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July 25, 2012

Mr. Mike Beasley  
King America Finishing  
1351 Scarboro Highway  
Sylvania, GA 30467

**RE: ADDENDUM TO CITY OF MILLEN OGEEGEECHE RIVER WATER QUALITY IMPROVEMENT PROJECT**

Dear Mr. Beasley,

On behalf of the City of Millen, we are proposing to add a water quality control structure in the City's wastewater treatment pond as a project for you to consider in addition to the Bio-Shell project we previously submitted. The proposed structure is a concrete vault that has holes located at various levels to allow the operators to draw water from below the water surface. The inside of the structure will have an adjustable weir to allow the operators to change the levels of the pond. The new structure will accomplish the following objectives:

1. **Provide Cleaner Water to the Ogeechee River** – The structure will draw water from a depth of 2' below the water surface. This water generally has a lower BOD and TSS.
2. **Discharge Less Algae to the Ogeechee River** – The majority of the algae is located on the surface. By drawing water 2' below the surface, less algae will be discharged.
3. **Control Pond Level** – The structure will allow the City to store water during rain events - this will help the Ogeechee River by preventing major spills due to excessive flows.
4. **Prevent Plastics from Reaching Ogeechee River** – Although the City currently screens its effluent, plastics invariably reach the river including female hygiene products, male contraceptives, and debris. Generally, the trash floats on the surface. By drawing water from 2' below the surface, many of the plastics would be avoided. To provide additional protection against plastics entering the river, we propose adding a static screen at the head of the pond. The screen will catch items 1" and larger.

We have attached a conceptual drawing of this structure, a picture of a typical static screen as well as a project cost estimate.

Although the Bio-Shell project will take a large portion of your budget, the potential benefits that this project would provide justify the cost. Big results require big investments. Here are the potential benefits:

1. **Discharge Less BOD, TSS, Ammonia to Ogeechee River** – Pilot studies in Newington, GA and Thomasville, AL have shown this technology capable of delivering BOD and TSS levels



below 5 mg/L, with Ammonia levels below 1 mg/L. I have attached these results for your review.

2. **Provide a Case Study for Similar Municipal Treatment Plants on the Ogeechee River** – This project could easily spawn benefits beyond the immediate project area. The Cities of Louisville, Wadley, Midville, and Newington all have pond systems that discharge into tributaries of the Ogeechee. The City of Millen would open its doors for these municipalities and others across the state to study this technology and how it could inexpensively provide cleaner water to surface waters.
3. **Provide a Case Study for King America** – Although I am not familiar with the wastewater system of King America Finishing, it is possible that King America Finishing and other industries could utilize this technology as a final polishing step.

In closing, we welcome the opportunity to partner with King America Finishing on these important projects. The projects that we are proposing will provide permanent water quality benefits. On behalf of the Mayor, Council and City Manager we thank you for the opportunity to present this proposal to you.

Sincerely,

A handwritten signature in blue ink that reads "Wesley Parker". The signature is written in a cursive, flowing style.

Wesley Parker, PE

Cc: A. King Rocker, Mayor  
H. Lamar Faircloth, City Manager  
Johnny Thomas, Utilities Director

Enclosure: Conceptual Drawing of Water Quality Control Structure  
Photograph of a Typical Static Screen  
Cost Estimate for Water Quality Control Structure  
City of Newington Pilot Study Results  
City of Thomasville White Paper  
List of Existing Bio-Shell Projects



