Kansas Citys, Missouri and Kansas
Flood Damage Reduction Feasibility Study
(Section 216 – Review of Completed Civil Works Projects)
Engineering Appendix to the Interim Feasibility Report

Chapter A-16

COST ENGINEERING

CHAPTER A-16
COST ENGINEERING

A-16.1 TOTAL PROJECT COST SUMMARIES

The following pages provide a summary project cost for each of the six areas of interest included within the Engineering Appendix to the Interim Feasibility Study Report. The six areas of interest include:

- Argentine Raise
- East Bottoms (Missouri and Blue Rivers Confluence Area)
- Fairfax-Jersey Creek (BPU Floodwall)
- Fairfax-Jersey Creek (Jersey Creek Sheetpile Wall)
- North Kansas City-Lower (Harlem Area)
- North Kansas City-Lower (National Starch Area)

* * * * TOTAL PROJECT COST SUMMARY * * * *

TOTAL - ALL CONTRACTS

PROJECT: Kansas City's 7 Levees Feasibility Study
LOCATION: Kansas City, Kansas and Missouri

DISTRICT: Kansas City District Corps of Engineers
P.O.C.: Patrick J. Miramontez, Cost Engineering Section

	EFFECTIVE PRICING LEVEL: 1 OCT 05					AUTHORIZ./BUDGET YEAR: 2005 EFFECT. PRICING LEVEL: 1 OCT 05			*** FULLY FUNDED ESTIMATE ***		
ACCOUNT NUMBER	FEATURE DESCRIPTION	COST ($K)	CNTG ($K)	CNTG (%)	TOTAL ($K)	COST ($K)	CNTG ($K)	TOTAL ($K)	COST ($K)	CNTG ($K)	FULL ($K)
06 - - -	FISH & WILDLIFE FACILITIES										
0603- -	WILDLIFE FACILITIES & SANCTUARIES	500	0	0%	500	500	0	500	567	0	567
11- - -	LEVEES & FLOODWALLS										
1101- -	LEVEES	11,102	2,339	21%	13,442	11,102	2,339	13,442	12,425	2,616	15,041
1102- -	FLOODWALLS	24,561	6,022	25%	30,583	24,561	6,022	30,583	27,471	6,733	34,204
13- - -	PUMPING PLANTS										
1300- -	PUMPING PLANTS	12,756	3,148	25%	15,904	12,756	3,148	15,904	14,338	3,541	17,879
	TOTAL CONSTRUCTION COSTS ===>	48,919	11,510	24%	60,429	48,919	11,510	60,429	54,801	12,890	67,691
01 - - -	LANDS AND DAMAGES										
0101- -	LAND VALUES	1,827	302	16%	2,129	1,827	302	2,129	2,000	329	2,329
0102- -	LABOR	260	38	15%	298	260	38	298	290	42	332
02 - - -	RELOCATIONS	836	223	27%	1,059	836	223	1,059	947	253	1,200
30 - - -	PLANNING, ENGINEERING & DESIGN	5,876	1,375	23%	7,251	5,876	1,375	7,251	6,530	1,528	8,058
31 - - -	CONSTRUCTION MANAGEMENT	3,562	821	23%	4,383	3,562	821	4,383	4,144	955	5,099
	TOTAL PROJECT COSTS ========>	61,280	14,269	23%	75,549	61,279	14,269	75,548	68,712	15,997	84,709

TOTAL FEDERAL COSTS ==========>	55,061
TOTAL NON-FEDERAL COSTS =====>	29,648
THE MAXIMUM PROJECT COST IS ==>	$84,709

NOTE: Total Project Cost does not include "Associated Non-Credited Relocations costs".

* * * * TOTAL PROJECT COST SUMMARY * * * *

CONTRACT A - Argentine 500 Yr Nominal Plus 3 ft

Date: 14 Aug 2006

PROJECT: Kansas City's 7 Levees Feasibility Study

DISTRICT: Kansas City District Corps of Engineers

LOCATION: Kansas City, Kansas and Missouri

P.O.C.: Patrick J. Miramontez, Cost Engineering Section

	CURRENT MCACES ESTIMATE PREPARED: 1 MAR 05					AUTHORIZ./BUDGET YEAR: 2005				*** FULLY FUNDED ESTIMATE ***				
	EFFECTIVE PRICING LEVEL: 1 OCT 05					EFFECT. PRICING LEVEL: 1 OCT 05								
ACCOUNT NUMBER	FEATURE DESCRIPTION	COST ($K)	CNTG ($K)	CNTG (%)	TOTAL ($K)	OMB (%)	COST ($K)	CNTG ($K)	TOTAL ($K)	FEATURE MID PT	OMB (%)	COST ($K)	CNTG ($K)	FULL ($K)
06 - - -	FISH & WILDLIFE FACILITIES													
0603- -	WILDLIFE FACILITIES & SANCTUARIES	500	0	0%	500	0.0%	500	0	500	Oct-2011	13.34%	567	0	567
11- - -	LEVEES & FLOODWALLS													
1101- -	LEVEES	8,163	1,672	20%	9,836	0.0%	8,163	1,672	9,836	Oct-2011	13.34%	9,252	1,896	11,148
1102- -	FLOODWALLS	16,769	3,965	24%	20,734	0.0%	16,769	3,965	20,734	Oct-2011	13.34%	19,006	4,494	23,500
13- - -	PUMPING PLANTS													
1300- -	PUMPING PLANTS	9,783	2,473	25%	12,256	0.0%	9,783	2,473	12,256	Oct-2011	13.34%	11,088	2,803	13,891
	TOTAL CONSTRUCTION COSTS ===>	35,215	8,111	23%	43,326		35,215	8,111	43,326			39,913	9,193	49,106
01 - - -	LANDS AND DAMAGES													
0101- -	LAND VALUES	1489	230	15%	1,719	0.0%	1,489	230	1,719	Apr-2010	10.00%	1,638	252	1,890
0102- -	LABOR	165	24	14%	189	0.0%	165	24	189	Apr-2010	14.10%	188	27	215
02 - - -	RELOCATIONS	836	223	27%	1,059	0.0%	836	223	1,059	Oct-2011	13.34%	947	253	1,200
30 - - -	PLANNING, ENGINEERING & DESIGN	2789	628	23%	3,418	0.0%	2,789	628	3,418	Apr-2010	14.10%	3,183	717	3,900
31 - - -	CONSTRUCTION MANAGEMENT	2579	583	23%	3,162	0.0%	2,579	583	3,162	Oct-2011	17.80%	3,038	687	3,725
	TOTAL PROJECT COSTS ========>	43,073	9,800	23%	52,872		43,073	9,800	52,872			48,907	11,129	60,036

Non-Federal Cost Share	(35%)	=	$ 21,013	K
Federal Cost Share	(65%)	=	$ 39,023	K
Total Fully Funded Estimate		=	$ 60,036	K

NOTE: Total Project Cost does not include $1,737 K for "Associated Non-Credited Relocations costs".

* * * * TOTAL PROJECT COST SUMMARY * * * *

CONTRACT B - North Kansas City - Buried Collector System

Date: 14 August 2006

PROJECT: Kansas City's 7 Levees Feasibility Study

DISTRICT: Kansas City District Corps of Engineers

LOCATION: Kansas City, Kansas and Missouri

P.O.C.: Patrick J. Miramontez, Cost Engineering Section

CURRENT MCACES ESTIMATE PREPARED: SEP 04

EFFECTIVE PRICING LEVEL: 1 OCT 05

AUTHORIZ./BUDGET YEAR: 2005

EFFECT. PRICING LEVEL: 1 OCT 05

ACCOUNT NUMBER	FEATURE DESCRIPTION	COST ($K)	CNTG ($K)	CNTG (%)	TOTAL ($K)	OMB (%)	COST ($K)	CNTG ($K)	TOTAL ($K)	*** FULLY FUNDED ESTIMATE *** FEATURE MID PT	OMB (%)	COST ($K)	CNTG ($K)	FULL ($K)
06 - - -	FISH & WILDLIFE FACILITIES													
0603- -	WILDLIFE FACILITIES & SANCTUARIES	0	0	0%	0	0.0%	0	0	0	Apr-2009	7.6%	0	0	0
11- - -	LEVEES & FLOODWALLS													
1101- -	LEVEES	841	191	23%	1,032	0.0%	841	191	1,032	Apr-2009	7.6%	905	206	1,111
1102- -	FLOODWALLS	0	0	0%	0	0.0%	0	0	0	Apr-2009	7.6%	0	0	0
13- - -	PUMPING PLANTS													
1300- -	PUMPING PLANTS	0	0	0%	0	0.0%	0	0	0	Apr-2009	7.6%	0	0	0
	TOTAL CONSTRUCTION COSTS ===>	841	191	23%	1,032		841	191	1,032			905	206	1,111
01 - - -	LANDS AND DAMAGES													
0101- -	LAND VALUES	19	3	16%	22	0.0%	19	3	22	Oct-2008	6.0%	20	3	23
0102- -	LABOR	56	8	14%	64	0.0%	56	8	64	Oct-2008	7.1%	60	9	69
02 - - -	RELOCATIONS	0	0	0%	0	0.0%	0	0	0	Apr-2009	7.6%	0	0	0
30 - - -	PLANNING, ENGINEERING & DESIGN	294	65	22%	359	0.0%	294	65	359	Oct-2008	7.1%	315	69	384
31 - - -	CONSTRUCTION MANAGEMENT	59	13	23%	72	0.0%	59	13	72	Apr-2009	10.6%	65	15	80
	TOTAL PROJECT COSTS ========>	1,269	280	22%	1,549		1,269	280	1,549			1,365	302	1,667

Non-Federal Cost Share	(35%)	=	$ 583	K
Federal Cost Share	(65%)	=	$ 1,084	K
Total Fully Funded Estimate		=	$ 1,667	K

* * * * TOTAL PROJECT COST SUMMARY * * * *

CONTRACT B - North Kansas City - Relief Well System @ National Starch

Date: 14 August 2006

PROJECT: Kansas City's 7 Levees Feasibility Study

DISTRICT: Kansas City District Corps of Engineers

LOCATION: Kansas City, Kansas and Missouri

P.O.C.: Patrick J. Miramontez, Cost Engineering Section

CURRENT MCACES ESTIMATE PREPARED: SEP 04

EFFECTIVE PRICING LEVEL: 1 OCT 05

AUTHORIZ./BUDGET YEAR: 2005

EFFECT. PRICING LEVEL: 1 OCT 05

ACCOUNT NUMBER	FEATURE DESCRIPTION	COST ($K)	CNTG ($K)	CNTG (%)	TOTAL ($K)	OMB (%)	COST ($K)	CNTG ($K)	TOTAL ($K)	*** FULLY FUNDED ESTIMATE *** FEATURE MID PT	OMB (%)	COST ($K)	CNTG ($K)	FULL ($K)
06 - - -	FISH & WILDLIFE FACILITIES													
0603- -	WILDLIFE FACILITIES & SANCTUARIES	0	0	0%	0	0.0%	0	0	0	Mar-2010	9.3%	0	0	0
11- - -	LEVEES & FLOODWALLS													
1101- -	LEVEES	1,204	273	23%	1,477	0.0%	1,204	273	1,477	Mar-2010	9.3%	1,316	298	1,614
1102- -	FLOODWALLS	0	0	0%	0	0.0%	0	0	0	Mar-2010	9.3%	0	0	0
13- - -	PUMPING PLANTS													
1300- -	PUMPING PLANTS	2,973	675	23%	3,648	0.0%	2,973	675	3,648	Mar-2010	9.3%	3,250	738	3,988
	TOTAL CONSTRUCTION COSTS ===>	4,177	948	23%	5,125		4,177	948	5,125			4,566	1,036	5,602
01 - - -	LANDS AND DAMAGES													
0101- -	LAND VALUES	89	17	19%	106	0.0%	89	17	106	Oct-2008	6.0%	94	18	112
0102- -	LABOR	16	3	19%	19	0.0%	16	3	19	Oct-2008	7.1%	17	3	20
02 - - -	RELOCATIONS	0	0	0%	0	0.0%	0	0	0	Mar-2010	9.3%	0	0	0
30 - - -	PLANNING, ENGINEERING & DESIGN	825	183.2	22%	1,008	0.0%	825	183	1,008	Oct-2008	7.1%	884	196	1,080
31 - - -	CONSTRUCTION MANAGEMENT	296	66	22%	363	0.0%	296	66	363	Mar-2010	14.1%	338	76	414
	TOTAL PROJECT COSTS ========>	5,403	1,218	23%	6,621		5,403	1,218	6,621			5,899	1,329	7,228

Non-Federal Cost Share	(35%)	=	$ 2,530	K
Federal Cost Share	(65%)	=	$ 4,698	K
Total Fully Funded Estimate		=	$ 7,228	K

* * * * TOTAL PROJECT COST SUMMARY * * * *

CONTRACT C - East Bottoms @ Blue River Confluence - Pressure Relief Wells

Date: 14 August 2006

PROJECT: Kansas City's 7 Levees Feasibility Study

DISTRICT: Kansas City District Corps of Engineers

LOCATION: Kansas City, Kansas and Missouri

P.O.C.: Patrick J. Miramontez, Cost Engineering Section

CURRENT MCACES ESTIMATE PREPARED: SEP 04

EFFECTIVE PRICING LEVEL: 1 OCT 05

AUTHORIZ./BUDGET YEAR: 2005

EFFECT. PRICING LEVEL: 1 OCT 05

ACCOUNT NUMBER	FEATURE DESCRIPTION	COST ($K)	CNTG ($K)	CNTG (%)	TOTAL ($K)	OMB (%)	COST ($K)	CNTG ($K)	TOTAL ($K)	* * * FULLY FUNDED ESTIMATE * * * FEATURE MID PT	OMB (%)	COST ($K)	CNTG ($K)	FULL ($K)
06 - - -	FISH & WILDLIFE FACILITIES													
0603- -	WILDLIFE FACILITIES & SANCTUARIES	0	0	0%	0	0.0%	0	0	0	Oct-2008	6.5%	0	0	0
11- - -	LEVEES & FLOODWALLS													
1101- -	LEVEES	894	203	23%	1,097	0.0%	894	203	1,097	Oct-2008	6.5%	952	216	1,168
1102- -	FLOODWALLS	0	0	0%	0	0.0%	0	0	0	Oct-2008	6.5%	0	0	0
13- - -	PUMPING PLANTS													
1300- -	PUMPING PLANTS	0	0	0%	0	0.0%	0	0	0	Oct-2008	6.5%	0	0	0
	TOTAL CONSTRUCTION COSTS ===>	894	203	23%	1,097		894	203	1,097			952	216	1,168
01 - - -	LANDS AND DAMAGES													
0101- -	LAND VALUES	0	0	0%	0	0.0%	0	0	0	Apr-2008	6.0%	0	0	0
0102- -	LABOR	9	1	11%	10	0.0%	9	1	10	Apr-2008	7.1%	10	1	11
02 - - -	RELOCATIONS	0	0	0%	0	0.0%	0	0	0	Oct-2008	6.5%	0	0	0
30 - - -	PLANNING, ENGINEERING & DESIGN	377	83	22%	460	0.0%	377	83	460	Apr-2008	7.1%	403	89	492
31 - - -	CONSTRUCTION MANAGEMENT	63	14	23%	77	0.0%	63	14	77	Oct-2008	7.1%	67	15	82
	TOTAL PROJECT COSTS ========>	1,342	301	22%	1,644		1,342	301	1,644			1,432	321	1,753

Non-Federal Cost Share	(35%)	=	$ 614	K
Federal Cost Share	(65%)	=	$ 1,139	K
Total Fully Funded Estimate		=	$ 1,753	K

* * * * TOTAL PROJECT COST SUMMARY * * * *

CONTRACT D - Fairfax District - BPU Wall Modification using Buttresses

Date: 14 August 2006

PROJECT: Kansas City's 7 Levees Feasibility Study

DISTRICT: Kansas City District Corps of Engineers

LOCATION: Kansas City, Kansas and Missouri

P.O.C.: Patrick J. Miramontez, Cost Engineering Section

CURRENT MCACES ESTIMATE PREPARED: SEP 04

EFFECTIVE PRICING LEVEL: 1 OCT 05

AUTHORIZ./BUDGET YEAR: 2005

EFFECT. PRICING LEVEL: 1 OCT 05

ACCOUNT NUMBER	FEATURE DESCRIPTION	COST ($K)	CNTG ($K)	CNTG (%)	TOTAL ($K)	OMB (%)	COST ($K)	CNTG ($K)	TOTAL ($K)	*** FULLY FUNDED ESTIMATE *** FEATURE MID PT	OMB (%)	COST ($K)	CNTG ($K)	FULL ($K)
06 - - -	FISH & WILDLIFE FACILITIES													
0603- -	WILDLIFE FACILITIES & SANCTUARIES	0	0	0%	0	0.0%	0	0	0	Apr-2010	9.9%	0	0	0
11- - -	LEVEES & FLOODWALLS													
1101- -	LEVEES	0	0	0%	0	0.0%	0	0	0	Apr-2010	9.9%	0	0	0
1102- -	FLOODWALLS	4,374	1,281	29%	5,655	0.0%	4,374	1,281	5,655	Apr-2010	9.9%	4,806	1,408	6,214
13- - -	PUMPING PLANTS													
1300- -	PUMPING PLANTS	0	0	0%	0	0.0%	0	0	0	Apr-2010	9.9%	0	0	0
	TOTAL CONSTRUCTION COSTS ===>	4,374	1,281	29%	5,655		4,374	1,281	5,655			4,806	1,408	6,214
01 - - -	LANDS AND DAMAGES													
0101- -	LAND VALUES	230	52	0%	282	0.0%	230	52	282	Apr-2009	8.0%	248	56	304
0102- -	LABOR	14	2	14%	16	0.0%	14	2	16	Apr-2009	10.6%	15	2	17
02 - - -	RELOCATIONS	0	0	0%	0	0.0%	0	0	0	Apr-2010	9.9%	0	0	0
30 - - -	PLANNING, ENGINEERING & DESIGN	1,186	324	27%	1,510	0.0%	1,186	324	1,510	Apr-2009	10.6%	1,312	358	1,670
31 - - -	CONSTRUCTION MANAGEMENT	326	90	27%	416	0.0%	326	90	416	Apr-2010	14.1%	372	102	474
	TOTAL PROJECT COSTS ========>	6,130	1,748	29%	7,879		6,130	1,748	7,879			6,753	1,926	8,679

Non-Federal Cost Share	(35%)	=	$	3,038 K
Federal Cost Share	(65%)	=	$	5,641 K
Total Fully Funded Estimate		=	$	8,679 K

* * * * TOTAL PROJECT COST SUMMARY * * * *

CONTRACT D - Fairfax District - Fairfax-Jersey Creek Sheetpile Wall Reconstruction

Date: 14 August 2006

PROJECT: Kansas City's 7 Levees Feasibility Study

DISTRICT: Kansas City District Corps of Engineers

LOCATION: Kansas City, Kansas and Missouri

P.O.C.: Patrick J. Miramontez, Cost Engineering Section

	CURRENT MCACES ESTIMATE PREPARED: SEP 04					AUTHORIZ./BUDGET YEAR: 2005				*** FULLY FUNDED ESTIMATE ***				
	EFFECTIVE PRICING LEVEL: 1 OCT 05					EFFECT. PRICING LEVEL: 1 OCT 05								
ACCOUNT NUMBER	FEATURE DESCRIPTION	COST ($K)	CNTG ($K)	CNTG (%)	TOTAL ($K)	OMB (%)	COST ($K)	CNTG ($K)	TOTAL ($K)	FEATURE MID PT	OMB (%)	COST ($K)	CNTG ($K)	FULL ($K)
06 - - -	FISH & WILDLIFE FACILITIES													
0603- -	WILDLIFE FACILITIES & SANCTUARIES	0	0	0%	0	0.0%	0	0	0	Mar-2009	7.1%	0	0	0
11- - -	LEVEES & FLOODWALLS													
1101- -	LEVEES	0	0	0%	0	0.0%	0	0	0	Mar-2009	7.1%	0	0	0
1102- -	FLOODWALLS	3,418	776	23%	4,194	0.0%	3,418	776	4,194	Mar-2009	7.1%	3,659	831	4,490
13- - -	PUMPING PLANTS													
1300- -	PUMPING PLANTS	0	0	0%	0	0.0%	0	0	0	Mar-2009	7.1%	0	0	0
	TOTAL CONSTRUCTION COSTS ===>	3,418	776	23%	4,194		3,418	776	4,194			3,659	831	4,490
01 - - -	LANDS AND DAMAGES													
0101- -	LAND VALUES	0	0	0%	0	0.0%	0	0	0	May-2008	6.0%	0	0	0
0102- -	LABOR	0	0	0%	0	0.0%	0.0	0	0	May-2008	7.1%	0	0	0
02 - - -	RELOCATIONS	0	0	0%	0	0.0%	0	0	0	Mar-2009	7.1%	0	0	0
30 - - -	PLANNING, ENGINEERING & DESIGN	404	92	23%	496	0.0%	404	92	496	May-2008	7.1%	433	99	532
31 - - -	CONSTRUCTION MANAGEMENT	239	54	23%	294	0.0%	239	54	293	Mar-2009	10.6%	264	60	324
	TOTAL PROJECT COSTS ========>	4,062	922	23%	4,984		4,061	922	4,983			4,356	990	5,346

Non-Federal Cost Share	(35%)	=	$ 1,871	K
Federal Cost Share	(65%)	=	$ 3,475	K
Total Fully Funded Estimate		=	$ 5,346	K

NOTE: Total Project Cost does not include $3,557K for "Associated Non-Credited costs".

A-16.2 ARGENTINE RAISE

The cost estimate included in this section reflects the feasibility level analysis undertaken in determining the cost of raising the entire Argentine Unit's protection to meet the proposed Nominal 500-year plus 3 ft scenario.

Feas Est for 500 Year +3 Ft
Kansas City Levees Feasibility
Study - Argentine District
Nominal 500 Yr Levee Raise plus
3 ft Revision #10

Designed By: CENWK
Estimated By: CENWK-EC-DC

Prepared By: Patrick Miramontez 816-389-3322
LATEST ESTIMATE AS OF 30 Aug 06

Preparation Date: 12/19/03
Effective Date of Pricing: 10/01/05

Sales Tax: 0.00%

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01- Lands & Damages - The costs include the acquisition of Permanent Right-of-Way, Temporary Right-of-Way, and borrow areas. These costs include Non Federal Sponsors cost to perform the Legal work, Title Work, Tract appraisals, and land surveys, as well as Federal labor costs associated with land acquisition. NOTE: 14 Aug 2006 - Also included is the relocation cost of the maintenance building that will infringe on the new pump plant footprint. Other private businesses are also included. These businesses (and associated fencing requiring removal and replacement) infringe on the footprint of the raised levee. All markups remained the same to keep the same bottom line number.

02 - Relocations - This item currently includes only utility and structural relocations. There are two types of utility relocations:

1) Utilities crossing the levee - These are utilities identified as having to be removed from their current location and placed up and over the new levee raise. This will require a fill zone that will be evident above the levee projected lines. All abandoned pipes crossing the levee will be removed. NOTE: All costs under this item except UL8 are priced for economic purposes only. These costs are not included in the authorized project totals.

2) Utilities impacted by Uplift - All utilities within approximately 500 lf of the levee crossing could be affected by uplift pressures created by the levee raise. Therefore, all lines 6" and greater were estimated to be relocated 2' deeper than the original location. This involves abandoning existing lines by grouting full, and trenching along side current locations and placing at a deeper depth. Note: treatment of gravity pipes will vary from pressure pipes (described above). Specifics TBD on a case by case basis. Based on calculations by EC-DS, uplift pressures are fairly constant for raises. Therefore, costs remain constant for all raises.

06 - Fish & Wildlife Facilities - An allowance was included within the Argentine Unit construction costs for mitigation of anticipated impacts to the environment from borrow area development, overall project construction (both identified and anticipated), and associated mitigation contingencies. A conceptual mitigation plan is included in the EIS which addresses currently identified mitigation requirements.

11 - Levees & Floodwalls- The levees cost consists of 7 different components. These components include: 1) Relief Wells, 2) Borrow Site, 3) Levee Raise (including Levee Cut, Levee Raise, Stability and Underseepage berms), 4) Drainage System Modifications 5) Floodwalls, 6) I-walls, and 7) Stoplog Gaps.

- Relief Wells - The relief wells were deleted and replaced with a rock toe on the landside of the levee.

- Borrow Site - It is currently assumed one borrow site will be utilized. The costs include the preparation of the borrow site, and the final grading of the borrow site when completed. 2ND NOTE - 4 OCT 2004 - Assumed borrow site location has changed from the Argentine Levee Foreshore (approx Sta 100+00) and Armourdale foreshore to a new location at approximate Right bank Kansas River Mile +/- 11.5.

- Levee Cut - Quantities for the levee cut were based on the removal of the aggregate surfacing on top the the levee, and the stripping of topsoil from the landside of the existing levee. It was assumed this material will be dozed off and then loaded by excavator into dump trucks and hauled to the Argentine storage area for reuse as fill and topsoil at a later date.

- Levee Raise (including Stability/Underseepage Berms) - Quantities for the levee raise was calculated by using In-Roads CAD software and then hand manipulated. Haul distances were hand calculated based on the borrow site locations and the quantities required. Haul distances vary from 3.73 miles to 7.20 miles oneway. The material is to be excavated, loaded, and hauled using on-highway dump trucks over the existing roadways where needed. Cost includes an amount for road repair and street sweeping. A cost is also included for new aggregate surfacing and seeding and mulching. NOTE - 28 March 2006 - A cost for the removal and disposal of 5 UST's and 500 lf of filter blanket was added to underseepage berm item.

- Drainage System Modifications - This item includes costs to deload existing box culverts, reinforce existing RCB's, replacing existing gatewells, abandon pipes, and the raising of existing platforms on existing gatewell structures. Also included is a buried collector system (18501f) along the toe of the levee.

- Floodwalls - Floodwalls include costs for excavation and demolition of the existing floodwall, backfilling to the new floodwall elevation, the provision and installation of 18" Pipe Piles, provision and installation of a sheetpile cutoff wall, the construction of a new floodwall ~16.5 feet high. Once completed the remaining backfill will be placed. For the raise at Sta 251+65 to 253+92 modification to the wall is preferred to avoid tearout and the subsequent provision of level of protection.

- I-walls - In areas where a floodwall or berm cannot be placed a sheetpile I-wall was used. This consisted of driving a line of sheetpile along the riverside crest of the levee and then placing a concrete cap over the sheetpile. Note: transition sections from I-Walls to earthen levee to be determined and worked prior to final design. Will include consideration of access and maintenance requirements.

- Stoplog Gaps - These costs include the excavation and demolition of the existing stoplog gap at one locations. Once demolished, backfilling to the new base elevation will occur. H-piles will be driven for load support. A sheetpile cutoff wall will also be placed. New abutment walls will be built along with a new sill. The sill/foundation will be constructed in phases to accommodate railroad traffic. Standard stoplogs will be used. Once completed the remaining backfill will be placed and the railroad lines replaced.

-Pump Plant - Pump station costs include line item modifications sufficient for existing levee heights plus additional modifications required to support the levee raise. The following descriptions are modifications to support the existing levee height:

Turner Pump Plant - It is assumed that 7 new relief wells housed in precast

manholes and connected by 18" RCP header pipes will be required to relieve the uplift pressures at this plant. It is assumed the header pipe will penetrate the existing pump plant wall and discharge directly into the existing wet well.

Argentinge Pump Plant (5th Avenue) - The cost for this item includes: demolition of existing maintenance building; placement of augercast piles for excavation support for both the pump plant and the inlet and outlet pipes;excavation of contaminated material for the pump plant and inlet/outlet pipes and the disposal of this material; construction of a new inlet pipe; construction of a new pump plant; extending levee to new pump plant and creating a positive tie-in; constructing a temporary levee from pump station to existing floodwall; construction of outlet pipe from pump station to river; tie-in new inlet pipe to existing RCB on landside; abandon existing pump plant; abandon existing RCB; extend remaining portion of levee to pump station and create a positive tie-in; and backfilling with clean material from offsite sources. Also included is the provision of a contingency plan. NOTE- Loading, Hauling, and Disposal of contaminated material is considered to be a Project Cost since the material is only contaminated with petroleum products (assumed not to be CERCLA waste). The provision of new backfill material to replace the contaminated material is also considered to be a Project Cost.

Strong Avenue - The cost for this item includes the following: Placement of H-piles at the outlet for pipe jacking; Pipe jacking steel pipes through the existing RCB; Grouting the annulus around the jacked steel pipe; Removal of the existing building shell; Removal of the existing pumping system including pipes, controls and pumps; removal of existing steel floor; demolition of the existing gatewell structure above existing ground floor; Demolition of walls to create slots for struts; Demolition of concrete floor to create holes for the pilasters; Provision and installation of pilasters; Placement of reinforcing and concrete around pilasters; Placement of anchors and concrete for additional floor thickness; Reinstallation of pipes/pumps/ and controls; Reinstallation of steel floor; and provision/installation of new building shell.

30 - Estimated Engineering & Design Cost = 7.54% of project implementation (less lands & damages) cost. NOTE: 12 Aug 2006 - This percentage remained applied to the relocation of the maintenance building even though it is now in the 01 Account - Lands & Damages.

31 - Estimated Construction Supervision & Administration = 7% of project implementation (less lands & damages) cost. NOTE: 12 Aug 2006 - This percentage remained applied to the relocation of the maintenance building even though it is now in the 01 Account - Lands and Damages.

Areas of Cost Sensitivity

- Estimate does not include any costs for sampling/testing for HTRW.
- Estimate does not include any costs for the hauling and disposal of HTRW.
- Estimate considers enough borrow is available for use from the borrow located on the right bank of Kansas River mile +/- 11.5. If this borrow area is not available for use, additional costs will have to be considered.

- Estimate does not include O&M costs. Only project implementation (construction, real-estate and associated) costs.
- Estimate is based on borrow location Right Bank Kansas River Mile 11.5.
- The placement of the stoplog gaps may vary due to railroad scheduling.
- The Argentine District is in an area congested by roads, and buildings. The hauling rates for these conditions have been taken into account.
- Planned construction period is Apr 2010 to Apr 2013 per previous Real Estate Timeline dated 09-7-04.
- Potential for increased compensability utility costs provided utility owners provide documentation.

General Cost Information

- The quantities have been calculated by EC-GD, EC-DC, and EC-DS. A contingency determination meeting will be held with all of the designers to apply the appropriate amount of contingency to each line item.

- No tax has been included for the states of Kansas and Missouri.

- The source for the labor rates used in the estimate is the Sept 2004 Department of Labor Wage rates for Wyandotte County, Kansas. A minor adjustment factor is added to bring the rates to the appropriate price level date.

- The national 1999 Unit Price Book is used to price minor items. Quotes were received for major cost items. An adjustment factor is added to bring the rates to the appropriate price level date.

- 2004 equipment rates were used. An adjustment factor is added to bring the rates to the appropriate price level date.

- Once all of the databases are normalized to the appropriate price level date an escalation factor will be added to the owner level to bring the estimate to the appropriate price level date. The escalation factors used were derived from the Civil Works Construction Cost Index System (CWCCIS) EM1110-2-1304. The composite index for the State of Kansas/Missouri will be used.

CONTINGENCY DETERMINATION REPORT

*****NOTE*****

Bid item numbers correspond to the summary sheet Bid Item Level WBS identifier. For example: 09.01.30.02.3 Excavation, Common

The "3" at the end of the number string corresponds to Bid Item No. 3 on this Contingency Determination Report.

*****END NOTE*****

01 Account - Lands and Damages

-Land Values
Bid Item No. 01 - 20% -Typical contingency factor used. Higher than appraised acquistion value used.
Bid Item Nos.02 thru 12-Typical 15% contingency factor used for Real Estate.

Non-Federal Sponsors Costs-
Bid Item Nos. 07 - Typical 15% contingency factor used for Real estate.

Federal Costs
Bid Item Nos. 8 & 9 - Typical 15% contingency factor used for Real Estate.

02 Accout - Relocations
Utilities crossing levee
Bid Item No. 10 thru 21-100% - Utility corridors may have additional utilities not identified. The locations and depths not known. Drawings are not available. Scheduling not known.
Utilities affected by Uplift
Bid Item No. 22 thru 25- 20%- Typical contingency factor was used. The quantities may be high. Not all utilities will have to be relocated.
Structures - NOT USED

06 Account - Fish & Wildlife Facilities
Bid Item No. X5 - 0% - Allowance already includes contingency.

11 Account - Levees and Floodwalls
Relief Wells
Bid Item No. 25 thru 35 - NOT USED

Borrow Sites
Bid Item No. 36 thru 38 - 20% - Typical contingency factor was used.

Levee Cut & Levee Raise
Bid Item No. 39-62 & 67-74 - 20% - Typical contingency factor was used.
Bid Item No. 63 thru 66 & 75 thru 79 - NOT USED
Bid Item No. 80 thru A4 - 20% - Typical contingency factor was used.
Bid Item No. A5 thru A9 - NOT USED
Bid Item No. B0 thru B4 - 20% - Typical contingency factor was used.
Bid Item No. B5 thru B9 - NOT USED

STABILITY BERM & UNDERSEEPAGE BERM
Bid Item No. C0 thru E4 - 20% - Typical contingency factor was used.
Bid Item No. E5 thru E9 - NOT USED
Bid Item No. F0 thru F5 - 20% - Typical contingency factor was used.
Bid Item No. F6 thru G4 - NOT USED
Bid Item No. G5 thru G9 - 20% - Typical contingency factor was used.
Bid Item No. HO - 50 % contingency factor. Unknown #/size of Tanks.
Bid Item No. H2 thru H4 - NOT USED H1- 25% contingency factor used. Width?
Bid Item No. H5 thru I4 - 20% - Typical contingency factor was used.
Seeding & Mulching
Bid Item No. I5 - 20% - Typical contingency factor was used.

Replace Aggregate surfacing
Bid Item No. I6 - 20% - Typical contingency factor was used.
Drainage Systems
Bid Item No. I7 - 30%. May encounter difficulties in excavating in tight areas.
Bid Item No. I8 thru K5 - NOT USED
Bid Item No. K6 thru K7 - 30%. May encounter difficulties in excavating in tight areas.
Bid Item No. K8 - 50%. Contingency was added to cover unknown structural deficiencies.
Bid Item No. K9 thru L0 - 20%. Typical contingency factor was used.
Bid Item No. L1 thru M4 - NOT USED
Bid Item No. M5 thru O2 - 20%. Typical contingency factor was used.
Bid Item No. O3 thru 09 - NOT USED
Bid Item No. P0 thru Q0 - Typical 20% contingency factor used.

Floodwalls
Bid Item No. Q1 thru Q9 - NOT USED
Bid Item No. R0 thru R2 - 20% - Typical contingency factor was used.
Bid Item No. R3 - 35% contingency was added to cover possible problems with forming around flood wall riverside.
Bid Item No. R4 thru S4 - 20% - Typical contingency factor was used.

I-walls
Bid Item No. S5/S8/S9/T2/T3/T6-50% factor used. Excavation plan may change.
Bid item No. S6/S7/T0/T1/T4/T5-25% factor used. Heights may vary.
Stoplog Gaps
Bid Item No. T7 thru W4 - 50%. May encounter difficulties in scheduling with the railroad.

13 Account - Pump Plants - W5 - 50% contingency factor based on unknown retrofit
Bid Items 5 thru 49 - Typical 25% contingency factor used.
Bid Item 50 - 35% conting factor used due to uneven elevations for jacking.
Bid Items 51 thru 68 - Typical 25% contingency factor used.

SUMMARY REPORTS SUMMARY PAGE

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No Detailed Estimate...

No Backup Reports...

