed below.

PROJECT UNDERSTANDING

The Lake Worth Water Treatment Plant, two (2) Booster Pump Stations and the Master Pump Station are part of a Design-Build project which Globaltech, Inc. has with Lake Worth Utilities. Task 2.05 at the Rapid Mix basin is a continuation of the tasks to be authorized under this Design Build Contract.

The Rapid Mix basin was constructed in 1959 along with the current Lime Softening WTP. The Rapid Mix basin has additional piping proposed, which will enhance operation of the basin associated with the work in Task 2.05.

SCOPE OF SERVICES

ENGINEERING SERVICES

- I. **Site Review and Recommendations** **\$3,500.00**
 - a) Site Visit to facility to observe the condition and take measurement of the existing basin structure. The evaluation will be performed only on a visual basis. The identified areas will be measured, sketched and, photo documented.

- II. **Design and Construction Drawings** **\$22,500.00**
 - a) Design calculations and Construction Documents will be developed for the deficient sections of the mix basin concrete structure. Submittal for 90% and 100% design will be submitted to Global Tech and Lake Worth Utility District for review. All comments generated by Global Tech and Lake Worth Utility District will be address and incorporated into the Final Construction Document.

BASIS OF THIS PROPOSAL

This proposal is based on the following:

1. WGI shall be entitled to rely on the completeness and accuracy of all information provided by CLIENT. Information requested by WGI during the project will include, but may not be limited to, the building floor plans; plumbing, utilities, and roof drain plans; environmental assessments; geotechnical reports; and survey (with CAD file);
2. Engineering specifications and details will be included in the construction plans;
3. Significant site plan modifications will require an amendment to this contract. WGI will submit a separate proposal for those services;
4. Additional submittals and coordination with permitting agencies not due to WGI's work will be invoiced on an hourly basis;
5. Coordination and design of proposed electrical, telephone, television, and gas utilities shall be completed by others. WGI will exchange drawings with these utilities for coordination purposes and to incorporate their existing and proposed features into our plans for conflict resolution and informational purposes;
6. The project will be design and permitted under one phase;
7. Construction phase services are not included;
8. Services not included: Landscape Architecture, Architectural, Irrigation, Lighting, Title Search, Traffic, Environmental, and Geotechnical.

INFORMATION REQUIRED

The following additional information will be required to begin design services on this project:

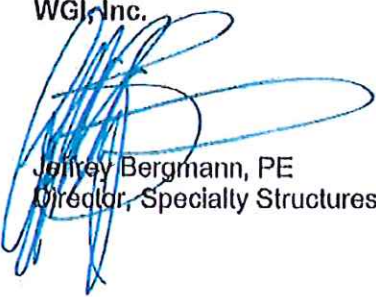
1. AutoCAD and PDF files of proposed site plans/ base maps

Any additional optional services requested by CLIENT will be provided in accordance with WGI's hourly fee schedule in effect at the time of service, or a fixed fee to be negotiated once a scope of service is defined.

PROPOSAL ACCEPTANCE

We appreciate the opportunity to be of service to CLIENT. Upon acceptance of this proposal, please issue a work order for this work conditions.

Respectfully submitted,
WGI, Inc.


Jeffrey Bergmann, PE
Director, Specialty Structures


Suhendi Widjaja, PE
Senior Structural Engineer



WATER UTILITIES DEPARTMENT
301 COLLEGE STREET
LAKE WORTH BEACH, FL 33460
561.586.1710

WORK DIRECTIVE CHANGE

WDC Number: 02
Date of Issuance: _____ P.O.: 185740
Project Number: WT2103
Project Name: WTP Flash Mixer Improvements
Contractor: Globaltech, Inc. Contractor Phone: 561-997-6433
Engineer: Globaltech, Inc.
Owner (Name, Address): City of Lake Worth Beach

**You are directed to proceed promptly with the following Change(s): Purpose of the work:
Emergency structural engineering design for the repair of the top slab of the flash mixer:**

- Design and take measurements on the existing rapid mix basin structure and the deteriorated steel that supports the elevated grating platform on top of the existing rapid mix basin structure.
- Design and construction shop drawings for the elevated grating platform emergency design repair.