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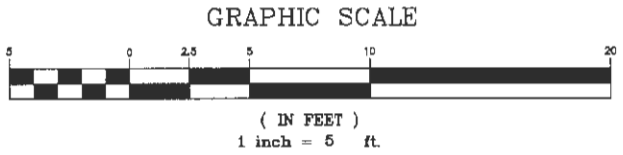
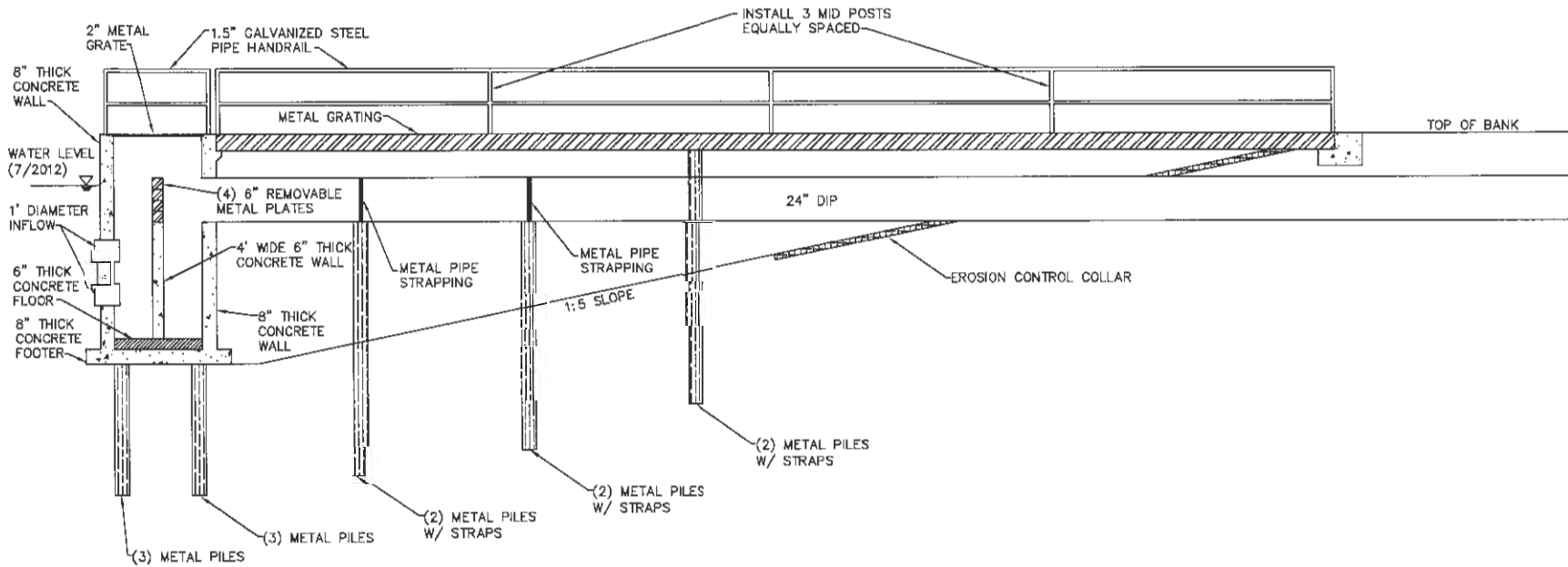
CITY OF MILLEN  
WATER QUALITY CONTROL STRUCTURE  
prepared for:  
KING AMERICA FINISHING

NO.	DATE	BY	CHKD.	APP.

SECTION VIEW

1

PE11:34





**Typical Static Screen.**

**WATER QUALITY OUTFALL STRUCTURE**  
**for: CITY OF MILLEN/KING AMERICA FINISHING**  
**PARKER ENGINEERING, LLC**  
**OPINIONS OF PROBABLE CONSTRUCTION COST**

**DATE: 07/27/12**  
**Rev. 1**  
**BY: GWP**

**OPINION OF PROBABLE COST**

Since the engineer has no control over the cost of labor, materials, equipment, the Contractor's methods of determining prices, or over competitive bidding or market conditions, the Opinions of Probable Construction Cost provided herein are to be made on the basis of the engineer's experience and qualifications. These opinions represent the engineer's best judgment as a design professional familiar with the construction industry.

<b>WATER QUALITY OUTFALL STRUCTURE @ WWPC</b>					
<b>PHASE I</b>					
<b>Item</b>	<b>Description</b>	<b>Quantity</b>	<b>Units</b>	<b>Unit Price</b>	<b>Total</b>
1a	Concrete Structure	1	EA	\$ 9,500.00	\$ 9,500.00
1b	Valve Assembly	3	EA	\$ 3,000.00	\$ 9,000.00
1c	Weir Assembly	1	EA	\$ 1,850.00	\$ 1,850.00
1d	24" Ductile Iron	100	LF	\$ 100.00	\$ 10,000.00
1e	Gasketed Joint Restraint	3	EA	\$ 800.00	\$ 2,400.00
1f	24" Valve	1	EA	\$ 1,500.00	\$ 1,500.00
1g	24" Slide Valve for Existing Structure	1	EA	\$ 2,000.00	\$ 2,000.00
2	Crane/Gangway/Pilings - Includes setting 6 piles underneath structure, setting 6 piles for pipe cradles, 2 gangways and gangway installation, install all valves, grates, install structure and pipe to pond bank.	1	LS	\$ 95,000.00	\$ 95,000.00
3	Connect Piping to Existing Pipe	1	LS	\$ 1,500.00	\$ 1,500.00
4	Hand Rail System on Control Structure	1	EA	\$ 2,000.00	\$ 2,000.00
5	Fuse Erosion Control Collar	1	LS	\$ 2,000.00	\$ 2,000.00
6	Static Bar Screen @ Headworks	1	EA	\$ 5,500.00	\$ 5,500.00
<b>TOTAL OPINION OF CONSTRUCTION COST</b>					<b>\$ 142,250.00</b>
Surveying/Engineering/Bidding/Construction Observation/Permitting (11.5%)					\$16,359.00
<b>TOTAL COST</b>					<b>\$158,609.00</b>