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** PROJECT OWNER SUMMARY - Feature **

	QUANTITY	UOM	CONTRACT	CONTING	ESCALATN	PED	CM	TOTAL COST	UNIT COST	NOTES
01 Lands and Damages	1.00	EA	1,614,453	253,325	39,638	71,101	55,006	2,033,523	2033523	
02 Relocations	1.00	EA	1,559,958	1,027,053	209,566	79,870	74,159	2,950,605	2950605	
06 Fish & Wildlife Facilities	1.00	EA	500,000	0	0	37,700	35,004	572,704	572704.27	
11 Levees and Floodwalls	1.00	EA	22,641,167	5,637,763	2,290,786	2,304,957	2,140,141	35,014,815	35014815	
13 Pump Plant	1.00	EA	8,864,707	2,473,162	918,445	924,126	858,047	14,038,487	14038487	
TOTAL Feas Est for 500 Year +3 Ft	1.00	EA	35,180,285	9,391,304	3,458,435	3,417,754	3,162,356	54,610,134	54610134	

** PROJECT OWNER SUMMARY - Bid Item **

	QUANTITY	UOM	CONTRACT	CONTING	ESCALATN	PED	CM	TOTAL COST	UNIT COST	NOTES
01 Lands and Damages										
01.23 Land Values										
01.23.01 Land Values										
01.23.01.01 Land Values										
01.23.01.01.01 Borrow Areas	89.06	ACR	223,150	44,630	5,356	0	0	273,136	3066.87	
01.23.01.01.02 Sta 0+00 to 40+00	1.40	ACR	30,520	4,578	702	0	0	35,800	25571.40	
01.23.01.01.03 Sta 40+00 to 61+00	3.80	ACR	81,600	12,240	1,877	0	0	95,717	25188.63	
01.23.01.01.04 Sta 118+00 to 183+00	12.30	ACR	252,900	37,935	5,817	0	0	296,652	24118.02	
01.23.01.01.05 Sta 183+00 to 223+50	3.80	ACR	53,400	8,010	1,228	0	0	62,638	16483.74	
01.23.01.01.06 Sta 223+50 to 289+00	2.20	ACR	11,890	1,784	273	0	0	13,947	6339.53	
01.23.01.01.07 Sta 220+00 to 255+00	0.50	ACR	132,374	19,856	3,045	0	0	155,275	310549.40	
01.23.01.01.08 Sta 48+00 to 60+00	1200.00	LF	38,760	5,814	891	3,428	3,183	52,076	43.40	
01.23.01.01.09 Sta 118+00 to 183+00 (LERRD)	7700.00	SF	229,000	34,350	5,267	20,254	18,805	307,676	39.96	
01.23.01.01.11 Sta 223+50 to 289+00 (LERRD)	1400.00	SF	48,000	7,200	1,104	4,245	3,942	64,491	46.07	
01.23.01.01.12 Sta 220+00 to 255+00 (LERRD)	4500.00	SF	354,060	53,109	8,143	31,315	29,075	475,702	105.71	
TOTAL Land Values			1,455,654	229,506	33,703	59,242	55,006	1,833,110		
01.23.01.02 Non Federal Sponsor Costs										
01.23.01.02.07 Non Federal Sponsor Costs	1.00	EA	124,140	18,621	4,640	0	0	147,401	147400.73	
TOTAL Non Federal Sponsor Costs	1.00	EA	124,140	18,621	4,640	0	0	147,401	147400.73	
01.23.01.03 Federal Costs										
01.23.01.03.08 Federal Costs- Preconstruction	1.00	EA	18,708	2,806	699	11,859	0	34,073	34072.63	
01.23.01.03.09 Federal Costs- Post Construction	1.00	EA	15,951	2,393	596	0	0	18,940	18939.77	
TOTAL Federal Costs	1.00	EA	34,659	5,199	1,295	11,859	0	53,012	53012.40	
TOTAL Land Values	1.00	EA	1,614,453	253,325	39,638	71,101	55,006	2,033,523	2033523	
TOTAL Land Values	1.00	EA	1,614,453	253,325	39,638	71,101	55,006	2,033,523	2033523	
TOTAL Lands and Damages	1.00	EA	1,614,453	253,325	39,638	71,101	55,006	2,033,523	2033523	
02 Relocations										
02.01 Utility Relocations										
02.01.03 Cemetery, Utilities, & Structure										

** PROJECT OWNER SUMMARY - Bid Item **

	QUANTITY	UOM	CONTRACT	CONTING	ESCALATN	PED	CM	TOTAL COST	UNIT COST	NOTES
02.01.03.18 Utilities Crossing Levee										
02.01.03.18.10 UL1- Sta 12+80 - 4" Gas Line	100.00	LF	65,605	65,605	10,629	0	0	141,840	1418.40	
02.01.03.18.11 UL2- Sta 29+25 - 2.5" Gas Line	200.00	LF	65,731	65,731	10,649	0	0	142,110	710.55	
02.01.03.18.12 UL3- Sta 29+35 - 6" Cable Sleeve	200.00	LF	40,026	40,026	6,485	0	0	86,536	432.68	
02.01.03.18.13 UL4- Sta 29+41 - 6" Cable Sleeve	200.00	LF	40,026	40,026	6,485	0	0	86,536	432.68	
02.01.03.18.14 UL5- Sta 36+20 - 4" Gas Line	200.00	LF	69,398	69,398	11,243	0	0	150,039	750.19	
02.01.03.18.15 UL8- Sta 71+80 - 8" Petroleum Ln	100.00	LF	90,272	90,272	14,625	14,716	13,664	223,549	2235.49	
02.01.03.18.16 UL9 - Sta 214+40- Rem 18" DIP	100.00	LF	34,902	34,902	5,655	0	0	75,458	754.58	
02.01.03.18.17 UL10 - Sta 214+70 - 20" Gas Line	100.00	LF	250,033	250,033	40,509	0	0	540,574	5405.74	
02.01.03.18.18 UL11- Sta 215+20-10" Water Line	100.00	LF	92,053	92,053	14,914	0	0	199,021	1990.21	
02.01.03.18.19 UL14-Sta 288+36-6" Cable Sleeve	200.00	LF	40,026	40,026	6,485	0	0	86,536	432.68	
02.01.03.18.20 UL15- Sta 288+47 - 2.5" Gas Line	200.00	LF	65,731	65,731	10,649	0	0	142,110	710.55	
02.01.03.18.21 UL16-Sta 288+87- 6" Cable Sleeve	200.00	LF	40,026	40,026	6,485	0	0	86,536	432.68	
TOTAL Utilities Crossing Levee	1.00	EA	893,827	893,827	144,812	14,716	13,664	1,960,846	1960846	
02.01.03.20 Utilities Affected by Uplift										
02.01.03.20.22 Relocation of 12" SS (LERRD)	1185.00	LF	176,021	35,204	17,111	17,217	15,985	261,538	220.71	
02.01.03.20.23 Reloc of 12" Water Line (LERRD)	800.00	LF	134,479	26,896	13,072	13,153	12,213	199,813	249.77	
02.01.03.20.24 Reloc of 16" Water Line (LERRD)	430.00	LF	125,869	25,174	12,235	12,311	11,431	187,020	434.93	
02.01.03.20.25 Reloc of 6" Water Line (LERRD)	2165.00	LF	229,762	45,952	22,335	22,473	20,866	341,388	157.68	
TOTAL Utilities Affected by Uplift	1.00	EA	666,131	133,226	64,753	65,154	60,495	989,759	989759.18	
02.01.03.47 Structures										
TOTAL Cemetery, Utilities, & Structure	1.00	EA	1,559,958	1,027,053	209,566	79,870	74,159	2,950,605	2950605	
TOTAL Utility Relocations	1.00	EA	1,559,958	1,027,053	209,566	79,870	74,159	2,950,605	2950605	
TOTAL Relocations	1.00	EA	1,559,958	1,027,053	209,566	79,870	74,159	2,950,605	2950605	
06 Fish & Wildlife Facilities										
06.03 Fish & Wildlife Fac/Sanc										
06.03.99 Associated General Items										
06.03.99.01 Environmental Enhancement										
06.03.99.01.X5 Environmental Enhancement	1.00	EA	500,000	0	0	37,700	35,004	572,704	572704.27	
TOTAL Environmental Enhancement	1.00	EA	500,000	0	0	37,700	35,004	572,704	572704.27	
TOTAL Associated General Items	1.00	EA	500,000	0	0	37,700	35,004	572,704	572704.27	

** PROJECT OWNER SUMMARY - Bid Item **

	QUANTITY UOM	CONTRACT	CONTING	ESCALATN	PED	CM	TOTAL COST	UNIT COST	NOTES
TOTAL Fish & Wildlife Fac/Sanc	1.00 EA	500,000	0	0	37,700	35,004	572,704	572704.27	
TOTAL Fish & Wildlife Facilities	1.00 EA	500,000	0	0	37,700	35,004	572,704	572704.27	
11 Levees and Floodwalls									
11.01 Levees									
11.01.01 Relief Wells									
11.01.01.19 Sta 278+00 to 288+00									
11.01.02 Borrow Site									
11.01.02.05 Site Prep Borrow Sites									
11.01.02.05.36 Site Prep New Borrow Site	71793.00 CY	90,911	18,182	8,837	8,892	8,256	135,079	1.88	
11.01.02.05.37 Clearing and Grubbing	20.00 ACR	128,480	25,696	12,489	12,567	11,668	190,900	9545.02	
TOTAL Site Prep Borrow Sites	1.00 EA	219,392	43,878	21,327	21,459	19,924	325,980	325979.56	
11.01.02.10 Final Grade Both Sites									
11.01.02.10.38 Final Grade Both Sites	71792.00 CY	103,675	20,735	10,078	10,140	9,415	154,043	2.15	
TOTAL Final Grade Both Sites	2.00 EA	103,675	20,735	10,078	10,140	9,415	154,043	77021.71	
TOTAL Borrow Site	1.00 EA	323,066	64,613	31,405	31,599	29,339	480,023	480022.97	
11.01.03 Levee Cut									
11.01.03.05 Sta -1+10 to 29+00									
11.01.03.07 Sta 29+00 to 39+00									
11.01.03.07.39 Excavate Material from Levee	1239.00 BCY	8,422	1,684	819	824	765	12,514	10.10	
11.01.03.07.40 Place Mat'l	1239.00 BCY	1,079	216	105	105	98	1,603	1.29	
11.01.03.07.41 Street Repair	1239.00 BCY	721	144	70	71	65	1,071	0.86	
11.01.03.07.42 Street Sweeping	1239.00 BCY	464	93	45	45	42	690	0.56	
TOTAL Sta 29+00 to 39+00	1239.00 BCY	10,686	2,137	1,039	1,045	970	15,877	12.81	
11.01.03.09 Sta 39+00 to 60+00									
11.01.03.09.43 Excavate Material from Levee	2671.00 BCY	18,156	3,631	1,765	1,776	1,649	26,976	10.10	
11.01.03.09.44 Place Mat'l	2671.00 BCY	2,325	465	226	227	211	3,455	1.29	
11.01.03.09.45 Street Repair	2671.00 BCY	1,554	311	151	152	141	2,309	0.86	

** PROJECT OWNER SUMMARY - Bid Item **

	QUANTITY	UOM	CONTRACT	CONTING	ESCALATN	PED	CM	TOTAL COST	UNIT COST	NOTES
11.01.03.09.46 Street Sweeping	2671.00	BCY	1,001	200	97	98	91	1,487	0.56	
TOTAL Sta 39+00 to 60+00	2671.00	BCY	23,036	4,607	2,239	2,253	2,092	34,227	12.81	
11.01.03.11 Sta 60+00 to 110+00										
11.01.03.11.47 Excavate Material from Levee	179.00	BCY	949	190	92	93	86	1,410	7.88	
11.01.03.11.48 Place Mat'l	179.00	BCY	156	31	15	15	14	232	1.29	
11.01.03.11.49 Street Repair	179.00	BCY	104	21	10	10	9	155	0.86	
11.01.03.11.50 Street Sweeping	179.00	BCY	67	13	7	7	6	100	0.56	
TOTAL Sta 60+00 to 110+00	179.00	BCY	1,276	255	124	125	116	1,896	10.59	
11.01.03.13 Sta 110+00 to 150+00										
11.01.03.13.51 Excavate Material from Levee	6988.00	BCY	37,051	7,410	3,602	3,624	3,365	55,052	7.88	
11.01.03.13.52 Place Mat'l	6988.00	BCY	6,083	1,217	591	595	552	9,039	1.29	
11.01.03.13.53 Street Repair	6988.00	BCY	4,066	813	395	398	369	6,041	0.86	
11.01.03.13.54 Street Sweeping	6988.00	BCY	2,618	524	254	256	238	3,890	0.56	
TOTAL Sta 110+00 to 150+00	6988.00	BCY	49,818	9,964	4,843	4,873	4,524	74,022	10.59	
11.01.03.15 Sta 150+00 to 215+00										
11.01.03.15.55 Excavate Material from Levee	14887.00	BCY	101,193	20,239	9,837	9,898	9,190	150,356	10.10	
11.01.03.15.56 Place Mat'l	14887.00	BCY	12,960	2,592	1,260	1,268	1,177	19,256	1.29	
11.01.03.15.57 Street Repair	14887.00	BCY	8,661	1,732	842	847	787	12,869	0.86	
11.01.03.15.58 Street Sweeping	14887.00	BCY	5,577	1,115	542	546	507	8,287	0.56	
TOTAL Sta 150+00 to 215+00	14887.00	BCY	128,391	25,678	12,481	12,558	11,660	190,768	12.81	
11.01.03.17 Sta 215+00 to 270+00										
11.01.03.17.59 Excavate Material from Levee	5746.00	BCY	43,354	8,671	4,214	4,240	3,937	64,416	11.21	
11.01.03.17.60 Place Mat'l	5746.00	BCY	5,002	1,000	486	489	454	7,432	1.29	
11.01.03.17.61 Street Repair	5746.00	BCY	3,343	669	325	327	304	4,967	0.86	
11.01.03.17.62 Street Sweeping	5746.00	BCY	2,153	431	209	211	195	3,199	0.56	
TOTAL Sta 215+00 to 270+00	5746.00	BCY	53,851	10,770	5,235	5,267	4,891	80,014	13.93	
11.01.03.19 Sta 270+00 to 289+70										
11.01.03.23 Sta 223+50 to 227+00										
11.01.03.23.67 Excavate Material from Levee	2592.00	BCY	19,557	3,911	1,901	1,913	1,776	29,058	11.21	
11.01.03.23.68 Place Mat'l	2592.00	BCY	2,256	451	219	221	205	3,353	1.29	

** PROJECT OWNER SUMMARY - Bid Item **

	QUANTITY	UOM	CONTRACT	CONTING	ESCALATN	PED	CM	TOTAL COST	UNIT COST	NOTES
11.01.03.23.69 Street Repair	2592.00	BCY	1,508	302	147	147	137	2,241	0.86	
11.01.03.23.70 Street Sweeping	2592.00	BCY	971	194	94	95	88	1,443	0.56	
TOTAL Sta 223+50 to 227+00	2592.00	BCY	24,292	4,858	2,361	2,376	2,206	36,094	13.93	
11.01.03.25 Sta 244+00 to 246+00										
11.01.03.25.71 Excavate Material from Levee	1482.00	BCY	11,182	2,236	1,087	1,094	1,015	16,614	11.21	
11.01.03.25.72 Place Mat'l	1482.00	BCY	1,290	258	125	126	117	1,917	1.29	
11.01.03.25.73 Street Repair	1482.00	BCY	862	172	84	84	78	1,281	0.86	
11.01.03.25.74 Street Sweeping	1482.00	BCY	555	111	54	54	50	825	0.56	
TOTAL Sta 244+00 to 246+00	1482.00	BCY	13,889	2,778	1,350	1,358	1,261	20,637	13.93	
TOTAL Levee Cut	35784.00	BCY	305,240	61,048	29,672	29,855	27,721	453,535	12.67	
11.01.04 Levee Raise (New)										
11.01.04.05 Sta -1+10 to 29+00										
11.01.04.07 Sta 29+00 to 39+00										
11.01.04.07.80 Excavate Material from Borrow	8654.12	BCY	62,594	12,519	6,085	6,122	5,685	93,004	10.75	
11.01.04.07.81 Place Mat'l	8654.12	BCY	14,850	2,970	1,444	1,452	1,349	22,064	2.55	
11.01.04.07.82 Street Repair	8654.12	BCY	5,035	1,007	489	492	457	7,481	0.86	
11.01.04.07.83 Street Sweeping	8654.12	BCY	3,242	648	315	317	294	4,817	0.56	
11.01.04.07.84 Testing	8654.12	BCY	584	117	57	57	53	868	0.10	
TOTAL Sta 29+00 to 39+00	7356.00	CCY	86,305	17,261	8,390	8,441	7,838	128,235	17.43	
11.01.04.09 Sta 39+00 to 60+00										
11.01.04.09.85 Excavate Material from Borrow	16867.06	BCY	132,086	26,417	12,840	12,919	11,995	196,258	11.64	
11.01.04.09.86 Place Mat'l	16867.06	BCY	28,942	5,788	2,813	2,831	2,628	43,004	2.55	
11.01.04.09.87 Street Repair	16867.06	BCY	9,813	1,963	954	960	891	14,581	0.86	
11.01.04.09.88 Street Sweeping	16867.06	BCY	6,319	1,264	614	618	574	9,389	0.56	
11.01.04.09.89 Testing	16867.06	BCY	1,108	222	108	108	101	1,646	0.10	
TOTAL Sta 39+00 to 60+00	14337.00	CCY	178,269	35,654	17,329	17,436	16,190	264,878	18.48	
11.01.04.11 Sta 60+00 to 110+00										
11.01.04.11.90 Excavate Material from Borrow	914.12	BCY	7,158	1,432	696	700	650	10,636	11.64	
11.01.04.11.91 Place Mat'l	914.12	BCY	1,569	314	152	153	142	2,331	2.55	
11.01.04.11.92 Street Repair	914.12	BCY	532	106	52	52	48	790	0.86	
11.01.04.11.93 Street Sweeping	914.12	BCY	342	68	33	33	31	509	0.56	

** PROJECT OWNER SUMMARY - Bid Item **

	QUANTITY	UOM	CONTRACT	CONTING	ESCALATN	PED	CM	TOTAL COST	UNIT COST	NOTES
11.01.04.11.94 Testing	914.12	BCY	60	12	6	6	5	90	0.10	
TOTAL Sta 60+00 to 110+00	777.00	CCY	9,662	1,932	939	945	877	14,356	18.48	
11.01.04.13 Sta 110+00 to 150+00										
11.01.04.13.95 Excavate Material from Borrow	31145.88	BCY	262,533	52,507	25,520	25,678	23,842	390,081	12.52	
11.01.04.13.96 Place Mat'l	31145.88	BCY	53,444	10,689	5,195	5,227	4,854	79,408	2.55	
11.01.04.13.97 Street Repair	31145.88	BCY	18,121	3,624	1,761	1,772	1,646	26,924	0.86	
11.01.04.13.98 Street Sweeping	31145.88	BCY	11,669	2,334	1,134	1,141	1,060	17,338	0.56	
11.01.04.13.99 Testing	31145.88	BCY	1,995	399	194	195	181	2,964	0.10	
TOTAL Sta 110+00 to 150+00	26474.00	CCY	347,761	69,552	33,805	34,014	31,582	516,714	19.52	
11.01.04.15 Sta 150+00 to 215+00										
11.01.04.15.A0 Excavate Material from Borrow	68618.82	BCY	537,354	107,471	52,235	52,558	48,800	798,419	11.64	
11.01.04.15.A1 Place Mat'l	68618.82	BCY	117,744	23,549	11,446	11,516	10,693	174,948	2.55	
11.01.04.15.A2 Street Repair	68618.82	BCY	39,922	7,984	3,881	3,905	3,626	59,318	0.86	
11.01.04.15.A3 Street Sweeping	68618.82	BCY	25,708	5,142	2,499	2,514	2,335	38,197	0.56	
11.01.04.15.A4 Testing	68618.82	BCY	4,453	891	433	436	404	6,616	0.10	
TOTAL Sta 150+00 to 215+00	58326.00	CCY	725,180	145,036	70,493	70,930	65,858	1,077,497	18.47	
11.01.04.16 NOT USED										
11.01.04.18 Sta 215+00 to 270+00										
11.01.04.18.B0 Excavate Material from Borrow	30840.00	BCY	259,955	51,991	25,270	25,426	23,608	386,250	12.52	
11.01.04.18.B1 Place Mat'l	30840.00	BCY	52,919	10,584	5,144	5,176	4,806	78,628	2.55	
11.01.04.18.B2 Street Repair	30840.00	BCY	17,943	3,589	1,744	1,755	1,629	26,660	0.86	
11.01.04.18.B3 Street Sweeping	30840.00	BCY	11,554	2,311	1,123	1,130	1,049	17,167	0.56	
11.01.04.18.B4 Testing	30840.00	BCY	1,995	399	194	195	181	2,964	0.10	
TOTAL Sta 215+00 to 270+00	26214.00	CCY	344,365	68,873	33,475	33,682	31,274	511,669	19.52	
11.01.04.19 Sta 270+00 to 289+70										
TOTAL Levee Raise (New)	133484.00	CCY	1,691,542	338,308	164,432	165,449	153,618	2,513,349	18.83	
11.01.05 Stability Berm (New)										
11.01.05.07 Sta 29+00 to 39+00										
11.01.05.07.C0 Excavate Material from Borrow	3995.29	BCY	28,897	5,779	2,809	2,826	2,624	42,937	10.75	
11.01.05.07.C1 Place Mat'l	3995.29	BCY	6,856	1,371	666	671	623	10,186	2.55	
11.01.05.07.C2 Street Repair	3995.29	BCY	2,324	465	226	227	211	3,454	0.86	

** PROJECT OWNER SUMMARY - Bid Item **

	QUANTITY	UOM	CONTRACT	CONTING	ESCALATN	PED	CM	TOTAL COST	UNIT COST	NOTES
11.01.05.07.C3 Street Sweeping	3995.29	BCY	1,497	299	146	146	136	2,224	0.56	
11.01.05.07.C4 Testing	3995.29	BCY	242	48	24	24	22	359	0.09	
TOTAL Sta 29+00 to 39+00	3396.00	CCY	39,816	7,963	3,870	3,894	3,616	59,160	17.42	
11.01.05.09 Sta 39+00 to 60+00										
11.01.05.09.C5 Excavate Material from Borrow	11625.88	BCY	97,996	19,599	9,526	9,585	8,900	145,606	12.52	
11.01.05.09.C6 Place Mat'l	11625.88	BCY	19,949	3,990	1,939	1,951	1,812	29,641	2.55	
11.01.05.09.C7 Street Repair	11625.88	BCY	6,764	1,353	658	662	614	10,050	0.86	
11.01.05.09.C8 Street Sweeping	11625.88	BCY	4,356	871	423	426	396	6,472	0.56	
11.01.05.09.C9 Testing	11625.88	BCY	766	153	74	75	70	1,138	0.10	
TOTAL Sta 39+00 to 60+00	9882.00	CCY	129,830	25,966	12,621	12,699	11,791	192,906	19.52	
11.01.05.11 Sta 60+00 to 110+00										
11.01.05.11.D0 Excavate Material from Borrow	791.76	BCY	6,200	1,240	603	606	563	9,213	11.64	
11.01.05.11.D1 Place Mat'l	791.76	BCY	1,359	272	132	133	123	2,019	2.55	
11.01.05.11.D2 Street Repair	791.76	BCY	461	92	45	45	42	684	0.86	
11.01.05.11.D3 Street Sweeping	791.76	BCY	297	59	29	29	27	441	0.56	
11.01.05.11.D4 Testing	791.76	BCY	60	12	6	6	5	90	0.11	
TOTAL Sta 60+00 to 110+00	673.00	CCY	8,377	1,675	814	819	761	12,446	18.49	
11.01.05.13 Sta 110+00 to 150+00										
11.01.05.13.D5 Excavate Material from Borrow	29432.94	BCY	248,095	49,619	24,117	24,266	22,531	368,627	12.52	
11.01.05.13.D6 Place Mat'l	29432.94	BCY	50,504	10,101	4,909	4,940	4,587	75,041	2.55	
11.01.05.13.D7 Street Repair	29432.94	BCY	17,124	3,425	1,665	1,675	1,555	25,443	0.86	
11.01.05.13.D8 Street Sweeping	29432.94	BCY	11,027	2,205	1,072	1,079	1,001	16,384	0.56	
11.01.05.13.D9 Testing	29432.94	BCY	1,874	375	182	183	170	2,784	0.09	
TOTAL Sta 110+00 to 150+00	25018.00	CCY	328,624	65,725	31,945	32,143	29,844	488,280	19.52	
11.01.05.15 Sta 150+00 to 215+00										
11.01.05.15.E0 Excavate Material from Borrow	57536.47	BCY	450,568	90,114	43,799	44,070	40,919	669,469	11.64	
11.01.05.15.E1 Place Mat'l	57536.47	BCY	98,727	19,745	9,597	9,656	8,966	146,693	2.55	
11.01.05.15.E2 Street Repair	57536.47	BCY	33,475	6,695	3,254	3,274	3,040	49,738	0.86	
11.01.05.15.E3 Street Sweeping	57536.47	BCY	21,556	4,311	2,095	2,108	1,958	32,028	0.56	
11.01.05.15.E4 Testing	57536.47	BCY	3,748	750	364	367	340	5,568	0.10	
TOTAL Sta 150+00 to 215+00	48906.00	CCY	608,073	121,615	59,110	59,475	55,223	903,496	18.47	
11.01.05.17 NOT USED										

** PROJECT OWNER SUMMARY - Bid Item **

	QUANTITY	UOM	CONTRACT	CONTING	ESCALATN	PED	CM	TOTAL COST	UNIT COST	NOTES
11.01.05.19 Sta 215+00 to 270+00										
11.01.05.19.F0 Excavate Material from Borrow	25112.94	BCY	211,681	42,336	20,577	20,704	19,224	314,522	12.52	
11.01.05.19.F1 Place Mat'l	25112.94	BCY	43,092	8,618	4,189	4,215	3,913	64,027	2.55	
11.01.05.19.F2 Street Repair	25112.94	BCY	14,611	2,922	1,420	1,429	1,327	21,709	0.86	
11.01.05.19.F3 Street Sweeping	25112.94	BCY	9,408	1,882	915	920	854	13,979	0.56	
11.01.05.19.F4 Testing	25112.94	BCY	1,632	326	159	160	148	2,425	0.10	
11.01.05.19.F5 Sta 254+00 to 276+00 - Rock Toe	15892.00	TON	520,339	104,068	50,581	50,894	47,255	773,138	48.65	
TOTAL Sta 215+00 to 270+00	21346.00	CCY	800,763	160,153	77,841	78,322	72,722	1,189,800	55.74	
TOTAL Stability Berm (New)	109221.00	CCY	1,915,483	383,097	186,201	187,352	173,956	2,846,088	26.06	
11.01.06 Underseepage Berm (New)										
11.01.06.13 Sta 110+00 to 150+00										
TOTAL Sta 110+00 to 150+00										
11.01.06.16 Sta 150+00 to 215+00										
11.01.06.16.G5 Excavate Material from Borrow	17854.12	BCY	139,816	27,963	13,591	13,675	12,697	207,743	11.64	
11.01.06.16.G6 Place Mat'l	17854.12	BCY	30,636	6,127	2,978	2,996	2,782	45,520	2.55	
11.01.06.16.G7 Street Repair	17854.12	BCY	10,387	2,077	1,010	1,016	943	15,434	0.86	
11.01.06.16.G8 Street Sweeping	17854.12	BCY	6,689	1,338	650	654	607	9,939	0.56	
11.01.06.16.G9 Testing	17854.12	BCY	1,169	234	114	114	106	1,736	0.10	
11.01.06.16.H1 Sta 202+00 to 207+00 - Fltr Blkt	2700.00	TON	56,829	14,207	5,754	5,790	5,376	87,957	32.58	
TOTAL Sta 150+00 to 215+00	15176.00	CCY	245,526	51,947	24,097	24,246	22,513	368,329	24.27	
11.01.06.17 Sta 165+00 to 168+00										
11.01.06.17.H0 UST Removals	5.00	EA	121,208	60,604	14,728	14,819	13,759	225,118	45023.66	
TOTAL Sta 165+00 to 168+00	5.00	EA	121,208	60,604	14,728	14,819	13,759	225,118	45023.66	
11.01.06.22 Area Fill Sta 223+50 to 227+00										
11.01.06.22.H5 Excavate Material from Borrow	3049.41	BCY	25,704	5,141	2,499	2,514	2,334	38,192	12.52	
11.01.06.22.H6 Place Mat'l	3049.41	BCY	5,233	1,047	509	512	475	7,775	2.55	
11.01.06.22.H7 Street Repair	3049.41	BCY	1,774	355	172	174	161	2,636	0.86	
11.01.06.22.H8 Street Sweeping	3049.41	BCY	1,142	228	111	112	104	1,697	0.56	
11.01.06.22.H9 Testing	3049.41	BCY	181	36	18	18	16	269	0.09	
TOTAL Area Fill Sta 223+50 to 227+00	2592.00	CCY	34,034	6,807	3,308	3,329	3,091	50,569	19.51	

** PROJECT OWNER SUMMARY - Bid Item **

	QUANTITY	UOM	CONTRACT	CONTING	ESCALATN	PED	CM	TOTAL COST	UNIT COST	NOTES
11.01.06.24 Area Fill Sta 244+00 to 246+00										
11.01.06.24.I0 Excavate Material from Borrow	1743.53	BCY	14,696	2,939	1,429	1,437	1,335	21,836	12.52	
11.01.06.24.I1 Place Mat'l	1743.53	BCY	2,992	598	291	293	272	4,445	2.55	
11.01.06.24.I2 Street Repair	1743.53	BCY	1,014	203	99	99	92	1,507	0.86	
11.01.06.24.I3 Street Sweeping	1743.53	BCY	653	131	63	64	59	971	0.56	
11.01.06.24.I4 Testing	1743.53	BCY	121	24	12	12	11	180	0.10	
TOTAL Area Fill Sta 244+00 to 246+00	1482.00	CCY	19,477	3,895	1,893	1,905	1,769	28,939	19.53	
TOTAL Underseepage Berm (New)	19250.00	CCY	420,245	123,253	44,027	44,299	41,132	672,956	34.96	
11.01.07 Seeding & Mulching										
11.01.07.01 Seeding & Mulching										
11.01.07.01.I5 Seeding & Mulching	133.50	ACR	242,719	48,544	23,594	23,740	22,043	360,639	2701.42	
TOTAL Seeding & Mulching	133.50	ACR	242,719	48,544	23,594	23,740	22,043	360,639	2701.42	
TOTAL Seeding & Mulching	133.50	ACR	242,719	48,544	23,594	23,740	22,043	360,639	2701.42	
11.01.08 Replace Aggregate Surfacing										
11.01.08.27 Replace Aggregate Surfacing										
11.01.08.27.I6 Replace Aggregate Surfacing	6760.00	CY	240,741	48,148	23,402	23,547	21,863	357,700	52.91	
TOTAL Replace Aggregate Surfacing	6760.00	CY	240,741	48,148	23,402	23,547	21,863	357,700	52.91	
TOTAL Replace Aggregate Surfacing	6760.00	CY	240,741	48,148	23,402	23,547	21,863	357,700	52.91	
11.01.09 Drainage Systems										
11.01.09.01 Box Culvert Mod - Sta 60+40										
11.01.09.01.I7 Deloading	100.00	LF	334,955	100,487	35,274	35,492	32,954	539,162	5391.62	
TOTAL Box Culvert Mod - Sta 60+40	1.00	EA	334,955	100,487	35,274	35,492	32,954	539,162	539161.53	
11.01.09.03 Box Culvert Mod - Sta 253+14										
11.01.09.04 Box Culvert Mod - Sta 258+36										
11.01.09.04.K6 Deloading	100.00	LF	337,113	101,134	35,501	35,721	33,166	542,635	5426.35	
TOTAL Box Culvert Mod - Sta 258+36	1.00	EA	337,113	101,134	35,501	35,721	33,166	542,635	542634.76	

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	QUANTITY	UOM	CONTRACT	CONTING	ESCALATN	PED	CM	TOTAL COST	UNIT COST	NOTES
11.01.09.05 Box Culvert Mod - Sta 273+41										
11.01.09.05.K7 Deloading	100.00	LF	337,113	101,134	35,501	35,721	33,166	542,635	5426.35	
11.01.09.05.K8 Demo RCB Floor & Reinforce RCB	100.00	LF	157,037	78,518	19,082	19,200	17,827	291,663	2916.63	
TOTAL Box Culvert Mod - Sta 273+41	1.00	EA	494,150	179,652	54,583	54,920	50,993	834,298	834297.71	
11.01.09.07 New Gatewell - Sta 13+75										
11.01.09.07.K9 Pipe Abandonment	100.00	LF	7,237	1,447	703	708	657	10,753	107.53	
TOTAL New Gatewell - Sta 13+75	1.00	EA	7,237	1,447	703	708	657	10,753	10752.64	
11.01.09.09 New Gatewell - Sta 190+00										
11.01.09.11 New Gatewell - Sta 210+73										
11.01.09.11.L0 Pipe Abandonment	100.00	LF	7,874	1,575	765	770	715	11,699	116.99	
TOTAL New Gatewell - Sta 210+73	1.00	EA	7,874	1,575	765	770	715	11,699	11699.32	
11.01.09.13 New Gatewell - Sta 258+36										
11.01.09.15 New Gatewell - Sta 284+35										
11.01.09.15.M5 Gatewell Structure @ Sta 284+35	1.00	EA	227,996	45,599	22,163	22,300	20,706	338,764	338763.81	
11.01.09.15.M6 Ring Levee for 100 Yr Protection	23529.41	BCY	122,763	24,553	11,934	12,007	11,149	182,405	7.75	
11.01.09.15.M7 Subbase Preparation	1.00	EA	915	183	89	89	83	1,359	1359.40	
11.01.09.15.M8 New Outlet	1.00	EA	129,853	25,971	12,623	12,701	11,793	192,940	192939.64	
TOTAL New Gatewell - Sta 284+35	1.00	EA	481,526	96,305	46,808	47,098	43,730	715,468	715467.90	
11.01.09.17 Platform Raise at Sta 35+10										
11.01.09.17.M9 Wall extension	1.00	EA	19,393	3,879	1,885	1,897	1,761	28,815	28815.14	
TOTAL Platform Raise at Sta 35+10	1.00	EA	19,393	3,879	1,885	1,897	1,761	28,815	28815.14	
11.01.09.19 Platform Raise at Sta 60+40										
11.01.09.19.N0 Wall extension	1.00	EA	19,393	3,879	1,885	1,897	1,761	28,815	28815.14	
TOTAL Platform Raise at Sta 60+40	1.00	EA	19,393	3,879	1,885	1,897	1,761	28,815	28815.14	
11.01.09.20 Platform Raise at Sta 131+37										

** PROJECT OWNER SUMMARY - Bid Item **

	QUANTITY	UOM	CONTRACT	CONTING	ESCALATN	PED	CM	TOTAL COST	UNIT COST	NOTES
11.01.09.20.N1 Wall extension	1.00	EA	19,393	3,879	1,885	1,897	1,761	28,815	28815.14	
TOTAL Platform Raise at Sta 131+37	1.00	EA	19,393	3,879	1,885	1,897	1,761	28,815	28815.14	
11.01.09.21 Platform Raise at Sta 131+50										
11.01.09.21.N2 Wall extension	1.00	EA	19,393	3,879	1,885	1,897	1,761	28,815	28815.14	
TOTAL Platform Raise at Sta 131+50	1.00	EA	19,393	3,879	1,885	1,897	1,761	28,815	28815.14	
11.01.09.23 Platform Raise at Sta 145+00										
11.01.09.23.N3 Wall extension	1.00	EA	19,393	3,879	1,885	1,897	1,761	28,815	28815.14	
TOTAL Platform Raise at Sta 145+00	1.00	EA	19,393	3,879	1,885	1,897	1,761	28,815	28815.14	
11.01.09.25 Platform Raise at Sta 190+00										
11.01.09.25.N4 Wall extension	1.00	EA	19,393	3,879	1,885	1,897	1,761	28,815	28815.14	
TOTAL Platform Raise at Sta 190+00	1.00	EA	19,393	3,879	1,885	1,897	1,761	28,815	28815.14	
11.01.09.27 Platform Raise at Sta 218+17										
11.01.09.27.N5 Wall extension	1.00	EA	19,393	3,879	1,885	1,897	1,761	28,815	28815.14	
TOTAL Platform Raise at Sta 218+17	1.00	EA	19,393	3,879	1,885	1,897	1,761	28,815	28815.14	
11.01.09.29 Platform Raise at Sta 247+32										
11.01.09.29.N6 Wall extension	1.00	EA	19,393	3,879	1,885	1,897	1,761	28,815	28815.14	
TOTAL Platform Raise at Sta 247+32	1.00	EA	19,393	3,879	1,885	1,897	1,761	28,815	28815.14	
11.01.09.30 Platform Raise at Sta 253+14										
11.01.09.30.N7 Wall extension	1.00	EA	19,393	3,879	1,885	1,897	1,761	28,815	28815.14	
TOTAL Platform Raise at Sta 253+14	1.00	EA	19,393	3,879	1,885	1,897	1,761	28,815	28815.14	
11.01.09.31 Platform Raise at Sta 274+09										
11.01.09.31.N8 Wall extension	1.00	EA	19,393	3,879	1,885	1,897	1,761	28,815	28815.14	

** PROJECT OWNER SUMMARY - Bid Item **

	QUANTITY	UOM	CONTRACT	CONTING	ESCALATN	PED	CM	TOTAL COST	UNIT COST	NOTES
TOTAL Platform Raise at Sta 274+09	1.00	EA	19,393	3,879	1,885	1,897	1,761	28,815	28815.14	
11.01.09.33 Platform Raise at Sta 280+48										
11.01.09.33.N9 Wall extension	1.00	EA	19,393	3,879	1,885	1,897	1,761	28,815	28815.14	
TOTAL Platform Raise at Sta 280+48	1.00	EA	19,393	3,879	1,885	1,897	1,761	28,815	28815.14	
11.01.09.35 Platform Raise at Sta 288+10										
11.01.09.35.O0 Wall extension	1.00	EA	19,393	3,879	1,885	1,897	1,761	28,815	28815.14	
TOTAL Platform Raise at Sta 288+10	1.00	EA	19,393	3,879	1,885	1,897	1,761	28,815	28815.14	
11.01.09.36 Platform Raise at Sta 258+36										
11.01.09.36.O1 Wall extension	1.00	EA	19,393	3,879	1,885	1,897	1,761	28,815	28815.14	
TOTAL Platform Raise at Sta 258+36	1.00	EA	19,393	3,879	1,885	1,897	1,761	28,815	28815.14	
11.01.09.37 Platform Raise at Sta 273+41										
11.01.09.37.O2 Wall extension	1.00	EA	19,393	3,879	1,885	1,897	1,761	28,815	28815.14	
TOTAL Platform Raise at Sta 273+41	1.00	EA	19,393	3,879	1,885	1,897	1,761	28,815	28815.14	
11.01.09.39 New GW -Sta -1+10 (Barber Creek)										
11.01.09.40 Buried Collector System										
11.01.09.40.P0 Clearing & Grubbing	870.00	CY	462	92	45	45	42	687	0.79	
11.01.09.40.P1 Excavation	3769.00	CY	10,040	2,008	976	982	912	14,918	3.96	
11.01.09.40.P2 Granular Fill	1729.00	CY	78,530	15,706	7,634	7,681	7,132	116,683	67.49	
11.01.09.40.P3 Sand Fill	891.00	CY	33,180	6,636	3,225	3,245	3,013	49,299	55.33	
11.01.09.40.P4 Clay Backfill	1693.00	CY	10,354	2,071	1,007	1,013	940	15,385	9.09	
11.01.09.40.P7 18" Perforated Pipe	1850.00	LF	54,930	10,986	5,340	5,373	4,988	81,616	44.12	
11.01.09.40.P8 Manholes for Pumping	10.00	EA	138,190	27,638	13,433	13,516	12,550	205,328	20532.77	
11.01.09.40.P9 Ramps	2.00	EA	23,369	4,674	2,272	2,286	2,122	34,722	17361.15	
11.01.09.40.Q0 Seeding & Mulching	2.00	ACR	3,636	727	353	356	330	5,403	2701.42	
TOTAL Buried Collector System	1850.00	LF	352,692	70,538	34,285	34,497	32,030	524,041	283.27	
TOTAL Drainage Systems	1.00	EA	2,287,052	605,439	234,311	235,761	218,903	3,581,467	3581467	
TOTAL Levees	4430.00	LF	7,426,086	1,672,450	737,044	741,603	688,575	11,265,757	2543.06	