Engineering design of the complete structural rehabilitation for the repair of the rapid mix basin/flash mixer:

- Site review and recommendations for basin rehabilitation
- Provide design calculations and construction documents for the deficient sections of the mix basin concrete structure.
- Design and construction drawings for the complete flash mixer structural rehabilitation.

Additional Construction Services:

- WGI SDC due to the structural changes
- Valve being upsized from 12" to 16"
- Utilizing flanged reducers and purchasing a new 24" pipe instead of using existing
 - Price increases to stainless still cost and added fittings and flanges. **The updated cost we will know in 2-3weeks and will update the cost on the change order.**
- An additional 280 days to be added due to vendors increasing lead time to 6 months on ductile iron fittings and adding additional 3 months for construction duration.

Attachments: Engineering Sheet and Takeoff

If a claim is made that the above change(s) have affected Contract Price or Contract Time, any claim for a Change Order based thereon will involve one of the following methods of determining the effect of the change(s).

Method of Determining change in Contract Price:

Time & Materials
 Unit Price as Negotiated
 Cost Plus Fixed Fee

Method of Determining change in Contract Price:

Contractor's Records
 Engineer's Records
 Other

Estimated Increase (decrease) in Contract Price: \$156,661.80

If the change involves an increase, the estimated amount is not to be exceeded without further authorization.

Estimated Increase (decrease) in Contract Time: 280 Day(s).

If the change involves an increase, the estimated time is not to be exceeded without further authorization.

1 Item No.	2 Description	3 Qty	4 Unit	5 Unit Price	6 Increase in Contract Price
1	Construction & Bonds	1	LS	\$97,269.80	\$97,269.80
2	Engineering	1	LS	\$22,762.00	\$22,762.00
	Total amount:				\$120,031.80

Accepted by: [Signature]
Globaltech, Inc. (DB Firm)

4/27/22

Date

Authorized by: [Signature]
Assistant Water Utilities Director

4/29/22

Date

Authorized by: [Signature]
Water Utilities Director

4/29/22

Date

The CONTRACTOR and the OWNER agree that this WORK DIRECTIVE CHANGE represents the complete agreement of the parties with respect to these matters as of the date of this WORK DIRECTIVE CHANGE. By approving this WORK DIRECTIVE CHANGE, the CONTRACTOR releases any and all claims that it may have against the OWNER under the subject contract including, but not limited to claims for equitable adjustments, which occurred or accrued prior to the effective date of this WORK DIRECTIVE CHANGE except those claims made in writing to the OWNER prior to the effective date of this WORK DIRECTIVE CHANGE.



Exhibit 2
Cost Breakdown
04/27/22

City of Lake Worth Beach
172106 LW WTP Flash Mixer Improvements

Assembly#	Description	Unit	Quantity	Cost	Ext. Cost	Ext. Price
Job: 172106 LW WTP Flash Mixer Improvements						
Bid Item: 100 Change of Scope						
	CREDITS					
	Rapid-Mix Bypass Piping	LOT	-1	15,641.33	-15,641.33	-19,246.65
	DI pipe & Fittings	LOT	-1	4,659.60	-4,659.60	-5,733.64
	Flange Kits & Misc Materials Valves	LOT	-1	10,295.52	-10,295.52	-12,668.64
	Permeate Flow Improvements					
	SS Pipe & Fittings	LOT	-1	70,388.16	-70,388.16	-86,612.63
	24" BFV	EA	-1	21,250.00	-21,250.00	-26,148.13
	Actuator & Startup	LOT	-1	12,850.00	-12,850.00	-15,811.93
	ADDITIONS					
	General Conditions (LW)					
	Progress Meetings	LOT	10.0	156.00	1,560.00	1,560.00
	Construction Scheduler	HR	10.0	94.00	940.00	940.00
	Project Estimating	HR	50.0	156.00	7,800.00	7,800.00
	Construction PM 4	HR	20.0	156.00	3,120.00	3,120.00
	Construction PM 3	HR	40.0	129.00	5,160.00	5,160.00
	Purchasing & Subcontract	HR	10.0	129.00	1,290.00	1,290.00
	Construction Assistant	HR	20.0	90.00	1,800.00	1,800.00
	Rapid-Mix Bypass Piping					
	DI pipe & Fittings	LOT	1.00	41,558.69	41,558.69	51,137.97
	Flange Kits & Misc Materials Valves	LOT	1.00	8,391.98	8,391.98	10,326.33
	Flash Mixer Splash Guard	LOT	1.00	12,881.25	12,881.25	15,850.38
		LOT	1.00	2,500.00	2,500.00	3,076.25

