



**US Army Corps
of Engineers**
Memphis District
Mississippi River Commission

EASTERN ARKANSAS REGION COMPREHENSIVE STUDY

GRAND PRAIRIE REGION AND BAYOU METO BASIN, ARKANSAS PROJECT

GRAND PRAIRIE AREA DEMONSTRATION PROJECT

GENERAL REEVALUATION REPORT

VOLUME 7

APPENDIX B
ENGINEERING INVESTIGATIONS &
ANALYSES

SECTION VI - COST ENGINEERING REPORT

JULY 1998

GRAND PRAIRIE AREA DEMONSTRATION PROJECT

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DEPARTMENT OF THE ARMY
MEMPHIS DISTRICT, CORPS OF ENGINEERS
167 N MAIN STREET, RM B-202
MEMPHIS, TENNESSEE 38103-1894

BASELINE COST ESTIMATE

FOR

EASTERN ARKANSAS REGIONAL COMPREHENSIVE STUDY

GRAND PRAIRIE DEMONSTRATION PROJECT

ESTIMATE PREPARATION DATE Jan 29, 1997

ESTIMATE APPROVED BY

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James G. Moore DATE: 1-29-97
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APPENDIX B - SECTION VI
EASTERN ARKANSAS REGION COMPREHENSIVE STUDY
GRAND PRAIRIE AREA DEMONSTRATION PROJECT
SUBJECT: COST ENGINEERING REPORT

A. General

The Eastern Arkansas Region Comprehensive Study, Grand Prairie Demonstration Area Project is located in central eastern Arkansas in the vicinity of Stuttgart. The project consists of 14 construction items and is primarily for providing water for irrigation for agricultural purposes. Item 1 is a 1640 CFS Pump Station which will supply the project with water from the White River. Item 2 is a supply contract for purchase of the pumps for the 1640 CFS Pump Station. Items 3-14 consists of construction of canals with various bottom widths, pipelines, a 100 CFS pump station, 4 major gated structures, and construction of weirs in the existing streams. The main canals have pump structures and turnout structures for control of the water supply to smaller canals and pipelines. The supply and monitoring of the water resources will be controlled by an electronic instrumentation system. The road crossings will consist of reinforced concrete pipe, reinforced box culverts, or precast concrete bridges. All canal crossings which intersects another canal or natural stream will be constructed with an inverted siphon of reinforced concrete pipe.

B. Items of Work:

The project consists of fourteen construction items and are as follows:

1. Item 1

A 1640 CFS Pump Station which is connected to the White River by approximately 2,000 LF of inlet channel. Discharge header pipe connects the Pump Station to the Canal 1000.

2. Item 2

Supply contract for the purchase of the pumps for the 1640 CFS Pump Station.

3. Item 3

Construction of new canals 1000, 1500 and 1520 and pipelines 1300, 1400, 1500, and 1520; and construction of weirs and/or outlets on existing streams 1300, 1400, 1510.

4. Item 4

Construction of new canals 2000A, 2000B, a portion of canal 3000, and pipeline 2000.

5. Item 5

Construction of new canals 2200, 2300, 2400A, 2400B, and 2500, and pipelines 2100, 2200, 2210, 2230, 2240, 2300, 2410, and 2500; and construction of weirs and/or outlets on existing streams 2100, 2210, 2211, 2220, 2230, 2240, 2250, 2260, and 2410.

6. Item 6

Construction of new canals 3100, 3110, 3300, a portion of canal 3000; pipelines 3000, 3110, 3300, and 3400; a mechanical gated structure in canal 3000; and construction of weirs and/or outlets on existing stream 3110.

7. Item 7

Construction of new canals 3200, 3220; pipelines 3200, 3221, 3261; the 100 CFS Pump Station in canal 3200; and construction of weirs and/or outlets on existing streams 3200, 3210, 3221, 3230, 3240, 3250, 3260, 3261.

8. Item 8

Construction of new canals 3500, 3510, 40-50, 4000; pipelines 3500, 4000A, 4000B; a mechanical gated structure in canal 4000; and construction of weirs and/or outlets on existing stream 3510.

9. Item 9

Construction of new canals 4100, 4200, 4400A, 4400B, 4500A, 4500B, 4520, 5000, 5100, 5200A, 5200B; pipelines 4100, 4200, 4300, 4400A, 4400B, 4500, 4510, 4520, 5200; a mechanical gated structure for canal 5000; and construction of weirs and/or outlets on existing stream 5100.

10. Item 10

Construction of new canals 5300A, 5300B, 5310, 5400; pipelines 5300A, 5300B, 5310, 5311P and 5400; and construction of weirs and/or outlets on existing stream 5311.

11. Item 11

Construction of new canals 5500, 6000A, 6300, 6400; pipelines 5500, 5510, 5520, 5530, 6000, 6100, 6300, 6310, 6500; a mechanical gated structure in canal 6000; and construction of weirs and/or outlets on existing streams 5510, 5520, 5530, 6100, 6300, 6310, 6410, 6500.

12. Item 12

Construction of new canals 6000B, 6600; pipelines 6600; and construction of weirs and/or outlets on existing streams 6610.

13. Item 13

Construction of new canals 6200A (Sta 0+00-743+56), 6200B (Sta 743+56-1160+54); pipelines 6200; and construction of weirs and/or outlets on existing stream 6210.

14. Item 14

Construction of new canals 6205, 6215, 6216, 6230, pipelines 6100, 6230; and construction of weirs and/or outlets on existing stream 6100.

C. Cost Estimate

01 - LANDS AND DAMAGES

The lands and damages cost provides for the necessary rights-of-way needed to construct the recommended project. The cost estimate includes the project land costs, severance damages and acquisition costs. The costs for lands and damages are summarized for each item of construction and included in the Project Costs Summary table for the Baseline Cost Estimate. These costs were provided by Real Estate Division

02 - RELOCATIONS

These costs include alterations, and relocations of public roads and bridges, railroads, and utilities due to construction of the project. The costs for utilities includes alterations for all powerlines, gaslines, telephone lines, and waterlines. The costs for roads includes the construction of 34 new bridges. The costs of relocations for each item of construction are summarized in the Project Costs Summary Table for the Baseline Cost Estimate.

09 - CHANNELS AND CANALS

The costs for this feature of work consists of the construction of the new canals, pipelines, and weirs in existing streams, necessary to provide the water resources for construction items 3-14. The construction of the canals include clearing and grubbing, excavation, embankment, box culverts, reinforced concrete pipe with flared end sections, PVC pipe, structures with lift gates for turnouts, asphalt and gravel base, riprap and filter gravel, fertilizing and seeding, instrumentation, and environmental protection. The unit costs for the clearing and grubbing is based on clearing the right-of-way needed for construction of each canal. The clearing in most of the construction area consists of cultivated fields which will require sweeping with a bulldozer. The costs for excavation includes excavation of the canals to the required design grade and section and disposal of excess excavated material. The embankment material will be obtained from the required excavations. In areas where the required excavations is not sufficient to construct the embankment, the material will be either hauled from adjacent areas where there is an excess

of excavated material or the canal will be enlarged over the required section to obtain needed embankment materials. Therefore, the costs of embankment for each canal varies with the amount and distance of embankment to be hauled, the amount of embankment which can be placed direct, and the amount of excavation required for embankment. The costs for embankment also includes placing, spreading, and compacting. Reinforced concrete box culverts will be used at crossings for the State Highways and where it is feasible on the county roads. The other crossings will be constructed with a precast concrete bridge or with reinforced concrete pipe. Reinforced concrete pipe will also be used for the inverted siphons where new canals intersect existing ditches or other canals. The size and length of the reinforced pipe with flared end sections varies for each canal. The unit costs for each size pipe varies with the length, the depth of cut, and the amount of bedding material. The method for placing the pipe is approximately the same for each pipe. The smaller pipe will be placed with a front-end-loader, backhoe. The larger pipe will be placed with a hydraulic excavator or dragline. The material costs for the pipe and flared end sections are based on quotations from local distributor.

The asphalt and gravel base are used for repair at state road crossings. Aggregate surfacing will be used on county and local road crossings. A higher unit costs for gravel and asphalt than normal was used due to small quantity to be placed at each location. All surfaces of embankment and other construction areas will be fertilized and seeded with permanent type grasses. The costs will be based on a quote from turfing subcontractor. The placement of riprap and filter gravel in the weirs and other locations will be performed with dragline and bucket with laborers. Material prices are based on current quotations from local distributor. The environmental protection costs include construction of erosion and sediment control features in accordance with the Storm Water Pollution Prevention Plan. The costs for the instrumentation includes setup and installation of an electronic control system for the turnouts and pumps. The instrumentation costs for each pump or turnout structure was determined by dividing the costs for the entire system by the total number of pump and turnout structures. The costs for the instrumentation system were provided the Mechanical and Electrical Section.

The pipelines will be constructed using either plastic pipe or reinforced concrete pipe. The excavation for the pipeline will be performed with a trencher comparable for the size of pipe installed. The pipe will be placed using laborers and front-end-loader backhoe for the smaller pipe and a hydraulic excavator for the larger pipe.

The quantities for reinforced box culverts, asphalt and gravel base, reinforced concrete pipe, flared end sections,

the number and costs of pumps, and the turnouts were provided by the Structural, Mechanical and Electrical Section. The quantities for the clearing and grubbing, excavation, embankment, reinforced concrete pipe and PVC pipe for pipelines, fertilizing and seeding, filter gravel, riprap, and environmental protection were furnished by the General Engineering Section.

The total costs for each construction item included in the Cost Summary Table for the Baseline Cost Estimate includes the total costs for all canals and pipelines for that item. The unit costs for each cost item under each canal and pipeline were developed from the detailed cost items using M-CACES software.

The total construction cost for Channels and Canals is \$93,079,481 which is approximately 46 percent of the Total Project Costs. Approximately 23 percent of the costs for Channels and Canals is for the excavation and embankment for the canals, 27.7 percent for the pipelines and the remaining 49.3 percent in other features for the canals.

13 - 1640 CFS PUMP STATION

The structural costs for the main pump station was based on unit prices for projects of similar nature. The quantities for the pump station and the costs for pumps and other mechanical and electrical features were provided by Mechanical, Electrical and Structures Section. The costs for the features of the pump station will be developed from the detailed cost items using M-CACES software. The material prices for the cost items are be based on quotes from local suppliers.

The estimated construction costs for the 1640 Pump Station, including the pumps, is approximately \$37,799,423 which is 18.7 percent of the Total Project Costs.

15 - 100 CFS PUMP STATION

The 100 CFS Pump Station is located in the Canal 3200 of Reach 7. The structural costs for the pump station was based on unit prices for projects of similar nature. The quantities for the pump station and the costs for pumps and other mechanical and electrical features were provided by Mechanical, Electrical and Structures Section. The costs for the features of the pump station will be developed from the detailed cost items using M-CACES software. The material prices for the cost items will be based on quotes from local suppliers.

15 - DIVERSION STRUCTURES

There are 4 mechanical gated structures which vary in size and are located in canals 3,000, 4000, 5000, and 6000. The costs for these structures were based on unit prices for projects of similar nature. The quantities for the structure

was calculated by Mechanical, Electrical and Structures Section based on the preliminary design. The costs for the pumps, and mechanical and electrical features were also provided.

For the Baseline Cost Estimate, the unit costs for these structures was developed from the detailed cost items using M-CACES software. The material prices for the cost items will be based on quotes from local suppliers.

18 - CULTURAL RESOURCES

The costs for this item includes contract archeological testing and mitigation due to environmental impacts. These costs were provided by the Environmental Branch. These costs are included in the Cost Summary Table for the Baseline Cost Estimate.

18 - MITIGATION

The costs for this item is for the wetland losses. The costs include planting 243 acres of agricultural land in bottomland hardwoods and 193 acres in upland hardwoods. These costs are included in the Cost Summary Table for the Baseline Cost Estimate.

30 - PLANNING, ENGINEERING, AND DESIGN

The costs for this item were provided by each office in Planning and Engineering Division involved in the project. The costs are based estimated time required to complete the planning, engineering and design. The costs for this feature will be included in the Cost Summary Table for the Baseline Cost Estimate.

31 - CONSTRUCTION MANAGEMENT

The costs for this item was based on 6 percent of the construction costs for the channels and canals, structures, and relocations. This percent was provided by the Construction Division.

The costs for this feature will be included Cost Summary Table for the Baseline Cost Estimate.

59 - CONTINGENCIES

The contingencies for Construction Items 3-14 were calculated at 15 percent of the total Channels and Canals, Relocations, Structures and Construction Management. The contingencies for Item 1, 1640 CFS Pump Station was calculated at 6 percent and for Item 2, Purchase of the pumps at 5 percent. These percentages were considered reasonable due to the magnitude of the project and the level of detail of design. These will be included in the Cost Summary Table for the Baseline Cost Estimate.

**EASTERN ARKANSAS REGION COMPREHENSIVE STUDY
GRAND PRAIRIE AREA DEMONSTRATION PROJECT
COST SUMMARY TABLE**

Acc.	Description	REACH 1	REACH 2	REACH 3	REACH 4	REACH 5A	REACH 5B	REACH 6	REACH 7	REACH 8	REACH 9	REACH 10	REACH 11	REACH 12	REACH 13	REACH 14	TOTAL
01	Lands & Damages																
	Non-Federal	\$247,000		\$532,000	\$570,000	\$903,000	\$122,000	\$790,000	\$663,000	\$915,000	\$904,000	\$461,000	\$1,537,000	\$750,000	\$826,000	\$874,000	\$10,094,000
	Federal	\$11,000		\$37,000	\$29,000	\$93,000	\$24,000	\$55,000	\$82,000	\$54,000	\$61,000	\$49,000	\$135,000	\$35,000	\$27,000	\$123,000	\$815,000
01	Total Lands and Damages	\$258,000		\$569,000	\$599,000	\$996,000	\$146,000	\$845,000	\$745,000	\$969,000	\$965,000	\$510,000	\$1,672,000	\$785,000	\$853,000	\$997,000	\$10,909,000
02	Relocations																
	Roads			\$270,000	\$2,901,560			\$250,000		\$1,589,560	\$1,175,000		\$1,075,000	\$280,280			\$7,541,400
	Railroads																
	Utilities			\$278,000	\$682,000	\$193,000		\$181,000	\$323,000	\$186,000	\$221,000	\$381,000	\$952,000	\$468,000	\$508,000	\$12,000	\$4,385,000
02	Total Relocations			\$548,000	\$3,583,560	\$193,000		\$431,000	\$323,000	\$1,775,560	\$1,396,000	\$381,000	\$2,027,000	\$748,280	\$508,000	\$12,000	\$11,926,400
03	Channels and Canals			\$3,895,387	\$5,008,111	\$8,257,602	\$1,173,153	\$8,389,967	\$3,688,696	\$7,971,360	\$12,796,262	\$8,022,896	\$13,295,531	\$4,474,994	\$9,149,297	\$6,956,225	\$93,079,481
13	Pumping Plant	\$28,311,887	\$9,487,536														\$37,799,423
15	Diversion Structures							\$896,767	\$692,906	\$896,767	\$896,767		\$763,728				\$4,146,935
18	Cultural Resources	\$20,000		\$200,000	\$30,000	\$170,000	\$30,000	\$180,000	\$90,000	\$40,000	\$170,000	\$90,000	\$80,000		\$50,000	\$480,000	\$1,620,000
18	Mitigation	\$28,100		\$9,650	\$500	\$14,100	\$2,050	\$12,900	\$3,250	\$2,900	\$3,850	\$2,350	\$14,800	\$14,450		\$14,200	\$123,100
30	Planning, Engineering, Design	\$973,784		\$988,176	\$1,404,196	\$1,147,720	\$167,897	\$1,259,888	\$726,880	\$745,808	\$1,329,440	\$672,112	\$1,676,304	\$847,952	\$1,097,488	\$810,320	\$13,847,965
31	Construction Management	\$1,698,713	\$569,252	\$266,603	\$515,500	\$507,036	\$70,389	\$583,064	\$282,276	\$638,621	\$905,342	\$504,234	\$965,176	\$313,396	\$579,438	\$418,094	\$8,817,134
59	Contingencies	\$1,800,636	\$502,839	\$706,499	\$1,366,076	\$1,343,646	\$186,531	\$1,545,120	\$748,032	\$1,692,346	\$2,399,156	\$1,336,219	\$2,557,715	\$830,501	\$1,535,510	\$1,107,948	\$19,658,773
	TOTAL PROJECT COSTS	\$33,091,120	\$10,559,528	\$7,183,315	\$12,506,943	\$12,629,104	\$1,776,021	\$14,143,706	\$7,300,040	\$14,732,362	\$20,861,816	\$11,508,811	\$23,052,254	\$8,014,573	\$13,772,733	\$10,795,786	\$201,928,212
	Design Costs for Operating System included in Reach 1 PED																
	Construction Management is 6% of the Channels and Canals, Relocations, and Structures																
	Contingencies for Item 1 is 6% of Channels and Canals, Relocations, Structures and Construction Management																
	Contingencies for Item 2 is 5% of Channels and Canals, Relocations, Structures and Construction Management																
	Contingencies for Items 3-14 is 15% of Channels and Canals, Relocations, Structures and Construction Management																

Tue 28 Jan 1997
Eff. Date 01/29/97

U.S. Army Corps of Engineers
PROJECT CNTR02: EASTERN ARKANSAS REGIONAL STUDY - GRAND PRAIRIE DEMONSTRATION
GRAND PRAIRIE PUMP STATION

TIME 10:52:45
TITLE PAGE 1

EASTERN ARKANSAS REGIONAL STUDY
GRAND PRAIRIE DEMONSTRATION
PROJECT
ITEM NO. 1
GRAND PRAIRIE PUMP STATION

Designed By:
Estimated By: JAMES MOORE

Prepared By:

Preparation Date: 01/29/97
Effective Date of Pricing: 01/29/97

Sales Tax: 0.00%

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PROJECT NOTES

U.S. Army Corps of Engineers
PROJECT CNTR02: EASTERN ARKANSAS REGIONAL STUDY - GRAND PRAIRIE DEMONSTRATION
GRAND PRAIRIE PUMP STATION

TIME 10:52:45
TITLE PAGE 2

The work covered under this contract consists of construction of the Grand Prairie Pump Station which has a capacity of 1640 CFS.

The pump station will be connected to the White River by means of a inlet channel approximately 2,000 long. The Canal 1000 will be connected to the Pump Station by means of 126" discharge pipe. Canal 1000 is approximately 4,000 ft from the Pump Station.

The work shall consists of clearing, structural and inlet channel excavation, dewatering, random and granular backfill, reinforced concrete earth, cast-in-place concrete, discharge pipe and header pipe, mechanical and electrical features, superstructure, and other miscellaneous features.

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U.S. Army Corps of Engineers
PROJECT CNTR02: EASTERN ARKANSAS REGIONAL STUDY - GRAND PRAIRIE DEMONSTRATION
GRAND PRAIRIE PUMP STATION
** PROJECT OWNER SUMMARY - Facility **

TIME 10:52:45

SUMMARY PAGE 1

		QUANTITY	UOM	CONTRACT	ESCALATN	CONTINGN	SIOSH	TOTAL COST	UNIT COST
01 CONTR NO 2 1640 CFS PUMP STATION									
01.01	MOBILIZATION AND DEMOBILIZATION	1.00	JOB	59,869	0	0	0	59,869	59868.51
01.02	CLEARING AND GRUBBING	1.00	JOB	20,626	0	0	0	20,626	20625.55
01.03	STRUCTURAL EXCAVATION	105000.00	CY	220,109	0	0	0	220,109	2.10
01.04	CHANNEL EXCAVATION	501880.00	CY	1,129,837	0	0	0	1,129,837	2.25
01.05	COFFERDAM	1.00	JOB	115,479	0	0	0	115,479	115479.17
01.06	DEWATERING	1.00	JOB	598,685	0	0	0	598,685	598685.06
01.07	RANDOM BACKFILL	422880.00	CY	137,682	0	0	0	137,682	0.33
01.08	GRANULAR BACKFILL	17500.00	CY	470,322	0	0	0	470,322	26.88
01.09	24" REINFORCED CONCRETE PIPE	600.00	LF	32,329	0	0	0	32,329	53.88
01.10	96" REINFORCED CONCRETE PIPE	500.00	LF	269,408	0	0	0	269,408	538.82
01.11	REINFORCED EARTH	13760.00	SF	823,791	0	0	0	823,791	59.87
01.12	CAST-IN-PLACE CONCRETE	11800.00	CY	3,532,242	0	0	0	3,532,242	299.34
01.13	PUMPING PLANT SUPERSTRUCTURE	1.00	JOB	958,284	0	0	0	958,284	958283.81
01.14	42" STEEL DISCHARGE PIPE	297.00	LF	88,905	0	0	0	88,905	299.34
01.15	84" STEEL DISCHARGE PIPE	519.00	LF	217,502	0	0	0	217,502	419.08
01.16	120" STEEL DISCHARGE HEADER	17600.00	LF	15,552,401	0	0	0	15,552,401	883.66
01.17	42" DRESSER COUPLING	8.00	EA	6,849	0	0	0	6,849	856.12
01.18	COMBINATION AIR RELEASE VALVES	10.00	EA	84,235	0	0	0	84,235	8423.50
01.19	PLUMBING	1.00	JOB	61,665	0	0	0	61,665	61664.56
01.20	9.5'X8' SLUICE GATES W/OPTRS	2.00	EA	155,716	0	0	0	155,716	77857.80
01.21	16'X 8' SLUICE GATES W/ OPERATORS	4.00	EA	468,804	0	0	0	468,804	117200.98
01.22	TRASH RACKS	6.00	EA	505,532	0	0	0	505,532	84255.34
01.23	OVERHEAD CRANE	1.00	JOB	239,474	0	0	0	239,474	239474.03
01.24	SUMP DEWATERING SYSTEM	1.00	JOB	65,451	0	0	0	65,451	65450.65
01.25	COMPRESSED AIR SYSTEM	1.00	JOB	96,355	0	0	0	96,355	96354.77
01.26	POTABLE WATER SYSTEM	1.00	JOB	59,869	0	0	0	59,869	59868.51
01.27	HEAT/AIR CONDITIONING SYSTEM	1.00	JOB	15,219	0	0	0	15,219	15218.57
01.28	MOBILE CRANE	1.00	JOB	299,343	0	0	0	299,343	299342.53
01.29	SEWAGE DISPOSAL	1.00	JOB	8,980	0	0	0	8,980	8980.28
01.30	FLOOR DRAINAGE SYSTEM	1.00	JOB	98,177	0	0	0	98,177	98177.17
01.31	ELEVATOR/HYDRAULIC SYTEM	1.00	JOB	47,895	0	0	0	47,895	47894.81
01.32	VENTILATION SYSTEM	1.00	JOB	31,017	0	0	0	31,017	31016.68
01.33	MOTORIZED ROOF VENTILATORS	12.00	EA	45,505	0	0	0	45,505	3792.07
01.34	KITCHEN EQUIPMENT	1.00	JOB	3,084	0	0	0	3,084	3084.43
01.35	ELECTRICAL SYSTEM	1.00	JOB	1,700,266	0	0	0	1,700,266	1700266
01.36	ACCESS ROAD	1.00	JOB	90,985	0	0	0	90,985	90984.51
TOTAL CONTR NO 2 1640 CFS PUMP STATION		1.00	JOB	28,311,887	0	0	0	28,311,887	28311887
TOTAL EASTERN ARKANSAS REGIONAL STUDY		1.00	EA	28,311,887	0	0	0	28,311,887	28311887

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U.S. Army Corps of Engineers
PROJECT CNTRO2: EASTERN ARKANSAS REGIONAL STUDY - GRAND PRAIRIE DEMONSTRATION
GRAND PRAIRIE PUMP STATION
** PROJECT INDIRECT SUMMARY - Facility **

TIME 10:52:45
SUMMARY PAGE 2

		QUANTITY UOM	DIRECT	OVERHEAD	HOME OFC	PROFIT	BOND	TOTAL COST	UNIT COST
01 CONTR NO 2 1640 CFS PUMP STATION									
01.01	MOBILIZATION AND DEMOBILIZATION	1.00 JOB	50,000	2,500	2,625	3,859	885	59,869	59868.51
01.02	CLEARING AND GRUBBING	1.00 JOB	17,226	861	904	1,329	305	20,626	20625.55
01.03	STRUCTURAL EXCAVATION	105000.00 CY	183,827	9,191	9,651	14,187	3,253	220,109	2.10
01.04	CHANNEL EXCAVATION	501880.00 CY	943,599	47,180	49,539	72,822	16,697	1,129,837	2.25
01.05	COFFERDAM	1.00 JOB	96,444	4,822	5,063	7,443	1,707	115,479	115479.17
01.06	DEWATERING	1.00 JOB	500,000	25,000	26,250	38,588	8,848	598,685	598685.06
01.07	RANDOM BACKFILL	422880.00 CY	114,987	5,749	6,037	8,874	2,035	137,682	0.33
01.08	GRANULAR BACKFILL	17500.00 CY	392,795	19,640	20,622	30,314	6,951	470,322	26.88
01.09	24" REINFORCED CONCRETE PIPE	600.00 LF	27,000	1,350	1,418	2,084	478	32,329	53.88
01.10	96" REINFORCED CONCRETE PIPE	500.00 LF	225,000	11,250	11,813	17,364	3,981	269,408	538.82
01.11	REINFORCED EARTH	13760.00 SF	688,000	34,400	36,120	53,096	12,174	823,791	59.87
01.12	CAST-IN-PLACE CONCRETE	11800.00 CY	2,950,000	147,500	154,875	227,666	52,201	3,532,242	299.34
01.13	PUMPING PLANT SUPERSTRUCTURE	1.00 JOB	800,324	40,016	42,017	61,765	14,162	958,284	958283.81
01.14	42" STEEL DISCHARGE PIPE	297.00 LF	74,250	3,713	3,898	5,730	1,314	88,905	299.34
01.15	84" STEEL DISCHARGE PIPE	519.00 LF	181,650	9,083	9,537	14,019	3,214	217,502	419.08
01.16	120" STEEL DISCHARGE HEADER	17600.00 LF	12,988,800	649,440	681,912	1,002,411	229,838	15,552,401	883.66
01.17	42" DRESSER COUPLING	8.00 EA	5,720	286	300	441	101	6,849	856.12
01.18	COMBINATION AIR RELEASE VALVES	10.00 EA	70,350	3,518	3,693	5,429	1,245	84,235	8423.50
01.19	PLUMBING	1.00 JOB	51,500	2,575	2,704	3,975	911	61,665	61664.56
01.20	9.5'X8' SLUICE GATES W/OPTRS	2.00 EA	130,048	6,502	6,828	10,036	2,301	155,716	77857.80
01.21	16'X 8' SLUICE GATES W/ OPERATORS	4.00 EA	391,528	19,576	20,555	30,216	6,928	468,804	117200.98
01.22	TRASH RACKS	6.00 EA	422,202	21,110	22,166	32,583	7,471	505,532	84255.34
01.23	OVERHEAD CRANE	1.00 JOB	200,000	10,000	10,500	15,435	3,539	239,474	239474.03
01.24	SUMP DEWATERING SYSTEM	1.00 JOB	54,662	2,733	2,870	4,219	967	65,451	65450.65
01.25	COMPRESSED AIR SYSTEM	1.00 JOB	80,472	4,024	4,225	6,210	1,424	96,355	96354.77
01.26	POTABLE WATER SYSTEM	1.00 JOB	50,000	2,500	2,625	3,859	885	59,869	59868.51
01.27	HEAT/AIR CONDITIONING SYSTEM	1.00 JOB	12,710	636	667	981	225	15,219	15218.57
01.28	MOBILE CRANE	1.00 JOB	250,000	12,500	13,125	19,294	4,424	299,343	299342.53
01.29	SEWAGE DISPOSAL	1.00 JOB	7,500	375	394	579	133	8,980	8980.28
01.30	FLOOR DRAINAGE SYSTEM	1.00 JOB	81,994	4,100	4,305	6,328	1,451	98,177	98177.17
01.31	ELAVATOR/HYDRAULIC SYTEM	1.00 JOB	40,000	2,000	2,100	3,087	708	47,895	47894.81
01.32	VENTILATION SYSTEM	1.00 JOB	25,904	1,295	1,360	1,999	458	31,017	31016.68
01.33	MOTORIZED ROOF VENTILATORS	12.00 EA	38,004	1,900	1,995	2,933	672	45,505	3792.07
01.34	KITCHEN EQUIPMENT	1.00 JOB	2,576	129	135	199	46	3,084	3084.43
01.35	ELECTRICAL SYSTEM	1.00 JOB	1,420,000	71,000	74,550	109,589	25,127	1,700,266	1700266
01.36	ACCESS ROAD	1.00 JOB	75,987	3,799	3,989	5,864	1,345	90,985	90984.51
TOTAL CONTR NO 2 1640 CFS PUMP STATION		1.00 JOB	23,645,059	1,182,253	1,241,366	1,824,807	418,402	28,311,887	28311887
TOTAL EASTERN ARKANSAS REGIONAL STUDY		1.00 EA	23,645,059	1,182,253	1,241,366	1,824,807	418,402	28,311,887	28311887

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U.S. Army Corps of Engineers
PROJECT CNTR02: EASTERN ARKANSAS REGIONAL STUDY - GRAND PRAIRIE DEMONSTRATION
GRAND PRAIRIE PUMP STATION
** PROJECT DIRECT SUMMARY - Facility **

TIME 10:52:45

SUMMARY PAGE 3

		QUANTITY	UOM	MANHRS	LABOR	EQUIPMNT	MATERIAL	OTHER	TOTAL COST	UNIT COST
01 CONTR NO 2 1640 CFS PUMP STATION										
01.01	MOBILIZATION AND DEMOBILIZATION	1.00	JOB	0	0	0	50,000	0	50,000	50000.00
01.02	CLEARING AND GRUBBING	1.00	JOB	0	3,693	13,533	0	0	17,226	17225.71
01.03	STRUCTURAL EXCAVATION	105000.00	CY	0	49,410	134,417	0	0	183,827	1.75
01.04	CHANNEL EXCAVATION	501880.00	CY	0	178,329	765,270	0	0	943,599	1.88
01.05	COFFERDAM	1.00	JOB	0	28,042	68,402	0	0	96,444	96444.00
01.06	DEWATERING	1.00	JOB	0	0	0	500,000	0	500,000	500000.00
01.07	RANDOM BACKFILL	422880.00	CY	0	34,831	80,156	0	0	114,987	0.27
01.08	GRANULAR BACKFILL	17500.00	CY	0	26,641	35,398	330,756	0	392,795	22.45
01.09	24" REINFORCED CONCRETE PIPE	600.00	LF	0	0	0	27,000	0	27,000	45.00
01.10	96" REINFORCED CONCRETE PIPE	500.00	LF	0	0	0	225,000	0	225,000	450.00
01.11	REINFORCED EARTH	13760.00	SF	0	0	0	688,000	0	688,000	50.00
01.12	CAST-IN-PLACE CONCRETE	11800.00	CY	0	0	0	2950000	0	2,950,000	250.00
01.13	PUMPING PLANT SUPERSTRUCTURE	1.00	JOB	0	2,579	97	797,648	0	800,324	800323.80
01.14	42" STEEL DISCHARGE PIPE	297.00	LF	0	0	0	74,250	0	74,250	250.00
01.15	84" STEEL DISCHARGE PIPE	519.00	LF	0	0	0	181,650	0	181,650	350.00
01.16	120" STEEL DISCHARGE HEADER	17600.00	LF	0	0	0	12988800	0	12,988,800	738.00
01.17	42" DRESSER COUPLING	8.00	EA	0	0	0	5,720	0	5,720	715.00
01.18	COMBINATION AIR RELEASE VALVES	10.00	EA	0	0	0	70,350	0	70,350	7035.00
01.19	PLUMBING	1.00	JOB	0	0	0	51,500	0	51,500	51500.00
01.20	9.5'X8' SLUICE GATES W/OPTRS	2.00	EA	0	0	0	130,048	0	130,048	65024.00
01.21	16'X 8' SLUICE GATES W/ OPERATORS	4.00	EA	0	0	0	391,528	0	391,528	97882.00
01.22	TRASH RACKS	6.00	EA	0	0	0	422,202	0	422,202	70367.00
01.23	OVERHEAD CRANE	1.00	JOB	0	0	0	200,000	0	200,000	200000.00
01.24	SUMP DEWATERING SYSTEM	1.00	JOB	0	0	0	54,662	0	54,662	54662.00
01.25	COMPRESSED AIR SYSTEM	1.00	JOB	0	0	0	80,472	0	80,472	80472.00
01.26	POTABLE WATER SYSTEM	1.00	JOB	0	0	0	50,000	0	50,000	50000.00
01.27	HEAT/AIR CONDITIONING SYSTEM	1.00	JOB	0	0	0	12,710	0	12,710	12710.00
01.28	MOBILE CRANE	1.00	JOB	0	0	0	250,000	0	250,000	250000.00
01.29	SEWAGE DISPOSAL	1.00	JOB	0	0	0	7,500	0	7,500	7500.00
01.30	FLOOR DRAINAGE SYSTEM	1.00	JOB	0	0	0	81,994	0	81,994	81994.00
01.31	ELAVATOR/HYDRAULIC SYSTEM	1.00	JOB	0	0	0	40,000	0	40,000	40000.00
01.32	VENTILATION SYSTEM	1.00	JOB	0	0	0	25,904	0	25,904	25904.00
01.33	MOTORIZED ROOF VENTILATORS	12.00	EA	0	0	0	38,004	0	38,004	3167.00
01.34	KITCHEN EQUIPMENT	1.00	JOB	0	0	0	2,576	0	2,576	2576.00
01.35	ELECTRICAL SYSTEM	1.00	JOB	0	0	0	1420000	0	1,420,000	1420000
01.36	ACCESS ROAD	1.00	JOB	0	15,824	48,163	12,000	0	75,987	75986.96
TOTAL CONTR NO 2 1640 CFS PUMP STATION										
		1.00	JOB	0	339,349	1145436	22160274	0	23,645,059	23645059
TOTAL EASTERN ARKANSAS REGIONAL STUDY										
		1.00	EA	0	339,349	1145436	22160274	0	23,645,059	23645059
OVERHEAD										
									1,182,253	
SUBTOTAL										
									24,827,312	
HOME OFC										
									1,241,366	
SUBTOTAL										
									26,068,677	
PROFIT										
									1,824,807	

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U.S. Army Corps of Engineers
PROJECT CNTRO2: EASTERN ARKANSAS REGIONAL STUDY - GRAND PRAIRIE DEMONSTRATION
GRAND PRAIRIE PUMP STATION
** PROJECT DIRECT SUMMARY - Facility **

TIME 10:52:45
SUMMARY PAGE 4

	QUANTITY	UOM	MANHRS	LABOR	EQUIPMNT	MATERIAL	OTHER	TOTAL COST	UNIT COST
SUBTOTAL								27,893,485	
BOND								418,402	
TOTAL INCL INDIRECTS								28,311,887	

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ERROR REPORT

U.S. Army Corps of Engineers
PROJECT CNTRO2: EASTERN ARKANSAS REGIONAL STUDY - GRAND PRAIRIE DEMONSTRATION
GRAND PRAIRIE PUMP STATION

TIME 10:52:45
ERROR PAGE 1

No errors detected...

* * * END OF ERROR REPORT * *

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U.S. Army Corps of Engineers
PROJECT CNTRO1: EASTERN ARKANSAS REGIONAL STUDY - GRAND PRAIRIE DEMONSTRATION
PUMPS WITH MOTORS

TIME 10:44:50
TITLE PAGE 1

EASTERN ARKANSAS REGIONAL STUDY
GRAND PRAIRIE DEMONSTRATION
PROJECT
ITEM NO.2
GRAND PRAIRIE PUMP STATION

Designed By:
Estimated By: JAMES MOORE

Prepared By:

Preparation Date: 01/29/97
Effective Date of Pricing: 01/29/97

Sales Tax: 0.00%

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U.S. Army Corps of Engineers
PROJECT CNT01: EASTERN ARKANSAS REGIONAL STUDY - GRAND PRAIRIE DEMONSTRATION
PUMPS WITH MOTORS

TIME 10:44:50
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PROJECT NOTES

U.S. Army Corps of Engineers
PROJECT CNTR01: EASTERN ARKANSAS REGIONAL STUDY - GRAND PRAIRIE DEMONSTRATION
PUMPS WITH MOTORS

TIME 10:44:50
TITLE PAGE 2

This contract consists of the purchase and the installation of the pumps with engines for the Grand Prairie Pump Station. The pumps with the engines are considered under a separate contract from the construction of the Pump Station.

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U.S. Army Corps of Engineers
PROJECT CNTRO1: EASTERN ARKANSAS REGIONAL STUDY - GRAND PRAIRIE DEMONSTRATION
PUMPS WITH MOTORS
** PROJECT OWNER SUMMARY - Scope **

TIME 10:44:50

SUMMARY PAGE 1

	QUANTITY UOM	CONTRACT	ESCALATN	CONTINGN	STOH	TOTAL COST	UNIT COST
01 ITEM NO 2 PUMPS 1640 PUMP STA		9,487,536	0	0	0	9,487,536	
TOTAL EASTERN ARKANSAS REGIONAL STUDY	1.00 EA	9,487,536	0	0	0	9,487,536	9487536

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U.S. Army Corps of Engineers
PROJECT CNTR01: EASTERN ARKANSAS REGIONAL STUDY - GRAND PRAIRIE DEMONSTRATION
PUMPS WITH MOTORS
** PROJECT OWNER SUMMARY - Facility **

TIME 10:44:50
SUMMARY PAGE 2

	QUANTITY	UOM	CONTRACT	ESCALATN	CONTINGN	SIOH	TOTAL COST	UNIT COST
01 ITEM NO 2 PUMPS 1640 PUMP STA								
01.01 PUMPS WITH MOTORS	8.00	EA	9,487,536	0	0	0	9,487,536	1185942
TOTAL ITEM NO 2 PUMPS 1640 PUMP STA			9,487,536	0	0	0	9,487,536	
TOTAL EASTERN ARKANSAS REGIONAL STUDY	1.00	EA	9,487,536	0	0	0	9,487,536	9487536

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U.S. Army Corps of Engineers
PROJECT CNTR01: EASTERN ARKANSAS REGIONAL STUDY - GRAND PRAIRIE DEMONSTRATION
PUMPS WITH MOTORS
** PROJECT INDIRECT SUMMARY - Scope **

TIME 10:44:50
SUMMARY PAGE 3

	QUANTITY UOM	DIRECT	OVERHEAD	HOME OFC	PROFIT	BOND	TOTAL COST	UNIT COST
01 ITEM NO 2 PUMPS 1640 PUMP STA		9,120,000	0	273,600	0	93,936	9,487,536	
TOTAL EASTERN ARKANSAS REGIONAL STUDY	1.00 EA	9,120,000	0	273,600	0	93,936	9,487,536	9487536

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U.S. Army Corps of Engineers
PROJECT CNTR01: EASTERN ARKANSAS REGIONAL STUDY - GRAND PRAIRIE DEMONSTRATION
PUMPS WITH MOTORS
** PROJECT INDIRECT SUMMARY - Facility **

TIME 10:44:50
SUMMARY PAGE 4

	QUANTITY UOM	DIRECT	OVERHEAD	HOME OFC	PROFIT	BOND	TOTAL COST	UNIT COST
01 ITEM NO 2 PUMPS 1640 PUMP STA								
01.01 PUMPS WITH MOTORS	8.00 EA	9,120,000	0	273,600	0	93,936	9,487,536	1185942
TOTAL ITEM NO 2 PUMPS 1640 PUMP STA		9,120,000	0	273,600	0	93,936	9,487,536	
TOTAL EASTERN ARKANSAS REGIONAL STUDY	1.00 EA	9,120,000	0	273,600	0	93,936	9,487,536	9487536

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U.S. Army Corps of Engineers
PROJECT CNTR01: EASTERN ARKANSAS REGIONAL STUDY - GRAND PRAIRIE DEMONSTRATION
PUMPS WITH MOTORS
** PROJECT DIRECT SUMMARY - Scope **

TIME 10:44:50
SUMMARY PAGE 5

		QUANTITY	UOM	MANHRS	LABOR	EQUIPMNT	MATERIAL	OTHER	TOTAL COST	UNIT COST
01	ITEM NO 2 PUMPS 1640 PUMP STA			0	0	0	9120000	0	9,120,000	
	TOTAL EASTERN ARKANSAS REGIONAL STUDY		1.00 EA		0	0	9120000	0	9,120,000	9120000
	HOME OFC								273,600	
	SUBTOTAL								9,393,600	
	BOND								93,936	
	TOTAL INCL INDIRECTS								9,487,536	

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U.S. Army Corps of Engineers
PROJECT CNTR01: EASTERN ARKANSAS REGIONAL STUDY - GRAND PRAIRIE DEMONSTRATION
PUMPS WITH MOTORS
** PROJECT DIRECT SUMMARY - Facility **

TIME 10:44:50

SUMMARY PAGE 6

	QUANTITY	UOM	MANHRS	LABOR	EQUIPMNT	MATERIAL	OTHER	TOTAL COST	UNIT COST
01 ITEM NO 2 PUMPS 1640 PUMP STA									
01.01 PUMPS WITH MOTORS	8.00	EA	0	0	0	9120000	0	9,120,000	1140000
TOTAL ITEM NO 2 PUMPS 1640 PUMP STA			0	0	0	9120000	0	9,120,000	
TOTAL EASTERN ARKANSAS REGIONAL STUDY	1.00	EA	0	0	0	9120000	0	9,120,000	9120000
HOME OFC								273,600	
SUBTOTAL								9,393,600	
BOND								93,936	
TOTAL INCL INDIRECTS								9,487,536	

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ERROR REPORT

U.S. Army Corps of Engineers
PROJECT CNTR01: EASTERN ARKANSAS REGIONAL STUDY - GRAND PRAIRIE DEMONSTRATION
PUMPS WITH MOTORS

TIME 10:44:50
ERROR PAGE 1

No errors detected...

* * * END OF ERROR REPORT * * *

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U.S. Army Corps of Engineers
PROJECT CNTRO3: EASTERN ARKANSAS REGIONAL STUDY - GRAND PRAIRIE DEMONSTRATION
REACH NO. 3

TIME 11:00:17
TITLE PAGE 1

EASTERN ARKANSAS REGIONAL STUDY
GRAND PRAIRIE DEMONSTRATION
PROJECT
ITEM NO. 3

Designed By:
Estimated By: JAMES MOORE

Prepared By:

Preparation Date: 01/29/97
Effective Date of Pricing: 01/29/97

Sales Tax: 0.00%

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PROJECT CNTR03: EASTERN ARKANSAS REGIONAL STUDY - GRAND PRAIRIE DEMONSTRATION
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U.S. Army Corps of Engineers
PROJECT CNTRO3: EASTERN ARKANSAS REGIONAL STUDY - GRAND PRAIRIE DEMONSTRATION
REACH NO. 3
** PROJECT INDIRECT SUMMARY - Facility **

TIME 11:00:17
SUMMARY PAGE 1

		QUANTITY UOM	DIRECT	OVERHEAD	HOME OFC	PROFIT	BOND	TOTAL COST	UNIT COST
<hr/>									
01	LANDS AND DAMAGES								
02	RELOCATIONS								
02.18	MECHANICAL	1.00 EA	278,000	0	0	0	0	278,000	278000.00
	TOTAL RELOCATIONS	1.00 EA	278,000	0	0	0	0	278,000	278000.00
09	CHANNEL AND CANALS								
09.01	CANAL 1000A	1.00 JOB	153,635	9,218	8,143	13,680	2,770	187,446	187445.76
09.02	Canal 1000B	1.00 JOB	1,708,379	102,503	90,544	152,114	30,803	2,084,344	2084344
09.03	CANAL 1300	1.00 JOB	20,951	1,257	1,110	1,865	378	25,561	25561.27
09.04	CANAL 1300P	1.00 JOB	16,379	983	868	1,458	295	19,984	19984.01
09.05	CANAL 1400	1.00 JOB	20,951	1,257	1,110	1,865	378	25,561	25561.22
09.06	CANAL 1400P	1.00 JOB	37,936	2,276	2,011	3,378	684	46,285	46284.87
09.07	Canal 1500	1.00 JOB	731,546	43,893	38,772	65,137	13,190	892,538	892538.22
09.08	Canal 1510	1.00 JOB	45,715	2,743	2,423	4,070	824	55,775	55775.33
09.09	Canal 1520	1.00 JOB	232,088	13,925	12,301	20,665	4,185	283,164	283164.16
09.10	Canal 1500P	1.00 JOB	173,019	10,381	9,170	15,406	3,120	211,095	211095.45
09.11	Canal 1520P	1.00 JOB	52,155	3,129	2,764	4,644	940	63,633	63633.34
	TOTAL CHANNEL AND CANALS	1.00 EA	3,192,756	191,565	169,216	284,283	57,567	3,895,387	3895387
31	CONSTRUCTION MANAGEMENT								
	TOTAL EASTERN ARKANSAS REGIONAL STUDY	1.00 EA	3,470,756	191,565	169,216	284,283	57,567	4,173,387	4173387

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U.S. Army Corps of Engineers
PROJECT CNTR03: EASTERN ARKANSAS REGIONAL STUDY - GRAND PRAIRIE DEMONSTRATION
REACH NO. 3
** PROJECT INDIRECT SUMMARY - System **

TIME 11:00:17
SUMMARY PAGE 2

	QUANTITY UOM	DIRECT	OVERHEAD	HOME OFC	PROFIT	BOND	TOTAL COST	UNIT COST
01 LANDS AND DAMAGES								
02 RELOCATIONS								
02.18 MECHANICAL								
02.18.01 CANAL 1000	1.00 EA	96,000	0	0	0	0	96,000	96000.00
02.18.02 CANAL 1500	1.00 EA	159,000	0	0	0	0	159,000	159000.00
02.18.03 CANAL 1520	1.00 EA	23,000	0	0	0	0	23,000	23000.00
TOTAL MECHANICAL	1.00 EA	278,000	0	0	0	0	278,000	278000.00
TOTAL RELocations	1.00 EA	278,000	0	0	0	0	278,000	278000.00
09 CHANNEL AND CANALS								
09.01 CANAL 1000A								
09.01. 1 CLEARING	1.00 AC	213	13	11	19	4	260	259.50
09.01. 3 REINFORCED CONCRETE PIPE, 48"	240.00 LF	22,435	1,346	1,189	1,998	405	27,373	114.05
09.01. 5 FLARED END SECTION, 48"	2.00 EA	1,407	84	75	125	25	1,716	858.07
09.01. 7 INSTRUMENTATION	7.00 EA	84,000	5,040	4,452	7,479	1,515	102,486	14640.85
09.01. 8 STRUCTURES	1.00 JOB	45,580	2,735	2,416	4,058	822	55,611	55611.42
TOTAL CANAL 1000A	1.00 JOB	153,635	9,218	8,143	13,680	2,770	187,446	187445.76
09.02 Canal 1000B								
09.02. 1 CLEARING	362.00 AC	38,498	2,310	2,040	3,428	694	46,970	129.75
09.02. 2 EXCAVATION	526669.00 CY	264,536	15,872	14,020	23,554	4,770	322,753	0.61
09.02. 3 EMBANKMENT	529064.00 CY	289,846	17,391	15,362	25,808	5,226	353,633	0.67
09.02. 4 REINFORCED CONCRETE BOX CULVERT	750.00 LF	831,330	49,880	44,060	74,022	14,989	1,014,281	1352.37
09.02. 5 REINFORCED CONCRETE PIPE, 42"	240.00 LF	19,135	1,148	1,014	1,704	345	23,345	97.27
09.02. 6 REINFORCED CONCRETE PIPE, 48"	480.00 LF	45,692	2,741	2,422	4,068	824	55,747	116.14
09.02. 7 FLARED END SECTION, 42"	2.00 EA	865	52	46	77	16	1,056	527.84
09.02. 8 FLARED END SECTION, 48"	6.00 EA	469	28	25	42	8	572	95.29
09.02. 9 8" GRAVEL BASE	742.00 CY	11,130	668	590	991	201	13,579	18.30
09.02.10 4" ASPHALT	1.00 JOB	5,580	335	296	497	101	6,808	6807.99
09.02.11 FERTILIZING AND SEEDING	298.00 AC	178,800	10,728	9,476	15,920	3,224	218,149	732.04
09.02.12 ENVIRONMENTAL PROTECTION	1.00 JOB	22,500	1,350	1,193	2,003	406	27,452	27451.59
TOTAL Canal 1000B	1.00 JOB	1,708,379	102,503	90,544	152,114	30,803	2,084,344	2084344
09.03 CANAL 1300								
09.03. 1 FILTER GRAVEL	339.00 TON	4,983	299	264	444	90	6,080	17.94