** PROJECT OWNER SUMMARY - Bid Item **

	QUANTITY	UOM	CONTRACT	CONTING	ESCALATN	PED	CM	TOTAL COST	UNIT COST	NOTES
11.02 Floodwalls										
11.02.40 Floodwalls										
11.02.40.01 Sta 251+65.18 to 253+92.40										
11.02.40.02 Sta 251+65.18 to 253+92.40										
11.02.40.02.R0 Excavation for Buttresses	1.00	EA	172,862	34,572	16,804	16,908	15,699	256,844	256843.75	
11.02.40.02.R1 Base Extension	63.10	CY	73,521	14,704	7,147	7,191	6,677	109,240	1731.22	
11.02.40.02.R2 Buttresses	536.00	CY	612,663	122,533	59,556	59,924	55,639	910,316	1698.35	
11.02.40.02.R3 5.4-foot wall extension	56.80	CY	84,031	29,411	9,190	9,246	8,585	140,463	2472.93	
11.02.40.02.R4 Backfilling for Buttresses	1.00	EA	76,471	15,294	7,434	7,480	6,945	113,623	113623.18	
TOTAL Sta 251+65.18 to 253+92.40	227.22	LF	1,019,548	216,514	100,129	100,749	93,545	1,530,485	6735.70	
11.02.40.05 Sta 276+70 to 287+91.72										
11.02.40.05.R5 Excavation for Demolition	1.00	EA	152,807	30,561	14,854	14,946	13,877	227,046	227045.92	
11.02.40.05.R6 Demolition of Exist Floodwall	1963.00	CY	301,825	60,365	29,340	29,521	27,410	448,462	228.46	
11.02.40.05.R7 Backfill to New Base elevation	1.00	EA	74,808	14,962	7,272	7,317	6,794	111,153	111152.84	
11.02.40.05.R8 18" Diameter Pipe Piles	12427.00	LF	799,701	159,940	77,738	78,218	72,625	1,188,223	95.62	
11.02.40.05.R9 Sheetpile Cutoff Wall	7854.00	SF	254,872	50,974	24,776	24,929	23,146	378,697	48.22	
11.02.40.05.S0 Floodwall Base	1215.18	CY	489,282	97,856	47,562	47,856	44,434	726,991	598.26	
11.02.40.05.S1 1st Floodwall	35.56	CY	32,671	6,534	3,176	3,196	2,967	48,544	1365.13	
11.02.40.05.S2 Remaining Floodwalls	1294.34	CY	1,081,329	216,266	105,114	105,764	98,202	1,606,675	1241.31	
11.02.40.05.S3 Backfilling Remainder	1.00	EA	98,707	19,741	9,595	9,655	8,964	146,663	146662.59	
11.02.40.05.S4 Emergency Flood Protection	4456.00	CCY	69,300	13,860	6,737	6,778	6,294	102,969	23.11	
TOTAL Sta 276+70 to 287+91.72	1121.72	LF	3,355,304	671,061	326,163	328,181	304,714	4,985,422	4444.44	
TOTAL Floodwalls	1348.94	LF	4,374,852	887,575	426,293	428,929	398,259	6,515,907	4830.39	
11.02.50 I-walls										
11.02.50.01 Sta -2+00 to 28+29										
11.02.50.01.S5 Excavation and stockpile	3029.00	CY	17,902	8,951	2,175	2,189	2,032	33,250	10.98	
11.02.50.01.S6 Sheetpiling	30290.00	SF	1,133,389	283,347	114,765	115,475	107,218	1,754,195	57.91	
11.02.50.01.S7 I-wall	2005.00	CY	1,190,429	297,607	120,541	121,287	112,614	1,842,478	918.94	
11.02.50.01.S8 Backfilling	3029.00	CY	25,930	12,965	3,151	3,170	2,944	48,159	15.90	
TOTAL Sta -2+00 to 28+29	3029.00	LF	2,367,650	602,870	240,632	242,121	224,808	3,678,082	1214.29	
11.02.50.03 Sta 61+00 to 118+00										
11.02.50.03.S9 Excavation and stockpile	5700.00	CY	33,154	16,577	4,029	4,053	3,764	61,577	10.80	

** PROJECT OWNER SUMMARY - Bid Item **

	QUANTITY	UOM	CONTRACT	CONTING	ESCALATN	PED	CM	TOTAL COST	UNIT COST	NOTES
11.02.50.03.T0 Sheetpiling	57000.00	SF	2,085,187	521,297	211,143	212,449	197,258	3,227,334	56.62	
11.02.50.03.T1 I-wall	3773.61	CY	2,221,901	555,475	224,986	226,378	210,191	3,438,932	911.31	
11.02.50.03.T2 Backfilling	5700.00	CY	48,260	24,130	5,864	5,900	5,478	89,634	15.73	
TOTAL Sta 61+00 to 118+00	5700.00	LF	4,388,502	1,117,479	446,022	448,781	416,691	6,817,476	1196.05	
11.02.50.04 Sta 245+00 to 251+60										
11.02.50.04.T3 Excavation and stockpile	660.00	CY	4,375	2,187	532	535	497	8,125	12.31	
11.02.50.04.T4 Sheetpiling	7260.00	SF	290,892	72,723	29,455	29,638	27,518	450,227	62.01	
11.02.50.04.T5 I-wall	537.78	CY	319,520	79,880	32,354	32,554	30,227	494,535	919.59	
11.02.50.04.T6 Backfilling	660.00	CY	6,124	3,062	744	749	695	11,374	17.23	
TOTAL Sta 245+00 to 251+60	660.00	LF	620,911	157,852	63,085	63,475	58,937	964,261	1461.00	
11.02.50.05 Sta 254+00 to 276+60										
11.02.50.05.T3 Excavation and stockpile	2260.00	CY	13,511	6,756	1,642	1,652	1,534	25,094	11.10	
11.02.50.05.T4 Sheetpiling	24860.00	SF	914,214	228,553	92,572	93,145	86,484	1,414,968	56.92	
11.02.50.05.T5 I-wall	1956.00	CY	1,156,794	289,198	117,135	117,860	109,432	1,790,420	915.35	
11.02.50.05.T6 Backfilling	2260.00	CY	19,501	9,750	2,370	2,384	2,214	36,218	16.03	
TOTAL Sta 254+00 to 276+60	2260.00	LF	2,104,019	534,258	213,718	215,040	199,664	3,266,700	1445.44	
11.02.50.06 Sta 289+09 to 289+40										
11.02.50.06.T3 Excavation and stockpile	31.00	CY	783	392	95	96	89	1,454	46.91	
11.02.50.06.T4 Sheetpiling	341.00	SF	37,148	9,287	3,762	3,785	3,514	57,495	168.61	
11.02.50.06.T5 I-wall	28.41	CY	20,033	5,008	2,029	2,041	1,895	31,007	1091.40	
11.02.50.06.T6 Backfilling	31.00	CY	865	433	105	106	98	1,607	51.84	
TOTAL Sta 289+09 to 289+40	31.00	LF	58,829	15,119	5,990	6,027	5,596	91,563	2953.64	
TOTAL I-walls	11680.00	LF	9,539,912	2,427,579	969,449	975,445	905,696	14,818,081	1268.67	
11.02.60 Stoplogs										
11.02.60.03 Sta 29+02										
11.02.60.03.T7 Excavation for Demolition	675.00	BCY	5,954	2,977	723	728	676	11,058	16.38	
11.02.60.03.T8 Demolition of Exist Floodwall	107.00	CY	24,505	12,252	2,978	2,996	2,782	45,512	425.35	
11.02.60.03.T9 Backfill to New Base elevation	1.00	EA	4,030	2,015	490	493	457	7,484	7484.31	
11.02.60.03.U0 HP14x102 H-Piles	2987.00	LF	242,933	121,466	29,519	29,701	27,578	451,197	151.05	
11.02.60.03.U1 Sheetpile Cutoff Wall	1011.50	SF	40,369	20,185	4,905	4,936	4,583	74,977	74.12	
11.02.60.03.U2 Stoplog Gap Base	240.83	CY	95,543	47,772	11,609	11,681	10,846	177,452	736.83	
11.02.60.03.U3 20.5' Abutment Wall	12.38	CY	11,786	5,893	1,432	1,441	1,338	21,890	1768.15	
11.02.60.03.U4 Abutment for 20.5' Wall	3.18	CY	3,379	1,690	411	413	384	6,276	1973.73	

** PROJECT OWNER SUMMARY - Bid Item **

	QUANTITY	UOM	CONTRACT	CONTING	ESCALATN	PED	CM	TOTAL COST	UNIT COST	NOTES
11.02.60.03.U5 24' Abutment Wall	14.86	CY	13,712	6,856	1,666	1,676	1,557	25,467	1713.79	
11.02.60.03.U6 Abutment for 24' Wall	3.37	CY	3,408	1,704	414	417	387	6,330	1878.42	
11.02.60.03.U7 100' Sill Wall	17.11	CY	31,809	15,905	3,865	3,889	3,611	59,079	3452.89	
11.02.60.03.U8 Post Wells	22.00	CY	13,439	6,719	1,633	1,643	1,526	24,959	1134.52	
11.02.60.03.U9 Backfilling Remainder	1.00	EA	3,224	1,612	392	394	366	5,987	5987.45	
11.02.60.03.V0 Stoplogs	1.00	EA	80,286	40,143	9,756	9,816	9,114	149,114	149113.85	
TOTAL Sta 29+02	144.50	LF	574,376	287,188	69,793	70,224	65,203	1,066,783	7382.58	
11.02.60.05 Sta 288+57										
11.02.60.05.V1 Excavation for Demolition	893.00	BCY	8,754	4,377	1,064	1,070	994	16,259	18.21	
11.02.60.05.V2 Demolition of Exist Floodwall	110.00	CY	20,953	10,477	2,546	2,562	2,379	38,916	353.78	
11.02.60.05.V3 Backfill to New Base elevation	1.00	EA	4,615	2,308	561	564	524	8,572	8571.78	
11.02.60.05.V4 HP14x102 H-Piles	3715.00	LF	310,304	155,152	37,705	37,938	35,226	576,325	155.13	
11.02.60.05.V5 Sheetpile Cutoff Wall	919.31	SF	37,808	18,904	4,594	4,622	4,292	70,221	76.38	
11.02.60.05.V6 Stoplog Gap Base	323.46	CY	123,056	61,528	14,953	15,045	13,969	228,551	706.58	
11.02.60.05.V7 9' Abutment Wall	7.49	CY	7,761	3,880	943	949	881	14,414	1924.41	
11.02.60.05.V8 Abutment for 9' Wall	5.13	CY	5,259	2,630	639	643	597	9,768	1904.03	
11.02.60.05.V9 21' Abutment Wall	21.30	CY	17,714	8,857	2,152	2,166	2,011	32,900	1544.60	
11.02.60.05.W0 Abutment for 21' Wall	5.13	CY	5,259	2,630	639	643	597	9,768	1904.03	
11.02.60.05.W1 101' Sill Wall	35.50	CY	44,170	22,085	5,367	5,400	5,014	82,036	2310.88	
11.02.60.05.W2 Post Wells	40.00	CY	24,637	12,318	2,994	3,012	2,797	45,758	1143.94	
11.02.60.05.W3 Backfilling Remainder	1.00	EA	3,232	1,616	393	395	367	6,002	6001.97	
11.02.60.05.W4 Stoplogs	1.00	EA	112,420	56,210	13,660	13,745	12,762	208,797	208797.21	
TOTAL Sta 288+57	131.33	LF	725,942	362,971	88,209	88,755	82,409	1,348,286	10266.39	
TOTAL Stoplogs	1.00	EA	1,300,317	650,159	158,002	158,979	147,611	2,415,069	2415069	
TOTAL Floodwalls	1.00	EA	15,215,081	3,965,313	1,553,743	1,563,354	1,451,567	23,749,057	23749057	
TOTAL Levees and Floodwalls	1.00	EA	22,641,167	5,637,763	2,290,786	2,304,957	2,140,141	35,014,815	35014815	
13 Pump Plant										
13.00 Pump Plant - Upgrades										
13.00.01 Retrofit Existing Pump Plants										
13.00.01.01 Retrofit Existing Pump Plants										
13.00.01.01.W5 Retrofit Existing Pump Plants	3.00	EA	900,000	450,000	109,359	110,036	102,168	1,671,563	557187.51	
TOTAL Retrofit Existing Pump Plants	3.00	EA	900,000	450,000	109,359	110,036	102,168	1,671,563	557187.51	
TOTAL Retrofit Existing Pump Plants	3.00	EA	900,000	450,000	109,359	110,036	102,168	1,671,563	557187.51	

** PROJECT OWNER SUMMARY - Bid Item **

	QUANTITY	UOM	CONTRACT	CONTING	ESCALATN	PED	CM	TOTAL COST	UNIT COST	NOTES
13.00.02 New Pump Plant										
TOTAL Pump Plant - Upgrades	1.00	EA	900,000	450,000	109,359	110,036	102,168	1,671,563	1671563	
13.01 Pump Plant - Existing Conditions										
13.01.01 Turner Pump Plant										
13.01.01.02 Excavation										
13.01.01.02.05 Excavation	207.00	CY	1,630	408	165	166	154	2,523	12.19	
TOTAL Excavation	207.00	CY	1,630	408	165	166	154	2,523	12.19	
13.01.01.04 18" Dia RCP										
13.01.01.04.06 Purchase Pipe	72.00	LF	1,396	349	141	142	132	2,161	30.02	
13.01.01.04.07 Unload Pipe	6.00	EA	93	23	9	9	9	144	23.98	
13.01.01.04.08 Place Pipe	72.00	LF	1,277	319	129	130	121	1,976	27.45	
TOTAL 18" Dia RCP	72.00	LF	2,766	692	280	282	262	4,282	59.47	
13.01.01.05 Relief Well System										
13.01.01.05.09 Relief Wells @ Turner Pump Plant	7.00	EA	182,238	45,560	18,453	18,567	17,240	282,058	40294.05	
TOTAL Relief Well System	7.00	EA	182,238	45,560	18,453	18,567	17,240	282,058	40294.05	
13.01.01.06 Manholes										
13.01.01.06.10 Excavation for Manholes	7.00	EA	2,445	611	248	249	231	3,784	540.60	
13.01.01.06.11 Manholes	7.00	EA	21,914	5,479	2,219	2,233	2,073	33,918	4845.41	
13.01.01.06.12 Backfilling	7.00	EA	4,998	1,249	506	509	473	7,735	1105.01	
TOTAL Manholes	7.00	EA	29,357	7,339	2,973	2,991	2,777	45,437	6491.02	
13.01.01.07 Clay Backfill										
13.01.01.07.13 Clay Backfill	243.53	BCY	2,012	503	204	205	190	3,114	12.79	
TOTAL Clay Backfill	207.00	CY	2,012	503	204	205	190	3,114	15.04	
13.01.01.09 Concrete Penetration										

** PROJECT OWNER SUMMARY - Bid Item **

	QUANTITY	UOM	CONTRACT	CONTING	ESCALATN	PED	CM	TOTAL COST	UNIT COST	NOTES
13.01.01.09.14 Concrete Penetration	1.00	EA	1,212	303	123	123	115	1,876	1875.99	
TOTAL Concrete Penetration	1.00	EA	1,212	303	123	123	115	1,876	1875.99	
TOTAL Turner Pump Plant	1.00	EA	219,216	54,804	22,198	22,335	20,738	339,291	339290.64	
13.01.02 New Pump Plant - 5th Avenue										
13.01.02.01 Demo Exist Maint Building										
13.01.02.01.15 Demo Exist Maint Building	1.00	EA	21,796	5,449	2,207	2,221	2,062	33,735	33734.66	
TOTAL Demo Exist Maint Building	1.00	EA	21,796	5,449	2,207	2,221	2,062	33,735	33734.66	
13.01.02.02 Shoring - Augercast Piles										
13.01.02.02.16 Mob/Demob of Crane	2.00	DAY	20,000	5,000	2,025	2,038	1,892	30,955	15477.43	
13.01.02.02.17 Setup Crane	1.00	EA	1,613	403	163	164	153	2,496	2496.11	
13.01.02.02.18 Setup Pile Equipment	1.00	EA	3,987	997	404	406	377	6,171	6171.04	
13.01.02.02.19 Set Template & Layout	1.00	EA	79,721	19,930	8,072	8,122	7,542	123,387	123387.07	
13.01.02.02.20 Install Augercast Piles	31503.00	LF	414,916	103,729	42,014	42,274	39,251	642,183	20.38	
13.01.02.02.21 Augercast Piling Material	31503.00	LF	663,011	165,753	67,135	67,551	62,721	1,026,170	32.57	
13.01.02.02.22 Concrete Ring	2.00	EA	61,021	15,255	6,179	6,217	5,773	94,446	47222.79	
13.01.02.02.23 Bracing	1.00	EA	102,338	25,585	10,363	10,427	9,681	158,394	158393.70	
TOTAL Shoring - Augercast Piles	1.00	EA	1,346,607	336,652	136,355	137,199	127,389	2,084,201	2084201	
13.01.02.03 Excavation										
13.01.02.03.24 Exc within Piles for Pump Plant	5701.00	BCY	150,767	37,692	15,266	15,361	14,263	233,349	40.93	
13.01.02.03.25 Exc for Bldg Demo	156.00	BCY	1,226	306	124	125	116	1,897	12.16	
13.01.02.03.26 Exc within Piles for Inlet	4889.00	BCY	129,293	32,323	13,092	13,173	12,231	200,113	40.93	
13.01.02.03.27 Exc within Piles for Outlet	2884.00	BCY	76,270	19,067	7,723	7,771	7,215	118,046	40.93	
13.01.02.03.28 Exc Riprap for Outlet	298.00	BCY	2,452	613	248	250	232	3,795	12.73	
13.01.02.03.29 Load Material	15472.00	BCY	54,470	13,617	5,516	5,550	5,153	84,305	5.45	
13.01.02.03.30 Haul/Dispose of Contaminated Mat	23208.00	TON	499,306	124,826	50,559	50,872	47,234	772,797	33.30	
TOTAL Excavation	13928.00	CY	913,784	228,446	92,528	93,101	86,444	1,414,302	101.54	
13.01.02.05 Pump Plant										
13.01.02.05.31 Pump Plant	1.00	EA	3,600,000	900,000	364,531	366,786	340,559	5,571,875	5571875	
TOTAL Pump Plant	1.00	EA	3,600,000	900,000	364,531	366,786	340,559	5,571,875	5571875	
13.01.02.06 Backfilling										

** PROJECT OWNER SUMMARY - Bid Item **

	QUANTITY	UOM	CONTRACT	CONTING	ESCALATN	PED	CM	TOTAL COST	UNIT COST	NOTES
13.01.02.06.32 BF within Piles	11204.71	BCY	359,952	89,988	36,448	36,674	34,051	557,114	49.72	
13.01.02.06.33 BF Riprap for Outlet	776.00	TON	20,114	5,028	2,037	2,049	1,903	31,131	40.12	
TOTAL Backfilling	9524.00	CCY	380,066	95,017	38,485	38,723	35,954	588,245	61.76	
13.01.02.07 Tie in Levee to New Pump Plant										
13.01.02.07.34 Tie in Levee to New Pump Plant	1889.00	CY	45,729	11,432	4,630	4,659	4,326	70,777	37.47	
TOTAL Tie in Levee to New Pump Plant	1889.00	CY	45,729	11,432	4,630	4,659	4,326	70,777	37.47	
13.01.02.09 Temp Tie In from PP to Exist FW										
13.01.02.09.35 Temp Tie In frm PP to Exist FW	500.00	CY	12,104	3,026	1,226	1,233	1,145	18,734	37.47	
TOTAL Temp Tie In from PP to Exist FW	500.00	CY	12,104	3,026	1,226	1,233	1,145	18,734	37.47	
13.01.02.11 Build Outlet Pipe/Structure										
13.01.02.13 Tie In to Existing RCB										
13.01.02.13.37 Bypass Junction Box @ Loc A	1.00	EA	84,845	21,211	8,591	8,644	8,026	131,319	131319.00	
TOTAL Tie In to Existing RCB	1.00	EA	84,845	21,211	8,591	8,644	8,026	131,319	131319.00	
13.01.02.15 Abandon Existing Pump Plant										
13.01.02.15.38 Abandon Existing Pump Plant	1.00	EA	125,000	31,250	12,657	12,736	11,825	193,468	193467.88	
TOTAL Abandon Existing Pump Plant	1.00	EA	125,000	31,250	12,657	12,736	11,825	193,468	193467.88	
13.01.02.17 Abandon Existing RCB										
13.01.02.17.39 Abandon Existing RCB	1.00	EA	94,015	23,504	9,520	9,579	8,894	145,511	145511.02	
TOTAL Abandon Existing RCB	1.00	EA	94,015	23,504	9,520	9,579	8,894	145,511	145511.02	
13.01.02.20 Install New Inlet Pipe										
13.01.02.20.40 Install New Inlet Pipe	152.00	LF	295,588	73,897	29,931	30,116	27,963	457,494	3009.83	
TOTAL Install New Inlet Pipe	152.00	LF	295,588	73,897	29,931	30,116	27,963	457,494	3009.83	
13.01.02.22 Demo Exist Floodwall										

** PROJECT OWNER SUMMARY - Bid Item **

	QUANTITY	UOM	CONTRACT	CONTING	ESCALATN	PED	CM	TOTAL COST	UNIT COST	NOTES
13.01.02.22.41 Demo Exist Floodwall	1.00	EA	49,383	12,346	5,000	5,031	4,672	76,432	76431.50	
TOTAL Demo Exist Floodwall	1.00	EA	49,383	12,346	5,000	5,031	4,672	76,432	76431.50	
13.01.02.24 Demo Augercast										
13.01.02.24.42 Demo Augcast Piles for Pipes	1.00	EA	10,666	2,667	1,080	1,087	1,009	16,509	16508.61	
TOTAL Demo Augercast	1.00	EA	10,666	2,667	1,080	1,087	1,009	16,509	16508.61	
13.01.02.26 Abandon Existing 30" DIP										
13.01.02.26.43 Abandon Existing 30" DIP	1.00	EA	4,799	1,200	486	489	454	7,428	7428.20	
TOTAL Abandon Existing 30" DIP	1.00	EA	4,799	1,200	486	489	454	7,428	7428.20	
13.01.02.28 Contingency Plan										
13.01.02.28.44 Contingency Plan	1.00	EA	25,000	6,250	2,531	2,547	2,365	38,694	38693.58	
TOTAL Contingency Plan	1.00	EA	25,000	6,250	2,531	2,547	2,365	38,694	38693.58	
TOTAL New Pump Plant - 5th Avenue	1.00	EA	7,009,382	1,752,346	709,760	714,150	663,085	10,848,723	10848723	
13.01.03 Mod Pump Plant - Strong Avenue										
13.01.03.01 Place H-Piles for Jacking										
13.01.03.01.45 Mob/Demob of Crane	2.00	DAY	20,000	5,000	2,025	2,038	1,892	30,955	15477.43	
13.01.03.01.46 Setup Crane	1.00	EA	1,613	403	163	164	153	2,496	2496.11	
13.01.03.01.47 Setup Pile Equipment	1.00	EA	3,987	997	404	406	377	6,171	6171.04	
13.01.03.01.48 Install H-Piles	3.00	EA	10,555	2,639	1,069	1,075	998	16,336	5445.34	
13.01.03.01.49 H-Pile Material	3.00	EA	6,061	1,515	614	618	573	9,381	3127.07	
TOTAL Place H-Piles for Jacking	3.00	EA	42,216	10,554	4,275	4,301	3,994	65,339	21779.75	
13.01.03.03 Pipe Jacking										
13.01.03.03.50 Pipe Jacking	1.00	EA	319,853	111,949	34,979	35,195	32,679	534,654	534654.45	
TOTAL Pipe Jacking	1.00	EA	319,853	111,949	34,979	35,195	32,679	534,654	534654.45	
13.01.03.05 Grouting Annular Space										

** PROJECT OWNER SUMMARY - Bid Item **

	QUANTITY	UOM	CONTRACT	CONTING	ESCALATN	PED	CM	TOTAL COST	UNIT COST	NOTES
13.01.03.05.51 Grouting Annular Space	1.00	EA	8,833	2,208	894	900	836	13,671	13670.59	
TOTAL Grouting Annular Space	1.00	EA	8,833	2,208	894	900	836	13,671	13670.59	
13.01.03.07 Remove H-Piles for Jacking										
13.01.03.07.52 Mob/Demob of Crane	2.00	DAY	20,000	5,000	2,025	2,038	1,892	30,955	15477.43	
13.01.03.07.53 Setup Crane	1.00	EA	1,613	403	163	164	153	2,496	2496.11	
13.01.03.07.54 Setup Pile Equipment	1.00	EA	3,987	997	404	406	377	6,171	6171.04	
13.01.03.07.55 Remove H-Piles	3.00	EA	10,555	2,639	1,069	1,075	998	16,336	5445.34	
TOTAL Remove H-Piles for Jacking	3.00	EA	36,155	9,039	3,661	3,684	3,420	55,958	18652.68	
13.01.03.10 Strengthen Pump Plant										
13.01.03.10.56 Remove Building	1.00	EA	5,000	1,250	506	509	473	7,739	7738.72	
13.01.03.10.57 Remove Piping/controls/ Pumps	1.00	EA	30,302	7,575	3,068	3,087	2,867	46,900	46899.64	
13.01.03.10.58 Remove Steel Flooring	1.00	EA	403	101	41	41	38	623	622.99	
13.01.03.10.59 Demo Gatewell to Exist Floor	1.00	EA	2,989	747	303	305	283	4,626	4626.03	
13.01.03.10.60 Create Slots for Struts	1.00	EA	2,488	622	252	254	235	3,851	3851.21	
13.01.03.10.61 Create Holes for Pilasters	1.00	EA	2,853	713	289	291	270	4,416	4415.77	
13.01.03.10.62 Place new Pilasters and Struts	1.00	EA	62,352	15,588	6,314	6,353	5,899	96,506	96505.63	
13.01.03.10.63 Drill/Place Pilaster Reinforcing	1.00	EA	30,827	7,707	3,122	3,141	2,916	47,712	47712.43	
13.01.03.10.64 Place new Pilasters	1.00	EA	32,811	8,203	3,322	3,343	3,104	50,782	50782.44	
13.01.03.10.65 Place new Floor	1.00	EA	5,666	1,416	574	577	536	8,769	8768.75	
13.01.03.10.66 Reinstall Pumps/Piping/controls	1.00	EA	121,208	30,302	12,273	12,349	11,466	187,599	187598.57	
13.01.03.10.67 Replace Steel Floor	1.00	EA	1,610	403	163	164	152	2,492	2491.96	
13.01.03.10.68 Replace Building Shell	720.00	SF	30,544	7,636	3,093	3,112	2,889	47,275	65.66	
TOTAL Strengthen Pump Plant	1.00	EA	329,053	82,263	33,319	33,525	31,128	509,289	509288.98	
TOTAL Mod Pump Plant - Strong Avenue	1.00	EA	736,109	216,013	77,128	77,605	72,056	1,178,911	1178911	
TOTAL Pump Plant - Existing Conditions	1.00	EA	7,964,707	2,023,162	809,086	814,090	755,879	12,366,924	12366924	
TOTAL Pump Plant	1.00	EA	8,864,707	2,473,162	918,445	924,126	858,047	14,038,487	14038487	
TOTAL Feas Est for 500 Year +3 Ft	1.00	EA	35,180,285	9,391,304	3,458,435	3,417,754	3,162,356	54,610,134	54610134	

** PROJECT INDIRECT SUMMARY - Feature **

	QUANTITY	UOM	DIRECT	OVERHEAD	% OVRHD	PROFIT	BOND	TOTAL COST	UNIT COST
01 Lands and Damages	1.00	EA	1,614,453	0	0	0	0	1,614,453	1614453
02 Relocations	1.00	EA	1,559,958	0	0	0	0	1,559,958	1559958
06 Fish & Wildlife Facilities	1.00	EA	500,000	0	0	0	0	500,000	500000.00
11 Levees and Floodwalls	1.00	EA	18,679,625	0	2,148,157	1,653,726	159,659	22,641,167	22641167
13 Pump Plant	1.00	EA	8,141,275	0	392,283	301,993	29,156	8,864,707	8864707
TOTAL Feas Est for 500 Year +3 Ft	1.00	EA	30,495,311	0	2,540,440	1,955,719	188,815	35,180,285	35180285
Contingency								9,391,304	
SUBTOTAL								44,571,589	
Escalation								3,458,435	
SUBTOTAL								48,030,024	
Planning, Engineering, & Design								3,417,754	
SUBTOTAL								51,447,778	
Construction Management								3,162,356	
TOTAL INCL OWNER COSTS								54,610,134	

** PROJECT INDIRECT SUMMARY - Bid Item **

	QUANTITY	UOM	DIRECT	OVERHEAD	% OVRHD	PROFIT	BOND	TOTAL COST	UNIT COST
01 Lands and Damages									
01.23 Land Values									
01.23.01 Land Values									
01.23.01.01 Land Values									
01.23.01.01.01 Borrow Areas	89.06	ACR	223,150	0	0	0	0	223,150	2505.61
01.23.01.01.02 Sta 0+00 to 40+00	1.40	ACR	30,520	0	0	0	0	30,520	21800.00
01.23.01.01.03 Sta 40+00 to 61+00	3.80	ACR	81,600	0	0	0	0	81,600	21473.68
01.23.01.01.04 Sta 118+00 to 183+00	12.30	ACR	252,900	0	0	0	0	252,900	20560.98
01.23.01.01.05 Sta 183+00 to 223+50	3.80	ACR	53,400	0	0	0	0	53,400	14052.63
01.23.01.01.06 Sta 223+50 to 289+00	2.20	ACR	11,890	0	0	0	0	11,890	5404.55
01.23.01.01.07 Sta 220+00 to 255+00	0.50	ACR	132,374	0	0	0	0	132,374	264748.00
01.23.01.01.08 Sta 48+00 to 60+00	1200.00	LF	38,760	0	0	0	0	38,760	32.30
01.23.01.01.09 Sta 118+00 to 183+00 (LERRD)	7700.00	SF	229,000	0	0	0	0	229,000	29.74
01.23.01.01.11 Sta 223+50 to 289+00 (LERRD)	1400.00	SF	48,000	0	0	0	0	48,000	34.29
01.23.01.01.12 Sta 220+00 to 255+00 (LERRD)	4500.00	SF	354,060	0	0	0	0	354,060	78.68
TOTAL Land Values			1,455,654	0	0	0	0	1,455,654	
01.23.01.02 Non Federal Sponsor Costs									
01.23.01.02.07 Non Federal Sponsor Costs	1.00	EA	124,140	0	0	0	0	124,140	124140.00
TOTAL Non Federal Sponsor Costs	1.00	EA	124,140	0	0	0	0	124,140	124140.00
01.23.01.03 Federal Costs									
01.23.01.03.08 Federal Costs- Preconstruction	1.00	EA	18,708	0	0	0	0	18,708	18707.78
01.23.01.03.09 Federal Costs- Post Construction	1.00	EA	15,951	0	0	0	0	15,951	15950.96
TOTAL Federal Costs	1.00	EA	34,659	0	0	0	0	34,659	34658.74
TOTAL Land Values	1.00	EA	1,614,453	0	0	0	0	1,614,453	1614453
TOTAL Land Values	1.00	EA	1,614,453	0	0	0	0	1,614,453	1614453
TOTAL Lands and Damages	1.00	EA	1,614,453	0	0	0	0	1,614,453	1614453
02 Relocations									
02.01 Utility Relocations									
02.01.03 Cemetery, Utilities, & Structure									

** PROJECT INDIRECT SUMMARY - Bid Item **

	QUANTITY	UOM	DIRECT	OVERHEAD	% OVRHD	PROFIT	BOND	TOTAL COST	UNIT COST
02.01.03.18 Utilities Crossing Levee									
02.01.03.18.10 UL1- Sta 12+80 - 4" Gas Line	100.00	LF	65,605	0	0	0	0	65,605	656.05
02.01.03.18.11 UL2- Sta 29+25 - 2.5" Gas Line	200.00	LF	65,731	0	0	0	0	65,731	328.65
02.01.03.18.12 UL3- Sta 29+35 - 6" Cable Sleeve	200.00	LF	40,026	0	0	0	0	40,026	200.13
02.01.03.18.13 UL4- Sta 29+41 - 6" Cable Sleeve	200.00	LF	40,026	0	0	0	0	40,026	200.13
02.01.03.18.14 UL5- Sta 36+20 - 4" Gas Line	200.00	LF	69,398	0	0	0	0	69,398	346.99
02.01.03.18.15 UL8- Sta 71+80 - 8" Petroleum Ln	100.00	LF	90,272	0	0	0	0	90,272	902.72
02.01.03.18.16 UL9 - Sta 214+40- Rem 18" DIP	100.00	LF	34,902	0	0	0	0	34,902	349.02
02.01.03.18.17 UL10 - Sta 214+70 - 20" Gas Line	100.00	LF	250,033	0	0	0	0	250,033	2500.33
02.01.03.18.18 UL11- Sta 215+20-10" Water Line	100.00	LF	92,053	0	0	0	0	92,053	920.53
02.01.03.18.19 UL14-Sta 288+36-6" Cable Sleeve	200.00	LF	40,026	0	0	0	0	40,026	200.13
02.01.03.18.20 UL15- Sta 288+47 - 2.5" Gas Line	200.00	LF	65,731	0	0	0	0	65,731	328.65
02.01.03.18.21 UL16-Sta 288+87- 6" Cable Sleeve	200.00	LF	40,026	0	0	0	0	40,026	200.13
TOTAL Utilities Crossing Levee	1.00	EA	893,827	0	0	0	0	893,827	893827.24
02.01.03.20 Utilities Affected by Uplift									
02.01.03.20.22 Relocation of 12" SS (LERRD)	1185.00	LF	176,021	0	0	0	0	176,021	148.54
02.01.03.20.23 Reloc of 12" Water Line (LERRD)	800.00	LF	134,479	0	0	0	0	134,479	168.10
02.01.03.20.24 Reloc of 16" Water Line (LERRD)	430.00	LF	125,869	0	0	0	0	125,869	292.72
02.01.03.20.25 Reloc of 6" Water Line (LERRD)	2165.00	LF	229,762	0	0	0	0	229,762	106.13
TOTAL Utilities Affected by Uplift	1.00	EA	666,131	0	0	0	0	666,131	666130.68
02.01.03.47 Structures									
TOTAL Cemetery, Utilities, & Structure	1.00	EA	1,559,958	0	0	0	0	1,559,958	1559958
TOTAL Utility Relocations	1.00	EA	1,559,958	0	0	0	0	1,559,958	1559958
TOTAL Relocations	1.00	EA	1,559,958	0	0	0	0	1,559,958	1559958
06 Fish & Wildlife Facilities									
06.03 Fish & Wildlife Fac/Sanc									
06.03.99 Associated General Items									
06.03.99.01 Environmental Enhancement									
06.03.99.01.X5 Environmental Enhancement	1.00	EA	500,000	0	0	0	0	500,000	500000.00
TOTAL Environmental Enhancement	1.00	EA	500,000	0	0	0	0	500,000	500000.00
TOTAL Associated General Items	1.00	EA	500,000	0	0	0	0	500,000	500000.00

** PROJECT INDIRECT SUMMARY - Bid Item **

	QUANTITY	UOM	DIRECT	OVERHEAD	% OVRHD	PROFIT	BOND	TOTAL COST	UNIT COST
TOTAL Fish & Wildlife Fac/Sanc	1.00	EA	500,000	0	0	0	0	500,000	500000.00
TOTAL Fish & Wildlife Facilities	1.00	EA	500,000	0	0	0	0	500,000	500000.00
11 Levees and Floodwalls									
11.01 Levees									
11.01.01 Relief Wells									
11.01.01.19 Sta 278+00 to 288+00									
11.01.02 Borrow Site									
11.01.02.05 Site Prep Borrow Sites									
11.01.02.05.36 Site Prep New Borrow Site	71793.00	CY	75,005	0	8,626	6,640	641	90,911	1.27
11.01.02.05.37 Clearing and Grubbing	20.00	ACR	106,000	0	12,190	9,384	906	128,480	6424.01
TOTAL Site Prep Borrow Sites	1.00	EA	181,005	0	20,816	16,025	1,547	219,392	219391.74
11.01.02.10 Final Grade Both Sites									
11.01.02.10.38 Final Grade Both Sites	71792.00	CY	85,535	0	9,836	7,572	731	103,675	1.44
TOTAL Final Grade Both Sites	2.00	EA	85,535	0	9,836	7,572	731	103,675	51837.38
TOTAL Borrow Site	1.00	EA	266,539	0	30,652	23,597	2,278	323,066	323066.49
11.01.03 Levee Cut									
11.01.03.05 Sta -1+10 to 29+00									
11.01.03.07 Sta 29+00 to 39+00									
11.01.03.07.39 Excavate Material from Levee	1239.00	BCY	6,948	0	799	615	59	8,422	6.80
11.01.03.07.40 Place Mat'l	1239.00	BCY	890	0	102	79	8	1,079	0.87
11.01.03.07.41 Street Repair	1239.00	BCY	595	0	68	53	5	721	0.58
11.01.03.07.42 Street Sweeping	1239.00	BCY	383	0	44	34	3	464	0.37
TOTAL Sta 29+00 to 39+00	1239.00	BCY	8,816	0	1,014	780	75	10,686	8.62
11.01.03.09 Sta 39+00 to 60+00									
11.01.03.09.43 Excavate Material from Levee	2671.00	BCY	14,979	0	1,723	1,326	128	18,156	6.80
11.01.03.09.44 Place Mat'l	2671.00	BCY	1,918	0	221	170	16	2,325	0.87
11.01.03.09.45 Street Repair	2671.00	BCY	1,282	0	147	114	11	1,554	0.58

