

Mandarin Water Reclamation Facility – Building 6 Demolition, New Warehouse and Parking Upgrades

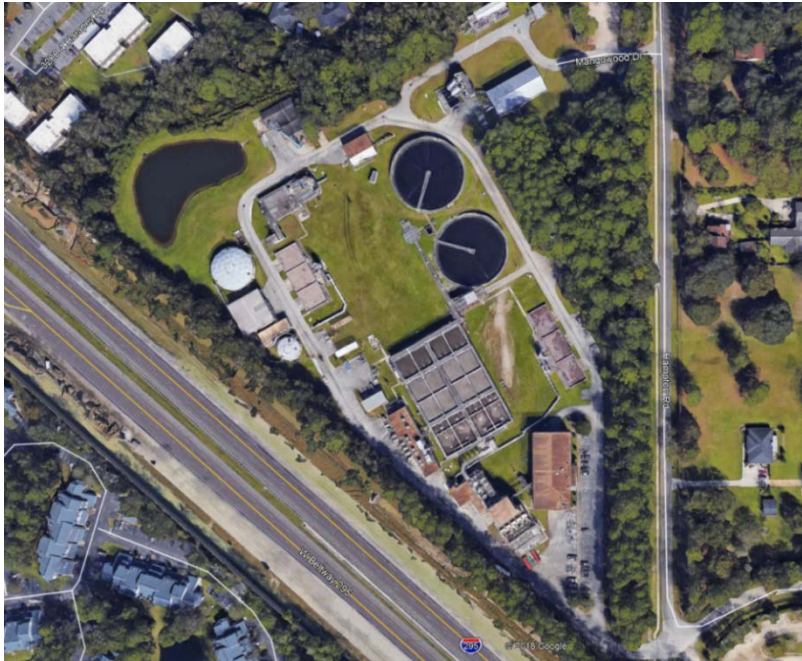
Introduction & Background

The original waste water treatment plant was designed for the City of Jacksonville in 1980s. The warehouse Building (Building 6) is the building recommended for demolition and replacement. This building is approximately 2000 sf. used for storage and minor repair of pumps along with a coupled of office spaces. The construction system is a wood frame with shingled roof approximately 35 years. The original documents for build 6 are not on file. Recommendation for demolition of building 6 and replace with a new 5500 SF CMU construction with overhead gantry.

Additional parking is required at the JEA Mandarin WRF. Several options for the location of these parking areas were discussed with the final concept layout shown on the attached drawings in Appendix C. The staff requested larger and preferably angled spaces. The new parking spaces are 10 ft. x 25 ft. The purpose of the larger and angled parking spaces is to promote an easier and safer means to park large vehicles. There is limited on-site parking with the new policy restricting take home vehicles in place; this recommendation includes the addition of approximately 20 JEA service vehicle parking spaces with LED pole lighting.

With the new building and parking there is a requirement to expand the current pond onsite in the location of building 6. The existing stormwater management facility has an approximate water surface area of 23,000 sf. It appears from our preliminary evaluation that this pond could be expanded by approximately 12,000 sf. to bring the total treatment pond area to 35,000 sf. The discharge control structure of the stormwater pond can be modified to maximize the treatment of the expanded pond. Expansion of the pond would involve removal of 155 feet of 24-inch RCP, one inlet, and an outfall structure and addition of 20 feet of 24-inch RCP and a new outfall structure.

In 2015 a new project involved constructing a new equalization tank and UV upgrades. One feature of this project was to reduce the amount of stormwater runoff by collecting the rainfall which falls on the new equalization tank and discharge it directly into the reclaimed water tank. Therefore, no mixing of rainfall with polluted water and discharging to receiving waters occurs. Further the project involved the demolition of more impervious surface than new impervious surface and therefore the project ended with a net reduction of impervious surface of 7,485 square feet



Project Site Map - JEA Mandarin Waste Water Treatment Plant

Justification

Our primary concerns at this facility are for the building 6 warehouse and additional required parking. The building is 35 years old and has never been updated to meet current operational needs. There are concerns for the structural integrity and over all poor condition. Therefore, we conclude that demolishing building 6, building a new updated warehouse facility would be advantageous for the waste water operations. Along with new requirements to park all JEA vehicles onsite and the parking required for all personnel, 95 additional parking spaces will be built. This also requires the current pond to be expanded due to increased impervious pavement.