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	QUANTITY UOM	DIRECT	OVERHEAD	HOME OFC	PROFIT	BOND	TOTAL COST	UNIT COST
09.03. 2 RIPRAP	1017.00 TON	15,967	958	846	1,422	288	19,481	19.16
TOTAL CANAL 1300	1.00 JOB	20,951	1,257	1,110	1,865	378	25,561	25561.27
09.04 CANAL 1300P								
09.04. 1 6" PVC PIPE	200.00 LF	673	40	36	60	12	821	4.10
09.04. 2 PUMPS FOR CANAL 1300	1.00 JOB	3,707	222	196	330	67	4,522	4522.29
09.04. 3 INSTRUMENTATION	1.00 EA	12,000	720	636	1,068	216	14,641	14640.85
TOTAL CANAL 1300P	1.00 JOB	16,379	983	868	1,458	295	19,984	19984.01
09.05 CANAL 1400								
09.05. 1 FILTER GRAVEL	339.00 TON	4,983	299	264	444	90	6,080	17.94
09.05. 2 RIPRAP	1017.00 TON	15,967	958	846	1,422	288	19,481	19.16
TOTAL CANAL 1400	1.00 JOB	20,951	1,257	1,110	1,865	378	25,561	25561.22
09.06 CANAL 1400P								
09.06. 1 6" PVC PIPE	1575.00 LF	5,273	316	279	470	95	6,433	4.08
09.06. 2 PUMPS FOR 1400	1.00 JOB	8,663	520	459	771	156	10,570	10569.67
09.06. 3 INSTRUMENTATION	2.00 EA	24,000	1,440	1,272	2,137	433	29,282	14640.85
TOTAL CANAL 1400P	1.00 JOB	37,936	2,276	2,011	3,378	684	46,285	46284.87
09.07 Canal 1500								
09.07. 1 CLEARING	116.00 AC	12,336	740	654	1,098	222	15,051	129.75
09.07. 2 EXCAVATION	176114.00 CY	88,459	5,308	4,688	7,876	1,595	107,926	0.61
09.07. 3 EMBANKMENT	221680.00 CY	150,670	9,040	7,986	13,416	2,717	183,828	0.83
09.07. 5 REINFORCED CONCRETE PIPE, 24"	484.00 LF	16,046	963	850	1,429	289	19,577	40.45
09.07. 6 REINFORCED CONCRETE PIPE, 48"	784.00 LF	71,742	4,305	3,802	6,388	1,294	87,531	111.65
09.07. 7 REINFORCED CONCRETE PIPE, 60"	1138.00 LF	151,980	9,119	8,055	13,532	2,740	185,427	162.94
09.07. 9 FLARED END SECTION, 24"	4.00 EA	516	31	27	46	9	630	157.53
09.07.10 FLARED END SECTION, 48"	8.00 EA	5,626	338	298	501	101	6,865	858.07
09.07.11 FLARED END SECTION, 60"	10.00 EA	13,533	812	717	1,205	244	16,511	1651.11
09.07.12 GATE, 18"	1.00 EA	508	30	27	45	9	620	620.07
09.07.13 8" GRAVEL BASE	708.00 CY	10,620	637	563	946	191	12,957	18.30
09.07.14 4" ASPHALT	85.00 TON	3,825	230	203	341	69	4,667	54.90
09.07.15 FILTER MATERIAL	1086.00 TON	15,965	958	846	1,421	288	19,478	17.94
09.07.16 RIPRAP	3261.00 TON	39,784	2,387	2,109	3,542	717	48,540	14.88
09.07.17 FERTILIZING AND SEEDING	105.00 AC	63,000	3,780	3,339	5,610	1,136	76,864	732.04
09.07.18 ENVIRONMENTAL PROTECTION	1.00 JOB	48,660	2,920	2,579	4,333	877	59,369	59368.64
09.07.19 INSTRUMENTATION	1.00 EA	12,000	720	636	1,068	216	14,641	14640.85

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		QUANTITY UOM	DIRECT	OVERHEAD	HOME OFC	PROFIT	BOND	TOTAL COST	UNIT COST
09.07.20	STRUCTURES	1.00 JOB	26,275	1,576	1,393	2,340	474	32,057	32057.35
	TOTAL Canal 1500	1.00 JOB	731,546	43,893	38,772	65,137	13,190	892,538	892538.22
09.08	Canal 1510								
09.08. 1	CLEARING	4.00 AC	425	26	23	38	8	519	129.75
09.08. 2	Filter Material	543.00 TON	7,982	479	423	711	144	9,739	17.94
09.08. 3	Riprap	1631.00 TON	25,607	1,536	1,357	2,280	462	31,243	19.16
09.08. 4	FERTILIZING AND SEEDING	7.00 AC	4,200	252	223	374	76	5,124	732.04
09.08. 5	ENVIRONMENTAL PROTECTION	1.00 JOB	7,500	450	398	668	135	9,151	9150.53
	TOTAL Canal 1510	1.00 JOB	45,715	2,743	2,423	4,070	824	55,775	55775.33
09.09	Canal 1520								
09.09. 1	CLEARING	105.00 AC	11,166	670	592	994	201	13,624	129.75
09.09. 2	EXCAVATION	10211.00 CY	5,898	354	313	525	106	7,196	0.70
09.09. 3	EMBANKMENT	14872.00 CY	9,320	559	494	830	168	11,371	0.76
09.09. 5	REINFORCED CONCRETE PIPE, 24"	172.00 LF	5,982	359	317	533	108	7,299	42.44
09.09. 6	REINFORCED CONCRETE PIPE, 42"	104.00 LF	8,846	531	469	788	159	10,793	103.78
09.09. 8	FLARED END SECTION, 24"	2.00 EA	258	15	14	23	5	315	157.53
09.09. 9	FLARED END SECTION, 42"	2.00 EA	865	52	46	77	16	1,056	527.84
09.09.10	GATE, 18"	1.00 EA	508	30	27	45	9	620	620.07
09.09.11	FILTER GRAVEL	1629.00 TON	25,250	1,515	1,338	2,248	455	30,807	18.91
09.09.12	RIPRAP	4892.00 TON	76,806	4,608	4,071	6,839	1,385	93,709	19.16
09.09.13	8" GRAVEL BASE	167.00 CY	2,505	150	133	223	45	3,056	18.30
09.09.15	FERTILIZING AND SEEDING	101.00 AC	60,600	3,636	3,212	5,396	1,093	73,936	732.04
09.09.16	ENVIRONMENTAL PROTECTION	1.00 JOB	7,650	459	405	681	138	9,334	9333.54
09.09.17	INSTRUMENTATION	1.00 JOB	12,000	720	636	1,068	216	14,641	14640.85
09.09.18	STRUCTURES FOR THE TURNOUTS	1.00 JOB	4,432	266	235	395	80	5,408	5407.95
	TOTAL Canal 1520	1.00 JOB	232,088	13,925	12,301	20,665	4,185	283,164	283164.16
09.10	Canal 1500P								
09.10. 1	PVC PIPE, 6"	15158.00 LF	50,531	3,032	2,678	4,499	911	61,652	4.07
09.10. 2	PVC PIPE, 10"	5950.00 LF	26,261	1,576	1,392	2,338	474	32,040	5.38
09.10. 3	PVC PIPE, 12"	1350.00 LF	7,115	427	377	634	128	8,681	6.43
09.10. 4	Pipeline, Plastic pipe, 18"	2133.00 LF	23,285	1,397	1,234	2,073	420	28,410	13.32
09.10. 5	PUMPS CANAL 1500	1.00 JOB	17,826	1,070	945	1,587	321	21,749	21749.38
09.10. 6	INSTRUMENTATION	4.00 EA	48,000	2,880	2,544	4,274	865	58,563	14640.85
	TOTAL Canal 1500P	1.00 JOB	173,019	10,381	9,170	15,406	3,120	211,095	211095.45
09.11	Canal 1520P								

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09.11. 1	6" PVC PIPE	5479.00 LF	18,242	1,095	967	1,624	329	22,257	4.06
09.11. 2	PUMPS FOR CANAL 1520	1.00 JOB	9,913	595	525	883	179	12,095	12094.76
09.11. 3	INSTRUMENTATION	2.00 EA	24,000	1,440	1,272	2,137	433	29,282	14640.85
	TOTAL Canal 1520P	1.00 JOB	52,155	3,129	2,764	4,644	940	63,633	63633.34
	TOTAL CHANNEL AND CANALS	1.00 EA	3,192,756	191,565	169,216	284,283	57,567	3,895,387	3895387
31	CONSTRUCTION MANAGEMENT								
	TOTAL EASTERN ARKANSAS REGIONAL STUDY	1.00 EA	3,470,756	191,565	169,216	284,283	57,567	4,173,387	4173387

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		QUANTITY	UOM	MANHRS	LABOR	EQUIPMNT	MATERIAL	OTHER	TOTAL COST	UNIT COST
<hr/>										
01	LANDS AND DAMAGES									
02	RELOCATIONS									
02.18	MECHANICAL	1.00	EA	0	0	0	278,000	0	278,000	278000.00
	TOTAL RELOCATIONS	1.00	EA	0	0	0	278,000	0	278,000	278000.00
09	CHANNEL AND CANALS									
09.01	CANAL 1000A	1.00	JOB	281	3,518	4,384	145,733	0	153,635	153635.18
09.02	Canal 1000B	1.00	JOB	1,976	144,510	518,683	1045186	0	1,708,379	1708379
09.03	CANAL 1300	1.00	JOB	196	2,357	4,694	13,899	0	20,951	20950.65
09.04	CANAL 1300P	1.00	JOB	10	299	181	15,900	0	16,379	16379.39
09.05	CANAL 1400	1.00	JOB	196	2,357	4,695	13,899	0	20,951	20950.61
09.06	CANAL 1400P	1.00	JOB	20	1,692	845	35,400	0	37,936	37936.22
09.07	Canal 1500	1.00	JOB	2,499	80,243	244,735	406,568	0	731,546	731546.37
09.08	Canal 1510	1.00	JOB	315	3,898	7,833	33,984	0	45,715	45714.84
09.09	Canal 1520	1.00	JOB	1,139	19,961	46,673	165,454	0	232,088	232088.34
09.10	Canal 1500P	1.00	JOB	40	25,474	12,377	135,168	0	173,019	173019.05
09.11	Canal 1520P	1.00	JOB	20	5,271	2,426	44,458	0	52,155	52155.46
	TOTAL CHANNEL AND CANALS	1.00	EA	6,692	289,580	847,526	2055650	0	3,192,756	3192756
31	CONSTRUCTION MANAGEMENT									
	TOTAL EASTERN ARKANSAS REGIONAL STUDY	1.00	EA	6,692	289,580	847,526	2333650	0	3,470,756	3470756
	OVERHEAD									191,565
	SUBTOTAL HOME OFC									3,662,321
	SUBTOTAL PROFIT									169,216
	SUBTOTAL BOND									3,831,537
										284,283
	TOTAL INCL INDIRECTS									4,115,820
										57,567
										4,173,387

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		QUANTITY	UOM	MANHRS	LABOR	EQUIPMNT	MATERIAL	OTHER	TOTAL COST	UNIT COST
<hr/>										
01	LANDS AND DAMAGES									
02	RELOCATIONS									
02.18	MECHANICAL									
02.18.01	CANAL 1000	1.00	EA	0	0	0	96,000	0	96,000	96000.00
02.18.02	CANAL 1500	1.00	EA	0	0	0	159,000	0	159,000	159000.00
02.18.03	CANAL 1520	1.00	EA	0	0	0	23,000	0	23,000	23000.00
	TOTAL MECHANICAL	1.00	EA	0	0	0	278,000	0	278,000	278000.00
	TOTAL RELOCATIONS	1.00	EA	0	0	0	278,000	0	278,000	278000.00
09	CHANNEL AND CANALS									
09.01	CANAL 1000A									
09.01. 1	CLEARING	1.00	AC	0	60	153	0	0	213	212.69
09.01. 3	REINFORCED CONCRETE PIPE, 48"	240.00	LF	158	1,884	2,617	17,934	0	22,435	93.48
09.01. 5	FLARED END SECTION, 48"	2.00	EA	10	114	93	1,200	0	1,407	703.29
09.01. 7	INSTRUMENTATION	7.00	EA	0	0	0	84,000	0	84,000	12000.00
09.01. 8	STRUCTURES	1.00	JOB	113	1,460	1,521	42,599	0	45,580	45580.49
	TOTAL CANAL 1000A	1.00	JOB	281	3,518	4,384	145,733	0	153,635	153635.18
09.02	Canal 1000B									
09.02. 1	CLEARING	362.00	AC	0	10,824	27,673	0	0	38,498	106.35
09.02. 2	EXCAVATION	526669.00	CY	0	43,308	221,228	0	0	264,536	0.50
09.02. 3	EMBANKMENT	529064.00	CY	0	66,212	223,635	0	0	289,846	0.55
09.02. 4	REINFORCED CONCRETE BOX CULVERT	750.00	LF	1,488	18,353	38,115	774,862	0	831,330	1108.44
09.02. 5	REINFORCED CONCRETE PIPE, 42"	240.00	LF	155	1,843	2,548	14,744	0	19,135	79.73
09.02. 6	REINFORCED CONCRETE PIPE, 48"	480.00	LF	324	3,858	5,393	36,440	0	45,692	95.19
09.02. 7	FLARED END SECTION, 42"	2.00	EA	8	91	74	700	0	865	432.63
09.02. 8	FLARED END SECTION, 48"	6.00	EA	2	21	17	430	0	469	78.11
09.02. 9	8" GRAVEL BASE	742.00	CY	0	0	0	11,130	0	11,130	15.00
09.02.10	4" ASPHALT	1.00	JOB	0	0	0	5,580	0	5,580	5580.00
09.02.11	FERTILIZING AND SEEDING	298.00	AC	0	0	0	178,800	0	178,800	600.00
09.02.12	ENVIRONMENTAL PROTECTION	1.00	JOB	0	0	0	22,500	0	22,500	22500.00
	TOTAL Canal 1000B	1.00	JOB	1,976	144,510	518,683	1045186	0	1,708,379	1708379
09.03	CANAL 1300									
09.03. 1	FILTER GRAVEL	339.00	TON	49	590	1,173	3,221	0	4,983	14.70

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09.03.	2 RIPRAP	1017.00	TON	147	1,767	3,521	10,679	0	15,967	15.70
	TOTAL CANAL 1300	1.00	JOB	196	2,357	4,694	13,899	0	20,951	20950.65
09.04	CANAL 1300P									
09.04.	1 6" PVC PIPE	200.00	LF	0	185	88	400	0	673	3.36
09.04.	2 PUMPS FOR CANAL 1300	1.00	JOB	10	114	93	3,500	0	3,707	3706.58
09.04.	3 INSTRUMENTATION	1.00	EA	0	0	0	12,000	0	12,000	12000.00
	TOTAL CANAL 1300P	1.00	JOB	10	299	181	15,900	0	16,379	16379.39
09.05	CANAL 1400									
09.05.	1 FILTER GRAVEL	339.00	TON	49	589	1,174	3,221	0	4,983	14.70
09.05.	2 RIPRAP	1017.00	TON	147	1,767	3,521	10,679	0	15,967	15.70
	TOTAL CANAL 1400	1.00	JOB	196	2,357	4,695	13,899	0	20,951	20950.61
09.06	CANAL 1400P									
09.06.	1 6" PVC PIPE	1575.00	LF	0	1,464	659	3,150	0	5,273	3.35
09.06.	2 PUMPS FOR 1400	1.00	JOB	20	228	186	8,250	0	8,663	8663.17
09.06.	3 INSTRUMENTATION	2.00	EA	0	0	0	24,000	0	24,000	12000.00
	TOTAL CANAL 1400P	1.00	JOB	20	1,692	845	35,400	0	37,936	37936.22
09.07	Canal 1500									
09.07.	1 CLEARING	116.00	AC	0	3,469	8,868	0	0	12,336	106.35
09.07.	2 EXCAVATION	176114.00	CY	0	14,482	73,977	0	0	88,459	0.50
09.07.	3 EMBANKMENT	221680.00	CY	0	32,405	118,265	0	0	150,670	0.68
09.07.	5 REINFORCED CONCRETE PIPE, 24"	484.00	LF	126	1,799	2,347	11,900	0	16,046	33.15
09.07.	6 REINFORCED CONCRETE PIPE, 48"	784.00	LF	481	5,714	8,073	57,956	0	71,742	91.51
09.07.	7 REINFORCED CONCRETE PIPE, 60"	1138.00	LF	1,103	12,973	16,530	122,477	0	151,980	133.55
09.07.	9 FLARED END SECTION, 24"	4.00	EA	6	72	44	400	0	516	129.11
09.07.	10 FLARED END SECTION, 48"	8.00	EA	40	455	371	4,800	0	5,626	703.29
09.07.	11 FLARED END SECTION, 60"	10.00	EA	50	569	464	12,500	0	13,533	1353.29
09.07.	12 GATE, 18"	1.00	EA	3	36	22	450	0	508	508.23
09.07.	13 8" GRAVEL BASE	708.00	CY	0	0	0	10,620	0	10,620	15.00
09.07.	14 4" ASPHALT	85.00	TON	0	0	0	3,825	0	3,825	45.00
09.07.	15 FILTER MATERIAL	1086.00	TON	157	1,887	3,760	10,317	0	15,965	14.70
09.07.	16 RIPRAP	3261.00	TON	472	5,659	11,298	22,827	0	39,784	12.20
09.07.	17 FERTILIZING AND SEEDING	105.00	AC	0	0	0	63,000	0	63,000	600.00
09.07.	18 ENVIRONMENTAL PROTECTION	1.00	JOB	0	0	0	48,660	0	48,660	48660.00
09.07.	19 INSTRUMENTATION	1.00	EA	0	0	0	12,000	0	12,000	12000.00

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09.07.20	STRUCTURES	1.00	JOB	60	723	716	24,836	0	26,275	26274.99
	TOTAL Canal 1500	1.00	JOB	2,499	80,243	244,735	406,568	0	731,546	731546.37
09.08	Canal 1510									
09.08. 1	CLEARING	4.00	AC	0	120	306	0	0	425	106.35
09.08. 2	Filter Material	543.00	TON	79	944	1,880	5,159	0	7,982	14.70
09.08. 3	Riprap	1631.00	TON	236	2,835	5,647	17,126	0	25,607	15.70
09.08. 4	FERTILIZING AND SEEDING	7.00	AC	0	0	0	4,200	0	4,200	600.00
09.08. 5	ENVIRONMENTAL PROTECTION	1.00	JOB	0	0	0	7,500	0	7,500	7500.00
	TOTAL Canal 1510	1.00	JOB	315	3,898	7,833	33,984	0	45,715	45714.84
09.09	Canal 1520									
09.09. 1	CLEARING	105.00	AC	0	3,140	8,027	0	0	11,166	106.35
09.09. 2	EXCAVATION	10211.00	CY	0	966	4,933	0	0	5,898	0.58
09.09. 3	EMBANKMENT	14872.00	CY	0	2,041	7,279	0	0	9,320	0.63
09.09. 5	REINFORCED CONCRETE PIPE, 24"	172.00	LF	54	776	1,014	4,193	0	5,982	34.78
09.09. 6	REINFORCED CONCRETE PIPE, 42"	104.00	LF	82	990	1,702	6,155	0	8,846	85.06
09.09. 8	FLARED END SECTION, 24"	2.00	EA	3	36	22	200	0	258	129.11
09.09. 9	FLARED END SECTION, 42"	2.00	EA	8	91	74	700	0	865	432.63
09.09.10	GATE, 18"	1.00	EA	3	36	22	450	0	508	508.23
09.09.11	FILTER GRAVEL	1629.00	TON	272	3,265	6,509	15,476	0	25,250	15.50
09.09.12	RIPRAP	4892.00	TON	708	8,502	16,938	51,366	0	76,806	15.70
09.09.13	8" GRAVEL BASE	167.00	CY	0	0	0	2,505	0	2,505	15.00
09.09.15	FERTILIZING AND SEEDING	101.00	AC	0	0	0	60,600	0	60,600	600.00
09.09.16	ENVIRONMENTAL PROTECTION	1.00	JOB	0	0	0	7,650	0	7,650	7650.00
09.09.17	INSTRUMENTATION	1.00	JOB	0	0	0	12,000	0	12,000	12000.00
09.09.18	STRUCTURES FOR THE TURNOUTS	1.00	JOB	10	119	154	4,160	0	4,432	4432.49
	TOTAL Canal 1520	1.00	JOB	1,139	19,961	46,673	165,454	0	232,088	232088.34
09.10	Canal 1500P									
09.10. 1	PVC PIPE, 6"	15158.00	LF	0	13,992	6,223	30,316	0	50,531	3.33
09.10. 2	PVC PIPE, 10"	5950.00	LF	0	5,857	2,554	17,850	0	26,261	4.41
09.10. 3	PVC PIPE, 12"	1350.00	LF	0	1,664	726	4,725	0	7,115	5.27
09.10. 4	Pipeline, Plastic pipe, 18"	2133.00	LF	0	3,505	2,503	17,277	0	23,285	10.92
09.10. 5	PUMPS CANAL 1500	1.00	JOB	40	455	371	17,000	0	17,826	17826.33
09.10. 6	INSTRUMENTATION	4.00	EA	0	0	0	48,000	0	48,000	12000.00
	TOTAL Canal 1500P	1.00	JOB	40	25,474	12,377	135,168	0	173,019	173019.05

09.11 Canal 1520P

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** PROJECT DIRECT SUMMARY - System **

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		QUANTITY	UOM	MANHRS	LABOR	EQUIPMNT	MATERIAL	OTHER	TOTAL COST	UNIT COST
09.11. 1	6" PVC PIPE	5479.00	LF	0	5,044	2,240	10,958	0	18,242	3.33
09.11. 2	PUMPS FOR CANAL 1520	1.00	JOB	20	228	186	9,500	0	9,913	9913.17
09.11. 3	INSTRUMENTATION	2.00	EA	0	0	0	24,000	0	24,000	12000.00
	TOTAL Canal 1520P	1.00	JOB	20	5,271	2,426	44,458	0	52,155	52155.46
	TOTAL CHANNEL AND CANALS	1.00	EA	6,692	289,580	847,526	2055650	0	3,192,756	3192756
31	CONSTRUCTION MANAGEMENT									
	TOTAL EASTERN ARKANSAS REGIONAL STUDY	1.00	EA	6,692	289,580	847,526	2333650	0	3,470,756	3470756
	OVERHEAD								191,565	
	SUBTOTAL HOME OFC								3,662,321	
	SUBTOTAL PROFIT								169,216	
	SUBTOTAL BOND								3,831,537	
	TOTAL INCL INDIRECTS								284,283	
									4,115,820	
									57,567	
									4,173,387	

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No errors detected...

* * * END OF ERROR REPORT * * *

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PROJECT CNTR04: EASTERN ARKANSAS REGIONAL STUDY - GRAND PRAIRIE DEMONSTRATION
REACH NO. 4

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TITLE PAGE 1

EASTERN ARKANSAS REGIONAL STUDY
GRAND PRAIRIE DEMONSTRATION
PROJECT
ITEM NO. 4

Designed By:
Estimated By: JAMES MOORE

Prepared By:

Preparation Date: 01/29/97
Effective Date of Pricing: 01/29/97

Sales Tax: 0.00%

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U.S. Army Corps of Engineers
PROJECT CNTRO4: EASTERN ARKANSAS REGIONAL STUDY - GRAND PRAIRIE DEMONSTRATION
REACH NO. 4
** PROJECT INDIRECT SUMMARY - Facility **

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SUMMARY PAGE 1

	QUANTITY UOM	DIRECT	OVERHEAD	HOME OFC	PROFIT	BOND	TOTAL COST	UNIT COST
<hr/>								
01 LANDS AND DAMAGES								
02 RELOCATIONS								
02.03 UTILITIES	1.00 EA	682,000	0	0	0	0	682,000	682000.00
TOTAL RELOCATIONS	1.00 EA	682,000	0	0	0	0	682,000	682000.00
09 CHANNELS AND CANALS								
09.01 CANAL 2000A	1.00 JOB	3,573,561	214,414	189,399	318,190	64,433	4,359,996	4359996
09.02 CANAL 2000B	1.00 JOB	31,132	1,868	1,650	2,772	561	37,983	37982.91
09.03 CANAL 2000P	1.00 JOB	128,647	7,719	6,818	11,455	2,320	156,959	156958.87
09.04 CANAL 3000	1.00 JOB	371,432	22,286	19,686	33,072	6,697	453,173	453173.27
TOTAL CHANNELS AND CANALS	1.00 EA	4,104,772	246,286	217,553	365,489	74,011	5,008,111	5008111
31 CONSTRUCTION MANAGEMENT								
TOTAL EASTERN ARKANSAS REGIONAL STUDY	1.00 EA	4,786,772	246,286	217,553	365,489	74,011	5,690,111	5690111

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SUMMARY PAGE 2

	QUANTITY UOM	DIRECT	OVERHEAD	HOME OFC	PROFIT	BOND	TOTAL COST	UNIT COST
01 LANDS AND DAMAGES								
02 RELOCATIONS								
02.02 RAILROADS								
TOTAL RAILROADS								
02.03 UTILITIES								
02.03.18 MECHANICAL	1.00 EA	682,000	0	0	0	0	682,000	682000.00
TOTAL UTILITIES	1.00 EA	682,000	0	0	0	0	682,000	682000.00
TOTAL RELOCATIONS	1.00 EA	682,000	0	0	0	0	682,000	682000.00
09 CHANNELS AND CANALS								
09.01 CANAL 2000A								
09.01. 1 CLEARING	318.00 AC	33,818	2,029	1,792	3,011	610	41,261	129.75
09.01. 2 EXCAVATION	1620011 CY	813,702	48,822	43,126	72,452	14,672	992,773	0.61
09.01. 3 EMBANKMENT	1618904 CY	1,390,477	83,429	73,695	123,808	25,071	1,696,480	1.05
09.01. 4 REINFORCED CONCRETE BOX CULVERT	2610.00 LF	826,808	49,608	43,821	73,619	14,908	1,008,764	386.50
09.01. 8 REINFORCED CONCRETE PIPE, 42"	240.00 LF	18,741	1,124	993	1,669	338	22,865	95.27
09.01.10 REINFORCED CONCRETE PIPE, 54"	240.00 LF	26,867	1,612	1,424	2,392	484	32,780	136.58
09.01.11 REINFORCED CONCRETE PIPE, 66"	240.00 LF	41,248	2,475	2,186	3,673	744	50,326	209.69
09.01.12 REINFORCED CONCRETE PIPE, 72"	240.00 LF	45,813	2,749	2,428	4,079	826	55,895	232.90
09.01.13 REINFORCED CONCRETE PIPE, 78"	480.00 LF	108,889	6,533	5,771	9,695	1,963	132,852	276.78
09.01.17 FLARED END SECTION, 42"	2.00 EA	865	52	46	77	16	1,056	527.84
09.01.19 FLARED END SECTION, 54"	2.00 EA	2,307	138	122	205	42	2,814	1407.10
09.01.20 FLARED END SECTION, 66"	2.00 EA	3,080	185	163	274	56	3,758	1878.81
09.01.21 FLARED END SECTION, 72"	2.00 EA	3,212	193	170	286	58	3,919	1959.62
09.01.22 FLARED END SECTION, 78"	4.00 EA	7,225	433	383	643	130	8,815	2203.63
09.01.23 GATES 18"	1.00 EA	508	30	27	45	9	620	620.07
09.01.24 GATES 24"	1.00 EA	583	35	31	52	11	712	711.58
09.01.25 GATES 36"	1.00 EA	1,097	66	58	98	20	1,339	1338.77
09.01.26 GATES 42"	1.00 EA	1,253	75	66	112	23	1,529	1529.10
09.01.27 GATES 48"	1.00 EA	1,603	96	85	143	29	1,956	1956.13
09.01.28 8" GRAVEL BASE	2203.00 CY	33,045	1,983	1,751	2,942	596	40,317	18.30
09.01.29 4" ASPHALT	1.00 JOB	10,800	648	572	962	195	13,177	13176.76
09.01.30 FERTILIZING AND SEEDING	163.00 AC	40,750	2,445	2,160	3,628	735	49,718	305.02
09.01.31 ENVIRONMENTAL PROTECTION	1.00 JOB	66,660	4,000	3,533	5,935	1,202	81,330	81329.91
09.01.32 WASTEWAYS	1.00 JOB	43,015	2,581	2,280	3,830	776	52,481	52481.24
09.01.34 STRUCTURES	1.00 JOB	51,194	3,072	2,713	4,558	923	62,460	62459.91
TOTAL CANAL 2000A	1.00 JOB	3,573,561	214,414	189,399	318,190	64,433	4,359,996	4359996

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PROJECT CNTRO4: EASTERN ARKANSAS REGIONAL STUDY - GRAND PRAIRIE DEMONSTRATION
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** PROJECT INDIRECT SUMMARY - System **

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SUMMARY PAGE 3

	QUANTITY UOM	DIRECT	OVERHEAD	HOME OFC	PROFIT	BOND	TOTAL COST	UNIT COST
<hr/>								
09.02 CANAL 2000B								
09.02. 1 CLEARING	1.00 AC	532	32	28	47	10	649	648.75
09.02. 4 FERTILIZING AND SEEDING	1.00 AC	600	36	32	53	11	732	732.04
09.02. 5 ENVIRONMENTAL PROTECTION		30,000	1,800	1,590	2,671	541	36,602	
TOTAL CANAL 2000B	1.00 JOB	31,132	1,868	1,650	2,772	561	37,983	37982.91
09.03 CANAL 2000P								
09.03. 1 PVC PIPE, 6"	6165.00 LF	20,558	1,233	1,090	1,830	371	25,082	4.07
09.03. 2 PVC PIPE, 8"	8230.00 LF	31,590	1,895	1,674	2,813	570	38,542	4.68
09.03. 3 PUMPS FOR CANAL 2000		28,500	1,710	1,511	2,538	514	34,772	
09.03. 4 INSTRUMENTATION	4.00 EA	48,000	2,880	2,544	4,274	865	58,563	14640.85
TOTAL CANAL 2000P	1.00 JOB	128,647	7,719	6,818	11,455	2,320	156,959	156958.87
09.04 CANAL 3000								
09.04. 1 CLEARING	52.00 AC	5,530	332	293	492	100	6,747	129.75
09.04. 2 EXCAVATION	629538.00 CY	316,205	18,972	16,759	28,155	5,701	385,793	0.61
09.04. 3 EMBANKMENT	74226.00 CY	22,697	1,362	1,203	2,021	409	27,692	0.37
09.04. 7 ENVIRONMENTAL PROTECTION		15,000	900	795	1,336	270	18,301	
09.04. 8 INSTRUMENTATION	1.00 EA	12,000	720	636	1,068	216	14,641	14640.85
TOTAL CANAL 3000	1.00 JOB	371,432	22,286	19,686	33,072	6,697	453,173	453173.27
TOTAL CHANNELS AND CANALS	1.00 EA	4,104,772	246,286	217,553	365,489	74,011	5,008,111	5008111
31 CONSTRUCTION MANAGEMENT								
TOTAL EASTERN ARKANSAS REGIONAL STUDY	1.00 EA	4,786,772	246,286	217,553	365,489	74,011	5,690,111	5690111

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PROJECT CNTRO4: EASTERN ARKANSAS REGIONAL STUDY - GRAND PRAIRIE DEMONSTRATION
REACH NO. 4
** PROJECT DIRECT SUMMARY - Facility **

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SUMMARY PAGE 4

	QUANTITY	UOM	MANHRS	LABOR	EQUIPMNT	MATERIAL	OTHER	TOTAL COST	UNIT COST
<hr/>									
01 LANDS AND DAMAGES									
02 RELOCATIONS									
02.03 UTILITIES	1.00	EA	0	0	0	682,000	0	682,000	682000.00
TOTAL RELOCATIONS	1.00	EA	0	0	0	682,000	0	682,000	682000.00
09 CHANNELS AND CANALS									
09.01 CANAL 2000A	1.00	JOB	3,042	464,317	1882353	1226890	0	3,573,561	3573561
09.02 CANAL 2000B	1.00	JOB	0	150	382	30,600	0	31,132	31131.73
09.03 CANAL 2000P	1.00	JOB	0	13,312	5,931	109,405	0	128,647	128647.36
09.04 CANAL 3000	1.00	JOB	0	59,703	284,729	27,000	0	371,432	371432.00
TOTAL CHANNELS AND CANALS	1.00	EA	3,042	537,482	2173395	1393895	0	4,104,772	4104772
31 CONSTRUCTION MANAGEMENT									
TOTAL EASTERN ARKANSAS REGIONAL STUDY	1.00	EA	3,042	537,482	2173395	2075895	0	4,786,772	4786772
OVERHEAD								246,286	
SUBTOTAL HOME OFC								5,033,058	
SUBTOTAL PROFIT								217,553	
SUBTOTAL BOND								5,250,611	
TOTAL INCL INDIRECTS								365,489	
								5,616,100	
								74,011	
								5,690,111	

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		QUANTITY	UOM	MANHRS	LABOR	EQUIPMNT	MATERIAL	OTHER	TOTAL COST	UNIT COST
<hr/>										
01	LANDS AND DAMAGES									
02	RELOCATIONS									
02.02	RAILROADS									
	TOTAL RAILROADS									
02.03	UTILITIES									
02.03.18	MECHANICAL	1.00	EA	0	0	0	682,000	0	682,000	682000.00
	TOTAL UTILITIES	1.00	EA	0	0	0	682,000	0	682,000	682000.00
	TOTAL RELOCATIONS	1.00	EA	0	0	0	682,000	0	682,000	682000.00
09	CHANNELS AND CANALS									
09.01	CANAL 2000A									
09.01. 1	CLEARING	318.00	AC	0	9,509	24,310	0	0	33,818	106.35
09.01. 2	EXCAVATION	1620011	CY	0	133,213	680,488	0	0	813,702	0.50
09.01. 3	EMBANKMENT	1618904	CY	0	284,946	1105530	0	0	1,390,477	0.86
09.01. 4	REINFORCED CONCRETE BOX CULVERT	2610.00	LF	1,128	14,135	37,811	774,862	0	826,808	316.78
09.01. 8	REINFORCED CONCRETE PIPE, 42"	240.00	LF	135	1,599	2,398	14,744	0	18,741	78.09
09.01.10	REINFORCED CONCRETE PIPE, 54"	240.00	LF	170	2,021	2,910	21,936	0	26,867	111.95
09.01.11	REINFORCED CONCRETE PIPE, 66"	240.00	LF	293	3,466	6,403	31,380	0	41,248	171.87
09.01.12	REINFORCED CONCRETE PIPE, 72"	240.00	LF	277	3,262	5,375	37,176	0	45,813	190.89
09.01.13	REINFORCED CONCRETE PIPE, 78"	480.00	LF	747	8,794	13,641	86,454	0	108,889	226.85
09.01.17	FLARED END SECTION, 42"	2.00	EA	8	91	74	700	0	865	432.63
09.01.19	FLARED END SECTION, 54"	2.00	EA	10	114	93	2,100	0	2,307	1153.29
09.01.20	FLARED END SECTION, 66"	2.00	EA	12	138	192	2,750	0	3,080	1539.92
09.01.21	FLARED END SECTION, 72"	2.00	EA	15	173	240	2,800	0	3,212	1606.15
09.01.22	FLARED END SECTION, 78"	4.00	EA	30	345	479	6,400	0	7,225	1806.15
09.01.23	GATES 18"	1.00	EA	3	36	22	450	0	508	508.23
09.01.24	GATES 24"	1.00	EA	3	36	22	525	0	583	583.23
09.01.25	GATES 36"	1.00	EA	5	57	46	994	0	1,097	1097.29
09.01.26	GATES 42"	1.00	EA	5	57	46	1,150	0	1,253	1253.29
09.01.27	GATES 48"	1.00	EA	5	57	46	1,500	0	1,603	1603.29
09.01.28	8" GRAVEL BASE	2203.00	CY	0	0	0	33,045	0	33,045	15.00
09.01.29	4" ASPHALT	1.00	JOB	0	0	0	10,800	0	10,800	10800.00
09.01.30	FERTILIZING AND SEEDING	163.00	AC	0	0	0	40,750	0	40,750	250.00
09.01.31	ENVIRONMENTAL PROTECTION	1.00	JOB	0	0	0	66,660	0	66,660	66660.00
09.01.32	WASTEWAYS	1.00	JOB	57	646	527	41,841	0	43,015	43014.92
09.01.34	STRUCTURES	1.00	JOB	140	1,622	1,699	47,873	0	51,194	51193.69
	TOTAL CANAL 2000A	1.00	JOB	3,042	464,317	1882353	1226890	0	3,573,561	3573561

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PROJECT CNTRO4: EASTERN ARKANSAS REGIONAL STUDY - GRAND PRAIRIE DEMONSTRATION
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** PROJECT DIRECT SUMMARY - System **

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SUMMARY PAGE 6

		QUANTITY	UOM	MANHRS	LABOR	EQUIPMNT	MATERIAL	OTHER	TOTAL COST	UNIT COST
<hr/>										
09.02	CANAL 2000B									
09.02. 1	CLEARING	1.00	AC	0	150	382	0	0	532	531.73
09.02. 4	FERTILIZING AND SEEDING	1.00	AC	0	0	0	600	0	600	600.00
09.02. 5	ENVIRONMENTAL PROTECTION			0	0	0	30,000	0	30,000	
	TOTAL CANAL 2000B	1.00	JOB	0	150	382	30,600	0	31,132	31131.73
09.03	CANAL 2000P									
09.03. 1	PVC PIPE, 6"	6165.00	LF	0	5,694	2,533	12,330	0	20,558	3.33
09.03. 2	PVC PIPE, 8"	8230.00	LF	0	7,617	3,397	20,575	0	31,590	3.84
09.03. 3	PUMPS FOR CANAL 2000			0	0	0	28,500	0	28,500	
09.03. 4	INSTRUMENTATION	4.00	EA	0	0	0	48,000	0	48,000	12000.00
	TOTAL CANAL 2000P	1.00	JOB	0	13,312	5,931	109,405	0	128,647	128647.36
09.04	CANAL 3000									
09.04. 1	CLEARING	52.00	AC	0	1,555	3,975	0	0	5,530	106.35
09.04. 2	EXCAVATION	629538.00	CY	0	51,767	264,438	0	0	316,205	0.50
09.04. 3	EMBANKMENT	74226.00	CY	0	6,382	16,315	0	0	22,697	0.31
09.04. 7	ENVIRONMENTAL PROTECTION			0	0	0	15,000	0	15,000	
09.04. 8	INSTRUMENTATION	1.00	EA	0	0	0	12,000	0	12,000	12000.00
	TOTAL CANAL 3000	1.00	JOB	0	59,703	284,729	27,000	0	371,432	371432.00
	TOTAL CHANNELS AND CANALS	1.00	EA	3,042	537,482	2173395	1393895	0	4,104,772	4104772
31	CONSTRUCTION MANAGEMENT									
	TOTAL EASTERN ARKANSAS REGIONAL STUDY	1.00	EA	3,042	537,482	2173395	2075895	0	4,786,772	4786772
	OVERHEAD									246,286
	SUBTOTAL									5,033,058
	HOME OFC									217,553
	SUBTOTAL									5,250,611
	PROFIT									365,489
	SUBTOTAL									5,616,100
	BOND									74,011
	TOTAL INCL INDIRECTS									5,690,111

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ERROR REPORT

U.S. Army Corps of Engineers
PROJECT CNTRO4: EASTERN ARKANSAS REGIONAL STUDY - GRAND PRAIRIE DEMONSTRATION
REACH NO. 4

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ERROR PAGE 1

No errors detected...

* * * END OF ERROR REPORT * * *

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U.S. Army Corps of Engineers
PROJECT CNTRO5: EASTERN ARKANSAS REGIONAL STUDY - GRAND PRAIRIE DEMONSTRATION
ITEM NO 5

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TITLE PAGE 1

EASTERN ARKANSAS REGIONAL STUDY
GRAND PRAIRIE DEMONSTRATION
PROJECT
ITEM NO 5

Designed By:
Estimated By: JAMES MOORE

Prepared By:

Preparation Date: 01/29/97
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** PROJECT INDIRECT SUMMARY - Facility **

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SUMMARY PAGE 1

		QUANTITY UOM	DIRECT	OVERHEAD	HOME OFC	PROFIT	BOND	TOTAL COST	UNIT COST
<hr/>									
01	LANDS AND DAMAGES								
02	RELOCATIONS								
02.03	UTILITIES	1.00 EA	193,000	0	0	0	0	193,000	193000.00
	TOTAL RELOCATIONS	1.00 EA	193,000	0	0	0	0	193,000	193000.00
09	CHANNELS AND CANALS								
09.01	CANAL 2100	1.00 JOB	237,317	14,239	12,578	21,131	4,279	289,543	289543.02
09.02	CANAL 2100P	2191.00 LF	65,113	3,907	3,451	5,798	1,174	79,443	36.26
09.03	Canal 2200	1.00 JOB	2,774,453	166,467	147,046	247,037	50,025	3,385,028	3385028
09.04	CANAL 2200P	1.00 JOB	638,683	38,321	33,850	56,868	11,516	779,239	779238.64
09.05	CANAL 2210	1.00 JOB	190,565	11,434	10,100	16,968	3,436	232,502	232502.14
09.06	CANAL 2210P	1.00 JOB	224,900	13,494	11,920	20,025	4,055	274,393	274393.38
09.07	Canal 2211	1.00 JOB	35,445	2,127	1,879	3,156	639	43,245	43245.05
09.08	CANAL 2220	1.00 JOB	53,710	3,223	2,847	4,782	968	65,530	65530.10
09.09	Canal 2230	1.00 JOB	187,276	11,237	9,926	16,675	3,377	228,490	228489.84
09.10	CANAL 2230P	1.00 JOB	1,690,262	101,416	89,584	150,501	30,476	2,062,239	2062239
09.11	CANAL 2240	1.00 JOB	126,090	7,565	6,683	11,227	2,273	153,838	153838.28
09.12	CANAL 2240P	1.00 JOB	248,028	14,882	13,145	22,084	4,472	302,611	302611.15
09.13	CANAL 2250	1.00 JOB	67,163	4,030	3,560	5,980	1,211	81,944	81943.85
09.14	CANAL 2260	1.00 JOB	33,589	2,015	1,780	2,991	606	40,982	40981.50
09.15	CANAL 2300	1.00 JOB	62,852	3,771	3,331	5,596	1,133	76,684	76683.66
09.16	CANAL 2300P	1.00 JOB	58,901	3,534	3,122	5,245	1,062	71,864	71863.82
09.17	CANAL 2400A	1.00 JOB	92,525	5,551	4,904	8,238	1,668	112,887	112886.99
09.18	CANAL 2400B	1.00 JOB	117,659	7,060	6,236	10,476	2,121	143,552	143551.68
09.19	CANAL 2410	1.00 JOB	141,059	8,464	7,476	12,560	2,543	172,101	172101.44
09.20	CANAL 2410P	1.00 JOB	104,311	6,259	5,528	9,288	1,881	127,267	127266.52
09.21	CANAL 2500	1.00 JOB	459,505	27,570	24,354	40,914	8,285	560,628	560628.17
09.22	CANAL 2500P	1.00 JOB	120,292	7,218	6,375	10,711	2,169	146,765	146765.23
	TOTAL CHANNELS AND CANALS	1.00 EA	7,729,696	463,782	409,674	688,252	139,371	9,430,775	9430775
31	CONSTRUCTION MANAGEMENT								
	TOTAL EASTERN ARKANSAS REGIONAL STUDY	1.00 EA	7,922,696	463,782	409,674	688,252	139,371	9,623,775	9623775

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	QUANTITY UOM	DIRECT	OVERHEAD	HOME OFC	PROFIT	BOND	TOTAL COST	UNIT COST
01 LANDS AND DAMAGES								
02 RELOCATIONS								
02.02 RAILROADS								
TOTAL RAILROADS								
02.03 UTILITIES								
02.03.18 MECHANICAL	1.00 EA	193,000	0	0	0	0	193,000	193000.00
TOTAL UTILITIES	1.00 EA	193,000	0	0	0	0	193,000	193000.00
TOTAL RELocations	1.00 EA	193,000	0	0	0	0	193,000	193000.00
09 CHANNELS AND CANALS								
09.01 CANAL 2100								
09.01. 1 FILTER GRAVEL	3840.00 TON	56,449	3,387	2,992	5,026	1,018	68,872	17.94
09.01. 2 RIPRAP	11520.00 TON	180,867	10,852	9,586	16,104	3,261	220,671	19.16
TOTAL CANAL 2100	1.00 JOB	237,317	14,239	12,578	21,131	4,279	289,543	289543.02
09.02 CANAL 2100P								
09.02. 1 6" PVC PIPE	2191.00 LF	7,287	437	386	649	131	8,891	4.06
09.02. 2 PUMPS FOR 2100		9,826	590	521	875	177	11,989	
09.02. 3 INSTRUMENTATION	4.00 EA	48,000	2,880	2,544	4,274	865	58,563	14640.85
TOTAL CANAL 2100P	2191.00 LF	65,113	3,907	3,451	5,798	1,174	79,443	36.26
09.03 Canal 2200								
09.03. 1 CLEARING	214.00 AC	22,758	1,365	1,206	2,026	410	27,767	129.75
09.03. 2 EXCAVATION	528222.00 CY	265,316	15,919	14,062	23,624	4,784	323,704	0.61
09.03. 3 EMBANKMENT	690447.00 CY	511,650	30,699	27,117	45,557	9,225	624,249	0.90
09.03. 7 REINFORCED CONCRETE PIPE, 48"	120.00 LF	11,743	705	622	1,046	212	14,327	119.39
09.03. 8 REINFORCED CONCRETE PIPE, 60"	240.00 LF	35,067	2,104	1,859	3,122	632	42,784	178.27
09.03. 9 REINFORCED CONCRETE PIPE, 66"	360.00 LF	65,141	3,908	3,452	5,800	1,175	79,476	220.77
09.03.10 REINFORCED CONCRETE PIPE, 78"	300.00 LF	60,813	3,649	3,223	5,415	1,096	74,196	247.32
09.03.11 REINFORCED CONCRETE PIPE, 84"	2912.00 LF	716,839	43,010	37,992	63,827	12,925	874,594	300.34
09.03.12 REINFORCED CONCRETE PIPE, 96"	1820.00 LF	557,108	33,426	29,527	49,605	10,045	679,711	373.47
09.03.16 FLARED END SECTION, 48"	2.00 EA	1,407	84	75	125	25	1,716	858.07
09.03.17 FLARED END SECTION, 60"	4.00 EA	5,413	325	287	482	98	6,604	1651.11

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		QUANTITY UOM	DIRECT	OVERHEAD	HOME OFC	PROFIT	BOND	TOTAL COST	UNIT COST
09.03.18	FLARED END SECTION, 66"	6.00 EA	9,240	554	490	823	167	11,273	1878.81
09.03.19	FLARED END SECTION, 78"	2.00 EA	3,612	217	191	322	65	4,407	2203.63
09.03.20	FLARED END SECTION, 84"	32.00 EA	66,555	3,993	3,527	5,926	1,200	81,202	2537.56
09.03.21	FLARED END SECTION, 96"	20.00 EA	46,597	2,796	2,470	4,149	840	56,851	2842.57
09.03.22	CANAL GATES 18"	6.00 EA	508	30	27	45	9	620	103.35
09.03.23	CANAL GATES 24"	1.00 EA	583	35	31	52	11	712	711.58
09.03.24	CANAL GATES 48"	4.00 EA	1,603	96	85	143	29	1,956	489.03
09.03.25	8" GRAVEL BASE	2452.00 CY	36,780	2,207	1,949	3,275	663	44,874	18.30
09.03.26	4" ASPHALT	1.00 JOB	8,460	508	448	753	153	10,322	10321.80
09.03.27	FILTER GRAVEL	543.00 TON	7,982	479	423	711	144	9,739	17.94
09.03.28	RIPRAP	1631.00 TON	25,607	1,536	1,357	2,280	462	31,243	19.16
09.03.29	FERTILIZING AND SEEDING	119.00 AC	71,400	4,284	3,784	6,357	1,287	87,113	732.04
09.03.30	ENVIRONMENTAL PROTECTION	1.00 JOB	100,500	6,030	5,327	8,949	1,812	122,617	122617.10
09.03.31	INSTRUMENTATION	8.00 EA	96,000	5,760	5,088	8,548	1,731	117,127	14640.85
09.03.32	STRUCTURES	1.00 JOB	45,770	2,746	2,426	4,075	825	55,843	55842.83
	TOTAL Canal 2200	1.00 JOB	2,774,453	166,467	147,046	247,037	50,025	3,385,028	3385028
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09.04	CANAL 2200P								
09.04. 1	6" PVC PIPE	13688.00 LF	45,660	2,740	2,420	4,066	823	55,708	4.07
09.04. 2	PVC PIPE, 10"	10360.00 LF	45,747	2,745	2,425	4,073	825	55,815	5.39
09.04. 3	PVC PIPELINE, 24"	13670.00 LF	279,680	16,781	14,823	24,903	5,043	341,230	24.96
09.04. 4	Pipeline, Plastic pipe, 18"	7800.00 LF	85,150	5,109	4,513	7,582	1,535	103,889	13.32
09.04. 5	PUMPS FOR 2200		98,446	5,907	5,218	8,766	1,775	120,111	
09.04. 6	INSTRUMENTATION	7.00 EA	84,000	5,040	4,452	7,479	1,515	102,486	14640.85
	TOTAL CANAL 2200P	1.00 JOB	638,683	38,321	33,850	56,868	11,516	779,239	779238.64
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09.05	CANAL 2210								
09.05. 1	FILTER GRAVEL	3083.00 TON	45,321	2,719	2,402	4,035	817	55,295	17.94
09.05. 2	RIPRAP	9251.00 TON	145,243	8,715	7,698	12,932	2,619	177,207	19.16
	TOTAL CANAL 2210	1.00 JOB	190,565	11,434	10,100	16,968	3,436	232,502	232502.14
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09.06	CANAL 2210P								
09.06. 1	6" PVC PIPE	4452.00 LF	14,876	893	788	1,325	268	18,149	4.08
09.06. 2	8" PVC PIPE	17335.00 LF	66,516	3,991	3,525	5,923	1,199	81,154	4.68
09.06. 3	PVC PIPE, 10"	3350.00 LF	14,812	889	785	1,319	267	18,071	5.39
09.06. 4	PUMPS FOR 2210		44,696	2,682	2,369	3,980	806	54,532	
09.06. 5	INSTRUMENTATION	7.00 EA	84,000	5,040	4,452	7,479	1,515	102,486	14640.85
	TOTAL CANAL 2210P	1.00 JOB	224,900	13,494	11,920	20,025	4,055	274,393	274393.38
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09.07	Canal 2211								