** PROJECT INDIRECT SUMMARY - Bid Item **

	QUANTITY	UOM	DIRECT	OVERHEAD	% OVRHD	PROFIT	BOND	TOTAL COST	UNIT COST
11.01.03.09.46 Street Sweeping	2671.00	BCY	826	0	95	73	7	1,001	0.37
TOTAL Sta 39+00 to 60+00	2671.00	BCY	19,005	0	2,186	1,683	162	23,036	8.62
11.01.03.11 Sta 60+00 to 110+00									
11.01.03.11.47 Excavate Material from Levee	179.00	BCY	783	0	90	69	7	949	5.30
11.01.03.11.48 Place Mat'l	179.00	BCY	129	0	15	11	1	156	0.87
11.01.03.11.49 Street Repair	179.00	BCY	86	0	10	8	1	104	0.58
11.01.03.11.50 Street Sweeping	179.00	BCY	55	0	6	5	0	67	0.37
TOTAL Sta 60+00 to 110+00	179.00	BCY	1,053	0	121	93	9	1,276	7.13
11.01.03.13 Sta 110+00 to 150+00									
11.01.03.13.51 Excavate Material from Levee	6988.00	BCY	30,569	0	3,515	2,706	261	37,051	5.30
11.01.03.13.52 Place Mat'l	6988.00	BCY	5,019	0	577	444	43	6,083	0.87
11.01.03.13.53 Street Repair	6988.00	BCY	3,354	0	386	297	29	4,066	0.58
11.01.03.13.54 Street Sweeping	6988.00	BCY	2,160	0	248	191	18	2,618	0.37
TOTAL Sta 110+00 to 150+00	6988.00	BCY	41,102	0	4,727	3,639	351	49,818	7.13
11.01.03.15 Sta 150+00 to 215+00									
11.01.03.15.55 Excavate Material from Levee	14887.00	BCY	83,487	0	9,601	7,391	714	101,193	6.80
11.01.03.15.56 Place Mat'l	14887.00	BCY	10,692	0	1,230	947	91	12,960	0.87
11.01.03.15.57 Street Repair	14887.00	BCY	7,146	0	822	633	61	8,661	0.58
11.01.03.15.58 Street Sweeping	14887.00	BCY	4,601	0	529	407	39	5,577	0.37
TOTAL Sta 150+00 to 215+00	14887.00	BCY	105,926	0	12,182	9,378	905	128,391	8.62
11.01.03.17 Sta 215+00 to 270+00									
11.01.03.17.59 Excavate Material from Levee	5746.00	BCY	35,768	0	4,113	3,167	306	43,354	7.55
11.01.03.17.60 Place Mat'l	5746.00	BCY	4,127	0	475	365	35	5,002	0.87
11.01.03.17.61 Street Repair	5746.00	BCY	2,758	0	317	244	24	3,343	0.58
11.01.03.17.62 Street Sweeping	5746.00	BCY	1,776	0	204	157	15	2,153	0.37
TOTAL Sta 215+00 to 270+00	5746.00	BCY	44,429	0	5,109	3,933	380	53,851	9.37
11.01.03.19 Sta 270+00 to 289+70									
11.01.03.23 Sta 223+50 to 227+00									
11.01.03.23.67 Excavate Material from Levee	2592.00	BCY	16,135	0	1,856	1,428	138	19,557	7.55
11.01.03.23.68 Place Mat'l	2592.00	BCY	1,862	0	214	165	16	2,256	0.87

** PROJECT INDIRECT SUMMARY - Bid Item **

	QUANTITY	UOM	DIRECT	OVERHEAD	% OVRHD	PROFIT	BOND	TOTAL COST	UNIT COST
11.01.03.23.69 Street Repair	2592.00	BCY	1,244	0	143	110	11	1,508	0.58
11.01.03.23.70 Street Sweeping	2592.00	BCY	801	0	92	71	7	971	0.37
TOTAL Sta 223+50 to 227+00	2592.00	BCY	20,042	0	2,305	1,774	171	24,292	9.37
11.01.03.25 Sta 244+00 to 246+00									
11.01.03.25.71 Excavate Material from Levee	1482.00	BCY	9,225	0	1,061	817	79	11,182	7.54
11.01.03.25.72 Place Mat'l	1482.00	BCY	1,064	0	122	94	9	1,290	0.87
11.01.03.25.73 Street Repair	1482.00	BCY	711	0	82	63	6	862	0.58
11.01.03.25.74 Street Sweeping	1482.00	BCY	458	0	53	41	4	555	0.37
TOTAL Sta 244+00 to 246+00	1482.00	BCY	11,459	0	1,318	1,014	98	13,889	9.37
TOTAL Levee Cut	35784.00	BCY	251,832	0	28,961	22,295	2,152	305,240	8.53
11.01.04 Levee Raise (New)									
11.01.04.05 Sta -1+10 to 29+00									
11.01.04.07 Sta 29+00 to 39+00									
11.01.04.07.80 Excavate Material from Borrow	8654.12	BCY	51,642	0	5,939	4,572	441	62,594	7.23
11.01.04.07.81 Place Mat'l	8654.12	BCY	12,251	0	1,409	1,085	105	14,850	1.72
11.01.04.07.82 Street Repair	8654.12	BCY	4,154	0	478	368	36	5,035	0.58
11.01.04.07.83 Street Sweeping	8654.12	BCY	2,675	0	308	237	23	3,242	0.37
11.01.04.07.84 Testing	8654.12	BCY	482	0	55	43	4	584	0.07
TOTAL Sta 29+00 to 39+00	7356.00	CCY	71,204	0	8,188	6,304	609	86,305	11.73
11.01.04.09 Sta 39+00 to 60+00									
11.01.04.09.85 Excavate Material from Borrow	16867.06	BCY	108,975	0	12,532	9,648	931	132,086	7.83
11.01.04.09.86 Place Mat'l	16867.06	BCY	23,878	0	2,746	2,114	204	28,942	1.72
11.01.04.09.87 Street Repair	16867.06	BCY	8,096	0	931	717	69	9,813	0.58
11.01.04.09.88 Street Sweeping	16867.06	BCY	5,213	0	600	462	45	6,319	0.37
11.01.04.09.89 Testing	16867.06	BCY	914	0	105	81	8	1,108	0.07
TOTAL Sta 39+00 to 60+00	14337.00	CCY	147,077	0	16,914	13,021	1,257	178,269	12.43
11.01.04.11 Sta 60+00 to 110+00									
11.01.04.11.90 Excavate Material from Borrow	914.12	BCY	5,906	0	679	523	50	7,158	7.83
11.01.04.11.91 Place Mat'l	914.12	BCY	1,294	0	149	115	11	1,569	1.72
11.01.04.11.92 Street Repair	914.12	BCY	439	0	50	39	4	532	0.58
11.01.04.11.93 Street Sweeping	914.12	BCY	283	0	32	25	2	342	0.37

** PROJECT INDIRECT SUMMARY - Bid Item **

	QUANTITY	UOM	DIRECT	OVERHEAD	% OVRHD	PROFIT	BOND	TOTAL COST	UNIT COST
11.01.04.11.94 Testing	914.12	BCY	50	0	6	4	0	60	0.07
TOTAL Sta 60+00 to 110+00	777.00	CCY	7,971	0	917	706	68	9,662	12.43
11.01.04.13 Sta 110+00 to 150+00									
11.01.04.13.95 Excavate Material from Borrow	31145.88	BCY	216,598	0	24,909	19,176	1,851	262,533	8.43
11.01.04.13.96 Place Mat'l	31145.88	BCY	44,092	0	5,071	3,904	377	53,444	1.72
11.01.04.13.97 Street Repair	31145.88	BCY	14,950	0	1,719	1,324	128	18,121	0.58
11.01.04.13.98 Street Sweeping	31145.88	BCY	9,627	0	1,107	852	82	11,669	0.37
11.01.04.13.99 Testing	31145.88	BCY	1,646	0	189	146	14	1,995	0.06
TOTAL Sta 110+00 to 150+00	26474.00	CCY	286,913	0	32,995	25,401	2,452	347,761	13.14
11.01.04.15 Sta 150+00 to 215+00									
11.01.04.15.A0 Excavate Material from Borrow	68618.82	BCY	443,333	0	50,983	39,249	3,789	537,354	7.83
11.01.04.15.A1 Place Mat'l	68618.82	BCY	97,142	0	11,171	8,600	830	117,744	1.72
11.01.04.15.A2 Street Repair	68618.82	BCY	32,937	0	3,788	2,916	282	39,922	0.58
11.01.04.15.A3 Street Sweeping	68618.82	BCY	21,209	0	2,439	1,878	181	25,708	0.37
11.01.04.15.A4 Testing	68618.82	BCY	3,674	0	422	325	31	4,453	0.06
TOTAL Sta 150+00 to 215+00	58326.00	CCY	598,295	0	68,804	52,968	5,114	725,180	12.43
11.01.04.16 NOT USED									
11.01.04.18 Sta 215+00 to 270+00									
11.01.04.18.B0 Excavate Material from Borrow	30840.00	BCY	214,471	0	24,664	18,987	1,833	259,955	8.43
11.01.04.18.B1 Place Mat'l	30840.00	BCY	43,659	0	5,021	3,865	373	52,919	1.72
11.01.04.18.B2 Street Repair	30840.00	BCY	14,803	0	1,702	1,311	127	17,943	0.58
11.01.04.18.B3 Street Sweeping	30840.00	BCY	9,532	0	1,096	844	81	11,554	0.37
11.01.04.18.B4 Testing	30840.00	BCY	1,646	0	189	146	14	1,995	0.06
TOTAL Sta 215+00 to 270+00	26214.00	CCY	284,111	0	32,673	25,153	2,428	344,365	13.14
11.01.04.19 Sta 270+00 to 289+70									
TOTAL Levee Raise (New)	133484.00	CCY	1,395,571	0	160,491	123,551	11,928	1,691,542	12.67
11.01.05 Stability Berm (New)									
11.01.05.07 Sta 29+00 to 39+00									
11.01.05.07.C0 Excavate Material from Borrow	3995.29	BCY	23,841	0	2,742	2,111	204	28,897	7.23
11.01.05.07.C1 Place Mat'l	3995.29	BCY	5,656	0	650	501	48	6,856	1.72
11.01.05.07.C2 Street Repair	3995.29	BCY	1,918	0	221	170	16	2,324	0.58

** PROJECT INDIRECT SUMMARY - Bid Item **

	QUANTITY	UOM	DIRECT	OVERHEAD	% OVRHD	PROFIT	BOND	TOTAL COST	UNIT COST
11.01.05.07.C3 Street Sweeping	3995.29	BCY	1,235	0	142	109	11	1,497	0.37
11.01.05.07.C4 Testing	3995.29	BCY	199	0	23	18	2	242	0.06
TOTAL Sta 29+00 to 39+00	3396.00	CCY	32,849	0	3,778	2,908	281	39,816	11.72
11.01.05.09 Sta 39+00 to 60+00									
11.01.05.09.C5 Excavate Material from Borrow	11625.88	BCY	80,850	0	9,298	7,158	691	97,996	8.43
11.01.05.09.C6 Place Mat'l	11625.88	BCY	16,458	0	1,893	1,457	141	19,949	1.72
11.01.05.09.C7 Street Repair	11625.88	BCY	5,580	0	642	494	48	6,764	0.58
11.01.05.09.C8 Street Sweeping	11625.88	BCY	3,593	0	413	318	31	4,356	0.37
11.01.05.09.C9 Testing	11625.88	BCY	632	0	73	56	5	766	0.07
TOTAL Sta 39+00 to 60+00	9882.00	CCY	107,114	0	12,318	9,483	916	129,830	13.14
11.01.05.11 Sta 60+00 to 110+00									
11.01.05.11.D0 Excavate Material from Borrow	791.76	BCY	5,115	0	588	453	44	6,200	7.83
11.01.05.11.D1 Place Mat'l	791.76	BCY	1,121	0	129	99	10	1,359	1.72
11.01.05.11.D2 Street Repair	791.76	BCY	380	0	44	34	3	461	0.58
11.01.05.11.D3 Street Sweeping	791.76	BCY	245	0	28	22	2	297	0.37
11.01.05.11.D4 Testing	791.76	BCY	50	0	6	4	0	60	0.08
TOTAL Sta 60+00 to 110+00	673.00	CCY	6,911	0	795	612	59	8,377	12.45
11.01.05.13 Sta 110+00 to 150+00									
11.01.05.13.D5 Excavate Material from Borrow	29432.94	BCY	204,685	0	23,539	18,121	1,749	248,095	8.43
11.01.05.13.D6 Place Mat'l	29432.94	BCY	41,668	0	4,792	3,689	356	50,504	1.72
11.01.05.13.D7 Street Repair	29432.94	BCY	14,128	0	1,625	1,251	121	17,124	0.58
11.01.05.13.D8 Street Sweeping	29432.94	BCY	9,097	0	1,046	805	78	11,027	0.37
11.01.05.13.D9 Testing	29432.94	BCY	1,546	0	178	137	13	1,874	0.06
TOTAL Sta 110+00 to 150+00	25018.00	CCY	271,124	0	31,179	24,003	2,317	328,624	13.14
11.01.05.15 Sta 150+00 to 215+00									
11.01.05.15.E0 Excavate Material from Borrow	57536.47	BCY	371,732	0	42,749	32,910	3,177	450,568	7.83
11.01.05.15.E1 Place Mat'l	57536.47	BCY	81,453	0	9,367	7,211	696	98,727	1.72
11.01.05.15.E2 Street Repair	57536.47	BCY	27,618	0	3,176	2,445	236	33,475	0.58
11.01.05.15.E3 Street Sweeping	57536.47	BCY	17,784	0	2,045	1,574	152	21,556	0.37
11.01.05.15.E4 Testing	57536.47	BCY	3,092	0	356	274	26	3,748	0.07
TOTAL Sta 150+00 to 215+00	48906.00	CCY	501,678	0	57,693	44,414	4,288	608,073	12.43

11.01.05.17 NOT USED

** PROJECT INDIRECT SUMMARY - Bid Item **

	QUANTITY	UOM	DIRECT	OVERHEAD	% OVRHD	PROFIT	BOND	TOTAL COST	UNIT COST
11.01.05.19 Sta 215+00 to 270+00									
11.01.05.19.F0 Excavate Material from Borrow	25112.94	BCY	174,643	0	20,084	15,461	1,493	211,681	8.43
11.01.05.19.F1 Place Mat'l	25112.94	BCY	35,552	0	4,088	3,147	304	43,092	1.72
11.01.05.19.F2 Street Repair	25112.94	BCY	12,054	0	1,386	1,067	103	14,611	0.58
11.01.05.19.F3 Street Sweeping	25112.94	BCY	7,762	0	893	687	66	9,408	0.37
11.01.05.19.F4 Testing	25112.94	BCY	1,346	0	155	119	12	1,632	0.06
11.01.05.19.F5 Sta 254+00 to 276+00 - Rock Toe	15892.00	TON	429,295	0	49,369	38,006	3,669	520,339	32.74
TOTAL Sta 215+00 to 270+00	21346.00	CCY	660,653	0	75,975	58,488	5,647	800,763	37.51
TOTAL Stability Berm (New)	109221.00	CCY	1,580,329	0	181,738	139,908	13,507	1,915,483	17.54
11.01.06 Underseepage Berm (New)									
11.01.06.13 Sta 110+00 to 150+00									
TOTAL Sta 110+00 to 150+00									
11.01.06.16 Sta 150+00 to 215+00									
11.01.06.16.G5 Excavate Material from Borrow	17854.12	BCY	115,352	0	13,265	10,212	986	139,816	7.83
11.01.06.16.G6 Place Mat'l	17854.12	BCY	25,276	0	2,907	2,238	216	30,636	1.72
11.01.06.16.G7 Street Repair	17854.12	BCY	8,570	0	986	759	73	10,387	0.58
11.01.06.16.G8 Street Sweeping	17854.12	BCY	5,519	0	635	489	47	6,689	0.37
11.01.06.16.G9 Testing	17854.12	BCY	964	0	111	85	8	1,169	0.07
11.01.06.16.H1 Sta 202+00 to 207+00 - Fltr Blkt	2700.00	TON	46,886	0	5,392	4,151	401	56,829	21.05
TOTAL Sta 150+00 to 215+00	15176.00	CCY	202,566	0	23,295	17,933	1,731	245,526	16.18
11.01.06.17 Sta 165+00 to 168+00									
11.01.06.17.H0 UST Removals	5.00	EA	100,000	0	11,500	8,853	855	121,208	24241.56
TOTAL Sta 165+00 to 168+00	5.00	EA	100,000	0	11,500	8,853	855	121,208	24241.56
11.01.06.22 Area Fill Sta 223+50 to 227+00									
11.01.06.22.H5 Excavate Material from Borrow	3049.41	BCY	21,206	0	2,439	1,877	181	25,704	8.43
11.01.06.22.H6 Place Mat'l	3049.41	BCY	4,317	0	496	382	37	5,233	1.72
11.01.06.22.H7 Street Repair	3049.41	BCY	1,464	0	168	130	13	1,774	0.58
11.01.06.22.H8 Street Sweeping	3049.41	BCY	943	0	108	83	8	1,142	0.37
11.01.06.22.H9 Testing	3049.41	BCY	150	0	17	13	1	181	0.06
TOTAL Area Fill Sta 223+50 to 227+00	2592.00	CCY	28,079	0	3,229	2,486	240	34,034	13.13

** PROJECT INDIRECT SUMMARY - Bid Item **

	QUANTITY	UOM	DIRECT	OVERHEAD	% OVRHD	PROFIT	BOND	TOTAL COST	UNIT COST
11.01.06.24 Area Fill Sta 244+00 to 246+00									
11.01.06.24.I0 Excavate Material from Borrow	1743.53	BCY	12,125	0	1,394	1,073	104	14,696	8.43
11.01.06.24.I1 Place Mat'l	1743.53	BCY	2,468	0	284	219	21	2,992	1.72
11.01.06.24.I2 Street Repair	1743.53	BCY	837	0	96	74	7	1,014	0.58
11.01.06.24.I3 Street Sweeping	1743.53	BCY	539	0	62	48	5	653	0.37
11.01.06.24.I4 Testing	1743.53	BCY	100	0	11	9	1	121	0.07
TOTAL Area Fill Sta 244+00 to 246+00	1482.00	CCY	16,069	0	1,848	1,423	137	19,477	13.14
TOTAL Underseepage Berm (New)	19250.00	CCY	346,714	0	39,872	30,695	2,963	420,245	21.83
11.01.07 Seeding & Mulching									
11.01.07.01 Seeding & Mulching									
11.01.07.01.I5 Seeding & Mulching	133.50	ACR	200,250	0	23,029	17,728	1,712	242,719	1818.12
TOTAL Seeding & Mulching	133.50	ACR	200,250	0	23,029	17,728	1,712	242,719	1818.12
TOTAL Seeding & Mulching	133.50	ACR	200,250	0	23,029	17,728	1,712	242,719	1818.12
11.01.08 Replace Aggregate Surfacing									
11.01.08.27 Replace Aggregate Surfacing									
11.01.08.27.I6 Replace Aggregate Surfacing	6760.00	CY	198,618	0	22,841	17,584	1,698	240,741	35.61
TOTAL Replace Aggregate Surfacing	6760.00	CY	198,618	0	22,841	17,584	1,698	240,741	35.61
TOTAL Replace Aggregate Surfacing	6760.00	CY	198,618	0	22,841	17,584	1,698	240,741	35.61
11.01.09 Drainage Systems									
11.01.09.01 Box Culvert Mod - Sta 60+40									
11.01.09.01.I7 Deloading	100.00	LF	276,348	0	31,780	24,465	2,362	334,955	3349.55
TOTAL Box Culvert Mod - Sta 60+40	1.00	EA	276,348	0	31,780	24,465	2,362	334,955	334955.17
11.01.09.03 Box Culvert Mod - Sta 253+14									
11.01.09.04 Box Culvert Mod - Sta 258+36									
11.01.09.04.K6 Deloading	100.00	LF	278,128	0	31,985	24,623	2,377	337,113	3371.13
TOTAL Box Culvert Mod - Sta 258+36	1.00	EA	278,128	0	31,985	24,623	2,377	337,113	337112.92

** PROJECT INDIRECT SUMMARY - Bid Item **

	QUANTITY	UOM	DIRECT	OVERHEAD	% OVRHD	PROFIT	BOND	TOTAL COST	UNIT COST
11.01.09.05 Box Culvert Mod - Sta 273+41									
11.01.09.05.K7 Deloading	100.00	LF	278,128	0	31,985	24,623	2,377	337,113	3371.13
11.01.09.05.K8 Demo RCB Floor & Reinforce RCB	100.00	LF	129,560	0	14,899	11,470	1,107	157,037	1570.37
TOTAL Box Culvert Mod - Sta 273+41	1.00	EA	407,688	0	46,884	36,093	3,485	494,150	494149.62
11.01.09.07 New Gatewell - Sta 13+75									
11.01.09.07.K9 Pipe Abandonment	100.00	LF	5,971	0	687	529	51	7,237	72.37
TOTAL New Gatewell - Sta 13+75	1.00	EA	5,971	0	687	529	51	7,237	7236.82
11.01.09.09 New Gatewell - Sta 190+00									
11.01.09.11 New Gatewell - Sta 210+73									
11.01.09.11.L0 Pipe Abandonment	100.00	LF	6,496	0	747	575	56	7,874	78.74
TOTAL New Gatewell - Sta 210+73	1.00	EA	6,496	0	747	575	56	7,874	7873.96
11.01.09.13 New Gatewell - Sta 258+36									
11.01.09.15 New Gatewell - Sta 284+35									
11.01.09.15.M5 Gatewell Structure @ Sta 284+35	1.00	EA	188,103	0	21,632	16,653	1,608	227,996	227995.83
11.01.09.15.M6 Ring Levee for 100 Yr Protection	23529.41	BCY	101,283	0	11,648	8,967	866	122,763	5.22
11.01.09.15.M7 Subbase Preparation	1.00	EA	755	0	87	67	6	915	914.91
11.01.09.15.M8 New Outlet	1.00	EA	107,132	0	12,320	9,485	916	129,853	129852.82
TOTAL New Gatewell - Sta 284+35	1.00	EA	397,273	0	45,686	35,171	3,396	481,526	481526.35
11.01.09.17 Platform Raise at Sta 35+10									
11.01.09.17.M9 Wall extension	1.00	EA	16,000	0	1,840	1,416	137	19,393	19393.25
TOTAL Platform Raise at Sta 35+10	1.00	EA	16,000	0	1,840	1,416	137	19,393	19393.25
11.01.09.19 Platform Raise at Sta 60+40									
11.01.09.19.N0 Wall extension	1.00	EA	16,000	0	1,840	1,416	137	19,393	19393.25
TOTAL Platform Raise at Sta 60+40	1.00	EA	16,000	0	1,840	1,416	137	19,393	19393.25
11.01.09.20 Platform Raise at Sta 131+37									

** PROJECT INDIRECT SUMMARY - Bid Item **

	QUANTITY	UOM	DIRECT	OVERHEAD	% OVRHD	PROFIT	BOND	TOTAL COST	UNIT COST
11.01.09.20.N1 Wall extension	1.00	EA	16,000	0	1,840	1,416	137	19,393	19393.25
TOTAL Platform Raise at Sta 131+37	1.00	EA	16,000	0	1,840	1,416	137	19,393	19393.25
11.01.09.21 Platform Raise at Sta 131+50									
11.01.09.21.N2 Wall extension	1.00	EA	16,000	0	1,840	1,416	137	19,393	19393.25
TOTAL Platform Raise at Sta 131+50	1.00	EA	16,000	0	1,840	1,416	137	19,393	19393.25
11.01.09.23 Platform Raise at Sta 145+00									
11.01.09.23.N3 Wall extension	1.00	EA	16,000	0	1,840	1,416	137	19,393	19393.25
TOTAL Platform Raise at Sta 145+00	1.00	EA	16,000	0	1,840	1,416	137	19,393	19393.25
11.01.09.25 Platform Raise at Sta 190+00									
11.01.09.25.N4 Wall extension	1.00	EA	16,000	0	1,840	1,416	137	19,393	19393.25
TOTAL Platform Raise at Sta 190+00	1.00	EA	16,000	0	1,840	1,416	137	19,393	19393.25
11.01.09.27 Platform Raise at Sta 218+17									
11.01.09.27.N5 Wall extension	1.00	EA	16,000	0	1,840	1,416	137	19,393	19393.25
TOTAL Platform Raise at Sta 218+17	1.00	EA	16,000	0	1,840	1,416	137	19,393	19393.25
11.01.09.29 Platform Raise at Sta 247+32									
11.01.09.29.N6 Wall extension	1.00	EA	16,000	0	1,840	1,416	137	19,393	19393.25
TOTAL Platform Raise at Sta 247+32	1.00	EA	16,000	0	1,840	1,416	137	19,393	19393.25
11.01.09.30 Platform Raise at Sta 253+14									
11.01.09.30.N7 Wall extension	1.00	EA	16,000	0	1,840	1,416	137	19,393	19393.25
TOTAL Platform Raise at Sta 253+14	1.00	EA	16,000	0	1,840	1,416	137	19,393	19393.25
11.01.09.31 Platform Raise at Sta 274+09									
11.01.09.31.N8 Wall extension	1.00	EA	16,000	0	1,840	1,416	137	19,393	19393.25

** PROJECT INDIRECT SUMMARY - Bid Item **

	QUANTITY	UOM	DIRECT	OVERHEAD	% OVRHD	PROFIT	BOND	TOTAL COST	UNIT COST
TOTAL Platform Raise at Sta 274+09	1.00	EA	16,000	0	1,840	1,416	137	19,393	19393.25
11.01.09.33 Platform Raise at Sta 280+48									
11.01.09.33.N9 Wall extension	1.00	EA	16,000	0	1,840	1,416	137	19,393	19393.25
TOTAL Platform Raise at Sta 280+48	1.00	EA	16,000	0	1,840	1,416	137	19,393	19393.25
11.01.09.35 Platform Raise at Sta 288+10									
11.01.09.35.O0 Wall extension	1.00	EA	16,000	0	1,840	1,416	137	19,393	19393.25
TOTAL Platform Raise at Sta 288+10	1.00	EA	16,000	0	1,840	1,416	137	19,393	19393.25
11.01.09.36 Platform Raise at Sta 258+36									
11.01.09.36.O1 Wall extension	1.00	EA	16,000	0	1,840	1,416	137	19,393	19393.25
TOTAL Platform Raise at Sta 258+36	1.00	EA	16,000	0	1,840	1,416	137	19,393	19393.25
11.01.09.37 Platform Raise at Sta 273+41									
11.01.09.37.O2 Wall extension	1.00	EA	16,000	0	1,840	1,416	137	19,393	19393.25
TOTAL Platform Raise at Sta 273+41	1.00	EA	16,000	0	1,840	1,416	137	19,393	19393.25
11.01.09.39 New GW -Sta -1+10 (Barber Creek)									
11.01.09.40 Buried Collector System									
11.01.09.40.P0 Clearing & Grubbing	870.00	CY	382	0	44	34	3	462	0.53
11.01.09.40.P1 Excavation	3769.00	CY	8,283	0	953	733	71	10,040	2.66
11.01.09.40.P2 Granular Fill	1729.00	CY	64,790	0	7,451	5,736	554	78,530	45.42
11.01.09.40.P3 Sand Fill	891.00	CY	27,374	0	3,148	2,423	234	33,180	37.24
11.01.09.40.P4 Clay Backfill	1693.00	CY	8,543	0	982	756	73	10,354	6.12
11.01.09.40.P7 18" Perforated Pipe	1850.00	LF	45,319	0	5,212	4,012	387	54,930	29.69
11.01.09.40.P8 Manholes for Pumping	10.00	EA	114,011	0	13,111	10,094	974	138,190	13819.02
11.01.09.40.P9 Ramps	2.00	EA	19,280	0	2,217	1,707	165	23,369	11684.45
11.01.09.40.Q0 Seeding & Mulching	2.00	ACR	3,000	0	345	266	26	3,636	1818.12
TOTAL Buried Collector System	1850.00	LF	290,981	0	33,463	25,761	2,487	352,692	190.64
TOTAL Drainage Systems	1.00	EA	1,886,885	0	216,992	167,048	16,128	2,287,052	2287052
TOTAL Levees	4430.00	LF	6,126,739	0	704,575	542,406	52,367	7,426,086	1676.32

** PROJECT INDIRECT SUMMARY - Bid Item **

	QUANTITY	UOM	DIRECT	OVERHEAD	% OVRHD	PROFIT	BOND	TOTAL COST	UNIT COST
11.02 Floodwalls									
11.02.40 Floodwalls									
11.02.40.01 Sta 251+65.18 to 253+92.40									
11.02.40.02 Sta 251+65.18 to 253+92.40									
11.02.40.02.R0 Excavation for Buttresses	1.00	EA	142,616	0	16,401	12,626	1,219	172,862	172861.75
11.02.40.02.R1 Base Extension	63.10	CY	60,657	0	6,976	5,370	518	73,521	1165.15
11.02.40.02.R2 Buttresses	536.00	CY	505,465	0	58,128	44,749	4,320	612,663	1143.03
11.02.40.02.R3 5.4-foot wall extension	56.80	CY	69,328	0	7,973	6,138	593	84,031	1479.41
11.02.40.02.R4 Backfilling for Buttresses	1.00	EA	63,091	0	7,255	5,585	539	76,471	76471.01
TOTAL Sta 251+65.18 to 253+92.40	227.22	LF	841,157	0	96,733	74,468	7,190	1,019,548	4487.05
11.02.40.05 Sta 276+70 to 287+91.72									
11.02.40.05.R5 Excavation for Demolition	1.00	EA	126,070	0	14,498	11,161	1,078	152,807	152807.13
11.02.40.05.R6 Demolition of Exist Floodwall	1963.00	CY	249,015	0	28,637	22,046	2,128	301,825	153.76
11.02.40.05.R7 Backfill to New Base elevation	1.00	EA	61,719	0	7,098	5,464	528	74,808	74808.42
11.02.40.05.R8 18" Diameter Pipe Piles	12427.00	LF	659,777	0	75,874	58,411	5,639	799,701	64.35
11.02.40.05.R9 Sheetpile Cutoff Wall	7854.00	SF	210,277	0	24,182	18,616	1,797	254,872	32.45
11.02.40.05.S0 Floodwall Base	1215.18	CY	403,672	0	46,422	35,737	3,450	489,282	402.64
11.02.40.05.S1 1st Floodwall	35.56	CY	26,955	0	3,100	2,386	230	32,671	918.76
11.02.40.05.S2 Remaining Floodwalls	1294.34	CY	892,128	0	102,595	78,981	7,625	1,081,329	835.43
11.02.40.05.S3 Backfilling Remainder	1.00	EA	81,436	0	9,365	7,210	696	98,707	98707.29
11.02.40.05.S4 Emergency Flood Protection	4456.00	CCY	57,175	0	6,575	5,062	489	69,300	15.55
TOTAL Sta 276+70 to 287+91.72	1121.72	LF	2,768,224	0	318,346	245,074	23,661	3,355,304	2991.21
TOTAL Floodwalls	1348.94	LF	3,609,380	0	415,079	319,542	30,850	4,374,852	3243.18
11.02.50 I-walls									
11.02.50.01 Sta -2+00 to 28+29									
11.02.50.01.S5 Excavation and stockpile	3029.00	CY	14,770	0	1,699	1,308	126	17,902	5.91
11.02.50.01.S6 Sheetpiling	30290.00	SF	935,079	0	107,534	82,783	7,992	1,133,389	37.42
11.02.50.01.S7 I-wall	2005.00	CY	982,139	0	112,946	86,950	8,395	1,190,429	593.73
11.02.50.01.S8 Backfilling	3029.00	CY	21,393	0	2,460	1,894	183	25,930	8.56
TOTAL Sta -2+00 to 28+29	3029.00	LF	1,953,380	0	224,639	172,935	16,696	2,367,650	781.66
11.02.50.03 Sta 61+00 to 118+00									
11.02.50.03.S9 Excavation and stockpile	5700.00	CY	27,353	0	3,146	2,422	234	33,154	5.82

** PROJECT INDIRECT SUMMARY - Bid Item **

	QUANTITY	UOM	DIRECT	OVERHEAD	% OVRHD	PROFIT	BOND	TOTAL COST	UNIT COST
11.02.50.03.T0 Sheetpiling	57000.00	SF	1,720,340	0	197,839	152,303	14,704	2,085,187	36.58
11.02.50.03.T1 I-wall	3773.61	CY	1,833,133	0	210,810	162,289	15,668	2,221,901	588.80
11.02.50.03.T2 Backfilling	5700.00	CY	39,816	0	4,579	3,525	340	48,260	8.47
TOTAL Sta 61+00 to 118+00	5700.00	LF	3,620,643	0	416,374	320,539	30,946	4,388,502	769.91
11.02.50.04 Sta 245+00 to 251+60									
11.02.50.04.T3 Excavation and stockpile	660.00	CY	3,609	0	415	320	31	4,375	6.63
11.02.50.04.T4 Sheetpiling	7260.00	SF	239,995	0	27,599	21,247	2,051	290,892	40.07
11.02.50.04.T5 I-wall	537.78	CY	263,614	0	30,316	23,338	2,253	319,520	594.15
11.02.50.04.T6 Backfilling	660.00	CY	5,052	0	581	447	43	6,124	9.28
TOTAL Sta 245+00 to 251+60	660.00	LF	512,270	0	58,911	45,352	4,378	620,911	940.77
11.02.50.05 Sta 254+00 to 276+60									
11.02.50.05.T3 Excavation and stockpile	2260.00	CY	11,147	0	1,282	987	95	13,511	5.98
11.02.50.05.T4 Sheetpiling	24860.00	SF	754,253	0	86,739	66,775	6,447	914,214	36.77
11.02.50.05.T5 I-wall	1956.00	CY	954,389	0	109,755	84,493	8,157	1,156,794	591.41
11.02.50.05.T6 Backfilling	2260.00	CY	16,089	0	1,850	1,424	138	19,501	8.63
TOTAL Sta 254+00 to 276+60	2260.00	LF	1,735,877	0	199,626	153,679	14,837	2,104,019	930.98
11.02.50.06 Sta 289+09 to 289+40									
11.02.50.06.T3 Excavation and stockpile	31.00	CY	646	0	74	57	6	783	25.26
11.02.50.06.T4 Sheetpiling	341.00	SF	30,648	0	3,525	2,713	262	37,148	108.94
11.02.50.06.T5 I-wall	28.41	CY	16,528	0	1,901	1,463	141	20,033	705.16
11.02.50.06.T6 Backfilling	31.00	CY	714	0	82	63	6	865	27.91
TOTAL Sta 289+09 to 289+40	31.00	LF	48,536	0	5,582	4,297	415	58,829	1897.72
TOTAL I-walls	11680.00	LF	7,870,706	0	905,131	696,802	67,273	9,539,912	816.77
11.02.60 Stoplogs									
11.02.60.03 Sta 29+02									
11.02.60.03.T7 Excavation for Demolition	675.00	BCY	4,912	0	565	435	42	5,954	8.82
11.02.60.03.T8 Demolition of Exist Floodwall	107.00	CY	20,217	0	2,325	1,790	173	24,505	229.02
11.02.60.03.T9 Backfill to New Base elevation	1.00	EA	3,325	0	382	294	28	4,030	4029.69
11.02.60.03.U0 HP14x102 H-Piles	2987.00	LF	200,427	0	23,049	17,744	1,713	242,933	81.33
11.02.60.03.U1 Sheetpile Cutoff Wall	1011.50	SF	33,306	0	3,830	2,949	285	40,369	39.91
11.02.60.03.U2 Stoplog Gap Base	240.83	CY	78,826	0	9,065	6,979	674	95,543	396.72
11.02.60.03.U3 20.5' Abutment Wall	12.38	CY	9,724	0	1,118	861	83	11,786	952.01
11.02.60.03.U4 Abutment for 20.5' Wall	3.18	CY	2,788	0	321	247	24	3,379	1062.69

** PROJECT INDIRECT SUMMARY - Bid Item **

	QUANTITY	UOM	DIRECT	OVERHEAD	% OVRHD	PROFIT	BOND	TOTAL COST	UNIT COST
11.02.60.03.U5 24' Abutment Wall	14.86	CY	11,313	0	1,301	1,002	97	13,712	922.74
11.02.60.03.U6 Abutment for 24' Wall	3.37	CY	2,812	0	323	249	24	3,408	1011.38
11.02.60.03.U7 100' Sill Wall	17.11	CY	26,243	0	3,018	2,323	224	31,809	1859.10
11.02.60.03.U8 Post Wells	22.00	CY	11,087	0	1,275	982	95	13,439	610.85
11.02.60.03.U9 Backfilling Remainder	1.00	EA	2,660	0	306	235	23	3,224	3223.75
11.02.60.03.V0 Stoplogs	1.00	EA	66,238	0	7,617	5,864	566	80,286	80285.64
TOTAL Sta 29+02	144.50	LF	473,877	0	54,496	41,953	4,050	574,376	3974.92
11.02.60.05 Sta 288+57									
11.02.60.05.V1 Excavation for Demolition	893.00	BCY	7,222	0	831	639	62	8,754	9.80
11.02.60.05.V2 Demolition of Exist Floodwall	110.00	CY	17,287	0	1,988	1,530	148	20,953	190.48
11.02.60.05.V3 Backfill to New Base elevation	1.00	EA	3,808	0	438	337	33	4,615	4615.21
11.02.60.05.V4 HP14x102 H-Piles	3715.00	LF	256,010	0	29,441	22,665	2,188	310,304	83.53
11.02.60.05.V5 Sheetpile Cutoff Wall	919.31	SF	31,193	0	3,587	2,762	267	37,808	41.13
11.02.60.05.V6 Stoplog Gap Base	323.46	CY	101,525	0	11,675	8,988	868	123,056	380.44
11.02.60.05.V7 9' Abutment Wall	7.49	CY	6,403	0	736	567	55	7,761	1036.14
11.02.60.05.V8 Abutment for 9' Wall	5.13	CY	4,339	0	499	384	37	5,259	1025.16
11.02.60.05.V9 21' Abutment Wall	21.30	CY	14,615	0	1,681	1,294	125	17,714	831.64
11.02.60.05.W0 Abutment for 21' Wall	5.13	CY	4,339	0	499	384	37	5,259	1025.16
11.02.60.05.W1 101' Sill Wall	35.50	CY	36,441	0	4,191	3,226	311	44,170	1244.22
11.02.60.05.W2 Post Wells	40.00	CY	20,326	0	2,337	1,799	174	24,637	615.92
11.02.60.05.W3 Backfilling Remainder	1.00	EA	2,666	0	307	236	23	3,232	3231.57
11.02.60.05.W4 Stoplogs	1.00	EA	92,750	0	10,666	8,211	793	112,420	112420.26
TOTAL Sta 288+57	131.33	LF	598,923	0	68,876	53,023	5,119	725,942	5527.62
TOTAL Stoplogs	1.00	EA	1,072,800	0	123,372	94,976	9,169	1,300,317	1300317
TOTAL Floodwalls	1.00	EA	12,552,887	0	1,443,582	1,111,320	107,292	15,215,081	15215081
TOTAL Levees and Floodwalls	1.00	EA	18,679,625	0	2,148,157	1,653,726	159,659	22,641,167	22641167
13 Pump Plant									
13.00 Pump Plant - Upgrades									
13.00.01 Retrofit Existing Pump Plants									
13.00.01.01 Retrofit Existing Pump Plants									
13.00.01.01.W5 Retrofit Existing Pump Plants	3.00	EA	900,000	0	0	0	0	900,000	300000.00
TOTAL Retrofit Existing Pump Plants	3.00	EA	900,000	0	0	0	0	900,000	300000.00
TOTAL Retrofit Existing Pump Plants	3.00	EA	900,000	0	0	0	0	900,000	300000.00