APPENDIX A – TECHNICAL SPECIFICATIONS
001-19 RFP ENGINEERING DESIGN FOR MANDARIN WRF WAREHOUSE AND SITE IMPROVEMENTS



Building 6 in background with adjacent cell tower



Typical JEA truck needing oversized parking spot to all access to tool boxes when loading supplies.



Location of proposed parking – Operations building shown on the left photo.

Scope of Work

1. **New Warehouse:** A new warehouse for material and equipment distribution onto JEA work trucks is required. The building shall accommodate the standard JEA work truck with a truck-mount lift. The requirements for a new warehouse are noted below.
 - The warehouse size is approximately 53 ft. x 103 ft.; one-story.
 - Need a 12 ft. minimum center drive in the middle of the building with overhead doors at each end for loading and unloading. It is preferable that the trucks drive through the warehouse without backing up.
 - JEA Ford 550 trucks with truck-mounted crane lifts will be the vehicle that will utilize this warehouse.
 - No loading dock required.
 - An overhead 5-ton bridge crane is requested by JEA as an Additive Alternate. Reconfirm size in design phase.
 - A 20 ft. head clearance is to be confirmed.
 - Electrical operators will be installed for each roll-up door along with a concrete apron at entry.
 - Recommend canopies at exterior overhead doors.
 - A walkthrough entry door will be placed at each end of the building for staff access and emergency egress.
 - The concept design provides a conventionally framed building utilizing CMU infill, precast concrete double T-s, and a cast in place frame.
 - FM Global and JEA Standards to be applicable to new building.
 - Impact Resistant (exceeds local code)
 - Assumed no fire sprinklers; this to be reconfirmed during design.
 - Note that the drives and the 10-12 parking spaces associated with the building are recommended to be built with the building. All other parking to be built as a separate phase as funding allows.
2. **Building # 6 Demolition**
 - Building #6 is a small one-story building located adjacent to the satellite tower and the existing pond. This building is in generally poor condition and does not meet JEA's operational requirements.
 - The aluminum shed attached to the building will also be removed.
 - This demolition is recommended in Phase 1 so that the pond can be expanded to accommodate the additional storm retention required for the new building.
 - The pond will wrap around the north side of this area and tie into an existing storm structure.

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- No as-builts were available for the tower. Caution shall be taken with foundations and underground cables where pond construction and demolition occur.

3. **Parking:** Additional parking is required at the JEA Mandarin WRF. Several options for the location of these parking areas were discussed with the final concept layout shown on the attached drawings.

The staff requested larger and preferably angled spaces. The sizes the new parking spaces are 10 ft. x 25 ft. The purpose of the larger and angled parking spaces is to promote an easier and safer means to park large vehicles.

The types of vehicles parking required include:

- Personal staff vehicles
- JEA work vehicles (Ford 550)
- Portable, trailered generator and pump equipment; need electrical power.
- No semi-trailer and truck parking required.

4. **Pond Expansion:** The existing stormwater management facility has an approximate water surface area of 23,000 sf. It appears from our preliminary evaluation that this pond could be expanded by approximately 12,000 sf. to bring the total treatment pond area to 35,000 sf. The discharge control structure of the stormwater pond can be modified to maximize the treatment of the expanded pond. Expansion of the pond would involve removal of 155 feet of 24-inch RCP, one inlet, and an outfall structure and addition of 20 feet of 24-inch RCP and a new outfall structure.