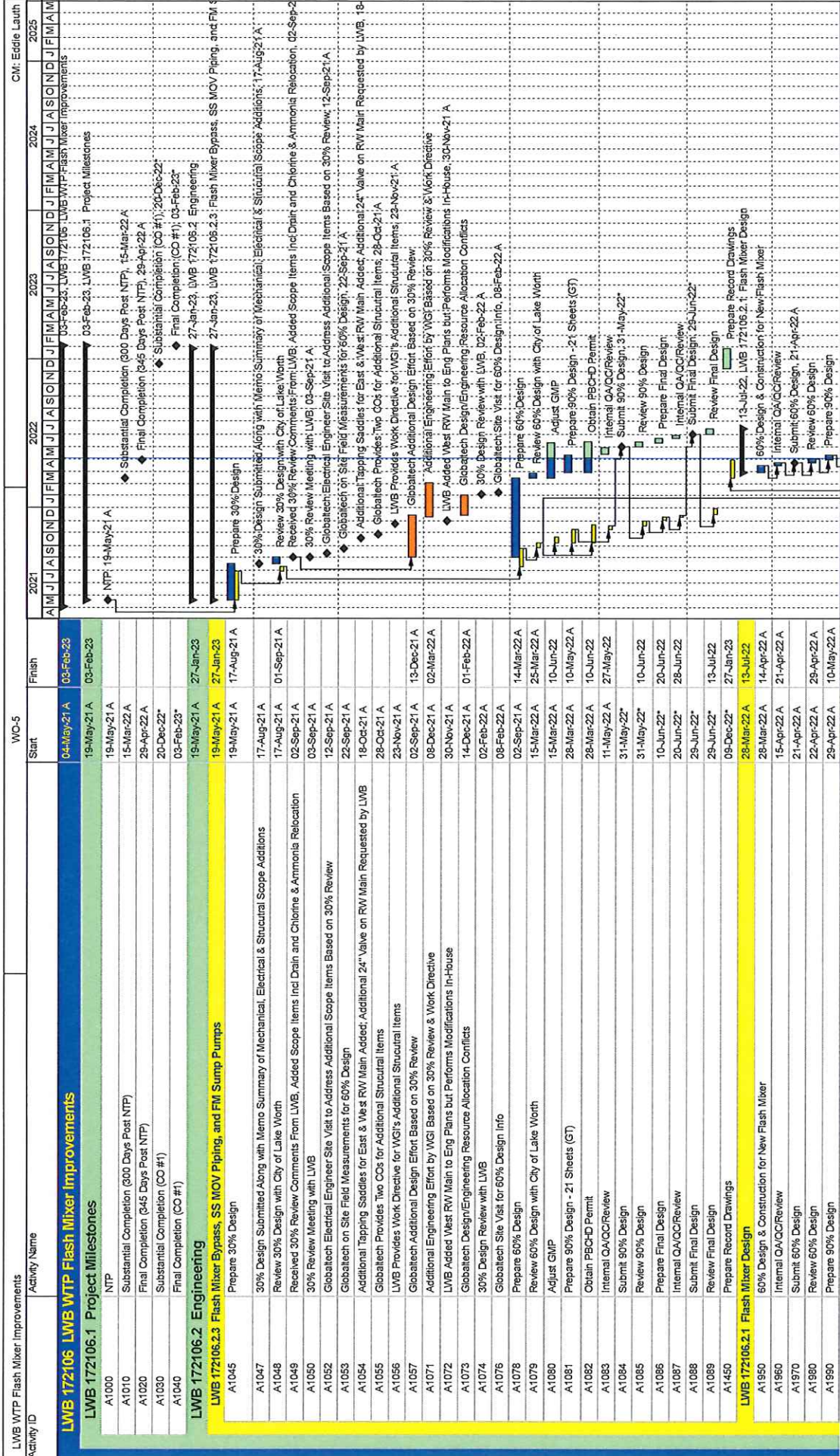
Takeoff Worksheet
Continued...

