

November 20, 2020

Mr. Miles B. Bingham, P.E.
Director of Public Works/Wastewater
100 River Oaks Dr.
Destrehan, LA 70047

Subject: Priority Three Drainage Projects - Phased
Montz Drainage System
Engineering Services

Dear Mr. Bingham;

Volkert, Inc. (Volkert) appreciates this opportunity to work with you and the Parish of St. Charles to implement improvements in the Montz Drainage System. Volkert has had previous experience in this area, we installed box culverts and paved a section of the KCS Railroad (KCS RR) ditch not far from the location of the Priority three drainage projects identified in the 2019 Montz Drainage Master Plan. Please refer to Exhibit 1 attached to this proposal. As requested, this proposal is broken into two Phases. Phase I will be all basic Services for the Jack and Bore Pipes. Phase II will be a study to determine the best location for the New Canal, New Canal Investigation.

We understand that for Phase I Resident Inspection maybe negotiated and added by addendum once the project construction time has been finalized and the project is ready to be bid. We also understand that basic services can be modified upon agreement of the New Canal location.

If you have any questions or comments, please call at your convenience.

Sincerely,
VOLKERT, INC.



Janet L. Evans
Vice President

Attachments:

Scope and Fee Phase I
Scope and Fee Phase II
Exhibit 1 Project Layout
Engineers Preliminary Opinion of Estimated Construction Costs Phase I and Phase II
FP& C Rate Schedule for 2020 Phase I
Volkert Billable Rate Schedule

Phase I - Jack and Bore Pipes

Project Understanding and Scope of Work

The scope of work consists of preparing construction plans and specifications for bidding of a project to jack and bore pipes at two locations under the KCS RR. Please see Exhibit 1 attached to this proposal for additional information on the location of proposed pipe sites. We anticipate that besides the basic services included in design, we will be provided all hydraulic information by Meyers, Ltd, and Survey information from GIS. We anticipate that some geotechnical information may be needed, and we will reach out to the Parish, to see which firm to coordinate that with.

The Engineer's Preliminary Opinion of Estimated Construction Cost is included as an attachment to this proposal and the current estimate is \$2,151,600 with a 10% contingency.

Additional services above the Basic Services as described by ASCE Manual 45 which we currently anticipated the following tasks:

KCS Railroad Permit

Volkert will prepare permit application and submit it to the KCS RR for the jack and bore pipes and the remediation of the existing crushed pipe. Coordination will also include submitting information which will allow the improvement/construction work with the Railroad right-of-way. Permit submittal fees and independent review fees will be submitted as direct expenses.

Schedule

Volkert will begin work within 10 days following receipt of a written NTP and the receipt from the Parish of an AutoCAD Civil 3D survey and any geotechnical information requested.

Fee

Based on the information provided above and the 2020 FP&C 2020 Schedule of fees provided and attached to this proposal we propose to provide design services for an amount not to exceed \$207,033. The estimated not to exceed fee breakdown is presented below and manhour estimate is attached.

Basic Services	\$ 176,412
Direct Expenses	\$ 3,000
KCS Railroad Coordination and Permitting	<u>\$ 27,621</u>
Total Estimated NTE Fee	\$ 207,033

**Montz Drainage Improvements
Priority Three Drainage Improvements
Jack and Bore Pipes
St. Charles Parish**



Manhour Estimate Summary

1. Preliminary Plans	\$46,510.94
2. Final Plans	\$60,370.70
3. Bidding	\$18,043.64
4. Construction Administration	\$51,487.06
5. KCS Railroad Coordination and Permitting	\$27,621.01
Estimated Direct Expenses	\$3,000.00
Total Estimated Fee	\$207,033.35

Montz Drainage Improvements
Priority Three Drainage Improvements
Jack and Bore Pipes
St. Charles Parish