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1. Architectural Design:

- Conceptual Design by Smith McCrary Architects
- Estimated Design Cost - \$195,000
- Estimated Construction Cost \$2,662,000
- Drawings to be submitted at 10%, 30%, 60%, 90% and 100%

Implementation Schedule

Mandarin WWTP Facilities Upgrade	FY19-FY20																											
	Fy18	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	
Scope Project - 15 Days	X																											
10% Design - 60 Days	X																											
Topo Survey & underground Locates (2 months)		X	X																									
30,60,90 100% Construction Documents (6 months)				X	X	X	X	X	X																			
Permitting City of Jacksonville and SJRWMD (3months) Phase 1 & 2								X	X																			
Procurement Bidding & Award										X	X																	
Construction Phase 1 (9months)												X	X	X	X	X	X	X	X	X								
Closoeouts (1 month)																					X							
Construction - Phase Two																	X	X	X	X	X	X	X					
Project Closeout 30 Days																								X				

Project Management & Delivery

Stage	Project Definition	10% Schematic Design
To Project Delivery	Facilities	Facilities
OPB Established		

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Cost Estimate and Expenditure Forecast (Current \$)

CONCEPT ORDER OF MAGNITUDE COST ESTIMATE				sma
JEA MANDARIN -PHASE 1			DATE:	6/12/2018
BASE \$/SF W/ SITE		\$205	AREA:	5500 GSF
	DESCRIPTION	PERCENT	UNIT	COST
1	DEMO EXIST UTILITIES AT WAREHOUSE LOCATION	2.00%	LS	\$ 22,550
2	SUBSTRUCTURE (5 INCH SLAB AND APRONS)	19.00%	LS	\$ 214,225
3	SHELL (CONC FRAME, 12 INCH CMU, DBL TS)	38.00%	LS	\$ 428,450
4	INTERIOR (PAINT, OFFICE, ADA TOILET, DOORS)	4.00%	LS	\$ 45,100
5	SERVICES - PLUMBING (1 LAV, MOP, DF, WC, HOSE B)	4.20%	LS	\$ 47,355
6	SERVICES - HVAC (VENTIFLATION ONLY; MINI SPLIT OF	7.00%	LS	\$ 78,925
7	SERVICES - FP	0.0	LF	\$ -
8	SERVICES - ELECTRICAL (PWER FOR CRANE, LED HIG	11.00%	LS	\$ 124,025
9	EQUIPMENT AND FURNISHINGS (FEC, ETC)	0.55%	LS	\$ 6,201
10	SPECIAL CONSTRUCTION	0.0%	EA	\$ -
11	BUILDING SITE WORK (PARKING, UTILITIES)	14.25%	EA	\$ 160,669
			LS	\$ -
			EA	\$ -
TOTAL BUILDING AND LOCAL SITE		100.00%		\$ 1,127,500
AGENCY 15%- concept design only				\$ 169,125
L COND 10% OHD 5%/PROFIT 10%				\$324,156
PHASE1	BUILDING AND BLDG PARKING AND SITE			\$1,620,781
PHASE1	POND EXPANSION and STORMWATER SYS			\$ 150,000
PHASE1	DEMO BLDG 6			\$ 28,000
PHASE 1	CRANE -ADDITIVE ALTERNATE W/ CONTINGENCY			\$ 60,000
PHASE 1	PHASE 1 CONSTRUCTION COSTS TOTAL			\$1,858,781
1 Prepared by: Smith McCrary Architects based on historical numbers and RS MEANS. This is not a take-off.				
2 TOTAL GROSS SQ FT 5500.				
3 Design, Permitting or application fees not included.				
4 Bridge crane not included. This will be an additive alternate. Structure and elec included.				
5 DEMO OF BUILDING 6- ASSUMES NO HAZARDOUS MATERIAL (I.E. LEAD PAINT, ETC.)				
6 Pond Expansion includes pipe and structure replacement/ removal.				
7 Note: Building to be impact resistant, meet JEA Standard and FM Global requirements.				
8 A/E fees and building permitting fees not included in this cost.				
The construction assumes CMU walls with hollow core or double Ts in shop.				
No security cameras or IT rack/other included.				
No chemical hood included. Staff indicated this was not required.				
Fire Sprinkler system \$52,000				
Possible asbestos remediation / Testing				