04/27/22

Assembly#	Description	Unit	Quantity	Cost	Ext. Cost	Ext. Price
	Installation	CR-D	2.00	1,800.00	3,600.00	3,600.00
	Construction Superintendent	HR	8.00	94.00	752.00	752.00
	Permeate Flow Improvements					
	SS Pipe & Fittings	LOT	1.00	71,911.42	71,911.42	88,487.00
	Flange Kits & Misc Materials	LOT	1.00	2,999.64	2,999.64	3,691.05
	12" BFV W/ Actuator & Startup	EA	1.00	15,966.25	15,966.25	19,646.47
	Grating Support Modification					
	Support Beam Fabrication	LOT	1.00	2,000.00	2,000.00	2,461.00
	Grout	LOT	1.00	250.00	250.00	307.63
	Installation & Concrete Repair	CR-D	5.00	1,800.00	9,000.00	9,000.00
	Construction Superintendent	HR	20.0	94.00	1,880.00	1,880.00
	Ultrasonic Transducer					
	PVC Pipe & Fittings	LOT	1.00	150.00	150.00	184.58
	Aluminum Stanchion & Sunshade	EA	1.00	1,500.00	1,500.00	1,845.75
	Misc Metals & Fasteners	LOT	1.00	150.00	150.00	184.58
	Installation	CR-D	1.00	1,800.00	1,800.00	1,800.00
	I&C & SCADA Programming	LOT	1.00	16,610.00	16,610.00	20,438.61
	Electrical PM	HR	40.0	110.00	4,400.00	4,400.00
	Engineering	LOT	1.00	22,762.00	22,762.00	22,762.00
	Bonds & Certifications	LOT	1.00	2,392.89	2,392.89	2,751.82
	Bid Item Totals:			110,041.51	120,031.80	
	Grand Totals:			110,041.51	120,031.80	

**Attachment A
Change Order 1
Rapid Mix Improvements**

		E6	E5	E4	E2	E1	CADD	Admin	Total Labor	Subconsultant Services	Subconsultant
Contractual Labor Rates \$/hr.		\$190.00	\$176.00	\$157.00	\$109.00	\$88.00	\$112.00	\$55.00			
Task 1	Rapid Mix Bypass Piping										
	Project Coordination		8		8				\$2,280.00		
	Site review and recommendation				4				\$436.00		
	Structural Design						4		\$448.00		
	Structural Beam Repair								\$0.00		
	Mechanical Design				12		16		\$3,100.00		
	Subtotal Task 1	0	8	0	24	0	20	0	\$6,264.00	\$0.00	
Task 2	West RW Flow Meter										
	Project Coordination								\$0.00		
	DP Transmitter								\$0.00		
	Sump Pump Design				2				\$218.00		
	Subtotal Task 2	0	0	0	2	0	0	0	\$218.00	\$0.00	
Task 3	Degasser Permeate Flow Improvements										
	Project Coordination				6				\$654.00		
	Piping Modification				4				\$436.00		
	Control Valve								\$0.00		
	I&C Degasser Sump Control		2	6	2	12			\$2,568.00		
	Programming					8			\$704.00		
	Subtotal Task 3	0	2	6	12	20	0	0	\$4,362.00	\$0.00	
Task 4	DOH Permitting										
	Project Coordination								\$0.00		
	Permit Application								\$0.00		
	Subtotal Task 4	0	0	0	0	0	0	0	\$0.00	\$0.00	
Task 5	Services During Construction										
	Project Coordination								\$0.00		
	Submittal Review/Coordination								\$0.00		
	Construction Site Visit								\$0.00		
	Record Drawing								\$0.00		
	Progress Meetings				2				\$218.00		
	Subtotal Task 5	0	0	0	2	0	0	0	\$218.00	\$0.00	
Task 6	Rapid Mix Basin-Structural Assessment										
	Project Coordination	8	8		12			12	\$4,896.00		
	Site Review and Recommendations	2	2	2	2	2			\$1,440.00		
	Design and Construction Drawings								\$0.00		
	Design of West RW Main Knife Gate		6	6	10	10	8		\$4,864.00		
	Subtotal Task 6	10	16	8	24	12	8	12	\$11,200.00	\$0.00	
	Total	10	26	14	64	32	28	12	\$22,762.00	\$0.00	
	Subconsultants									\$0.00	
	Markup									\$0.00	
	Total Subconsultant									\$0.00	
	Reimbursable Expenses									\$500.00	
	Total									\$22,762.00	