** PROJECT INDIRECT SUMMARY - Bid Item **

	QUANTITY	UOM	DIRECT	OVERHEAD	% OVRHD	PROFIT	BOND	TOTAL COST	UNIT COST
13.00.02 New Pump Plant									
TOTAL Pump Plant - Upgrades	1.00	EA	900,000	0	0	0	0	900,000	900000.00
13.01 Pump Plant - Existing Conditions									
13.01.01 Turner Pump Plant									
13.01.01.02 Excavation									
13.01.01.02.05 Excavation	207.00	CY	1,345	0	155	119	11	1,630	7.88
TOTAL Excavation	207.00	CY	1,345	0	155	119	11	1,630	7.88
13.01.01.04 18" Dia RCP									
13.01.01.04.06 Purchase Pipe	72.00	LF	1,152	0	132	102	10	1,396	19.39
13.01.01.04.07 Unload Pipe	6.00	EA	77	0	9	7	1	93	15.50
13.01.01.04.08 Place Pipe	72.00	LF	1,054	0	121	93	9	1,277	17.74
TOTAL 18" Dia RCP	72.00	LF	2,282	0	262	202	20	2,766	38.42
13.01.01.05 Relief Well System									
13.01.01.05.09 Relief Wells @ Turner Pump Plant	7.00	EA	150,352	0	17,290	13,311	1,285	182,238	26034.07
TOTAL Relief Well System	7.00	EA	150,352	0	17,290	13,311	1,285	182,238	26034.07
13.01.01.06 Manholes									
13.01.01.06.10 Excavation for Manholes	7.00	EA	2,017	0	232	179	17	2,445	349.28
13.01.01.06.11 Manholes	7.00	EA	18,080	0	2,079	1,601	155	21,914	3130.63
13.01.01.06.12 Backfilling	7.00	EA	4,123	0	474	365	35	4,998	713.95
TOTAL Manholes	7.00	EA	24,220	0	2,785	2,144	207	29,357	4193.86
13.01.01.07 Clay Backfill									
13.01.01.07.13 Clay Backfill	243.53	BCY	1,660	0	191	147	14	2,012	8.26
TOTAL Clay Backfill	207.00	CY	1,660	0	191	147	14	2,012	9.72
13.01.01.09 Concrete Penetration									

** PROJECT INDIRECT SUMMARY - Bid Item **

	QUANTITY	UOM	DIRECT	OVERHEAD	% OVRHD	PROFIT	BOND	TOTAL COST	UNIT COST
13.01.01.09.14 Concrete Penetration	1.00	EA	1,000	0	115	89	9	1,212	1212.08
TOTAL Concrete Penetration	1.00	EA	1,000	0	115	89	9	1,212	1212.08
TOTAL Turner Pump Plant	1.00	EA	180,860	0	20,799	16,012	1,546	219,216	219216.38
13.01.02 New Pump Plant - 5th Avenue									
13.01.02.01 Demo Exist Maint Building									
13.01.02.01.15 Demo Exist Maint Building	1.00	EA	20,627	0	634	488	47	21,796	21796.04
TOTAL Demo Exist Maint Building	1.00	EA	20,627	0	634	488	47	21,796	21796.04
13.01.02.02 Shoring - Augercast Piles									
13.01.02.02.16 Mob/Demob of Crane	2.00	DAY	20,000	0	0	0	0	20,000	10000.00
13.01.02.02.17 Setup Crane	1.00	EA	1,331	0	153	118	11	1,613	1612.74
13.01.02.02.18 Setup Pile Equipment	1.00	EA	3,289	0	378	291	28	3,987	3987.12
13.01.02.02.19 Set Template & Layout	1.00	EA	65,772	0	7,564	5,823	562	79,721	79720.64
13.01.02.02.20 Install Augercast Piles	31503.00	LF	342,318	0	39,367	30,306	2,926	414,916	13.17
13.01.02.02.21 Augercast Piling Material	31503.00	LF	547,003	0	62,905	48,427	4,675	663,011	21.05
13.01.02.02.22 Concrete Ring	2.00	EA	50,345	0	5,790	4,457	430	61,021	30510.74
13.01.02.02.23 Bracing	1.00	EA	84,432	0	9,710	7,475	722	102,338	102338.49
TOTAL Shoring - Augercast Piles	1.00	EA	1,114,489	0	125,866	96,896	9,355	1,346,607	1346607
13.01.02.03 Excavation									
13.01.02.03.24 Exc within Piles for Pump Plant	5701.00	BCY	124,387	0	14,305	11,012	1,063	150,767	26.45
13.01.02.03.25 Exc for Bldg Demo	156.00	BCY	1,011	0	116	90	9	1,226	7.86
13.01.02.03.26 Exc within Piles for Inlet	4889.00	BCY	106,671	0	12,267	9,444	912	129,293	26.45
13.01.02.03.27 Exc within Piles for Outlet	2884.00	BCY	62,925	0	7,236	5,571	538	76,270	26.45
13.01.02.03.28 Exc Riprap for Outlet	298.00	BCY	2,023	0	233	179	17	2,452	8.23
13.01.02.03.29 Load Material	15472.00	BCY	44,939	0	5,168	3,979	384	54,470	3.52
13.01.02.03.30 Haul/Dispose of Contaminated Mat	23208.00	TON	411,942	0	47,373	36,470	3,521	499,306	21.51
TOTAL Excavation	13928.00	CY	753,898	0	86,698	66,743	6,444	913,784	65.61
13.01.02.05 Pump Plant									
13.01.02.05.31 Pump Plant	1.00	EA	3,600,000	0	0	0	0	3,600,000	3600000
TOTAL Pump Plant	1.00	EA	3,600,000	0	0	0	0	3,600,000	3600000
13.01.02.06 Backfilling									

** PROJECT INDIRECT SUMMARY - Bid Item **

	QUANTITY	UOM	DIRECT	OVERHEAD	% OVRHD	PROFIT	BOND	TOTAL COST	UNIT COST
13.01.02.06.32 BF within Piles	11204.71	BCY	296,971	0	34,152	26,291	2,538	359,952	32.13
13.01.02.06.33 BF Riprap for Outlet	776.00	TON	16,594	0	1,908	1,469	142	20,114	25.92
TOTAL Backfilling	9524.00	CCY	313,566	0	36,060	27,760	2,680	380,066	39.91
13.01.02.07 Tie in Levee to New Pump Plant									
13.01.02.07.34 Tie in Levee to New Pump Plant	1889.00	CY	37,728	0	4,339	3,340	322	45,729	24.21
TOTAL Tie in Levee to New Pump Plant	1889.00	CY	37,728	0	4,339	3,340	322	45,729	24.21
13.01.02.09 Temp Tie In from PP to Exist FW									
13.01.02.09.35 Temp Tie In frm PP to Exist FW	500.00	CY	9,986	0	1,148	884	85	12,104	24.21
TOTAL Temp Tie In from PP to Exist FW	500.00	CY	9,986	0	1,148	884	85	12,104	24.21
13.01.02.11 Build Outlet Pipe/Structure									
13.01.02.13 Tie In to Existing RCB									
13.01.02.13.37 Bypass Junction Box @ Loc A	1.00	EA	70,000	0	8,050	6,197	598	84,845	84845.48
TOTAL Tie In to Existing RCB	1.00	EA	70,000	0	8,050	6,197	598	84,845	84845.48
13.01.02.15 Abandon Existing Pump Plant									
13.01.02.15.38 Abandon Existing Pump Plant	1.00	EA	125,000	0	0	0	0	125,000	125000.00
TOTAL Abandon Existing Pump Plant	1.00	EA	125,000	0	0	0	0	125,000	125000.00
13.01.02.17 Abandon Existing RCB									
13.01.02.17.39 Abandon Existing RCB	1.00	EA	77,565	0	8,920	6,867	663	94,015	94014.97
TOTAL Abandon Existing RCB	1.00	EA	77,565	0	8,920	6,867	663	94,015	94014.97
13.01.02.20 Install New Inlet Pipe									
13.01.02.20.40 Install New Inlet Pipe	152.00	LF	243,869	0	28,045	21,590	2,084	295,588	1944.66
TOTAL Install New Inlet Pipe	152.00	LF	243,869	0	28,045	21,590	2,084	295,588	1944.66
13.01.02.22 Demo Exist Floodwall									

** PROJECT INDIRECT SUMMARY - Bid Item **

	QUANTITY	UOM	DIRECT	OVERHEAD	% OVRHD	PROFIT	BOND	TOTAL COST	UNIT COST
13.01.02.22.41 Demo Exist Floodwall	1.00	EA	40,742	0	4,685	3,607	348	49,383	49382.55
TOTAL Demo Exist Floodwall	1.00	EA	40,742	0	4,685	3,607	348	49,383	49382.55
13.01.02.24 Demo Augercast									
13.01.02.24.42 Demo Augcast Piles for Pipes	1.00	EA	8,800	0	1,012	779	75	10,666	10666.25
TOTAL Demo Augercast	1.00	EA	8,800	0	1,012	779	75	10,666	10666.25
13.01.02.26 Abandon Existing 30" DIP									
13.01.02.26.43 Abandon Existing 30" DIP	1.00	EA	3,960	0	455	351	34	4,799	4799.37
TOTAL Abandon Existing 30" DIP	1.00	EA	3,960	0	455	351	34	4,799	4799.37
13.01.02.28 Contingency Plan									
13.01.02.28.44 Contingency Plan	1.00	EA	25,000	0	0	0	0	25,000	25000.00
TOTAL Contingency Plan	1.00	EA	25,000	0	0	0	0	25,000	25000.00
TOTAL New Pump Plant - 5th Avenue	1.00	EA	6,445,230	0	305,913	235,503	22,737	7,009,382	7009382
13.01.03 Mod Pump Plant - Strong Avenue									
13.01.03.01 Place H-Piles for Jacking									
13.01.03.01.45 Mob/Demob of Crane	2.00	DAY	20,000	0	0	0	0	20,000	10000.00
13.01.03.01.46 Setup Crane	1.00	EA	1,331	0	153	118	11	1,613	1612.74
13.01.03.01.47 Setup Pile Equipment	1.00	EA	3,289	0	378	291	28	3,987	3987.12
13.01.03.01.48 Install H-Piles	3.00	EA	8,708	0	1,001	771	74	10,555	3518.25
13.01.03.01.49 H-Pile Material	3.00	EA	5,001	0	575	443	43	6,061	2020.41
TOTAL Place H-Piles for Jacking	3.00	EA	38,329	0	2,108	1,623	157	42,216	14071.94
13.01.03.03 Pipe Jacking									
13.01.03.03.50 Pipe Jacking	1.00	EA	263,888	0	30,347	23,362	2,256	319,853	319853.10
TOTAL Pipe Jacking	1.00	EA	263,888	0	30,347	23,362	2,256	319,853	319853.10
13.01.03.05 Grouting Annular Space									

** PROJECT INDIRECT SUMMARY - Bid Item **

	QUANTITY	UOM	DIRECT	OVERHEAD	% OVRHD	PROFIT	BOND	TOTAL COST	UNIT COST
13.01.03.05.51 Grouting Annular Space	1.00	EA	7,287	0	838	645	62	8,833	8832.60
TOTAL Grouting Annular Space	1.00	EA	7,287	0	838	645	62	8,833	8832.60
13.01.03.07 Remove H-Piles for Jacking									
13.01.03.07.52 Mob/Demob of Crane	2.00	DAY	20,000	0	0	0	0	20,000	10000.00
13.01.03.07.53 Setup Crane	1.00	EA	1,331	0	153	118	11	1,613	1612.74
13.01.03.07.54 Setup Pile Equipment	1.00	EA	3,289	0	378	291	28	3,987	3987.12
13.01.03.07.55 Remove H-Piles	3.00	EA	8,708	0	1,001	771	74	10,555	3518.25
TOTAL Remove H-Piles for Jacking	3.00	EA	33,328	0	1,533	1,180	114	36,155	12051.53
13.01.03.10 Strengthen Pump Plant									
13.01.03.10.56 Remove Building	1.00	EA	5,000	0	0	0	0	5,000	5000.00
13.01.03.10.57 Remove Piping/controls/ Pumps	1.00	EA	25,000	0	2,875	2,213	214	30,302	30301.96
13.01.03.10.58 Remove Steel Flooring	1.00	EA	332	0	38	29	3	403	402.52
13.01.03.10.59 Demo Gatewell to Exist Floor	1.00	EA	2,466	0	284	218	21	2,989	2988.89
13.01.03.10.60 Create Slots for Struts	1.00	EA	2,053	0	236	182	18	2,488	2488.28
13.01.03.10.61 Create Holes for Pilasters	1.00	EA	2,354	0	271	208	20	2,853	2853.03
13.01.03.10.62 Place new Pilasters and Struts	1.00	EA	51,443	0	5,916	4,554	440	62,352	62352.48
13.01.03.10.63 Drill/Place Pilaster Reinforcing	1.00	EA	25,433	0	2,925	2,252	217	30,827	30827.10
13.01.03.10.64 Place new Pilasters	1.00	EA	27,070	0	3,113	2,397	231	32,811	32810.64
13.01.03.10.65 Place new Floor	1.00	EA	4,674	0	538	414	40	5,666	5665.51
13.01.03.10.66 Reinstall Pumps/Piping/controls	1.00	EA	100,000	0	11,500	8,853	855	121,208	121207.82
13.01.03.10.67 Replace Steel Floor	1.00	EA	1,328	0	153	118	11	1,610	1610.06
13.01.03.10.68 Replace Building Shell	720.00	SF	25,200	0	2,898	2,231	215	30,544	42.42
TOTAL Strengthen Pump Plant	1.00	EA	272,353	0	30,746	23,669	2,285	329,053	329052.66
TOTAL Mod Pump Plant - Strong Avenue	1.00	EA	615,185	0	65,571	50,479	4,874	736,109	736108.79
TOTAL Pump Plant - Existing Conditions	1.00	EA	7,241,275	0	392,283	301,993	29,156	7,964,707	7964707
TOTAL Pump Plant	1.00	EA	8,141,275	0	392,283	301,993	29,156	8,864,707	8864707
TOTAL Feas Est for 500 Year +3 Ft	1.00	EA	30,495,311	0	2,540,440	1,955,719	188,815	35,180,285	35180285

Contingency	9,391,304
SUBTOTAL	44,571,589
Escalation	3,458,435
SUBTOTAL	48,030,024
Planning, Engineering, & Design	3,417,754
SUBTOTAL	51,447,778
Construction Management	3,162,356

** PROJECT INDIRECT SUMMARY - Bid Item **

	QUANTITY	UOM	DIRECT	OVERHEAD	% OVRHD	PROFIT	BOND	TOTAL COST	UNIT COST
TOTAL INCL OWNER COSTS								54,610,134	

A-16.3 EAST BOTTOMS (MISSOURI AND BLUE RIVERS CONFLUENCE AREA)

The cost estimate included in this section reflects the feasibility level analysis undertaken in determining the cost of recommended improvements within the Missouri and Blue Rivers Confluence Area of the East Bottoms Unit.

Feasibility Estimate for:
Kansas City Levees Feasibility
Study - East Bottoms
Relief Wells
Revision 3

Designed By: CENWK
Estimated By: CENWK-EC-DC

Prepared By: Patrick Miramontez 816-389-3322
LATEST ESTIMATE AS OF 14 Aug 06

Preparation Date: 09/02/04
Effective Date of Pricing: 10/01/05
Est Construction Time: 365 Days

Sales Tax: 0.00%

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01- Lands & Damages - These costs include Non Federal Sponsors cost to perform the Legal work, Admin Support, and Tract appraisals, as well as Federal labor costs.

11 - Levees & Floodwalls- The levees cost consists of 1 components, a relief well system. The subcomponents include: 1) Clearing, 2) excavation, and 3) 30" Dia RCP, 4) Relief Wells, 5) Backfilling, 6) Seeding, and 7) Riprap Protection.

- Clearing - This item consists of stripping 6" of soil and stockpiling next to the levee. The area stripped is 30' wide x 2100 lf long.

- Excavation - This item is for the excavation for the header system. It is assumed the depth is 6' below ground elevation.

- 30" Dia RCP - This item is for the header system which consists of 2100lf of 30" Dia RCP. This piping system will tie into the manholes that cover the relief wells.

- Relief Wells - This item consists of mobilizing the equipment, setup of the equipment, and the installation of a 17 SST Relief Wells, 75' deep each.

- Manholes - This item consists of 4' dia precast manholes that will house the relief wells. Precast manholes were used because of depth. (no joints, only base slab and top slab)

- Backfilling - This item consists of backfilling the 30" Dia RCP header pipe.

- Seeding & Mulching - Once the construction is completed all of the disturbed areas will be seeded and Mulched.

- Riprap Protection - A lump sum cost was added for erosion protection of the ditches in which the water will be dumped.

30 - Estimated Engineering & Design Cost = 41.02% of project implementation (less lands & damages) cost.

31 - Estimated Construction Supervision & Administration = 7% of project implementation (less lands & damages) cost.

Areas of Cost Sensitivity

- Estimate does not include any costs for sampling/testing for HTRW.
- Estimate does not include any costs for the hauling and disposal of HTRW.
- Estimate does not include O&M costs. Only project implementation (construction, real-estate and associated) costs.
- The North Kansas City District is in an area congested by roads, and buildings. The hauling rates for these conditions have been taken into account.
- Planned construction period is Apr 2008 to Apr 2009 per previous Real Estate Timeline dated 7 Sept 2004

General Cost Information

- The quantities have been calculated by EC-GD, EC-DC, and EC-DS. A contingency determination meeting was held with all of the designers to apply the appropriate amount of contingency to each line item.
- No tax has been included for the states of Kansas and Missouri.
- The source for the labor rates used in the estimate is the Sept 2004 Department of Labor Wage rates for Jackson County, Missouri. A minor adjustment factor is added to bring the rates to the appropriate price level date.
- The national 1999 Unit Price Book is used to price minor items. Quotes were received for major cost items. An adjustment factor is added to bring the rates to the appropriate price level date.
- 2004 equipment rates were used. An adjustment factor is added to bring the rates to the appropriate price level date.
- Once all of the databases are normalized to the appropriate price level date an escalation factor will be added to the owner level to bring the estimate to the appropriate price level date. The escalation factors used were derived from the Civil Works Construction Cost Index System (CWCCIS) EM1110-2-1304.

CONTINGENCY DETERMINATION REPORT - The reasons for final contingency development and assignment must be included in the cost estimate as part of the project narrative. When then contingency factors shown in Table 13-1 of EI 01D010 are applied to any portion of the cost estimate up to the feature level, the statement "Normal design variances are expected - Normal contingency values used" is acceptable in addressing that specific portion. For this estimate, 25% contingency is considered normal.

*****NOTE*****
Bid item numbers correspond to the summary sheet Bid Item Level WBS identifier. For example:

11.01.11.18 Seeding & Mulching

The "18" at the end of the number string corresponds to Bid Item No. 18 on this Contingency Determination Report.

*****END NOTE*****

LANDS AND DAMAGES-
Bid Item Nos. 01 thru 3 - A typical 15% contingingency factor was supplied by RE.

LEVEES AND FLOODWALLS-
Bid Item No. 04 thr 16 - A typical 25% contingency factor has been used.

SUMMARY REPORTS SUMMARY PAGE

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No Detailed Estimate...

No Backup Reports...

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** PROJECT OWNER SUMMARY - Feature (Rounded to 1000's) **

	QUANTITY	UOM	CONTRACT	CONTING	ESCALATN	PED	CM	TOTAL COST	UNIT COST	NOTES
01 Lands and Damages	1.00	EA	9,000	1,000	0	10,000	0	21,000	20672.48	
11 Levees and Floodwalls	1.00	EA	812,000	203,000	82,000	450,000	77,000	1,624,000	1623762	
TOTAL Feasibility Estimate for:	1.00	EA	821,000	204,000	83,000	460,000	77,000	1,644,000	1644435	

** PROJECT OWNER SUMMARY - Level 5 (Rounded to 1000's) **

	QUANTITY	UOM	CONTRACT	CONTING	ESCALATN	PED	CM	TOTAL COST	UNIT COST	NOTES
01 Lands and Damages										
01.23 Land Values										
01.23.01 Land Values										
01.23.01.01 Land Values										
01.23.01.02 Non-Federal Cost										
01.23.01.02.08 NFS Costs	1.00	EA	7,000	1,000	0	0	0	8,000	8074.15	
TOTAL Non-Federal Cost	1.00	EA	7,000	1,000	0	0	0	8,000	8074.15	
01.23.01.03 Federal Cost										
01.23.01.03.09 Federal Cost - Pre-Constructin	1.00	EA	1,000	0	0	6,000	0	7,000	7016.07	
01.23.01.03.11 Federal Cost - Post Construction	1.00	EA	1,000	0	0	4,000	0	6,000	5582.26	
TOTAL Federal Cost	1.00	EA	2,000	0	0	10,000	0	13,000	12598.33	
TOTAL Land Values	1.00	EA	9,000	1,000	0	10,000	0	21,000	20672.48	
TOTAL Land Values	1.00	EA	9,000	1,000	0	10,000	0	21,000	20672.48	
TOTAL Lands and Damages	1.00	EA	9,000	1,000	0	10,000	0	21,000	20672.48	
02 Relocations										
11 Levees and Floodwalls										
11.01 Levees										
11.01.01 Clearing & Grubbing										
11.01.01.04 Clearing & Grubbing	1167.00	CY	1,000	0	0	1,000	0	2,000	1.80	
TOTAL Clearing & Grubbing	1167.00	CY	1,000	0	0	1,000	0	2,000	1.80	
11.01.02 Excavation										
11.01.02.05 Excavation	6067.00	CY	27,000	7,000	3,000	15,000	3,000	55,000	9.02	
TOTAL Excavation	6067.00	CY	27,000	7,000	3,000	15,000	3,000	55,000	9.02	

** PROJECT OWNER SUMMARY - Level 5 (Rounded to 1000's) **

	QUANTITY	UOM	CONTRACT	CONTING	ESCALATN	PED	CM	TOTAL COST	UNIT COST	NOTES
11.01.04 30" Dia RCP										
11.01.04.06 Purchase Pipe	2100.00	LF	106,000	27,000	11,000	59,000	10,000	212,000	101.09	
11.01.04.07 Unload Pipe	175.00	EA	3,000	1,000	0	2,000	0	6,000	31.47	
11.01.04.08 Place Pipe	2100.00	LF	80,000	20,000	8,000	44,000	8,000	159,000	75.94	
TOTAL 30" Dia RCP	2100.00	LF	189,000	47,000	19,000	105,000	18,000	377,000	179.65	
11.01.05 Relief Well System										
11.01.05.09 Sta 401+00 to 422+00										
11.01.05.09.32 Relief Wells Sta 401+00 to422+00	17.00	EA	450,000	113,000	46,000	250,000	43,000	901,000	52972.21	
TOTAL Sta 401+00 to 422+00	2100.00	LF	450,000	113,000	46,000	250,000	43,000	901,000	428.82	
TOTAL Relief Well System	17.00	EA	450,000	113,000	46,000	250,000	43,000	901,000	52972.21	
11.01.06 Manholes										
11.01.06.10 Excavation for Manholes	17.00	EA	6,000	2,000	1,000	3,000	1,000	12,000	709.52	
TOTAL Excavation for Manholes	17.00	EA	6,000	2,000	1,000	3,000	1,000	12,000	709.52	
11.01.06.11 Manholes										
11.01.06.11.03 Manholes including Base	17.00	EA	53,000	13,000	5,000	29,000	5,000	105,000	6183.08	
TOTAL Manholes	17.00	EA	53,000	13,000	5,000	29,000	5,000	105,000	6183.08	
11.01.06.12 Backfilling	17.00	EA	12,000	3,000	1,000	7,000	1,000	25,000	1450.33	
TOTAL Manholes	17.00	EA	71,000	18,000	7,000	39,000	7,000	142,000	8342.93	
11.01.07 Clay Backfill										
11.01.07.13 Clay Backfill	6450.59	BCY	40,000	10,000	4,000	22,000	4,000	80,000	12.42	
TOTAL Clay Backfill	5483.00	CCY	40,000	10,000	4,000	22,000	4,000	80,000	14.61	
11.01.08 Ramps										
11.01.08.14 Associated General Items										
11.01.08.14.11 Borrow Material	2400.00	BCY	13,000	3,000	1,000	7,000	1,000	25,000	10.52	
11.01.08.14.12 Aggregate Surfacing	300.00	TON	9,000	2,000	1,000	5,000	1,000	18,000	59.17	

** PROJECT OWNER SUMMARY - Level 5 (Rounded to 1000's) **

	QUANTITY	UOM	CONTRACT	CONTING	ESCALATN	PED	CM	TOTAL COST	UNIT COST	NOTES
11.01.08.14.13 Street Repair	2400.00	BCY	1,000	0	0	1,000	0	3,000	1.18	
11.01.08.14.14 Street Sweeping	2400.00	BCY	1,000	0	0	0	0	1,000	0.43	
11.01.08.14.15 Surveying	2400.00	BCY	0	0	0	0	0	1,000	0.26	
TOTAL Associated General Items	2400.00	BCY	24,000	6,000	2,000	13,000	2,000	47,000	19.79	
TOTAL Ramps	2.00	EA	24,000	6,000	2,000	13,000	2,000	47,000	23747.80	
11.01.11 Seeding & Mulching										
11.01.11.15 Seeding & Mulching	2.00	ACR	4,000	1,000	0	2,000	0	7,000	3698.38	
TOTAL Seeding & Mulching	2.00	ACR	4,000	1,000	0	2,000	0	7,000	3698.38	
11.01.12 Riprap Protection										
11.01.12.16 Riprap Protection	1.00	EA	6,000	2,000	1,000	3,000	1,000	12,000	12327.92	
TOTAL Riprap Protection	1.00	EA	6,000	2,000	1,000	3,000	1,000	12,000	12327.92	
TOTAL Levees	1.00	EA	812,000	203,000	82,000	450,000	77,000	1,624,000	1623762	
TOTAL Levees and Floodwalls	1.00	EA	812,000	203,000	82,000	450,000	77,000	1,624,000	1623762	
TOTAL Feasibility Estimate for:	1.00	EA	821,000	204,000	83,000	460,000	77,000	1,644,000	1644435	

** PROJECT INDIRECT SUMMARY - Feature (Rounded to 1000's) **

	QUANTITY	UOM	DIRECT	OVERHEAD	% OVRHD	PROFIT	BOND	TOTAL COST	UNIT COST
01 Lands and Damages	1.00	EA	9,000	0	0	0	0	9,000	8907.90
11 Levees and Floodwalls	1.00	EA	659,000	0	89,000	52,000	12,000	812,000	811856.74
TOTAL Feasibility Estimate for:	1.00	EA	667,000	0	89,000	52,000	12,000	821,000	820764.64
Contingency								204,000	
SUBTOTAL								1,025,000	
Escalation								83,000	
SUBTOTAL								1,108,000	
Planning, Engineering, & Design								460,000	
SUBTOTAL								1,568,000	
Construction Management								77,000	
TOTAL INCL OWNER COSTS								1,644,000	

** PROJECT INDIRECT SUMMARY - Level 5 (Rounded to 1000's) **

	QUANTITY	UOM	DIRECT	OVERHEAD	% OVRHD	PROFIT	BOND	TOTAL COST	UNIT COST
01 Lands and Damages									
01.23 Land Values									
01.23.01 Land Values									
01.23.01.01 Land Values									
01.23.01.02 Non-Federal Cost									
01.23.01.02.08 NFS Costs	1.00	EA	7,000	0	0	0	0	7,000	6800.00
TOTAL Non-Federal Cost	1.00	EA	7,000	0	0	0	0	7,000	6800.00
01.23.01.03 Federal Cost									
01.23.01.03.09 Federal Cost - Pre-Constructin	1.00	EA	1,000	0	0	0	0	1,000	1173.90
01.23.01.03.11 Federal Cost - Post Construction	1.00	EA	1,000	0	0	0	0	1,000	934.00
TOTAL Federal Cost	1.00	EA	2,000	0	0	0	0	2,000	2107.90
TOTAL Land Values	1.00	EA	9,000	0	0	0	0	9,000	8907.90
TOTAL Land Values	1.00	EA	9,000	0	0	0	0	9,000	8907.90
TOTAL Lands and Damages	1.00	EA	9,000	0	0	0	0	9,000	8907.90
02 Relocations									
11 Levees and Floodwalls									
11.01 Levees									
11.01.01 Clearing & Grubbing									
11.01.01.04 Clearing & Grubbing	1167.00	CY	1,000	0	0	0	0	1,000	0.90
TOTAL Clearing & Grubbing	1167.00	CY	1,000	0	0	0	0	1,000	0.90
11.01.02 Excavation									
11.01.02.05 Excavation	6067.00	CY	22,000	0	3,000	2,000	0	27,000	4.51
TOTAL Excavation	6067.00	CY	22,000	0	3,000	2,000	0	27,000	4.51

** PROJECT INDIRECT SUMMARY - Level 5 (Rounded to 1000's) **

	QUANTITY	UOM	DIRECT	OVERHEAD	% OVRHD	PROFIT	BOND	TOTAL COST	UNIT COST
11.01.04 30" Dia RCP									
11.01.04.06 Purchase Pipe	2100.00	LF	86,000	0	12,000	7,000	2,000	106,000	50.54
11.01.04.07 Unload Pipe	175.00	EA	2,000	0	0	0	0	3,000	15.74
11.01.04.08 Place Pipe	2100.00	LF	65,000	0	9,000	5,000	1,000	80,000	37.97
TOTAL 30" Dia RCP	2100.00	LF	153,000	0	21,000	12,000	3,000	189,000	89.82
11.01.05 Relief Well System									
11.01.05.09 Sta 401+00 to 422+00									
11.01.05.09.32 Relief Wells Sta 401+00 to422+00	17.00	EA	365,000	0	49,000	29,000	7,000	450,000	26485.31
TOTAL Sta 401+00 to 422+00	2100.00	LF	365,000	0	49,000	29,000	7,000	450,000	214.40
TOTAL Relief Well System	17.00	EA	365,000	0	49,000	29,000	7,000	450,000	26485.31
11.01.06 Manholes									
11.01.06.10 Excavation for Manholes	17.00	EA	5,000	0	1,000	0	0	6,000	354.75
TOTAL Excavation for Manholes	17.00	EA	5,000	0	1,000	0	0	6,000	354.75
11.01.06.11 Manholes									
11.01.06.11.03 Manholes including Base	17.00	EA	43,000	0	6,000	3,000	1,000	53,000	3091.45
TOTAL Manholes	17.00	EA	43,000	0	6,000	3,000	1,000	53,000	3091.45
11.01.06.12 Backfilling	17.00	EA	10,000	0	1,000	1,000	0	12,000	725.14
TOTAL Manholes	17.00	EA	58,000	0	8,000	5,000	1,000	71,000	4171.34
11.01.07 Clay Backfill									
11.01.07.13 Clay Backfill	6450.59	BCY	32,000	0	4,000	3,000	1,000	40,000	6.21
TOTAL Clay Backfill	5483.00	CCY	32,000	0	4,000	3,000	1,000	40,000	7.31
11.01.08 Ramps									
11.01.08.14 Associated General Items									
11.01.08.14.11 Borrow Material	2400.00	BCY	10,000	0	1,000	1,000	0	13,000	5.26
11.01.08.14.12 Aggregate Surfacing	300.00	TON	7,000	0	1,000	1,000	0	9,000	29.59

** PROJECT INDIRECT SUMMARY - Level 5 (Rounded to 1000's) **

	QUANTITY	UOM	DIRECT	OVERHEAD	% OVRHD	PROFIT	BOND	TOTAL COST	UNIT COST
11.01.08.14.13 Street Repair	2400.00	BCY	1,000	0	0	0	0	1,000	0.59
11.01.08.14.14 Street Sweeping	2400.00	BCY	0	0	0	0	0	1,000	0.21
11.01.08.14.15 Surveying	2400.00	BCY	0	0	0	0	0	0	0.13
TOTAL Associated General Items	2400.00	BCY	19,000	0	3,000	2,000	0	24,000	9.89
TOTAL Ramps	2.00	EA	19,000	0	3,000	2,000	0	24,000	11873.55
11.01.11 Seeding & Mulching									
11.01.11.15 Seeding & Mulching	2.00	ACR	3,000	0	0	0	0	4,000	1849.13
TOTAL Seeding & Mulching	2.00	ACR	3,000	0	0	0	0	4,000	1849.13
11.01.12 Riprap Protection									
11.01.12.16 Riprap Protection	1.00	EA	5,000	0	1,000	0	0	6,000	6163.78
TOTAL Riprap Protection	1.00	EA	5,000	0	1,000	0	0	6,000	6163.78
TOTAL Levees	1.00	EA	659,000	0	89,000	52,000	12,000	812,000	811856.74
TOTAL Levees and Floodwalls	1.00	EA	659,000	0	89,000	52,000	12,000	812,000	811856.74
TOTAL Feasibility Estimate for:	1.00	EA	667,000	0	89,000	52,000	12,000	821,000	820764.64
Contingency								204,000	
SUBTOTAL								1,025,000	
Escalation								83,000	
SUBTOTAL								1,108,000	
Planning, Engineering, & Design								460,000	
SUBTOTAL								1,568,000	
Construction Management								77,000	
TOTAL INCL OWNER COSTS								1,644,000	

A-16.4 FAIRFAX-JERSEY CREEK (BPU FLOODWALL)

The cost estimate included in this section reflects the feasibility level analysis undertaken in determining the cost of recommended improvements for the BPU Floodwall within the Fairfax-Jersey Creek Unit.

Feasibility Estimate For:
BPU Modification
Fairfax Drainage District FW

Revision #3 Dated 14 Aug 2006

Designed By: CENWK
Estimated By: EC-DC

Prepared By: Patrick Miramontez
816-389-3322

Preparation Date: 08/03/04
Effective Date of Pricing: 10/01/05
Est Construction Time: 540 Days

Sales Tax: 0.00%

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Release 1.2c

This project includes all work necessary to construct buttresses to support the existing floodwall. The work was broken down into two areas. One area around the utilities, and the rest of the work outside of the utility area. The area around the utilities will be more difficult to construct.

01- Lands & Damages - These costs include Non Federal Sponsors cost to perform the Legal work, Title Work, Tract appraisals, and land surveys, as well as Federal labor costs. Also included is the rerouting of an Phone line. The costs include mobilization, excavation, installation of new line, backfilling, and demobilization. This item also includes the removal and replacement of the existing road due to the anticipated road traffic damage during the project. These items are included here as part of Land Acquisition and private ownership (14 Aug 2006).

02 - Relocations - NOT USED - 14 Aug 2006

06 - Fish & Wildlife Faclities - NOT USED.

11 - Levees & Floodwalls- This cost category consists of 1 components, a modified wall section using buttresses. The modified floodwall component includes: 1) Mob & Demobilization, 2) 24" Auger Cast Piles, 3) 36" Drill Piers, 4) Excavation by Machine, 5) Excavation by Hand, 6) Foundation Drilling, 7) Concrete Placement, 8) Toe Drain, 9) Backfilling, 10) Abandon Pump House, and 11) Protection of 54" Above ground Pipe.

-Mob and Demob -This item is an allowance for the contractor to mobilize and demobilize all equipment and personnel. A provision was also included for security fencing. Also included is the provision of new access road and gate.

- 24" Augercast Piles - This item includes all costs associated with the installation of augercast piles. These costs include mobilization of the crane, crew for installation of the piles, and materials. The augercast piles will be used to support the base extension.

- 36" Drilled Piers - This item includes all costs associated with the installation of drilled piers. These costs were derived using bid tabs from previous projects. The costs include mobilization of the crane, crew for installation of the piles, and materials. The Drilled Piers will be used to support bridging over the utilities. It is assumed 4 bridges will be required. Each bridge is assumed to require 4 piers.

- Excavation by Machine - This item is forthe excavation of earth to expose the location of the existing buried utilities. This will allow for the placement of the piles without damage to the existing pipes. An allowance was input for this item. This quantity also includes excavation for the base extension.

- Excavation by Hand - This item is the hand excavation of earth once the machine excavation nears the existing utilities. This item assumes hand trimming at the bottom of the excavation.

- Foundation Drilling - This item includes all costs associated for a subcontractor to layout and drill vertical and horizontal holes into the existing concrete foundation and stem wall. The cost also includes the placement of the dowels (rebar) and epoxy.

- Concrete Placement - The cost for this item includes the forming, rebar installation, concrete placement, and finishing work for the base addition and the buttress.

- New Toe Drain - Since the existing toe drain will be destroyed in the construction of the new floodwall/floodwall modification a new toe drain will be constructed. This toe drain consists of the excavation of a trench, the placement of a 12" CMP, and the backfilling with a filter material.

- Backfilling - Once the modification of the wall is complete backfilling to the existing grade will occur.

-Abandon Pump House - Misc materials, equipment, and piping will be removed from the building. The basement will be filled with sand. NOTE: It is currently assumed the modified wall can be constructed without the demolition of the existing pump house.