DOTD 3 year Aver 159.25%
Estimated Profit 15%

		Clerical/ Administrative	Pre- Professional	Engineer	CADD Operator	Supervisor Engineer	Principal	Estimated Labor Cost
DOTD Avg Salary		23.00	29.90	44.82	36.50	77.17	109.50	
Billable Rate		\$68.57	\$89.14	\$133.63	\$108.82	\$230.07	\$326.46	
1. Preliminary Plans								
1.1	Attend Meetings (Kick off and 1 Preliminary Meeting)	0	8	8	0	4	0	\$2,702.44
1.2	Coordination and Review of Survey	0	0	8	8	2	0	\$2,399.71
1.3	Preliminary Engineering	0	30	40	40	6	0	\$13,752.55
1.4	Plan Preparation	0	36	40	120	6	0	\$22,993.02
1.5	Preliminary Estimate Update	0	24	12	0	4	0	\$4,663.23
Subtotal		0	98	108	168	22	0	\$46,510.94
2. Final Plans								
2.1	Attend Meetings (3 Meetings)	0	9	12	0	2	0	\$2,865.94
2.2	Quality Control of Final Plan Submittal	0	12	24	20	4	0	\$7,373.42
2.3	Final Engineering	0	40	30	36	6	0	\$12,872.44
2.4	Final Plan Preparation	0	24	20	110	6	0	\$18,162.60
2.5	Technical Specifications	0	40	20	0	6	0	\$7,618.67
2.6	100% Final Plan and Estimate Submittal	0	18	8	4	2	0	\$3,569.00
2.7	Address 100% Comments	0	12	8	12	2	0	\$3,904.71
2.8	Final Bidding Documents	0	12	12	8	2	0	\$4,003.93
Subtotal		0	167	134	190	30	0	\$60,370.70
3. Bidding								
3.1	Addendums/Answers Bidders Questions	0	16	36	16	6	0	\$9,358.36
3.2	Attend Pre-Bid	0	4	6	0	4	0	\$2,078.61
3.2	Attend Bid Opening	0	0	6	0	4	0	\$1,722.04
3.3	Prepare Bid Tabulation	0	8	6	0	4	0	\$2,435.19
3.4	Bid Review and Recommendation of Award	0	0	8	0	6	0	\$2,449.44
Subtotal		0	28	62	16	24	0	\$18,043.64
4. Construction Administration								
4.1	Attend Biweekly meetings	0	60	60	0	13	0	\$16,357.05
4.2	Answer RFI	0	16	32	0	6	0	\$7,082.73
4.3	Review and Approve Contractor Pay Estimates	0	24	24	0	4	0	\$6,266.73
4.4	Provide Plan Changes as Needed	0	16	16	24	4	0	\$7,096.27
4.5	Coordination of work as needed.	0	20	20	0	2	0	\$4,915.51
4.6	Final Closeout	0	4	12	0	2	0	\$2,420.22
4.7	Prepare As-built Plans	0	12	24	24	2	0	\$7,348.55
Subtotal		0	152	188	48	33	0	\$51,487.06
5. KCS Railroad Coordination and Permitting								
7.1	Prepare Permit Application and Information	0	24	16	60	24	0	\$16,328.39
7.2	Coordinate KCS RR comments and responses	0	12	24	12	12	0	\$8,343.44
7.3	Receive final Permit and ensure guidelines are implemented and acceptable.	0	4	6	8	4	0	\$2,949.18
Subtotal		0	40	46	80	40	0	\$27,621.01
Estimated Direct Expenses								\$3,000.00

\$207,033.35

Phase II – New Canal Investigation

Project Understanding and Scope of Work

A new canal is to be excavated between the KCS RR canal and Airline Highway. The exact location of the canal to minimize impacts needs to be reviewed and Finalized. Please see Exhibit 1 shows the location of the new canal from the Parish's drainage study.

The Engineer's Preliminary Opinion of Estimated Construction Cost is included as an attachment to this proposal and the current estimate is \$890,100.00 with a 15% contingency.

This first phase proposed consists of hours which are projected to work with Parish and determine the optimum location of this Canal. Potential locations of the New Canal will be developed with Parish staff input. Information from the Parish's GIS system will be utilized to determine potential impacts to project cost such as Right of Way, Real Estate Relocations, and Utility Relocations. Information will be reviewed with the Parish an Investigation Report of findings issued.

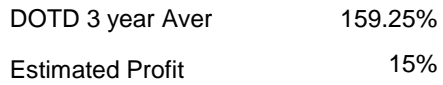
Schedule

We estimate that work will begin with 5 days of a notice to proceed and an investigation report with comparisons and conclusions could be completed within two months allowing one week for the Parish to review and comment prior to finalization.