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CONCEPT ORDER OF MAGNITUDE COST ESTIMATE					sma
JEA MANDARIN -PHASE 2			DATE: 6/12/2018		
BASE \$/SF W/ SITE			\$205		AREA:
	DESCRIPTION		PERCENT	UNIT	COST
1	GENERAL CONDITIONS		10.00%	LS	\$ 39,100
2	DEMO EXISTING PAVEMENT		12.00%	LS	\$ 46,760
3	STORMWATER		19.00%	LS	\$ 73,298
4	LOOP DRIVE		28.00%	LS	\$ 109,480
5	SITE WORK 95 NEW PARKING SPACES		23.00%	LS	\$ 94,562
6	SERVICES - LIGHTING		4.20%	LS	\$ 19,320
7	MISC SERVICES		3.80%	LS	\$ 17,480
				LS	\$ -
				EA	\$ -
TOTAL BUILDING AND LOCAL SITE			100.00%		\$ 400,000
	OHD 5%/PROFIT 10%				\$60,000
PHASE 2	PARKING, PAVEMENT, AND STORMWATER				\$ 460,000

A/E fees and building permitting fees not included in this cost.

Mandarin WWTP Upgrades									
PROJECTED EXPENDITURE FORECAST BY FISCAL YEAR (\$1,000's)									
ACTIVITY	FY19				FY20				TOTAL
QUARTER	1 ST	2 ND	3 RD	4 TH	1 ST	2 ND	3 RD	4 TH	
Contractor				\$202	\$576	\$644	\$780	\$134	\$2,336
Contingency									
Engineering / Design		\$32	\$96	\$68					\$196
Construction Administration		\$5	\$5	\$5	\$5	\$5	\$5	\$5	\$35
Project Administration		\$5	\$5	\$5	\$20	\$20	\$20	\$20	\$95
TOTAL	\$0	\$42	\$106	\$280	\$601	\$669	\$805	\$159	\$2,662

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ACTIVITY/DESCRIPTION	SUB-TOTAL	TOTAL
Contractor Direct Cost	\$ 1,765,500.00	\$ 1,765,500.00
Contractor Indirect Cost		\$ 553,281.00
Overhead & Profit	\$ 384,156.00	
Contingency	\$ 169,125.00	
JEA Cost & Engineering		\$ 326,000.00
Engineering	\$ 196,000.00	
Project Management	\$ 95,000.00	
Construction Administration	\$ 35,000.00	
Services During Construction	\$ -	
	\$ -	
TOTAL PROJECT COST		\$ 2,644,781.00

Risks

The following is a listing of the potential risks to the success of this project:

- Delivery of long lead items
- Delivery of 100% drawings on time
- Availability of the construction company to meet the desired deadlines.
- Availability of project approval and associated capital funding within the specified timeframe.
- Construction will be through Hurricane Season.

**APPENDIX B – MINIMUM QUALIFICATION FORM
RFP 001-19 ENGINEERING DESIGN FOR MANDARIN WRF WAREHOUSE AND SITE
IMPROVEMENTS**

GENERAL

THE MINIMUM QUALIFICATIONS SHALL BE SUBMITTED ON THIS FORM. IN ORDER TO BE CONSIDERED A QUALIFIED PROPOSER BY JEA YOU MUST MEET THE MINIMUM QUALIFICATIONS LISTED BELOW, AND BE ABLE TO PROVIDE ALL THE SERVICES LISTED IN THIS SOLICITATION.

THE PROPOSER MUST COMPLETE THE PROPOSER INFORMATION SECTION BELOW AND PROVIDE ANY OTHER INFORMATION OR REFERENCE REQUESTED. THE PROPOSER MUST ALSO PROVIDE ANY ATTACHMENTS REQUESTED WITH THIS MINIMUM QUALIFICATIONS FORM.