- Protection of 54" Dia Above Ground Pipe - This item consists of steel plates placed over and around the above ground pipe to protect against damage during the construction process of the wall modification.

30 - Planning, Engineering, & Design Cost = 25.27% of project implementation (less lands & damages) cost. Man-hour Estimate developed to support percentage.

31 - Construction Management Costs = 7% of project implementation (less lands & damages) cost.

Areas ofCost Sensitivity

- Estimate does not include any costs for sampling/testing for HTRW.
- Estimate does not include any costs for the hauling and disposal of HTRW.
- Estimate does not include O&Mcosts. Only project implementation (construction, real-estate and associated) costs.
- Planned construction period is Apr 2009 to Apr 2011 per previous Real Estate Timeline dtd 9-7-04

General Cost Information

- The quantities have been calculated by EC-GD, EC-DC, and EC-DS. A contingencydetermination meeting was held with all of the designers to apply the appropriate amount of contingency to each line item.

- No tax has been included for the states of Kansas and Missouri.

- The source for the labor rates used in the estimate is the Sept 2004

Department of Labor Wage rates for Wyandotte County, Kansas. A minor adjustment factor is added to bring the rates to the appropriate price level
date.

- The national 1997 Unit Price Book is used to price minor items. Quotes and updated costs were received for all cost items. An adjustment factor is added to bring the rates to the appropriate price level date.

- 2004 equipment rateswere used. An adjustment factor is added to bring the rates to the appropriate price level date.

- Once all of the databases are normalized to the appropriate price level date an escalation factor will be added to the owner level to bring the estimate to the appropriate price level date. The escalation factors used were derived from the Civil Works Construction Cost Index System (CWCCIS) EM1110-2-1304.

10 Mar 2006 - The estimate has been escalated to Price Level Date Oct 2005.

CONTINGENCY DETERMINATION REPORT - The "reasons" for final contingency development and assignment must be included in the cost estimate as part of the project narrative. When then contingency factors shown in Table 13-1 of EI 01D010 are applied to any portion of the cost estimate up to the feature level, the statement "Normal design variances are expected - Normal contingency values used" is acceptable in addressing that specific portion. For this estimate, 25% contingency is considered normal.

*****NOTE***** Bid item numbers correspond to the summary sheet Bid Item Level WBS identifier.

For example: 11.01.11.18 Seeding & Mulching

The "18" at the end of the number string corresponds to Bid Item No. 18 on this Contingency Determination Report.
*****END NOTE*****

LANDS AND DAMAGES-
Bid Item Nos. 01 thru 3 - A typical 15% contingingency factor was supplied by RE.

Bid Item Nos. 05 thru 06- A typical 25% contingency factor was used for all items.

RELOCATIONS - NOT USED

LEVEES & FLOODWALLS
Bid Item Nos. 06 thru 20 - A 35% contingency factor was used for all items because of the complexity of the site conditions, including numerous utilities, and possibly unknown conditions.

Bid Item Nos. 21, 41 & 42 - A typical 25% contingency factor was used.
Bid Item Nos. 22 - 66.35% - The abandoned pump house may need to be demolished in order to facilitate construction.
Bid Item Nos. 23 thru 39 - A typical 25% contingency factor was used.

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No Detailed Estimate...

No Backup Reports...

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** PROJECT OWNER SUMMARY - Feature (Rounded to 1000's) **

	QUANTITY	UOM	CONTRACT	CONTINGN	ESCALATN	PED	CM	TOTAL COST	UNIT COST	NOTES
01 Lands and Damages	1.00	EA	222,000	54,000	22,000	81,000	20,000	399,000	398855.38	
11 Levees and Floodwalls	1.00	EA	3,950,000	1,281,000	424,000	1,429,000	396,000	7,479,000	7479460.10	
TOTAL Feasibility Estimate For:	1.00	EA	4,172,000	1,335,000	445,000	1,510,000	416,000	7,878,000	7878315.47	

** PROJECT OWNER SUMMARY - Assembly (Rounded to 1000's) **

	QUANTITY	UOM	CONTRACT	CONTINGN	ESCALATN	PED	CM	TOTAL COST	UNIT COST	NOTES
01 Lands and Damages										
01.23 Land Values										
01.23.01 Land Values										
01.23.01.01 Land Values										
01.23.01.02 Non-Federal Cost										
01.23.01.02.08 NFS Costs	1.00	EA	7,000	1,000	0	0	0	8,000	8074.15	
TOTAL Non-Federal Cost	1.00	EA	7,000	1,000	0	0	0	8,000	8074.15	
01.23.01.03 Federal Cost										
01.23.01.03.09 Federal Cost - Pre-Construction	1.00	EA	3,000	1,000	0	5,000	0	9,000	8801.91	
01.23.01.03.11 Federal Cost - Post Construction	1.00	EA	3,000	1,000	0	5,000	0	9,000	8691.03	
TOTAL Federal Cost	1.00	EA	7,000	1,000	0	9,000	0	17,000	17492.94	
01.23.01.05 Task 2 - Reroute Buried Cable										
01.23.01.05.01 Mobilization	1.00	EA	1,000	0	0	0	0	1,000	1177.28	
01.23.01.05.02 Excavate and Stockpile	75.00	CY	2,000	0	0	1,000	0	3,000	36.24	
01.23.01.05.03 Place New Phone Line	500.00	LF	1,000	0	0	0	0	1,000	2.96	
01.23.01.05.05 Backfilling	75.00	CY	1,000	0	0	0	0	2,000	26.16	
01.23.01.05.10 Demobilize Equipment	1.00	EA	0	0	0	0	0	0	409.11	
TOTAL Task 2 - Reroute Buried Cable	1.00	EA	4,000	1,000	0	1,000	0	8,000	7745.37	
01.23.01.06 Task 14 - Remove/Repl Exist Road										
01.23.01.06.01 Demo Exist Road & Replace	50000.00	SF	205,000	51,000	21,000	70,000	19,000	366,000	7.31	
TOTAL Task 14 - Remove/Repl Exist Road	2500.00	LF	205,000	51,000	21,000	70,000	19,000	366,000	146.22	
TOTAL Land Values	1.00	EA	222,000	54,000	22,000	81,000	20,000	399,000	398855.38	
TOTAL Land Values	1.00	EA	222,000	54,000	22,000	81,000	20,000	399,000	398855.38	
TOTAL Lands and Damages	1.00	EA	222,000	54,000	22,000	81,000	20,000	399,000	398855.38	

02 Relocations

** PROJECT OWNER SUMMARY - Assembly (Rounded to 1000's) **

	QUANTITY	UOM	CONTRACT	CONTINGN	ESCALATN	PED	CM	TOTAL COST	UNIT COST	NOTES
02.01 Utility Relocations										
02.01.03 Cemetery, Utilities, & Structure										
02.01.03.41 Task 15 - New Access Road										
11 Levees and Floodwalls										
11.02 Floodwall around Utilities										
11.02. 1 Task 1 - Mob & Demob										
11.02. 1.06 Mob & Demob	1.00	EA	256,000	90,000	28,000	94,000	26,000	494,000	493838.46	
TOTAL Task 1 - Mob & Demob	1.00	EA	256,000	90,000	28,000	94,000	26,000	494,000	493838.46	
11.02. 2 Task 2 - New Access Road										
11.02. 2.41 Task 15 - New Access Road										
11.02. 2.41.01 New Access Road	3000.00	SF	19,000	5,000	2,000	7,000	2,000	35,000	11.51	
TOTAL Task 15 - New Access Road	150.00	LF	19,000	5,000	2,000	7,000	2,000	35,000	230.13	
TOTAL Task 2 - New Access Road	1.00	EA	19,000	5,000	2,000	7,000	2,000	35,000	34519.25	
11.02. 3 Task 3 - 24" Auger Cast Piles										
11.02. 3.07 24" Augercast Piles										
11.02. 3.07.01 Install Piles	2500.00	VLF	139,000	49,000	15,000	51,000	14,000	268,000	107.27	
TOTAL 24" Augercast Piles	2500.00	VLF	139,000	49,000	15,000	51,000	14,000	268,000	107.27	
TOTAL Task 3 - 24" Auger Cast Piles	50.00	EA	139,000	49,000	15,000	51,000	14,000	268,000	5363.70	
11.02. 4 Task 4 - 36" Drilled Piers										
11.02. 4.08 36" Drilled Piers										
11.02. 4.08.01 Install Piers	800.00	VLF	512,000	179,000	56,000	189,000	52,000	988,000	1234.60	
TOTAL 36" Drilled Piers	800.00	VLF	512,000	179,000	56,000	189,000	52,000	988,000	1234.60	
TOTAL Task 4 - 36" Drilled Piers	16.00	EA	512,000	179,000	56,000	189,000	52,000	988,000	61729.81	
11.02. 5 Task 5 - Excavation By Machine										

** PROJECT OWNER SUMMARY - Assembly (Rounded to 1000's) **

	QUANTITY	UOM	CONTRACT	CONTINGN	ESCALATN	PED	CM	TOTAL COST	UNIT COST	NOTES
11.02. 5.09 Mobilization										
11.02. 5.09.01 Mobilize Personnel	1.00	EA	0	0	0	0	0	0	394.90	
11.02. 5.09.02 Mobilize Equipment	1.00	EA	0	0	0	0	0	0	310.55	
TOTAL Mobilization	1.00	EA	0	0	0	0	0	1,000	705.45	
11.02. 5.10 Excavate and Stockpile	2500.00	CY	32,000	11,000	3,000	12,000	3,000	62,000	24.69	
11.02. 5.11 Demobilize Equipment										
11.02. 5.11.02 Demobilize Equipment	1.00	EA	0	0	0	0	0	0	391.22	
TOTAL Demobilize Equipment	1.00	EA	0	0	0	0	0	0	391.22	
TOTAL Task 5 - Excavation By Machine	2500.00	CY	33,000	11,000	4,000	12,000	3,000	63,000	25.13	
11.02. 6 Task 6 - Excavation By Hand										
11.02. 6.12 Excavate by Hand	102.00	CY	18,000	6,000	2,000	7,000	2,000	35,000	338.28	
11.02. 6.13 Hand Trimming Bottom of Exc	2000.00	SF	2,000	1,000	0	1,000	0	3,000	1.70	
TOTAL Task 6 - Excavation By Hand	102.00	CY	20,000	7,000	2,000	7,000	2,000	38,000	371.69	
11.02. 7 Task 7 - Foundation Drilling										
11.02. 7.14 Drilling & Grouting Holes										
11.02. 7.14.10 Vertcl Drilg Holes -2"X33"Deep	499.00	EA	67,000	24,000	7,000	25,000	7,000	130,000	260.27	
11.02. 7.14.15 Grouting of vertical holes	499.00	EA	31,000	11,000	3,000	11,000	3,000	60,000	119.24	
11.02. 7.14.17 HrzntlDrlg Holes -1.0"X 18"Deep	998.00	EA	68,000	24,000	7,000	25,000	7,000	132,000	132.03	
11.02. 7.14.18 Grouting of horizontal holes	998.00	EA	18,000	6,000	2,000	7,000	2,000	35,000	35.54	
11.02. 7.14.21 Vertcl Drilg Holes -1"X12"Deep	300.00	EA	13,000	5,000	1,000	5,000	1,000	26,000	85.18	
11.02. 7.14.22 Grouting of vertical holes	300.00	EA	5,000	2,000	1,000	2,000	1,000	10,000	33.60	
11.02. 7.14.24 HrzntlDrlg Holes -1.0"X 12"Deep	420.00	EA	28,000	10,000	3,000	10,000	3,000	54,000	127.77	
11.02. 7.14.25 Grouting of horizontal holes	420.00	EA	7,000	3,000	1,000	3,000	1,000	14,000	33.60	
11.02. 7.14.30 Hole Layout	40.00	HR	5,000	2,000	1,000	2,000	1,000	10,000	239.67	
TOTAL Drilling & Grouting Holes	2217.00	EA	243,000	85,000	27,000	90,000	25,000	470,000	211.82	
TOTAL Task 7 - Foundation Drilling	2217.00	EA	243,000	85,000	27,000	90,000	25,000	470,000	211.82	
11.02. 8 Task 8 - Concrete Placement										
11.02. 8.15 Base										
11.02. 8.15.01 Forming (Slab)	509.00	CY	24,000	9,000	3,000	9,000	3,000	47,000	92.89	
11.02. 8.15.02 Reinforcing	509.00	CY	100,000	35,000	11,000	37,000	10,000	194,000	380.94	

** PROJECT OWNER SUMMARY - Assembly (Rounded to 1000's) **

	QUANTITY	UOM	CONTRACT	CONTINGN	ESCALATN	PED	CM	TOTAL COST	UNIT COST	NOTES
11.02. 8.15.03 Concrete	509.00	CY	156,000	54,000	17,000	57,000	16,000	301,000	590.47	
11.02. 8.15.04 Finishing	509.00	CY	2,000	1,000	0	1,000	0	3,000	6.52	
11.02. 8.15.05 Misc	509.00	CY	2,000	1,000	0	1,000	0	3,000	6.70	
11.02. 8.15.08 Concrete Testing	1.00	EA	2,000	1,000	0	1,000	0	3,000	3155.63	
TOTAL Base	509.00	CY	286,000	100,000	31,000	105,000	29,000	552,000	1083.72	
11.02. 8.16 Buttress										
11.02. 8.16.01 Forming	196.00	CY	92,000	32,000	10,000	34,000	9,000	177,000	904.00	
11.02. 8.16.02 Reinforcing	196.00	CY	33,000	11,000	4,000	12,000	3,000	63,000	321.20	
11.02. 8.16.03 Concrete	196.00	CY	62,000	22,000	7,000	23,000	6,000	120,000	614.22	
11.02. 8.16.04 Finishing	196.00	CY	6,000	2,000	1,000	2,000	1,000	11,000	57.46	
11.02. 8.16.05 Misc	196.00	CY	3,000	1,000	0	1,000	0	5,000	27.11	
11.02. 8.16.08 Concrete Testing	1.00	EA	2,000	1,000	0	1,000	0	3,000	3155.63	
TOTAL Buttress	196.00	CY	197,000	69,000	22,000	73,000	20,000	380,000	1940.09	
TOTAL Task 8 - Concrete Placement	1.00	EA	483,000	169,000	53,000	178,000	49,000	932,000	931868.06	
11.02. 9 Task 9 - New Toe Drain										
11.02. 9.17 Replace Pipe Sections										
11.02. 9.17.01 Replace Pipe Sections	500.00	LF	25,000	9,000	3,000	9,000	3,000	48,000	95.12	
TOTAL Replace Pipe Sections	500.00	LF	25,000	9,000	3,000	9,000	3,000	48,000	95.12	
TOTAL Task 9 - New Toe Drain	500.00	LF	25,000	9,000	3,000	9,000	3,000	48,000	95.12	
11.02.!0 Task 10 - Backfilling										
11.02.!0.18 Mobilization										
11.02.!0.18.01 Mobilize Personnel	1.00	EA	0	0	0	0	0	0	394.90	
11.02.!0.18.02 Mobilize Equipment	1.00	EA	0	0	0	0	0	0	309.22	
TOTAL Mobilization	1.00	EA	0	0	0	0	0	1,000	704.13	
11.02.!0.19 Backfill & Compact	2341.18	CY	30,000	10,000	3,000	11,000	3,000	58,000	24.69	
11.02.!0.20 Demobilize Equipment										
11.02.!0.20.02 Demobilize Equipment	1.00	EA	0	0	0	0	0	0	391.22	
TOTAL Demobilize Equipment	1.00	EA	0	0	0	0	0	0	391.22	

** PROJECT OWNER SUMMARY - Assembly (Rounded to 1000's) **

	QUANTITY	UOM	CONTRACT	CONTINGN	ESCALATN	PED	CM	TOTAL COST	UNIT COST	NOTES
TOTAL Task 10 - Backfilling	1990.00	CCY	31,000	11,000	3,000	11,000	3,000	59,000	29.60	
TOTAL Floodwall around Utilities	500.00	LF	1,759,000	614,000	192,000	648,000	180,000	3,393,000	6785.77	
11.03 Remaining Floodwall										
11.03. 1 Task 1 - Mob & Demob										
11.03. 1.21 Mob & Demob	1.00	EA	256,000	64,000	26,000	87,000	24,000	457,000	457257.83	
TOTAL Mob & Demob	1.00	EA	256,000	64,000	26,000	87,000	24,000	457,000	457257.83	
11.03. 1.42 Task 16-Install/Rem Sec Fence										
11.03. 1.42.01 Task 16-Install/Rem Sec Fence	1500.00	LF	52,000	13,000	5,000	18,000	5,000	94,000	62.42	
TOTAL Task 16-Install/Rem Sec Fence	1500.00	LF	52,000	13,000	5,000	18,000	5,000	94,000	62.42	
TOTAL Task 1 - Mob & Demob	1.00	EA	308,000	77,000	31,000	105,000	29,000	551,000	550881.03	
11.03. 3 Task 3 - 24" Auger Cast Piles										
11.03. 3.22 24" Augercast Piles										
11.03. 3.22.01 Install Piles	5750.00	VLF	290,000	192,000	39,000	132,000	36,000	689,000	119.79	
TOTAL 24" Augercast Piles	5750.00	VLF	290,000	192,000	39,000	132,000	36,000	689,000	119.79	
TOTAL Task 3 - 24" Auger Cast Piles	115.00	EA	290,000	192,000	39,000	132,000	36,000	689,000	5989.59	
11.03. 5 Task 5 - Excavation By Machine										
11.03. 5.23 Mobilization										
11.03. 5.23.01 Mobilize Personnel	1.00	EA	0	0	0	0	0	0	365.65	
11.03. 5.23.02 Mobilize Equipment	1.00	EA	0	0	0	0	0	0	287.54	
TOTAL Mobilization	1.00	EA	0	0	0	0	0	1,000	653.19	
11.03. 5.24 Excavate and Stockpile	3878.00	CY	50,000	12,000	5,000	17,000	5,000	89,000	22.86	
11.03. 5.25 Demobilize Equipment										
11.03. 5.25.02 Demobilize Equipment	1.00	EA	0	0	0	0	0	0	362.24	
TOTAL Demobilize Equipment	1.00	EA	0	0	0	0	0	0	362.24	

** PROJECT OWNER SUMMARY - Assembly (Rounded to 1000's) **

	QUANTITY	UOM	CONTRACT	CONTINGN	ESCALATN	PED	CM	TOTAL COST	UNIT COST	NOTES
TOTAL Task 5 - Excavation By Machine	3878.00	CY	50,000	13,000	5,000	17,000	5,000	90,000	23.12	
11.03. 6 Task 6 - Excavation By Hand										
11.03. 6.26 Excavate by Hand	193.00	CY	34,000	8,000	3,000	12,000	3,000	60,000	313.22	
11.03. 6.27 Hand Trimming Bottom of Exc	3784.00	SF	3,000	1,000	0	1,000	0	6,000	1.58	
TOTAL Task 6 - Excavation By Hand	193.00	CY	37,000	9,000	4,000	13,000	4,000	66,000	344.15	
11.03. 7 Task 7 - Foundation Drilling										
11.03. 7.28 Drilling & Grouting Holes										
11.03. 7.28.10 Vertcl Drilg Holes -2"X33"Deep	945.00	EA	127,000	32,000	13,000	44,000	12,000	228,000	240.99	
11.03. 7.28.15 Grouting of vertical holes	945.00	EA	58,000	15,000	6,000	20,000	6,000	104,000	110.41	
11.03. 7.28.17 HrzntlDrlg Holes -1.0"X 18"Deep	1890.00	EA	129,000	32,000	13,000	44,000	12,000	231,000	122.25	
11.03. 7.28.18 Grouting of horizontal holes	1890.00	EA	35,000	9,000	4,000	12,000	3,000	62,000	32.90	
11.03. 7.28.21 Vertcl Drilg Holes -1"X12"Deep	575.00	EA	25,000	6,000	3,000	9,000	2,000	45,000	78.87	
11.03. 7.28.22 Grouting of vertical holes	575.00	EA	10,000	3,000	1,000	3,000	1,000	18,000	31.11	
11.03. 7.28.24 HrzntlDrlg Holes -1.0"X 12"Deep	690.00	EA	46,000	11,000	5,000	16,000	4,000	82,000	118.30	
11.03. 7.28.25 Grouting of horizontal holes	690.00	EA	12,000	3,000	1,000	4,000	1,000	21,000	31.11	
11.03. 7.28.30 Hole Layout	80.00	HR	10,000	2,000	1,000	3,000	1,000	17,000	216.94	
TOTAL Drilling & Grouting Holes	4100.00	EA	453,000	113,000	46,000	155,000	43,000	809,000	197.31	
TOTAL Task 7 - Foundation Drilling	4100.00	EA	453,000	113,000	46,000	155,000	43,000	809,000	197.31	
11.03. 8 Task 8 - Concrete Placement										
11.03. 8.29 Base										
11.03. 8.29.01 Forming (Slab)	964.00	CY	46,000	12,000	5,000	16,000	4,000	83,000	85.91	
11.03. 8.29.02 Reinforcing	964.00	CY	190,000	48,000	19,000	65,000	18,000	340,000	352.54	
11.03. 8.29.03 Concrete	964.00	CY	291,000	73,000	30,000	99,000	28,000	521,000	540.23	
11.03. 8.29.04 Finishing	964.00	CY	3,000	1,000	0	1,000	0	6,000	6.03	
11.03. 8.29.05 Misc	964.00	CY	3,000	1,000	0	1,000	0	6,000	5.80	
11.03. 8.29.08 Concrete Testing	1.00	EA	2,000	0	0	1,000	0	3,000	2921.88	
TOTAL Base	964.00	CY	536,000	134,000	54,000	183,000	51,000	958,000	993.54	
11.03. 8.30 Buttress										
11.03. 8.30.01 Forming	375.00	CY	176,000	44,000	18,000	60,000	17,000	314,000	838.46	
11.03. 8.30.02 Reinforcing	375.00	CY	62,000	16,000	6,000	21,000	6,000	112,000	297.40	
11.03. 8.30.03 Concrete	375.00	CY	116,000	29,000	12,000	40,000	11,000	207,000	551.65	
11.03. 8.30.04 Finishing	375.00	CY	11,000	3,000	1,000	4,000	1,000	20,000	53.53	
11.03. 8.30.05 Misc	375.00	CY	5,000	1,000	1,000	2,000	0	9,000	25.14	

** PROJECT OWNER SUMMARY - Assembly (Rounded to 1000's) **

	QUANTITY	UOM	CONTRACT	CONTINGN	ESCALATN	PED	CM	TOTAL COST	UNIT COST	NOTES
11.03. 8.30.08 Concrete Testing	1.00	EA	2,000	0	0	1,000	0	3,000	2921.88	
TOTAL Buttress	375.00	CY	372,000	93,000	38,000	127,000	35,000	665,000	1773.97	
TOTAL Task 8 - Concrete Placement	1.00	EA	908,000	227,000	92,000	310,000	86,000	1,623,000	1623008.37	
11.03. 9 Task 9 - New Toe Drain										
11.03. 9.31 Replace Pipe Sections										
11.03. 9.31.01 Replace Pipe Sections	1000.00	LF	49,000	12,000	5,000	17,000	5,000	88,000	88.08	
TOTAL Replace Pipe Sections	1000.00	LF	49,000	12,000	5,000	17,000	5,000	88,000	88.08	
TOTAL Task 9 - New Toe Drain	1000.00	LF	49,000	12,000	5,000	17,000	5,000	88,000	88.08	
11.03.!0 Task 10 - Backfilling										
11.03.!0.32 Mobilization										
11.03.!0.32.01 Mobilize Personnel	1.00	EA	0	0	0	0	0	0	365.65	
11.03.!0.32.02 Mobilize Equipment	1.00	EA	0	0	0	0	0	0	286.32	
TOTAL Mobilization	1.00	EA	0	0	0	0	0	1,000	651.97	
11.03.!0.33 Backfill & Compact	2341.18	CY	30,000	7,000	3,000	10,000	3,000	54,000	22.86	
11.03.!0.34 Demobilize Equipment										
11.03.!0.34.02 Demobilize Equipment	1.00	EA	0	0	0	0	0	0	362.24	
TOTAL Demobilize Equipment	1.00	EA	0	0	0	0	0	0	362.24	
TOTAL Task 10 - Backfilling	1990.00	CCY	31,000	8,000	3,000	10,000	3,000	55,000	27.41	
11.03.!2 Task 12 - Demo of Pump House										
11.03.!2.36 Remove Piping & Equipment	1.00	EA	25,000	6,000	3,000	9,000	2,000	45,000	44683.62	
11.03.!2.38 Abandon Foundation	1.00	EA	30,000	8,000	3,000	10,000	3,000	54,000	53620.34	
TOTAL Task 12 - Demo of Pump House	1.00	EA	55,000	14,000	6,000	19,000	5,000	98,000	98303.96	
11.03.!3 Task 13 - Protect 54" Line										
11.03.!3.39 Levees & Floodwalls										

** PROJECT OWNER SUMMARY - Assembly (Rounded to 1000's) **

	QUANTITY	UOM	CONTRACT	CONTINGN	ESCALATN	PED	CM	TOTAL COST	UNIT COST	NOTES
11.03.!3.39.02 Floodwalls	1.00	EA	10,000	3,000	1,000	3,000	1,000	18,000	17873.45	
TOTAL Levees & Floodwalls	1.00	EA	10,000	3,000	1,000	3,000	1,000	18,000	17873.45	
TOTAL Task 13 - Protect 54" Line	1.00	EA	10,000	3,000	1,000	3,000	1,000	18,000	17873.45	
TOTAL Remaining Floodwall	946.00	LF	2,191,000	667,000	232,000	781,000	216,000	4,087,000	4319.85	
TOTAL Levees and Floodwalls	1.00	EA	3,950,000	1,281,000	424,000	1,429,000	396,000	7,479,000	7479460.10	
TOTAL Feasibility Estimate For:	1.00	EA	4,172,000	1,335,000	445,000	1,510,000	416,000	7,878,000	7878315.47	

** PROJECT INDIRECT SUMMARY - Feature (Rounded to 1000's) **

	QUANTITY	UOM	DIRECT	OVERHEAD	%OVERHD	G&A	PROFIT	BOND	TOTAL COST	UNIT COST
01 Lands and Damages	1.00	EA	177,000	0	24,000	0	19,000	2,000	222,000	222427.75
11 Levees and Floodwalls	1.00	EA	3,102,000	0	456,000	0	349,000	43,000	3,950,000	3949679.21
TOTAL Feasibility Estimate For:	1.00	EA	3,279,000	0	480,000	0	368,000	45,000	4,172,000	4172106.96
Contingency									1,335,000	
SUBTOTAL									5,508,000	
Escalation									445,000	
SUBTOTAL									5,953,000	
Planning, Engineering, & Design									1,510,000	
SUBTOTAL									7,463,000	
Construction Management									416,000	
TOTAL INCL OWNER COSTS									7,878,000	

** PROJECT INDIRECT SUMMARY - Assembly (Rounded to 1000's) **

	QUANTITY UOM	DIRECT	OVERHEAD	%OVERHD	G&A	PROFIT	BOND	TOTAL COST	UNIT COST
01 Lands and Damages									
01.23 Land Values									
01.23.01 Land Values									
01.23.01.01 Land Values									
01.23.01.02 Non-Federal Cost									
01.23.01.02.08 NFS Costs	1.00 EA	7,000	0	0	0	0	0	7,000	6800.00
TOTAL Non-Federal Cost	1.00 EA	7,000	0	0	0	0	0	7,000	6800.00
01.23.01.03 Federal Cost									
01.23.01.03.09 Federal Cost - Pre-Construction	1.00 EA	3,000	0	0	0	0	0	3,000	3409.98
01.23.01.03.11 Federal Cost - Post Construction	1.00 EA	3,000	0	0	0	0	0	3,000	3367.02
TOTAL Federal Cost	1.00 EA	7,000	0	0	0	0	0	7,000	6777.00
01.23.01.05 Task 2 - Reroute Buried Cable									
01.23.01.05.01 Mobilization	1.00 EA	1,000	0	0	0	0	0	1,000	658.67
01.23.01.05.02 Excavate and Stockpile	75.00 CY	1,000	0	0	0	0	0	2,000	20.28
01.23.01.05.03 Place New Phone Line	500.00 LF	1,000	0	0	0	0	0	1,000	1.65
01.23.01.05.05 Backfilling	75.00 CY	1,000	0	0	0	0	0	1,000	14.64
01.23.01.05.10 Demobilize Equipment	1.00 EA	0	0	0	0	0	0	0	228.89
TOTAL Task 2 - Reroute Buried Cable	1.00 EA	3,000	0	1,000	0	0	0	4,000	4333.45
01.23.01.06 Task 14 - Remove/Repl Exist Road									
01.23.01.06.01 Demo Exist Road & Replace	50000.00 SF	160,000	0	24,000	0	18,000	2,000	205,000	4.09
TOTAL Task 14 - Remove/Repl Exist Road	2500.00 LF	160,000	0	24,000	0	18,000	2,000	205,000	81.81
TOTAL Land Values	1.00 EA	177,000	0	24,000	0	19,000	2,000	222,000	222427.75
TOTAL Land Values	1.00 EA	177,000	0	24,000	0	19,000	2,000	222,000	222427.75
TOTAL Lands and Damages	1.00 EA	177,000	0	24,000	0	19,000	2,000	222,000	222427.75
02 Relocations									

** PROJECT INDIRECT SUMMARY - Assembly (Rounded to 1000's) **

	QUANTITY UOM	DIRECT	OVERHEAD	%OVERHD	G&A	PROFIT	BOND	TOTAL COST	UNIT COST
02.01 Utility Relocations									
02.01.03 Cemetery, Utilities, & Structure									
02.01.03.41 Task 15 - New Access Road									
11 Levees and Floodwalls									
11.02 Floodwall around Utilities									
11.02. 1 Task 1 - Mob & Demob									
11.02. 1.06 Mob & Demob	1.00 EA	200,000	0	30,000	0	23,000	3,000	256,000	255830.80
TOTAL Task 1 - Mob & Demob	1.00 EA	200,000	0	30,000	0	23,000	3,000	256,000	255830.80
11.02. 2 Task 2 - New Access Road									
11.02. 2.41 Task 15 - New Access Road									
11.02. 2.41.01 New Access Road	3000.00 SF	15,000	0	2,000	0	2,000	0	19,000	6.44
TOTAL Task 15 - New Access Road	150.00 LF	15,000	0	2,000	0	2,000	0	19,000	128.75
TOTAL Task 2 - New Access Road	1.00 EA	15,000	0	2,000	0	2,000	0	19,000	19313.14
11.02. 3 Task 3 - 24" Auger Cast Piles									
11.02. 3.07 24" Augercast Piles									
11.02. 3.07.01 Install Piles	2500.00 VLF	109,000	0	16,000	0	12,000	2,000	139,000	55.57
TOTAL 24" Augercast Piles	2500.00 VLF	109,000	0	16,000	0	12,000	2,000	139,000	55.57
TOTAL Task 3 - 24" Auger Cast Piles	50.00 EA	109,000	0	16,000	0	12,000	2,000	139,000	2778.64
11.02. 4 Task 4 - 36" Drilled Piers									
11.02. 4.08 36" Drilled Piers									
11.02. 4.08.01 Install Piers	800.00 VLF	400,000	0	60,000	0	46,000	6,000	512,000	639.58
TOTAL 36" Drilled Piers	800.00 VLF	400,000	0	60,000	0	46,000	6,000	512,000	639.58
TOTAL Task 4 - 36" Drilled Piers	16.00 EA	400,000	0	60,000	0	46,000	6,000	512,000	31978.85
11.02. 5 Task 5 - Excavation By Machine									

** PROJECT INDIRECT SUMMARY - Assembly (Rounded to 1000's) **

	QUANTITY	UOM	DIRECT	OVERHEAD	%OVERHD	G&A	PROFIT	BOND	TOTAL COST	UNIT COST
11.02. 5.09 Mobilization										
11.02. 5.09.01 Mobilize Personnel	1.00	EA	0	0	0	0	0	0	0	204.58
11.02. 5.09.02 Mobilize Equipment	1.00	EA	0	0	0	0	0	0	0	160.88
TOTAL Mobilization	1.00	EA	0	0	0	0	0	0	0	365.45
11.02. 5.10 Excavate and Stockpile	2500.00	CY	25,000	0	4,000	0	3,000	0	32,000	12.79
11.02. 5.11 Demobilize Equipment										
11.02. 5.11.02 Demobilize Equipment	1.00	EA	0	0	0	0	0	0	0	202.67
TOTAL Demobilize Equipment	1.00	EA	0	0	0	0	0	0	0	202.67
TOTAL Task 5 - Excavation By Machine	2500.00	CY	25,000	0	4,000	0	3,000	0	33,000	13.02
11.02. 6 Task 6 - Excavation By Hand										
11.02. 6.12 Excavate by Hand	102.00	CY	14,000	0	2,000	0	2,000	0	18,000	175.24
11.02. 6.13 Hand Trimming Bottom of Exc	2000.00	SF	1,000	0	0	0	0	0	2,000	0.88
TOTAL Task 6 - Excavation By Hand	102.00	CY	15,000	0	2,000	0	2,000	0	20,000	192.55
11.02. 7 Task 7 - Foundation Drilling										
11.02. 7.14 Drilling & Grouting Holes										
11.02. 7.14.10 Vertcl Drilg Holes -2"X33"Deep	499.00	EA	53,000	0	8,000	0	6,000	1,000	67,000	134.83
11.02. 7.14.15 Grouting of vertical holes	499.00	EA	24,000	0	4,000	0	3,000	0	31,000	61.77
11.02. 7.14.17 HrzntlDrlg Holes -1.0"X 18"Deep	998.00	EA	53,000	0	8,000	0	6,000	1,000	68,000	68.40
11.02. 7.14.18 Grouting of horizontal holes	998.00	EA	14,000	0	2,000	0	2,000	0	18,000	18.41
11.02. 7.14.21 Vertcl Drilg Holes -1"X12"Deep	300.00	EA	10,000	0	2,000	0	1,000	0	13,000	44.13
11.02. 7.14.22 Grouting of vertical holes	300.00	EA	4,000	0	1,000	0	0	0	5,000	17.40
11.02. 7.14.24 HrzntlDrlg Holes -1.0"X 12"Deep	420.00	EA	22,000	0	3,000	0	2,000	0	28,000	66.19
11.02. 7.14.25 Grouting of horizontal holes	420.00	EA	6,000	0	1,000	0	1,000	0	7,000	17.40
11.02. 7.14.30 Hole Layout	40.00	HR	4,000	0	1,000	0	0	0	5,000	124.16
TOTAL Drilling & Grouting Holes	2217.00	EA	190,000	0	29,000	0	22,000	3,000	243,000	109.73
TOTAL Task 7 - Foundation Drilling	2217.00	EA	190,000	0	29,000	0	22,000	3,000	243,000	109.73
11.02. 8 Task 8 - Concrete Placement										
11.02. 8.15 Base										
11.02. 8.15.01 Forming (Slab)	509.00	CY	19,000	0	3,000	0	2,000	0	24,000	48.12
11.02. 8.15.02 Reinforcing	509.00	CY	79,000	0	12,000	0	9,000	1,000	100,000	197.34

** PROJECT INDIRECT SUMMARY - Assembly (Rounded to 1000's) **

	QUANTITY UOM	DIRECT	OVERHEAD	%OVERHD	G&A	PROFIT	BOND	TOTAL COST	UNIT COST
11.02. 8.15.03 Concrete	509.00 CY	122,000	0	18,000	0	14,000	2,000	156,000	305.89
11.02. 8.15.04 Finishing	509.00 CY	1,000	0	0	0	0	0	2,000	3.38
11.02. 8.15.05 Misc	509.00 CY	1,000	0	0	0	0	0	2,000	3.47
11.02. 8.15.08 Concrete Testing	1.00 EA	1,000	0	0	0	0	0	2,000	1634.76
TOTAL Base	509.00 CY	223,000	0	34,000	0	26,000	3,000	286,000	561.41
11.02. 8.16 Buttress									
11.02. 8.16.01 Forming	196.00 CY	72,000	0	11,000	0	8,000	1,000	92,000	468.32
11.02. 8.16.02 Reinforcing	196.00 CY	25,000	0	4,000	0	3,000	0	33,000	166.39
11.02. 8.16.03 Concrete	196.00 CY	49,000	0	7,000	0	6,000	1,000	62,000	318.20
11.02. 8.16.04 Finishing	196.00 CY	5,000	0	1,000	0	1,000	0	6,000	29.77
11.02. 8.16.05 Misc	196.00 CY	2,000	0	0	0	0	0	3,000	14.04
11.02. 8.16.08 Concrete Testing	1.00 EA	1,000	0	0	0	0	0	2,000	1634.76
TOTAL Buttress	196.00 CY	154,000	0	23,000	0	18,000	2,000	197,000	1005.05
TOTAL Task 8 - Concrete Placement	1.00 EA	377,000	0	57,000	0	43,000	5,000	483,000	482750.08
11.02. 9 Task 9 - New Toe Drain									
11.02. 9.17 Replace Pipe Sections									
11.02. 9.17.01 Replace Pipe Sections	500.00 LF	19,000	0	3,000	0	2,000	0	25,000	49.28
TOTAL Replace Pipe Sections	500.00 LF	19,000	0	3,000	0	2,000	0	25,000	49.28
TOTAL Task 9 - New Toe Drain	500.00 LF	19,000	0	3,000	0	2,000	0	25,000	49.28
11.02.!0 Task 10 - Backfilling									
11.02.!0.18 Mobilization									
11.02.!0.18.01 Mobilize Personnel	1.00 EA	0	0	0	0	0	0	0	204.58
11.02.!0.18.02 Mobilize Equipment	1.00 EA	0	0	0	0	0	0	0	160.19
TOTAL Mobilization	1.00 EA	0	0	0	0	0	0	0	364.77
11.02.!0.19 Backfill & Compact	2341.18 CY	23,000	0	4,000	0	3,000	0	30,000	12.79
11.02.!0.20 Demobilize Equipment									
11.02.!0.20.02 Demobilize Equipment	1.00 EA	0	0	0	0	0	0	0	202.67
TOTAL Demobilize Equipment	1.00 EA	0	0	0	0	0	0	0	202.67