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09.07. 1	CLEARING	7.00 AC	744	45	39	66	13	908	129.75
09.07. 2	EXCAVATION	11500.00 CY	13,285	797	704	1,183	240	16,209	1.41
09.07. 3	EMBANKMENT	10000.00 CY	6,115	367	324	544	110	7,461	0.75
09.07. 4	FERTILIZING AND SEEDING	13.00 AC	7,800	468	413	695	141	9,517	732.04
09.07. 5	ENVIRONMENTAL PROTECTION		7,500	450	398	668	135	9,151	
TOTAL Canal 2211		1.00 JOB	35,445	2,127	1,879	3,156	639	43,245	43245.05
09.08 CANAL 2220									
09.08. 1	FILTER GRAVEL	543.00 TON	8,525	512	452	759	154	10,401	19.16
09.08. 2	RIPRAP	1631.00 TON	25,607	1,536	1,357	2,280	462	31,243	19.16
09.08. 3	8" PVC PIPE	1000.00 LF	3,871	232	205	345	70	4,723	4.72
09.08. 4	PUMPS FOR 2220		3,707	222	196	330	67	4,522	
09.08. 5	INSTRUMENTATION	1.00 EA	12,000	720	636	1,068	216	14,641	14640.85
TOTAL CANAL 2220		1.00 JOB	53,710	3,223	2,847	4,782	968	65,530	65530.10
09.09 Canal 2230									
09.09. 1	CLEARING	6.00 AC	638	38	34	57	12	779	129.75
09.09. 2	EXCAVATION	6666.00 CY	3,850	231	204	343	69	4,698	0.70
09.09. 3	EMBANKMENT	4355.00 CY	2,120	127	112	189	38	2,586	0.59
09.09. 6	FILTER GRAVEL	657.00 TON	9,658	579	512	860	174	11,784	17.94
09.09. 7	RIPRAP	1971.00 TON	30,945	1,857	1,640	2,755	558	37,755	19.16
09.09. 8	FERTILIZING AND SEEDING	101.00 AC	60,600	3,636	3,212	5,396	1,093	73,936	732.04
09.09. 9	ENVIRONMENTAL PROTECTION		7,500	450	398	668	135	9,151	
09.09.10	STRUCTURE		47,964	2,878	2,542	4,271	865	58,520	
09.09.11	INSTRUMENTATION	2.00 EA	24,000	1,440	1,272	2,137	433	29,282	14640.85
TOTAL Canal 2230		1.00 JOB	187,276	11,237	9,926	16,675	3,377	228,490	228489.84
09.10 CANAL 2230P									
09.10. 1	15" PIPELINE, PIP PLASTIC PIPE	17700.00 LF	134,685	8,081	7,138	11,992	2,428	164,325	9.28
09.10. 2	PUMPS CANAL 2230		45,120	2,707	2,391	4,017	814	55,049	
09.10. 3	INSTRUMENTATION	3.00 EA	36,000	2,160	1,908	3,205	649	43,923	14640.85
09.10. 4	PVC PIPE, 6"	1456.00 LF	4,844	291	257	431	87	5,910	4.06
09.10. 5	PVC PIPE, 8"	2540.00 LF	9,771	586	518	870	176	11,921	4.69
09.10. 6	PVC PIPE, 10"	2641.00 LF	11,645	699	617	1,037	210	14,207	5.38
09.10. 7	Reinforced Concrete Pipeline, 48"	17700.00 LF	1,448,198	86,892	76,754	128,948	26,112	1,766,904	99.83
TOTAL CANAL 2230P		1.00 JOB	1,690,262	101,416	89,584	150,501	30,476	2,062,239	2062239
09.11 CANAL 2240									
09.11. 1	FILTER GRAVEL	1629.00 TON	23,947	1,437	1,269	2,132	432	29,217	17.94

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09.11. 2	RIPRAP	4892.00 TON	76,806	4,608	4,071	6,839	1,385	93,709	19.16
09.11. 5	STRUCTURE FOR TURNOUT		13,337	800	707	1,188	240	16,272	
09.11. 6	INSTRUMENTATION	1.00 EA	12,000	720	636	1,068	216	14,641	14640.85
	TOTAL CANAL 2240		1.00 JOB	126,090	7,565	6,683	11,227	2,273	153,838 153838.28
09.12	CANAL 2240P								
09.12. 1	PVC PIPE, 6"	14600.00 LF	48,751	2,925	2,584	4,341	879	59,480	4.07
09.12. 2	PUMPS CANAL 2240		20,326	1,220	1,077	1,810	366	24,800	
09.12. 3	INSTRUMENTATION	4.00 EA	48,000	2,880	2,544	4,274	865	58,563	14640.85
09.12. 4	PVC PIPELINE, 24"	6400.00 LF	130,950	7,857	6,940	11,660	2,361	159,768	24.96
	TOTAL CANAL 2240P		1.00 JOB	248,028	14,882	13,145	22,084	4,472	302,611 302611.15
09.13	CANAL 2250								
09.13. 1	FILTER GRAVEL	1086.00 TON	15,965	958	846	1,421	288	19,478	17.94
09.13. 2	RIPRAP	3261.00 TON	51,199	3,072	2,714	4,559	923	62,466	19.16
	TOTAL CANAL 2250		1.00 JOB	67,163	4,030	3,560	5,980	1,211	81,944 81943.85
09.14	CANAL 2260								
09.14. 1	FILTER GRAVEL	543.00 TON	7,982	479	423	711	144	9,739	17.94
09.14. 2	RIPRAP	1631.00 TON	25,607	1,536	1,357	2,280	462	31,243	19.16
	TOTAL CANAL 2260		1.00 JOB	33,589	2,015	1,780	2,991	606	40,982 40981.50
09.15	CANAL 2300								
09.15. 1	FILTER GRAVEL	1017.00 TON	14,950	897	792	1,331	270	18,240	17.94
09.15. 2	RIPRAP	3051.00 TON	47,902	2,874	2,539	4,265	864	58,443	19.16
	TOTAL CANAL 2300		1.00 JOB	62,852	3,771	3,331	5,596	1,133	76,684 76683.66
09.16	CANAL 2300P								
09.16. 1	PVC PIPE, 6"	3539.00 LF	11,782	707	624	1,049	212	14,374	4.06
09.16. 2	PUMPS FOR CANAL 2300		11,120	667	589	990	200	13,567	
09.16. 3	INSTRUMENTATION	3.00 EA	36,000	2,160	1,908	3,205	649	43,923	14640.85
	TOTAL CANAL 2300P		1.00 JOB	58,901	3,534	3,122	5,245	1,062	71,864 71863.82
09.17	CANAL 2400A								

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		QUANTITY UOM	DIRECT	OVERHEAD	HOME OFC	PROFIT	BOND	TOTAL COST	UNIT COST
09.17. 1	CLEARING	22.00 AC	2,340	140	124	208	42	2,855	129.75
09.17. 2	EXCAVATION	34429.00 CY	19,887	1,193	1,054	1,771	359	24,264	0.70
09.17. 3	EMBANKMENT	33601.00 CY	11,062	664	586	985	199	13,496	0.40
09.17. 4	REINFORCED CONCRETE PIPE, 54"	364.00 LF	38,939	2,336	2,064	3,467	702	47,508	130.52
09.17. 5	FLARED END SECTION, 54"	4.00 EA	4,613	277	244	411	83	5,628	1407.10
09.17. 6	8" GRAVEL BASE	179.00 CY	2,685	161	142	239	48	3,276	18.30
09.17. 8	FERTILIZING AND SEEDING	22.00 AC	5,500	330	292	490	99	6,710	305.02
09.17. 9	ENVIRONMENTAL PROTECTION		7,500	450	398	668	135	9,151	
TOTAL CANAL 2400A		1.00 JOB	92,525	5,551	4,904	8,238	1,668	112,887	112886.99
09.18 CANAL 2400B									
09.18. 1	CLEARING	22.00 AC	2,340	140	124	208	42	2,855	129.75
09.18. 2	EXCAVATION	37428.00 CY	21,619	1,297	1,146	1,925	390	26,377	0.70
09.18. 3	EMBANKMENT	33601.00 CY	11,062	664	586	985	199	13,496	0.40
09.18. 4	REINFORCED CONCRETE PIPE, 36"	182.00 LF	11,627	698	616	1,035	210	14,185	77.94
09.18. 5	REINFORCED CONCRETE PIPE, 42"	300.00 LF	23,036	1,382	1,221	2,051	415	28,105	93.68
09.18. 6	FLARED END SECTION, 36"	2.00 EA	738	44	39	66	13	900	450.04
09.18. 7	FLARED END SECTION, 42"	2.00 EA	865	52	46	77	16	1,056	527.84
09.18. 8	8" GRAVEL BASE	69.00 CY	1,035	62	55	92	19	1,263	18.30
09.18.10	FERTILIZING AND SEEDING	22.00 AC	13,200	792	700	1,175	238	16,105	732.04
09.18.11	ENVIRONMENTAL PROTECTION		7,500	450	398	668	135	9,151	
09.18.12	PVC PIPE, 8"	2334.00 LF	8,931	536	473	795	161	10,897	4.67
09.18.13	PUMPS FOR CANAL 2400		3,707	222	196	330	67	4,522	
09.18.14	INSTRUMENTATION	1.00 EA	12,000	720	636	1,068	216	14,641	14640.85
TOTAL CANAL 2400B		1.00 JOB	117,659	7,060	6,236	10,476	2,121	143,552	143551.68
09.19 CANAL 2410									
09.19. 1	FILTER GRAVEL	1971.00 TON	28,974	1,738	1,536	2,580	522	35,351	17.94
09.19. 2	RIPRAP	5913.00 TON	92,836	5,570	4,920	8,266	1,674	113,266	19.16
09.19. 3	CANAL GATES 30"	1.00 EA	933	56	49	83	17	1,139	1138.68
09.19. 4	INSTRUMENTATION	1.00 EA	12,000	720	636	1,068	216	14,641	14640.85
09.19. 5	STRUCTURE		6,315	379	335	562	114	7,705	
TOTAL CANAL 2410		1.00 JOB	141,059	8,464	7,476	12,560	2,543	172,101	172101.44
09.20 CANAL 2410P									
09.20. 1	PVC PIPE, 6"	4136.00 LF	13,816	829	732	1,230	249	16,856	4.08
09.20. 2	PVC PIPE, 10"	1608.00 LF	6,962	418	369	620	126	8,494	5.28
09.20. 3	PUMPS FOR CANAL 2410		23,533	1,412	1,247	2,095	424	28,712	
09.20. 4	INSTRUMENTATION	5.00 EA	60,000	3,600	3,180	5,342	1,082	73,204	14640.85
TOTAL CANAL 2410P		1.00 JOB	104,311	6,259	5,528	9,288	1,881	127,267	127266.52

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		QUANTITY UOM	DIRECT	OVERHEAD	HOME OFC	PROFIT	BOND	TOTAL COST	UNIT COST
09.21 CANAL 2500									
09.21. 1	CLEARING	1.00 AC	106	6	6	9	2	130	129.75
09.21. 2	REINFORCED CONCRETE PIPE, 24"	224.00 LF	12,594	756	667	1,121	227	15,365	68.60
09.21. 3	FLARED END SECTION, 24"	4.00 EA	516	31	27	46	9	630	157.53
09.21. 6	FILTER GRAVEL	7026.00 TON	103,284	6,197	5,474	9,196	1,862	126,014	17.94
09.21. 7	RIPRAP	21075.00 TON	330,884	19,853	17,537	29,462	5,966	403,702	19.16
09.21. 8	8" GRAVEL BASE	67.00 CY	1,005	60	53	89	18	1,226	18.30
09.21. 9	4" ASPHALT		3,015	181	160	268	54	3,679	
09.21.10	FERTILIZING AND SEEDING	1.00 AC	600	36	32	53	11	732	732.04
09.21.11	ENVIRONMENTAL PROTECTION		7,500	450	398	668	135	9,151	
TOTAL CANAL 2500		1.00 JOB	459,505	27,570	24,354	40,914	8,285	560,628	560628.17
09.22 CANAL 2500P									
09.22. 1	PUMPS CANAL 2500		32,326	1,940	1,713	2,878	583	39,440	
09.22. 2	INSTRUMENTATION	4.00 EA	48,000	2,880	2,544	4,274	865	58,563	14640.85
09.22. 4	PVC PIPE, 6"	5174.00 LF	17,278	1,037	916	1,538	312	21,080	4.07
09.22. 5	PVC PIPE, 8"	5914.00 LF	22,688	1,361	1,202	2,020	409	27,681	4.68
TOTAL CANAL 2500P		1.00 JOB	120,292	7,218	6,375	10,711	2,169	146,765	146765.23
TOTAL CHANNELS AND CANALS									
31 CONSTRUCTION MANAGEMENT		1.00 EA	7,729,696	463,782	409,674	688,252	139,371	9,430,775	9430775
TOTAL EASTERN ARKANSAS REGIONAL STUDY		1.00 EA	7,922,696	463,782	409,674	688,252	139,371	9,623,775	9623775

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	QUANTITY	UOM	MANHRS	LABOR	EQUIPMENT	MATERIAL	OTHER	TOTAL COST	UNIT COST
<hr/>									
01 LANDS AND DAMAGES									
02 RELOCATIONS									
02.03 UTILITIES	1.00	EA	0	0	0	193,000	0	193,000	193000.00
TOTAL RELOCATIONS	1.00	EA	0	0	0	193,000	0	193,000	193000.00
09 CHANNELS AND CANALS									
09.01 CANAL 2100	1.00	JOB	2,222	26,725	53,151	157,440	0	237,317	237316.61
09.02 CANAL 2100P	2191.00	LF	40	2,467	1,264	61,382	0	65,113	29.72
09.03 Canal 2200	1.00	JOB	9,525	269,437	824,725	1680291	0	2,774,453	2774453
09.04 CANAL 2200P	1.00	JOB	70	68,044	42,448	528,191	0	638,683	638683.23
09.05 CANAL 2210	1.00	JOB	1,784	21,460	42,680	126,424	0	190,565	190564.50
09.06 CANAL 2210P	1.00	JOB	70	24,269	11,089	189,542	0	224,900	224899.59
09.07 Canal 2211	1.00	JOB	0	4,104	16,041	15,300	0	35,445	35444.71
09.08 CANAL 2220	1.00	JOB	325	4,843	8,040	40,827	0	53,710	53710.08
09.09 Canal 2230	1.00	JOB	497	7,221	15,655	164,400	0	187,276	187275.92
09.10 CANAL 2230P	1.00	JOB	8,393	131,525	99,923	1458815	0	1,690,262	1690262
09.11 CANAL 2240	1.00	JOB	968	11,646	22,850	91,594	0	126,090	126089.65
09.12 CANAL 2240P	1.00	JOB	40	28,764	16,964	202,300	0	248,028	248027.57
09.13 CANAL 2250	1.00	JOB	629	7,563	15,042	44,558	0	67,163	67163.20
09.14 CANAL 2260	1.00	JOB	315	3,783	7,523	22,284	0	33,589	33589.45
09.15 CANAL 2300	1.00	JOB	589	7,078	14,077	41,697	0	62,852	62851.82
09.16 CANAL 2300P	1.00	JOB	30	3,595	1,728	53,578	0	58,901	58901.36
09.17 CANAL 2400A	1.00	JOB	247	9,840	30,624	52,061	0	92,525	92524.97
09.18 CANAL 2400B	1.00	JOB	312	13,048	33,733	70,878	0	117,659	117658.51
09.19 CANAL 2410	1.00	JOB	1,166	14,012	27,606	99,441	0	141,059	141058.59
09.20 CANAL 2410P	1.00	JOB	50	5,879	2,836	95,596	0	104,311	104310.78
09.21 CANAL 2500	1.00	JOB	4,240	51,472	102,093	305,940	0	459,505	459504.70
09.22 CANAL 2500P	1.00	JOB	40	10,720	4,940	104,633	0	120,292	120292.40
TOTAL CHANNELS AND CANALS	1.00	EA	31,552	727,493	1395033	5607170	0	7,729,696	7729696
31 CONSTRUCTION MANAGEMENT									
TOTAL EASTERN ARKANSAS REGIONAL STUDY	1.00	EA	31,552	727,493	1395033	5800170	0	7,922,696	7922696
OVERHEAD									463,782
SUBTOTAL HOME OFC									8,386,478
SUBTOTAL PROFIT									409,674
SUBTOTAL BOND									8,796,152
									688,252
									9,484,404
									139,371

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	QUANTITY	UOM	MANHRS	LABOR	EQUIPMNT	MATERIAL	OTHER	TOTAL COST	UNIT COST
TOTAL INCL INDIRECTS								9,623,775	

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	QUANTITY	UOM	MANHRS	LABOR	EQUIPMENT	MATERIAL	OTHER	TOTAL COST	UNIT COST

01 LANDS AND DAMAGES									
02 RELOCATIONS									
02.02 RAILROADS									
TOTAL RAILROADS									
02.03 UTILITIES									
02.03.18 MECHANICAL	1.00	EA	0	0	0	193,000	0	193,000	193000.00
TOTAL UTILITIES	1.00	EA	0	0	0	193,000	0	193,000	193000.00
TOTAL RELOCATIONS	1.00	EA	0	0	0	193,000	0	193,000	193000.00
09 CHANNELS AND CANALS									
09.01 CANAL 2100									
09.01. 1 FILTER GRAVEL	3840.00	TON	556	6,681	13,288	36,480	0	56,449	14.70
09.01. 2 RIPRAP	11520.00	TON	1,667	20,044	39,863	120,960	0	180,867	15.70
TOTAL CANAL 2100	1.00	JOB	2,222	26,725	53,151	157,440	0	237,317	237316.61
09.02 CANAL 2100P									
09.02. 1 6" PVC PIPE	2191.00	LF	0	2,012	893	4,382	0	7,287	3.33
09.02. 2 PUMPS FOR 2100			40	455	371	9,000	0	9,826	
09.02. 3 INSTRUMENTATION	4.00	EA	0	0	0	48,000	0	48,000	12000.00
TOTAL CANAL 2100P	2191.00	LF	40	2,467	1,264	61,382	0	65,113	29.72
09.03 Canal 2200									
09.03. 1 CLEARING	214.00	AC	0	6,399	16,359	0	0	22,758	106.35
09.03. 2 EXCAVATION	528222.00	CY	0	43,436	221,880	0	0	265,316	0.50
09.03. 3 EMBANKMENT	690447.00	CY	0	107,566	404,084	0	0	511,650	0.74
09.03. 7 REINFORCED CONCRETE PIPE, 48"	120.00	LF	83	988	1,397	9,359	0	11,743	97.86
09.03. 8 REINFORCED CONCRETE PIPE, 60"	240.00	LF	267	3,153	4,080	27,834	0	35,067	146.11
09.03. 9 REINFORCED CONCRETE PIPE, 66"	360.00	LF	489	5,802	10,286	49,053	0	65,141	180.95
09.03.10 REINFORCED CONCRETE PIPE, 78"	300.00	LF	466	5,480	8,491	46,842	0	60,813	202.71
09.03.11 REINFORCED CONCRETE PIPE, 84"	2912.00	LF	4,279	50,309	82,838	583,692	0	716,839	246.17
09.03.12 REINFORCED CONCRETE PIPE, 96"	1820.00	LF	2,802	33,002	55,152	468,954	0	557,108	306.10
09.03.16 FLARED END SECTION, 48"	2.00	EA	10	114	93	1,200	0	1,407	703.29
09.03.17 FLARED END SECTION, 60"	4.00	EA	20	228	186	5,000	0	5,413	1353.29

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			QUANTITY	UOM	MANHRS	LABOR	EQUIPMNT	MATERIAL	OTHER	TOTAL COST	UNIT COST
09.03.18	FLARED END SECTION, 66"		6.00	EA	36	415	575	8,250	0	9,240	1539.92
09.03.19	FLARED END SECTION, 78"		2.00	EA	15	173	240	3,200	0	3,612	1806.15
09.03.20	FLARED END SECTION, 84"		32.00	EA	384	4,422	6,133	56,000	0	66,555	2079.84
09.03.21	FLARED END SECTION, 96"		20.00	EA	240	2,764	3,833	40,000	0	46,597	2329.84
09.03.22	CANAL GATES 18"		6.00	EA	3	36	22	450	0	508	84.70
09.03.23	CANAL GATES 24"		1.00	EA	3	36	22	525	0	583	583.23
09.03.24	CANAL GATES 48"		4.00	EA	5	57	46	1,500	0	1,603	400.82
09.03.25	8" GRAVEL BASE		2452.00	CY	0	0	0	36,780	0	36,780	15.00
09.03.26	4" ASPHALT		1.00	JOB	0	0	0	8,460	0	8,460	8460.00
09.03.27	FILTER GRAVEL		543.00	TON	79	945	1,879	5,159	0	7,982	14.70
09.03.28	RIPRAP		1631.00	TON	236	2,838	5,644	17,126	0	25,607	15.70
09.03.29	FERTILIZING AND SEEDING		119.00	AC	0	0	0	71,400	0	71,400	600.00
09.03.30	ENVIRONMENTAL PROTECTION		1.00	JOB	0	0	0	100,500	0	100,500	100500.00
09.03.31	INSTRUMENTATION		8.00	EA	0	0	0	96,000	0	96,000	12000.00
09.03.32	STRUCTURES		1.00	JOB	109	1,277	1,485	43,008	0	45,770	45770.16
TOTAL Canal 2200			1.00	JOB	9,525	269,437	824,725	1680291	0	2,774,453	2774453
09.04 CANAL 2200P											
09.04. 1	6" PVC PIPE		13688.00	LF	0	12,646	5,638	27,376	0	45,660	3.34
09.04. 2	PVC PIPE, 10"		10360.00	LF	0	10,205	4,462	31,080	0	45,747	4.42
09.04. 3	PVC PIPELINE, 24"		13670.00	LF	0	31,578	22,548	225,555	0	279,680	20.46
09.04. 4	Pipeline, Plastic pipe, 18"		7800.00	LF	0	12,818	9,151	63,180	0	85,150	10.92
09.04. 5	PUMPS FOR 2200		70		797	650	97,000	0	98,446		
09.04. 6	INSTRUMENTATION		7.00	EA	0	0	0	84,000	0	84,000	12000.00
TOTAL CANAL 2200P			1.00	JOB	70	68,044	42,448	528,191	0	638,683	638683.23
09.05 CANAL 2210											
09.05. 1	FILTER GRAVEL		3083.00	TON	446	5,364	10,668	29,289	0	45,321	14.70
09.05. 2	RIPRAP		9251.00	TON	1,338	16,096	32,012	97,136	0	145,243	15.70
TOTAL CANAL 2210			1.00	JOB	1,784	21,460	42,680	126,424	0	190,565	190564.50
09.06 CANAL 2210P											
09.06. 1	6" PVC PIPE		4452.00	LF	0	4,126	1,845	8,904	0	14,876	3.34
09.06. 2	8" PVC PIPE		17335.00	LF	0	16,033	7,146	43,338	0	66,516	3.84
09.06. 3	PVC PIPE, 10"		3350.00	LF	0	3,313	1,449	10,050	0	14,812	4.42
09.06. 4	PUMPS FOR 2210		70		797	650	43,250	0	44,696		
09.06. 5	INSTRUMENTATION		7.00	EA	0	0	0	84,000	0	84,000	12000.00
TOTAL CANAL 2210P			1.00	JOB	70	24,269	11,089	189,542	0	224,900	224899.59
09.07 Canal 2211											

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		QUANTITY	UOM	MANHRS	LABOR	EQUIPMNT	MATERIAL	OTHER	TOTAL COST	UNIT COST
09.07. 1	CLEARING	7.00	AC	0	209	535	0	0	744	106.35
09.07. 2	EXCAVATION	11500.00	CY	0	2,175	11,110	0	0	13,285	1.16
09.07. 3	EMBANKMENT	10000.00	CY	0	1,719	4,396	0	0	6,115	0.61
09.07. 4	FERTILIZING AND SEEDING	13.00	AC	0	0	0	7,800	0	7,800	600.00
09.07. 5	ENVIRONMENTAL PROTECTION			0	0	0	7,500	0	7,500	
TOTAL Canal 2211		1.00	JOB	0	4,104	16,041	15,300	0	35,445	35444.71
09.08 CANAL 2220										
09.08. 1	FILTER GRAVEL	543.00	TON	79	945	1,879	5,702	0	8,525	15.70
09.08. 2	RIPRAP	1631.00	TON	236	2,838	5,644	17,126	0	25,607	15.70
09.08. 3	8" PVC PIPE	1000.00	LF	0	946	425	2,500	0	3,871	3.87
09.08. 4	PUMPS FOR 2220			10	114	93	3,500	0	3,707	
09.08. 5	INSTRUMENTATION	1.00	EA	0	0	0	12,000	0	12,000	12000.00
TOTAL CANAL 2220		1.00	JOB	325	4,843	8,040	40,827	0	53,710	53710.08
09.09 Canal 2230										
09.09. 1	CLEARING	6.00	AC	0	179	459	0	0	638	106.35
09.09. 2	EXCAVATION	6666.00	CY	0	630	3,220	0	0	3,850	0.58
09.09. 3	EMBANKMENT	4355.00	CY	0	499	1,621	0	0	2,120	0.49
09.09. 6	FILTER GRAVEL	657.00	TON	95	1,143	2,273	6,242	0	9,658	14.70
09.09. 7	RIPRAP	1971.00	TON	285	3,429	6,820	20,696	0	30,945	15.70
09.09. 8	FERTILIZING AND SEEDING	101.00	AC	0	0	0	60,600	0	60,600	600.00
09.09. 9	ENVIRONMENTAL PROTECTION			0	0	0	7,500	0	7,500	
09.09.10	STRUCTURE	117		1,339	1,262	45,363	0	0	47,964	
09.09.11	INSTRUMENTATION	2.00	EA	0	0	0	24,000	0	24,000	12000.00
TOTAL Canal 2230		1.00	JOB	497	7,221	15,655	164,400	0	187,276	187275.92
09.10 CANAL 2230P										
09.10. 1	15" PIPELINE, PIP PLASTIC PIPE	17700.00	LF	0	29,078	12,682	92,925	0	134,685	7.61
09.10. 2	PUMPS CANAL 2230			30	341	278	44,500	0	45,120	
09.10. 3	INSTRUMENTATION	3.00	EA	0	0	0	36,000	0	36,000	12000.00
09.10. 4	PVC PIPE, 6"	1456.00	LF	0	1,331	600	2,912	0	4,844	3.33
09.10. 5	PVC PIPE, 8"	2540.00	LF	0	2,366	1,054	6,350	0	9,771	3.85
09.10. 6	PVC PIPE, 10"	2641.00	LF	0	2,588	1,133	7,923	0	11,645	4.41
09.10. 7	Reinforced Concrete Pipeline,48"	17700.00	LF	8,363	95,819	84,174	1268205	0	1,448,198	81.82
TOTAL CANAL 2230P		1.00	JOB	8,393	131,525	99,923	1458815	0	1,690,262	1690262
09.11 CANAL 2240										
09.11. 1	FILTER GRAVEL	1629.00	TON	236	2,834	5,637	15,476	0	23,947	14.70

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09.11. 2	RIPRAP	4892.00	TON	708	8,512	16,928	51,366	0	76,806	15.70
09.11. 5	STRUCTURE FOR TURNOUT	25		300	285	12,752	0	0	13,337	
09.11. 6	INSTRUMENTATION	1.00	EA	0	0	0	12,000	0	12,000	12000.00
	TOTAL CANAL 2240			1.00	JOB	968	11,646	22,850	91,594	0
									126,090	126089.65
09.12	CANAL 2240P									
09.12. 1	PVC PIPE, 6"	14600.00	LF	0	13,518	6,033	29,200	0	48,751	3.34
09.12. 2	PUMPS CANAL 2240	40		455	371	19,500	0	0	20,326	
09.12. 3	INSTRUMENTATION	4.00	EA	0	0	0	48,000	0	48,000	12000.00
09.12. 4	PVC PIPELINE, 24"	6400.00	LF	0	14,790	10,559	105,600	0	130,950	20.46
	TOTAL CANAL 2240P			1.00	JOB	40	28,764	16,964	202,300	0
									248,028	248027.57
09.13	CANAL 2250									
09.13. 1	FILTER GRAVEL	1086.00	TON	157	1,890	3,758	10,317	0	15,965	14.70
09.13. 2	RIPRAP	3261.00	TON	472	5,674	11,284	34,241	0	51,199	15.70
	TOTAL CANAL 2250			1.00	JOB	629	7,563	15,042	44,558	0
									67,163	67163.20
09.14	CANAL 2260									
09.14. 1	FILTER GRAVEL	543.00	TON	79	945	1,879	5,159	0	7,982	14.70
09.14. 2	RIPRAP	1631.00	TON	236	2,838	5,644	17,126	0	25,607	15.70
	TOTAL CANAL 2260			1.00	JOB	315	3,783	7,523	22,284	0
									33,589	33589.45
09.15	CANAL 2300									
09.15. 1	FILTER GRAVEL	1017.00	TON	147	1,770	3,519	9,662	0	14,950	14.70
09.15. 2	RIPRAP	3051.00	TON	441	5,309	10,558	32,036	0	47,902	15.70
	TOTAL CANAL 2300			1.00	JOB	589	7,078	14,077	41,697	0
									62,852	62851.82
09.16	CANAL 2300P									
09.16. 1	PVC PIPE, 6"	3539.00	LF	0	3,254	1,450	7,078	0	11,782	3.33
09.16. 2	PUMPS FOR CANAL 2300	30		341	278	10,500	0	0	11,120	
09.16. 3	INSTRUMENTATION	3.00	EA	0	0	0	36,000	0	36,000	12000.00
	TOTAL CANAL 2300P			1.00	JOB	30	3,595	1,728	53,578	0
									58,901	58901.36
09.17	CANAL 2400A									

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U.S. Army Corps of Engineers
PROJECT CNTRO5: EASTERN ARKANSAS REGIONAL STUDY - GRAND PRAIRIE DEMONSTRATION
ITEM NO. 5
** PROJECT DIRECT SUMMARY - System **

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		QUANTITY	UOM	MANHRS	LABOR	EQUIPMENT	MATERIAL	OTHER	TOTAL COST	UNIT COST
09.17. 1	CLEARING	22.00	AC	0	658	1,682	0	0	2,340	106.35
09.17. 2	EXCAVATION	34429.00	CY	0	3,256	16,631	0	0	19,887	0.58
09.17. 3	EMBANKMENT	33601.00	CY	0	3,013	8,048	0	0	11,062	0.33
09.17. 4	REINFORCED CONCRETE PIPE, 54"	364.00	LF	227	2,686	4,077	32,176	0	38,939	106.97
09.17. 5	FLARED END SECTION, 54"	4.00	EA	20	228	186	4,200	0	4,613	1153.29
09.17. 6	8" GRAVEL BASE	179.00	CY	0	0	0	2,685	0	2,685	15.00
09.17. 8	FERTILIZING AND SEEDING	22.00	AC	0	0	0	5,500	0	5,500	250.00
09.17. 9	ENVIRONMENTAL PROTECTION	0		0	0	0	7,500	0	7,500	
	TOTAL CANAL 2400A	1.00	JOB	247	9,840	30,624	52,061	0	92,525	92524.97
09.18	CANAL 2400B									
09.18. 1	CLEARING	22.00	AC	0	658	1,682	0	0	2,340	106.35
09.18. 2	EXCAVATION	37428.00	CY	0	3,539	18,080	0	0	21,619	0.58
09.18. 3	EMBANKMENT	33601.00	CY	0	3,013	8,048	0	0	11,062	0.33
09.18. 4	REINFORCED CONCRETE PIPE, 36"	182.00	LF	101	1,196	1,713	8,718	0	11,627	63.88
09.18. 5	REINFORCED CONCRETE PIPE, 42"	300.00	LF	187	2,217	3,029	17,790	0	23,036	76.79
09.18. 6	FLARED END SECTION, 36"	2.00	EA	7	76	62	600	0	738	368.86
09.18. 7	FLARED END SECTION, 42"	2.00	EA	8	91	74	700	0	865	432.63
09.18. 8	8" GRAVEL BASE	69.00	CY	0	0	0	1,035	0	1,035	15.00
09.18.10	FERTILIZING AND SEEDING	22.00	AC	0	0	0	13,200	0	13,200	600.00
09.18.11	ENVIRONMENTAL PROTECTION	0		0	0	0	7,500	0	7,500	
09.18.12	PVC PIPE, 8"	2334.00	LF	0	2,145	952	5,835	0	8,931	3.83
09.18.13	PUMPS FOR CANAL 2400	10			114	93	3,500	0	3,707	
09.18.14	INSTRUMENTATION	1.00	EA	0	0	0	12,000	0	12,000	12000.00
	TOTAL CANAL 2400B	1.00	JOB	312	13,048	33,733	70,878	0	117,659	117658.51
09.19	CANAL 2410									
09.19. 1	FILTER GRAVEL	1971.00	TON	285	3,429	6,820	18,725	0	28,974	14.70
09.19. 2	RIPRAP	5913.00	TON	855	10,288	20,461	62,087	0	92,836	15.70
09.19. 3	CANAL GATES 30"	1.00	EA	5	57	46	830	0	933	933.29
09.19. 4	INSTRUMENTATION	1.00	EA	0	0	0	12,000	0	12,000	12000.00
09.19. 5	STRUCTURE	20		237	278	278	5,800	0	6,315	
	TOTAL CANAL 2410	1.00	JOB	1,166	14,012	27,606	99,441	0	141,059	141058.59
09.20	CANAL 2410P									
09.20. 1	PVC PIPE, 6"	4136.00	LF	0	3,831	1,713	8,272	0	13,816	3.34
09.20. 2	PVC PIPE, 10"	1608.00	LF	0	1,479	659	4,824	0	6,962	4.33
09.20. 3	PUMPS FOR CANAL 2410	50			569	464	22,500	0	23,533	
09.20. 4	INSTRUMENTATION	5.00	EA	0	0	0	60,000	0	60,000	12000.00
	TOTAL CANAL 2410P	1.00	JOB	50	5,879	2,836	95,596	0	104,311	104310.78

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** PROJECT DIRECT SUMMARY - System **

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		QUANTITY	UOM	MANHRS	LABOR	EQUIPMNT	MATERIAL	OTHER	TOTAL COST	UNIT COST
<hr/>										
09.21	CANAL 2500									
09.21. 1	CLEARING	1.00	AC	0	30	76	0	0	106	106.35
09.21. 2	REINFORCED CONCRETE PIPE, 24"	224.00	LF	169	2,476	4,732	5,385	0	12,594	56.22
09.21. 3	FLARED END SECTION, 24"	4.00	EA	6	72	44	400	0	516	129.11
09.21. 6	FILTER GRAVEL	7026.00	TON	1,016	12,225	24,313	66,747	0	103,284	14.70
09.21. 7	RIPRAP	21075.00	TON	3,049	36,669	72,927	221,288	0	330,884	15.70
09.21. 8	8" GRAVEL BASE	67.00	CY	0	0	0	1,005	0	1,005	15.00
09.21. 9	4" ASPHALT	0		0	0	0	3,015	0	3,015	
09.21.10	FERTILIZING AND SEEDING	1.00	AC	0	0	0	600	0	600	
09.21.11	ENVIRONMENTAL PROTECTION			0	0	0	7,500	0	7,500	
TOTAL CANAL 2500		1.00	JOB	4,240	51,472	102,093	305,940	0	459,505	459504.70
09.22	CANAL 2500P									
09.22. 1	PUMPS CANAL 2500			40	455	371	31,500	0	32,326	
09.22. 2	INSTRUMENTATION	4.00	EA	0	0	0	48,000	0	48,000	12000.00
09.22. 4	PVC PIPE, 6"	5174.00	LF	0	4,792	2,138	10,348	0	17,278	3.34
09.22. 5	PVC PIPE, 8"	5914.00	LF	0	5,472	2,431	14,785	0	22,688	3.84
TOTAL CANAL 2500P		1.00	JOB	40	10,720	4,940	104,633	0	120,292	120292.40
TOTAL CHANNELS AND CANALS		1.00	EA	31,552	727,493	1395033	5607170	0	7,729,696	7729696
31	CONSTRUCTION MANAGEMENT									
TOTAL EASTERN ARKANSAS REGIONAL STUDY		1.00	EA	31,552	727,493	1395033	5800170	0	7,922,696	7922696
OVERHEAD										
SUBTOTAL										
HOME OFC										
SUBTOTAL										
PROFIT										
SUBTOTAL										
BOND										
TOTAL INCL INDIRECTS										
463,782										

8,386,478										
409,674										

8,796,152										
688,252										

9,484,404										
139,371										

9,623,775										

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ERROR REPORT

U.S. Army Corps of Engineers
PROJECT CNTRO5: EASTERN ARKANSAS REGIONAL STUDY - GRAND PRAIRIE DEMONSTRATION
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No errors detected...

* * * END OF ERROR REPORT * * *

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U.S. Army Corps of Engineers
PROJECT CNTR06: EASTERN ARKANSAS REGIONAL STUDY - GRAND PRAIRIE DEMONSTRATION
ITEM NO 6

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TITLE PAGE 1

EASTERN ARKANSAS REGIONAL STUDY
GRAND PRAIRIE DEMONSTRATION
PROJECT
ITEM NO 6

Designed By:
Estimated By: JAMES MOORE

Prepared By:

Preparation Date: 12/19/96
Effective Date of Pricing: 12/19/96

Sales Tax: 0.00%

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ITEM NO 6
** PROJECT INDIRECT SUMMARY - Facility **

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SUMMARY PAGE 1

		QUANTITY UOM	DIRECT	OVERHEAD	HOME OFC	PROFIT	BOND	TOTAL COST	UNIT COST
<hr/>									
01 LANDS AND DAMAGES									
02 RELOCATIONS									
02.03 UTILITIES		1.00 EA	181,000	0	0	0	0	181,000	181000.00
TOTAL RELOCATIONS		1.00 EA	181,000	0	0	0	0	181,000	181000.00
09 CHANNELS AND CANALS									
09.01 Canal 3000		1.00 JOB	5,127,233	307,634	271,743	456,529	92,447	6,255,586	6255586
09.02 Canal 3000P		1.00 JOB	346,739	20,804	18,377	30,874	6,252	423,047	423046.64
09.03 Canal 3100		1.00 JOB	337,540	20,252	17,890	30,055	6,086	411,823	411823.08
09.04 CANAL 3110		1.00 JOB	142,466	8,548	7,551	12,685	2,569	173,819	173819.15
09.05 Canal 3110P		1.00 JOB	58,533	3,512	3,102	5,212	1,055	71,414	71414.33
09.06 Canal 3300		1.00 JOB	253,948	15,237	13,459	22,611	4,579	309,834	309833.99
09.07 Canal 3400P		1.00 JOB	559,183	33,551	29,637	49,790	10,082	682,243	682242.96
09.08 Canal 3300P		1.00 JOB	50,981	3,059	2,702	4,539	919	62,201	62200.55
09.09 GATED STRUCTURE, CANAL 3000		1.00 JOB	735,013	44,101	38,956	65,446	13,253	896,767	896767.22
TOTAL CHANNELS AND CANALS		1.00 EA	7,611,637	456,698	403,417	677,740	137,242	9,286,734	9286734
31 CONSTRUCTION MANAGEMENT									
TOTAL EASTERN ARKANSAS REGIONAL STUDY		1.00 EA	7,792,637	456,698	403,417	677,740	137,242	9,467,734	9467734

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SUMMARY PAGE 2

	QUANTITY UOM	DIRECT	OVERHEAD	HOME OFC	PROFIT	BOND	TOTAL COST	UNIT COST
01 LANDS AND DAMAGES								
02 RELOCATIONS								
02.02 RAILROADS								
TOTAL RAILROADS								
02.03 UTILITIES								
02.03.18 MECHANICAL	1.00 EA	181,000	0	0	0	0	181,000	181000.00
TOTAL UTILITIES	1.00 EA	181,000	0	0	0	0	181,000	181000.00
TOTAL RELOCATIONS	1.00 EA	181,000	0	0	0	0	181,000	181000.00
09 CHANNELS AND CANALS								
09.01 Canal 3000								
09.01. 1 CLEARING	300.00 AC	31,904	1,914	1,691	2,841	575	38,925	129.75
09.01. 2 EXCAVATION	2509342 CY	2,702,999	162,180	143,259	240,675	48,737	3,297,850	1.31
09.01. 3 EMBANKMENT	887444.00 CY	366,926	22,016	19,447	32,671	6,616	447,675	0.50
09.01. 4 REINFORCED CONCRETE BOX CULVERT	725.00 LF	1,338,447	80,307	70,938	119,175	24,133	1,633,000	2252.41
09.01. 5 REINFORCED CONCRETE PIPE, 30"	220.00 LF	11,843	711	628	1,054	214	14,449	65.68
09.01. 6 REINFORCED CONCRETE PIPE, 42"	220.00 LF	17,584	1,055	932	1,566	317	21,453	97.51
09.01. 7 REINFORCED CONCRETE PIPE, 48"	220.00 LF	21,259	1,276	1,127	1,893	383	25,937	117.90
09.01. 8 REINFORCED CONCRETE PIPE, 78"	440.00 LF	143,010	8,581	7,580	12,734	2,579	174,482	396.55
09.01. 9 REINFORCED CONCRETE PIPE, 84"	440.00 LF	112,624	6,757	5,969	10,028	2,031	137,409	312.29
09.01.10 REINFORCED CONCRETE PIPE, 90"	220.00 LF	61,552	3,693	3,262	5,481	1,110	75,098	341.35
09.01.11 FLARED END SECTION, 84"	4.00 EA	8,319	499	441	741	150	10,150	2537.56
09.01.12 FLARED END SECTION, 30"	2.00 EA	738	44	39	66	13	900	450.04
09.01.13 FLARED END SECTION, 42"	2.00 EA	865	52	46	77	16	1,056	527.84
09.01.14 FLARED END SECTION, 48"	2.00 EA	1,407	84	75	125	25	1,716	858.07
09.01.15 FLARED END SECTION, 78"	4.00 EA	7,225	433	383	643	130	8,815	2203.63
09.01.16 FLARED END SECTION, 90"	2.00 EA	4,460	268	236	397	80	5,441	2720.57
09.01.17 GATES 30"	2.00 EA	933	56	49	83	17	1,139	569.34
09.01.18 GATES 42"	1.00 EA	1,253	75	66	112	23	1,529	1529.10
09.01.19 GATES 48"	2.00 EA	1,603	96	85	143	29	1,956	978.06
09.01.20 8" GRAVEL BASE	927.00 CY	13,905	834	737	1,238	251	16,965	18.30
09.01.21 4" ASPHALT	1.00 JOB	10,350	621	549	922	187	12,628	12627.73
09.01.22 INSTRUMENTATION	6.00 EA	72,000	4,320	3,816	6,411	1,298	87,845	14640.85
09.01.23 FERTILIZING AND SEEDING	160.00 AC	96,000	5,760	5,088	8,548	1,731	117,127	732.04
09.01.24 ENVIRONMENTAL PROTECTION	1.00 JOB	74,220	4,453	3,934	6,609	1,338	90,554	90553.64
09.01.26 WASTEWAYS	1.00 JOB	25,808	1,548	1,368	2,298	465	31,487	31487.08
TOTAL Canal 3000	1.00 JOB	5,127,233	307,634	271,743	456,529	92,447	6,255,586	6255586

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U.S. Army Corps of Engineers
PROJECT CNTR06: EASTERN ARKANSAS REGIONAL STUDY - GRAND PRAIRIE DEMONSTRATION
ITEM NO 6
** PROJECT INDIRECT SUMMARY - System **

SUMMARY PAGE 3

		QUANTITY UOM	DIRECT	OVERHEAD	HOME OFC	PROFIT	BOND	TOTAL COST	UNIT COST
09.02 Canal 3000P									
09.02. 1	PIP PLASTIC PIPE, 6"	3510.00 LF	11,724	703	621	1,044	211	14,304	4.08
09.02. 2	PIP PLASTIC PIPE, 10"	5637.00 LF	24,882	1,493	1,319	2,215	449	30,358	5.39
09.02. 3	PIP PLASTIC PIPE, 12"	2629.00 LF	13,876	833	735	1,235	250	16,929	6.44
09.02. 4	PIP PLASTIC PIPE, 15"	12522.00 LF	92,321	5,539	4,893	8,220	1,665	112,638	9.00
09.02. 5	PIP PLASTIC PIPE, 21"	4154.00 LF	61,991	3,719	3,286	5,520	1,118	75,634	18.21
09.02. 6	PUMPS CANAL 3000	1.00 JOB	45,946	2,757	2,435	4,091	828	56,057	56057.46
09.02. 7	INSTRUMENTATION	8.00 EA	96,000	5,760	5,088	8,548	1,731	117,127	14640.85
TOTAL Canal 3000P		1.00 JOB	346,739	20,804	18,377	30,874	6,252	423,047	423046.64
09.03 Canal 3100									
09.03. 1	CLEARING	44.00 AC	4,679	281	248	417	84	5,709	129.75
09.03. 2	EXCAVATION	69743.00 CY	35,031	2,102	1,857	3,119	632	42,740	0.61
09.03. 3	EMBANKMENT	157607.00 CY	130,848	7,851	6,935	11,651	2,359	159,644	1.01
09.03. 6	REINFORCED CONCRETE PIPE, 36"	202.00 LF	12,902	774	684	1,149	233	15,741	77.93
09.03. 7	REINFORCED CONCRETE PIPE, 42"	854.00 LF	66,967	4,018	3,549	5,963	1,207	81,705	95.67
09.03.10	FLARED END SECTION, 36"	2.00 EA	738	44	39	66	13	900	450.04
09.03.11	FLARED END SECTION, 42"	6.00 EA	2,596	156	138	231	47	3,167	527.84
09.03.12	GATES 18"	1.00 EA	508	30	27	45	9	620	620.07
09.03.13	8" GRAVEL BASE	341.00 CY	5,115	307	271	455	92	6,241	18.30
09.03.15	FERTILIZING AND SEEDING	29.00 AC	17,400	1,044	922	1,549	314	21,229	732.04
09.03.16	ENVIRONMENTAL PROTECTION	1.00 JOB	21,221	1,273	1,125	1,889	383	25,891	25890.51
09.03.17	INSTRUMENTATION	1.00 EA	12,000	720	636	1,068	216	14,641	14640.85
09.03.18	STRUCTURE FOR TURNOUTS	1.00 JOB	26,282	1,577	1,393	2,340	474	32,066	32066.47
09.03.19	GATES 42"	1.00 EA	1,253	75	66	112	23	1,529	1529.10
TOTAL Canal 3100		1.00 JOB	337,540	20,252	17,890	30,055	6,086	411,823	411823.08
09.04 CANAL 3110									
09.04. 1	FILTER GRAVEL	2306.00 TON	33,899	2,034	1,797	3,018	611	41,359	17.94
09.04. 2	RIPRAP	6915.00 TON	108,568	6,514	5,754	9,667	1,958	132,460	19.16
TOTAL CANAL 3110		1.00 JOB	142,466	8,548	7,551	12,685	2,569	173,819	173819.15
09.05 Canal 3110P									
09.05. 1	PVC PIPE, 8"	884.00 LF	3,390	203	180	302	61	4,136	4.68
09.05. 2	PVC PIPE, 12"	7479.00 LF	39,437	2,366	2,090	3,511	711	48,116	6.43
09.05. 3	PUMPS CANAL 3110	1.00 JOB	3,707	222	196	330	67	4,522	4522.29
09.05. 4	INSTRUMENTATION	1.00 EA	12,000	720	636	1,068	216	14,641	14640.85
TOTAL Canal 3110P		1.00 JOB	58,533	3,512	3,102	5,212	1,055	71,414	71414.33

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** PROJECT INDIRECT SUMMARY - System **

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SUMMARY PAGE 4

		QUANTITY UOM	DIRECT	OVERHEAD	HOME OFC	PROFIT	BOND	TOTAL COST	UNIT COST
09.06 Canal 3300									
09.06. 1	CLEARING	29.00 AC	3,084	185	163	275	56	3,763	129.75
09.06. 2	EXCAVATION	43820.00 CY	22,010	1,321	1,167	1,960	397	26,854	0.61
09.06. 3	EMBANKMENT	64589.00 CY	55,992	3,360	2,968	4,986	1,010	68,314	1.06
09.06. 4	REINFORCED CONCRETE PIPE, 18"	404.00 LF	9,709	583	515	864	175	11,845	29.32
09.06. 6	REINFORCED CONCRETE PIPE, 30"	404.00 LF	19,790	1,187	1,049	1,762	357	24,145	59.77
09.06. 7	REINFORCED CONCRETE PIPE, 36"	404.00 LF	25,325	1,520	1,342	2,255	457	30,898	76.48
09.06. 8	REINFORCED CONCRETE PIPE, 78"	130.00 LF	42,253	2,535	2,239	3,762	762	51,551	396.55
09.06. 9	FLARED END SECTION, 18"	4.00 EA	436	26	23	39	8	533	133.13
09.06.11	FLARED END SECTION, 30"	4.00 EA	1,075	65	57	96	19	1,312	328.03
09.06.12	FLARED END SECTION, 36"	4.00 EA	1,475	89	78	131	27	1,800	450.04
09.06.13	FLARED END SECTION, 78"	4.00 EA	7,225	433	383	643	130	8,815	2203.63
09.06.14	GATES 24"	1.00 EA	583	35	31	52	11	712	711.58
09.06.15	GATES 30"	1.00 EA	933	56	49	83	17	1,139	1138.68
09.06.16	8" GRAVEL BASE	513.00 CY	7,695	462	408	685	139	9,388	18.30
09.06.18	FERTILIZING AND SEEDING	19.00 AC	11,400	684	604	1,015	206	13,909	732.04
09.06.19	ENVIRONMENTAL PROTECTION	1.00 JOB	15,858	951	840	1,412	286	19,348	19347.88
09.06.20	INSTRUMENTATION	2.00 EA	24,000	1,440	1,272	2,137	433	29,282	14640.85
09.06.21	STRUCTURES	1.00 JOB	5,103	306	270	454	92	6,226	6226.38
TOTAL Canal 3300		1.00 JOB	253,948	15,237	13,459	22,611	4,579	309,834	309833.99
09.07 Canal 3400P									
09.07. 1	CONCRETE PIPELINE, 30"	11745.00 LF	516,687	31,001	27,384	46,006	9,316	630,394	53.67
09.07. 4	GATES 30"	2.00 EA	933	56	49	83	17	1,139	569.34
09.07. 5	INSTRUMENTATION	2.00 EA	24,000	1,440	1,272	2,137	433	29,282	14640.85
09.07. 6	STRUCTURE FOR TURNOUTS	1.00 JOB	17,563	1,054	931	1,564	317	21,428	21428.41
TOTAL Canal 3400P		1.00 JOB	559,183	33,551	29,637	49,790	10,082	682,243	682242.96
09.08 Canal 3300P									
09.08. 1	PVC PIPE, 6"	483.00 LF	1,615	97	86	144	29	1,970	4.08
09.08. 2	PVC PIPE, 12"	2929.00 LF	15,453	927	819	1,376	279	18,854	6.44
09.08. 3	PUMPS CANAL 3300	1.00 JOB	9,913	595	525	883	179	12,095	12094.76
09.08. 4	INSTRUMENTATION	2.00 EA	24,000	1,440	1,272	2,137	433	29,282	14640.85
TOTAL Canal 3300P		1.00 JOB	50,981	3,059	2,702	4,539	919	62,201	62200.55
09.09 GATED STRUCTURE, CANAL 3000									
09.09. 1	Clearing	1.00 JOB	2,482	149	132	221	45	3,029	3028.52
09.09. 2	General Excavation	5700.00 CY	16,650	999	882	1,483	300	20,315	3.56
09.09. 3	Structural Excavation	290.00 CY	630	38	33	56	11	768	2.65
09.09. 4	Steel Sheet Piling (PZ 27)	3630.00 SF	90,750	5,445	4,810	8,080	1,636	110,721	30.50
09.09. 5	Cast-in-place Concrete	915.00 CY	274,500	16,470	14,549	24,441	4,949	334,909	366.02