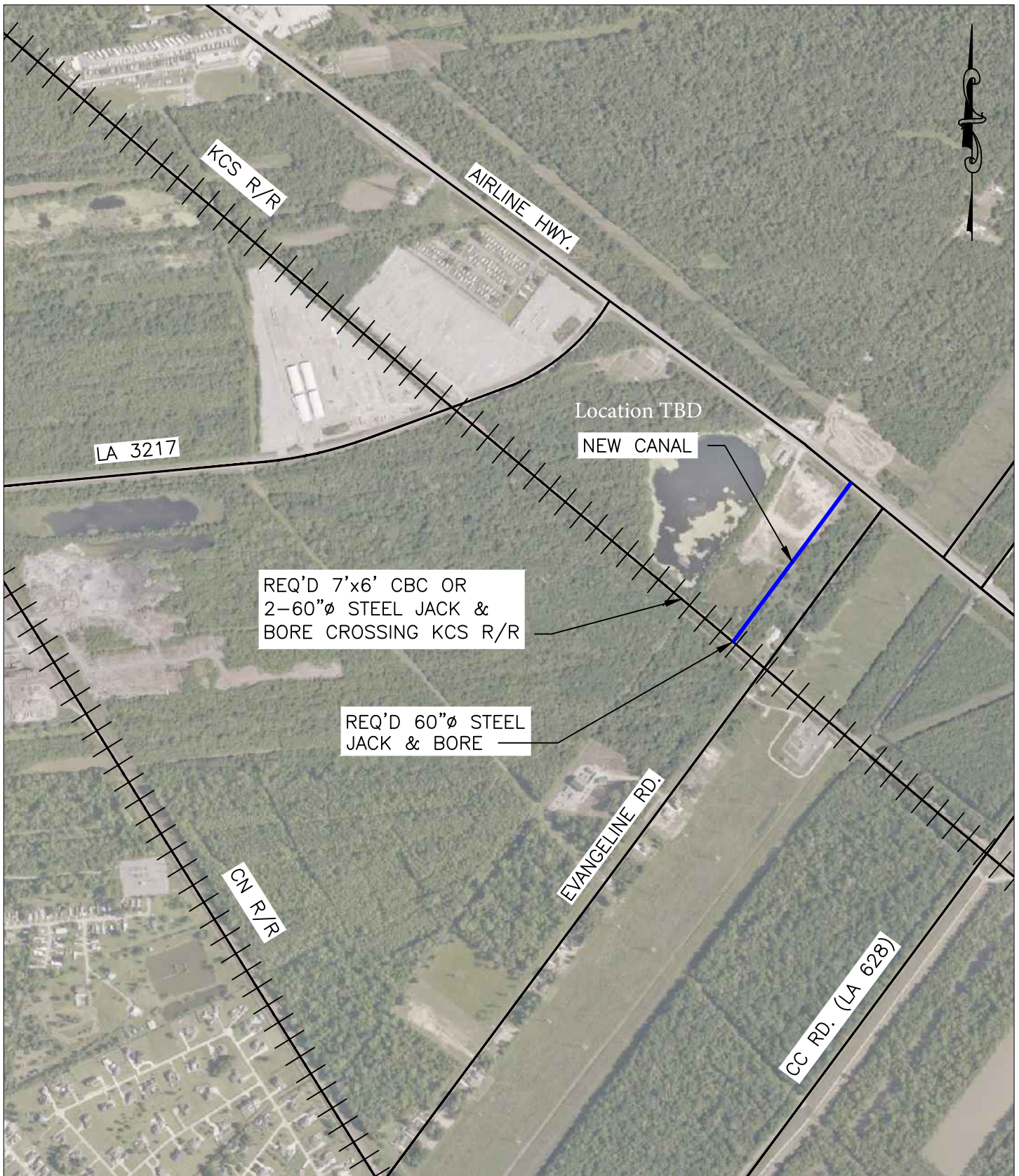
Fee

A manhour estimate is attached which defines the estimated tasks. We estimate a not to exceed fee of \$24,740.