** PROJECT INDIRECT SUMMARY - Assembly (Rounded to 1000's) **

	QUANTITY	UOM	DIRECT	OVERHEAD	%OVERHD	G&A	PROFIT	BOND	TOTAL COST	UNIT COST
TOTAL Task 10 - Backfilling	1990.00	CCY	24,000	0	4,000	0	3,000	0	31,000	15.33
TOTAL Floodwall around Utilities	500.00	LF	1,375,000	0	206,000	0	158,000	19,000	1,759,000	3518.20
11.03 Remaining Floodwall										
11.03. 1 Task 1 - Mob & Demob										
11.03. 1.21 Mob & Demob	1.00	EA	200,000	0	30,000	0	23,000	3,000	256,000	255830.80
TOTAL Mob & Demob	1.00	EA	200,000	0	30,000	0	23,000	3,000	256,000	255830.80
11.03. 1.42 Task 16-Install/Rem Sec Fence										
11.03. 1.42.01 Task 16-Install/Rem Sec Fence	1500.00	LF	41,000	0	6,000	0	5,000	1,000	52,000	34.92
TOTAL Task 16-Install/Rem Sec Fence	1500.00	LF	41,000	0	6,000	0	5,000	1,000	52,000	34.92
TOTAL Task 1 - Mob & Demob	1.00	EA	241,000	0	36,000	0	28,000	3,000	308,000	308211.97
11.03. 3 Task 3 - 24" Auger Cast Piles										
11.03. 3.22 24" Augercast Piles										
11.03. 3.22.01 Install Piles	5750.00	VLF	226,000	0	34,000	0	26,000	3,000	290,000	50.36
TOTAL 24" Augercast Piles	5750.00	VLF	226,000	0	34,000	0	26,000	3,000	290,000	50.36
TOTAL Task 3 - 24" Auger Cast Piles	115.00	EA	226,000	0	34,000	0	26,000	3,000	290,000	2517.94
11.03. 5 Task 5 - Excavation By Machine										
11.03. 5.23 Mobilization										
11.03. 5.23.01 Mobilize Personnel	1.00	EA	0	0	0	0	0	0	0	204.58
11.03. 5.23.02 Mobilize Equipment	1.00	EA	0	0	0	0	0	0	0	160.88
TOTAL Mobilization	1.00	EA	0	0	0	0	0	0	0	365.45
11.03. 5.24 Excavate and Stockpile	3878.00	CY	39,000	0	6,000	0	4,000	1,000	50,000	12.79
11.03. 5.25 Demobilize Equipment										
11.03. 5.25.02 Demobilize Equipment	1.00	EA	0	0	0	0	0	0	0	202.67
TOTAL Demobilize Equipment	1.00	EA	0	0	0	0	0	0	0	202.67

** PROJECT INDIRECT SUMMARY - Assembly (Rounded to 1000's) **

	QUANTITY	UOM	DIRECT	OVERHEAD	%OVERHD	G&A	PROFIT	BOND	TOTAL COST	UNIT COST
TOTAL Task 5 - Excavation By Machine	3878.00	CY	39,000	0	6,000	0	5,000	1,000	50,000	12.94
11.03. 6 Task 6 - Excavation By Hand										
11.03. 6.26 Excavate by Hand	193.00	CY	26,000	0	4,000	0	3,000	0	34,000	175.24
11.03. 6.27 Hand Trimming Bottom of Exc	3784.00	SF	3,000	0	0	0	0	0	3,000	0.88
TOTAL Task 6 - Excavation By Hand	193.00	CY	29,000	0	4,000	0	3,000	0	37,000	192.55
11.03. 7 Task 7 - Foundation Drilling										
11.03. 7.28 Drilling & Grouting Holes										
11.03. 7.28.10 Vertcl Drilg Holes -2"X33"Deep	945.00	EA	100,000	0	15,000	0	11,000	1,000	127,000	134.83
11.03. 7.28.15 Grouting of vertical holes	945.00	EA	46,000	0	7,000	0	5,000	1,000	58,000	61.77
11.03. 7.28.17 HrzntlDrlg Holes -1.0"X 18"Deep	1890.00	EA	101,000	0	15,000	0	12,000	1,000	129,000	68.40
11.03. 7.28.18 Grouting of horizontal holes	1890.00	EA	27,000	0	4,000	0	3,000	0	35,000	18.41
11.03. 7.28.21 Vertcl Drilg Holes -1"X12"Deep	575.00	EA	20,000	0	3,000	0	2,000	0	25,000	44.13
11.03. 7.28.22 Grouting of vertical holes	575.00	EA	8,000	0	1,000	0	1,000	0	10,000	17.40
11.03. 7.28.24 HrzntlDrlg Holes -1.0"X 12"Deep	690.00	EA	36,000	0	5,000	0	4,000	1,000	46,000	66.19
11.03. 7.28.25 Grouting of horizontal holes	690.00	EA	9,000	0	1,000	0	1,000	0	12,000	17.40
11.03. 7.28.30 Hole Layout	80.00	HR	8,000	0	1,000	0	1,000	0	10,000	121.38
TOTAL Drilling & Grouting Holes	4100.00	EA	354,000	0	53,000	0	41,000	5,000	453,000	110.40
TOTAL Task 7 - Foundation Drilling	4100.00	EA	354,000	0	53,000	0	41,000	5,000	453,000	110.40
11.03. 8 Task 8 - Concrete Placement										
11.03. 8.29 Base										
11.03. 8.29.01 Forming (Slab)	964.00	CY	36,000	0	5,000	0	4,000	1,000	46,000	48.06
11.03. 8.29.02 Reinforcing	964.00	CY	149,000	0	22,000	0	17,000	2,000	190,000	197.24
11.03. 8.29.03 Concrete	964.00	CY	228,000	0	34,000	0	26,000	3,000	291,000	302.25
11.03. 8.29.04 Finishing	964.00	CY	3,000	0	0	0	0	0	3,000	3.37
11.03. 8.29.05 Misc	964.00	CY	2,000	0	0	0	0	0	3,000	3.24
11.03. 8.29.08 Concrete Testing	1.00	EA	1,000	0	0	0	0	0	2,000	1634.76
TOTAL Base	964.00	CY	419,000	0	63,000	0	48,000	6,000	536,000	555.87
11.03. 8.30 Buttress										
11.03. 8.30.01 Forming	375.00	CY	138,000	0	21,000	0	16,000	2,000	176,000	469.11
11.03. 8.30.02 Reinforcing	375.00	CY	49,000	0	7,000	0	6,000	1,000	62,000	166.39
11.03. 8.30.03 Concrete	375.00	CY	90,000	0	14,000	0	10,000	1,000	116,000	308.64
11.03. 8.30.04 Finishing	375.00	CY	9,000	0	1,000	0	1,000	0	11,000	29.95
11.03. 8.30.05 Misc	375.00	CY	4,000	0	1,000	0	0	0	5,000	14.07

** PROJECT INDIRECT SUMMARY - Assembly (Rounded to 1000's) **

	QUANTITY	UOM	DIRECT	OVERHEAD	%OVERHD	G&A	PROFIT	BOND	TOTAL COST	UNIT COST
11.03. 8.30.08 Concrete Testing	1.00	EA	1,000	0	0	0	0	0	2,000	1634.76
TOTAL Buttress	375.00	CY	291,000	0	44,000	0	33,000	4,000	372,000	992.52
TOTAL Task 8 - Concrete Placement	1.00	EA	710,000	0	106,000	0	82,000	10,000	908,000	908055.60
11.03. 9 Task 9 - New Toe Drain										
11.03. 9.31 Replace Pipe Sections										
11.03. 9.31.01 Replace Pipe Sections	1000.00	LF	39,000	0	6,000	0	4,000	1,000	49,000	49.28
TOTAL Replace Pipe Sections	1000.00	LF	39,000	0	6,000	0	4,000	1,000	49,000	49.28
TOTAL Task 9 - New Toe Drain	1000.00	LF	39,000	0	6,000	0	4,000	1,000	49,000	49.28
11.03.!0 Task 10 - Backfilling										
11.03.!0.32 Mobilization										
11.03.!0.32.01 Mobilize Personnel	1.00	EA	0	0	0	0	0	0	0	204.58
11.03.!0.32.02 Mobilize Equipment	1.00	EA	0	0	0	0	0	0	0	160.19
TOTAL Mobilization	1.00	EA	0	0	0	0	0	0	0	364.77
11.03.!0.33 Backfill & Compact	2341.18	CY	23,000	0	4,000	0	3,000	0	30,000	12.79
11.03.!0.34 Demobilize Equipment										
11.03.!0.34.02 Demobilize Equipment	1.00	EA	0	0	0	0	0	0	0	202.67
TOTAL Demobilize Equipment	1.00	EA	0	0	0	0	0	0	0	202.67
TOTAL Task 10 - Backfilling	1990.00	CCY	24,000	0	4,000	0	3,000	0	31,000	15.33
11.03.!2 Task 12 - Demo of Pump House										
11.03.!2.36 Remove Piping & Equipment	1.00	EA	25,000	0	0	0	0	0	25,000	25000.00
11.03.!2.38 Abandon Foundation	1.00	EA	30,000	0	0	0	0	0	30,000	30000.00
TOTAL Task 12 - Demo of Pump House	1.00	EA	55,000	0	0	0	0	0	55,000	55000.00
11.03.!3 Task 13 - Protect 54" Line										
11.03.!3.39 Levees & Floodwalls										

** PROJECT INDIRECT SUMMARY - Assembly (Rounded to 1000's) **

	QUANTITY	UOM	DIRECT	OVERHEAD	%OVERHD	G&A	PROFIT	BOND	TOTAL COST	UNIT COST
11.03.!3.39.02 Floodwalls	1.00	EA	10,000	0	0	0	0	0	10,000	10000.00
TOTAL Levees & Floodwalls	1.00	EA	10,000	0	0	0	0	0	10,000	10000.00
TOTAL Task 13 - Protect 54" Line	1.00	EA	10,000	0	0	0	0	0	10,000	10000.00
TOTAL Remaining Floodwall	946.00	LF	1,727,000	0	249,000	0	191,000	24,000	2,191,000	2315.62
TOTAL Levees and Floodwalls	1.00	EA	3,102,000	0	456,000	0	349,000	43,000	3,950,000	3949679.21
TOTAL Feasibility Estimate For:	1.00	EA	3,279,000	0	480,000	0	368,000	45,000	4,172,000	4172106.96
Contingency									1,335,000	
SUBTOTAL									5,508,000	
Escalation									445,000	
SUBTOTAL									5,953,000	
Planning, Engineering, & Design									1,510,000	
SUBTOTAL									7,463,000	
Construction Management									416,000	
TOTAL INCL OWNER COSTS									7,878,000	

A-16.5 FAIRFAX-JERSEY CREEK (JERSEY CREEK SHEETPILE WALL)

The cost estimate included in this section reflects the feasibility level analysis undertaken in determining the cost of recommended improvements for the Jersey Creek Sheetpile Wall within the Fairfax-Jersey Creek Unit.

Feasibility Estimate For:
Jersey Creek & Wharf Area
Sheetpile Wall Reconstruction
Alt #4 Open Cell Wall
Revision #2

Designed By: CENWK
Estimated By: EC-DC

Prepared By: Patrick Miramontez
816-389-3322 Est as of 14 Aug 06

Preparation Date: 03/22/05
Effective Date of Pricing: 10/01/05
Est Construction Time: 540 Days

Sales Tax: 0.00%

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The work includes the mobilization of a crane by water to access the site. The crew will install the steel sheetpile by barge in an open cell configuration. As the new sheetpile intercepts the existing sheetpile, the existing sheetpile will be removed. The remaining existing structure will remain in place. The void created by the new wall will be filled with granular material or flowable fill. Also, at the wharf area, the concrete slab will be demolished, loaded, hauled, disposed, and spread at fill site. The wharf area work will also include the removal of soil for deloading the sheetpile, the cutoff of existing sheetpile, and the removal of 1 structure and 5 concrete moorings.

2004 Labor rates have been used, along with equipment pricing from the 2004 Equipment Ownership rates manual supplied by the Corps of Engineers. An adjustment factor has been added to bring the rates to the appropriate price level.

NOTE - The open cell sheet pile installation from station 17+70 to 23+30 was priced for economic purposes only. This includes the sheetpile installation, sheetpile removal, flowable fill. Also, the wharf demolition will be considered for economic purposes only. These costs are not included in the total cost of the authorized project.

01- Lands & Damages - NOT USED.

02 - Relocations - NOT USED.

06 - Fish & Wildlife Faclities - NOT USED.

11 - Levees & Floodwalls- This cost category consists of 1 component, a new sheetpile wall using an open cell design. This floodwall repair component includes: 1) Mob and setup of the Crane, 2) Template Layout for sheetpiles, 3) Installation of the sheetpiles, 4) Removal of existing sheetpiles, 5) Demobilization of the Crane, 6) Sheetpile Material, 7) Filling voids with flowable fill, and 8) Wharf area demolition.

- Mob and Setup of Crane - This item is an allowance for the contractor to mobilize and demobilize all equipment and personnel. Also included is the mobilization of the crane used to drive the sheetpile over water by a tug boat and work barge. The cost includes the setup of the crane.

- Template Layout for Sheetpiles - This item includes all costs associated with the setup of a template to allow for the proper alignment and configuration of the sheetpiles.

- Installation of Sheetpiles - This item includes all costs associated with the installation of the sheetpiles from a work barge on the Missouri River. This item does not include the material cost of the sheetpile.

- Removal of Existing Sheetpiles - This item is for the removal of the existing sheetpile at locations where the new sheetpile intersects the old sheetpile. This work will be done from a floating barge located on the Missouri River.

- Demobilization of the Crane - This item covers the cost of the demobilization of the work crane.

- Sheetpile Material - This item covers the cost of the sheetpile material including delivery to the site.

- Filling Voids with Flowable Fill - This item includes all costs associated with the placement of flowable fill in the void between the old sheetpile and the new sheetpile on the riverside of the old sheetpile line.

- Wharf Area Demolition - This item includes the cost to demolish a portion of the 8" concrete slab covering the wharf area, the removal of soil beneath this concrete slab, and the cutoff of the existing sheetpile down to the height of the new sheetpile. Also included are costs for demolition of 1 structure, and 5 concrete moorings.

30 - Planning, Engineering, & Design Cost = 11.83% of project implementation (less lands & damages) cost. Man-hour Estimate developed to support percentage.

31 - Construction Management Costs = 7% of project implementation (less lands & damages) cost.

Areas of Cost Sensitivity

- Estimate does not include any costs for sampling/testing for HTRW.
- Estimate does not include any costs for the hauling and disposal of HTRW.
- Estimate does not include O&M costs. Only project implementation (construction, real-estate and associated) costs.
- Planned construction period is Oct 2008 to Jan 2010 per previous Real Estate Timeline dtd 2-24-05 General Cost Information
- The quantities have been calculated by EC-GD, EC-DC, and EC-DS. A contingency determination meeting was held with all of the designers to apply the appropriate amount of contingency to each line item.
- No tax has been included for the states of Kansas and Missouri.
- The source for the labor rates used in the estimate is the Sept 2004 Department of Labor Wage rates for Wyandotte County, Kansas. A minor adjustment factor is added to bring the rates to the appropriate price level date.
- The national 1999 Unit Price Book is used to price minor items. Quotes were received for major cost items (a majority of the cost items). An adjustment factor is added to bring the rates to the appropriate price level date.
- 2004 equipment rates were used. An adjustment factor is added to bring the rates to the appropriate price level date.
- Once all of the databases are normalized to the appropriate price level date an escalation factor will be added to the owner level to bring the estimate to the appropriate price level date. The escalation factors used were derived from the Civil Works Construction Cost Index System (CWCCIS) EM1110-2-1304.

CONTINGENCY DETERMINATION REPORT - The "reasons" for final contingency development and assignment must be included in the cost estimate as part of the project narrative. When then contingency factors shown in Table 13-1 of EI 01D010 are applied to any portion of the cost estimate up to the feature level, the statement "Normal design variances are expected - Normal contingency values used" is acceptable in addressing that specific portion. For this estimate, 25% contingency is considered normal.

*****NOTE***** Bid item numbers correspond to the summary sheet Bid Item Level WBS identifier.

For example: 11.01.11.18 Seeding & Mulching

The "18" at the end of the number string corresponds to Bid Item No. 18 on this Contingency Determination Report.
*****END NOTE*****

LANDS AND DAMAGES-
Not Used

RELOCATIONS -
Not Used

LEVEES & FLOODWALLS
Bid Item Nos. 01 thru 10 - A typical 25% contingency factor was used.

Bid Item Nos. 11 thru 15 - Because of unknown conditions around the wharf area a 30% contingency factor was used.

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No Backup Reports...

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** PROJECT OWNER SUMMARY - Feature (Rounded to 1000's) **

	QUANTITY	UOM	CONTRACT	CONTINGN	ESCALATN	PED	CM	TOTAL COST	UNIT COST	NOTES
11 Levees and Floodwalls	1.00	EA	5,291,000	1,357,000	539,000	850,000	503,000	8,540,000	8540168.76	
TOTAL Feasibility Estimate For:	1.00	EA	5,291,000	1,357,000	539,000	850,000	503,000	8,540,000	8540168.76	

** PROJECT OWNER SUMMARY - Assembly (Rounded to 1000's) **

	QUANTITY UOM	CONTRACT	CONTINGN	ESCALATN	PED	CM	TOTAL COST	UNIT COST	NOTES
02 Relocations									
11 Levees and Floodwalls									
11.02 Floodwalls									
11.02. 1 Task 1 - Mob & Demob									
11.02. 1.01 Mob & Demob	1.00 EA	256,000	64,000	26,000	41,000	24,000	411,000	410528.66	
TOTAL Task 1 - Mob & Demob	1.00 EA	256,000	64,000	26,000	41,000	24,000	411,000	410528.66	
11.02.02 Initial Mob of Crane By Tug Boat									
11.02.02.02 Initial Mob of Crane By Tug Boat	2.00 DAY	13,000	3,000	1,000	2,000	1,000	22,000	10835.04	
TOTAL Initial Mob of Crane By Tug Boat	2.00 DAY	13,000	3,000	1,000	2,000	1,000	22,000	10835.04	
11.02.03 Setup Crane									
11.02.03.03 Setup Crane	1.00 EA	6,000	2,000	1,000	1,000	1,000	10,000	9845.98	
TOTAL Setup Crane	1.00 EA	6,000	2,000	1,000	1,000	1,000	10,000	9845.98	
11.02.04 Setup Pile Equipment									
11.02.04.04 Setup Pile Equipment	1.00 EA	3,000	1,000	0	1,000	0	6,000	5575.47	
TOTAL Setup Pile Equipment	1.00 EA	3,000	1,000	0	1,000	0	6,000	5575.47	
11.02.05 Set Template & Layout									
11.02.05.05 Set Template & Layout	1.00 EA	83,000	21,000	8,000	13,000	8,000	132,000	132496.63	
TOTAL Set Template & Layout	1.00 EA	83,000	21,000	8,000	13,000	8,000	132,000	132496.63	
11.02.06 Install Sheetpiling - Water									
11.02.06.06 Install Sheetpiling - Water									
11.02.06.06.01 Install Sheetpiling - Proj Cost	13785.00 LF	177,000	44,000	18,000	28,000	17,000	285,000	20.66	
11.02.06.06.02 Install Sheetpiling - Proj Cost	39405.00 LF	432,000	108,000	44,000	69,000	41,000	694,000	17.61	
11.02.06.06.03 Install Sheetpiling - Econ Cost	31110.00 LF	341,000	85,000	35,000	55,000	32,000	548,000	17.61	

** PROJECT OWNER SUMMARY - Assembly (Rounded to 1000's) **

	QUANTITY	UOM	CONTRACT	CONTINGN	ESCALATN	PED	CM	TOTAL COST	UNIT COST	NOTES
TOTAL Install Sheetpiling - Water	84300.00	LF	951,000	238,000	96,000	152,000	90,000	1,527,000	18.11	
TOTAL Install Sheetpiling - Water	84300.00	LF	951,000	238,000	96,000	152,000	90,000	1,527,000	18.11	
11.02.07 Remove Exist Sheetpiling - Water										
11.02.07.07 Remove Exist Sheetpiling - Water										
11.02.07.07.01 Remove Exist Sheetpiling - Proj	58.00	EA	61,000	15,000	6,000	10,000	6,000	97,000	1680.54	
11.02.07.07.02 Remove Exist Sheetpiling - Econ	36.00	EA	30,000	7,000	3,000	5,000	3,000	48,000	1320.77	
TOTAL Remove Exist Sheetpiling - Water	94.00	EA	90,000	23,000	9,000	14,000	9,000	145,000	1542.75	
TOTAL Remove Exist Sheetpiling - Water	94.00	EA	90,000	23,000	9,000	14,000	9,000	145,000	1542.75	
11.02.08 Initial Demob of Crn by TugBoat										
11.02.08.08 Initial Demob of Crn by TugBoat	2.00	DAY	13,000	3,000	1,000	2,000	1,000	22,000	10835.04	
TOTAL Initial Demob of Crn by TugBoat	2.00	DAY	13,000	3,000	1,000	2,000	1,000	22,000	10835.04	
11.02.09 Sheetpiling Material										
11.02.09.09 Sheetpiling Material										
11.02.09.09.01 Sheetpiling Material - Project	87276.00	SF	1,945,000	486,000	197,000	311,000	184,000	3,123,000	35.78	
11.02.09.09.02 Sheetpiling Material - Economics	51046.00	SF	1,063,000	266,000	108,000	170,000	101,000	1,706,000	33.42	
TOTAL Sheetpiling Material	138322.00	SF	3,007,000	752,000	305,000	481,000	284,000	4,829,000	34.91	
TOTAL Sheetpiling Material	138322.00	SF	3,007,000	752,000	305,000	481,000	284,000	4,829,000	34.91	
11.02.10 Fill Void with flowable fill										
11.02.10.10 Fill Void with flowable fill										
11.02.10.10.01 Fill Void with flowable fill	28.00	EA	114,000	29,000	12,000	18,000	11,000	183,000	6537.70	
11.02.10.10.02 Fill Void with flowable fill	17.00	EA	61,000	15,000	6,000	10,000	6,000	98,000	5792.46	
TOTAL Fill Void with flowable fill	45.00	EA	175,000	44,000	18,000	28,000	17,000	282,000	6256.16	
TOTAL Fill Void with flowable fill	45.00	EA	175,000	44,000	18,000	28,000	17,000	282,000	6256.16	
11.02.11 Wharf Area										
11.02.11.11 Concrete Slab Removal										

** PROJECT OWNER SUMMARY - Assembly (Rounded to 1000's) **

	QUANTITY	UOM	CONTRACT	CONTINGN	ESCALATN	PED	CM	TOTAL COST	UNIT COST	NOTES
11.02.11.11.01 Concrete Slab Removal	942.00	CY	210,000	63,000	22,000	35,000	21,000	351,000	372.29	
TOTAL Concrete Slab Removal	942.00	CY	210,000	63,000	22,000	35,000	21,000	351,000	372.29	
11.02.11.12 Deload Exist Sheetpile Wall										
11.02.11.12.01 Deload Exist Sheetpile Wall	10555.00	CY	172,000	52,000	18,000	29,000	17,000	288,000	27.27	
TOTAL Deload Exist Sheetpile Wall	10555.00	CY	172,000	52,000	18,000	29,000	17,000	288,000	27.27	
11.02.11.13 Sheetpile Cutoff										
11.02.11.13.01 Sheetpile Cutoff	403.00	EA	118,000	35,000	12,000	20,000	12,000	197,000	490.01	
TOTAL Sheetpile Cutoff	403.00	EA	118,000	35,000	12,000	20,000	12,000	197,000	490.01	
11.02.11.14 Structure Removal										
11.02.11.14.01 Structure Removal	1.00	EA	128,000	38,000	13,000	21,000	13,000	213,000	213474.91	
TOTAL Structure Removal	1.00	EA	128,000	38,000	13,000	21,000	13,000	213,000	213474.91	
11.02.11.15 Mooring removal										
11.02.11.15.01 Mooring removal	5.00	EA	64,000	19,000	7,000	11,000	6,000	107,000	21347.49	
TOTAL Mooring removal	5.00	EA	64,000	19,000	7,000	11,000	6,000	107,000	21347.49	
TOTAL Wharf Area	1.00	EA	692,000	208,000	73,000	115,000	68,000	1,156,000	1156267.63	
TOTAL Floodwalls	1.00	EA	5,291,000	1,357,000	539,000	850,000	503,000	8,540,000	8540168.76	
TOTAL Levees and Floodwalls	1.00	EA	5,291,000	1,357,000	539,000	850,000	503,000	8,540,000	8540168.76	
TOTAL Feasibility Estimate For:	1.00	EA	5,291,000	1,357,000	539,000	850,000	503,000	8,540,000	8540168.76	

** PROJECT INDIRECT SUMMARY - Feature (Rounded to 1000's) **

	QUANTITY UOM	DIRECT	OVERHEAD	%OVERHD	G&A	PROFIT	BOND	TOTAL COST	UNIT COST
11 Levees and Floodwalls	1.00 EA	4,139,000	0	621,000	0	476,000	55,000	5,291,000	5290934.95
TOTAL Feasibility Estimate For:	1.00 EA	4,139,000	0	621,000	0	476,000	55,000	5,291,000	5290934.95
Contingency								1,357,000	
SUBTOTAL								6,648,000	
Escalation								539,000	
SUBTOTAL								7,187,000	
Planning, Engineering, & Design								850,000	
SUBTOTAL								8,037,000	
Construction Management								503,000	
TOTAL INCL OWNER COSTS								8,540,000	

** PROJECT INDIRECT SUMMARY - Assembly (Rounded to 1000's) **

	QUANTITY UOM	DIRECT	OVERHEAD	%OVERHD	G&A	PROFIT	BOND	TOTAL COST	UNIT COST
02 Relocations									
11 Levees and Floodwalls									
11.02 Floodwalls									
11.02. 1 Task 1 - Mob & Demob									
11.02. 1.01 Mob & Demob	1.00 EA	200,000	0	30,000	0	23,000	3,000	256,000	255668.31
TOTAL Task 1 - Mob & Demob	1.00 EA	200,000	0	30,000	0	23,000	3,000	256,000	255668.31
11.02.02 Initial Mob of Crane By Tug Boat									
11.02.02.02 Initial Mob of Crane By Tug Boat	2.00 DAY	11,000	0	2,000	0	1,000	0	13,000	6747.83
TOTAL Initial Mob of Crane By Tug Boat	2.00 DAY	11,000	0	2,000	0	1,000	0	13,000	6747.83
11.02.03 Setup Crane									
11.02.03.03 Setup Crane	1.00 EA	5,000	0	1,000	0	1,000	0	6,000	6131.86
TOTAL Setup Crane	1.00 EA	5,000	0	1,000	0	1,000	0	6,000	6131.86
11.02.04 Setup Pile Equipment									
11.02.04.04 Setup Pile Equipment	1.00 EA	3,000	0	0	0	0	0	3,000	3472.28
TOTAL Setup Pile Equipment	1.00 EA	3,000	0	0	0	0	0	3,000	3472.28
11.02.05 Set Template & Layout									
11.02.05.05 Set Template & Layout	1.00 EA	65,000	0	10,000	0	7,000	1,000	83,000	82516.01
TOTAL Set Template & Layout	1.00 EA	65,000	0	10,000	0	7,000	1,000	83,000	82516.01
11.02.06 Install Sheetpiling - Water									
11.02.06.06 Install Sheetpiling - Water									
11.02.06.06.01 Install Sheetpiling - Proj Cost	13785.00 LF	139,000	0	21,000	0	16,000	2,000	177,000	12.87
11.02.06.06.02 Install Sheetpiling - Proj Cost	39405.00 LF	338,000	0	51,000	0	39,000	5,000	432,000	10.97
11.02.06.06.03 Install Sheetpiling - Econ Cost	31110.00 LF	267,000	0	40,000	0	31,000	4,000	341,000	10.97

** PROJECT INDIRECT SUMMARY - Assembly (Rounded to 1000's) **

	QUANTITY	UOM	DIRECT	OVERHEAD	%OVERHD	G&A	PROFIT	BOND	TOTAL COST	UNIT COST
TOTAL Install Sheetpiling - Water	84300.00	LF	744,000	0	112,000	0	86,000	10,000	951,000	11.28
TOTAL Install Sheetpiling - Water	84300.00	LF	744,000	0	112,000	0	86,000	10,000	951,000	11.28
11.02.07 Remove Exist Sheetpiling - Water										
11.02.07.07 Remove Exist Sheetpiling - Water										
11.02.07.07.01 Remove Exist Sheetpiling - Proj	58.00	EA	47,000	0	7,000	0	5,000	1,000	61,000	1046.60
11.02.07.07.02 Remove Exist Sheetpiling - Econ	36.00	EA	23,000	0	3,000	0	3,000	0	30,000	822.55
TOTAL Remove Exist Sheetpiling - Water	94.00	EA	71,000	0	11,000	0	8,000	1,000	90,000	960.79
TOTAL Remove Exist Sheetpiling - Water	94.00	EA	71,000	0	11,000	0	8,000	1,000	90,000	960.79
11.02.08 Initial Demob of Crn by TugBoat										
11.02.08.08 Initial Demob of Crn by TugBoat	2.00	DAY	11,000	0	2,000	0	1,000	0	13,000	6747.83
TOTAL Initial Demob of Crn by TugBoat	2.00	DAY	11,000	0	2,000	0	1,000	0	13,000	6747.83
11.02.09 Sheetpiling Material										
11.02.09.09 Sheetpiling Material										
11.02.09.09.01 Sheetpiling Material - Project	87276.00	SF	1,521,000	0	228,000	0	175,000	20,000	1,945,000	22.28
11.02.09.09.02 Sheetpiling Material - Economics	51046.00	SF	831,000	0	125,000	0	96,000	11,000	1,063,000	20.82
TOTAL Sheetpiling Material	138322.00	SF	2,353,000	0	353,000	0	271,000	31,000	3,007,000	21.74
TOTAL Sheetpiling Material	138322.00	SF	2,353,000	0	353,000	0	271,000	31,000	3,007,000	21.74
11.02.10 Fill Void with flowable fill										
11.02.10.10 Fill Void with flowable fill										
11.02.10.10.01 Fill Void with flowable fill	28.00	EA	89,000	0	13,000	0	10,000	1,000	114,000	4071.54
11.02.10.10.02 Fill Void with flowable fill	17.00	EA	48,000	0	7,000	0	6,000	1,000	61,000	3607.42
TOTAL Fill Void with flowable fill	45.00	EA	137,000	0	21,000	0	16,000	2,000	175,000	3896.20
TOTAL Fill Void with flowable fill	45.00	EA	137,000	0	21,000	0	16,000	2,000	175,000	3896.20
11.02.11 Wharf Area										
11.02.11.11 Concrete Slab Removal										

** PROJECT INDIRECT SUMMARY - Assembly (Rounded to 1000's) **

	QUANTITY	UOM	DIRECT	OVERHEAD	%OVERHD	G&A	PROFIT	BOND	TOTAL COST	UNIT COST
11.02.11.11.01 Concrete Slab Removal	942.00	CY	164,000	0	25,000	0	19,000	2,000	210,000	222.94
TOTAL Concrete Slab Removal	942.00	CY	164,000	0	25,000	0	19,000	2,000	210,000	222.94
11.02.11.12 Deload Exist Sheetpile Wall										
11.02.11.12.01 Deload Exist Sheetpile Wall	10555.00	CY	135,000	0	20,000	0	16,000	2,000	172,000	16.33
TOTAL Deload Exist Sheetpile Wall	10555.00	CY	135,000	0	20,000	0	16,000	2,000	172,000	16.33
11.02.11.13 Sheetpile Cutoff										
11.02.11.13.01 Sheetpile Cutoff	403.00	EA	93,000	0	14,000	0	11,000	1,000	118,000	293.43
TOTAL Sheetpile Cutoff	403.00	EA	93,000	0	14,000	0	11,000	1,000	118,000	293.43
11.02.11.14 Structure Removal										
11.02.11.14.01 Structure Removal	1.00	EA	100,000	0	15,000	0	12,000	1,000	128,000	127834.15
TOTAL Structure Removal	1.00	EA	100,000	0	15,000	0	12,000	1,000	128,000	127834.15
11.02.11.15 Mooring removal										
11.02.11.15.01 Mooring removal	5.00	EA	50,000	0	8,000	0	6,000	1,000	64,000	12783.42
TOTAL Mooring removal	5.00	EA	50,000	0	8,000	0	6,000	1,000	64,000	12783.42
TOTAL Wharf Area	1.00	EA	542,000	0	81,000	0	62,000	7,000	692,000	692402.20
TOTAL Floodwalls	1.00	EA	4,139,000	0	621,000	0	476,000	55,000	5,291,000	5290934.95
TOTAL Levees and Floodwalls	1.00	EA	4,139,000	0	621,000	0	476,000	55,000	5,291,000	5290934.95
TOTAL Feasibility Estimate For:	1.00	EA	4,139,000	0	621,000	0	476,000	55,000	5,291,000	5290934.95
Contingency									1,357,000	
SUBTOTAL									6,648,000	
Escalation									539,000	
SUBTOTAL									7,187,000	
Planning, Engineering, & Design									850,000	
SUBTOTAL									8,037,000	
Construction Management									503,000	

** PROJECT INDIRECT SUMMARY - Assembly (Rounded to 1000's) **

	QUANTITY	UOM	DIRECT	OVERHEAD	%OVERHD	G&A	PROFIT	BOND	TOTAL COST	UNIT COST
TOTAL INCL OWNER COSTS									8,540,000	

A-16.6 NORTH KANSAS CITY-LOWER (HARLEM AREA)

The cost estimate included in this section reflects the feasibility level analysis undertaken in determining the cost of recommended improvements within the Harlem Area of the North Kansas City-Lower Unit.

Feasibility Estimate for:
Kansas City Levees Feasibility
Study - North Kansas City Unit
Harlem - Buried Collector
System - Revision 3

Designed By: CENWK
Estimated By: CENWK-EC-DC

Prepared By: Patrick Miramontez 816-389-3322
LATEST ESTIMATE AS OF 14 Aug 06

Preparation Date: 09/02/04
Effective Date of Pricing: 10/01/05
Est Construction Time: 120 Days

Sales Tax: 0.00%

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Release 1.2c

01- Lands & Damages - The costs include the acquisition of Temporary Right-of-Way. These costs include Non Federal Sponsors cost to perform the Legal work, Admin Support, and Tract appraisals, as well as Federal labor costs.

11 - Levees & Floodwalls- The levees cost consists of 1 component, a buried collector system. The subcomponents include: 1) Clearing, 2) Excavation, 3) Granular Fill, 4) Sand Fill, 5) Clay Backfill, 6) 18" Perforated Pipe, 7) Manholes for Pumping, 8) Ramps, and 9) Seeding and Mulching.

- Clearing - This item consists of stripping 6" of soil and stockpiling next to the levee. The area stripped is 70' wide x 3000 lf long.

- Excavation - A trench is to be excavated 10' deep with 1 on 1 side slopes. The material will be stockpiled adjacent to the excavation.

- Granular Fill - Gravel material will be delivered to the site and stockpiled. The contractor will then load the material on off-highway dump trucks and haul to the trench. The gravel material will be placed around the perforated pipe and compacted.

- Sand Fill - Sand material will be delivered to the site and stockpiled. The contractor will then load the material on off-highway dump trucks and haul to the trench. The sand material will be placed above the perforated pipe and compacted.

- Clay Backfill - The material excavated will be utilized as backfill material. The material will be placed over the sand and compacted. A part-time truck will be required to haul the excess material not used for backfilling offsite.

- 18" Perforated Pipe - This item includes the purchasing of the perforated pipe, the unloading of the pipe from the trucks, and the placement of the pipe in the trench.

- Manholes for Pumping - This item consists of excavation for the manholes, the installation of cast-in-place manholes, and the backfilling of the void around the manholes.

- Ramps - It was assumed two access ramps will be required to access the manholes for placing pumps. It was assumed offsite borrow will be required for the construction of these ramps. Surface aggregate is included on the top of the ramp surface. Road repair, and street sweeping costs were also included since off-site borrow was assumed.

- Seeding & Mulching - Once the construction is completed all of the disturbed areas will be seeded and Mulched.

30 - Estimated Engineering & Design Cost = 33.91% of project implementation (less lands & damages) cost.

31 - Estimated Construction Supervision & Administration = 7% of project implementation (less lands & damages) cost.

Areas of Cost Sensitivity

- Estimate does not include any costs for sampling/testing for HTRW.
- Estimate does not include any costs for the hauling and disposal of HTRW.
- Estimate does not include O&M costs. Only project implementation (construction, real-estate and associated) costs.
- The North Kansas City District is in an area congested by roads, and buildings. The hauling rates for these conditions have been taken into account.
- Planned construction period is Jul 2008 to Jul 2009 per previous Real Estate Timeline dated 7 Sept 2004

General Cost Information

- The quantities have been calculated by EC-GD, EC-DC, and EC-DS. A contingency determination meeting will be held with all of the designers to apply the appropriate amount of contingency to each line item.
- No tax has been included for the states of Kansas and Missouri.
- The source for the labor rates used in the estimate is the Sept 2004 Department of Labor Wage rates for Wyandotte County, Kansas. A minor adjustment factor is added to bring the rates to the appropriate price level date.
- The national 1999 Unit Price Book is used to price minor items. Quotes were received for major cost items. An adjustment factor is added to bring the rates to the appropriate price level date.
- 2004 equipment rates were used. An adjustment factor is added to bring the rates to the appropriate price level date.
- Once all of the databases are normalized to the appropriate price level date an escalation factor will be added to the owner level to bring the estimate to the appropriate price level date. The escalation factors used were derived from the Civil Works Construction Cost Index System (CWCCIS) EM1110-2-1304.

CONTINGENCY DETERMINATION REPORT - The reasons for final contingency development and assignment must be included in the cost estimate as part of the project narrative. When then contingency factors shown in Table 13-1 of EI 01D010 are applied to any portion of the cost estimate up to the feature level, the statement "Normal design variances are expected - Normal contingency values used" is acceptable in addressing that specific portion. For this estimate, 25% contingency is considered normal.