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U.S. Army Corps of Engineers
PROJECT CNTRO6: EASTERN ARKANSAS REGIONAL STUDY - GRAND PRAIRIE DEMONSTRATION
ITEM NO 6
** PROJECT INDIRECT SUMMARY - System **

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		QUANTITY UOM	DIRECT	OVERHEAD	HOME OFC	PROFIT	BOND	TOTAL COST	UNIT COST
09.09. 6	Mechanical Work	1.00 JOB	300,000	18,000	15,900	26,712	5,409	366,021	366021.18
09.09. 7	Electrical Work	1.00 JOB	40,000	2,400	2,120	3,562	721	48,803	48802.82
09.09. 8	Miscellaneous Items	1.00 JOB	10,000	600	530	890	180	12,201	12200.71
	TOTAL GATED STRUCTURE, CANAL 3000	1.00 JOB	735,013	44,101	38,956	65,446	13,253	896,767	896767.22
	TOTAL CHANNELS AND CANALS	1.00 EA	7,611,637	456,698	403,417	677,740	137,242	9,286,734	9286734
31	CONSTRUCTION MANAGEMENT								
	TOTAL EASTERN ARKANSAS REGIONAL STUDY	1.00 EA	7,792,637	456,698	403,417	677,740	137,242	9,467,734	9467734

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SUMMARY PAGE 6

	QUANTITY	UOM	MANHRS	LABOR	EQUIPMNT	MATERIAL	OTHER	TOTAL COST	UNIT COST
<hr/>									
01 LANDS AND DAMAGES									
02 RELOCATIONS									
02.03 UTILITIES	1.00	EA	0	0	0	181,000	0	181,000	181000.00
TOTAL RELOCATIONS	1.00	EA	0	0	0	181,000	0	181,000	181000.00
09 CHANNELS AND CANALS									
09.01 Canal 3000	1.00	JOB	3,536	622,926	2667695	1836612	0	5,127,233	5127233
09.02 Canal 3000P	1.00	JOB	70	39,045	19,512	288,183	0	346,739	346739.48
09.03 Canal 3100	1.00	JOB	752	42,774	149,982	144,784	0	337,540	337540.37
09.04 CANAL 3110	1.00	JOB	1,334	16,044	31,908	94,515	0	142,666	142466.47
09.05 Canal 3110P	1.00	JOB	10	10,156	4,490	43,887	0	58,533	58532.95
09.06 Canal 3300	1.00	JOB	578	28,318	85,807	139,823	0	253,948	253947.59
09.07 Canal 3400P	1.00	JOB	5,507	64,165	62,598	432,421	0	559,183	559183.18
09.08 Canal 3300P	1.00	JOB	20	4,295	1,969	44,718	0	50,981	50981.10
09.09 GATED STRUCTURE, CANAL 3000	1.00	JOB	60	5,222	14,541	715,250	0	735,013	735012.57
TOTAL CHANNELS AND CANALS	1.00	EA	11,868	832,945	3038500	3740192	0	7,611,637	7611637
31 CONSTRUCTION MANAGEMENT									
TOTAL EASTERN ARKANSAS REGIONAL STUDY	1.00	EA	11,868	832,945	3038500	3921192	0	7,792,637	7792637
OVERHEAD								456,698	
SUBTOTAL HOME OFC								8,249,335	
SUBTOTAL PROFIT								403,417	
SUBTOTAL BOND								8,652,752	
TOTAL INCL INDIRECTS								677,740	
								9,330,492	
								137,242	
								9,467,734	

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		QUANTITY	UOM	MANHRS	LABOR	EQUIPMENT	MATERIAL	OTHER	TOTAL COST	UNIT COST

01	LANDS AND DAMAGES									
02	RELOCATIONS									
02.02	RAILROADS									
	TOTAL RAILROADS									
02.03	UTILITIES									
02.03.18	MECHANICAL	1.00	EA	0	0	0	181,000	0	181,000	181000.00
	TOTAL UTILITIES	1.00	EA	0	0	0	181,000	0	181,000	181000.00
	TOTAL RELOCATIONS	1.00	EA	0	0	0	181,000	0	181,000	181000.00
09	CHANNELS AND CANALS									
09.01	"Canal 3000									
09.01. 1	CLEARING	300.00	AC	0	8,971	22,934	0	0	31,904	106.35
09.01. 2	EXCAVATION	2509342	CY	0	462,060	2240939	0	0	2,702,999	1.08
09.01. 3	EMBANKMENT	887444.00	CY	0	93,088	273,837	0	0	366,926	0.41
09.01. 4	REINFORCED CONCRETE BOX CULVERT	725.00	LF	1,856	23,183	62,915	1252350	0	1,338,447	1846.13
09.01. 5	REINFORCED CONCRETE PIPE, 30"	220.00	LF	126	1,743	1,944	8,156	0	11,843	53.83
09.01. 6	REINFORCED CONCRETE PIPE, 42"	220.00	LF	142	1,686	2,341	13,556	0	17,584	79.93
09.01. 7	REINFORCED CONCRETE PIPE, 48"	220.00	LF	150	1,787	2,518	16,953	0	21,259	96.63
09.01. 8	REINFORCED CONCRETE PIPE, 78"	440.00	LF	0	15,611	38,001	89,398	0	143,010	325.02
09.01. 9	REINFORCED CONCRETE PIPE, 84"	440.00	LF	713	8,393	13,082	91,149	0	112,624	255.96
09.01.10	REINFORCED CONCRETE PIPE, 90"	220.00	LF	371	4,377	6,859	50,315	0	61,552	279.78
09.01.11	FLARED END SECTION, 84"	4.00	EA	48	553	767	7,000	0	8,319	2079.84
09.01.12	FLARED END SECTION, 30"	2.00	EA	7	76	62	600	0	738	368.86
09.01.13	FLARED END SECTION, 42"	2.00	EA	8	91	74	700	0	865	432.63
09.01.14	FLARED END SECTION, 48"	2.00	EA	10	114	93	1,200	0	1,407	703.29
09.01.15	FLARED END SECTION, 78"	4.00	EA	30	345	479	6,400	0	7,225	1806.15
09.01.16	FLARED END SECTION, 90"	2.00	EA	24	276	383	3,800	0	4,460	2229.84
09.01.17	GATES 30"	2.00	EA	5	57	46	830	0	933	466.65
09.01.18	GATES 42"	1.00	EA	5	57	46	1,150	0	1,253	1253.29
09.01.19	GATES 48"	2.00	EA	5	57	46	1,500	0	1,603	801.65
09.01.20	8" GRAVEL BASE	927.00	CY	0	0	0	13,905	0	13,905	15.00
09.01.21	4" ASPHALT	1.00	JOB	0	0	0	10,350	0	10,350	10350.00
09.01.22	INSTRUMENTATION	6.00	EA	0	0	0	72,000	0	72,000	12000.00
09.01.23	FERTILIZING AND SEEDING	160.00	AC	0	0	0	96,000	0	96,000	600.00
09.01.24	ENVIRONMENTAL PROTECTION	1.00	JOB	0	0	0	74,220	0	74,220	74220.00
09.01.26	WASTEWAYS	1.00	JOB	35	400	327	25,081	0	25,080	25807.59
	TOTAL Canal 3000	1.00	JOB	3,536	622,926	2667695	1836612	0	5,127,233	5127233

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SUMMARY PAGE 8

		QUANTITY	UOM	MANHRS	LABOR	EQUIPMNT	MATERIAL	OTHER	TOTAL COST	UNIT COST
09.02 Canal 3000P										
09.02. 1	PIP PLASTIC PIPE, 6"	3510.00	LF	0	3,254	1,450	7,020	0	11,724	3.34
09.02. 2	PIP PLASTIC PIPE, 10"	5637.00	LF	0	5,546	2,425	16,911	0	24,882	4.41
09.02. 3	PIP PLASTIC PIPE, 12"	2629.00	LF	0	3,254	1,420	9,202	0	13,876	5.28
09.02. 4	PIP PLASTIC PIPE, 15"	12522.00	LF	0	18,503	8,077	65,741	0	92,321	7.37
09.02. 5	PIP PLASTIC PIPE, 21"	4154.00	LF	0	7,691	5,491	48,810	0	61,991	14.92
09.02. 6	PUMPS CANAL 3000	1.00	JOB	70	797	650	44,500	0	45,946	45946.08
09.02. 7	INSTRUMENTATION	8.00	EA	0	0	0	96,000	0	96,000	12000.00
TOTAL Canal 3000P		1.00	JOB	70	39,045	19,512	288,183	0	346,739	346739.48
09.03 Canal 3100										
09.03. 1	CLEARING	44.00	AC	0	1,316	3,364	0	0	4,679	106.35
09.03. 2	EXCAVATION	69743.00	CY	0	5,735	29,296	0	0	35,031	0.50
09.03. 3	EMBANKMENT	157607.00	CY	0	26,775	104,074	0	0	130,848	0.83
09.03. 6	REINFORCED CONCRETE PIPE, 36"	202.00	LF	112	1,327	1,901	9,675	0	12,902	63.87
09.03. 7	REINFORCED CONCRETE PIPE, 42"	854.00	LF	540	6,458	10,197	50,312	0	66,967	78.42
09.03.10	FLARED END SECTION, 36"	2.00	EA	7	76	62	600	0	738	368.86
09.03.11	FLARED END SECTION, 42"	6.00	EA	24	273	223	2,100	0	2,596	432.63
09.03.12	GATES 18"	1.00	EA	3	36	22	450	0	508	508.23
09.03.13	8" GRAVEL BASE	341.00	CY	0	0	0	5,115	0	5,115	15.00
09.03.15	FERTILIZING AND SEEDING	29.00	AC	0	0	0	17,400	0	17,400	600.00
09.03.16	ENVIRONMENTAL PROTECTION	1.00	JOB	0	0	0	21,221	0	21,221	21220.50
09.03.17	INSTRUMENTATION	1.00	EA	0	0	0	12,000	0	12,000	12000.00
09.03.18	STRUCTURE FOR TURNOUTS	1.00	JOB	61	722	798	24,762	0	26,282	26282.47
09.03.19	GATES 42"	1.00	EA	5	57	46	1,150	0	1,253	1253.29
TOTAL Canal 3100		1.00	JOB	752	42,774	149,982	144,784	0	337,540	337540.37
09.04 CANAL 3110										
09.04. 1	FILTER GRAVEL	2306.00	TON	334	4,012	7,980	21,907	0	33,899	14.70
09.04. 2	RIPRAP	6915.00	TON	1,000	12,032	23,928	72,608	0	108,568	15.70
TOTAL CANAL 3110		1.00	JOB	1,334	16,044	31,908	94,515	0	142,466	142466.47
09.05 Canal 3110P										
09.05. 1	PVC PIPE, 8"	884.00	LF	0	813	366	2,210	0	3,390	3.83
09.05. 2	PVC PIPE, 12"	7479.00	LF	0	9,229	4,031	26,177	0	39,437	5.27
09.05. 3	PUMPS CANAL 3110	1.00	JOB	10	114	93	3,500	0	3,707	3706.58
09.05. 4	INSTRUMENTATION	1.00	EA	0	0	0	12,000	0	12,000	12000.00
TOTAL Canal 3110P		1.00	JOB	10	10,156	4,490	43,887	0	58,533	58532.95

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ITEM NO 6
** PROJECT DIRECT SUMMARY - System **

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		QUANTITY	UOM	MANHRS	LABOR	EQUIPMNT	MATERIAL	OTHER	TOTAL COST	UNIT COST
09.06 Canal 3300										
09.06. 1	CLEARING	29.00	AC	0	867	2,217	0	0	3,084	106.35
09.06. 2	EXCAVATION	43820.00	CY	0	3,603	18,407	0	0	22,010	0.50
09.06. 3	EMBANKMENT	64589.00	CY	0	11,399	44,593	0	0	55,992	0.87
09.06. 4	REINFORCED CONCRETE PIPE, 18"	404.00	LF	109	1,552	1,827	6,330	0	9,709	24.03
09.06. 6	REINFORCED CONCRETE PIPE, 30"	404.00	LF	204	2,803	3,073	13,914	0	19,790	48.99
09.06. 7	REINFORCED CONCRETE PIPE, 36"	404.00	LF	214	2,530	3,439	19,355	0	25,325	62.69
09.06. 8	REINFORCED CONCRETE PIPE, 78"	130.00	LF	0	4,612	11,228	26,413	0	42,253	325.02
09.06. 9	FLARED END SECTION, 18"	4.00	EA	6	72	44	320	0	436	109.11
09.06.11	FLARED END SECTION, 30"	4.00	EA	13	152	124	800	0	1,075	268.86
09.06.12	FLARED END SECTION, 36"	4.00	EA	13	152	124	1,200	0	1,475	368.86
09.06.13	FLARED END SECTION, 78"	4.00	EA	0	345	479	6,400	0	7,225	1806.15
09.06.14	GATES 24"	1.00	EA	3	36	22	525	0	583	583.23
09.06.15	GATES 30"	1.00	EA	5	57	46	830	0	933	933.29
09.06.16	8" GRAVEL BASE	513.00	CY	0	0	0	7,695	0	7,695	15.00
09.06.18	FERTILIZING AND SEEDING	19.00	AC	0	0	0	11,400	0	11,400	600.00
09.06.19	ENVIRONMENTAL PROTECTION	1.00	JOB	0	0	0	15,858	0	15,858	15858.00
09.06.20	INSTRUMENTATION	2.00	EA	0	0	0	24,000	0	24,000	12000.00
09.06.21	STRUCTURES	1.00	JOB	11	137	184	4,783	0	5,103	5103.29
TOTAL Canal 3300				1.00	JOB	578	28,318	85,807	139,823	0
09.07 Canal 3400P										
09.07. 1	CONCRETE PIPELINE, 30"	11745.00	LF	5,440	63,392	61,798	391,497	0	516,687	43.99
09.07. 4	GATES 30"	2.00	EA	5	57	46	830	0	933	466.65
09.07. 5	INSTRUMENTATION	2.00	EA	0	0	0	24,000	0	24,000	12000.00
09.07. 6	STRUCTURE FOR TURNOUTS	1.00	JOB	62	716	753	16,094	0	17,563	17563.25
TOTAL Canal 3400P				1.00	JOB	5,507	64,165	62,598	432,421	0
09.08 Canal 3300P										
09.08. 1	PVC PIPE, 6"	483.00	LF	0	444	205	966	0	1,615	3.34
09.08. 2	PVC PIPE, 12"	2929.00	LF	0	3,624	1,578	10,252	0	15,453	5.28
09.08. 3	PUMPS CANAL 3300	1.00	JOB	20	228	186	9,500	0	9,913	9913.17
09.08. 4	INSTRUMENTATION	2.00	EA	0	0	0	24,000	0	24,000	12000.00
TOTAL Canal 3300P				1.00	JOB	20	4,295	1,969	44,718	0
09.09 GATED STRUCTURE, CANAL 3000										
09.09. 1	Clearing	1.00	JOB	60	738	1,744	0	0	2,482	2482.25
09.09. 2	General Excavation	5700.00	CY	0	4,179	12,471	0	0	16,650	2.92
09.09. 3	Structural Excavation	290.00	CY	0	304	325	0	0	630	2.17
09.09. 4	Steel Sheet Piling (PZ 27)	3630.00	SF	0	0	0	90,750	0	90,750	25.00
09.09. 5	Cast-in-place Concrete	915.00	CY	0	0	0	274,500	0	274,500	300.00

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SUMMARY PAGE 10

		QUANTITY	UOM	MANHRS	LABOR	EQUIPMNT	MATERIAL	OTHER	TOTAL COST	UNIT COST
09.09. 6	Mechanical Work	1.00	JOB	0	0	0	300,000	0	300,000	300000.00
09.09. 7	Electrical Work	1.00	JOB	0	0	0	40,000	0	40,000	40000.00
09.09. 8	Miscellaneous Items	1.00	JOB	0	0	0	10,000	0	10,000	10000.00
	TOTAL GATED STRUCTURE, CANAL 3000	1.00	JOB	60	5,222	14,541	715,250	0	735,013	735012.57
	TOTAL CHANNELS AND CANALS	1.00	EA	11,868	832,945	3038500	3740192	0	7,611,637	7611637
31	CONSTRUCTION MANAGEMENT									
	TOTAL EASTERN ARKANSAS REGIONAL STUDY	1.00	EA	11,868	832,945	3038500	3921192	0	7,792,637	7792637
	OVERHEAD								456,698	
	SUBTOTAL HOME OFC								8,269,335	
	SUBTOTAL PROFIT								403,417	
	SUBTOTAL BOND								8,652,752	
									677,740	
									9,330,492	
									137,242	
	TOTAL INCL INDIRECTS								9,467,734	

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ERROR REPORT

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No errors detected...

* * * END OF ERROR REPORT * * *

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U.S. Army Corps of Engineers
PROJECT CNTR07: EASTERN ARKANSAS REGIONAL STUDY - GRAND PRAIRIE DEMONSTRATION
ITEM NO 7

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TITLE PAGE 1

EASTERN ARKANSAS REGIONAL STUDY
GRAND PRAIRIE DEMONSTRATION
PROJECT
ITEM NO 7

Designed By:
Estimated By: JAMES MOORE

Prepared By:

Preparation Date: 01/29/97
Effective Date of Pricing: 01/29/97

Sales Tax: 0.00%

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ITEM NO 7
** PROJECT INDIRECT SUMMARY - Contract **

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SUMMARY PAGE 1

	QUANTITY UOM	DIRECT	OVERHEAD	Home Ofc	PROFIT	BOND	TOTAL COST	UNIT COST
02 RELOCATIONS	1.00 EA	323,000	0	0	0	0	323,000	323000.00
09 CHANNELS AND CANALS	1.00 EA	3,591,269	215,476	190,337	319,767	64,753	4,381,602	4381602
31 CONSTRUCTION MANAGEMENT								
TOTAL EASTERN ARKANSAS REGIONAL STUDY	1.00 EA	3,914,269	215,476	190,337	319,767	64,753	4,704,602	4704602

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** PROJECT INDIRECT SUMMARY - Feature **

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SUMMARY PAGE 2

	QUANTITY	UOM	DIRECT	OVERHEAD	Home Ofc	PROFIT	BOND	TOTAL COST	UNIT COST
<hr/>									
01 LANDS AND DAMAGES									
02 RELOCATIONS									
02/03 UTILITIES	1.00 EA		323,000	0	0	0	0	323,000	323000.00
TOTAL RELOCATIONS	1.00 EA		323,000	0	0	0	0	323,000	323000.00
09 CHANNELS AND CANALS									
09/01 CHANNELS AND CANALS	1.00 EA		3,591,269	215,476	190,337	319,767	64,753	4,381,602	4381602
TOTAL CHANNELS AND CANALS	1.00 EA		3,591,269	215,476	190,337	319,767	64,753	4,381,602	4381602
31 CONSTRUCTION MANAGEMENT									
TOTAL EASTERN ARKANSAS REGIONAL STUDY	1.00 EA		3,914,269	215,476	190,337	319,767	64,753	4,704,602	4704602

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	QUANTY	UOM	DIRECT	OVERHEAD	Home Ofc	PROFIT	BOND	TOTAL COST	UNIT COST
01 LANDS AND DAMAGES									
02 RELOCATIONS									
02/02 RAILROADS									
TOTAL RAILROADS									
02/03 UTILITIES									
02/03.18 MECHANICAL	1.00	EA	323,000	0	0	0	0	323,000	323000.00
TOTAL UTILITIES	1.00	EA	323,000	0	0	0	0	323,000	323000.00
TOTAL RELOCATIONS	1.00	EA	323,000	0	0	0	0	323,000	323000.00
09 CHANNELS AND CANALS									
09/01 CHANNELS AND CANALS									
09/01.01 Canal 3200	1.00	JOB	1,472,304	88,338	78,032	131,094	26,547	1,796,315	1796315
09/01.02 Canal 3200P	1.00	JOB	179,639	10,778	9,521	15,995	3,239	219,172	219172.14
09/01.03 CANAL 3210	1.00	JOB	111,076	6,665	5,887	9,890	2,003	135,521	135520.97
09/01.04 Canal 3220	1.00	JOB	378,725	22,723	20,072	33,722	6,829	462,071	462071.00
09/01.05 CANAL 3221	1.00	JOB	62,852	3,771	3,331	5,596	1,133	76,684	76684.32
09/01.06 CANAL 3221P	1.00	JOB	167,288	10,037	8,866	14,895	3,016	204,103	204102.93
09/01.07 CANAL 3230	1.00	JOB	245,429	14,726	13,008	21,853	4,425	299,440	299440.24
09/01.08 Canal 3240	1.00	JOB	178,894	10,734	9,481	15,929	3,226	218,263	218262.96
09/01.09 Canal 3250	1.00	JOB	70,107	4,206	3,716	6,242	1,264	85,535	85535.02
09/01.10 Canal 3260	1.00	JOB	30,433	1,826	1,613	2,710	549	37,131	37130.77
09/01.11 Canal 3261	1.00	JOB	62,852	3,771	3,331	5,596	1,133	76,684	76684.32
09/01.12 Canal 3261P	1.00	JOB	63,748	3,825	3,379	5,676	1,149	77,777	77776.58
09/01.13 PUMP STATION, CANAL 3200	1.00	JOB	567,923	34,075	30,100	50,568	10,240	692,906	692906.09
TOTAL CHANNELS AND CANALS	1.00	EA	3,591,269	215,476	190,337	319,767	64,753	4,381,602	4381602
TOTAL CHANNELS AND CANALS	1.00	EA	3,591,269	215,476	190,337	319,767	64,753	4,381,602	4381602
31 CONSTRUCTION MANAGEMENT									
TOTAL EASTERN ARKANSAS REGIONAL STUDY	1.00	EA	3,914,269	215,476	190,337	319,767	64,753	4,704,602	4704602

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	QUANTY	UOM	DIRECT	OVERHEAD	Home Ofc	PROFIT	BOND	TOTAL COST	UNIT COST
01 LANDS AND DAMAGES									
02 RELOCATIONS									
02/02 RAILROADS									
TOTAL RAILROADS									
02/03 UTILITIES									
02/03.18 MECHANICAL									
02/03.18.01 CANAL 3200	1.00	EA	247,000	0	0	0	0	247,000	247000.00
02/03.18.02 CANAL 3220	1.00	EA	45,000	0	0	0	0	45,000	45000.00
02/03.18.03 CANAL 3250	1.00	EA	31,000	0	0	0	0	31,000	31000.00
TOTAL MECHANICAL									
TOTAL UTILITIES	1.00	EA	323,000	0	0	0	0	323,000	323000.00
TOTAL RELocations									
09 CHANNELS AND CANALS									
09/01 CHANNELS AND CANALS									
09/01.01 Canal 3200									
09/01.01. 1 CLEARING	133.00	AC	14,144	849	750	1,259	255	17,257	129.75
09/01.01. 2 EXCAVATION	381925	CY	191,834	11,510	10,167	17,081	3,459	234,051	0.61
09/01.01. 3 EMBANKMENT	347625	CY	242,981	14,579	12,878	21,635	4,381	296,454	0.85
09/01.01. 7 REINFORCED CONCRETE PIPE, 48"	252.00	LF	23,084	1,385	1,223	2,055	416	28,164	111.76
09/01.01. 8 REINFORCED CONCRETE PIPE, 54"	220.00	LF	24,643	1,479	1,306	2,194	444	30,066	136.67
09/01.01. 9 REINFORCED CONCRETE PIPE, 60"	504.00	LF	69,628	4,178	3,690	6,200	1,255	84,951	168.55
09/01.01.10 REINFORCED CONCRETE PIPE, 66"	220.00	LF	37,708	2,262	1,999	3,358	680	46,007	209.12
09/01.01.11 REINFORCED CONCRETE PIPE, 72"	252.00	LF	48,472	2,908	2,569	4,316	874	59,139	234.68
09/01.01.12 REINFORCED CONCRETE PIPE, 78"	504.00	LF	93,377	5,603	4,949	8,314	1,684	113,926	226.04
09/01.01.13 REINFORCED CONCRETE PIPE, 84"	252.00	LF	61,832	3,710	3,277	5,506	1,115	75,440	299.36
09/01.01.14 REINFORCED CONCRETE PIPE, 90"	220.00	LF	78,530	4,712	4,162	6,992	1,416	95,812	435.51
09/01.01.15 REINFORCED CONCRETE PIPE, 96"	756.00	LF	230,112	13,807	12,196	20,489	4,149	280,753	371.37
09/01.01.19 FLARED END SECTION, 48"	2.00	EA	1,407	84	75	125	25	1,716	858.07
09/01.01.20 FLARED END SECTION, 54"	2.00	EA	2,307	138	122	205	42	2,814	1407.10
09/01.01.21 FLARED END SECTION, 60"	4.00	EA	5,413	325	287	482	98	6,604	1651.11
09/01.01.22 FLARED END SECTION, 66"	2.00	EA	3,080	185	163	274	56	3,758	1878.81
09/01.01.23 FLARED END SECTION, 72"	2.00	EA	3,212	193	170	286	58	3,919	1959.62
09/01.01.24 FLARED END SECTION, 78"	4.00	EA	7,225	433	383	643	130	8,815	2203.63
09/01.01.25 FLARED END SECTION, 84"	2.00	EA	4,160	250	220	370	75	5,075	2537.56
09/01.01.26 FLARED END SECTION, 90"	6.00	EA	13,379	803	709	1,191	241	16,323	2720.57

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		QUANTY UOM	DIRECT	OVERHEAD	Home Ofc	PROFIT	BOND	TOTAL COST	UNIT COST
09/01.01.27	FLARED END SECTION, 96"	6.00 EA	13,979	839	741	1,245	252	17,055	2842.57
09/01.01.28	GATES, 18"	4.00 EA	2,033	122	108	181	37	2,480	620.07
09/01.01.29	GATES, 24"	2.00 EA	1,166	70	62	104	21	1,423	711.58
09/01.01.30	GATES, 30"	2.00 EA	1,867	112	99	166	34	2,277	1138.68
09/01.01.31	GRAVEL BASE, 8"	1435.00 TON	21,525	1,292	1,141	1,917	388	26,262	18.30
09/01.01.32	ASPHALT SURFACING, 4"	718.00 TON	4,275	257	227	381	77	5,216	7.26
09/01.01.33	FERTILIZING AND SEEDING	84.00 AC	50,400	3,024	2,671	4,488	909	61,492	732.04
09/01.01.34	ENVIRONMENTAL PROTECTION	1.00 JOB	56,048	3,363	2,971	4,990	1,011	68,382	68381.91
09/01.01.35	INSTRUMENTATION	8.00 EA	96,000	5,760	5,088	8,548	1,731	117,127	14640.85
09/01.01.37	STRUCTURES	1.00 JOB	68,485	4,109	3,630	6,098	1,235	83,556	83556.41
TOTAL Canal 3200		1.00 JOB	1,472,304	88,338	78,032	131,094	26,547	1,796,315	1796315
09/01.02 Canal 3200P									
09/01.02. 1	PVC PIPE, 6"	4407.00 LF	14,697	882	779	1,309	265	17,932	4.07
09/01.02. 2	PVC PIPE, 8"	6283.00 LF	24,141	1,448	1,279	2,150	435	29,454	4.69
09/01.02. 3	PVC PIPE, 12"	1297.00 LF	6,854	411	363	610	124	8,363	6.45
09/01.02. 4	PUMPS CANAL 3200~	1.00 JOB	49,946	2,997	2,647	4,447	901	60,938	60937.75
09/01.02. 5	INSTRUMENTATION	7.00 EA	84,000	5,040	4,452	7,479	1,515	102,486	14640.85
TOTAL Canal 3200P		1.00 JOB	179,639	10,778	9,521	15,995	3,239	219,172	219172.14
09/01.03 CANAL 3210									
09/01.03. 1	FILTER GRAVEL	1310.00 TON	19,258	1,155	1,021	1,715	347	23,496	17.94
09/01.03. 2	RIPRAP	3927.00 TON	61,656	3,699	3,268	5,490	1,112	75,224	19.16
09/01.03. 3	PUMPS CANAL 3210	1.00 JOB	6,163	370	327	549	111	7,519	7519.50
09/01.03. 4	INSTRUMENTATION	2.00 EA	24,000	1,440	1,272	2,137	433	29,282	14640.85
TOTAL CANAL 3210		1.00 JOB	111,076	6,665	5,887	9,890	2,003	135,521	135520.97
09/01.04 Canal 3220									
09/01.04. 1	CLEARING	105.00 AC	11,166	670	592	994	201	13,624	129.75
09/01.04. 2	EXCAVATION	31746 CY	15,945	957	845	1,420	288	19,455	0.61
09/01.04. 3	EMBANKMENT	84492 CY	56,781	3,407	3,009	5,056	1,024	69,277	0.82
09/01.04. 7	REINFORCED CONCRETE PIPE, 36"	220.00 LF	14,665	880	777	1,306	264	17,892	81.33
09/01.04. 8	REINFORCED CONCRETE PIPE, 48"	980.00 LF	90,339	5,420	4,788	8,044	1,629	110,220	112.47
09/01.04.12	FLARED END SECTION, 36"	2.00 EA	738	44	39	66	13	900	450.04
09/01.04.13	FLARED END SECTION, 48"	12.00 EA	8,439	506	447	751	152	10,297	858.07
09/01.04.14	GATES, 18"	2.00 EA	1,016	61	54	91	18	1,240	620.07
09/01.04.15	GATES, 24"	1.00 EA	583	35	31	52	11	712	711.58
09/01.04.16	GATES, 30"	1.00 EA	933	56	49	83	17	1,139	1138.68
09/01.04.17	8" GRAVEL BASE	863.00 CY	12,945	777	686	1,153	233	15,794	18.30
09/01.04.18	ASPHALT SURFACING, 4"	1.00 JOB	11,655	699	618	1,038	210	14,220	14219.92
09/01.04.19	FERTILIZING AND SEEDING	87.00 AC	52,200	3,132	2,767	4,648	941	63,688	732.04
09/01.04.20	ENVIRONMENTAL PROTECTION	1.00 JOB	28,875	1,733	1,530	2,571	521	35,230	35229.54

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		QUANTY UOM	DIRECT	OVERHEAD	Home Ofc	PROFIT	BOND	TOTAL COST	UNIT COST
09/01.04.21	INSTRUMENTATION	3.00 EA	36,000	2,160	1,908	3,205	649	43,923	14640.85
09/01.04.22	STRUCTURES	1.00 JOB	36,443	2,187	1,931	3,245	657	44,463	44463.36
	TOTAL Canal 3220	1.00 JOB	378,725	22,723	20,072	33,722	6,829	462,071	462071.00
09/01.05	CANAL 3221								
09/01.05. 1	FILTER GRAVEL	1017.00 TON	14,950	897	792	1,331	270	18,240	17.94
09/01.05. 2	RIPRAP	3051.00 TON	47,902	2,874	2,539	4,265	864	58,444	19.16
	TOTAL CANAL 3221	1.00 JOB	62,852	3,771	3,331	5,596	1,133	76,684	76684.32
09/01.06	CANAL 3221P								
09/01.06. 1	PVC PIPE, 8"	5300.00 LF	20,328	1,220	1,077	1,810	367	24,801	4.68
09/01.06. 2	PVC PIPE, 12"	1400.00 LF	8,197	492	434	730	148	10,001	7.14
09/01.06. 3	18" PIPELINE, PIP PLASTIC PIPE	3051.00 LF	31,937	1,916	1,693	2,844	576	38,965	12.77
09/01.06. 4	PUMPS CANAL 3221	1.00 JOB	34,826	2,090	1,846	3,101	628	42,491	42490.58
09/01.06. 5	INSTRUMENTATION	6.00 EA	72,000	4,320	3,816	6,411	1,298	87,845	14640.85
	TOTAL CANAL 3221P	1.00 JOB	167,288	10,037	8,866	14,895	3,016	204,103	204102.93
09/01.07	CANAL 3230								
09/01.07. 1	FILTER GRAVEL	3006.00 TON	44,190	2,651	2,342	3,935	797	53,914	17.94
09/01.07. 2	RIPRAP	9020.00 TON	141,618	8,497	7,506	12,610	2,553	172,784	19.16
09/01.07. 3	PVC PIPE, 6"	2184.00 LF	7,273	436	385	648	131	8,874	4.06
09/01.07. 4	PVC PIPE, 8"	1037.00 LF	3,979	239	211	354	72	4,854	4.68
09/01.07. 5	PUMPS CANAL 3230	1.00 JOB	12,370	742	656	1,101	223	15,092	15091.97
09/01.07. 6	INSTRUMENTATION	3.00 EA	36,000	2,160	1,908	3,205	649	43,923	14640.85
	TOTAL CANAL 3230	1.00 JOB	245,429	14,726	13,008	21,853	4,425	299,440	299440.24
09/01.08	Canal 3240								
09/01.08. 1	CLEARING	12.00 AC	1,276	77	68	114	23	1,557	129.75
09/01.08. 2	EXCAVATION	6629.00 CY	3,330	200	176	296	60	4,062	0.61
09/01.08. 3	EMBANKMENT	18925 CY	11,747	705	623	1,046	212	14,332	0.76
09/01.08. 4	PLASTIC PIPE, PIPELINE, 18"	7400.00 LF	77,377	4,643	4,101	6,890	1,395	94,405	12.76
09/01.08. 5	PVC PIPE, 6"	1750.00 LF	5,844	351	310	520	105	7,131	4.07
09/01.08. 6	INSTRUMENTATION	3.00 EA	36,000	2,160	1,908	3,205	649	43,923	14640.85
09/01.08. 7	FERTILIZING AND SEEDING	12.00 AC	7,200	432	382	641	130	8,785	732.04
09/01.08. 8	PUMPS CANAL 3240	1.00 JOB	28,620	1,717	1,517	2,548	516	34,918	34918.11
09/01.08. 9	ENVIRONMENTAL PROTECTION	1.00 JOB	7,500	450	398	668	135	9,151	9150.53
	TOTAL Canal 3240	1.00 JOB	178,894	10,734	9,481	15,929	3,226	218,263	218262.96

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09/01.09 Canal 3250									
09/01.09. 1 CLEARING	1.00 AC	106	6	6	9	2	130	129.75	
09/01.09. 2 PVC PIPE, 6"	594.00 LF	1,955	117	104	174	35	2,385	4.02	
09/01.09. 3 PUMPS CANAL 3250	1.00 JOB	3,707	222	196	330	67	4,522	4522.29	
09/01.09. 4 FERTILIZING AND SEEDING	12.00 AC	7,200	432	382	641	130	8,785	732.04	
09/01.09. 5 ENVIRONMENTAL PROTECTION	1.00 JOB	7,500	450	398	668	135	9,151	9150.53	
09/01.09. 6 INSTRUMENTATION	1.00 EA	12,000	720	636	1,068	216	14,641	14640.85	
09/01.09. 7 PVC PIPE, 12"	7141.00 LF	37,639	2,258	1,995	3,351	679	45,922	6.43	
TOTAL Canal 3250	1.00 JOB	70,107	4,206	3,716	6,242	1,264	85,535	85535.02	
09/01.10 Canal 3260									
09/01.10. 1 CLEARING	1.00 AC	1,383	83	73	123	25	1,687	1686.76	
09/01.10. 2 FILTER GRAVEL	339.00 TON	4,983	299	264	444	90	6,080	17.94	
09/01.10. 3 RIPRAP	1017.00 TON	15,967	958	846	1,422	288	19,481	19.16	
09/01.10. 4 FERTILIZING AND SEEDING	1.00 AC	600	36	32	53	11	732	732.04	
09/01.10. 5 ENVIRONMENTAL PROTECTION	1.00 JOB	7,500	450	398	668	135	9,151	9150.53	
TOTAL Canal 3260	1.00 JOB	30,433	1,826	1,613	2,710	549	37,131	37130.77	
09/01.11 Canal 3261									
09/01.11. 1 FILTER GRAVEL	1017.00 TON	14,950	897	792	1,331	270	18,240	17.94	
09/01.11. 2 RIPRAP	3051.00 TON	47,902	2,874	2,539	4,265	864	58,444	19.16	
TOTAL Canal 3261	1.00 JOB	62,852	3,771	3,331	5,596	1,133	76,684	76684.32	
09/01.12 Canal 3261P									
09/01.12. 1 PVC PIPE, 6"	4600.00 LF	15,378	923	815	1,369	277	18,762	4.08	
09/01.12. 2 PUMPS CANAL 3261	1.00 JOB	12,370	742	656	1,101	223	15,092	15091.97	
09/01.12. 3 INSTRUMENTATION	3.00 EA	36,000	2,160	1,908	3,205	649	43,923	14640.85	
TOTAL Canal 3261P	1.00 JOB	63,748	3,825	3,379	5,676	1,149	77,777	77776.58	
09/01.13 PUMP STATION, CANAL 3200									
09/01.13. 1 Clearing	1.00 JOB	2,482	149	132	221	45	3,029	3028.52	
09/01.13. 2 General Excavation	1010.00 CY	2,950	177	156	263	53	3,600	3.56	
09/01.13. 3 Structural Excavation	200.00 CY	434	26	23	39	8	530	2.65	
09/01.13. 4 REINFORCED CONCRETE PIPE, 36"	370.00 LF	21,056	1,263	1,116	1,875	380	25,690	69.43	
09/01.13. 5 Cast-in-place Concrete	260.00 CY	78,000	4,680	4,134	6,945	1,406	95,166	366.02	
09/01.13. 6 Mechanical Work	1.00 JOB	185,000	11,100	9,805	16,472	3,336	225,713	225713.06	
09/01.13. 7 Electrical Work	1.00 JOB	263,000	15,780	13,939	23,418	4,742	320,879	320878.57	

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	QUANTY UOM	DIRECT	OVERHEAD	Home Ofc	PROFIT	BOND	TOTAL COST	UNIT COST
09/01.13. 8 Miscellaneous Items	1.00 JOB	15,000	900	795	1,336	270	18,301	18301.06
TOTAL PUMP STATION, CANAL 3200	1.00 JOB	567,923	34,075	30,100	50,568	10,240	692,906	692906.09
TOTAL CHANNELS AND CANALS	1.00 EA	3,591,269	215,476	190,337	319,767	64,753	4,381,602	4381602
TOTAL CHANNELS AND CANALS	1.00 EA	3,591,269	215,476	190,337	319,767	64,753	4,381,602	4381602
31 CONSTRUCTION MANAGEMENT								
TOTAL EASTERN ARKANSAS REGIONAL STUDY	1.00 EA	3,914,269	215,476	190,337	319,767	64,753	4,704,602	4704602

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		QUANTY	UOM	LABOR	EQUIPM	MATERIAL	SUPPLIE	TOTAL COST	UNIT COST
02	RELOCATIONS	1.00	EA	0	0	323,000	0	323,000	323000.00
09	CHANNELS AND CANALS	1.00	EA	278,228	670,267	2642774	0	3,591,269	3591269
31	CONSTRUCTION MANAGEMENT								
	TOTAL EASTERN ARKANSAS REGIONAL STUDY	1.00	EA	278,228	670,267	2965774	0	3,914,269	3914269
	Overhead							215,476	
	SUBTOTAL							4,129,745	
	Home Office							190,337	
	SUBTOTAL							4,320,083	
	Profit							319,767	
	SUBTOTAL							4,639,849	
	Bond							64,753	
	TOTAL INCL INDIRECTS							4,704,602	

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	QUANTY	UOM	LABOR	EQUIPM	MATERIAL	SUPPLIE	TOTAL COST	UNIT COST
<hr/>								
01 LANDS AND DAMAGES								
02 RELOCATIONS								
02/03 UTILITIES	1.00	EA	0	0	323,000	0	323,000	323000.00
TOTAL RELOCATIONS	1.00	EA	0	0	323,000	0	323,000	323000.00
09 CHANNELS AND CANALS								
09/01 CHANNELS AND CANALS	1.00	EA	278,228	670,267	2642774	0	3,591,269	3591269
TOTAL CHANNELS AND CANALS	1.00	EA	278,228	670,267	2642774	0	3,591,269	3591269
31 CONSTRUCTION MANAGEMENT								
TOTAL EASTERN ARKANSAS REGIONAL STUDY	1.00	EA	278,228	670,267	2965774	0	3,914,269	3914269
Overhead							215,476	
SUBTOTAL							4,129,745	
Home Office							190,337	
SUBTOTAL							4,320,083	
Profit							319,767	
SUBTOTAL							4,639,849	
Bond							64,753	
TOTAL INCL INDIRECTS							4,704,602	

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	QUANTY	UOM	LABOR	EQUIPMT	MATERIAL	SUPPLIE	TOTAL COST	UNIT COST
01 LANDS AND DAMAGES								
02 RELOCATIONS								
02/02 RAILROADS								
TOTAL RAILROADS								
02/03 UTILITIES								
02/03.18 MECHANICAL	1.00	EA	0	0	323,000	0	323,000	323000.00
TOTAL UTILITIES	1.00	EA	0	0	323,000	0	323,000	323000.00
TOTAL RELOCATIONS	1.00	EA	0	0	323,000	0	323,000	323000.00
09 CHANNELS AND CANALS								
09/01 CHANNELS AND CANALS								
09/01.01 Canal 3200	1.00	JOB	138,900	450,901	882,503	0	1,472,304	1472304
09/01.02 Canal 3200P	1.00	JOB	12,303	5,775	161,561	0	179,639	179638.90
09/01.03 CANAL 3210	1.00	JOB	9,340	18,308	83,429	0	111,076	111076.34
09/01.04 Canal 3220	1.00	JOB	28,661	80,858	269,205	0	378,725	378724.81
09/01.05 CANAL 3221	1.00	JOB	7,078	14,077	41,697	0	62,852	62852.36
09/01.06 CANAL 3221P	1.00	JOB	12,672	5,752	148,863	0	167,288	167287.81
09/01.07 CANAL 3230	1.00	JOB	24,240	43,211	177,978	0	245,429	245428.62
09/01.08 Canal 3240	1.00	JOB	17,584	19,169	142,140	0	178,894	178893.71
09/01.09 Canal 3250	1.00	JOB	9,477	4,248	56,382	0	70,107	70106.62
09/01.10 Canal 3260	1.00	JOB	2,748	5,686	21,999	0	30,433	30433.30
09/01.11 Canal 3261	1.00	JOB	7,078	14,077	41,697	0	62,852	62852.36
09/01.12 Canal 3261P	1.00	JOB	4,616	2,182	56,950	0	63,748	63747.61
09/01.13 PUMP STATION, CANAL 3200	1.00	JOB	3,531	6,021	558,372	0	567,923	567922.95
TOTAL CHANNELS AND CANALS	1.00	EA	278,228	670,267	2642774	0	3,591,269	3591269
TOTAL CHANNELS AND CANALS	1.00	EA	278,228	670,267	2642774	0	3,591,269	3591269
31 CONSTRUCTION MANAGEMENT								
TOTAL EASTERN ARKANSAS REGIONAL STUDY	1.00	EA	278,228	670,267	2965774	0	3,914,269	3914269
Overhead							215,476	
SUBTOTAL							4,129,745	
Home Office							190,337	
SUBTOTAL							4,320,083	

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	QUANTY	UOM	LABOR	EQUIPMNT	MATERIAL	SUPPLIE	TOTAL COST	UNIT COST
Profit							319,767	
SUBTOTAL							4,639,849	
Bond							64,753	
TOTAL INCL INDIRECTS							4,704,602	

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	QUANTITY	UOM	LABOR	EQUIPMENT	MATERIAL	SUPPLIES	TOTAL COST	UNIT COST
<hr/>								
01 LANDS AND DAMAGES								
02 RELOCATIONS								
02/02 RAILROADS								
TOTAL RAILROADS								
02/03 UTILITIES								
02/03.18 MECHANICAL								
02/03.18.01 CANAL 3200	1.00	EA	0	0	247,000	0	247,000	247000.00
02/03.18.02 CANAL 3220	1.00	EA	0	0	45,000	0	45,000	45000.00
02/03.18.03 CANAL 3250	1.00	EA	0	0	31,000	0	31,000	31000.00
TOTAL MECHANICAL	1.00	EA	0	0	323,000	0	323,000	323000.00
TOTAL UTILITIES	1.00	EA	0	0	323,000	0	323,000	323000.00
TOTAL RELOCATIONS	1.00	EA	0	0	323,000	0	323,000	323000.00
09 CHANNELS AND CANALS								
09/01 CHANNELS AND CANALS								
09/01.01 Canal 3200								
09/01.01. 1 CLEARING	133.00	AC	3,977	10,167	0	0	14,144	106.35
09/01.01. 2 EXCAVATION	381925	CY	31,406	160,428	0	0	191,834	0.50
09/01.01. 3 EMBANKMENT	347625	CY	52,186	190,795	0	0	242,981	0.70
09/01.01. 7 REINFORCED CONCRETE PIPE, 48"	252.00	LF	1,834	2,745	18,506	0	23,084	91.60
09/01.01. 8 REINFORCED CONCRETE PIPE, 54"	220.00	LF	1,751	2,701	20,191	0	24,643	112.01
09/01.01. 9 REINFORCED CONCRETE PIPE, 60"	504.00	LF	6,247	9,301	54,079	0	69,628	138.15
09/01.01.10 REINFORCED CONCRETE PIPE, 66"	220.00	LF	3,319	5,729	28,661	0	37,708	171.40
09/01.01.11 REINFORCED CONCRETE PIPE, 72"	252.00	LF	3,740	6,752	37,980	0	48,472	192.35
09/01.01.12 REINFORCED CONCRETE PIPE, 78"	504.00	LF	5,546	11,055	76,776	0	93,377	185.27
09/01.01.13 REINFORCED CONCRETE PIPE, 84"	252.00	LF	3,986	7,332	50,514	0	61,832	245.37
09/01.01.14 REINFORCED CONCRETE PIPE, 90"	220.00	LF	7,227	14,702	56,601	0	78,530	356.95
09/01.01.15 REINFORCED CONCRETE PIPE, 96"	756.00	LF	12,434	22,882	194,796	0	230,112	304.38
09/01.01.19 FLARED END SECTION, 48"	2.00	EA	114	93	1,200	0	1,407	703.29
09/01.01.20 FLARED END SECTION, 54"	2.00	EA	114	93	2,100	0	2,307	1153.29
09/01.01.21 FLARED END SECTION, 60"	4.00	EA	228	186	5,000	0	5,413	1353.29
09/01.01.22 FLARED END SECTION, 66"	2.00	EA	138	192	2,750	0	3,080	1539.92
09/01.01.23 FLARED END SECTION, 72"	2.00	EA	173	240	2,800	0	3,212	1606.15
09/01.01.24 FLARED END SECTION, 78"	4.00	EA	345	479	6,400	0	7,225	1806.15
09/01.01.25 FLARED END SECTION, 84"	2.00	EA	276	383	3,500	0	4,160	2079.84
09/01.01.26 FLARED END SECTION, 90"	6.00	EA	829	1,150	11,400	0	13,379	2229.84

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		QUANTY UOM	LABOR	EQUIPMT	MATERIAL	SUPPLIE	TOTAL COST	UNIT COST	
09/01.01.27	FLARED END SECTION, 96"	6.00 EA	829	1,150	12,000	0	13,979	2329.84	
09/01.01.28	GATES, 18"	4.00 EA	144	89	1,800	0	2,033	508.23	
09/01.01.29	GATES, 24"	2.00 EA	72	44	1,050	0	1,166	583.23	
09/01.01.30	GATES, 30"	2.00 EA	114	93	1,660	0	1,867	933.29	
09/01.01.31	GRAVEL BASE, 8"	1435.00 TON	0	0	21,525	0	21,525	15.00	
09/01.01.32	ASPHALT SURFACING, 4"	718.00 TON	0	0	4,275	0	4,275	5.95	
09/01.01.33	FERTILIZING AND SEEDING	84.00 AC	0	0	50,400	0	50,400	600.00	
09/01.01.34	ENVIRONMENTAL PROTECTION	1.00 JOB	0	0	56,048	0	56,048	56047.50	
09/01.01.35	INSTRUMENTATION	8.00 EA	0	0	96,000	0	96,000	12000.00	
09/01.01.37	STRUCTURES	1.00 JOB	1,872	2,122	64,492	0	68,485	68484.90	
	TOTAL Canal 3200		1.00 JOB	138,900	450,901	882,503	0	1,472,304	1472304
09/01.02	Canal 3200P								
09/01.02. 1	PVC PIPE, 6"	4407.00 LF	4,067	1,816	8,814	0	14,697	3.33	
09/01.02. 2	PVC PIPE, 8"	6283.00 LF	5,827	2,607	15,708	0	24,141	3.84	
09/01.02. 3	PVC PIPE, 12"	1297.00 LF	1,612	703	4,540	0	6,854	5.28	
09/01.02. 4	PUMPS CANAL 3200	1.00 JOB	797	650	48,500	0	49,946	49946.08	
09/01.02. 5	INSTRUMENTATION	7.00 EA	0	0	84,000	0	84,000	12000.00	
	TOTAL Canal 3200P		1.00 JOB	12,303	5,775	161,561	0	179,639	179638.90
09/01.03	CANAL 3210								
09/01.03. 1	FILTER GRAVEL	1310.00 TON	2,279	4,533	12,445	0	19,258	14.70	
09/01.03. 2	RIPRAP	3927.00 TON	6,833	13,589	41,234	0	61,656	15.70	
09/01.03. 3	PUMPS CANAL 3210	1.00 JOB	228	186	5,750	0	6,163	6163.17	
09/01.03. 4	INSTRUMENTATION	2.00 EA	0	0	24,000	0	24,000	12000.00	
	TOTAL CANAL 3210		1.00 JOB	9,340	18,308	83,429	0	111,076	111076.34
09/01.04	Canal 3220								
09/01.04. 1	CLEARING	105.00 AC	3,140	8,027	0	0	11,166	106.35	
09/01.04. 2	EXCAVATION	31746 CY	2,610	13,335	0	0	15,945	0.50	
09/01.04. 3	EMBANKMENT	84492 CY	12,154	44,627	0	0	56,781	0.67	
09/01.04. 7	REINFORCED CONCRETE PIPE, 36"	220.00 LF	1,560	2,136	10,970	0	14,665	66.66	
09/01.04. 8	REINFORCED CONCRETE PIPE, 48"	980.00 LF	7,253	10,747	72,340	0	90,339	92.18	
09/01.04.12	FLARED END SECTION, 36"	2.00 EA	76	62	600	0	738	368.86	
09/01.04.13	FLARED END SECTION, 48"	12.00 EA	683	557	7,200	0	8,439	703.29	
09/01.04.14	GATES, 18"	2.00 EA	72	44	900	0	1,016	508.23	
09/01.04.15	GATES, 24"	1.00 EA	36	22	525	0	583	583.23	
09/01.04.16	GATES, 30"	1.00 EA	57	46	830	0	933	933.29	
09/01.04.17	8" GRAVEL BASE	863.00 CY	0	0	12,945	0	12,945	15.00	
09/01.04.18	ASPHALT SURFACING, 4"	1.00 JOB	0	0	11,655	0	11,655	11655.00	
09/01.04.19	FERTILIZING AND SEEDING	87.00 AC	0	0	52,200	0	52,200	600.00	
09/01.04.20	ENVIRONMENTAL PROTECTION	1.00 JOB	0	0	28,875	0	28,875	28875.00	