CM: Eddie Lauth

WOB-5

Activity Name

Start

Finish

2021 2022 2023 2024 2025

Project Milestones

Legend:

- Primary Baseline
- Actual Work
- Remaining Work
- Critical Remaining Work
- Shutdown
- Delay
- Critical Work by Others
- Milestone
- Summary

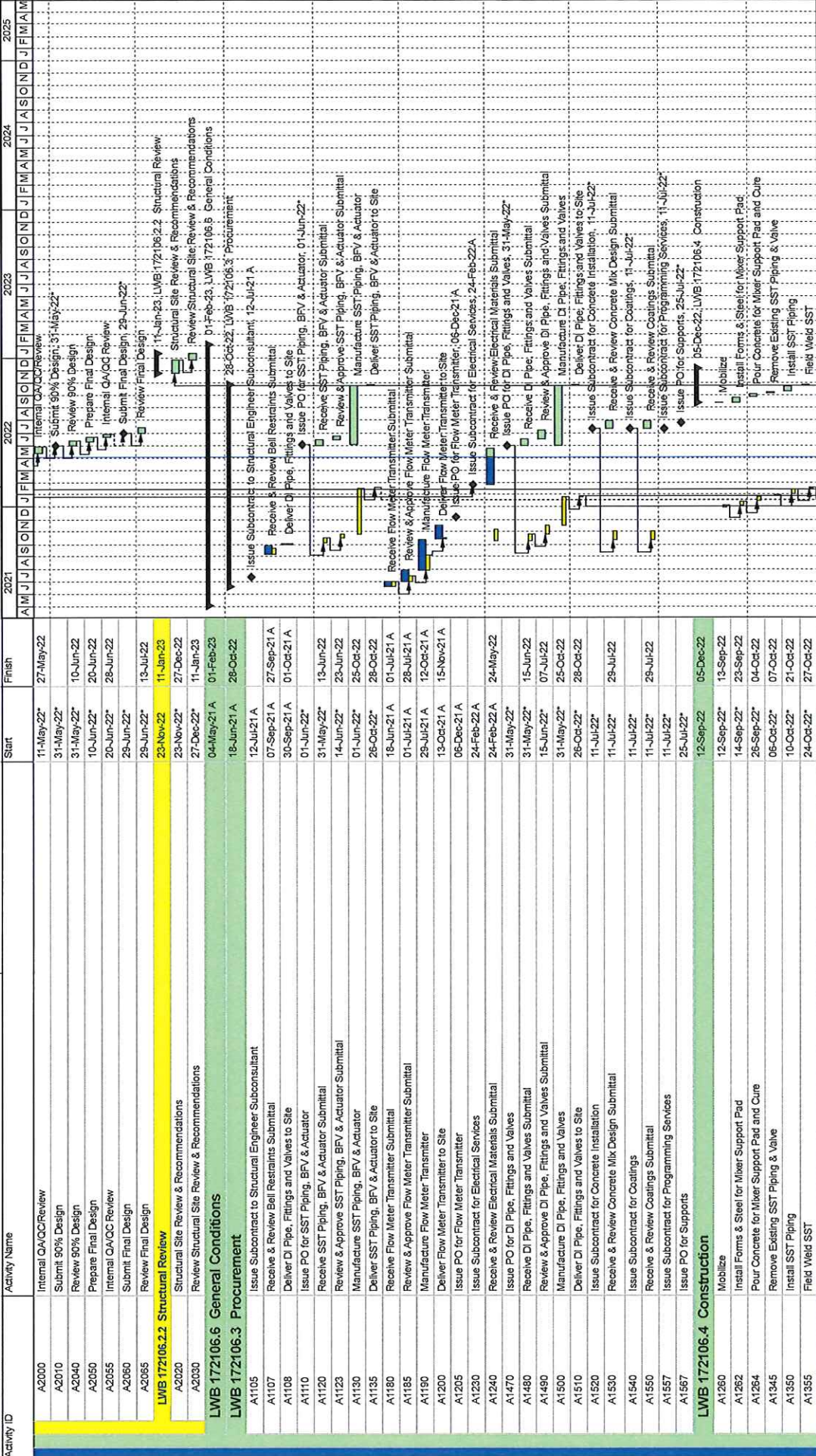
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CITY OF LAKE WORTH BEACH