PLEASE SUBMIT THE ORIGINAL, THREE (3) COPIES AND ONE (1) CD OF THIS FORM AND ANY REQUESTED ADDITIONAL DOCUMENTATION WITH THE PROPOSAL SUBMISSION.

PROPOSER INFORMATION

COMPANY NAME: _____

BUSINESS ADDRESS: _____

CITY, STATE, ZIP CODE: _____

TELEPHONE: _____

FAX: _____

E-MAIL: _____

PRINT NAME OF AUTHORIZED REPRESENTATIVE: _____

SIGNATURE OF AUTHORIZED REPRESENTATIVE: _____

TITLE OF AUTHORIZED REPRESENTATIVE: _____

MINIMUM QUALIFICATIONS:

Proposer shall have the following Minimum Qualifications to be considered eligible to submit a Proposal in response to this RFP.

It is the responsibility of the Proposer to ensure and certify that it meets the Minimum Qualifications stated below. JEA reserves the right to request back up documentation to confirm the Proposer meets the requirements stated herein. A Proposer not meeting all of the following criteria will have their Proposals rejected:

- The Proposer must provide one (1) public or private project reference similar to the scope of work as described in Appendix A - Technical Specifications, and have a value greater than or equal to \$1,500,000.00 in construction cost, and completed within the last three (3) years immediately preceding the proposal due date.
 - A similar project shall be defined as the demolition of buildings, construction of a 5000 SF warehouse, parking areas, and drainage and storm water improvements.
 - The project referenced must have been successfully implemented and completed.

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- The referenced project must also have been completed by the primary project manager who will be assigned to this project.
- The reference provided will be contacted. A contact name, correct telephone number and email address must be provided for the reference company. Failure to do so will result in the rejection of the proposal.
- They must be Architect of record for the project. References as an engineer on a project will be rejected.

REFERENCE 1

Reference Company Name _____

Reference Contact Name _____

Reference Phone Number _____

Reference E-Mail Address _____

Address of Work _____

Project Manger _____

Description of Project _____

APPENDIX B – PROPOSAL FORM
RFP 001-19 ENGINEERING DESIGN FOR MANDARIN WRF WAREHOUSE AND SITE IMPROVEMENTS

COMPANY INFORMATION:

COMPANY NAME: _____

BUSINESS ADDRESS: _____

CITY, STATE, ZIP CODE: _____

TELEPHONE: _____

FAX: _____

EMAIL OF CONTACT: _____

LEAD PROJECT MANAGER PROXIMITY TO JEA

In order to receive points for this criterion, Proposer's office must be occupied and staffed with at least three (3) employees for a duration of six (6) months prior to the Proposal Due Date stated in this RFP. Additionally, the office shall not be used as a residential premises.

Check the box to confirm Company meets criterion ☐ YES ☐ NO

____ (Initials) I have read and understood the Sunshine Law/Public Records clauses contained within this solicitation. I understand that in the absence of a redacted copy my proposal will be disclosed to the public “as-is”.

The Company shall submit one (1) original Proposal, three (3) duplicates (hardcopies), and one (1) CD or USB drive. If there is a discrepancy between the electronic copy and hard copy, the hard copy will prevail. JEA will not accept Proposals transmitted via email.

Company's Certification

By submitting this Proposal, the Proposer certifies that it has read and reviewed all of the documents pertaining to this RFP and agrees to abide by the terms and conditions set forth therein, that the person signing below is an authorized representative of the company, that the company is legally authorized to do business in the State of Florida, and that the company maintains in active status an appropriate license for the work. The company certifies that its recent, current, and projected workload will not interfere with the company's ability to Work in a professional, diligent and timely manner.

The Proposer certifies, under penalty of perjury, that it holds all licenses, permits, certifications, insurances, bonds, and other credentials required by law, contract or practice to perform the Work. The Proposer also certifies that, upon the prospect of any change in the status of applicable licenses, permits, certifications, insurances, bonds or other credentials, the Company shall immediately notify JEA of status change.

We have received addenda _____ through _____

Signature of Authorize Officer of Company or Agent

Date

Printed Name & Title

Phone Number