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		QUANTY	UOM	LABOR	EQUIPMT	MATERIAL	SUPPLIE	TOTAL COST	UNIT COST
09/01.04.21	INSTRUMENTATION	3.00	EA	0	0	36,000	0	36,000	12000.00
09/01.04.22	STRUCTURES	1.00	JOB	1,021	1,256	34,166	0	36,443	36443.27
	TOTAL Canal 3220	1.00	JOB	28,661	80,858	269,205	0	378,725	378724.81
09/01.05	CANAL 3221								
09/01.05. 1	FILTER GRAVEL	1017.00	TON	1,770	3,519	9,662	0	14,950	14.70
09/01.05. 2	RIPRAP	3051.00	TON	5,309	10,558	32,036	0	47,902	15.70
	TOTAL CANAL 3221	1.00	JOB	7,078	14,077	41,697	0	62,852	62852.36
09/01.06	CANAL 3221P								
09/01.06. 1	PVC PIPE, 8"	5300.00	LF	4,896	2,182	13,250	0	20,328	3.84
09/01.06. 2	PVC PIPE, 12"	1400.00	LF	2,293	1,004	4,900	0	8,197	5.85
09/01.06. 3	18" PIPELINE, PIP PLASTIC PIPE	3051.00	LF	5,029	2,195	24,713	0	31,937	10.47
09/01.06. 4	PUMPS CANAL 3221	1.00	JOB	455	371	34,000	0	34,826	34826.33
09/01.06. 5	INSTRUMENTATION	6.00	EA	0	0	72,000	0	72,000	12000.00
	TOTAL CANAL 3221P	1.00	JOB	12,672	5,752	148,863	0	167,288	167287.81
09/01.07	CANAL 3230								
09/01.07. 1	FILTER GRAVEL	3006.00	TON	5,230	10,402	28,557	0	44,190	14.70
09/01.07. 2	RIPRAP	9020.00	TON	15,695	31,213	94,710	0	141,618	15.70
09/01.07. 3	PVC PIPE, 6"	2184.00	LF	2,012	893	4,368	0	7,273	3.33
09/01.07. 4	PVC PIPE, 8"	1037.00	LF	961	425	2,593	0	3,979	3.84
09/01.07. 5	PUMPS CANAL 3230	1.00	JOB	341	278	11,750	0	12,370	12369.75
09/01.07. 6	INSTRUMENTATION	3.00	EA	0	0	36,000	0	36,000	12000.00
	TOTAL CANAL 3230	1.00	JOB	24,240	43,211	177,978	0	245,429	245428.62
09/01.08	Canal 3240								
09/01.08. 1	CLEARING	12.00	AC	359	917	0	0	1,276	106.35
09/01.08. 2	EXCAVATION	6629.00	CY	545	2,785	0	0	3,330	0.50
09/01.08. 3	EMBANKMENT	18925	CY	2,569	9,178	0	0	11,747	0.62
09/01.08. 4	PLASTIC PIPE, PIPELINE, 18"	7400.00	LF	12,143	5,294	59,940	0	77,377	10.46
09/01.08. 5	PVC PIPE, 6"	1750.00	LF	1,627	717	3,500	0	5,844	3.34
09/01.08. 6	INSTRUMENTATION	3.00	EA	0	0	36,000	0	36,000	12000.00
09/01.08. 7	FERTILIZING AND SEEDING	12.00	AC	0	0	7,200	0	7,200	600.00
09/01.08. 8	PUMPS CANAL 3240	1.00	JOB	341	278	28,000	0	28,620	28619.75
09/01.08. 9	ENVIRONMENTAL PROTECTION	1.00	JOB	0	0	7,500	0	7,500	7500.00
	TOTAL Canal 3240	1.00	JOB	17,584	19,169	142,140	0	178,894	178893.71

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		QUANTITY	UOM	LABOR	EQUIPM'T	MATERIAL	SUPPLIES	TOTAL COST	UNIT COST
<hr/>									
09/01.09	Canal 3250								
09/01.09. 1	CLEARING	1.00	AC	30	76	0	0	106	106.35
09/01.09. 2	PVC PIPE, 6"	594.00	LF	533	234	1,188	0	1,955	3.29
09/01.09. 3	PUMPS CANAL 3250	1.00	JOB	114	93	3,500	0	3,707	3706.58
09/01.09. 4	FERTILIZING AND SEEDING	12.00	AC	0	0	7,200	0	7,200	600.00
09/01.09. 5	ENVIRONMENTAL PROTECTION	1.00	JOB	0	0	7,500	0	7,500	7500.00
09/01.09. 6	INSTRUMENTATION	1.00	EA	0	0	12,000	0	12,000	12000.00
09/01.09. 7	PVC PIPE, 12"	7141.00	LF	8,800	3,845	24,994	0	37,639	5.27
TOTAL Canal 3250		1.00	JOB	9,477	4,248	56,382	0	70,107	70106.62
09/01.10	Canal 3260								
09/01.10. 1	CLEARING	1.00	AC	389	994	0	0	1,383	1382.51
09/01.10. 2	FILTER GRAVEL	339.00	TON	590	1,173	3,221	0	4,983	14.70
09/01.10. 3	RIPRAP	1017.00	TON	1,770	3,519	10,679	0	15,967	15.70
09/01.10. 4	FERTILIZING AND SEEDING	1.00	AC	0	0	600	0	600	600.00
09/01.10. 5	ENVIRONMENTAL PROTECTION	1.00	JOB	0	0	7,500	0	7,500	7500.00
TOTAL Canal 3260		1.00	JOB	2,748	5,686	21,999	0	30,433	30433.30
09/01.11	Canal 3261								
09/01.11. 1	FILTER GRAVEL	1017.00	TON	1,770	3,519	9,662	0	14,950	14.70
09/01.11. 2	RIPRAP	3051.00	TON	5,309	10,558	32,036	0	47,902	15.70
TOTAL Canal 3261		1.00	JOB	7,078	14,077	41,697	0	62,852	62852.36
09/01.12	Canal 3261P								
09/01.12. 1	PVC PIPE, 6"	4600.00	LF	4,274	1,904	9,200	0	15,378	3.34
09/01.12. 2	PUMPS CANAL 3261	1.00	JOB	341	278	11,750	0	12,370	12369.75
09/01.12. 3	INSTRUMENTATION	3.00	EA	0	0	36,000	0	36,000	12000.00
TOTAL Canal 3261P		1.00	JOB	4,616	2,182	56,950	0	63,748	63747.61
09/01.13	PUMP STATION, CANAL 3200								
09/01.13. 1	Clearing	1.00	JOB	738	1,744	0	0	2,482	2482.25
09/01.13. 2	General Excavation	1010.00	CY	741	2,210	0	0	2,950	2.92
09/01.13. 3	STRUCTURAL EXCAVATION	200.00	CY	210	224	0	0	434	2.17
09/01.13. 4	REINFORCED CONCRETE PIPE, 36"	370.00	LF	1,842	1,842	17,372	0	21,056	56.91
09/01.13. 5	Cast-in-place Concrete	260.00	CY	0	0	78,000	0	78,000	300.00
09/01.13. 6	Mechanical Work	1.00	JOB	0	0	185,000	0	185,000	185000.00
09/01.13. 7	Electrical Work	1.00	JOB	0	0	263,000	0	263,000	263000.00

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	QUANTY UOM	LABOR	EQUIPMNT	MATERIAL	SUPPLIE	TOTAL COST	UNIT COST
09/01.13. 8 Miscellaneous Items	1.00 JOB	0	0	15,000	0	15,000	15000.00
TOTAL PUMP STATION, CANAL 3200	1.00 JOB	3,531	6,021	558,372	0	567,923	567922.95
TOTAL CHANNELS AND CANALS	1.00 EA	278,228	670,267	2642774	0	3,591,269	3591269
TOTAL CHANNELS AND CANALS	1.00 EA	278,228	670,267	2642774	0	3,591,269	3591269
31 CONSTRUCTION MANAGEMENT							
TOTAL EASTERN ARKANSAS REGIONAL STUDY	1.00 EA	278,228	670,267	2965774	0	3,914,269	3914269
Overhead						215,476	
SUBTOTAL						4,129,745	
Home Office						190,337	
SUBTOTAL						4,320,083	
Profit						319,767	
SUBTOTAL						4,639,849	
Bond						64,753	
TOTAL INCL INDIRECTS						4,704,602	

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ERROR REPORT

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No errors detected...

* * * END OF ERROR REPORT * *

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TITLE PAGE 1

EASTERN REGIONAL STUDY
GRAND PRAIRIE DEMONSTRATION
PROJECT
ITEM NO 8

Designed By:
Estimated By: JAMES MOORE

Prepared By:

Preparation Date: 01/29/97
Effective Date of Pricing: 01/29/97

Sales Tax: 0.00%

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No Backup Reports...

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U.S. Army Corps of Engineers
PROJECT CNTR08: EASTERN REGIONAL STUDY - GRAND PRAIRIE DEMONSTRATION
ITEM NO 8
** PROJECT INDIRECT SUMMARY - Facility **

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SUMMARY PAGE 1

	QUANTITY UOM	DIRECT	OVERHEAD	HOME OFC	PROFIT	BOND	TOTAL COST	UNIT COST
<hr/>								
01 LANDS AND DAMAGES								
02 RELOCATIONS								
02.03 UTILITIES	1.00 EA	186,000	0	0	0	0	186,000	186000.00
TOTAL RELOCATIONS	1.00 EA	186,000	0	0	0	0	186,000	186000.00
09 CHANNELS AND CANALS								
09.01 CHANNELS AND CANALS	1.00 EA	7,268,536	436,112	385,232	647,190	131,056	8,868,127	8868127
TOTAL CHANNELS AND CANALS	1.00 EA	7,268,536	436,112	385,232	647,190	131,056	8,868,127	8868127
31 CONSTRUCTION MANAGEMENT								
TOTAL EASTERN REGIONAL STUDY	1.00 EA	7,454,536	436,112	385,232	647,190	131,056	9,054,127	9054127

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PROJECT CNTR08: EASTERN REGIONAL STUDY - GRAND PRAIRIE DEMONSTRATION
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** PROJECT INDIRECT SUMMARY - System **

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SUMMARY PAGE 2

	QUANTITY	UOM	DIRECT	OVERHEAD	HOME OFC	PROFIT	BOND	TOTAL COST	UNIT COST
01 LANDS AND DAMAGES									
02 RELOCATIONS									
02.02 RAILROADS									
TOTAL RAILROADS									
02.03 UTILITIES									
02.03.18 MECHANICAL	1.00	EA	186,000	0	0	0	0	186,000	186000.00
TOTAL UTILITIES	1.00	EA	186,000	0	0	0	0	186,000	186000.00
TOTAL RELOCATIONS	1.00	EA	186,000	0	0	0	0	186,000	186000.00
09 CHANNELS AND CANALS									
09.01 CHANNELS AND CANALS									
09.01.01 Canal 3500	1.00	JOB	1,140,870	68,452	60,466	101,583	20,571	1,391,942	1391942
09.01.02 Canal 3500P	1.00	JOB	343,126	20,588	18,186	30,552	6,187	418,637	418637.47
09.01.03 Canal 3510	1.00	JOB	118,659	7,120	6,289	10,565	2,139	144,772	144772.48
09.01.04 Canal 40-50	1.00	JOB	1,049,468	62,968	55,622	93,445	18,923	1,280,425	1280425
09.01.05 Canal 4000A	1.00	JOB	2,416,179	144,971	128,058	215,137	43,565	2,947,909	2947909
09.01.06 Canal 4000P	1.00	JOB	660,377	39,623	35,000	58,800	11,907	805,706	805706.03
09.01.07 Canal 4000B	1.00	JOB	789,204	47,352	41,828	70,271	14,230	962,884	962884.43
09.01.08 Canal 4000PB	1.00	JOB	15,641	938	829	1,393	282	19,083	19082.78
09.01.09 GATED STRUCTURE, CANAL 4000	1.00	JOB	735,013	44,101	38,956	65,446	13,253	896,767	896767.22
TOTAL CHANNELS AND CANALS	1.00	EA	7,268,536	436,112	385,232	647,190	131,056	8,868,127	8868127
TOTAL CHANNELS AND CANALS	1.00	EA	7,268,536	436,112	385,232	647,190	131,056	8,868,127	8868127
31 CONSTRUCTION MANAGEMENT									
TOTAL EASTERN REGIONAL STUDY	1.00	EA	7,454,536	436,112	385,232	647,190	131,056	9,054,127	9054127

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** PROJECT INDIRECT SUMMARY - Subsystm **

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SUMMARY PAGE 3

	QUANTITY UOM	DIRECT	OVERHEAD	HOME OFC	PROFIT	BOND	TOTAL COST	UNIT COST
01 LANDS AND DAMAGES								
02 RELOCATIONS								
02.02 RAILROADS								
TOTAL RAILROADS								
02.03 UTILITIES								
02.03.18 MECHANICAL								
02.03.18.01 CANAL 3500	1.00 EA	30,000	0	0	0	0	30,000	30000.00
02.03.18.02 CANAL 3500A-1	1.00 EA	41,000	0	0	0	0	41,000	41000.00
02.03.18.03 CANAL 3500.02	1.00 EA	5,000	0	0	0	0	5,000	5000.00
02.03.18.04 CANAL 4000	1.00 EA	92,000	0	0	0	0	92,000	92000.00
02.03.18.05 CANAL 4100	1.00 EA	18,000	0	0	0	0	18,000	18000.00
TOTAL MECHANICAL	1.00 EA	186,000	0	0	0	0	186,000	186000.00
TOTAL UTILITIES	1.00 EA	186,000	0	0	0	0	186,000	186000.00
TOTAL RELOCATIONS	1.00 EA	186,000	0	0	0	0	186,000	186000.00
09 CHANNELS AND CANALS								
09.01 CHANNELS AND CANALS								
09.01.01 Canal 3500								
09.01.01. 1 CLEARING	103.00 AC	10,954	657	581	975	198	13,364	129.75
09.01.01. 2 EXCAVATION	331653.00 CY	188,390	11,303	9,985	16,774	3,397	229,849	0.69
09.01.01. 3 EMBANKMENT	258288.00 CY	247,091	14,825	13,096	22,001	4,455	301,469	1.17
09.01.01. 5 REINFORCED CONCRETE PIPE, 48"	768.00 LF	88,428	5,306	4,687	7,874	1,594	107,889	140.48
09.01.01. 6 REINFORCED CONCRETE PIPE, 60"	1656.00 LF	281,615	16,897	14,926	25,075	5,078	343,591	207.48
09.01.01. 7 REINFORCED CONCRETE PIPE, 84"	120.00 LF	38,318	2,299	2,031	3,412	691	46,750	389.58
09.01.01. 8 REINFORCED CONCRETE PIPE, 90"	240.00 LF	73,528	4,412	3,897	6,547	1,326	89,710	373.79
09.01.01.10 FLARED END SECTION, 48"	8.00 EA	5,626	338	298	501	101	6,865	858.07
09.01.01.11 FLARED END SECTION, 60"	18.00 EA	24,359	1,462	1,291	2,169	439	29,720	1651.11
09.01.01.12 FLARED END SECTION, 84"	2.00 EA	4,160	250	220	370	75	5,075	2537.56
09.01.01.13 FLARED END SECTION, 90"	4.00 EA	8,919	535	473	794	161	10,882	2720.57
09.01.01.14 GATES, 30"	1.00 EA	933	56	49	83	17	1,139	1138.68
09.01.01.15 GATES, 48"	1.00 EA	1,603	96	85	143	29	1,956	1956.13
09.01.01.16 ASPHALT SURFACING, 4"	90.00 TON	6,172	370	327	550	111	7,530	83.66
09.01.01.17 GRAVEL BASE, 8"	1075.00 CY	17,162	1,030	910	1,528	309	20,938	19.48
09.01.01.18 ENVIRONMENTAL PROTECTION	1.00 JOB	54,750	3,285	2,902	4,875	987	66,799	66798.87
09.01.01.19 INSTRUMENTATION	2.00 EA	21,000	1,260	1,113	1,870	379	25,621	12810.74
09.01.01.20 STRUCTURES FOR TURNOUTS	2.00 EA	15,920	955	844	1,418	287	19,424	9711.76

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** PROJECT INDIRECT SUMMARY - Subsystem **

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SUMMARY PAGE 4

		QUANTITY UOM	DIRECT	OVERHEAD	HOME OFC	PROFIT	BOND	TOTAL COST	UNIT COST
09.01.01.21	FERTILIZING AND SEEDING	54.00 AC	32,400	1,944	1,717	2,885	584	39,530	732.04
09.01.01.22	STRUCTURES	1.00 JOB	19,542	1,173	1,036	1,740	352	23,842	23842.23
	TOTAL Canal 3500	1.00 JOB	1,140,870	68,452	60,466	101,583	20,571	1,391,942	1391942
09.01.02	Canal 3500P								
09.01.02. 1	PIPELINE, PLASTIC PIPE, 15"	15517.00 LF	114,418	6,865	6,064	10,188	2,063	139,598	9.00
09.01.02. 2	PVC PIPE, 6"	1500.00 LF	5,035	302	267	448	91	6,143	4.10
09.01.02. 3	PUMPS CANAL 3500	1.00 JOB	33,620	2,017	1,782	2,994	606	41,018	41018.47
09.01.02. 4	INSTRUMENTATION	3.00 EA	31,500	1,890	1,670	2,805	568	38,432	12810.74
09.01.02. 5	Plastic Pipe, Pipeline, 30"	5475.00 LF	158,553	9,513	8,403	14,118	2,859	193,446	35.33
	TOTAL Canal 3500P	1.00 JOB	343,126	20,588	18,186	30,552	6,187	418,637	418637.47
09.01.03	Canal 3510								
09.01.03. 1	FILTER GRAVEL	729.00 TON	10,717	643	568	954	193	13,075	17.94
09.01.03. 2	RIPRAP	2186.00 TON	34,321	2,059	1,819	3,056	619	41,874	19.16
09.01.03. 3	PVC PIPE, 8"	2710.00 LF	10,402	624	551	926	188	12,691	4.68
09.01.03. 7	PUMPS CANAL 3510	1.00 JOB	4,957	297	263	441	89	6,047	6047.38
09.01.03. 9	GATES, 24"	1.00 EA	583	35	31	52	11	712	711.58
09.01.03. A	INSTRUMENTATION	5.00 EA	52,500	3,150	2,783	4,675	947	64,056	12810.74
09.01.03.10	STRUCTURES	1.00 JOB	5,180	311	275	461	93	6,320	6319.62
	TOTAL Canal 3510	1.00 JOB	118,659	7,120	6,289	10,565	2,139	144,772	144772.48
09.01.04	Canal 40-50								
09.01.04. 1	CLEARING	130.00 AC	13,825	830	733	1,231	249	16,868	129.75
09.01.04. 2	EXCAVATION	930875.00 CY	467,561	28,054	24,781	41,632	8,430	570,458	0.61
09.01.04. 3	EMBANKMENT	931816.00 CY	521,482	31,289	27,639	46,433	9,403	636,245	0.68
09.01.04. 4	FERTILIZING AND SEEDING	61.00 AC	36,600	2,196	1,940	3,259	660	44,655	732.04
09.01.04. 5	ENVIRONMENTAL PROTECTION	1.00 JOB	10,000	600	530	890	180	12,201	12200.71
	TOTAL Canal 40-50	1.00 JOB	1,049,468	62,968	55,622	93,445	18,923	1,280,425	1280425
09.01.05	Canal 4000A								
09.01.05. 1	CLEARING	243.00 AC	25,842	1,551	1,370	2,301	466	31,529	129.75
09.01.05. 2	EXCAVATION	1544134 CY	981,989	58,919	52,045	87,436	17,706	1,198,095	0.78
09.01.05. 3	EMBANKMENT	775090.00 CY	336,096	20,166	17,813	29,926	6,060	410,061	0.53
09.01.05. 4	REINFORCED CONCRETE BOX CULVERT	750.00 LF	606,694	36,402	32,155	54,020	10,939	740,210	986.95
09.01.05. 7	REINFORCED CONCRETE PIPE, 42"	230.00 LF	22,444	1,347	1,190	1,998	405	27,383	119.06
09.01.05. 8	REINFORCED CONCRETE PIPE, 48"	230.00 LF	27,738	1,664	1,470	2,470	500	33,843	147.14
09.01.05. 9	REINFORCED CONCRETE PIPE, 72"	230.00 LF	57,436	3,446	3,044	5,114	1,036	70,076	304.68
09.01.05.10	REINFORCED CONCRETE PIPE, 84"	460.00 LF	144,910	8,695	7,680	12,903	2,613	176,800	384.35

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SUMMARY PAGE 5

		QUANTITY UOM	DIRECT	OVERHEAD	HOME OFC	PROFIT	BOND	TOTAL COST	UNIT COST
09.01.05.13	FLARED END SECTION, 42"	2.00 EA	865	52	46	77	16	1,056	527.84
09.01.05.14	FLARED END SECTION, 48"	2.00 EA	1,407	84	75	125	25	1,716	858.07
09.01.05.15	FLARED END SECTION, 72"	2.00 EA	4,160	250	220	370	75	5,075	2537.56
09.01.05.16	FLARED END SECTION, 84"	4.00 EA	8,319	499	441	741	150	10,150	2537.56
09.01.05.17	CANAL GATE, 24"	1.00 EA	583	35	31	52	11	712	711.58
09.01.05.18	CANAL GATES 30"	3.00 EA	2,800	168	148	249	50	3,416	1138.68
09.01.05.19	CANAL GATES 42"	1.00 EA	1,253	75	66	112	23	1,529	1529.10
09.01.05.20	8" GRAVEL BASE	172.00 CY	2,580	155	137	230	47	3,148	18.30
09.01.05.21	4" ASPHALT	1.00 JOB	6,345	381	336	565	114	7,741	7741.35
09.01.05.22	INSTRUMENTATION	5.00 EA	52,500	3,150	2,783	4,675	947	64,054	12810.74
09.01.05.23	FERTILIZING AND SEEDING	125.00 AC	75,000	4,500	3,975	6,678	1,352	91,505	732.04
09.01.05.25	STRUCTURES	1.00 JOB	26,754	1,605	1,418	2,382	482	32,642	32641.78
09.01.05.26	WASTEWAYS	1.00 JOB	30,463	1,828	1,615	2,712	549	37,167	37167.19
TOTAL Canal 4000A		1.00 JOB	2,416,179	144,971	128,058	215,137	43,565	2,947,909	2947909
 09.01.06 Canal 4000P									
09.01.06. 1	Plastic Pipe, Pipeline, 15"	7046.00 LF	51,966	3,118	2,754	4,627	937	63,403	9.00
09.01.06. 2	Plastic Pipe, Pipeline, 18"	4952.00 LF	50,739	3,044	2,689	4,518	915	61,905	12.50
09.01.06. 3	Plastic Pipe, Pipeline, 24"	16139.00 LF	330,190	19,811	17,500	29,400	5,954	402,855	24.96
09.01.06. 4	PVC PIPE, 6"	7307.00 LF	24,361	1,462	1,291	2,169	439	29,722	4.07
09.01.06. 5	PVC PIPE, 12"	4318.00 LF	22,762	1,366	1,206	2,027	410	27,771	6.43
09.01.06. 6	PUMPS CANAL 4000		85,859	5,152	4,551	7,645	1,548	104,754	
09.01.06. 7	INSTRUMENTATION	9.00 EA	94,500	5,670	5,009	8,414	1,704	115,297	12810.74
TOTAL Canal 4000P		1.00 JOB	660,377	39,623	35,000	58,800	11,907	805,706	805706.03
 09.01.07 Canal 4000B									
09.01.07. 1	CLEARING	3.00 AC	319	19	17	28	6	389	129.75
09.01.07. 2	EXCAVATION	8200.00 CY	4,737	284	251	422	85	5,779	0.70
09.01.07. 3	EMBANKMENT	8200.00 CY	3,089	185	164	275	56	3,769	0.46
09.01.07. 5	REINFORCED CONCRETE PIPE, 54"	230.00 LF	33,260	1,996	1,763	2,961	600	40,579	176.43
09.01.07. 6	REINFORCED CONCRETE PIPE, 96"	1500.00 LF	594,401	35,664	31,503	52,925	10,717	725,211	483.47
09.01.07. 7	FLARED END SECTION, 54"	2.00 EA	1,153	69	61	103	21	1,407	703.55
09.01.07. 8	FLARED END SECTION, 96"	10.00 EA	23,298	1,398	1,235	2,074	420	28,426	2842.57
09.01.07. 9	GRAVEL BASE, 8"	1391.00 CY	22,206	1,332	1,177	1,977	400	27,093	19.48
09.01.07.10	ASPHALT SURFACING, 4"	1.00 JOB	71,041	4,262	3,765	6,325	1,281	86,675	86674.92
09.01.07.11	FERTILIZING AND SEEDING	11.00 AC	6,600	396	350	588	119	8,052	732.04
09.01.07.12	ENVIRONMENTAL PROTECTION	1.00 JOB	29,100	1,746	1,542	2,591	525	35,504	35504.05
TOTAL Canal 4000B		1.00 JOB	789,204	47,352	41,828	70,271	14,230	962,884	962884.43
 09.01.08 Canal 4000PB									
09.01.08. 2	PVC PIPE, 6"	2127.00 LF	7,129	428	378	635	129	8,698	4.09

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SUMMARY PAGE 6

	QUANTITY UOM	DIRECT	OVERHEAD	HOME OFC	PROFIT	BOND	TOTAL COST	UNIT COST
09.01.08. 3 PVC PIPE, 10"	1924.00 LF	8,512	511	451	758	153	10,385	5.40
TOTAL Canal 4000PB	1.00 JOB	15,641	938	829	1,393	282	19,083	19082.78
09.01.09 GATED STRUCTURE, CANAL 4000								
09.01.09. 1 Clearing	1.00 JOB	2,482	149	132	221	45	3,029	3028.52
09.01.09. 2 General Excavation	5700.00 CY	16,650	999	882	1,483	300	20,315	3.56
09.01.09. 3 Structural Excavation	290.00 CY	630	38	33	56	11	768	2.65
09.01.09. 4 Steel Sheet Piling (PZ 27)	3650.00 SF	90,750	5,445	4,810	8,080	1,636	110,721	30.50
09.01.09. 5 Cast-in-place Concrete	915.00 CY	274,500	16,470	14,549	24,441	4,949	334,909	366.02
09.01.09. 6 Mechanical Work	1.00 JOB	300,000	18,000	15,900	26,712	5,409	366,021	366021.18
09.01.09. 7 Electrical Work	1.00 JOB	40,000	2,400	2,120	3,562	721	48,803	48802.82
09.01.09. 8 Miscellaneous Items	1.00 JOB	10,000	600	530	890	180	12,201	12200.71
TOTAL GATED STRUCTURE, CANAL 4000	1.00 JOB	735,013	44,101	38,956	65,446	13,253	896,767	896767.22
TOTAL CHANNELS AND CANALS	1.00 EA	7,268,536	436,112	385,232	647,190	131,056	8,868,127	8868127
TOTAL CHANNELS AND CANALS	1.00 EA	7,268,536	436,112	385,232	647,190	131,056	8,868,127	8868127
31 CONSTRUCTION MANAGEMENT								
TOTAL EASTERN REGIONAL STUDY	1.00 EA	7,454,536	436,112	385,232	647,190	131,056	9,054,127	9054127

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** PROJECT DIRECT SUMMARY - Facility **

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SUMMARY PAGE 7

	QUANTITY	UOM	MANHRS	LABOR	EQUIPMNT	MATERIAL	OTHER	TOTAL COST	UNIT COST
<hr/>									
01 LANDS AND DAMAGES									
02 RELOCATIONS									
02.03 UTILITIES	1.00	EA	0	0	0	186,000	0	186,000	186000.00
TOTAL RELOCATIONS	1.00	EA	0	0	0	186,000	0	186,000	186000.00
09 CHANNELS AND CANALS									
09.01 CHANNELS AND CANALS	1.00	EA	10,263	795,162	2510480	3962895	0	7,268,536	7268536
TOTAL CHANNELS AND CANALS	1.00	EA	10,263	795,162	2510480	3962895	0	7,268,536	7268536
31 CONSTRUCTION MANAGEMENT									
TOTAL EASTERN REGIONAL STUDY	1.00	EA	10,263	795,162	2510480	4148895	0	7,454,536	7454536
OVERHEAD								436,112	
SUBTOTAL HOME OFC								7,890,648	
SUBTOTAL PROFIT								385,232	
SUBTOTAL BOND								8,275,881	
TOTAL INCL INDIRECTS								647,190	
								8,923,071	
								131,056	
								9,054,127	

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SUMMARY PAGE 8

	QUANTITY	UOM	MANHRS	LABOR	EQUIPMENT	MATERIAL	OTHER	TOTAL COST	UNIT COST
<hr/>									
01 LANDS AND DAMAGES									
02 RELOCATIONS									
02.02 RAILROADS									
TOTAL RAILROADS									
02.03 UTILITIES									
02.03.18 MECHANICAL	1.00	EA	0	0	0	186,000	0	186,000	186000.00
TOTAL UTILITIES	1.00	EA	0	0	0	186,000	0	186,000	186000.00
TOTAL RELOCATIONS	1.00	EA	0	0	0	186,000	0	186,000	186000.00
09 CHANNELS AND CANALS									
09.01 CHANNELS AND CANALS									
09.01.01 Canal 3500	1.00	JOB	3,198	123,815	410,986	606,069	0	1,140,870	1140870
09.01.02 Canal 3500P	1.00	JOB	30	37,333	19,954	285,839	0	343,126	343125.61
09.01.03 Canal 3510	1.00	JOB	435	7,877	11,501	99,281	0	118,659	118659.10
09.01.04 Canal 40-50	1.00	JOB	0	198,853	804,015	46,600	0	1,049,468	1049468
09.01.05 Canal 4000A	1.00	JOB	2,322	299,142	1132894	984,143	0	2,416,179	2416179
09.01.06 Canal 4000P	1.00	JOB	90	67,780	40,973	551,623	0	660,377	660376.56
09.01.07 Canal 4000B	1.00	JOB	4,128	51,250	73,890	664,064	0	789,204	789203.86
09.01.08 Canal 4000PB	1.00	JOB	0	3,890	1,725	10,026	0	15,641	15640.72
09.01.09 GATED STRUCTURE, CANAL 4000	1.00	JOB	60	5,222	14,541	715,250	0	735,013	735012.57
TOTAL CHANNELS AND CANALS	1.00	EA	10,263	795,162	2510480	3962895	0	7,268,536	7268536
TOTAL CHANNELS AND CANALS	1.00	EA	10,263	795,162	2510480	3962895	0	7,268,536	7268536
31 CONSTRUCTION MANAGEMENT									
TOTAL EASTERN REGIONAL STUDY	1.00	EA	10,263	795,162	2510480	4148895	0	7,454,536	7454536
OVERHEAD									436,112
SUBTOTAL									7,890,648
HOME OFC									385,232
SUBTOTAL									8,275,881
PROFIT									647,190
SUBTOTAL									8,923,071
BOND									131,056

Tue 28 Jan 1997
Eff. Date 01/29/97

U.S. Army Corps of Engineers
PROJECT CNTR08: EASTERN REGIONAL STUDY - GRAND PRAIRIE DEMONSTRATION
ITEM NO 8
** PROJECT DIRECT SUMMARY - System **

TIME 12:38:22

SUMMARY PAGE 9

	QUANTITY	UOM	MANHRS	LABOR	EQUIPMNT	MATERIAL	OTHER	TOTAL COST	UNIT COST
TOTAL INCL INDIRECTS								9,054,127	

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U.S. Army Corps of Engineers
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ITEM NO 8
** PROJECT DIRECT SUMMARY - Subsystm **

TIME 12:38:22
SUMMARY PAGE 10

		QUANTITY	UOM	MANHRS	LABOR	EQUIPMENT	MATERIAL	OTHER	TOTAL COST	UNIT COST

01	LANDS AND DAMAGES									
02	RELOCATIONS									
02.02	RAILROADS									
	TOTAL RAILROADS									
02.03	UTILITIES									
02.03.18	MECHANICAL									
02.03.18.01	CANAL 3500	1.00	EA	0	0	0	30,000	0	30,000	30000.00
02.03.18.02	CANAL 3500A-1	1.00	EA	0	0	0	41,000	0	41,000	41000.00
02.03.18.03	CANAL 3500.02	1.00	EA	0	0	0	5,000	0	5,000	5000.00
02.03.18.04	CANAL 4000	1.00	EA	0	0	0	92,000	0	92,000	92000.00
02.03.18.05	CANAL 4100	1.00	EA	0	0	0	18,000	0	18,000	18000.00
	TOTAL MECHANICAL	1.00	EA	0	0	0	186,000	0	186,000	186000.00
	TOTAL UTILITIES	1.00	EA	0	0	0	186,000	0	186,000	186000.00
	TOTAL RELOCATIONS	1.00	EA	0	0	0	186,000	0	186,000	186000.00
09	CHANNELS AND CANALS									
09.01	CHANNELS AND CANALS									
09.01.01	Canal 3500									
09.01.01. 1	CLEARING	103.00	AC	0	3,080	7,874	0	0	10,954	106.35
09.01.01. 2	EXCAVATION	331653.00	CY	0	32,851	155,539	0	0	188,390	0.57
09.01.01. 3	EMBANKMENT	258288.00	CY	0	49,585	197,506	0	0	247,091	0.96
09.01.01. 5	REINFORCED CONCRETE PIPE, 48"	768.00	LF	449	5,330	7,618	75,480	0	88,428	115.14
09.01.01. 6	REINFORCED CONCRETE PIPE, 60"	1656.00	LF	1,602	18,829	24,109	238,677	0	281,615	170.06
09.01.01. 7	REINFORCED CONCRETE PIPE, 84"	120.00	LF	163	1,945	3,214	33,159	0	38,318	319.31
09.01.01. 8	REINFORCED CONCRETE PIPE, 90"	240.00	LF	330	3,936	6,499	63,093	0	73,528	306.37
09.01.01.10	FLARED END SECTION, 48"	8.00	EA	40	455	371	4,800	0	5,626	703.29
09.01.01.11	FLARED END SECTION, 60"	18.00	EA	90	1,024	835	22,500	0	24,359	1353.29
09.01.01.12	FLARED END SECTION, 84"	2.00	EA	24	276	383	3,500	0	4,160	2079.84
09.01.01.13	FLARED END SECTION, 90"	4.00	EA	48	553	767	7,600	0	8,919	2229.84
09.01.01.14	GATES, 30"	1.00	EA	5	57	46	830	0	933	933.29
09.01.01.15	GATES, 48"	1.00	EA	5	57	46	1,500	0	1,603	1603.29
09.01.01.16	ASPHALT SURFACING, 4"	90.00	TON	99	1,196	926	4,050	0	6,172	68.57
09.01.01.17	GRAVEL BASE, 8"	1075.00	CY	323	4,001	4,561	8,600	0	17,162	15.96
09.01.01.18	ENVIRONMENTAL PROTECTION	1.00	JOB	0	0	0	54,750	0	54,750	54750.00
09.01.01.19	INSTRUMENTATION	2.00	EA	0	0	0	21,000	0	21,000	10500.00
09.01.01.20	STRUCTURES FOR TURNOUTS	2.00	EA	0	0	0	15,920	0	15,920	7960.00

LABOR ID: JGMV96 EQUIP ID: NAT94A

Currency in DOLLARS

CREW ID: RG031M UPB ID: EARCCS

Tue 28 Jan 1997
Eff. Date 01/29/97

U.S. Army Corps of Engineers
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ITEM NO 8
** PROJECT DIRECT SUMMARY - Subsystem **

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SUMMARY PAGE 11

		QUANTITY	UOM	MANHRS	LABOR	EQUIPMNT	MATERIAL	OTHER	TOTAL COST	UNIT COST
09.01.01.21	FERTILIZING AND SEEDING	54.00	AC	0	0	0	32,400	0	32,400	600.00
09.01.01.22	STRUCTURES	1.00	JOB	20	640	692	18,210	0	19,542	19541.68
	TOTAL Canal 3500								1,140,870	1140870
09.01.02	Canal 3500P	1.00	JOB	3,198	123,815	410,986	606,069	0		
09.01.02. 1	PIPELINE, PLASTIC PIPE, 15"	15517.00	LF	0	22,940	10,014	81,464	0	114,418	7.37
09.01.02. 2	PVC PIPE, 6"	1500.00	LF	0	1,405	630	3,000	0	5,035	3.36
09.01.02. 3	PUMPS CANAL 3500	1.00	JOB	30	341	278	33,000	0	33,620	33619.75
09.01.02. 4	INSTRUMENTATION	3.00	EA	0	0	0	31,500	0	31,500	10500.00
09.01.02. 5	Plastic Pipe, Pipeline, 30"	5475.00	LF	0	12,646	9,032	136,875	0	158,553	28.96
	TOTAL Canal 3500P								343,126	343125.61
09.01.03	Canal 3510	1.00	JOB	30	37,333	19,954	285,839	0		
09.01.03. 1	FILTER GRAVEL	729.00	TON	105	1,268	2,523	6,926	0	10,717	14.70
09.01.03. 2	RIPRAP	2186.00	TON	316	3,803	7,564	22,953	0	34,321	15.70
09.01.03. 3	PVC PIPE, 8"	2710.00	LF	0	2,514	1,113	6,775	0	10,402	3.84
09.01.03. 7	PUMPS CANAL 3510	1.00	JOB	10	114	93	4,750	0	4,957	4956.58
09.01.03. 9	GATES, 24"	1.00	EA	3	36	22	525	0	583	583.23
09.01.03. A	INSTRUMENTATION	5.00	EA	0	0	0	52,500	0	52,500	10500.00
09.01.03.10	STRUCTURES	1.00	JOB	0	141	186	4,852	0	5,180	5179.72
	TOTAL Canal 3510								118,659	118659.10
09.01.04	Canal 40-50	1.00	JOB	435	7,877	11,501	99,281	0		
09.01.04. 1	CLEARING	130.00	AC	0	3,887	9,938	0	0	13,825	106.35
09.01.04. 2	EXCAVATION	930875.00	CY	0	76,546	391,015	0	0	467,561	0.50
09.01.04. 3	EMBANKMENT	931816.00	CY	0	118,420	403,061	0	0	521,482	0.56
09.01.04. 4	FERTILIZING AND SEEDING	61.00	AC	0	0	0	36,600	0	36,600	600.00
09.01.04. 5	ENVIRONMENTAL PROTECTION	1.00	JOB	0	0	0	10,000	0	10,000	10000.00
	TOTAL Canal 40-50								1,049,468	1049468
09.01.05	Canal 4000A	1.00	JOB	0	198,853	804,015	46,600	0		
09.01.05. 1	CLEARING	243.00	AC	0	7,266	18,576	0	0	25,842	106.35
09.01.05. 2	EXCAVATION	1544134	CY	0	179,779	802,210	0	0	981,989	0.64
09.01.05. 3	EMBANKMENT	775090.00	CY	0	82,699	253,398	0	0	336,096	0.43
09.01.05. 4	REINFORCED CONCRETE BOX CULVERT	750.00	LF	921	11,577	31,445	563,672	0	606,694	808.93
09.01.05. 7	REINFORCED CONCRETE PIPE, 42"	230.00	LF	147	1,743	2,411	18,290	0	22,444	97.58
09.01.05. 8	REINFORCED CONCRETE PIPE, 48"	230.00	LF	155	1,850	2,596	23,292	0	27,738	120.60
09.01.05. 9	REINFORCED CONCRETE PIPE, 72"	230.00	LF	311	3,689	6,176	47,571	0	57,436	249.72
09.01.05.10	REINFORCED CONCRETE PIPE, 84"	460.00	LF	651	7,751	13,023	124,136	0	144,910	315.02

LABOR ID: JGMV96 EQUIP ID: NAT94A

Currency in DOLLARS

CREW ID: RG031M UPB ID: EARCCS

Tue 28 Jan 1997
Eff. Date 01/29/97

U.S. Army Corps of Engineers
PROJECT CNTR08: EASTERN REGIONAL STUDY - GRAND PRAIRIE DEMONSTRATION
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		QUANTITY	UOM	MANHRS	LABOR	EQUIPMNT	MATERIAL	OTHER	TOTAL COST	UNIT COST
09.01.05.13	FLARED END SECTION, 42"	2.00	EA	8	91	74	700	0	865	432.63
09.01.05.14	FLARED END SECTION, 48"	2.00	EA	10	114	93	1,200	0	1,407	703.29
09.01.05.15	FLARED END SECTION, 72"	2.00	EA	0	276	383	3,500	0	4,160	2079.84
09.01.05.16	FLARED END SECTION, 84"	4.00	EA	0	553	767	7,000	0	8,319	2079.84
09.01.05.17	CANAL GATE, 24"	1.00	EA	3	36	22	525	0	583	583.23
09.01.05.18	CANAL GATES 30"	3.00	EA	15	171	139	2,490	0	2,800	933.29
09.01.05.19	CANAL GATES 42"	1.00	EA	5	57	46	1,150	0	1,253	1253.29
09.01.05.20	8" GRAVEL BASE	172.00	CY	0	0	0	2,580	0	2,580	15.00
09.01.05.21	4" ASPHALT	1.00	JOB	0	0	0	6,345	0	6,345	6345.00
09.01.05.22	INSTRUMENTATION	5.00	EA	0	0	0	52,500	0	52,500	10500.00
09.01.05.23	FERTILIZING AND SEEDING	125.00	AC	0	0	0	75,000	0	75,000	600.00
09.01.05.25	STRUCTURES	1.00	JOB	40	838	1,005	24,911	0	26,754	26754.01
09.01.05.26	WASTEWAYS	1.00	JOB	57	651	531	29,281	0	30,463	30463.14
TOTAL Canal 4000A		1.00	JOB	2,322	299,142	1132894	984,143	0	2,416,179	2416179
 09.01.06 Canal 4000P										
09.01.06. 1	Plastic Pipe, Pipeline, 15"	7046.00	LF	0	10,427	4,548	36,992	0	51,966	7.38
09.01.06. 2	Plastic Pipe, Pipeline, 18"	4952.00	LF	0	6,973	3,655	40,111	0	50,739	10.25
09.01.06. 3	Plastic Pipe, Pipeline, 24"	16139.00	LF	0	37,287	26,609	266,294	0	330,190	20.46
09.01.06. 4	PVC PIPE, 6"	7307.00	LF	0	6,745	3,002	14,614	0	24,361	3.33
09.01.06. 5	PVC PIPE, 12"	4318.00	LF	0	5,325	2,324	15,113	0	22,762	5.27
09.01.06. 6	PUMPS CANAL 4000			90	1,024	835	84,000	0	85,859	
09.01.06. 7	INSTRUMENTATION	9.00	EA	0	0	0	94,500	0	94,500	10500.00
TOTAL Canal 4000P		1.00	JOB	90	67,780	40,973	551,623	0	660,377	660376.56
 09.01.07 Canal 4000B										
09.01.07. 1	CLEARING	3.00	AC	0	90	229	0	0	319	106.35
09.01.07. 2	EXCAVATION	8200.00	CY	0	775	3,961	0	0	4,737	0.58
09.01.07. 3	EMBANKMENT	8200.00	CY	0	797	2,292	0	0	3,089	0.38
09.01.07. 5	REINFORCED CONCRETE PIPE, 54"	230.00	LF	168	2,002	2,876	28,382	0	33,260	144.61
09.01.07. 6	REINFORCED CONCRETE PIPE, 96"	1500.00	LF	2,278	27,207	46,010	521,184	0	594,401	396.27
09.01.07. 7	FLARED END SECTION, 54"	2.00	EA	5	57	46	1,050	0	1,153	576.65
09.01.07. 8	FLARED END SECTION, 96"	10.00	EA	120	1,382	1,917	20,000	0	23,298	2329.84
09.01.07. 9	GRAVEL BASE, 8"	1391.00	CY	417	5,177	5,902	11,128	0	22,206	15.96
09.01.07.10	ASPHALT SURFACING, 4"	1.00	JOB	1,140	13,764	10,657	46,620	0	71,041	71040.90
09.01.07.11	FERTILIZING AND SEEDING	11.00	AC	0	0	0	6,600	0	6,600	600.00
09.01.07.12	ENVIRONMENTAL PROTECTION	1.00	JOB	0	0	0	29,100	0	29,100	29100.00
TOTAL Canal 4000B		1.00	JOB	4,128	51,250	73,890	664,064	0	789,204	789203.86
 09.01.08 Canal 4000PB										
09.01.08. 2	PVC PIPE, 6"	2127.00	LF	0	1,982	893	4,254	0	7,129	3.35

LABOR ID: JGMV96 EQUIP ID: NAT94A

Currency in DOLLARS

CREW ID: RG031M UPB ID: EARCCS

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U.S. Army Corps of Engineers
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** PROJECT DIRECT SUMMARY - Subsystem **

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SUMMARY PAGE 13

		QUANTITY	UOM	MANHRS	LABOR	EQUIPMNT	MATERIAL	OTHER	TOTAL COST	UNIT COST
09.01.08. 3	PVC PIPE, 10"	1924.00	LF	0	1,908	832	5,772	0	8,512	4.42
TOTAL Canal 4000PB		1.00	JOB	0	3,890	1,725	10,026	0	15,641	15640.72
09.01.09	GATED STRUCTURE, CANAL 4000									
09.01.09. 1	Clearing	1.00	JOB	60	738	1,744	0	0	2,482	2482.25
09.01.09. 2	General Excavation	5700.00	CY	0	4,179	12,471	0	0	16,650	2.92
09.01.09. 3	Structural Excavation	290.00	CY	0	304	325	0	0	630	2.17
09.01.09. 4	Steel Sheet Piling (PZ 27)	3630.00	SF	0	0	0	90,750	0	90,750	25.00
09.01.09. 5	Cast-in-place Concrete	915.00	CY	0	0	0	274,500	0	274,500	300.00
09.01.09. 6	Mechanical Work	1.00	JOB	0	0	0	300,000	0	300,000	300000.00
09.01.09. 7	Electrical Work	1.00	JOB	0	0	0	40,000	0	40,000	40000.00
09.01.09. 8	Miscellaneous Items	1.00	JOB	0	0	0	10,000	0	10,000	10000.00
TOTAL GATED STRUCTURE, CANAL 4000		1.00	JOB	60	5,222	14,541	715,250	0	735,013	735012.57
TOTAL CHANNELS AND CANALS		1.00	EA	10,263	795,162	2510480	3962895	0	7,268,536	7268536
TOTAL CHANNELS AND CANALS		1.00	EA	10,263	795,162	2510480	3962895	0	7,268,536	7268536
31	CONSTRUCTION MANAGEMENT									
TOTAL EASTERN REGIONAL STUDY		1.00	EA	10,263	795,162	2510480	4148895	0	7,454,536	7454536
OVERHEAD									436,112	
SUBTOTAL									7,890,648	
HOME OFC									385,232	
SUBTOTAL									8,275,881	
PROFIT									647,190	
SUBTOTAL									8,923,071	
BOND									131,056	
TOTAL INCL INDIRECTS									9,054,127	

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ERROR REPORT

U.S. Army Corps of Engineers
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ERROR PAGE 1

No errors detected...