*****NOTE*****
Bid item numbers correspond to the summary sheet Bid Item Level WBS identifier. For example:

11.01.11.18 Seeding & Mulching

The "18" at the end of the number string corresponds to Bid Item No. 18 on this Contingency Determination Report.

*****END NOTE*****

LANDS AND DAMAGES-
Bid Item Nos. 01 thru 3 - A typical 15% contingingency factor was supplied by RE.

LEVEES AND FLOODWALLS-
Bid Item Nos. 04 thru 18- A typical 25% contingency factor used for all items.

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No Backup Reports...

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** PROJECT OWNER SUMMARY - Feature (Rounded to 1000's) **

	QUANTITY	UOM	CONTRACT	CONTING	ESCALATN	PED	CM	TOTAL COST	UNIT COST	NOTES
01 Lands and Damages	1.00	EA	72,000	11,000	2,000	9,000	0	94,000	94488.36	
11 Levees and Floodwalls	1.00	EA	764,000	191,000	77,000	350,000	72,000	1,455,000	1455136	
TOTAL Feasibility Estimate for:	1.00	EA	837,000	202,000	80,000	359,000	72,000	1,550,000	1549624	

** PROJECT OWNER SUMMARY - Level 5 (Rounded to 1000's) **

	QUANTITY UOM	CONTRACT	CONTING	ESCALATN	PED	CM	TOTAL COST	UNIT COST	NOTES
01 Lands and Damages									
01.23 Land Values									
01.23.01 Land Values									
01.23.01.01 Land Values									
01.23.01.01.01 Sta 210+00 to 240+00	2.50 ACR	19,000	3,000	0	0	0	22,000	8914.80	
TOTAL Land Values	1.00 EA	19,000	3,000	0	0	0	22,000	22287.00	
01.23.01.02 Non-Federal Cost									
01.23.01.02.08 NFS Costs	1.00 EA	48,000	7,000	2,000	0	0	56,000	56488.77	
TOTAL Non-Federal Cost	1.00 EA	48,000	7,000	2,000	0	0	56,000	56488.77	
01.23.01.03 Federal Cost									
01.23.01.03.09 Federal Cost - Pre-Constructin	1.00 EA	4,000	1,000	0	6,000	0	11,000	10678.61	
01.23.01.03.11 Federal Cost - Post Construction	1.00 EA	2,000	0	0	3,000	0	5,000	5033.98	
TOTAL Federal Cost	1.00 EA	6,000	1,000	0	9,000	0	16,000	15712.59	
TOTAL Land Values	1.00 EA	72,000	11,000	2,000	9,000	0	94,000	94488.36	
TOTAL Land Values	1.00 EA	72,000	11,000	2,000	9,000	0	94,000	94488.36	
TOTAL Lands and Damages	1.00 EA	72,000	11,000	2,000	9,000	0	94,000	94488.36	
02 Relocations									
11 Levees and Floodwalls									
11.01 Levees									
11.01.01 Clearing & Grubbing									
11.01.01.04 Clearing & Grubbing	1944.00 CY	1,000	0	0	0	0	2,000	1.03	
TOTAL Clearing & Grubbing	1944.00 CY	1,000	0	0	0	0	2,000	1.03	
11.01.02 Excavation									

** PROJECT OWNER SUMMARY - Level 5 (Rounded to 1000's) **

	QUANTITY	UOM	CONTRACT	CONTING	ESCALATN	PED	CM	TOTAL COST	UNIT COST	NOTES
11.01.02.05 Excavation	27000.00	CY	73,000	18,000	7,000	33,000	7,000	139,000	5.15	
TOTAL Excavation	27000.00	CY	73,000	18,000	7,000	33,000	7,000	139,000	5.15	
11.01.03 Granular Fill										
11.01.03.06 Granular Fill Material	2803.00	CY	63,000	16,000	6,000	29,000	6,000	119,000	42.59	
11.01.03.07 Load, Haul, & Place Material	4624.95	TON	56,000	14,000	6,000	26,000	5,000	106,000	23.00	
TOTAL Granular Fill	2803.00	CY	119,000	30,000	12,000	54,000	11,000	226,000	80.54	
11.01.04 Sand Fill										
11.01.04.08 Sand Fill Material	1444.00	CY	27,000	7,000	3,000	12,000	3,000	51,000	35.19	
11.01.04.09 Load, Haul, & Place Material	2888.00	TON	28,000	7,000	3,000	13,000	3,000	53,000	18.42	
TOTAL Sand Fill	1444.00	CY	55,000	14,000	6,000	25,000	5,000	104,000	72.03	
11.01.05 Clay Backfill										
11.01.05.10 Clay Backfill	27843.00	CY	173,000	43,000	18,000	79,000	16,000	329,000	11.82	
TOTAL Clay Backfill	27843.00	CY	173,000	43,000	18,000	79,000	16,000	329,000	11.82	
11.01.07 Asphalt - Not Used										
11.01.08 18" Perforated Pipe										
11.01.08.11 Purchase Pipe	3000.00	LF	61,000	15,000	6,000	28,000	6,000	115,000	38.48	
11.01.08.12 Unload Pipe	3000.00	LF	1,000	0	0	0	0	1,000	0.40	
11.01.08.13 Place Pipe	3000.00	LF	29,000	7,000	3,000	13,000	3,000	56,000	18.58	
TOTAL 18" Perforated Pipe	3000.00	LF	91,000	23,000	9,000	41,000	9,000	172,000	57.46	
11.01.09 Manholes for Pumping										
11.01.09.14 Excavation for Manholes	4176.00	CY	26,000	6,000	3,000	12,000	2,000	49,000	11.74	
TOTAL Excavation for Manholes	4176.00	CY	26,000	6,000	3,000	12,000	2,000	49,000	11.74	
11.01.09.15 Manholes										
11.01.09.15.01 Base Slab	44.10	CY	23,000	6,000	2,000	10,000	2,000	43,000	981.59	
11.01.09.15.03 1st Lift	75.96	CY	104,000	26,000	10,000	47,000	10,000	197,000	2598.15	
11.01.09.15.05 Elevated Slab	19.62	CY	19,000	5,000	2,000	9,000	2,000	36,000	1811.53	

** PROJECT OWNER SUMMARY - Level 5 (Rounded to 1000's) **

	QUANTITY	UOM	CONTRACT	CONTING	ESCALATN	PED	CM	TOTAL COST	UNIT COST	NOTES
11.01.09.15.07 Metals	9.00	EA	16,000	4,000	2,000	7,000	2,000	31,000	3446.22	
TOTAL Manholes	9.00	EA	161,000	40,000	16,000	74,000	15,000	307,000	34133.55	
11.01.09.16 Backfilling	4626.00	BCY	34,000	8,000	3,000	15,000	3,000	64,000	13.80	
TOTAL Manholes for Pumping	9.00	EA	221,000	55,000	22,000	101,000	21,000	420,000	46676.60	
11.01.10 Ramps										
11.01.10.17 Associated General Items										
11.01.10.17.11 Borrow Material	2400.00	BCY	13,000	3,000	1,000	6,000	1,000	24,000	10.02	
11.01.10.17.12 Aggregate Surfacing	300.00	TON	9,000	2,000	1,000	4,000	1,000	17,000	56.31	
11.01.10.17.13 Street Repair	2400.00	BCY	1,000	0	0	1,000	0	3,000	1.13	
11.01.10.17.14 Street Sweeping	2400.00	BCY	1,000	0	0	0	0	1,000	0.41	
11.01.10.17.15 Surveying	2400.00	BCY	0	0	0	0	0	1,000	0.24	
TOTAL Associated General Items	2400.00	BCY	24,000	6,000	2,000	11,000	2,000	45,000	18.83	
TOTAL Ramps	2.00	EA	24,000	6,000	2,000	11,000	2,000	45,000	22599.00	
11.01.11 Seeding & Mulching										
11.01.11.18 Seeding & Mulching	5.00	ACR	9,000	2,000	1,000	4,000	1,000	18,000	3519.47	
TOTAL Seeding & Mulching	5.00	ACR	9,000	2,000	1,000	4,000	1,000	18,000	3519.47	
TOTAL Levees	1.00	EA	764,000	191,000	77,000	350,000	72,000	1,455,000	1455136	
TOTAL Levees and Floodwalls	1.00	EA	764,000	191,000	77,000	350,000	72,000	1,455,000	1455136	
TOTAL Feasibility Estimate for:	1.00	EA	837,000	202,000	80,000	359,000	72,000	1,550,000	1549624	

** PROJECT INDIRECT SUMMARY - Feature (Rounded to 1000's) **

	QUANTITY	UOM	DIRECT	OVERHEAD	% OVRHD	PROFIT	BOND	TOTAL COST	UNIT COST
01 Lands and Damages	1.00	EA	72,000	0	0	0	0	72,000	72405.10
11 Levees and Floodwalls	1.00	EA	620,000	0	84,000	49,000	11,000	764,000	764209.49
TOTAL Feasibility Estimate for:	1.00	EA	693,000	0	84,000	49,000	11,000	837,000	836614.59
Contingency								202,000	
SUBTOTAL								1,039,000	
Escalation								80,000	
SUBTOTAL								1,118,000	
Planning, Engineering, & Design								359,000	
SUBTOTAL								1,477,000	
Construction Management								72,000	
TOTAL INCL OWNER COSTS								1,550,000	

** PROJECT INDIRECT SUMMARY - Level 5 (Rounded to 1000's) **

	QUANTITY UOM	DIRECT	OVERHEAD	% OVRHD	PROFIT	BOND	TOTAL COST	UNIT COST
01 Lands and Damages								
01.23 Land Values								
01.23.01 Land Values								
01.23.01.01 Land Values								
01.23.01.01.01 Sta 210+00 to 240+00	2.50 ACR	19,000	0	0	0	0	19,000	7600.00
TOTAL Land Values	1.00 EA	19,000	0	0	0	0	19,000	19000.00
01.23.01.02 Non-Federal Cost								
01.23.01.02.08 NFS Costs	1.00 EA	48,000	0	0	0	0	48,000	47574.50
TOTAL Non-Federal Cost	1.00 EA	48,000	0	0	0	0	48,000	47574.50
01.23.01.03 Federal Cost								
01.23.01.03.09 Federal Cost - Pre-Constructin	1.00 EA	4,000	0	0	0	0	4,000	3962.60
01.23.01.03.11 Federal Cost - Post Construction	1.00 EA	2,000	0	0	0	0	2,000	1868.00
TOTAL Federal Cost	1.00 EA	6,000	0	0	0	0	6,000	5830.60
TOTAL Land Values	1.00 EA	72,000	0	0	0	0	72,000	72405.10
TOTAL Land Values	1.00 EA	72,000	0	0	0	0	72,000	72405.10
TOTAL Lands and Damages	1.00 EA	72,000	0	0	0	0	72,000	72405.10
02 Relocations								
11 Levees and Floodwalls								
11.01 Levees								
11.01.01 Clearing & Grubbing								
11.01.01.04 Clearing & Grubbing	1944.00 CY	1,000	0	0	0	0	1,000	0.54
TOTAL Clearing & Grubbing	1944.00 CY	1,000	0	0	0	0	1,000	0.54
11.01.02 Excavation								

** PROJECT INDIRECT SUMMARY - Level 5 (Rounded to 1000's) **

	QUANTITY	UOM	DIRECT	OVERHEAD	% OVRHD	PROFIT	BOND	TOTAL COST	UNIT COST
11.01.02.05 Excavation	27000.00	CY	59,000	0	8,000	5,000	1,000	73,000	2.70
TOTAL Excavation	27000.00	CY	59,000	0	8,000	5,000	1,000	73,000	2.70
11.01.03 Granular Fill									
11.01.03.06 Granular Fill Material	2803.00	CY	51,000	0	7,000	4,000	1,000	63,000	22.37
11.01.03.07 Load, Haul, & Place Material	4624.95	TON	45,000	0	6,000	4,000	1,000	56,000	12.08
TOTAL Granular Fill	2803.00	CY	96,000	0	13,000	8,000	2,000	119,000	42.30
11.01.04 Sand Fill									
11.01.04.08 Sand Fill Material	1444.00	CY	22,000	0	3,000	2,000	0	27,000	18.48
11.01.04.09 Load, Haul, & Place Material	2888.00	TON	23,000	0	3,000	2,000	0	28,000	9.67
TOTAL Sand Fill	1444.00	CY	44,000	0	6,000	4,000	1,000	55,000	37.83
11.01.05 Clay Backfill									
11.01.05.10 Clay Backfill	27843.00	CY	140,000	0	19,000	11,000	2,000	173,000	6.21
TOTAL Clay Backfill	27843.00	CY	140,000	0	19,000	11,000	2,000	173,000	6.21
11.01.07 Asphalt - Not Used									
11.01.08 18" Perforated Pipe									
11.01.08.11 Purchase Pipe	3000.00	LF	49,000	0	7,000	4,000	1,000	61,000	20.21
11.01.08.12 Unload Pipe	3000.00	LF	1,000	0	0	0	0	1,000	0.21
11.01.08.13 Place Pipe	3000.00	LF	24,000	0	3,000	2,000	0	29,000	9.76
TOTAL 18" Perforated Pipe	3000.00	LF	73,000	0	10,000	6,000	1,000	91,000	30.18
11.01.09 Manholes for Pumping									
11.01.09.14 Excavation for Manholes	4176.00	CY	21,000	0	3,000	2,000	0	26,000	6.17
TOTAL Excavation for Manholes	4176.00	CY	21,000	0	3,000	2,000	0	26,000	6.17
11.01.09.15 Manholes									
11.01.09.15.01 Base Slab	44.10	CY	18,000	0	2,000	1,000	0	23,000	515.51
11.01.09.15.03 1st Lift	75.96	CY	84,000	0	11,000	7,000	1,000	104,000	1364.50
11.01.09.15.05 Elevated Slab	19.62	CY	15,000	0	2,000	1,000	0	19,000	951.38

** PROJECT INDIRECT SUMMARY - Level 5 (Rounded to 1000's) **

	QUANTITY	UOM	DIRECT	OVERHEAD	% OVRHD	PROFIT	BOND	TOTAL COST	UNIT COST
11.01.09.15.07 Metals	9.00	EA	13,000	0	2,000	1,000	0	16,000	1809.89
TOTAL Manholes	9.00	EA	131,000	0	18,000	10,000	2,000	161,000	17926.29
11.01.09.16 Backfilling	4626.00	BCY	27,000	0	4,000	2,000	0	34,000	7.25
TOTAL Manholes for Pumping	9.00	EA	179,000	0	24,000	14,000	3,000	221,000	24513.66
11.01.10 Ramps									
11.01.10.17 Associated General Items									
11.01.10.17.11 Borrow Material	2400.00	BCY	10,000	0	1,000	1,000	0	13,000	5.26
11.01.10.17.12 Aggregate Surfacing	300.00	TON	7,000	0	1,000	1,000	0	9,000	29.57
11.01.10.17.13 Street Repair	2400.00	BCY	1,000	0	0	0	0	1,000	0.59
11.01.10.17.14 Street Sweeping	2400.00	BCY	0	0	0	0	0	1,000	0.21
11.01.10.17.15 Surveying	2400.00	BCY	0	0	0	0	0	0	0.13
TOTAL Associated General Items	2400.00	BCY	19,000	0	3,000	2,000	0	24,000	9.89
TOTAL Ramps	2.00	EA	19,000	0	3,000	2,000	0	24,000	11868.56
11.01.11 Seeding & Mulching									
11.01.11.18 Seeding & Mulching	5.00	ACR	8,000	0	1,000	1,000	0	9,000	1848.36
TOTAL Seeding & Mulching	5.00	ACR	8,000	0	1,000	1,000	0	9,000	1848.36
TOTAL Levees	1.00	EA	620,000	0	84,000	49,000	11,000	764,000	764209.49
TOTAL Levees and Floodwalls	1.00	EA	620,000	0	84,000	49,000	11,000	764,000	764209.49
TOTAL Feasibility Estimate for:	1.00	EA	693,000	0	84,000	49,000	11,000	837,000	836614.59
Contingency								202,000	
SUBTOTAL								1,039,000	
Escalation								80,000	
SUBTOTAL								1,118,000	
Planning, Engineering, & Design								359,000	
SUBTOTAL								1,477,000	
Construction Management								72,000	
TOTAL INCL OWNER COSTS								1,550,000	

A-16.7 NORTH KANSAS CITY-LOWER (NATIONAL STARCH AREA)

The cost estimate included in this section reflects the feasibility level analysis undertaken in determining the cost of recommended improvements within the National Starch Area of the North Kansas City-Lower Unit.

Feasibility Estimate for:
Kansas City Levees Feasibility
Study - North Kansas City -
National Starch - Relief Wells
& Pump Plant - Revision 5

Designed By: CENWK
Estimated By: CENWK-EC-DC

Prepared By: Patrick Miramontez 816-389-3322
LATEST ESTIMATE AS OF 14Aug 2006

Preparation Date: 09/02/04
Effective Date of Pricing: 10/01/05
Est Construction Time: 365 Days

Sales Tax: 0.00%

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Release 1.2c

01- Lands & Damages - The costs include the acquisition of Temporary Right-of-Way. These costs include Non Federal Sponsors cost to perform the Legal work, Admin Support, and Tract appraisals, as well as Federal labor costs. Also it is assumed the existing water well piping will be relocated so as to not interfere with the new header piping. It is assumed the water well lines will be placed under the new header piping. These are placed in this account because of Land Acquisition requirements and private ownership.

02 - Relocations - NOT USED

11 - Levees & Floodwalls- The levees cost consists of 1 component, a relief well system. The subcomponents include: 1) Clearing, 2) excavation, 3) 30" Dia RCP, 4) Relief Wells, 5) Backfilling, and 6) Seeding.

- Clearing - This item consists of stripping 6" of soil and stockpiling next to the levee. The area stripped is 30' wide x 2000 lf long.

- Excavation - This item is for the excavation for the header system. It is assumed the depth is 6' below ground elevation.

- 30" Dia RCP - This item is for the header system which consists of 2000lf of 30" Dia RCP. This piping system will tie into the manholes that cover the relief wells.

- Relief Wells - This item consists of mobilizing the equipment, setup of the equipment, and the installation of 20-12" Diameter SST Relief Wells.

- Manholes - This item consists of 4' dia Cast-in-place manholes that will house the relief wells. Cast-in-Place manholes were used because of depth.

- Backfilling - This item consists of backfilling the 30" Dia RCP header pipe.

- Seeding & Mulching - Once the construction is completed all of the disturbed areas will be seeded and Mulched.

13 - Pump Plants - The cost for this item includes excavation, sheeting & shoring for the excavation, a mud mat for construction, a 25'w x 25'dx28.5'h concrete wet well, 4-6000 gpm pumps, gantry crane, discharge piping, misc metals, and backfilling.

30 - Estimated Engineering & Design Cost = 19.32% of project implementation (less lands & damages) cost. (Bottoms up Manhour estimate developed to support percentage.)

31 - Estimated Construction Supervision & Administration = 7% of project implementation (less lands & damages) cost.

Areas of Cost Sensitivity

- Estimate does not include any costs for sampling/testing for HTRW.
- Estimate does not include any costs for the hauling and disposal of HTRW.

- Estimate does not include O&M costs. Only project implementation (construction, real-estate and associated) costs.
- The North Kansas City District is in an area congested by roads, and buildings. The hauling rates for these conditions have been taken into account.
- Planned construction period is Jul 2008 to Mar 2010 per previous Real Estate Timeline dtd 24 Feb 2005 (assumed timeline based on previous relief well scenario).

General Cost Information

- The quantities have been calculated by EC-GD, EC-DC, and EC-GC. A contingency determination meeting was held with all of the designers to apply the appropriate amount of contingency to each line item.
- No tax has been included for the states of Kansas and Missouri.
- The source for the labor rates used in the estimate is the Sept 2004 Department of Labor Wage rates for Clay County, Missouri. A minor adjustment factor is added to bring the rates to the appropriate price level date.
- The national 1999 Unit Price Book is used to price minor items. Quotes were received for major cost items. An adjustment factor is added to bring the rates to the appropriate price level date.
- 2004 equipment rates were used. An adjustment factor is added to bring the rates to the appropriate price level date.
- Once all of the databases are normalized to the appropriate price level date an escalation factor will be added to the owner level to bring the estimate to the appropriate price level date. The escalation factors used were derived from the Civil Works Construction Cost Index System (CWCCIS) EM1110-2-1304.

CONTINGENCY DETERMINATION REPORT - The reasons for final contingency development and assignment must be included in the cost estimate as part of the project narrative. When then contingency factors shown in Table 13-1 of EI 01D010 are applied to any portion of the cost estimate up to the feature level, the statement "Normal design variances are expected - Normal contingency values used" is acceptable in addressing that specific portion. For this estimate, 25% contingency is considered normal.

*****NOTE*****
Bid item numbers correspond to the summary sheet Bid Item Level WBS identifier. For example:

11.01.11.18 Seeding & Mulching

The "18" at the end of the number string corresponds to Bid Item No. 18 on this Contingency Determination Report.

*****END NOTE*****

LANDS AND DAMAGES-
Bid Item Nos. 01 thru 3 - A typical 15% contingency factor was supplied by RE.

Bid Item No. 4 - A typical 25% contingency factor was applied.

RELOCATIONS - NOT USED

LEVEES AND FLOODWALLS-
Bid Item No. 04 thr 16 - A typical 25% contingency factor has been used.

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No Detailed Estimate...

No Backup Reports...

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** PROJECT OWNER SUMMARY - Feature (Rounded to 1000's) **

	QUANTITY	UOM	CONTRACT	CONTINGN	ESCALATN	PED	CM	TOTAL COST	UNIT COST	NOTES
01 Lands and Damages	1.00	EA	100,000	19,000	5,000	18,000	4,000	146,000	145983.11	
11 Levees and Floodwalls	1.00	EA	1,093,000	273,000	111,000	285,000	103,000	1,866,000	1866317	
13 Pump Plant	1.00	EA	2,700,000	675,000	273,000	705,000	256,000	4,609,000	4608805	
TOTAL Feasibility Estimate for:	1.00	EA	3,893,000	967,000	390,000	1,009,000	363,000	6,621,000	6621106	

** PROJECT OWNER SUMMARY - Level 5 (Rounded to 1000's) **

	QUANTITY	UOM	CONTRACT	CONTINGN	ESCALATN	PED	CM	TOTAL COST	UNIT COST	NOTES
01 Lands and Damages										
01.23 Land Values										
01.23.01 Land Values										
01.23.01.01 Land Values										
01.23.01.01.01 Sta 258+00 to 274+00	1.00	EA	47,000	7,000	1,000	0	0	55,000	54579.69	
TOTAL Land Values	1.00	EA	47,000	7,000	1,000	0	0	55,000	54579.69	
01.23.01.02 Non-Federal Cost										
01.23.01.02.08 NFS Costs	1.00	EA	10,000	2,000	0	0	0	12,000	12348.70	
TOTAL Non-Federal Cost	1.00	EA	10,000	2,000	0	0	0	12,000	12348.70	
01.23.01.03 Federal Cost										
01.23.01.03.09 Federal Cost - Pre-Constructin	1.00	EA	4,000	1,000	0	6,000	0	11,000	10678.61	
01.23.01.03.11 Federal Cost - Post Construction	1.00	EA	2,000	0	0	3,000	0	5,000	5033.98	
TOTAL Federal Cost	1.00	EA	6,000	1,000	0	9,000	0	16,000	15712.59	
01.23.01.04 Utilities Crossing Header Pipe										
01.23.01.04.01 8" Water Line	100.00	LF	7,000	2,000	1,000	2,000	1,000	13,000	126.68	
01.23.01.04.02 8" Water Line	100.00	LF	7,000	2,000	1,000	2,000	1,000	13,000	126.68	
01.23.01.04.03 8" Water Line	100.00	LF	7,000	2,000	1,000	2,000	1,000	13,000	126.68	
01.23.01.04.04 8" Water Line	100.00	LF	7,000	2,000	1,000	2,000	1,000	13,000	126.68	
01.23.01.04.05 8" Water Line	100.00	LF	7,000	2,000	1,000	2,000	1,000	13,000	126.68	
TOTAL Utilities Crossing Header Pipe	1.00	EA	37,000	9,000	4,000	10,000	4,000	63,000	63342.13	
TOTAL Land Values	1.00	EA	100,000	19,000	5,000	18,000	4,000	146,000	145983.11	
TOTAL Land Values	1.00	EA	100,000	19,000	5,000	18,000	4,000	146,000	145983.11	
TOTAL Lands and Damages	1.00	EA	100,000	19,000	5,000	18,000	4,000	146,000	145983.11	
02 Relocations										
02.01 Utility Relocations										
02.01.03 Cemetery, Utilities, & Structure										

** PROJECT OWNER SUMMARY - Level 5 (Rounded to 1000's) **

	QUANTITY	UOM	CONTRACT	CONTINGN	ESCALATN	PED	CM	TOTAL COST	UNIT COST	NOTES
02.01.03.17 Utilities Crossing Header Pipe										
11 Levees and Floodwalls										
11.01 Levees										
11.01.01 Clearing & Grubbing										
11.01.01.04 Clearing & Grubbing	1111.00	CY	1,000	0	0	0	0	2,000	1.53	
TOTAL Clearing & Grubbing	1111.00	CY	1,000	0	0	0	0	2,000	1.53	
11.01.02 Excavation										
11.01.02.05 Excavation	5778.00	CY	26,000	7,000	3,000	7,000	2,000	44,000	7.68	
TOTAL Excavation	5778.00	CY	26,000	7,000	3,000	7,000	2,000	44,000	7.68	
11.01.04 30" Dia RCP										
11.01.04.06 Purchase Pipe	2000.00	LF	101,000	25,000	10,000	26,000	10,000	172,000	86.12	
11.01.04.07 Unload Pipe	166.67	EA	3,000	1,000	0	1,000	0	4,000	26.81	
11.01.04.08 Place Pipe	2000.00	LF	76,000	19,000	8,000	20,000	7,000	129,000	64.69	
TOTAL 30" Dia RCP	2000.00	LF	179,000	45,000	18,000	47,000	17,000	306,000	153.05	
11.01.05 Relief Well System										
11.01.05.09 Sta 255+00 to 275+00										
11.01.05.09.32 Relief Wells Sta 255+00 to275+00	20.00	EA	569,000	142,000	58,000	149,000	54,000	972,000	48587.26	
TOTAL Sta 255+00 to 275+00	2000.00	LF	569,000	142,000	58,000	149,000	54,000	972,000	485.87	
TOTAL Relief Well System	20.00	EA	569,000	142,000	58,000	149,000	54,000	972,000	48587.26	
11.01.06 Manholes										
11.01.06.10 Excavation for Manholes	20.00	EA	7,000	2,000	1,000	2,000	1,000	12,000	604.45	
TOTAL Excavation for Manholes	20.00	EA	7,000	2,000	1,000	2,000	1,000	12,000	604.45	
11.01.06.11 Manholes										
11.01.06.11.01 Base Slab	33.80	CY	19,000	5,000	2,000	5,000	2,000	33,000	976.80	
11.01.06.11.03 1st Lift	119.40	CY	161,000	40,000	16,000	42,000	15,000	276,000	2308.81	
11.01.06.11.05 Elevated Slab	35.60	CY	37,000	9,000	4,000	10,000	4,000	64,000	1794.82	

** PROJECT OWNER SUMMARY - Level 5 (Rounded to 1000's) **

	QUANTITY	UOM	CONTRACT	CONTINGN	ESCALATN	PED	CM	TOTAL COST	UNIT COST	NOTES
11.01.06.11.07 Metals	20.00	EA	36,000	9,000	4,000	9,000	3,000	62,000	3085.15	
TOTAL Manholes	20.00	EA	254,000	64,000	26,000	66,000	24,000	434,000	21714.31	
11.01.06.12 Backfilling	20.00	EA	14,000	4,000	1,000	4,000	1,000	25,000	1235.56	
TOTAL Manholes	20.00	EA	276,000	69,000	28,000	72,000	26,000	471,000	23554.32	
11.01.07 Clay Backfill										
11.01.07.13 Clay Backfill	6143.53	BCY	38,000	10,000	4,000	10,000	4,000	65,000	10.58	
TOTAL Clay Backfill	5222.00	CCY	38,000	10,000	4,000	10,000	4,000	65,000	12.45	
11.01.08 Ramps										
11.01.08.14 Associated General Items										
11.01.11 Seeding & Mulching										
11.01.11.15 Seeding & Mulching	2.00	ACR	4,000	1,000	0	1,000	0	6,000	3150.72	
TOTAL Seeding & Mulching	2.00	ACR	4,000	1,000	0	1,000	0	6,000	3150.72	
TOTAL Levees	1.00	EA	1,093,000	273,000	111,000	285,000	103,000	1,866,000	1866317	
TOTAL Levees and Floodwalls	1.00	EA	1,093,000	273,000	111,000	285,000	103,000	1,866,000	1866317	
13 Pump Plant										
13.00 Pump Plant										
13.00.02 New Pump Plant										
13.00.02.16 New Pump Plant										
13.00.02.16.01 New Pump Plant	1.00	EA	2,700,000	675,000	273,000	705,000	256,000	4,609,000	4608805	
TOTAL New Pump Plant	1.00	EA	2,700,000	675,000	273,000	705,000	256,000	4,609,000	4608805	
TOTAL New Pump Plant	1.00	EA	2,700,000	675,000	273,000	705,000	256,000	4,609,000	4608805	
TOTAL Pump Plant	1.00	EA	2,700,000	675,000	273,000	705,000	256,000	4,609,000	4608805	
TOTAL Pump Plant	1.00	EA	2,700,000	675,000	273,000	705,000	256,000	4,609,000	4608805	
TOTAL Feasibility Estimate for:	1.00	EA	3,893,000	967,000	390,000	1,009,000	363,000	6,621,000	6621106	

** PROJECT INDIRECT SUMMARY - Feature (Rounded to 1000's) **

	QUANTITY	UOM	DIRECT	OVERHEAD	% OVRHD	PROFIT	BOND	TOTAL COST	UNIT COST
01 Lands and Damages	1.00	EA	100,000	0	0	0	0	100,000	99868.64
11 Levees and Floodwalls	1.00	EA	889,000	0	120,000	71,000	14,000	1,093,000	1093354
13 Pump Plant	1.00	EA	2,700,000	0	0	0	0	2,700,000	2700000
TOTAL Feasibility Estimate for:	1.00	EA	3,688,000	0	120,000	71,000	14,000	3,893,000	3893223
Contingency								967,000	
SUBTOTAL								4,860,000	
Escalation								390,000	
SUBTOTAL								5,250,000	
Planning, Engineering, & Design								1,009,000	
SUBTOTAL								6,259,000	
Construction Mangement								363,000	
TOTAL INCL OWNER COSTS								6,621,000	

** PROJECT INDIRECT SUMMARY - Level 5 (Rounded to 1000's) **

	QUANTITY	UOM	DIRECT	OVERHEAD	% OVRHD	PROFIT	BOND	TOTAL COST	UNIT COST
01 Lands and Damages									
01.23 Land Values									
01.23.01 Land Values									
01.23.01.01 Land Values									
01.23.01.01.01 Sta 258+00 to 274+00	1.00	EA	47,000	0	0	0	0	47,000	46530.00
TOTAL Land Values	1.00	EA	47,000	0	0	0	0	47,000	46530.00
01.23.01.02 Non-Federal Cost									
01.23.01.02.08 NFS Costs	1.00	EA	10,000	0	0	0	0	10,000	10400.00
TOTAL Non-Federal Cost	1.00	EA	10,000	0	0	0	0	10,000	10400.00
01.23.01.03 Federal Cost									
01.23.01.03.09 Federal Cost - Pre-Constructin	1.00	EA	4,000	0	0	0	0	4,000	3962.60
01.23.01.03.11 Federal Cost - Post Construction	1.00	EA	2,000	0	0	0	0	2,000	1868.00
TOTAL Federal Cost	1.00	EA	6,000	0	0	0	0	6,000	5830.60
01.23.01.04 Utilities Crossing Header Pipe									
01.23.01.04.01 8" Water Line	100.00	LF	7,000	0	0	0	0	7,000	74.22
01.23.01.04.02 8" Water Line	100.00	LF	7,000	0	0	0	0	7,000	74.22
01.23.01.04.03 8" Water Line	100.00	LF	7,000	0	0	0	0	7,000	74.22
01.23.01.04.04 8" Water Line	100.00	LF	7,000	0	0	0	0	7,000	74.22
01.23.01.04.05 8" Water Line	100.00	LF	7,000	0	0	0	0	7,000	74.22
TOTAL Utilities Crossing Header Pipe	1.00	EA	37,000	0	0	0	0	37,000	37108.04
TOTAL Land Values	1.00	EA	100,000	0	0	0	0	100,000	99868.64
TOTAL Land Values	1.00	EA	100,000	0	0	0	0	100,000	99868.64
TOTAL Lands and Damages	1.00	EA	100,000	0	0	0	0	100,000	99868.64
02 Relocations									
02.01 Utility Relocations									
02.01.03 Cemetery, Utilities, & Structure									

** PROJECT INDIRECT SUMMARY - Level 5 (Rounded to 1000's) **

	QUANTITY	UOM	DIRECT	OVERHEAD	% OVRHD	PROFIT	BOND	TOTAL COST	UNIT COST
02.01.03.17 Utilities Crossing Header Pipe									
11 Levees and Floodwalls									
11.01 Levees									
11.01.01 Clearing & Grubbing									
11.01.01.04 Clearing & Grubbing	1111.00	CY	1,000	0	0	0	0	1,000	0.90
TOTAL Clearing & Grubbing	1111.00	CY	1,000	0	0	0	0	1,000	0.90
11.01.02 Excavation									
11.01.02.05 Excavation	5778.00	CY	21,000	0	3,000	2,000	0	26,000	4.50
TOTAL Excavation	5778.00	CY	21,000	0	3,000	2,000	0	26,000	4.50
11.01.04 30" Dia RCP									
11.01.04.06 Purchase Pipe	2000.00	LF	82,000	0	11,000	7,000	1,000	101,000	50.45
11.01.04.07 Unload Pipe	166.67	EA	2,000	0	0	0	0	3,000	15.71
11.01.04.08 Place Pipe	2000.00	LF	62,000	0	8,000	5,000	1,000	76,000	37.90
TOTAL 30" Dia RCP	2000.00	LF	146,000	0	20,000	12,000	2,000	179,000	89.66
11.01.05 Relief Well System									
11.01.05.09 Sta 255+00 to 275+00									
11.01.05.09.32 Relief Wells Sta 255+00 to275+00	20.00	EA	463,000	0	62,000	37,000	7,000	569,000	28464.12
TOTAL Sta 255+00 to 275+00	2000.00	LF	463,000	0	62,000	37,000	7,000	569,000	284.64
TOTAL Relief Well System	20.00	EA	463,000	0	62,000	37,000	7,000	569,000	28464.12
11.01.06 Manholes									
11.01.06.10 Excavation for Manholes	20.00	EA	6,000	0	1,000	0	0	7,000	354.11
TOTAL Excavation for Manholes	20.00	EA	6,000	0	1,000	0	0	7,000	354.11
11.01.06.11 Manholes									
11.01.06.11.01 Base Slab	33.80	CY	16,000	0	2,000	1,000	0	19,000	572.24
11.01.06.11.03 1st Lift	119.40	CY	131,000	0	18,000	10,000	2,000	161,000	1352.58
11.01.06.11.05 Elevated Slab	35.60	CY	30,000	0	4,000	2,000	0	37,000	1051.47

** PROJECT INDIRECT SUMMARY - Level 5 (Rounded to 1000's) **

	QUANTITY	UOM	DIRECT	OVERHEAD	% OVRHD	PROFIT	BOND	TOTAL COST	UNIT COST
11.01.06.11.07 Metals	20.00	EA	29,000	0	4,000	2,000	0	36,000	1807.39
TOTAL Manholes	20.00	EA	207,000	0	28,000	16,000	3,000	254,000	12721.01
11.01.06.12 Backfilling	20.00	EA	12,000	0	2,000	1,000	0	14,000	723.84
TOTAL Manholes	20.00	EA	224,000	0	30,000	18,000	4,000	276,000	13798.95
11.01.07 Clay Backfill									
11.01.07.13 Clay Backfill	6143.53	BCY	31,000	0	4,000	2,000	0	38,000	6.20
TOTAL Clay Backfill	5222.00	CCY	31,000	0	4,000	2,000	0	38,000	7.29
11.01.08 Ramps									
11.01.08.14 Associated General Items									
11.01.11 Seeding & Mulching									
11.01.11.15 Seeding & Mulching	2.00	ACR	3,000	0	0	0	0	4,000	1845.80
TOTAL Seeding & Mulching	2.00	ACR	3,000	0	0	0	0	4,000	1845.80
TOTAL Levees	1.00	EA	889,000	0	120,000	71,000	14,000	1,093,000	1093354
TOTAL Levees and Floodwalls	1.00	EA	889,000	0	120,000	71,000	14,000	1,093,000	1093354
13 Pump Plant									
13.00 Pump Plant									
13.00.02 New Pump Plant									
13.00.02.16 New Pump Plant									
13.00.02.16.01 New Pump Plant	1.00	EA	2,700,000	0	0	0	0	2,700,000	2700000
TOTAL New Pump Plant	1.00	EA	2,700,000	0	0	0	0	2,700,000	2700000
TOTAL New Pump Plant	1.00	EA	2,700,000	0	0	0	0	2,700,000	2700000
TOTAL Pump Plant	1.00	EA	2,700,000	0	0	0	0	2,700,000	2700000
TOTAL Pump Plant	1.00	EA	2,700,000	0	0	0	0	2,700,000	2700000
TOTAL Feasibility Estimate for:	1.00	EA	3,688,000	0	120,000	71,000	14,000	3,893,000	3893223
Contingency								967,000	

** PROJECT INDIRECT SUMMARY - Level 5 (Rounded to 1000's) **

	QUANTITY	UOM	DIRECT	OVERHEAD	% OVRHD	PROFIT	BOND	TOTAL COST	UNIT COST
SUBTOTAL								4,860,000	
Escalation								390,000	
SUBTOTAL								5,250,000	
Planning, Engineering, & Design								1,009,000	
SUBTOTAL								6,259,000	
Construction Mangement								363,000	
TOTAL INCL OWNER COSTS								6,621,000	