FLASH MIXER IMPROVEMENTS

UPDATED PROGRESS SCHEDULE AS OF MAY-17-2022

GLOBALTECH
A DESIGN BUILD COMPANY

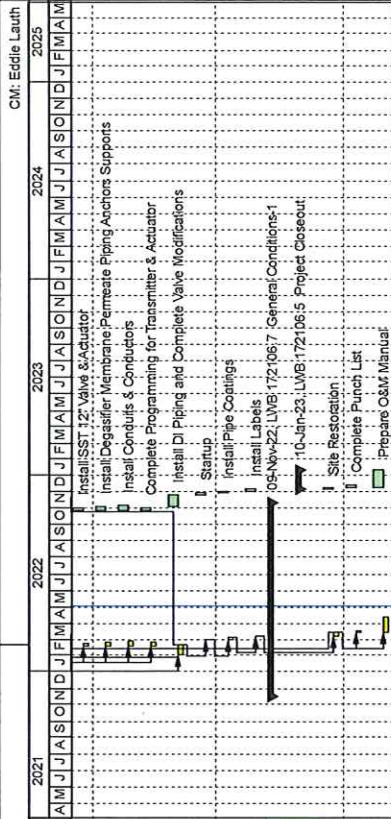


█ Primary Baseline
█ Actual Work
█ Remaining Work
 Critical Remaining Work
 Shutdown
 Delay
◆ Critical Work by Others
◆ Milestone
◆ Summary

Page 2 of 3
CITY OF LAKE WORTH BEACH
FLASH MIXER IMPROVEMENTS
 UPDATED PROGRESS SCHEDULE AS OF MAY-17-2022



LWB WTP Flash Mixer Improvements		WD-5		2021												2022												2023												2024												2025																							
Activity ID	Activity Name	Start	Finish	A												M												J												J												A												M											
A1388	Install SST 12" Valve & Actuator	28-Oct-22*	31-Oct-22																																																																								
A1385	Install Degasifier Membrane Permeate Piping Anchors Supports	28-Oct-22*	02-Nov-22																																																																								
A1370	Install Conduits & Conductors	28-Oct-22*	04-Nov-22																																																																								
A1380	Complete Programming for Transmitter & Actuator	28-Oct-22*	02-Nov-22																																																																								
A1382	Install DI Piping and Complete Valve Modifications	02-Nov-22*	23-Nov-22																																																																								
A1400	Startup	23-Nov-22*	28-Nov-22																																																																								
A1402	Install Pipe Coatings	28-Nov-22*	02-Dec-22																																																																								
A1406	Install Labels	02-Dec-22*	05-Dec-22																																																																								
LWB 172106.7 General Conditions-1		15-Nov-21 A	05-Nov-22																																																																								
LWB 172106.5 Project Closeout		05-Dec-22	10-Jan-23																																																																								
A1410	Site Restoration	05-Dec-22*	09-Dec-22																																																																								
A1420	Complete Punch List	09-Dec-22*	13-Dec-22																																																																								
A1430	Prepare O&M Manual	09-Dec-22*	10-Jan-23																																																																								



Page 3 of 3
 CITY OF LAKE WORTH BEACH
 FLASH MIXER IMPROVEMENTS
 UPDATED PROGRESS SCHEDULE AS OF MAY-17-2022

█ Primary Baseline
█ Actual Work
█ Remaining Work
█ Critical Remaining Work
█ Shutdown
█ Delay
◆ Critical Work by Others
◆ Milestone
◆ Summary