* * * END OF ERROR REPORT * * *

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U.S. Army Corps of Engineers
PROJECT CNTR09: EASTERN REGIONAL STUDY - GRAND PRAIRIE DEMONSTRATION
ITEM NO 9

TIME 12:42:59
TITLE PAGE 1

EASTERN REGIONAL STUDY
GRAND PRAIRIE DEMONSTRATION
PROJECT
ITEM NO 9

Designed By:
Estimated By: JAMES MOORE

Prepared By:

Preparation Date: 01/29/97
Effective Date of Pricing: 01/29/97

Sales Tax: 0.00%

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Release 5.30A

LABOR ID: JGMV96 EQUIP ID: NAT94A

Currency in DOLLARS

CREW ID: RG031M UPB ID: EARCCS

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U.S. Army Corps of Engineers
PROJECT CNTR09: EASTERN REGIONAL STUDY - GRAND PRAIRIE DEMONSTRATION
ITEM NO 9
** PROJECT INDIRECT SUMMARY - Facility **

TIME 12:42:59

SUMMARY PAGE 1

	QUANTITY	UOM	DIRECT	OVERHEAD	HOME OFC	PROFIT	BOND	TOTAL COST	UNIT COST
<hr/>									
01 LANDS AND DAMAGES									
02 RELOCATIONS									
02.03 UTILITIES	1.00 EA		221,000	0	0	0	0	221,000	221000.00
TOTAL RELOCATIONS	1.00 EA		221,000	0	0	0	0	221,000	221000.00
09 CHANNELS & CANALS									
09.01 CHANNELS & CANALS	1.00 EA		11,223,145	673,389	594,827	999,309	202,360	13,693,029	13693029
TOTAL CHANNELS & CANALS	1.00 EA		11,223,145	673,389	594,827	999,309	202,360	13,693,029	13693029
31 CONSTRUCTION MANAGEMENT									
TOTAL EASTERN REGIONAL STUDY	1.00 EA		11,444,145	673,389	594,827	999,309	202,360	13,914,029	13914029

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** PROJECT INDIRECT SUMMARY - System **

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SUMMARY PAGE 2

	QUANTITY	UOM	DIRECT	OVERHEAD	HOME OFC	PROFIT	BOND	TOTAL COST	UNIT COST
01 LANDS AND DAMAGES									
02 RELOCATIONS									
02.02 RAILROADS									
TOTAL RAILROADS									
02.03 UTILITIES									
02.03.18 MECHANICAL	1.00	EA	221,000	0	0	0	0	221,000	221000.00
TOTAL UTILITIES	1.00	EA	221,000	0	0	0	0	221,000	221000.00
TOTAL RELOCATIONS	1.00	EA	221,000	0	0	0	0	221,000	221000.00
09 CHANNELS & CANALS									
09.01 CHANNELS & CANALS									
09.01.01 Canal 4100	1.00	JOB	123,046	7,383	6,521	10,956	2,219	150,124	150124.34
09.01.02 Canal 4100P	1.00	JOB	1,617,930	97,076	85,750	144,060	29,172	1,973,988	1973988
09.01.03 Canal 4200	1.00	JOB	532,285	31,937	28,211	47,395	9,597	649,425	649425.16
09.01.04 Canal 4200P	1.00	JOB	323,610	19,417	17,151	28,814	5,835	394,826	394826.47
09.01.05 Canal 4300P	1.00	JOB	296,710	17,803	15,726	26,419	5,350	362,008	362007.62
09.01.06 Canal 4400A	1.00	JOB	45,874	2,752	2,431	4,085	827	55,970	55970.08
09.01.07 Canal 4400PA	1.00	JOB	761,024	45,661	40,334	67,762	13,722	928,503	928502.54
09.01.08 Canal 4400B	1.00	JOB	30,160	1,810	1,598	2,685	544	36,798	36797.54
09.01.09 Canal 4400PB	4294.00	LF	437,452	26,247	23,185	38,951	7,888	533,723	124.29
09.01.10 Canal 4500A	1.00	JOB	110,789	6,647	5,872	9,865	1,998	135,170	135170.01
09.01.11 Canal 4500P	1.00	JOB	790,548	47,433	41,899	70,390	14,254	964,525	964524.91
09.01.12 Canal 4500B	1.00	JOB	224,295	13,458	11,888	19,971	4,044	273,656	273656.24
09.01.13 Canal 4510P	10552.00	LF	931,072	55,864	49,347	82,903	16,788	1,135,974	107.65
09.01.14 Canal 4520	1.00	JOB	145,353	8,721	7,704	12,942	2,621	177,341	177341.05
09.01.15 Canal 4520P	1443.00	LF	38,756	2,325	2,054	3,451	699	47,286	32.77
09.01.16 Canal 5000	1.00	JOB	2,514,374	150,862	133,262	223,880	45,336	3,067,714	3067714
09.01.17 Canal 5100P	1.00	JOB	273,764	16,426	14,510	24,376	4,936	334,012	334011.62
09.01.18 Canal 5100	1.00	JOB	66,853	4,011	3,543	5,953	1,205	81,566	81565.62
09.01.19 Canal 5200A	1.00	JOB	448,288	26,897	23,759	39,916	8,083	546,943	546942.58
09.01.20 Canal 5200P	1.00	JOB	699,499	41,970	37,073	62,283	12,612	853,439	853438.59
09.01.21 Canal 5200B	1.00	JOB	76,449	4,587	4,052	6,807	1,378	93,273	93273.48
09.01.22 GATED STRUCTURE, CANAL 5000	1.00	JOB	735,013	44,101	38,956	65,446	13,253	896,767	896767.22
TOTAL CHANNELS & CANALS	1.00	EA	11,223,145	673,389	594,827	999,309	202,360	13,693,029	13693029
TOTAL CHANNELS & CANALS	1.00	EA	11,223,145	673,389	594,827	999,309	202,360	13,693,029	13693029

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	QUANTITY UOM	DIRECT	OVERHEAD	HOME OFC	PROFIT	BOND	TOTAL COST	UNIT COST
31 CONSTRUCTION MANAGEMENT								
TOTAL EASTERN REGIONAL STUDY	1.00 EA	11,444,145	673,389	594,827	999,309	202,360	13,914,029	13914029

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		QUANTITY UOM	DIRECT	OVERHEAD	HOME OFC	PROFIT	BOND	TOTAL COST	UNIT COST
01	LANDS AND DAMAGES								
02	RELOCATIONS								
02.02	RAILROADS								
	TOTAL RAILROADS								
02.03	UTILITIES								
02.03.18	MECHANICAL								
02.03.18.02	CANAL 4200	1.00 EA	23,000	0	0	0	0	23,000	23000.00
02.03.18.03	CANAL 4300	1.00 EA	11,000	0	0	0	0	11,000	11000.00
02.03.18.04	CANAL 4400	1.00 EA	17,000	0	0	0	0	17,000	17000.00
02.03.18.05	CANAL 4500	1.00 EA	30,000	0	0	0	0	30,000	30000.00
02.03.18.06	CANAL 4510	1.00 EA	16,000	0	0	0	0	16,000	16000.00
02.03.18.08	CANAL 5000	1.00 EA	66,000	0	0	0	0	66,000	66000.00
02.03.18.09	CANAL 5200	1.00 EA	58,000	0	0	0	0	58,000	58000.00
	TOTAL MECHANICAL	1.00 EA	221,000	0	0	0	0	221,000	221000.00
	TOTAL UTILITIES	1.00 EA	221,000	0	0	0	0	221,000	221000.00
	TOTAL RELOCATIONS	1.00 EA	221,000	0	0	0	0	221,000	221000.00
09	CHANNELS & CANALS								
09.01	CHANNELS & CANALS								
09.01.01	Canal 4100								
09.01.01. 1	CLEARING	25.00 AC	2,659	160	141	237	48	3,244	129.75
09.01.01. 2	EXCAVATION	17468.00 CY	8,774	526	465	781	158	10,705	0.61
09.01.01. 3	EMBANKMENT	18026.00 CY	15,733	944	834	1,401	284	19,195	1.06
09.01.01. 4	REINFORCED CONCRETE PIPE, 36"	284.00 LF	17,726	1,064	939	1,578	320	21,627	76.15
09.01.01. 6	FLARED END SECTION, 36"	4.00 EA	1,475	89	78	131	27	1,800	450.04
09.01.01. 8	GATES, 48"	2.00 EA	3,207	192	170	286	58	3,912	1956.13
09.01.01. 9	ASPHALT SURFACING, 4"	1.00 JOB	3,915	235	207	349	71	4,777	4776.58
09.01.01.10	8" GRAVEL BASE	173.00 CY	2,595	156	138	231	47	3,166	18.30
09.01.01.11	ENVIRONMENTAL PROTECTION	1.00 JOB	8,055	483	427	717	145	9,828	9827.67
09.01.01.12	STRUCTURES	1.00 JOB	24,108	1,446	1,278	2,147	435	29,413	29413.02
09.01.01.13	INSTRUMENTATION	2.00 EA	24,000	1,440	1,272	2,137	433	29,282	14640.85
09.01.01.14	FERTILIZING AND SEEDING	18.00 AC	10,800	648	572	962	195	13,177	732.04
	TOTAL Canal 4100	1.00 JOB	123,046	7,383	6,521	10,956	2,219	150,124	150124.34

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		QUANTITY UOM	DIRECT	OVERHEAD	HOME OFC	PROFIT	BOND	TOTAL COST	UNIT COST
09.01.02 Canal 4100P									
09.01.02. 1 PVC PIPE, 6"		1205.00 LF	6,866	412	364	611	124	8,377	6.95
09.01.02. 2 PVC PIPE, 10"		2474.00 LF	16,590	995	879	1,477	299	20,241	8.18
09.01.02. 3 PUMPS CANAL 4100		1.00 JOB	11,120	667	589	990	200	13,567	13566.88
09.01.02. 4 INSTRUMENTATION		3.00 EA	36,000	2,160	1,908	3,205	649	43,923	14640.85
09.01.02. 5 Concrete Pipeline, 54"		14616.00 EA	1,547,354	92,841	82,010	137,776	27,900	1,887,881	129.17
TOTAL Canal 4100P		1.00 JOB	1,617,930	97,076	85,750	144,060	29,172	1,973,988	1973988
09.01.03 Canal 4200									
09.01.03.01 CLEARING		64.00 AC	6,806	408	361	606	123	8,304	129.75
09.01.03.02 EXCAVATION		41739.00 CY	20,965	1,258	1,111	1,867	378	25,578	0.61
09.01.03.03 EMBANKMENT		42332.00 CY	68,726	4,124	3,642	6,119	1,239	83,851	1.98
09.01.03.05 REINFORCED CONCRETE PIPE, 36"		904.00 LF	56,167	3,370	2,977	5,001	1,013	68,528	75.81
09.01.03.06 REINFORCED CONCRETE PIPE, 42"		1032.00 LF	76,537	4,592	4,056	6,815	1,380	93,381	90.49
09.01.03.07 REINFORCED CONCRETE PIPE, 48"		1032.00 LF	93,177	5,591	4,938	8,296	1,680	113,683	110.16
09.01.03.08 REINFORCED CONCRETE PIPE, 84"		200.00 LF	49,402	2,964	2,618	4,399	891	60,273	301.37
09.01.03.09 REINFORCED CONCRETE PIPE, 90"		100.00 LF	30,940	1,856	1,640	2,755	558	37,749	377.49
09.01.03.11 FLARED END SECTION, 36"		12.00 EA	4,426	266	235	394	80	5,400	450.04
09.01.03.12 FLARED END SECTION, 42"		12.00 EA	5,192	311	275	462	94	6,334	527.84
09.01.03.13 FLARED END SECTION, 48"		12.00 EA	8,439	506	447	751	152	10,297	858.07
09.01.03.14 FLARED END SECTION, 84"		4.00 EA	8,319	499	441	741	150	10,150	2537.56
09.01.03.15 FLARED END SECTION, 90"		2.00 EA	4,460	268	236	397	80	5,441	2720.57
09.01.03.16 GRAVEL BASE, 8"		1575.00 CY	25,144	1,509	1,333	2,239	453	30,677	19.48
09.01.03.17 ASPHALT SURFACING, 4"		264.00 TON	18,103	1,086	959	1,612	326	22,087	83.66
09.01.03.18 FERTILIZING AND SEEDING		46.00 AC	27,600	1,656	1,463	2,458	498	33,674	732.04
09.01.03.19 ENVIRONMENTAL PROTECTION		1.00 JOB	7,500	450	398	668	135	9,151	9150.53
09.01.03.20 INSTRUMENTATION		1.00 EA	12,000	720	636	1,068	216	14,641	14640.85
09.01.03.21 STRUCTURES		1.00 JOB	8,381	503	444	746	151	10,225	10224.97
TOTAL Canal 4200		1.00 JOB	532,285	31,937	28,211	47,395	9,597	649,425	649425.16
09.01.04 Canal 4200P									
09.01.04. 1 Pipeline, Plastic Pipe, 15"		3000.00 LF	26,841	1,610	1,423	2,390	484	32,747	10.92
09.01.04. 2 PIPELINE, Concrete, 30"		5478.00 LF	255,748	15,345	13,555	22,772	4,611	312,031	56.96
09.01.04. 3 PVC PIPE, 8"		1341.00 LF	8,357	501	443	744	151	10,197	7.60
09.01.04. 4 PUMPS CANAL 4200		1.00 JOB	8,663	520	459	771	156	10,570	10569.67
09.01.04. 5 INSTRUMENTATION		2.00 EA	24,000	1,440	1,272	2,137	433	29,282	14640.85
TOTAL Canal 4200P		1.00 JOB	323,610	19,417	17,151	28,814	5,835	394,826	394826.47
09.01.05 Canal 4300P									
09.01.05. 1 CLEARING		2.00 AC	213	13	11	19	4	260	129.75
09.01.05. 2 Pipeline, Plastic, 24"		11371.00 LF	251,442	15,087	13,326	22,388	4,534	306,777	26.98

LABOR ID: JGMV96 EQUIP ID: NAT94A

Currency in DOLLARS

CREW ID: RG031M UPB ID: EARCCS

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		QUANTITY UOM	DIRECT	OVERHEAD	HOME OFC	PROFIT	BOND	TOTAL COST	UNIT COST
09.01.05. 4	FERTILIZING AND SEEDING	3.00 AC	1,800	108	95	160	32	2,196	732.04
09.01.05. 5	ENVIRONMENTAL PROTECTION	1.00 JOB	7,500	450	398	668	135	9,151	9150.53
09.01.05. 6	REINFORCED CONCRETE PIPE, 36"	344.00 LF	25,553	1,533	1,354	2,275	461	31,176	90.63
09.01.05. 7	FLARED END SECTION, 36"	4.00 EA	1,475	89	78	131	27	1,800	450.04
09.01.05. 8	ASPHALT SURFACING, 4"	87.00 TON	5,966	358	316	531	108	7,279	83.66
09.01.05. 9	GRAVEL BASE, 8"	173.00 CY	2,762	166	146	246	50	3,370	19.48
TOTAL Canal 4300P		1.00 JOB	296,710	17,803	15,726	26,419	5,350	362,008	362007.62
09.01.06 Canal 4400A									
09.01.06. 1	CLEARING	12.00 AC	1,276	77	68	114	23	1,557	129.75
09.01.06. 2	EXCAVATION	28756.00 CY	14,444	867	766	1,286	260	17,622	0.61
09.01.06. 3	EMBANKMENT	25172.00 CY	7,791	467	413	694	140	9,506	0.38
09.01.06. 4	STRUCTURES	1.00 JOB	7,289	437	386	649	131	8,893	8892.78
09.01.06. 8	FERTILIZING AND SEEDING	12.00 AC	7,200	432	382	641	130	8,785	732.04
09.01.06. 9	ENVIRONMENTAL PROTECTION	1.00 JOB	7,875	473	417	701	142	9,608	9608.06
TOTAL Canal 4400A		1.00 JOB	45,874	2,752	2,431	4,085	827	55,970	55970.08
09.01.07 Canal 4400PA									
09.01.07. 1	Pipeline, Plastic, 24"	3000.00 LF	77,203	4,632	4,092	6,874	1,392	94,193	31.40
09.01.07. 2	PIPELINE, 54"	6200.00 LF	683,820	41,029	36,242	60,887	12,330	834,309	134.57
TOTAL Canal 4400PA		1.00 JOB	761,024	45,661	40,334	67,762	13,722	928,503	928502.54
09.01.08 Canal 4400B									
09.01.08. 1	CLEARING	5.00 AC	532	32	28	47	10	649	129.75
09.01.08. 2	EXCAVATION	766.00 CY	385	23	20	34	7	669	0.61
09.01.08. 3	EMBANKMENT	10922.00 CY	8,919	535	473	794	161	10,881	1.00
09.01.08. 4	FERTILIZING AND SEEDING	17.00 AC	10,200	612	541	908	184	12,445	732.04
09.01.08. 5	ENVIRONMENTAL PROTECTION	1.00 JOB	10,125	608	537	902	183	12,353	12353.21
TOTAL Canal 4400B		1.00 JOB	30,160	1,810	1,598	2,685	544	36,798	36797.54
09.01.09 Canal 4400PB									
09.01.09. 1	CONCRETE PIPE, 54"	4294.00 LF	437,452	26,247	23,185	38,951	7,888	533,723	124.29
TOTAL Canal 4400PB		4294.00 LF	437,452	26,247	23,185	38,951	7,888	533,723	124.29
09.01.10 Canal 4500A									
09.01.10. 1	CLEARING	59.00 AC	6,274	376	333	559	113	7,655	129.75

LABOR ID: JGMV96 EQUIP ID: NAT94A

Currency in DOLLARS

CREW ID: RG031M UPB ID: EARCCS

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		QUANTITY UOM	DIRECT	OVERHEAD	HOME OFC	PROFIT	BOND	TOTAL COST	UNIT COST
09.01.10. 2	EXCAVATION	72378.00 CY	37,208	2,232	1,972	3,313	671	45,396	0.63
09.01.10. 3	EMBANKMENT	60397.00 CY	67,307	4,038	3,567	5,993	1,214	82,119	1.36
	TOTAL Canal 4500A	1.00 JOB	110,789	6,647	5,872	9,865	1,998	135,170	135170.01
09.01.11	Canal 4500P								
09.01.11. 1	PVC PIPE, 6"	5720.00 LF	32,682	1,961	1,732	2,910	589	39,874	6.97
09.01.11. 2	Pipeline, Plastic Pipe, 15"	2753.00 LF	24,657	1,479	1,307	2,195	445	30,083	10.93
09.01.11. 3	PIPELINE, PLASTIC PIPE, 27"	5478.00 LF	152,573	9,154	8,086	13,585	2,751	186,150	33.98
09.01.11. 4	Pipeline, Concrete Pipe, 30"	11400.00 LF	532,268	31,936	28,210	47,393	9,597	649,404	56.97
09.01.11. 7	PUMPS CANAL 4500	1.00 JOB	12,370	742	656	1,101	223	15,092	15091.97
09.01.11. 8	INSTRUMENTATION	3.00 EA	36,000	2,160	1,908	3,205	649	43,923	14640.85
	TOTAL Canal 4500P	1.00 JOB	790,548	47,433	41,899	70,390	14,254	964,525	964524.91
09.01.12	Canal 4500B								
09.01.12. 1	CLEARING	37.00 AC	3,935	236	209	350	71	4,801	129.75
09.01.12. 2	EXCAVATION	40113.00 CY	21,370	1,282	1,133	1,903	385	26,073	0.65
09.01.12. 3	EMBANKMENT	31244.00 CY	26,351	1,581	1,397	2,346	475	32,149	1.03
09.01.12. 8	REINFORCED CONCRETE PIPE, 30"	344.00 LF	16,597	996	880	1,478	299	20,250	58.87
09.01.12. 9	REINFORCED CONCRETE PIPE, 78"	90.00 LF	18,426	1,106	977	1,641	332	22,481	249.79
09.01.12.10	REINFORCED CONCRETE PIPE, 90"	90.00 LF	27,913	1,675	1,479	2,485	503	34,056	378.40
09.01.12.13	FLARED END SECTION, 30"	4.00 EA	1,075	65	57	96	19	1,312	328.03
09.01.12.14	FLARED END SECTION, 78"	2.00 EA	3,612	217	191	322	65	4,407	2203.63
09.01.12.15	FLARED END SECTION, 90"	2.00 EA	4,460	268	236	397	80	5,441	2720.57
09.01.12.16	INSTRUMENTATION	3.00 EA	36,000	2,160	1,908	3,205	649	43,923	14640.85
09.01.12.17	STRUCTURES	1.00 JOB	28,017	1,681	1,485	2,495	505	34,183	34182.67
09.01.12.18	8" GRAVEL BASE	172.00 CY	2,580	155	137	230	47	3,148	18.30
09.01.12.19	ASPHALT SURFACING, 4"	1.00 JOB	3,870	232	205	345	70	4,722	4721.67
09.01.12.20	FERTILIZING AND SEEDING	30.00 AC	18,000	1,080	954	1,603	325	21,961	732.04
09.01.12.21	ENVIRONMENTAL PROTECTION	1.00 JOB	12,090	725	641	1,076	218	14,751	14750.65
	TOTAL Canal 4500B	1.00 JOB	224,295	13,458	11,888	19,971	4,044	273,656	273656.24
09.01.13	Canal 4510P								
09.01.13. 1	CLEARING	37.00 AC	3,935	236	209	350	71	4,801	129.75
09.01.13. 3	REINFORCED CONCRETE PIPE, 48"	648.00 LF	59,324	3,559	3,144	5,282	1,070	72,380	111.70
09.01.13. 4	FLARED END SECTION, 48"	4.00 EA	2,813	169	149	250	51	3,432	858.07
09.01.13. 5	REINFORCED CONCRETE PIPE, 48"	10550.00 LF	842,425	50,545	44,649	75,010	15,189	1,027,818	97.42
09.01.13. 6	8" GRAVEL BASE	354.00 CY	5,310	319	281	473	96	6,479	18.30
09.01.13. 7	ASPHALT SURFACING, 4"	1.00 JOB	7,965	478	422	709	144	9,718	9717.86
09.01.13. 9	FERTILIZING AND SEEDING	3.00 AC	1,800	108	95	160	32	2,196	732.04
09.01.13.10	ENVIRONMENTAL PROTECTION	1.00 JOB	7,500	450	398	668	135	9,151	9150.53
	TOTAL Canal 4510P	10552.00 LF	931,072	55,864	49,347	82,903	16,788	1,135,974	107.65

LABOR ID: JGMV96 EQUIP ID: NAT94A

Currency in DOLLARS

CREW ID: RG031M UPB ID: EARCCS

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09.01.14 Canal 4520									
09.01.14. 1	CLEARING	41.00 AC	4,360	262	231	388	79	5,320	129.75
09.01.14. 2	EXCAVATION	53994.00 CY	27,120	1,627	1,437	2,615	489	33,089	0.61
09.01.14. 3	EMBANKMENT	51786.00 CY	60,259	3,616	3,194	5,365	1,087	73,520	1.42
09.01.14. 4	REINFORCED CONCRETE PIPE, 36"	192.00 LF	16,681	1,001	884	1,485	301	20,352	106.00
09.01.14. 5	FLARED END SECTION, 36"	2.00 EA	738	44	39	66	13	900	450.04
09.01.14. 6	8" GRAVEL BASE	69.00 CY	1,035	62	55	92	19	1,263	18.30
09.01.14. 7	ASPHALT SURFACING, 4"	68.00 TN	3,060	184	162	272	55	3,733	54.90
09.01.14. 8	FERTILIZING AND SEEDING	41.00 AC	24,600	1,476	1,304	2,190	444	30,014	732.04
09.01.14. 9	ENVIRONMENTAL PROTECTION	1.00 JOB	7,500	450	398	668	135	9,151	9150.53
TOTAL Canal 4520		1.00 JOB	145,353	8,721	7,704	12,942	2,621	177,341	177341.05
 09.01.15 Canal 4520P									
09.01.15. 2	PIPELINE, PLASTIC PIPE, 24"	1443.00 LF	38,756	2,325	2,054	3,451	699	47,286	32.77
TOTAL Canal 4520P		1443.00 LF	38,756	2,325	2,054	3,451	699	47,286	32.77
 09.01.16 Canal 5000									
09.01.16. 1	CLEARING	227.00 AC	24,141	1,448	1,279	2,149	435	29,453	129.75
09.01.16. 2	EXCAVATION	990444.00 CY	497,500	29,850	26,368	44,297	8,970	606,985	0.61
09.01.16. 3	EMBANKMENT	991557.00 CY	553,649	33,219	29,343	49,297	9,983	675,491	0.68
09.01.16. 4	REINFORCED CONCRETE BOX CULVERT	2310.00 CY	625,592	37,536	33,156	55,703	11,280	763,267	330.42
09.01.16. 6	REINFORCED CONCRETE PIPE, 36"	182.00 LF	11,627	698	616	1,035	210	14,185	77.94
09.01.16. 7	REINFORCED CONCRETE PIPE, 42"	240.00 LF	19,012	1,141	1,008	1,693	343	23,197	96.65
09.01.16. 8	REINFORCED CONCRETE PIPE, 48"	240.00 LF	22,603	1,356	1,198	2,013	408	27,577	114.90
09.01.16. 9	REINFORCED CONCRETE PIPE, 78"	480.00 LF	156,011	9,361	8,269	13,891	2,813	190,344	396.55
09.01.16.10	REINFORCED CONCRETE PIPE, 90"	720.00 LF	221,247	13,275	11,726	19,700	3,989	269,937	374.91
09.01.16.12	FLARED END SECTION, 36"	2.00 EA	738	44	39	66	13	900	450.04
09.01.16.13	FLARED END SECTION, 42"	2.00 EA	865	52	46	77	16	1,056	527.84
09.01.16.14	FLARED END SECTION, 48"	2.00 EA	1,407	84	75	125	25	1,716	858.07
09.01.16.15	FLARED END SECTION, 78"	4.00 EA	7,225	433	383	643	130	8,815	2203.63
09.01.16.16	FLARED END SECTION, 90"	6.00 EA	13,379	803	709	1,191	241	16,323	2720.57
09.01.16.17	CANAL GATES 30"	1.00 EA	933	56	49	83	17	1,139	1138.68
09.01.16.18	CANAL GATES 36"	1.00 EA	1,097	66	58	98	20	1,339	1338.77
09.01.16.19	CANAL GATES 42"	1.00 EA	1,253	75	66	112	23	1,529	1529.10
09.01.16.20	PVC PIPE, 6"	2784.00 LF	23,051	1,383	1,222	2,052	416	28,123	10.10
09.01.16.21	REINFORCED CONCRETE PIPE, 15"	2886.00 LF	40,781	2,447	2,161	3,631	735	49,756	17.24
09.01.16.22	FERTILIZING AND SEEDING	153.00 AC	91,800	5,508	4,865	8,174	1,655	112,002	732.04
09.01.16.23	ENVIRONMENTAL PROTECTION	1.00 JOB	51,756	3,105	2,743	4,608	933	63,146	63145.97
09.01.16.24	INSTRUMENTATION	5.00 EA	60,000	3,600	3,180	5,342	1,082	73,204	14640.85
09.01.16.25	PUMPS CANAL 5000	1.00 JOB	8,663	520	459	771	156	10,570	10569.67
09.01.16.26	STRUCTURES	1.00 JOB	41,274	2,476	2,187	3,675	744	50,357	50356.62
09.01.16.27	8" GRAVEL BASE	1530.00 CY	22,950	1,377	1,216	2,043	414	28,001	18.30
09.01.16.28	4" ASPHALT	1.00 JOB	10,350	621	549	922	187	12,628	12627.73

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		QUANTITY UOM	DIRECT	OVERHEAD	HOME OFC	PROFIT	BOND	TOTAL COST	UNIT COST
09.01.16.29	WASTEWAYS	1.00 JOB	5,471	328	290	487	99	6,675	6674.54
	TOTAL Canal 5000	1.00 JOB	2,514,374	150,862	133,262	223,880	45,336	3,067,714	3067714
09.01.17	Canal 5100P								
09.01.17. 1	PVC PIPE, 10"	5258.00 LF	62,133	3,728	3,293	5,532	1,120	75,806	14.42
09.01.17. 2	PVC PIPE, 12"	459.00 LF	6,227	374	330	554	112	7,598	16.55
09.01.17. 3	Pipeline, Plastic Pipe, 18"	8015.00 LF	115,828	6,950	6,139	10,313	2,088	141,318	17.63
09.01.17. 4	PUMPS CANAL 5100	1.00 JOB	53,576	3,215	2,840	4,770	966	65,367	65366.91
09.01.17. 5	INSTRUMENTATION	3.00 EA	36,000	2,160	1,908	3,205	649	43,923	14640.85
	TOTAL Canal 5100P	1.00 JOB	273,764	16,426	14,510	24,376	4,936	334,012	334011.62
09.01.18	Canal 5100								
09.01.18. 1	FILTER GRAVEL	1082.00 TON	15,906	954	843	1,416	287	19,406	17.94
09.01.18. 2	RIPRAP	3245.00 TON	50,947	3,057	2,700	4,536	919	62,160	19.16
	TOTAL Canal 5100	1.00 JOB	66,853	4,011	3,543	5,953	1,205	81,566	81565.62
09.01.19	Canal 5200A								
09.01.19. 1	CLEARING	43.00 AC	4,573	274	242	407	82	5,579	129.75
09.01.19. 2	EXCAVATION	80239.00 CY	40,303	2,418	2,136	3,589	727	49,172	0.61
09.01.19. 3	EMBANKMENT	102340.00 CY	94,446	5,667	5,006	8,409	1,703	115,231	1.13
09.01.19. 6	REINFORCED CONCRETE PIPE, 36"	2296.00 LF	164,437	8,666	7,655	12,861	2,604	176,223	76.75
09.01.19. 7	REINFORCED CONCRETE PIPE, 48"	180.00 LF	17,123	1,027	908	1,525	309	20,892	116.06
09.01.19. 8	REINFORCED CONCRETE PIPE, 90"	180.00 LF	55,992	3,359	2,968	4,985	1,010	68,314	379.52
09.01.19.10	FLARED END SECTION, 36"	20.00 EA	7,377	443	391	657	133	9,001	450.04
09.01.19.11	FLARED END SECTION, 48"	2.00 EA	1,407	84	75	125	25	1,716	858.07
09.01.19.12	FLARED END SECTION, 90"	2.00 EA	4,460	268	236	397	80	5,441	2720.57
09.01.19.13	GATES 24"	1.00 EA	583	35	31	52	11	712	711.58
09.01.19.15	8" GRAVEL BASE	1365.00 CY	20,475	1,229	1,085	1,823	369	24,981	18.30
09.01.19.16	FERTILIZING AND SEEDING	29.00 AC	7,250	435	384	646	131	8,846	305.02
09.01.19.17	ENVIRONMENTAL PROTECTION	1.00 JOB	21,954	1,317	1,164	1,955	396	26,785	26785.43
09.01.19.18	INSTRUMENTATION	1.00 EA	12,000	720	636	1,068	216	14,641	14640.85
09.01.19.19	STRUCTURES	1.00 EA	15,909	955	843	1,417	287	19,410	19409.98
	TOTAL Canal 5200A	1.00 JOB	448,288	26,897	23,759	39,916	8,083	546,943	546942.58
09.01.20	Canal 5200P								
09.01.20. 1	REINFORCED CONCRETE PIPE, 42"	11030.00 LF	699,499	41,970	37,073	62,283	12,612	853,439	77.37
	TOTAL Canal 5200P	1.00 JOB	699,499	41,970	37,073	62,283	12,612	853,439	853438.59

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		QUANTITY UOM	DIRECT	OVERHEAD	HOME OFC	PROFIT	BOND	TOTAL COST	UNIT COST
09.01.21 Canal 5200B									
09.01.21. 1	CLEARING	30.00 AC	3,190	191	169	284	58	3,893	129.75
09.01.21. 2	EXCAVATION	39173.00 CY	19,676	1,181	1,043	1,752	355	24,006	0.61
09.01.21. 3	EMBANKMENT	42634.00 CY	35,283	2,117	1,870	3,142	636	45,048	1.01
09.01.21. 4	FERTILIZING AND SEEDING	18.00 AC	10,800	648	572	962	195	13,177	732.04
09.01.21. 5	ENVIRONMENTAL PROTECTION	1.00 JOB	7,500	450	398	668	135	9,151	9150.53
TOTAL Canal 5200B		1.00 JOB	76,449	4,587	4,052	6,807	1,378	93,273	93273.48
09.01.22 GATED STRUCTURE, CANAL 5000									
09.01.22. 1	Clearing	1.00 JOB	2,482	149	132	221	45	3,029	3028.52
09.01.22. 2	General Excavation	5700.00 CY	16,650	999	882	1,483	300	20,315	3.56
09.01.22. 3	Structural Excavation	290.00 CY	630	38	33	56	11	768	2.65
09.01.22. 4	Steel Sheet Piling (PZ 27)	3630.00 SF	90,750	5,445	4,810	8,080	1,636	110,721	30.50
09.01.22. 5	Cast-in-place Concrete	915.00 CY	274,500	16,470	14,549	24,441	4,949	334,909	366.02
09.01.22. 6	Mechanical Work	1.00 JOB	300,000	18,000	15,900	26,712	5,409	366,021	366021.18
09.01.22. 7	Electrical Work	1.00 JOB	40,000	2,400	2,120	3,562	721	48,803	48802.82
09.01.22. 8	Miscellaneous Items	1.00 JOB	10,000	600	530	890	180	12,201	12200.71
TOTAL GATED STRUCTURE, CANAL 5000		1.00 JOB	735,013	44,101	38,956	65,446	13,253	896,767	896767.22
TOTAL CHANNELS & CANALS		1.00 EA	11,223,145	673,389	594,827	999,309	202,360	13,693,029	13693029
TOTAL CHANNELS & CANALS		1.00 EA	11,223,145	673,389	594,827	999,309	202,360	13,693,029	13693029
31 CONSTRUCTION MANAGEMENT									
TOTAL EASTERN REGIONAL STUDY		1.00 EA	11,444,145	673,389	594,827	999,309	202,360	13,914,029	13914029

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	QUANTITY	UOM	MANHRS	LABOR	EQUIPMNT	MATERIAL	OTHER	TOTAL COST	UNIT COST
<hr/>									
01 LANDS AND DAMAGES									
02 RELOCATIONS									
02.03 UTILITIES	1.00	EA	0	0	0	221,000	0	221,000	221000.00
TOTAL RELOCATIONS	1.00	EA	0	0	0	221,000	0	221,000	221000.00
09 CHANNELS & CANALS									
09.01 CHANNELS & CANALS	1.00	EA	42,952	1176589	2078871	7967685	0	11,223,145	11223145
TOTAL CHANNELS & CANALS	1.00	EA	42,952	1176589	2078871	7967685	0	11,223,145	11223145
31 CONSTRUCTION MANAGEMENT									
TOTAL EASTERN REGIONAL STUDY	1.00	EA	42,952	1176589	2078871	8188685	0	11,444,145	11444145
OVERHEAD								673,389	
SUBTOTAL HOME OFC								12,117,534	
								594,827	
SUBTOTAL PROFIT								12,712,360	
								999,309	
SUBTOTAL BOND								13,711,669	
								202,360	
TOTAL INCL INDIRECTS								13,914,029	

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		QUANTITY	UOM	MANHRS	LABOR	EQUIPMNT	MATERIAL	OTHER	TOTAL COST	UNIT COST
<hr/>										
01	LANDS AND DAMAGES									
02	RELOCATIONS									
02.02	RAILROADS									
	TOTAL RAILROADS									
02.03	UTILITIES									
02.03.18	MECHANICAL	1.00	EA	0	0	0	221,000	0	221,000	221000.00
	TOTAL UTILITIES	1.00	EA	0	0	0	221,000	0	221,000	221000.00
	TOTAL RELOCATIONS	1.00	EA	0	0	0	221,000	0	221,000	221000.00
09	CHANNELS & CANALS									
09.01	CHANNELS & CANALS									
09.01.01	Canal 4100	1.00	JOB	172	8,047	25,019	89,979	0	123,046	123045.62
09.01.02	Canal 4100P	1.00	JOB	13,733	165,873	131,440	1320616	0	1,617,930	1617930
09.01.03	Canal 4200	1.00	JOB	2,998	54,497	125,910	351,879	0	532,285	532284.91
09.01.04	Canal 4200P	1.00	JOB	1,732	57,180	34,303	232,127	0	323,610	323609.53
09.01.05	Canal 4300P	1.00	JOB	423	44,788	32,024	219,899	0	296,710	296710.38
09.01.06	Canal 4400A	1.00	JOB	18	5,182	18,921	21,771	0	45,874	45874.46
09.01.07	Canal 4400PA	1.00	JOB	2,366	107,291	67,933	585,800	0	761,024	761023.62
09.01.08	Canal 4400B	1.00	JOB	0	2,033	7,802	20,325	0	30,160	30160.17
09.01.09	Canal 4400PB	4294.00	LF	1,342	40,233	25,788	371,431	0	437,452	101.88
09.01.10	Canal 4500A	1.00	JOB	0	21,111	89,678	0	0	110,789	110788.68
09.01.11	Canal 4500P	1.00	JOB	3,593	140,315	84,694	565,539	0	790,548	790548.44
09.01.12	Canal 4500B	1.00	JOB	519	17,141	51,561	155,593	0	224,295	224295.42
09.01.13	Canal 4510P	10552.00	LF	4,392	51,826	50,164	829,082	0	931,072	88.24
09.01.14	Canal 4520	1.00	JOB	205	19,882	79,495	45,976	0	145,353	145353.11
09.01.15	Canal 4520P	1443.00	LF	206	9,064	5,883	23,810	0	38,756	26.86
09.01.16	Canal 5000	1.00	JOB	3,759	274,283	973,877	1266215	0	2,514,374	2514374
09.01.17	Canal 5100P	1.00	JOB	2,185	52,504	23,336	197,924	0	273,764	273764.17
09.01.18	Canal 5100	1.00	JOB	626	7,529	14,973	44,352	0	66,853	66853.20
09.01.19	Canal 5200A	1.00	JOB	1,731	47,709	141,600	258,979	0	448,288	448287.65
09.01.20	Canal 5200P	1.00	JOB	2,892	33,468	33,190	632,841	0	699,499	699499.35
09.01.21	Canal 5200B	1.00	JOB	0	11,412	46,738	18,300	0	76,449	76449.25
09.01.22	GATED STRUCTURE, CANAL 5000	1.00	JOB	60	5,222	14,541	715,250	0	735,013	735012.57
	TOTAL CHANNELS & CANALS	1.00	EA	42,952	1176589	2078871	7967685	0	11,223,145	11223145
	TOTAL CHANNELS & CANALS	1.00	EA	42,952	1176589	2078871	7967685	0	11,223,145	11223145

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	QUANTITY	UOM	MANHRS	LABOR	EQUIPMNT	MATERIAL	OTHER	TOTAL COST	UNIT COST
31 CONSTRUCTION MANAGEMENT									
TOTAL EASTERN REGIONAL STUDY	1.00	EA	42,952	1176589	2078871	8188685	0	11,444,145	11444145
OVERHEAD								673,389	
SUBTOTAL HOME OFC								12,117,534	
SUBTOTAL PROFIT								594,827	
SUBTOTAL BOND								12,712,360	
TOTAL INCL INDIRECTS								999,309	
								13,711,669	
								202,360	
								13,914,029	

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		QUANTITY	UOM	MANHRS	LABOR	EQUIPMENT	MATERIAL	OTHER	TOTAL COST	UNIT COST
<hr/>										
01	LANDS AND DAMAGES									
02	RELOCATIONS									
02.02	RAILROADS									
	TOTAL RAILROADS									
02.03	UTILITIES									
02.03.18	MECHANICAL									
02.03.18.02	CANAL 4200	1.00	EA	0	0	0	23,000	0	23,000	23000.00
02.03.18.03	CANAL 4300	1.00	EA	0	0	0	11,000	0	11,000	11000.00
02.03.18.04	CANAL 4400	1.00	EA	0	0	0	17,000	0	17,000	17000.00
02.03.18.05	CANAL 4500	1.00	EA	0	0	0	30,000	0	30,000	30000.00
02.03.18.06	CANAL 4510	1.00	EA	0	0	0	16,000	0	16,000	16000.00
02.03.18.08	CANAL 5000	1.00	EA	0	0	0	66,000	0	66,000	66000.00
02.03.18.09	CANAL 5200	1.00	EA	0	0	0	58,000	0	58,000	58000.00
	TOTAL MECHANICAL	1.00	EA	0	0	0	221,000	0	221,000	221000.00
	TOTAL UTILITIES	1.00	EA	0	0	0	221,000	0	221,000	221000.00
	TOTAL RELOCATIONS	1.00	EA	0	0	0	221,000	0	221,000	221000.00
09	CHANNELS & CANALS									
09.01	CHANNELS & CANALS									
09.01.01	Canal 4100									
09.01.01. 1	CLEARING	25.00	AC	0	748	1,911	0	0	2,659	106.35
09.01.01. 2	EXCAVATION	17468.00	CY	0	1,436	7,337	0	0	8,774	0.50
09.01.01. 3	EMBANKMENT	18026.00	CY	0	3,176	12,557	0	0	15,733	0.87
09.01.01. 4	REINFORCED CONCRETE PIPE, 36"	284.00	LF	148	1,752	2,367	13,607	0	17,726	62.41
09.01.01. 6	FLARED END SECTION, 36"	4.00	EA	13	152	124	1,200	0	1,475	368.86
09.01.01. 8	GATES, 48"	2.00	EA	10	114	93	3,000	0	3,207	1603.29
09.01.01. 9	ASPHALT SURFACING, 4"	1.00	JOB	0	0	0	3,915	0	3,915	3915.00
09.01.01.10	8" GRAVEL BASE	173.00	CY	0	0	0	2,595	0	2,595	15.00
09.01.01.11	ENVIRONMENTAL PROTECTION	1.00	JOB	0	0	0	8,055	0	8,055	8055.00
09.01.01.12	STRUCTURES	1.00	JOB	0	670	631	22,807	0	24,108	24107.64
09.01.01.13	INSTRUMENTATION	2.00	EA	0	0	0	24,000	0	24,000	12000.00
09.01.01.14	FERTILIZING AND SEEDING	18.00	AC	0	0	0	10,800	0	10,800	600.00
	TOTAL Canal 4100	1.00	JOB	172	8,047	25,019	89,979	0	123,046	123045.62

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		QUANTITY	UOM	MANHRS	LABOR	EQUIPMENT	MATERIAL	OTHER	TOTAL COST	UNIT COST
<hr/>										
09.01.02	Canal 4100P									
09.01.02. 1	PVC PIPE, 6"	1205.00	LF	0	3,135	1,322	2,410	0	6,866	5.70
09.01.02. 2	PVC PIPE, 10"	2474.00	LF	0	6,478	2,690	7,422	0	16,590	6.71
09.01.02. 3	PUMPS CANAL 4100	1.00	JOB	30	341	278	10,500	0	11,120	11119.75
09.01.02. 4	INSTRUMENTATION	3.00	EA	0	0	0	36,000	0	36,000	12000.00
09.01.02. 5	Concrete Pipeline, 54"	14616.00	EA	13,703	155,919	127,150	1264284	0	1,547,354	105.87
	TOTAL Canal 4100P			1.00	JOB	13,733	165,873	131,440	1320616	0
									1,617,930	1617930
09.01.03	Canal 4200									
09.01.03.01	CLEARING	64.00	AC	0	1,914	4,892	0	0	6,806	106.35
09.01.03.02	EXCAVATION	41739.00	CY	0	3,432	17,533	0	0	20,965	0.50
09.01.03.03	EMBANKMENT	42332.00	CY	0	12,741	55,986	0	0	68,726	1.62
09.01.03.05	REINFORCED CONCRETE PIPE, 36"	904.00	LF	468	5,224	7,405	43,238	0	56,167	62.13
09.01.03.06	REINFORCED CONCRETE PIPE, 42"	1032.00	LF	574	6,806	9,495	60,236	0	76,537	74.76
09.01.03.07	REINFORCED CONCRETE PIPE, 48"	1032.00	LF	603	7,161	10,237	75,779	0	93,177	90.29
09.01.03.08	REINFORCED CONCRETE PIPE, 84"	200.00	LF	258	3,065	5,245	41,091	0	49,402	247.01
09.01.03.09	REINFORCED CONCRETE PIPE, 90"	100.00	LF	137	1,638	2,839	26,463	0	30,940	309.40
09.01.03.11	FLARED END SECTION, 36"	12.00	EA	40	455	371	3,600	0	4,426	368.86
09.01.03.12	FLARED END SECTION, 42"	12.00	EA	48	546	445	4,200	0	5,192	432.63
09.01.03.13	FLARED END SECTION, 48"	12.00	EA	60	683	557	7,200	0	8,439	703.29
09.01.03.14	FLARED END SECTION, 84"	4.00	EA	0	553	767	7,000	0	8,319	2079.84
09.01.03.15	FLARED END SECTION, 90"	2.00	EA	24	276	383	3,800	0	4,460	2229.84
09.01.03.16	GRAVEL BASE, 8"	1575.00	CY	473	5,861	6,682	12,600	0	25,144	15.96
09.01.03.17	ASPHALT SURFACING, 4"	264.00	TON	290	3,507	2,716	11,880	0	18,103	68.57
09.01.03.18	FERTILIZING AND SEEDING	46.00	AC	0	0	0	27,600	0	27,600	600.00
09.01.03.19	ENVIRONMENTAL PROTECTION	1.00	JOB	0	0	0	7,500	0	7,500	7500.00
09.01.03.20	INSTRUMENTATION	1.00	EA	0	0	0	12,000	0	12,000	12000.00
09.01.03.21	STRUCTURES	1.00	JOB	23	333	356	7,691	0	8,381	8380.64
	TOTAL Canal 4200			1.00	JOB	2,998	54,497	125,910	351,879	0
									532,285	532284.91
09.01.04	Canal 4200P									
09.01.04. 1	Pipeline, Plastic Pipe, 15"	3000.00	LF	0	7,837	3,254	15,750	0	26,841	8.95
09.01.04. 2	PIPELINE, Concrete, 30"	5478.00	LF	1,712	45,609	29,366	180,774	0	255,748	46.69
09.01.04. 3	PVC PIPE, 8"	1341.00	LF	0	3,507	1,498	3,353	0	8,357	6.23
09.01.04. 4	PUMPS CANAL 4200	1.00	JOB	20	228	186	8,250	0	8,663	8663.17
09.01.04. 5	INSTRUMENTATION	2.00	EA	0	0	0	24,000	0	24,000	12000.00
	TOTAL Canal 4200P			1.00	JOB	1,732	57,180	34,303	232,127	0
									323,610	323609.53
09.01.05	Canal 4300P									
09.01.05. 1	CLEARING	2.00	AC	0	60	153	0	0	213	106.35
09.01.05. 2	Pipeline, Plastic, 24"	11371.00	LF	0	39,601	24,220	187,622	0	251,442	22.11

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		QUANTITY UOM	MANHRS	LABOR	EQUIPMNT	MATERIAL	OTHER	TOTAL COST	UNIT COST
09.01.05. 4	FERTILIZING AND SEEDING	3.00 AC	0	0	0	1,800	0	1,800	600.00
09.01.05. 5	ENVIRONMENTAL PROTECTION	1.00 JOB	0	0	0	7,500	0	7,500	7500.00
09.01.05. 6	REINFORCED CONCRETE PIPE, 36"	344.00 LF	262	3,176	5,898	16,478	0	25,553	74.28
09.01.05. 7	FLARED END SECTION, 36"	4.00 EA	13	152	124	1,200	0	1,475	368.86
09.01.05. 8	ASPHALT SURFACING, 4"	87.00 TON	96	1,156	895	3,915	0	5,966	68.57
09.01.05. 9	GRAVEL BASE, 8"	173.00 CY	52	644	734	1,384	0	2,762	15.96
TOTAL Canal 4300P		1.00 JOB	423	44,788	32,024	219,899	0	296,710	296710.38
09.01.06 Canal 4400A									
09.01.06. 1	CLEARING	12.00 AC	0	359	917	0	0	1,276	106.35
09.01.06. 2	EXCAVATION	28756.00 CY	0	2,365	12,079	0	0	14,444	0.50
09.01.06. 3	EMBANKMENT	25172.00 CY	0	2,179	5,612	0	0	7,791	0.31
09.01.06. 4	STRUCTURES	1.00 JOB	18	280	313	6,696	0	7,289	7288.74
09.01.06. 8	FERTILIZING AND SEEDING	12.00 AC	0	0	0	7,200	0	7,200	600.00
09.01.06. 9	ENVIRONMENTAL PROTECTION	1.00 JOB	0	0	0	7,875	0	7,875	7875.00
TOTAL Canal 4400A		1.00 JOB	18	5,182	18,921	21,771	0	45,874	45874.46
09.01.07 Canal 4400PA									
09.01.07. 1	Pipeline, Plastic, 24"	3000.00 LF	429	16,787	10,916	49,500	0	77,203	25.73
09.01.07. 2	PIPELINE, 54"	6200.00 LF	1,938	90,503	57,017	536,300	0	683,820	110.29
TOTAL Canal 4400PA		1.00 JOB	2,366	107,291	67,933	585,800	0	761,024	761023.62
09.01.08 Canal 4400B									
09.01.08. 1	CLEARING	5.00 AC	0	150	382	0	0	532	106.35
09.01.08. 2	EXCAVATION	766.00 CY	0	63	322	0	0	385	0.50
09.01.08. 3	EMBANKMENT	10922.00 CY	0	1,821	7,098	0	0	8,919	0.82
09.01.08. 4	FERTILIZING AND SEEDING	17.00 AC	0	0	0	10,200	0	10,200	600.00
09.01.08. 5	ENVIRONMENTAL PROTECTION	1.00 JOB	0	0	0	10,125	0	10,125	10125.00
TOTAL Canal 4400B		1.00 JOB	0	2,033	7,802	20,325	0	30,160	30160.17
09.01.09 Canal 4400PB									
09.01.09. 1	CONCRETE PIPE, 54"	4294.00 LF	1,342	40,233	25,788	371,431	0	437,452	101.88
TOTAL Canal 4400PB		4294.00 LF	1,342	40,233	25,788	371,431	0	437,452	101.88
09.01.10 Canal 4500A									
09.01.10. 1	CLEARING	59.00 AC	0	1,764	4,510	0	0	6,274	106.35