VOLKERT



Estimated Direct Expenses



PRELIMINARY NOT TO BE USED FOR CONSTRUCTION, BIDDING, RECORDATION, CONVEYANCE, SALES OR AS THE BASIS FOR THE ISSUANCE OF A PERMIT.	VOLKERT, INC.
	ENGINEER:
	LICENSE #:
	DATE:

CONCEPTUAL LAYOUT
MONTZ DRAINAGE
EXHIBIT 1

Montz Drainage Improvements
Priority Three Drainage Improvements

St. Charles Parish



Engineer's Preliminary Opinion of Estimated Construction Cost
Jack and Bore Drainage Only
November 20, 2020

Item No.	Item	QTY	Unit	Unit Cost	Total
	Clearing and Grubbing	1	1	\$15,000	\$15,000
	Jack and Bore Under Railroad 3 -60" Steel Pipe assume 150'	450	Lin Ft.	\$4,000	\$1,800,000
	Flowable Fill/ Existing Pipes 30" removal	25	CY	\$600	\$15,000
	Railroad Coordination	1	1	\$40,000	\$40,000
	Traffic Maintenance Aggregate	100	CY	\$60	\$6,000
	Mobilization	1	1		\$80,000
	Sub Total				\$1,956,000
	Contingency	10%			\$195,600.00
	Total Preliminary Opinon of Estimated Construction Cost				\$2,151,600.00

**Montz Drainage Improvements
Priority Three Drainage Improvements**

St. Charles Parish

Engineer's Preliminary Opinion of Estimated Construction Cost

New Canal

November 20, 2020



Item No.	Item	QTY	Unit	Unit Cost	Total
	Clearing and Grubbing	1	1	\$35,000	\$35,000
	Drainage Excavation	5200	CY	\$15	\$78,000
	Erosion Control System, Fleixble (Channel Liner) Type D	60000	Sq. Yd.	\$5	\$300,000
	Disposal of Excavated Material	5200	CY	\$25	\$130,000
	Traffic Maintenance Aggregate	100	CY	\$60	\$6,000
	Mobilization	1	1		\$225,000
	Sub Total				\$774,000
	Contingency	15%			\$116,100.00
	Total Preliminary Opinon of Estimated Construction Cost				\$890,100.00

State of Louisiana Facility Planning & Control

BCI & CPI FOR 2020

BCI		CPI
1306	1975	53.8
6136	2019	255.7

SCHEDULE OF REPRESENTATIVE FEES FOR 2020

AFC	Fee as a Percentage of AFC	Fee	
\$ 10,000.00	14.0100%	\$ 1,401.00	
\$ 50,000.00	11.5800%	\$ 5,790.00	Estimated
\$ 100,000.00	10.7750%	\$ 10,775.00	Construction
\$ 200,000.00	10.0740%	\$ 20,148.00	Cost \$ 2,151,600
\$ 500,000.00	9.2768%	\$ 46,384.00	
\$ 750,000.00	8.9628%	\$ 67,221.00	Estimated Basic
\$ 1,000,000.00	8.7526%	\$ 87,526.00	Services Fee
\$ 1,500,000.00	8.4726%	\$ 127,089.00	\$177,507
\$ 2,000,000.00	8.2846%	\$ 165,691.00	
\$ 3,500,000.00	7.9417%	\$ 277,958.00	8.25%
\$ 5,000,000.00	7.7376%	\$ 386,878.00	
\$ 7,500,000.00	7.5179%	\$ 563,843.00	
\$ 10,000,000.00	7.3695%	\$ 736,948.00	
\$ 20,000,000.00	7.0348%	\$ 1,406,966.00	
\$ 50,000,000.00	6.6364%	\$ 3,318,223.00	

2020 Rate Sheet

Principal	\$ 259
Supervisor Engineer	\$ 232
Project Manager	\$ 199
Engineer	\$156.00
Pre-Professional	\$105
Senior Designer	\$ 133
Designer	\$109
Technician	\$107
Drafter	\$ 78
Bridge Inspector 2	\$ 129
Bridge Inspector 1	\$ 116
Inspector Certified	\$ 95
Inspector	\$ 75
Administrative Assistant	\$ 83