LABOR ID: JGMV96 EQUIP ID: NAT94A

Currency in DOLLARS

CREW ID: RG031M UPB ID: EARCCS

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09.01.10. 2	EXCAVATION	72378.00	CY	0	6,170	31,038	0	0	37,208	0.51
09.01.10. 3	EMBANKMENT	60397.00	CY	0	13,176	54,130	0	0	67,307	1.11
	TOTAL Canal 4500A			1.00 JOB	0	21,111	89,678	0	0	110,789 110788.68
09.01.11	Canal 4500P									
09.01.11. 1	PVC PIPE, 6"	5720.00	LF	0	14,942	6,300	11,440	0	32,682	5.71
09.01.11. 2	Pipeline, Plastic Pipe, 15"	2753.00	LF	0	7,210	2,994	14,453	0	24,657	8.96
09.01.11. 3	PIPELINE, PLASTIC PIPE, 27"	5478.00	LF	0	22,883	13,995	115,695	0	152,573	27.85
09.01.11. 4	Pipeline, Concrete Pipe, 30"	11400.00	LF	3,563	94,940	61,127	376,200	0	532,268	46.69
09.01.11. 7	PUMPS CANAL 4500	1.00	JOB	30	341	278	11,750	0	12,370	12369.75
09.01.11. 8	INSTRUMENTATION	3.00	EA	0	0	0	36,000	0	36,000	12000.00
	TOTAL Canal 4500P			1.00 JOB	3,593	140,315	84,694	565,539	0	790,548 790548.44
09.01.12	Canal 4500B									
09.01.12. 1	CLEARING	37.00	AC	0	1,106	2,828	-	0	0	3,935 106.35
09.01.12. 2	EXCAVATION	40113.00	CY	0	3,611	17,759	0	0	21,370	0.53
09.01.12. 3	EMBANKMENT	31244.00	CY	0	5,432	20,918	0	0	26,351	0.84
09.01.12. 8	REINFORCED CONCRETE PIPE, 30"	344.00	LF	173	2,045	2,702	11,850	0	16,597	48.25
09.01.12. 9	REINFORCED CONCRETE PIPE, 78"	90.00	LF	144	1,692	2,682	14,052	0	18,426	204.73
09.01.12.10	REINFORCED CONCRETE PIPE, 90"	90.00	LF	149	1,763	2,918	23,232	0	27,913	310.14
09.01.12.13	FLARED END SECTION, 30"	4.00	EA	13	152	124	800	0	1,075	268.86
09.01.12.14	FLARED END SECTION, 78"	2.00	EA	15	173	240	3,200	0	3,612	1806.15
09.01.12.15	FLARED END SECTION, 90"	2.00	EA	24	276	383	3,800	0	4,460	2229.84
09.01.12.16	INSTRUMENTATION	3.00	EA	0	0	0	36,000	0	36,000	12000.00
09.01.12.17	STRUCTURES	1.00	JOB	0	891	1,007	26,119	0	28,017	28016.96
09.01.12.18	8" GRAVEL BASE	172.00	CY	0	0	0	2,580	0	2,580	15.00
09.01.12.19	ASPHALT SURFACING, 4"	1.00	JOB	0	0	0	3,870	0	3,870	3870.00
09.01.12.20	FERTILIZING AND SEEDING	30.00	AC	0	0	0	18,000	0	18,000	600.00
09.01.12.21	ENVIRONMENTAL PROTECTION	1.00	JOB	0	0	0	12,090	0	12,090	12090.00
	TOTAL Canal 4500B			1.00 JOB	519	17,141	51,561	155,593	0	224,295 224295.42
09.01.13	Canal 4510P									
09.01.13. 1	CLEARING	37.00	AC	0	1,106	2,828	0	0	0	3,935 106.35
09.01.13. 3	REINFORCED CONCRETE PIPE, 48"	648.00	LF	389	4,621	6,504	48,199	0	59,324	91.55
09.01.13. 4	FLARED END SECTION, 48"	4.00	EA	20	228	186	2,400	0	2,813	703.29
09.01.13. 5	REINFORCED CONCRETE PIPE, 48"	10550.00	LF	3,983	45,871	40,646	755,908	0	842,425	79.85
09.01.13. 6	8" GRAVEL BASE	354.00	CY	0	0	0	5,310	0	5,310	15.00
09.01.13. 7	ASPHALT SURFACING, 4"	1.00	JOB	0	0	0	7,965	0	7,965	7965.00
09.01.13. 9	FERTILIZING AND SEEDING	3.00	AC	0	0	0	1,800	0	1,800	600.00
09.01.13.10	ENVIRONMENTAL PROTECTION	1.00	JOB	0	0	0	7,500	0	7,500	7500.00
	TOTAL Canal 4510P			10552.00 LF	4,392	51,826	50,164	829,082	0	931,072 88.24

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09.01.14 Canal 4520										
09.01.14. 1	CLEARING	41.00	AC	0	1,226	3,134	0	0	4,360	106.35
09.01.14. 2	EXCAVATION	53994.00	CY	0	4,440	22,680	0	0	27,120	0.50
09.01.14. 3	EMBANKMENT	51786.00	CY	0	11,700	48,559	0	0	60,259	1.16
09.01.14. 4	REINFORCED CONCRETE PIPE, 36"	192.00	LF	199	2,440	5,060	9,181	0	16,681	86.88
09.01.14. 5	FLARED END SECTION, 36"	2.00	EA	7	76	62	600	0	738	368.86
09.01.14. 6	8" GRAVEL BASE	69.00	CY	0	0	0	1,035	0	1,035	15.00
09.01.14. 7	ASPHALT SURFACING, 4"	68.00	TN	0	0	0	3,060	0	3,060	45.00
09.01.14. 8	FERTILIZING AND SEEDING	41.00	AC	0	0	0	24,600	0	24,600	600.00
09.01.14. 9	ENVIRONMENTAL PROTECTION	1.00	JOB	0	0	0	7,500	0	7,500	7500.00
TOTAL Canal 4520		1.00	JOB	205	19,882	79,495	45,976	0	145,353	145353.11
09.01.15 Canal 4520P										
09.01.15. 2	PIPELINE, PLASTIC PIPE, 24"	1443.00	LF	206	9,064	5,883	23,810	0	38,756	26.86
TOTAL Canal 4520P		1443.00	LF	206	9,064	5,883	23,810	0	38,756	26.86
09.01.16 Canal 5000										
09.01.16. 1	CLEARING	227.00	AC	454	6,788	17,353	0	0	24,141	106.35
09.01.16. 2	EXCAVATION	990444.00	CY	0	81,414	416,086	0	0	497,500	0.50
09.01.16. 3	EMBANKMENT	991557.00	CY	0	125,851	427,798	0	0	553,649	0.56
09.01.16. 4	REINFORCED CONCRETE BOX CULVERT	2310.00	CY	956	11,936	32,358	581,298	0	625,592	270.82
09.01.16. 6	REINFORCED CONCRETE PIPE, 36"	182.00	LF	101	1,196	1,713	8,718	0	11,627	63.88
09.01.16. 7	REINFORCED CONCRETE PIPE, 42"	240.00	LF	147	1,745	2,523	14,744	0	19,012	79.22
09.01.16. 8	REINFORCED CONCRETE PIPE, 48"	240.00	LF	150	1,788	2,681	18,134	0	22,603	94.18
09.01.16. 9	REINFORCED CONCRETE PIPE, 78"	480.00	LF	0	17,030	41,455	97,525	0	156,011	325.02
09.01.16.10	REINFORCED CONCRETE PIPE, 90"	720.00	LF	1,129	13,312	22,642	185,292	0	221,247	307.29
09.01.16.12	FLARED END SECTION, 36"	2.00	EA	7	76	62	600	0	738	368.86
09.01.16.13	FLARED END SECTION, 42"	2.00	EA	8	91	74	700	0	865	432.63
09.01.16.14	FLARED END SECTION, 48"	2.00	EA	10	114	93	1,200	0	1,407	703.29
09.01.16.15	FLARED END SECTION, 78"	4.00	EA	30	345	479	6,400	0	7,225	1806.15
09.01.16.16	FLARED END SECTION, 90"	6.00	EA	72	829	1,150	11,400	0	13,379	2229.84
09.01.16.17	CANAL GATES 30"	1.00	EA	5	57	46	830	0	933	933.29
09.01.16.18	CANAL GATES 36"	1.00	EA	5	57	46	994	0	1,097	1097.29
09.01.16.19	CANAL GATES 42"	1.00	EA	5	57	46	1,150	0	1,253	1253.29
09.01.16.20	PVC PIPE, 6"	2784.00	LF	487	7,025	3,498	12,528	0	23,051	8.28
09.01.16.21	REINFORCED CONCRETE PIPE, 15"	2886.00	LF	94	3,254	1,971	35,557	0	40,781	14.13
09.01.16.22	FERTILIZING AND SEEDING	153.00	AC	0	0	0	91,800	0	91,800	600.00
09.01.16.23	ENVIRONMENTAL PROTECTION	1.00	JOB	0	0	0	51,756	0	51,756	51756.00
09.01.16.24	INSTRUMENTATION	5.00	EA	0	0	0	60,000	0	60,000	12000.00
09.01.16.25	PUMPS CANAL 5000	1.00	JOB	20	228	186	8,250	0	8,663	8663.17
09.01.16.26	STRUCTURES	1.00	JOB	41	613	669	39,991	0	41,274	41273.53
09.01.16.27	8" GRAVEL BASE	1530.00	CY	0	0	0	22,950	0	22,950	15.00
09.01.16.28	4" ASPHALT	1.00	JOB	0	0	0	10,350	0	10,350	10350.00

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		QUANTITY	UOM	MANHRS	LABOR	EQUIPMNT	MATERIAL	OTHER	TOTAL COST	UNIT COST
<hr/>										
09.01.21	Canal 5200B									
09.01.21. 1	CLEARING	30.00	AC	0	897	2,293	0	0	3,190	106.35
09.01.21. 2	EXCAVATION	39173.00	CY	0	3,221	16,455	0	0	19,676	0.50
09.01.21. 3	EMBANKMENT	42634.00	CY	0	7,293	27,990	0	0	35,283	0.83
09.01.21. 4	FERTILIZING AND SEEDING	18.00	AC	0	0	0	10,800	0	10,800	600.00
09.01.21. 5	ENVIRONMENTAL PROTECTION	1.00	JOB	0	0	0	7,500	0	7,500	7500.00
	TOTAL Canal 5200B	1.00	JOB	0	11,412	46,738	18,300	0	76,449	76449.25
09.01.22	GATED STRUCTURE, CANAL 5000									
09.01.22. 1	Clearing	1.00	JOB	60	738	1,744	0	0	2,482	2482.25
09.01.22. 2	General Excavation	5700.00	CY	0	4,179	12,471	0	0	16,650	2.92
09.01.22. 3	Structural Excavation	290.00	CY	0	304	325	0	0	630	2.17
09.01.22. 4	Steel Sheet Piling (PZ 27)	3630.00	SF	0	0	0	90,750	0	90,750	25.00
09.01.22. 5	Cast-in-place Concrete	915.00	CY	0	0	0	274,500	0	274,500	300.00
09.01.22. 6	Mechanical Work	1.00	JOB	0	0	0	300,000	0	300,000	300000.00
09.01.22. 7	Electrical Work	1.00	JOB	0	0	0	40,000	0	40,000	40000.00
09.01.22. 8	Miscellaneous Items	1.00	JOB	0	0	0	10,000	0	10,000	10000.00
	TOTAL GATED STRUCTURE, CANAL 5000	1.00	JOB	60	5,222	14,541	715,250	0	735,013	735012.57
	TOTAL CHANNELS & CANALS	1.00	EA	42,952	1176589	2078871	7967685	0	11,223,145	11223145
	TOTAL CHANNELS & CANALS	1.00	EA	42,952	1176589	2078871	7967685	0	11,223,145	11223145
31	CONSTRUCTION MANAGEMENT									
	TOTAL EASTERN REGIONAL STUDY	1.00	EA	42,952	1176589	2078871	8188685	0	11,444,145	11444145
	OVERHEAD								673,389	
	SUBTOTAL HOME OFC								12,117,534	
									594,827	
	SUBTOTAL PROFIT								12,712,360	
									999,309	
	SUBTOTAL BOND								13,711,669	
									202,360	
	TOTAL INCL INDIRECTS								13,914,029	

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ERROR REPORT

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No errors detected...

* * * END OF ERROR REPORT * * *

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TITLE PAGE 1

EASTERN ARKANSAS REGIONAL STUDY
GRAND PRAIRIE DEMONSTRATION
PROJECT
ITEM NO 10

Designed By:
Estimated By: JAMES MOORE

Prepared By:

Preparation Date: 01/29/97
Effective Date of Pricing: 01/29/97

Sales Tax: 0.00%

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** PROJECT INDIRECT SUMMARY - Facility **

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SUMMARY PAGE 1

	QUANTITY UOM	DIRECT	OVERHEAD	HOME OFC	PROFIT	BOND	TOTAL COST	UNIT COST
<hr/>								
01 LANDS AND DAMAGES								
02 RELOCATIONS								
02.03 UTILITIES	1.00 EA	381,000	0	0	0	0	381,000	381000.00
TOTAL RELOCATIONS	1.00 EA	381,000	0	0	0	0	381,000	381000.00
09 CHANNELS & CANALS								
09.07 Canal 5300A	1.00 JOB	1,091,052	65,463	57,826	97,147	19,672	1,331,160	1331160
09.08 Canal 5300P1	1.00 JOB	3,826,245	229,575	202,791	340,689	68,989	4,668,289	4668289
09.09 Canal 5300B	1.00 JOB	79,541	4,772	4,216	7,082	1,434	97,045	97045.23
09.10 Canal 5300P2	1.00 JOB	84,426	5,066	4,475	7,517	1,522	103,006	103005.98
09.11 Canal 5310	1.00 JOB	172,419	10,345	9,138	15,352	3,109	210,363	210363.47
09.12 Canal 5310P	1.00 JOB	788,972	47,338	41,816	70,250	14,226	962,602	962601.83
09.13 Canal 5311	1.00 JOB	101,586	6,095	5,384	9,045	1,832	123,943	123942.67
09.14 Canal 5311P	1.00 JOB	127,739	7,664	6,770	11,374	2,303	155,850	155850.36
09.15 Canal 5400	1.00 JOB	213,411	12,805	11,311	19,002	3,848	260,376	260376.14
09.16 Canal 5400P	1.00 JOB	90,373	5,422	4,790	8,047	1,629	110,261	110261.33
TOTAL CHANNELS & CANALS	1.00 EA	6,575,764	394,546	348,515	585,506	118,565	8,022,896	8022896
31 CONSTRUCTION MANAGEMENT								
TOTAL EASTERN ARKANSAS REGIONAL STUDY	1.00 EA	6,956,764	394,546	348,515	585,506	118,565	8,403,896	8403896

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	QUANTITY UOM	DIRECT	OVERHEAD	HOME OFC	PROFIT	BOND	TOTAL COST	UNIT COST
01 LANDS AND DAMAGES								
02 RELOCATIONS								
02.02 RAILROADS								
TOTAL RAILROADS								
02.03 UTILITIES								
02.03.18 MECHANICAL	1.00 EA	381,000	0	0	0	0	381,000	381000.00
TOTAL UTILITIES	1.00 EA	381,000	0	0	0	0	381,000	381000.00
TOTAL RELOCATIONS	1.00 EA	381,000	0	0	0	0	381,000	381000.00
09 CHANNELS & CANALS								
09.07 Canal 5300A								
09.07. 1 CLEARING	40.00 AC	4,254	255	225	379	77	5,190	129.75
09.07. 2 EXCAVATION	129570.00 CY	65,081	3,905	3,449	5,795	1,173	79,403	0.61
09.07. 3 EMBANKMENT	138529.00 CY	114,924	6,895	6,091	10,233	2,072	140,215	1.01
09.07. 4 REINFORCED CONCRETE PIPE, 36"	1272.00 LF	79,528	4,772	4,215	7,081	1,434	97,030	76.28
09.07. 6 REINFORCED CONCRETE PIPE, 72"	1152.00 LF	214,140	12,848	11,349	19,067	3,861	261,266	226.79
09.07. 7 REINFORCED CONCRETE PIPE, 78"	768.00 LF	151,122	9,067	8,009	13,456	2,725	184,379	240.08
09.07. 8 REINFORCED CONCRETE PIPE, 84"	768.00 LF	189,059	11,344	10,020	16,834	3,409	230,666	300.35
09.07.09 FLARED END SECTION, 36"	12.00 EA	4,426	266	235	394	80	5,400	450.04
09.07.11 FLARED END SECTION, 72"	12.00 EA	19,274	1,156	1,022	1,716	348	23,515	1959.62
09.07.12 FLARED END SECTION, 78"	8.00 EA	14,449	867	766	1,287	261	17,629	2203.63
09.07.13 FLARED END SECTION, 84"	8.00 EA	13,839	830	733	1,232	250	16,884	2110.53
09.07.14 GATES 42"	6.00 EA	1,253	75	66	112	23	1,529	254.85
09.07.15 FILTER GRAVEL	630.00 TON	9,261	556	491	825	167	11,299	17.94
09.07.16 RIPRAP	1772.00 TON	27,821	1,669	1,475	2,477	502	33,944	19.16
09.07.17 4" ASPHALT	94.00 TN	4,230	254	224	377	76	5,161	54.90
09.07.18 8" GRAVEL BASE	1817.00 CY	27,255	1,635	1,445	2,427	491	33,253	18.30
09.07.19 FERTILIZING AND SEEDING	24.00 AC	6,000	360	318	534	108	7,320	305.02
09.07.20 ENVIRONMENTAL PROTECTION	1.00 JOB	16,335	980	866	1,454	295	19,930	19929.85
09.07.21 INSTRUMENTATION	6.00 EA	72,000	4,320	3,816	6,411	1,298	87,845	14640.85
09.07.22 STRUCTURES	1.00 JOB	56,801	3,408	3,010	5,058	1,024	69,301	69300.79
TOTAL Canal 5300A	1.00 JOB	1,091,052	65,463	57,826	97,147	19,672	1,331,160	1331160
09.08 Canal 5300P1								
09.08. 1 PVC PIPE, 8"	4043.00 LF	36,507	2,190	1,935	3,251	658	44,541	11.02
09.08. 2 PVC PIPE, 10"	5127.00 LF	60,585	3,635	3,211	5,394	1,092	73,918	14.42

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		QUANTITY UOM	DIRECT	OVERHEAD	HOME OFC	PROFIT	BOND	TOTAL COST	UNIT COST
09.08. 3	REINFORCED CONCRETE PIPE, 48"	13380.00 LF	1,096,605	65,796	58,120	97,642	19,772	1,337,936	100.00
09.08. 4	REINFORCED CONCRETE PIPE, 54"	26320.00 LF	2,498,145	149,889	132,402	222,435	45,043	3,047,913	115.80
09.08. 5	PUMPS CANAL 5300P1	1.00 JOB	38,403	2,304	2,035	3,419	692	46,854	46853.96
09.08. 6	INSTRUMENTATION	8.00 EA	96,000	5,760	5,088	8,548	1,731	117,127	14640.85
TOTAL Canal 5300P1		1.00 JOB	3,826,245	229,575	202,791	340,689	68,989	4,668,289	4668289
09.09 Canal 5300B									
09.09. 1	CLEARING	24.00 AC	2,552	153	135	227	46	3,114	129.75
09.09. 2	EXCAVATION	30480.00 CY	15,310	919	811	1,363	276	18,679	0.61
09.09. 3	EMBANKMENT	29665.00 CY	47,579	2,855	2,522	4,236	858	58,050	1.96
09.09. 4	FERTILIZING AND SEEDING	11.00 AC	6,600	396	350	588	119	8,052	732.04
09.09. 5	ENVIRONMENTAL PROTECTION	1.00 JOB	7,500	450	398	668	135	9,151	9150.53
TOTAL Canal 5300B		1.00 JOB	79,541	4,772	4,216	7,082	1,434	97,045	97045.23
09.10 Canal 5300P2									
09.10. 1	PVC PIPE, 6"	4833.00 LF	40,016	2,401	2,121	3,563	722	48,822	10.10
09.10. 2	PVC PIPE, 8"	3483.00 LF	31,450	1,887	1,667	2,800	567	38,372	11.02
09.10. 3	REINFORCED CONCRETE PIPE, 18"	700.00 LF	12,960	778	687	1,154	234	15,812	22.59
TOTAL Canal 5300P2		1.00 JOB	84,426	5,066	4,475	7,517	1,522	103,006	103005.98
09.11 Canal 5310									
09.11. 1	CLEARING	9.00 AC	957	57	51	85	17	1,168	129.75
09.11. 2	EXCAVATION	11697.00 CY	5,875	353	311	523	106	7,168	0.61
09.11. 3	EMBANKMENT	12139.00 CY	7,276	437	386	648	131	8,878	0.73
09.11. 4	REINFORCED CONCRETE PIPE, 60"	448.00 LF	69,859	4,192	3,703	6,220	1,260	85,232	190.25
09.11. 5	FLARED END SECTION, 60"	8.00 EA	10,826	650	574	964	195	13,209	1651.11
09.11. 6	GRAVEL BASE, 8"	166.00 CY	2,490	149	132	222	45	3,038	18.30
09.11. 8	FILTER GRAVEL	1095.00 TON	16,097	966	853	1,433	290	19,639	17.94
09.11. 9	RIPRAP	3288.00 TON	51,623	3,097	2,736	4,596	931	62,983	19.16
09.11.10	FERTILIZING AND SEEDING	7.00 AC	4,200	252	223	374	76	5,124	732.04
09.11.11	ENVIRONMENTAL PROTECTION	1.00 JOB	3,216	193	170	286	58	3,924	3923.75
TOTAL Canal 5310		1.00 JOB	172,419	10,345	9,138	15,352	3,109	210,363	210363.47
09.12 Canal 5310P									
09.12. 1	PVC PIPE, 8"	500.00 LF	4,245	255	225	378	77	5,179	10.36
09.12. 2	REINFORCED CONCRETE PIPE, 18"	3000.00 LF	61,472	3,688	3,258	5,473	1,108	75,000	25.00
09.12. 3	REINFORCED CONCRETE PIPE, 36"	12400.00 LF	695,842	41,751	36,880	61,958	12,546	848,977	68.47
09.12. 4	PUMPS CANAL 5310P	1.00 JOB	3,413	205	181	304	62	4,164	4164.30

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	QUANTITY UOM	DIRECT	OVERHEAD	HOME OFC	PROFIT	BOND	TOTAL COST	UNIT COST
09.12. 5 INSTRUMENTATION	2.00 EA	24,000	1,440	1,272	2,137	433	29,282	14640.85
TOTAL Canal 5310P	1.00 JOB	788,972	47,338	41,816	70,250	14,226	962,602	962601.83
09.13 Canal 5311								
09.13. 1 FILTER GRAVEL	1643.00 TON	24,153	1,449	1,280	2,151	435	29,468	17.94
09.13. 2 RIPRAP	4932.00 TON	77,434	4,646	4,104	6,895	1,396	94,475	19.16
TOTAL Canal 5311	1.00 JOB	101,586	6,095	5,384	9,045	1,832	123,943	123942.67
09.14 Canal 5311P								
09.14. 1 REINFORCED CONCRETE PIPE, 18"	2886.00 LF	53,765	3,226	2,850	4,787	969	65,597	22.73
09.14. 2 PVC PIPE, 12"	2400.00 LF	32,560	1,954	1,726	2,899	587	39,726	16.55
09.14. 3 PUMPS CANAL 5311	1.00 JOB	17,413	1,045	923	1,550	314	21,245	21245.29
09.14. 4 INSTRUMENTATION	2.00 EA	24,000	1,440	1,272	2,137	433	29,282	14640.85
TOTAL Canal 5311P	1.00 JOB	127,739	7,664	6,770	11,374	2,303	155,850	155850.36
09.15 Canal 5400								
09.15. 1 CLEARING	36.00 AC	3,828	230	203	341	69	4,671	129.75
09.15. 2 EXCAVATION	55665.00 CY	27,959	1,678	1,482	2,490	504	34,113	0.61
09.15. 3 EMBANKMENT	49946.00 CY	43,235	2,594	2,291	3,850	780	52,749	1.06
09.15. 5 REINFORCED CONCRETE PIPE, 30"	384.00 LF	20,043	1,203	1,062	1,785	361	24,453	63.68
09.15. 8 REINFORCED CONCRETE PIPE, 96"	80.00 LF	26,007	1,560	1,378	2,316	469	31,731	396.63
09.15. 10 FLARED END SECTION, 30"	4.00 EA	1,075	65	57	96	19	1,312	328.03
09.15. 13 FLARED END SECTION, 96"	2.00 EA	4,660	280	247	415	84	5,685	2842.57
09.15. 14 GATES, 18"	2.00 EA	1,016	61	54	91	18	1,240	620.07
09.15. 15 GRAVEL BASE, 8"	180.00 CY	2,700	162	143	240	49	3,294	18.30
09.15. 17 FERTILIZING AND SEEDING	23.00 AC	13,800	828	731	1,229	249	16,837	732.04
09.15. 18 ENVIRONMENTAL PROTECTION	1.00 JOB	23,772	1,426	1,260	2,117	429	29,004	29003.52
09.15. 19 INSTRUMENTATION	2.00 EA	24,000	1,440	1,272	2,137	433	29,282	14640.85
09.15. 20 STRUCTURES,	1.00 JOB	21,315	1,279	1,130	1,898	384	26,006	26005.58
TOTAL Canal 5400	1.00 JOB	213,411	12,805	11,311	19,002	3,848	260,376	260376.14
09.16 Canal 5400P								
09.16. 1 PVC PIPE, 6"	7121.00 LF	58,960	3,538	3,125	5,250	1,063	71,935	10.10
09.16. 2 PUMPS CANAL 5400	1.00 JOB	7,413	445	393	660	134	9,045	9044.59
09.16. 3 INSTRUMENTATION	2.00 EA	24,000	1,440	1,272	2,137	433	29,282	14640.85
TOTAL Canal 5400P	1.00 JOB	90,373	5,422	4,790	8,047	1,629	110,261	110261.33
TOTAL CHANNELS & CANALS	1.00 EA	6,575,764	394,546	348,515	585,506	118,565	8,022,896	8022896

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	QUANTITY UOM	DIRECT	OVERHEAD	HOME OFC	PROFIT	BOND	TOTAL COST	UNIT COST
31 CONSTRUCTION MANAGEMENT								
TOTAL EASTERN ARKANSAS REGIONAL STUDY	1.00 EA	6,956,764	394,546	348,515	585,506	118,565	8,403,896	8403896

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	QUANTITY	UOM	MANHRS	LABOR	EQUIPMNT	MATERIAL	OTHER	TOTAL COST	UNIT COST
<hr/>									
01 LANDS AND DAMAGES									
02 RELOCATIONS									
02.03 UTILITIES	1.00	EA	0	0	0	381,000	0	381,000	381000.00
TOTAL RELOCATIONS	1.00	EA	0	0	0	381,000	0	381,000	381000.00
09 CHANNELS & CANALS									
09.07 Canal 5300A	1.00	JOB	4,780	94,575	241,311	755,165	0	1,091,052	1091052
09.08 Canal 5300P1	1.00	JOB	16,589	196,254	186,813	3443178	0	3,826,245	3826245
09.09 Canal 5300B	1.00	JOB	0	12,060	53,580	14,100	0	79,541	79540.67
09.10 Canal 5300P2	1.00	JOB	1,558	22,686	11,471	50,269	0	84,426	84426.24
09.11 Canal 5310	1.00	JOB	1,307	18,536	40,754	113,129	0	172,419	172419.09
09.12 Canal 5310P	1.00	JOB	5,627	67,801	67,488	653,683	0	788,972	788972.24
09.13 Canal 5311	1.00	JOB	951	11,440	22,752	67,395	0	101,586	101586.47
09.14 Canal 5311P	1.00	JOB	955	14,505	7,456	105,779	0	127,739	127738.80
09.15 Canal 5400	1.00	JOB	420	20,347	68,850	124,215	0	213,411	213410.72
09.16 Canal 5400P	1.00	JOB	1,266	18,195	9,133	63,045	0	90,373	90372.91
TOTAL CHANNELS & CANALS	1.00	EA	33,453	476,399	709,408	5389956	0	6,575,764	6575764
31 CONSTRUCTION MANAGEMENT									
TOTAL EASTERN ARKANSAS REGIONAL STUDY	1.00	EA	33,453	476,399	709,408	5770956	0	6,956,764	6956764
OVERHEAD									
SUBTOTAL HOME OFC								394,546	
SUBTOTAL PROFIT								7,351,310	348,515
SUBTOTAL BOND								7,699,825	585,506
TOTAL INCL INDIRECTS								8,285,331	118,565
								8,403,896	

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		QUANTITY	UOM	MANHRS	LABOR	EQUIPMNT	MATERIAL	OTHER	TOTAL COST	UNIT COST

01	LANDS AND DAMAGES									
02	RELOCATIONS									
02.02	RAILROADS									

TOTAL RAILROADS										
02.03	UTILITIES									
02.03.18	MECHANICAL	1.00	EA	0	0	0	381,000	0	381,000	381000.00

TOTAL UTILITIES										
TOTAL RELOCATIONS										

09	CHANNELS & CANALS									
09.07	Canal 5300A									
09.07. 1	CLEARING	40.00	AC	0	1,196	3,058	0	0	4,254	106.35
09.07. 2	EXCAVATION	129570.00	CY	0	10,655	54,426	0	0	65,081	0.50
09.07. 3	EMBANKMENT	138529.00	CY	0	23,697	91,227	0	0	114,924	0.83
09.07. 4	REINFORCED CONCRETE PIPE, 36"	1272.00	LF	618	8,510	10,081	60,937	0	79,528	62.52
09.07. 6	REINFORCED CONCRETE PIPE, 72"	1152.00	LF	1,293	15,196	25,311	173,634	0	214,140	185.89
09.07. 7	REINFORCED CONCRETE PIPE, 78"	768.00	LF	1,103	12,955	21,167	117,000	0	151,122	196.77
09.07. 8	REINFORCED CONCRETE PIPE, 84"	768.00	LF	1,129	13,269	21,848	153,942	0	189,059	246.17
09.07.09	FLARED END SECTION, 36"	12.00	EA	40	455	371	3,600	0	4,426	368.86
09.07.11	FLARED END SECTION, 72"	12.00	EA	90	1,036	1,437	16,800	0	19,274	1606.15
09.07.12	FLARED END SECTION, 78"	8.00	EA	60	691	958	12,800	0	14,449	1806.15
09.07.13	FLARED END SECTION, 84"	8.00	EA	96	1,106	1,533	11,200	0	13,839	1729.84
09.07.14	GATES 42"	6.00	EA	5	57	46	1,150	0	1,253	208.88
09.07.15	FILTER GRAVEL	630.00	TON	91	1,096	2,180	5,985	0	9,261	14.70
09.07.16	RIPRAP	1772.00	TON	256	3,083	6,132	18,606	0	27,821	15.70
09.07.17	4" ASPHALT	96.00	TN	0	0	0	4,230	0	4,230	45.00
09.07.18	8" GRAVEL BASE	1817.00	CY	0	0	0	27,255	0	27,255	15.00
09.07.19	FERTILIZING AND SEEDING	24.00	AC	0	0	0	6,000	0	6,000	250.00
09.07.20	ENVIRONMENTAL PROTECTION	1.00	JOB	0	0	0	16,335	0	16,335	16335.00
09.07.21	INSTRUMENTATION	6.00	EA	0	0	0	72,000	0	72,000	12000.00
09.07.22	STRUCTURES	1.00	JOB	0	1,574	1,536	53,691	0	56,801	56800.64

TOTAL Canal 5300A										
		1.00	JOB	4,780	94,575	241,311	755,165	0	1,091,052	1091052
09.08	Canal 5300P1									
09.08. 1	PVC PIPE, 8"	4043.00	LF	708	10,201	5,080	21,226	0	36,507	9.03
09.08. 2	PVC PIPE, 10"	5127.00	LF	1,025	14,607	7,013	38,965	0	60,585	11.82

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		QUANTITY	UOM	MANHRS	LABOR	EQUIPMNT	MATERIAL	OTHER	TOTAL COST	UNIT COST
09.08. 3	REINFORCED CONCRETE PIPE, 48"	13380.00	LF	5,366	62,261	68,227	966,117	0	1,096,605	81.96
09.08. 4	REINFORCED CONCRETE PIPE, 54"	26320.00	LF	9,410	108,274	105,751	2284120	0	2,498,145	94.91
09.08. 5	PUMPS CANAL 5300P1	1.00	JOB	80	910	742	36,750	0	38,403	38402.66
09.08. 6	INSTRUMENTATION	8.00	EA	0	0	0	96,000	0	96,000	12000.00
TOTAL Canal 5300P1		1.00	JOB	16,589	196,254	186,813	3443178	0	3,826,245	3826245
09.09 Canal 5300B										
09.09. 1	CLEARING	24.00	AC	0	718	1,835	0	0	2,552	106.35
09.09. 2	EXCAVATION	30480.00	CY	0	2,506	12,803	0	0	15,310	0.50
09.09. 3	EMBANKMENT	29665.00	CY	0	8,836	38,743	0	0	47,579	1.60
09.09. 4	FERTILIZING AND SEEDING	11.00	AC	0	0	0	6,600	0	6,600	600.00
09.09. 5	ENVIRONMENTAL PROTECTION	1.00	JOB	0	0	0	7,500	0	7,500	7500.00
TOTAL Canal 5300B		1.00	JOB	0	12,060	53,380	14,100	0	79,541	79540.67
09.10 Canal 5300P2										
09.10. 1	PVC PIPE, 6"	4833.00	LF	846	12,195	6,073	21,749	0	40,016	8.28
09.10. 2	PVC PIPE, 8"	3483.00	LF	610	8,788	4,376	18,286	0	31,450	9.03
09.10. 3	REINFORCED CONCRETE PIPE, 18"	700.00	LF	103	1,703	1,022	10,235	0	12,960	18.51
TOTAL Canal 5300P2		1.00	JOB	1,558	22,686	11,471	50,269	0	84,426	84426.24
09.11 Canal 5310										
09.11. 1	CLEARING	9.00	AC	0	269	688	0	0	957	106.35
09.11. 2	EXCAVATION	11697.00	CY	0	962	4,913	0	0	5,875	0.50
09.11. 3	EMBANKMENT	12139.00	CY	0	1,621	5,656	0	0	7,276	0.60
09.11. 4	REINFORCED CONCRETE PIPE, 60"	448.00	LF	632	7,603	13,959	48,296	0	69,859	155.93
09.11. 5	FLARED END SECTION, 60"	8.00	EA	40	455	371	10,000	0	10,826	1353.29
09.11. 6	GRAVEL BASE, 8"	166.00	CY	0	0	0	2,490	0	2,490	15.00
09.11. 8	FILTER GRAVEL	1095.00	TON	158	1,905	3,789	10,403	0	16,097	14.70
09.11. 9	RIPRAP	3288.00	TON	476	5,721	11,378	34,524	0	51,623	15.70
09.11.10	FERTILIZING AND SEEDING	7.00	AC	0	0	0	4,200	0	4,200	600.00
09.11.11	ENVIRONMENTAL PROTECTION	1.00	JOB	0	0	0	3,216	0	3,216	3216.00
TOTAL Canal 5310		1.00	JOB	1,307	18,536	40,754	113,129	0	172,419	172419.09
09.12 Canal 5310P										
09.12. 1	PVC PIPE, 8"	500.00	LF	88	1,264	406	2,575	0	4,245	8.49
09.12. 2	REINFORCED CONCRETE PIPE, 18"	3000.00	LF	688	10,333	7,291	43,848	0	61,472	20.49
09.12. 3	REINFORCED CONCRETE PIPE, 36"	12400.00	LF	4,832	55,977	59,606	580,260	0	695,842	56.12
09.12. 4	PUMPS CANAL 5310P	1.00	JOB	20	228	186	3,000	0	3,413	3413.17

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		QUANTITY	UOM	MANHRS	LABOR	EQUIPMNT	MATERIAL	OTHER	TOTAL COST	UNIT COST
09.12. 5	INSTRUMENTATION	2.00	EA	0	0	0	24,000	0	24,000	12000.00
	TOTAL Canal 5310P	1.00	JOB	5,627	67,801	67,488	653,683	0	788,972	788972.24
09.13	Canal 5311									
09.13. 1	FILTER GRAVEL	1643.00	TON	238	2,859	5,685	15,609	0	24,153	14.70
09.13. 2	RIPRAP	4932.00	TON	713	8,581	17,067	51,786	0	77,434	15.70
	TOTAL Canal 5311	1.00	JOB	951	11,440	22,752	67,395	0	101,586	101586.47
09.14	Canal 5311P									
09.14. 1	REINFORCED CONCRETE PIPE, 18"	2886.00	LF	455	7,439	3,987	42,339	0	53,765	18.63
09.14. 2	PVC PIPE, 12"	2400.00	LF	480	6,838	3,283	22,440	0	32,560	13.57
09.14. 3	PUMPS CANAL 5311	1.00	JOB	20	228	186	17,000	0	17,413	17413.17
09.14. 4	INSTRUMENTATION	2.00	EA	0	0	0	24,000	0	24,000	12000.00
	TOTAL Canal 5311P	1.00	JOB	955	14,505	7,456	105,779	0	127,739	127738.80
09.15	Canal 5400									
09.15. 1	CLEARING	36.00	AC	0	1,076	2,752	0	0	3,828	106.35
09.15. 2	EXCAVATION	55665.00	CY	0	4,577	23,382	0	0	27,959	0.50
09.15. 3	EMBANKMENT	49946.00	CY	0	8,861	34,374	0	0	43,235	0.87
09.15. 5	REINFORCED CONCRETE PIPE, 30"	384.00	LF	223	3,104	4,201	12,738	0	20,043	52.19
09.15. 8	REINFORCED CONCRETE PIPE, 96"	80.00	LF	136	1,608	2,779	21,621	0	26,007	325.09
09.15. 10	FLARED END SECTION, 30"	4.00	EA	13	152	124	800	0	1,075	268.86
09.15. 13	FLARED END SECTION, 96"	2.00	EA	24	276	383	4,000	0	4,660	2329.84
09.15. 14	GATES, 18"	2.00	EA	6	72	44	900	0	1,016	508.23
09.15. 15	GRAVEL BASE, 8"	180.00	CY	0	0	0	2,700	0	2,700	15.00
09.15. 17	FERTILIZING AND SEEDING	23.00	AC	0	0	0	13,800	0	13,800	600.00
09.15. 18	ENVIRONMENTAL PROTECTION	1.00	JOB	0	0	0	23,772	0	23,772	23772.00
09.15. 19	INSTRUMENTATION	2.00	EA	0	0	0	24,000	0	24,000	12000.00
09.15. 20	STRUCTURES,	1.00	JOB	18	621	811	19,884	0	21,315	21314.82
	TOTAL Canal 5400	1.00	JOB	420	20,347	68,850	124,215	0	213,411	213410.72
09.16	Canal 5400P									
09.16. 1	PVC PIPE, 6"	7121.00	LF	1,246	17,968	8,948	32,045	0	58,960	8.28
09.16. 2	PUMPS CANAL 5400	1.00	JOB	20	228	186	7,000	0	7,413	7413.17
09.16. 3	INSTRUMENTATION	2.00	EA	0	0	0	24,000	0	24,000	12000.00
	TOTAL Canal 5400P	1.00	JOB	1,266	18,195	9,133	63,045	0	90,373	90372.91
	TOTAL CHANNELS & CANALS	1.00	EA	33,453	476,399	709,408	538956	0	6,575,764	6575764

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** PROJECT DIRECT SUMMARY - System **

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		QUANTITY	UOM	MANHRS	LABOR	EQUIPMNT	MATERIAL	OTHER	TOTAL COST	UNIT COST
<hr/>										
31	CONSTRUCTION MANAGEMENT									
	TOTAL EASTERN ARKANSAS REGIONAL STUDY	1.00	EA	33,453	476,399	709,408	5770956	0	6,956,764	6956764
	OVERHEAD								394,546	
	SUBTOTAL								7,351,310	
	HOME OFC								348,515	
	SUBTOTAL								7,699,825	
	PROFIT								585,506	
	SUBTOTAL								8,285,331	
	BOND								118,565	
	TOTAL INCL INDIRECTS								8,403,896	

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ERROR REPORT

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No errors detected...

* * * END OF ERROR REPORT * * *

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REACH NO 11

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TITLE PAGE 1

EASTERN ARKANSAS REGIONAL STUDY
GRAND PRAIRIE DEMONSTRATION
PROJECT
ITEM NO 11

Designed By:
Estimated By: JAMES MOORE

Prepared By:

Preparation Date: 01/29/97
Effective Date of Pricing: 01/29/97

Sales Tax: 0.00%

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** PROJECT INDIRECT SUMMARY - Facility **

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SUMMARY PAGE 1

	QUANTITY UOM	DIRECT	OVERHEAD	HOME OFC	PROFIT	BOND	TOTAL COST	UNIT COST
<hr/>								
01 REACH 11								
01.02 RELOCATIONS	1.00 EA	952,000	0	0	0	0	952,000	952000.00
01.09 CHANNELS AND CANALS	1.00 EA	11,523,316	691,399	610,736	1,026,036	207,772	14,059,259	14059259
01.31 CONSTRUCTION MANAGEMENT								
TOTAL REACH 11	1.00 EA	12,475,316	691,399	610,736	1,026,036	207,772	15,011,259	15011259
TOTAL EASTERN ARKANSAS REGIONAL STUDY	1.00 EA	12,475,316	691,399	610,736	1,026,036	207,772	15,011,259	15011259

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SUMMARY PAGE 2

		QUANTITY UOM	DIRECT	OVERHEAD	HOME OFC	PROFIT	BOND	TOTAL COST	UNIT COST
01 REACH 11									
01.01 LANDS AND DAMAGES									
01.02 RELOCATIONS									
01.02.03 UTILITIES		1.00 EA	952,000	0	0	0	0	952,000	952000.00
TOTAL RELOCATIONS		1.00 EA	952,000	0	0	0	0	952,000	952000.00
01.09 CHANNELS AND CANALS									
01.09.01 Canal 5500	--	1.00 JOB	1,988,982	119,339	105,416	177,099	35,863	2,426,699	2426699
01.09.02 Canal 5500P		1.00 JOB	698,400	41,904	37,015	62,186	12,593	852,097	852096.82
01.09.03 Canal 5510		1.00 JOB	67,719	4,063	3,589	6,030	1,221	82,622	82622.47
01.09.04 Canal 5510P		1.00 JOB	140,153	8,409	7,428	12,479	2,527	170,996	170996.48
01.09.05 Canal 5520		1.00 JOB	45,471	2,728	2,410	4,049	820	55,478	55477.81
01.09.06 Canal 5520P		1.00 JOB	112,236	6,734	5,949	9,993	2,024	136,936	136935.74
01.09.07 Canal 5530		1.00 JOB	20,317	1,219	1,077	1,809	366	24,788	24788.05
01.09.08 Canal 5530P		1.00 JOB	150,155	9,009	7,958	13,370	2,707	183,200	183199.93
01.09.09 Canal 6000A		1.00 JOB	4,758,431	285,506	252,197	423,691	85,797	5,805,621	5805621
01.09.12 Canal 6000P		1.00 JOB	63,456	3,807	3,363	5,650	1,144	77,420	77420.26
01.09.13 Canal 6100		1.00 JOB	69,325	4,160	3,674	6,173	1,250	84,582	84581.69
01.09.14 Canal 6100P		1.00 JOB	793,682	47,621	42,065	70,669	14,311	968,348	968347.91
01.09.15 Canal 6300		1.00 JOB	409,980	24,599	21,729	36,505	7,392	500,205	500204.65
01.09.16 Canal 6300P		1.00 JOB	324,280	19,457	17,187	28,874	5,847	395,644	395644.37
01.09.17 Canal 6310		1.00 JOB	96,272	5,776	5,102	8,572	1,736	117,458	117458.11
01.09.18 Canal 6310P		1.00 JOB	57,503	3,450	3,048	5,120	1,037	70,158	70157.82
01.09.19 Canal 6400		1.00 JOB	644,286	38,657	34,147	57,367	11,617	786,075	786074.70
01.09.20 Canal 6410		1.00 JOB	124,338	7,460	6,590	11,071	2,242	151,701	151700.79
01.09.21 Canal 6410P		1.00 JOB	46,430	2,786	2,461	4,134	837	56,648	56647.55
01.09.22 Canal 6500		1.00 JOB	125,920	7,555	6,674	11,212	2,270	153,632	153631.83
01.09.23 Canal 6500P		1.00 JOB	160,011	9,601	8,481	14,247	2,885	195,224	195224.44
01.09.24 GATED STRUCTURE, CANAL 6000		1.00 JOB	625,970	37,558	33,176	55,736	11,287	763,728	763727.88
TOTAL CHANNELS AND CANALS		1.00 EA	11,523,316	691,399	610,736	1,026,036	207,772	14,059,259	14059259
01.31 CONSTRUCTION MANAGEMENT									
TOTAL REACH 11		1.00 EA	12,475,316	691,399	610,736	1,026,036	207,772	15,011,259	15011259
TOTAL EASTERN ARKANSAS REGIONAL STUDY		1.00 EA	12,475,316	691,399	610,736	1,026,036	207,772	15,011,259	15011259

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	QUANTITY UOM	DIRECT	OVERHEAD	HOME OFC	PROFIT	BOND	TOTAL COST	UNIT COST
<hr/>								
01 REACH 11								
01.01 LANDS AND DAMAGES								
01.02 RELOCATIONS								
01.02.02 RAILROADS								
TOTAL RAILROADS								
01.02.03 UTILITIES								
01.02.03.18 MECHANICAL	1.00 EA	952,000	0	0	0	0	952,000	952000.00
TOTAL UTILITIES	1.00 EA	952,000	0	0	0	0	952,000	952000.00
TOTAL RELOCATIONS	1.00 EA	952,000	0	0	0	0	952,000	952000.00
01.09 CHANNELS AND CANALS								
01.09.01 Canal 5500								
01.09.01. 1 CLEARING	224.00 AC	23,822	1,429	1,263	2,121	430	29,064	129.75
01.09.01. 2 EXCAVATION	341800.00 CY	181,840	10,910	9,638	16,191	3,279	221,858	0.65
01.09.01. 3 EMBANKMENT	406367.00 CY	358,744	21,525	19,013	31,943	6,468	437,693	1.08
01.09.01. 6 REINFORCED CONCRETE PIPE, 30"	304.00 LF	14,667	880	777	1,306	264	17,894	58.86
01.09.01. 7 REINFORCED CONCRETE PIPE, 36"	608.00 LF	38,114	2,287	2,020	3,394	687	46,502	76.48
01.09.01. 9 REINFORCED CONCRETE PIPE, 48"	304.00 LF	27,844	1,671	1,476	2,479	502	33,972	111.75
01.09.01.10 REINFORCED CONCRETE PIPE, 54"	360.00 LF	44,161	2,650	2,341	3,932	796	53,879	149.66
01.09.01.11 REINFORCED CONCRETE PIPE, 60"	1244.00 LF	173,282	10,397	9,184	15,429	3,124	211,416	169.95
01.09.01.12 REINFORCED CONCRETE PIPE, 66"	180.00 LF	32,774	1,966	1,737	2,918	591	39,987	222.15
01.09.01.13 REINFORCED CONCRETE PIPE, 72"	2736.00 LF	520,223	31,213	27,572	46,321	9,380	634,709	231.98
01.09.01.14 REINFORCED CONCRETE PIPE, 84"	450.00 LF	113,052	6,783	5,992	10,066	2,038	137,932	306.51
01.09.01.15 REINFORCED CONCRETE PIPE, 96"	90.00 LF	28,903	1,734	1,532	2,574	521	35,264	391.82
01.09.01.18 FLARED END SECTION, 30"	4.00 EA	1,075	65	57	96	19	1,312	328.03
01.09.01.19 FLARED END SECTION, 36"	8.00 EA	2,951	177	156	263	53	3,600	450.04
01.09.01.21 FLARED END SECTION, 48"	4.00 EA	2,813	169	149	250	51	3,432	858.07
01.09.01.22 FLARED END SECTION, 54"	8.00 EA	9,226	554	489	822	166	11,257	1407.10
01.09.01.23 FLARED END SECTION, 60"	18.00 EA	24,359	1,462	1,291	2,169	439	29,720	1651.11
01.09.01.24 FLARED END SECTION, 66"	4.00 EA	6,160	370	326	548	111	7,515	1878.81
01.09.01.25 FLARED END SECTION, 72"	36.00 EA	57,821	3,469	3,065	5,148	1,043	70,546	1959.62
01.09.01.26 FLARED END SECTION, 84"	10.00 EA	20,798	1,248	1,102	1,852	375	25,376	2537.56
01.09.01.27 FLARED END SECTION, 96"	2.00 EA	4,660	280	247	415	84	5,685	2842.57
01.09.01.28 GATES 18"	1.00 EA	508	30	27	45	9	620	620.07
01.09.01.29 GATES 24"	2.00 EA	583	35	31	52	11	712	355.79
01.09.01.30 GATES 42"	1.00 EA	1,253	75	66	112	23	1,529	1529.10
01.09.01.31 GATES, 48"	1.00 EA	1,603	96	85	143	29	1,956	1956.13

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** PROJECT INDIRECT SUMMARY - Subsystm **

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SUMMARY PAGE 4

		QUANTITY UOM	DIRECT	OVERHEAD	HOME OFC	PROFIT	BOND	TOTAL COST	UNIT COST
01.09.01.32	8" GRAVEL BASE	3405.00 CY	51,075	3,065	2,707	4,548	921	62,315	18.30
01.09.01.33	4" ASPHALT	1.00 JOB	4,140	248	219	369	75	5,051	5051.09
01.09.01.34	FERTILIZING AND SEEDING	227.00 AC	56,750	3,405	3,008	5,053	1,023	69,239	305.02
01.09.01.35	ENVIRONMENTAL PROTECTION	1.00 JOB	109,500	6,570	5,804	9,750	1,974	133,598	133597.73
01.09.01.36	STRUCTURES	1.00 JOB	76,279	4,577	4,043	6,792	1,375	93,065	93065.25
	TOTAL Canal 5500	1.00 JOB	1,988,982	119,339	105,416	177,099	35,863	2,426,699	2426699
01.09.02	Canal 5500P								
01.09.02. 1	PVC PIPE, 6"	11198.00 LF	97,134	5,828	5,148	8,649	1,751	118,510	10.58
01.09.02. 2	PVC PIPE, 8"	10669.00 LF	100,547	6,033	5,329	8,953	1,813	122,674	11.50
01.09.02. 3	PVC PIPE, 10"	3051.00 LF	23,920	1,435	1,268	2,130	431	29,184	9.57
01.09.02. 4	REINFORCED CONCRETE PIPE, 18"	11033.00 LF	145,317	8,719	7,702	12,939	2,620	177,297	16.07
01.09.02. 5	PUMPS CANAL 5500	1.00 JOB	62,283	3,737	3,301	5,546	1,123	75,990	75989.55
01.09.02. 6	INSTRUMENTATION	19.00 EA	228,000	13,680	12,084	20,301	4,111	278,176	14640.85
01.09.02. 7	STRUCTURES FOR THE TURNOUT	1.00 JOB	41,200	2,472	2,184	3,668	743	50,267	50266.91
	TOTAL Canal 5500P	1.00 JOB	698,400	41,904	37,015	62,186	12,593	852,097	852096.82
01.09.03	Canal 5510								
01.09.03. 1	FILTER GRAVEL	1095.00 TON	16,097	966	853	1,433	290	19,639	17.94
01.09.03. 2	RIPRAP	3288.00 TON	51,623	3,097	2,736	4,596	931	62,983	19.16
	TOTAL Canal 5510	1.00 JOB	67,719	4,063	3,589	6,030	1,221	82,622	82622.47
01.09.04	Canal 5510P								
01.09.04. 1	PVC PIPE, 8"	3927.00 LF	28,889	1,733	1,531	2,572	521	35,247	8.98
01.09.04. 2	PVC PIPE, 10"	3856.00 LF	30,231	1,814	1,602	2,692	545	36,884	9.57
01.09.04. 3	PUMPS CANAL 5510	1.00 JOB	21,033	1,262	1,115	1,873	379	25,662	25661.64
01.09.04. 4	INSTRUMENTATION	5.00 EA	60,000	3,600	3,180	5,342	1,082	73,204	14640.85
	TOTAL Canal 5510P	1.00 JOB	140,153	8,409	7,428	12,479	2,527	170,996	170996.48
01.09.05	Canal 5520								
01.09.05. 1	FILTER GRAVEL	735.00 TON	10,805	648	573	962	195	13,183	17.94
01.09.05. 2	RIPRAP	2208.00 TON	34,666	2,080	1,837	3,087	625	42,295	19.16
	TOTAL Canal 5520	1.00 JOB	45,471	2,728	2,410	4,049	820	55,478	55477.81
01.09.06	Canal 5520P								
01.09.06. 1	PVC PIPE, 8"	1241.00 LF	9,109	547	483	811	164	11,113	8.96

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		QUANTITY UOM	DIRECT	OVERHEAD	HOME OFC	PROFIT	BOND	TOTAL COST	UNIT COST
01.09.06. 2	PVC PIPE, 10"	4461.00 LF	33,214	1,993	1,760	2,957	599	40,523	9.08
01.09.06. 3	PUMPS CANAL 5520	1.00 JOB	9,913	595	525	883	179	12,095	12094.76
01.09.06. 4	INSTRUMENTATION	5.00 EA	60,000	3,600	3,180	5,342	1,082	73,204	14640.85
	TOTAL Canal 5520P	1.00 JOB	112,236	6,734	5,949	9,993	2,024	136,936	136935.74
01.09.07	Canal 5530								
01.09.07. 1	FILTER GRAVEL	329.00 TON	4,836	290	256	431	87	5,901	17.94
01.09.07. 2	RIPRAP	986.00 TON	15,480	929	820	1,378	279	18,887	19.16
	TOTAL Canal 5530	1.00 JOB	20,317	1,219	1,077	1,809	366	24,788	24788.05
01.09.08	Canal 5530P								
01.09.08. 1	PVC PIPE, 6"	11198.00 LF	82,742	4,965	4,385	7,367	1,492	100,951	9.02
01.09.08. 2	PUMPS CANAL 5530	1.00 JOB	7,413	445	393	660	134	9,045	9044.59
01.09.08. 3	INSTRUMENTATION	5.00 EA	60,000	3,600	3,180	5,342	1,082	73,204	14640.85
	TOTAL Canal 5530P	1.00 JOB	150,155	9,009	7,958	13,370	2,707	183,200	183199.93
01.09.09	Canal 6000A								
01.09.09. 1	CLEARING	224.00 AC	23,822	1,429	1,263	2,121	430	29,064	129.75
01.09.09. 2	EXCAVATION	579783.00 CY	316,698	19,002	16,785	28,199	5,710	386,394	0.67
01.09.09. 3	EMBANKMENT	579783.00 CY	589,200	35,352	31,228	52,462	10,624	718,865	1.24
01.09.09. 4	REINFORCED CONCRETE BOX CULVERT	2080.00 LF	1,700,107	102,006	90,106	151,378	30,654	2,074,250	997.24
01.09.09. 5	REINFORCED CONCRETE PIPE, 24"	200.00 LF	6,893	414	365	614	124	8,409	42.05
01.09.09.10	REINFORCED CONCRETE PIPE, 60"	304.00 LF	40,393	2,424	2,141	3,597	728	49,282	162.11
01.09.09.11	REINFORCED CONCRETE PIPE, 66"	704.00 LF	124,640	7,478	6,606	11,098	2,247	152,070	216.01
01.09.09.12	REINFORCED CONCRETE PIPE, 72"	2200.00 LF	409,774	24,586	21,718	36,486	7,388	499,953	227.25
01.09.09.13	REINFORCED CONCRETE PIPE, 84"	600.00 LF	147,079	8,825	7,795	13,096	2,652	179,447	299.08
01.09.09.14	REINFORCED CONCRETE PIPE, 90"	400.00 LF	123,528	7,412	6,547	10,999	2,227	150,713	376.78
01.09.09.15	REINFORCED CONCRETE PIPE, 96"	2488.00 LF	743,621	44,617	39,412	66,212	13,408	907,271	364.66
01.09.09.16	FLARED END SECTION, 24"	2.00 EA	258	15	14	23	5	315	157.53
01.09.09.21	FLARED END SECTION, 60"	4.00 EA	5,413	325	287	482	98	6,604	1651.11
01.09.09.22	FLARED END SECTION, 66"	4.00 EA	6,160	370	326	548	111	7,515	1878.81
01.09.09.23	FLARED END SECTION, 72"	22.00 EA	35,335	2,120	1,873	3,146	637	43,112	1959.62
01.09.09.24	FLARED END SECTION, 84"	6.00 EA	12,479	749	661	1,111	225	15,225	2537.56
01.09.09.25	FLARED END SECTION, 90"	2.00 EA	4,460	268	236	397	80	5,441	2720.57
01.09.09.26	FLARED END SECTION, 96"	22.00 EA	51,257	3,075	2,717	4,564	924	62,537	2842.57
01.09.09.27	GATES 30"	2.00 EA	1,867	112	99	166	34	2,277	1138.68
01.09.09.28	GATES 36"	2.00 EA	2,195	132	116	195	40	2,678	1338.77
01.09.09.29	GATES 42"	3.00 EA	3,760	226	199	335	68	4,587	1529.10
01.09.09.30	GATES, 48"	4.00 EA	6,413	385	340	571	116	7,825	1956.13
01.09.09.31	STRUCTURES	1.00 JOB	125,954	7,557	6,676	11,215	2,271	153,673	153672.77
01.09.09.32	FERTILIZING AND SEEDING	99.00 AC	24,750	1,485	1,312	2,204	446	30,197	305.02
01.09.09.33	4" ASPHALT	1.00 JOB	5,040	302	267	449	91	6,149	6149.16

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		QUANTITY UOM	DIRECT	OVERHEAD	HOME OFC	PROFIT	BOND	TOTAL COST	UNIT COST
01.09.09.34	8" GRAVEL BASE	2357.00 CY	35,355	2,121	1,874	3,148	637	43,136	18.30
01.09.09.35	ENVIRONMENTAL PROTECTION	1.00 JOB	55,982	3,359	2,967	4,985	1,009	68,301	68301.38
01.09.09.36	INSTRUMENTATION	1.00 JOB	156,000	9,360	8,268	13,890	2,813	190,331	190331.01
	TOTAL Canal 6000A	1.00 JOB	4,758,431	285,506	252,197	423,691	85,797	5,805,621	5805621
01.09.12	Canal 6000P								
01.09.12. 1	6" PVC PIPE	6293.00 LF	46,499	2,790	2,464	4,140	838	56,732	9.02
01.09.12. 2	PUMPS CANAL 6000	1.00 JOB	4,957	297	263	441	89	6,047	6047.38
01.09.12. 3	INSTRUMENTATION	1.00 EA	12,000	720	636	1,068	216	14,641	14640.85
	TOTAL Canal 6000P	1.00 JOB	63,456	3,807	3,363	5,650	1,144	77,420	77420.26
01.09.13	Canal 6100								
01.09.13. 1	FILTER GRAVEL	1122.00 TON	16,494	990	874	1,469	297	20,124	17.94
01.09.13. 2	RIPRAP	3365.00 TON	52,832	3,170	2,800	4,704	953	64,458	19.16
	TOTAL Canal 6100	1.00 JOB	69,325	4,160	3,674	6,173	1,250	84,582	84581.69
01.09.14	Canal 6100P								
01.09.14. 1	8" PVC Pipe	3714.00 LF	29,300	1,758	1,553	2,609	528	35,748	9.63
01.09.14. 2	PVC PIPE, 10"	6772.00 LF	29,899	1,794	1,585	2,662	539	36,479	5.39
01.09.14. 3	PVC PIPE, 12"	2412.00 LF	18,247	1,095	967	1,625	329	22,263	9.23
01.09.14. 4	PVC PIPE, 14"	5741.00 LF	53,548	3,213	2,838	4,768	966	65,333	11.38
01.09.14. 5	REINFORCED CONCRETE PIPE, 30"	10741.00 LF	474,535	28,472	25,150	42,253	8,556	578,966	53.90
01.09.14. 6	PUMPS CANAL 6100	1.00 JOB	92,153	5,529	4,884	8,205	1,662	112,433	112432.76
01.09.14. 7	INSTRUMENTATION	8.00 EA	96,000	5,760	5,088	8,548	1,731	117,127	14640.85
	TOTAL Canal 6100P	1.00 JOB	793,682	47,621	42,065	70,669	14,311	968,348	968347.91
01.09.15	Canal 6300								
01.09.15. 1	CLEARING	5.00 AC	532	32	28	47	10	649	129.75
01.09.15. 2	EXCAVATION	5620.00 CY	2,987	179	158	266	54	3,644	0.65
01.09.15. 3	EMBANKMENT	16000.00 CY	11,885	713	630	1,058	214	14,501	0.91
01.09.15. 4	FILTER GRAVEL	5459.00 TON	80,249	4,815	4,253	7,145	1,447	97,909	17.94
01.09.15. 5	RIPRAP	16371.00 TON	257,030	15,422	13,623	22,886	4,634	313,594	19.16
01.09.15. 6	FERTILIZING AND SEEDING	5.00 AC	1,250	75	66	111	23	1,525	305.02
01.09.15. 7	ENVIRONMENTAL PROTECTION	1.00 JOB	56,048	3,363	2,971	4,990	1,011	68,382	68381.91
	TOTAL Canal 6300	1.00 JOB	409,980	24,599	21,729	36,505	7,392	500,205	500204.65

01.09.16 Canal 6300P

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		QUANTITY UOM	DIRECT	OVERHEAD	HOME OFC	PROFIT	BOND	TOTAL COST	UNIT COST
01.09.16. 1	6" PVC Pipe	3615.00 LF	26,711	1,603	1,416	2,378	482	32,590	9.02
01.09.16. 2	8" PVC Pipe	2679.00 LF	21,135	1,268	1,120	1,882	381	25,786	9.63
01.09.16. 3	PVC PIPE, 10"	4798.00 LF	21,193	1,272	1,123	1,887	382	25,857	5.39
01.09.16. 4	PVC PIPE, 12"	2515.00 LF	19,071	1,144	1,011	1,698	344	23,268	9.25
01.09.16. 5	PVC PIPE, 14"	3254.00 LF	30,312	1,819	1,607	2,699	547	36,983	11.37
01.09.16. 6	Pipeline, Plastic pipe, 24"	1395.00 LF	31,999	1,920	1,696	2,849	577	39,041	27.99
01.09.16. 7	PUMPS CANAL 6300	1.00 JOB	65,859	3,952	3,491	5,864	1,187	80,353	80352.93
01.09.16. 8	INSTRUMENTATION	9.00 EA	108,000	6,480	5,724	9,616	1,947	131,768	14640.85
TOTAL Canal 6300P		1.00 JOB	324,280	19,457	17,187	28,874	5,847	395,644	395644.37
01.09.17 Canal 6310									
01.09.17. 1	FILTER GRAVEL	1557.00 TON	22,888	1,373	1,213	2,038	413	27,925	17.94
01.09.17. 2	RIPRAP	4674.00 TON	73,383	4,403	3,889	6,534	1,323	89,533	19.16
TOTAL Canal 6310		1.00 JOB	96,272	5,776	5,102	8,572	1,736	117,458	117458.11
01.09.18 Canal 6310P									
01.09.18. 1	6" PVC Pipe	688.00 LF	5,084	305	269	453	92	6,202	9.02
01.09.18. 2	PVC PIPE, 10"	1200.00 LF	5,300	318	281	472	96	6,466	5.39
01.09.18. 3	PUMPS CANAL 6310	1.00 JOB	11,120	667	589	990	200	13,567	13566.88
01.09.18. 4	INSTRUMENTATION	3.00 EA	36,000	2,160	1,908	3,205	649	43,923	14640.85
TOTAL Canal 6310P		1.00 JOB	57,503	3,450	3,048	5,120	1,037	70,158	70157.82
01.09.19 Canal 6400									
01.09.19. 1	CLEARING	71.00 AC	7,551	453	400	672	136	9,212	129.75
01.09.19. 2	EXCAVATION	184196.00 CY	101,637	6,098	5,387	9,050	1,833	124,004	0.67
01.09.19. 3	EMBANKMENT	198090.00 CY	168,312	10,099	8,921	14,986	3,035	205,352	1.04
01.09.19. 4	REINFORCED CONCRETE PIPE, 30"	1332.00 LF	65,257	3,915	3,459	5,811	1,177	79,619	59.77
01.09.19. 5	REINFORCED CONCRETE PIPE, 42"	888.00 LF	66,684	4,001	3,534	5,937	1,202	81,359	91.62
01.09.19. 6	REINFORCED CONCRETE PIPE, 54"	444.00 LF	46,343	2,781	2,456	4,126	836	56,542	127.35
01.09.19. 7	REINFORCED CONCRETE PIPE, 72"	130.00 LF	42,253	2,535	2,239	3,762	762	51,551	396.55
01.09.19. 8	FLARED END SECTION, 30"	12.00 EA	4,426	266	235	394	80	5,400	450.04
01.09.19. 9	FLARED END SECTION, 42"	8.00 EA	3,461	208	183	308	62	4,223	527.84
01.09.19.10	FLARED END SECTION, 54"	4.00 EA	4,613	277	244	411	83	5,628	1407.10
01.09.19.11	FLARED END SECTION, 72"	2.00 EA	3,212	193	170	286	58	3,919	1959.62
01.09.19.12	8" GRAVEL BASE	865.00 CY	12,975	779	688	1,155	234	15,830	18.30
01.09.19.13	4" ASPHALT	1.00 JOB	3,960	238	210	353	71	4,831	4831.48
01.09.19.14	FERTILIZING AND SEEDING	194.00 AC	48,500	2,910	2,571	4,318	874	59,173	305.02
01.09.19.15	ENVIRONMENTAL PROTECTION	1.00 JOB	29,034	1,742	1,539	2,585	524	35,424	35423.53
01.09.19.16	PUMPS CANAL 6400	1.00 JOB	3,707	222	196	330	67	4,522	4522.29
01.09.19.17	INSTRUMENTATION	1.00 EA	12,000	720	636	1,068	216	14,641	14640.85
01.09.19.18	8" PVC Pipe	2581.00 LF	20,362	1,222	1,079	1,813	367	24,842	9.63

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	QUANTITY UOM	DIRECT	OVERHEAD	HOME OFC	PROFIT	BOND	TOTAL COST	UNIT COST
TOTAL Canal 6400	1.00 JOB	644,286	38,657	34,147	57,367	11,617	786,075	786074.70
01.09.20 Canal 6410								
01.09.20. 1 FILTER GRAVEL	2034.00 TON	29,900	1,794	1,585	2,662	539	36,481	17.94
01.09.20. 2 RIPRAP	6015.00 TON	94,437	5,666	5,005	8,409	1,703	115,220	19.16
TOTAL Canal 6410	1.00 JOB	124,338	7,460	6,590	11,071	2,242	151,701	151700.79
01.09.21 Canal 6410P								
01.09.21. 1 PVC PIPE, 14"	2757.00 LF	25,723	1,543	1,363	2,290	464	31,384	11.38
01.09.21. 2 PUMPS CANAL 6410	1.00 JOB	8,707	522	461	775	157	10,623	10622.65
01.09.21. 3 INSTRUMENTATION	1.00 EA	12,000	720	636	1,068	216	14,641	14640.85
TOTAL Canal 6410P	1.00 JOB	46,430	2,786	2,461	4,134	837	56,648	56647.55
01.09.22 Canal 6500								
01.09.22. 1 FILTER GRAVEL	2037.00 TON	29,945	1,797	1,587	2,666	540	36,534	17.94
01.09.22. 2 RIPRAP	6113.00 TON	95,976	5,759	5,087	8,546	1,731	117,097	19.16
TOTAL Canal 6500	1.00 JOB	125,920	7,555	6,674	11,212	2,270	153,632	153631.83
01.09.23 Canal 6500P								
01.09.23. 1 8" PVC Pipe	2600.00 LF	20,511	1,231	1,087	1,826	370	25,025	9.63
01.09.23. 2 PVC PIPE, 12"	600.00 LF	4,543	273	241	405	82	5,543	9.24
01.09.23. 3 PUMPS CANAL 6500	1.00 JOB	11,163	670	592	994	201	13,620	13619.85
01.09.23. 4 INSTRUMENTATION	9.00 EA	108,000	6,480	5,724	9,616	1,947	131,768	14640.85
01.09.23. 5 PVC PIPE, 14"	1690.00 LF	15,793	948	837	1,406	285.	19,268	11.40
TOTAL Canal 6500P	1.00 JOB	160,011	9,601	8,481	14,247	2,885	195,224	195224.44
01.09.24 GATED STRUCTURE, CANAL 6000								
01.09.24. 1 Clearing	1.00 JOB	2,482	149	132	221	45	3,029	3028.52
01.09.24. 2 General Excavation	3700.00 CY	10,808	648	573	962	195	13,187	3.56
01.09.24. 3 Structural Excavation	290.00 CY	630	38	33	56	11	768	2.65
01.09.24. 4 Steel Sheet Piling (PZ 27)	3630.00 SF	90,750	5,445	4,810	8,080	1,636	110,721	30.50
01.09.24. 5 Cast-in-place Concrete	571.00 CY	171,300	10,278	9,079	15,253	3,089	208,998	366.02
01.09.24. 6 Mechanical Work	1.00 JOB	300,000	18,000	15,900	26,712	5,409	366,021	366021.18
01.09.24. 7 Electrical Work	1.00 JOB	40,000	2,400	2,120	3,562	721	48,803	48802.82
01.09.24. 8 Miscellaneous Items	1.00 JOB	10,000	600	530	890	180	12,201	12200.71

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	QUANTITY UOM	DIRECT	OVERHEAD	HOME OFC	PROFIT	BOND	TOTAL COST	UNIT COST
TOTAL GATED STRUCTURE, CANAL 6000	1.00 JOB	625,970	37,558	33,176	55,736	11,287	763,728	763727.88
TOTAL CHANNELS AND CANALS	1.00 EA	11,523,316	691,399	610,736	1,026,036	207,772	14,059,259	14059259
01.31 CONSTRUCTION MANAGEMENT								
TOTAL REACH 11	1.00 EA	12,475,316	691,399	610,736	1,026,036	207,772	15,011,259	15011259
TOTAL EASTERN ARKANSAS REGIONAL STUDY	1.00 EA	12,475,316	691,399	610,736	1,026,036	207,772	15,011,259	15011259

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	QUANTITY	UOM	MANHRS	LABOR	EQUIPMNT	MATERIAL	OTHER	TOTAL COST	UNIT COST
<hr/>									
01 REACH 11									
01.02 RELOCATIONS	1.00	EA	0	0	0	952,000	0	952,000	952000.00
01.09 CHANNELS AND CANALS	1.00	EA	226	1088093	2366341	8068882	0	11,523,316	11523316
01.31 CONSTRUCTION MANAGEMENT									
TOTAL REACH 11	1.00	EA	226	1088093	2366341	9020882	0	12,475,316	12475316
TOTAL EASTERN ARKANSAS REGIONAL STUDY	1.00	EA	226	1088093	2366341	9020882	0	12,475,316	12475316
OVERHEAD								691,399	
SUBTOTAL HOME OFC								13,166,715	
SUBTOTAL PROFIT								610,736	
SUBTOTAL BOND								13,777,451	
TOTAL INCL INDIRECTS								1,026,036	
								14,803,487	
								207,772	
								15,011,259	

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		QUANTITY	UOM	MANHRS	LABOR	EQUIPMNT	MATERIAL	OTHER	TOTAL COST	UNIT COST
<hr/>										
01 REACH 11										
01.01 LANDS AND DAMAGES										
01.02 RELOCATIONS										
01.02.03 UTILITIES		1.00	EA	0	0	0	952,000	0	952,000	952000.00
TOTAL RELOCATIONS										
01.02.03 UTILITIES		1.00	EA	0	0	0	952,000	0	952,000	952000.00
01.09 CHANNELS AND CANALS										
01.09.01 Canal 5500		1.00	JOB	119	197,109	594,336	1197538	0	1,988,982	1988982
01.09.02 Canal 5500P		1.00	JOB	0	103,558	57,638	537,204	0	698,400	698399.60
01.09.03 Canal 5510		1.00	JOB	0	7,626	15,167	44,927	0	67,719	67719.41
01.09.04 Canal 5510P		1.00	JOB	0	24,652	14,116	101,386	0	140,153	140152.94
01.09.05 Canal 5520		1.00	JOB	0	5,121	10,184	30,167	0	45,471	45470.98
01.09.06 Canal 5520P		1.00	JOB	0	16,579	9,671	85,986	0	112,236	112235.91
01.09.07 Canal 5530		1.00	JOB	0	2,288	4,550	13,479	0	20,317	20316.89
01.09.08 Canal 5530P		1.00	JOB	0	34,878	25,882	89,396	0	150,155	150155.19
01.09.09 Canal 6000A		1.00	JOB	108	312,067	1050108	3396256	0	4,758,431	4758431
01.09.12 Canal 6000P		1.00	JOB	0	19,586	14,533	29,336	0	63,456	63455.56
01.09.13 Canal 6100		1.00	JOB	0	7,807	15,527	45,992	0	69,325	69325.25
01.09.14 Canal 6100P		1.00	JOB	0	113,227	71,318	609,136	0	793,682	793681.87
01.09.15 Canal 6300		1.00	JOB	0	41,117	87,810	281,054	0	409,980	409980.08
01.09.16 Canal 6300P		1.00	JOB	0	46,833	28,222	249,225	0	324,280	324279.90
01.09.17 Canal 6310		1.00	JOB	0	10,842	21,562	63,869	0	96,272	96271.57
01.09.18 Canal 6310P		1.00	JOB	0	3,653	2,374	51,476	0	57,503	57503.08
01.09.19 Canal 6400		1.00	JOB	0	86,479	264,613	293,194	0	644,286	644286.24
01.09.20 Canal 6410		1.00	JOB	0	14,005	27,852	82,481	0	124,338	124337.71
01.09.21 Canal 6410P		1.00	JOB	0	7,947	3,508	34,974	0	46,430	46429.73
01.09.22 Canal 6500		1.00	JOB	0	14,180	28,202	83,538	0	125,920	125920.44
01.09.23 Canal 6500P		1.00	JOB	0	14,784	9,004	136,223	0	160,011	160010.77
01.09.24 GATED STRUCTURE, CANAL 6000		1.00	JOB	0	3,755	10,165	612,050	0	625,970	625970.24
TOTAL CHANNELS AND CANALS										
TOTAL CHANNELS AND CANALS		1.00	EA	226	1088093	2366341	8068882	0	11,523,316	11523316
01.31 CONSTRUCTION MANAGEMENT										
TOTAL REACH 11		1.00	EA	226	1088093	2366341	9020882	0	12,475,316	12475316
TOTAL EASTERN ARKANSAS REGIONAL STUDY		1.00	EA	226	1088093	2366341	9020882	0	12,475,316	12475316
OVERHEAD										
SUBTOTAL										691,399
HOME OFC										13,166,715
										610,736

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	QUANTITY	UOM	MANHRS	LABOR	EQUIPMNT	MATERIAL	OTHER	TOTAL COST	UNIT COST
SUBTOTAL								13,777,451	
PROFIT								1,026,036	
SUBTOTAL								14,803,487	
BOND								207,772	
TOTAL INCL INDIRECTS								15,011,259	

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	QUANTITY	UOM	MANHRS	LABOR	EQUIPMNT	MATERIAL	OTHER	TOTAL COST	UNIT COST
<hr/>									
01 REACH 11									
01.01 LANDS AND DAMAGES									
01.02 RELOCATIONS									
01.02.02 RAILROADS									
TOTAL RAILROADS									
01.02.03 UTILITIES									
01.02.03.18 MECHANICAL	1.00	EA	0	0	0	952,000	0	952,000	952000.00
TOTAL UTILITIES	1.00	EA	0	0	0	952,000	0	952,000	952000.00
TOTAL RELOCATIONS	1.00	EA	0	0	0	952,000	0	952,000	952000.00
01.09 CHANNELS AND CANALS									
01.09.01 Canal 5500									
01.09.01. 1 CLEARING	224.00	AC	0	6,698	17,124	0	0	23,822	106.35
01.09.01. 2 EXCAVATION	341800.00	CY	0	30,706	151,134	0	0	181,840	0.53
01.09.01. 3 EMBANKMENT	406367.00	CY	0	72,856	285,888	0	0	358,744	0.88
01.09.01. 6 REINFORCED CONCRETE PIPE, 30"	304.00	LF	0	1,808	2,389	10,470	0	14,667	48.25
01.09.01. 7 REINFORCED CONCRETE PIPE, 36"	608.00	LF	0	3,809	5,176	29,129	0	38,114	62.69
01.09.01. 9 REINFORCED CONCRETE PIPE, 48"	304.00	LF	0	2,211	3,311	22,322	0	27,844	91.59
01.09.01.10 REINFORCED CONCRETE PIPE, 54"	360.00	LF	0	3,204	5,081	35,876	0	44,161	122.67
01.09.01.11 REINFORCED CONCRETE PIPE, 60"	1244.00	LF	0	15,339	22,431	135,512	0	173,282	139.29
01.09.01.12 REINFORCED CONCRETE PIPE, 66"	180.00	LF	0	2,811	5,056	24,907	0	32,774	182.08
01.09.01.13 REINFORCED CONCRETE PIPE, 72"	2736.00	LF	0	39,138	68,711	412,374	0	520,223	190.14
01.09.01.14 REINFORCED CONCRETE PIPE, 84"	450.00	LF	0	7,332	13,493	92,227	0	113,052	251.23
01.09.01.15 REINFORCED CONCRETE PIPE, 96"	90.00	LF	0	1,633	3,066	24,205	0	28,903	321.15
01.09.01.18 FLARED END SECTION, 30"	4.00	EA	0	152	124	800	0	1,075	268.86
01.09.01.19 FLARED END SECTION, 36"	8.00	EA	0	303	247	2,400	0	2,951	368.86
01.09.01.21 FLARED END SECTION, 48"	4.00	EA	0	228	186	2,400	0	2,813	703.29
01.09.01.22 FLARED END SECTION, 54"	8.00	EA	0	455	371	8,400	0	9,226	1153.29
01.09.01.23 FLARED END SECTION, 60"	18.00	EA	0	1,024	835	22,500	0	24,359	1353.29
01.09.01.24 FLARED END SECTION, 66"	4.00	EA	0	276	383	5,500	0	6,160	1539.92
01.09.01.25 FLARED END SECTION, 72"	36.00	EA	0	3,109	4,312	50,400	0	57,821	1606.15
01.09.01.26 FLARED END SECTION, 84"	10.00	EA	0	1,382	1,917	17,500	0	20,798	2079.84
01.09.01.27 FLARED END SECTION, 96"	2.00	EA	0	276	383	4,000	0	4,660	2329.84
01.09.01.28 GATES 18"	1.00	EA	0	36	22	450	0	508	508.23
01.09.01.29 GATES 24"	2.00	EA	0	36	22	525	0	583	291.61
01.09.01.30 GATES 42"	1.00	EA	0	57	46	1,150	0	1,253	1253.29
01.09.01.31 GATES, 48"	1.00	EA	0	57	46	1,500	0	1,603	1603.29

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		QUANTITY	UOM	MANHRS	LABOR	EQUIPMNT	MATERIAL	OTHER	TOTAL COST	UNIT COST
01.09.01.32	8" GRAVEL BASE	3405.00	CY	0	0	0	51,075	0	51,075	15.00
01.09.01.33	4" ASPHALT	1.00	JOB	0	0	0	4,140	0	4,140	4140.00
01.09.01.34	FERTILIZING AND SEEDING	227.00	AC	0	0	0	56,750	0	56,750	250.00
01.09.01.35	ENVIRONMENTAL PROTECTION	1.00	JOB	0	0	0	109,500	0	109,500	109500.00
01.09.01.36	STRUCTURES	1.00	JOB	119	2,173	2,579	71,527	0	76,279	76278.57
TOTAL Canal 5500		1.00	JOB	119	197,109	594,336	1197538	0	1,988,982	1988982
01.09.02 Canal 5500P										
01.09.02. 1	PVC PIPE, 6"	11198.00	LF	0	31,498	15,245	50,391	0	97,134	8.67
01.09.02. 2	PVC PIPE, 8"	10669.00	LF	0	30,010	14,525	56,012	0	100,547	9.42
01.09.02. 3	PVC PIPE, 10"	3051.00	LF	0	9,441	5,326	9,153	0	23,920	7.84
01.09.02. 4	REINFORCED CONCRETE PIPE, 18"	11033.00	LF	0	32,041	22,079	91,197	0	145,317	13.17
01.09.02. 5	PUMPS CANAL 5500	1.00	JOB	0	569	464	61,250	0	62,283	62282.92
01.09.02. 6	INSTRUMENTATION	19.00	EA	0	0	0	228,000	0	228,000	12000.00
01.09.02. 7	STRUCTURES FOR THE TURNOUT	1.00	JOB	0	0	0	41,200	0	41,200	41200.00
TOTAL Canal 5500P		1.00	JOB	0	103,558	57,638	537,204	0	698,400	698399.60
01.09.03 Canal 5510										
01.09.03. 1	FILTER GRAVEL	1095.00	TON	0	1,905	3,789	10,403	0	16,097	14.70
01.09.03. 2	RIPRAP	3288.00	TON	0	5,721	11,378	34,524	0	51,623	15.70
TOTAL Canal 5510		1.00	JOB	0	7,626	15,167	44,927	0	67,719	67719.41
01.09.04 Canal 5510P										
01.09.04. 1	PVC PIPE, 8"	3927.00	LF	0	12,151	6,921	9,818	0	28,889	7.36
01.09.04. 2	PVC PIPE, 10"	3856.00	LF	0	11,932	6,731	11,568	0	30,231	7.84
01.09.04. 3	PUMPS CANAL 5510	1.00	JOB	0	569	464	20,000	0	21,033	21032.92
01.09.04. 4	INSTRUMENTATION	5.00	EA	0	0	0	60,000	0	60,000	12000.00
TOTAL Canal 5510P		1.00	JOB	0	24,652	14,116	101,386	0	140,153	140152.94
01.09.05 Canal 5520										
01.09.05. 1	FILTER GRAVEL	735.00	TON	0	1,279	2,543	6,983	0	10,805	14.70
01.09.05. 2	RIPRAP	2208.00	TON	0	3,842	7,640	23,184	0	34,666	15.70
TOTAL Canal 5520		1.00	JOB	0	5,121	10,184	30,167	0	45,471	45470.98
01.09.06 Canal 5520P										
01.09.06. 1	PVC PIPE, 8"	1241.00	LF	0	3,840	2,166	3,103	0	9,109	7.34

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01.09.06. 2	PVC PIPE, 10"	4461.00	LF	0	12,512	7,319	13,383	0	33,214	7.45
01.09.06. 3	PUMPS CANAL 5520	1.00	JOB	0	228	186	9,500	0	9,913	9913.17
01.09.06. 4	INSTRUMENTATION	5.00	EA	0	0	0	60,000	0	60,000	12000.00
TOTAL Canal 5520P		1.00	JOB	0	16,579	9,671	85,986	0	112,236	112235.91
01.09.07 Canal 5530										
01.09.07. 1	FILTER GRAVEL	329.00	TON	0	572	1,138	3,126	0	4,836	14.70
01.09.07. 2	RIPRAP	986.00	TON	0	1,716	3,412	10,353	0	15,480	15.70
TOTAL Canal 5530		1.00	JOB	0	2,288	4,550	13,479	0	20,317	20316.89
01.09.08 Canal 5530P										
01.09.08. 1	PVC PIPE, 6"	11198.00	LF	0	34,650	25,696	22,396	0	82,742	7.39
01.09.08. 2	PUMPS CANAL 5530	1.00	JOB	0	228	186	7,000	0	7,413	7413.17
01.09.08. 3	INSTRUMENTATION	5.00	EA	0	0	0	60,000	0	60,000	12000.00
TOTAL Canal 5530P		1.00	JOB	0	34,878	25,882	89,396	0	150,155	150155.19
01.09.09 Canal 6000A										
01.09.09. 1	CLEARING	224.00	AC	0	6,698	17,124	0	0	23,822	106.35
01.09.09. 2	EXCAVATION	579783.00	CY	0	54,195	262,503	0	0	316,698	0.55
01.09.09. 3	EMBANKMENT	579783.00	CY	0	103,747	485,452	0	0	589,200	1.02
01.09.09. 4	REINFORCED CONCRETE BOX CULVERT	2080.00	LF	0	35,690	99,475	1564942	0	1,700,107	817.36
01.09.09. 5	REINFORCED CONCRETE PIPE, 24"	200.00	LF	0	882	1,125	4,886	0	6,893	34.46
01.09.09. 10	REINFORCED CONCRETE PIPE, 60"	304.00	LF	0	3,412	4,364	32,617	0	40,393	132.87
01.09.09. 11	REINFORCED CONCRETE PIPE, 66"	704.00	LF	0	11,630	22,484	90,526	0	124,640	177.05
01.09.09. 12	REINFORCED CONCRETE PIPE, 72"	2200.00	LF	0	29,636	48,548	331,590	0	409,774	186.26
01.09.09. 13	REINFORCED CONCRETE PIPE, 84"	600.00	LF	0	9,458	17,358	120,264	0	147,079	245.13
01.09.09. 14	REINFORCED CONCRETE PIPE, 90"	400.00	LF	0	7,770	13,914	101,844	0	123,528	308.82
01.09.09. 15	REINFORCED CONCRETE PIPE, 96"	2488.00	LF	0	37,901	64,644	641,076	0	743,621	298.88
01.09.09. 16	FLARED END SECTION, 24"	2.00	EA	0	36	22	200	0	258	129.11
01.09.09. 21	FLARED END SECTION, 60"	4.00	EA	0	228	186	5,000	0	5,413	1353.29
01.09.09. 22	FLARED END SECTION, 66"	4.00	EA	0	276	383	5,500	0	6,160	1539.92
01.09.09. 23	FLARED END SECTION, 72"	22.00	EA	0	1,900	2,635	30,800	0	35,335	1606.15
01.09.09. 24	FLARED END SECTION, 84"	6.00	EA	0	829	1,150	10,500	0	12,479	2079.84
01.09.09. 25	FLARED END SECTION, 90"	2.00	EA	0	276	383	3,800	0	4,460	2229.84
01.09.09. 26	FLARED END SECTION, 96"	22.00	EA	0	3,040	4,216	44,000	0	51,257	2329.84
01.09.09. 27	GATES 30"	2.00	EA	0	114	93	1,660	0	1,867	933.29
01.09.09. 28	GATES 36"	2.00	EA	0	114	93	1,988	0	2,195	1097.29
01.09.09. 29	GATES 42"	3.00	EA	0	171	139	3,450	0	3,760	1253.29
01.09.09. 30	GATES, 48"	4.00	EA	0	228	186	6,000	0	6,413	1603.29
01.09.09. 31	STRUCTURES	1.00	JOB	108	3,835	3,632	118,486	0	125,954	125954.00
01.09.09. 32	FERTILIZING AND SEEDING	99.00	AC	0	0	0	24,750	0	24,750	250.00
01.09.09. 33	4" ASPHALT	1.00	JOB	0	0	0	5,040	0	5,040	5040.00

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		QUANTITY	UOM	MANHRS	LABOR	EQUIPMNT	MATERIAL	OTHER	TOTAL COST	UNIT COST	
01.09.09.34	8" GRAVEL BASE	2357.00	CY	0	0	0	35,355	0	35,355	15.00	
01.09.09.35	ENVIRONMENTAL PROTECTION	1.00	JOB	0	0	0	55,982	0	55,982	55981.50	
01.09.09.36	INSTRUMENTATION	1.00	JOB	0	0	0	156,000	0	156,000	156000.00	
	TOTAL Canal 6000A			1.00 JOB	108	312,067	1050108	3396256	0	4,758,431	4758431
01.09.12	Canal 6000P										
01.09.12. 1	6" PVC PIPE	6293.00	LF	0	19,472	14,441	12,586	0	46,499	7.39	
01.09.12. 2	PUMPS CANAL 6000	1.00	JOB	0	114	93	4,750	0	4,957	4956.58	
01.09.12. 3	INSTRUMENTATION	1.00	EA	0	0	0	12,000	0	12,000	12000.00	
	TOTAL Canal 6000P			1.00 JOB	0	19,586	14,533	29,336	0	63,456	63455.56
01.09.13	Canal 6100										
01.09.13. 1	FILTER GRAVEL	1122.00	TON	0	1,952	3,883	10,659	0	16,494	14.70	
01.09.13. 2	RIPRAP	3365.00	TON	0	5,855	11,644	35,333	0	52,832	15.70	
	TOTAL Canal 6100			1.00 JOB	0	7,807	15,527	45,992	0	69,325	69325.25
01.09.14	Canal 6100P										
01.09.14. 1	8" PVC Pipe	3714.00	LF	0	11,492	8,523	9,285	0	29,300	7.89	
01.09.14. 2	PVC PIPE, 10"	6772.00	LF	0	6,671	2,913	20,316	0	29,899	4.42	
01.09.14. 3	PVC PIPE, 12"	2412.00	LF	0	6,826	2,979	8,442	0	18,247	7.57	
01.09.14. 4	PVC PIPE, 14"	5741.00	LF	0	16,293	7,115	30,140	0	53,548	9.33	
01.09.14. 5	REINFORCED CONCRETE PIPE, 30"	10741.00	LF	0	71,035	49,047	354,453	0	474,535	44.18	
01.09.14. 6	PUMPS CANAL 6100	1.00	JOB	0	910	742	90,500	0	92,153	92152.66	
01.09.14. 7	INSTRUMENTATION	8.00	EA	0	0	0	96,000	0	96,000	12000.00	
	TOTAL Canal 6100P			1.00 JOB	0	113,227	71,318	609,136	0	793,682	793681.87
01.09.15	Canal 6300										
01.09.15. 1	CLEARING	5.00	AC	0	150	382	0	0	532	106.35	
01.09.15. 2	EXCAVATION	5620.00	CY	0	504	2,483	0	0	2,987	0.53	
01.09.15. 3	EMBANKMENT	16000.00	CY	0	2,481	9,405	0	0	11,885	0.74	
01.09.15. 4	FILTER GRAVEL	5459.00	TON	0	9,498	18,890	51,861	0	80,249	14.70	
01.09.15. 5	RIPRAP	16371.00	TON	0	28,484	56,650	171,896	0	257,030	15.70	
01.09.15. 6	FERTILIZING AND SEEDING	5.00	AC	0	0	0	1,250	0	1,250	250.00	
01.09.15. 7	ENVIRONMENTAL PROTECTION	1.00	JOB	0	0	0	56,048	0	56,048	56047.50	
	TOTAL Canal 6300			1.00 JOB	0	41,117	87,810	281,054	0	409,980	409980.08
01.09.16	Canal 6300P										

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01.09.16. 1	6" PVC Pipe	3615.00	LF	0	11,186	8,295	7,230	0	26,711	7.39
01.09.16. 2	8" PVC Pipe	2679.00	LF	0	8,290	6,148	6,698	0	21,135	7.89
01.09.16. 3	PVC PIPE, 10"	4798.00	LF	0	4,733	2,066	14,394	0	21,193	4.42
01.09.16. 4	PVC PIPE, 12"	2515.00	LF	0	7,149	3,120	8,803	0	19,071	7.58
01.09.16. 5	PVC PIPE, 14"	3254.00	LF	0	9,211	4,018	17,084	0	30,312	9.32
01.09.16. 6	Pipeline, Plastic pipe, 24"	1395.00	LF	0	5,240	3,741	23,018	0	31,999	22.94
01.09.16. 7	PUMPS CANAL 6300	1.00	JOB	0	1,024	835	64,000	0	65,859	65859.25
01.09.16. 8	INSTRUMENTATION	9.00	EA	0	0	0	108,000	0	108,000	12000.00
TOTAL Canal 6300P		1.00	JOB	0	46,833	28,222	249,225	0	324,280	324279.90
 01.09.17 Canal 6310										
01.09.17. 1	FILTER GRAVEL	1557.00	TON	0	2,709	5,388	14,792	0	22,888	14.70
01.09.17. 2	RIPRAP	4674.00	TON	0	8,132	16,174	49,077	0	73,383	15.70
TOTAL Canal 6310		1.00	JOB	0	10,842	21,562	63,869	0	96,272	96271.57
 01.09.18 Canal 6310P										
01.09.18. 1	6" PVC Pipe	688.00	LF	0	2,129	1,579	1,376	0	5,084	7.39
01.09.18. 2	PVC PIPE, 10"	1200.00	LF	0	1,183	516	3,600	0	5,300	4.42
01.09.18. 3	PUMPS CANAL 6310	1.00	JOB	0	341	278	10,500	0	11,120	11119.75
01.09.18. 4	INSTRUMENTATION	3.00	EA	0	0	0	36,000	0	36,000	12000.00
TOTAL Canal 6310P		1.00	JOB	0	3,653	2,374	51,476	0	57,503	57503.08
 01.09.19 Canal 6400										
01.09.19. 1	CLEARING	71.00	AC	0	2,123	5,428	0	0	7,551	106.35
01.09.19. 2	EXCAVATION	184196.00	CY	0	17,574	84,063	0	0	101,637	0.55
01.09.19. 3	EMBANKMENT	198090.00	CY	0	34,531	133,781	0	0	168,312	0.85
01.09.19. 4	REINFORCED CONCRETE PIPE, 30"	1332.00	LF	0	9,242	10,133	45,882	0	65,257	48.99
01.09.19. 5	REINFORCED CONCRETE PIPE, 42"	888.00	LF	0	6,062	8,789	51,832	0	66,684	75.09
01.09.19. 6	REINFORCED CONCRETE PIPE, 54"	444.00	LF	0	3,015	4,082	39,246	0	46,343	104.38
01.09.19. 7	REINFORCED CONCRETE PIPE, 72"	130.00	LF	0	4,612	11,228	26,413	0	42,253	325.02
01.09.19. 8	FLARED END SECTION, 30"	12.00	EA	0	455	371	3,600	0	4,426	368.86
01.09.19. 9	FLARED END SECTION, 42"	8.00	EA	0	364	297	2,800	0	3,461	432.63
01.09.19. 10	FLARED END SECTION, 54"	4.00	EA	0	228	186	4,200	0	4,613	1153.29
01.09.19. 11	FLARED END SECTION, 72"	2.00	EA	0	173	240	2,800	0	3,212	1606.15
01.09.19. 12	8" GRAVEL BASE	865.00	CY	0	0	0	12,975	0	12,975	15.00
01.09.19. 13	4" ASPHALT	1.00	JOB	0	0	0	3,960	0	3,960	3960.00
01.09.19. 14	FERTILIZING AND SEEDING	194.00	AC	0	0	0	48,500	0	48,500	250.00
01.09.19. 15	ENVIRONMENTAL PROTECTION	1.00	JOB	0	0	0	29,034	0	29,034	29034.00
01.09.19. 16	PUMPS CANAL 6400	1.00	JOB	0	114	93	3,500	0	3,707	3706.58
01.09.19. 17	INSTRUMENTATION	1.00	EA	0	0	0	12,000	0	12,000	12000.00
01.09.19. 18	8" PVC Pipe	2581.00	LF	0	7,986	5,923	6,453	0	20,362	7.89

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TOTAL Canal 6400			1.00 JOB	0	86,479	264,613	293,194	0	644,286	644286.24
01.09.20 Canal 6410										
01.09.20. 1 FILTER GRAVEL	2034.00	TON	0	3,539	7,038	19,323	0	29,900	14.70	
01.09.20. 2 RIPRAP	6015.00	TON	0	10,466	20,814	63,158	0	94,437	15.70	
TOTAL Canal 6410			1.00 JOB	0	14,005	27,852	82,481	0	124,338	124337.71
01.09.21 Canal 6410P										
01.09.21. 1 PVC PIPE, 14"	2757.00	LF	0	7,833	3,416	14,474	0	25,723	9.33	
01.09.21. 2 PUMPS CANAL 6410	1.00	JOB	0	114	93	8,500	0	8,707	8706.58	
01.09.21. 3 INSTRUMENTATION	1.00	EA	0	0	0	12,000	0	12,000	12000.00	
TOTAL Canal 6410P			1.00 JOB	0	7,947	3,508	34,974	0	46,430	46429.73
01.09.22 Canal 6500										
01.09.22. 1 FILTER GRAVEL	2037.00	TON	0	3,544	7,049	19,352	0	29,945	14.70	
01.09.22. 2 RIPRAP	6113.00	TON	0	10,636	21,153	64,187	0	95,976	15.70	
TOTAL Canal 6500			1.00 JOB	0	14,180	28,202	83,538	0	125,920	125920.44
01.09.23 Canal 6500P										
01.09.23. 1 8" PVC Pipe	2600.00	LF	0	8,045	5,966	6,500	0	20,511	7.89	
01.09.23. 2 PVC PIPE, 12"	600.00	LF	0	1,701	742	2,100	0	4,543	7.57	
01.09.23. 3 PUMPS CANAL 6500	1.00	JOB	0	228	186	10,750	0	11,163	11163.17	
01.09.23. 4 INSTRUMENTATION	9.00	EA	0	0	0	108,000	0	108,000	12000.00	
01.09.23. 5 PVC PIPE, 14"	1690.00	LF	0	4,810	2,110	8,873	0	15,793	9.34	
TOTAL Canal 6500P			1.00 JOB	0	14,784	9,004	136,223	0	160,011	160010.77
01.09.24 GATED STRUCTURE, CANAL 6000										
01.09.24. 1 Clearing	1.00	JOB	0	738	1,744	0	0	2,482	2482.25	
01.09.24. 2 General Excavation	3700.00	CY	0	2,713	8,095	0	0	10,808	2.92	
01.09.24. 3 Structural Excavation	290.00	CY	0	304	325	0	0	630	2.17	
01.09.24. 4 Steel Sheet Piling (PZ 27)	3630.00	SF	0	0	0	90,750	0	90,750	25.00	
01.09.24. 5 Cast-in-place Concrete	571.00	CY	0	0	0	171,300	0	171,300	300.00	
01.09.24. 6 Mechanical Work	1.00	JOB	0	0	0	300,000	0	300,000	300000.00	
01.09.24. 7 Electrical Work	1.00	JOB	0	0	0	40,000	0	40,000	40000.00	
01.09.24. 8 Miscellaneous Items	1.00	JOB	0	0	0	10,000	0	10,000	10000.00	

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U.S. Army Corps of Engineers
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** PROJECT DIRECT SUMMARY - Subsystm **

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SUMMARY PAGE 19

		QUANTITY	UOM	MANHRS	LABOR	EQUIPMNT	MATERIAL	OTHER	TOTAL COST	UNIT COST
	TOTAL GATED STRUCTURE, CANAL 6000	1.00	JOB	0	3,755	10,165	612,050	0	625,970	625970.24
	TOTAL CHANNELS AND CANALS	1.00	EA	226	1088093	2366341	8068882	0	11,523,316	11523316
01.31	CONSTRUCTION MANAGEMENT									
	TOTAL REACH 11	1.00	EA	226	1088093	2366341	9020882	0	12,475,316	12475316
	TOTAL EASTERN ARKANSAS REGIONAL STUDY	1.00	EA	226	1088093	2366341	9020882	0	12,475,316	12475316
	OVERHEAD								691,399	
	SUBTOTAL								13,166,715	
	HOME OFC								610,736	
	SUBTOTAL								13,777,451	
	PROFIT								1,026,036	
	SUBTOTAL								14,803,487	
	BOND								207,772	
	TOTAL INCL INDIRECTS								15,011,259	

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ERROR REPORT

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No errors detected...

* * * END OF ERROR REPORT * * *

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PROJECT CNTR12: EASTERN ARKANSAS REGIONAL STUDY - GRAND PRAIRIE DEMONSTRATION
REACH NO 12

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TITLE PAGE 1

EASTERN ARKANSAS REGIONAL STUDY
GRAND PRAIRIE DEMONSTRATION
PROJECT
ITEM NO 12

Designed By:
Estimated By: JAMES MOORE

Prepared By:

Preparation Date: 01/29/97
Effective Date of Pricing: 01/29/97

Sales Tax: 0.00%

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REACH NO 12
** PROJECT INDIRECT SUMMARY - Contract **

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SUMMARY PAGE 1

		QUANTY UOM	DIRECT	OVERHEAD	Home Ofc	PROFIT	BOND	TOTAL COST	UNIT COST
02	RELOCATIONS	1.00 EA	468,000	0	0	0	0	468,000	468000.00
09	CHANNELS AND CANALS	1.00 EA	3,667,816	220,069	194,394	326,582	66,133	4,474,994	4474994
31	CONSTRUCTION MANAGEMENT								
TOTAL EASTERN ARKANSAS REGIONAL STUDY		1.00 EA	4,135,816	220,069	194,394	326,582	66,133	4,942,994	4942994

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** PROJECT INDIRECT SUMMARY - Feature **

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SUMMARY PAGE 2

	QUANTITY	UOM	DIRECT	OVERHEAD	Home Ofc	PROFIT	BOND	TOTAL COST	UNIT COST
<hr/>									
01 LANDS AND DAMAGES									
02 RELOCATIONS									
02/03 UTILITIES	1.00	EA	468,000	0	0	0	0	468,000	468000.00
TOTAL RELOCATIONS	1.00	EA	468,000	0	0	0	0	468,000	468000.00
09 CHANNELS AND CANALS									
09/01 Canal 6000B	1.00	JOB	2,443,871	146,632	129,525	217,602	44,064	2,981,695	2981695
09/03 Canal 6600	1.00	JOB	1,093,142	65,589	57,937	97,333	19,710	1,333,711	1333711
09/04 Canal 6600P	1.00	JOB	65,540	3,932	3,474	5,836	1,182	79,964	79963.64
09/05 Canal 6610	1.00	JOB	65,263	3,916	3,459	5,811	1,177	79,625	79625.02
TOTAL CHANNELS AND CANALS	1.00	EA	3,667,816	220,069	194,394	326,582	66,133	4,474,994	4474994
31 CONSTRUCTION MANAGEMENT									
TOTAL EASTERN ARKANSAS REGIONAL STUDY	1.00	EA	4,135,816	220,069	194,394	326,582	66,133	4,942,994	4942994

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REACH NO 12
** PROJECT INDIRECT SUMMARY - Sub-Feat **

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SUMMARY PAGE 3

	QUANTITY	UOM	DIRECT	OVERHEAD	Home Ofc	PROFIT	BOND	TOTAL COST	UNIT COST
<hr/>									
01 LANDS AND DAMAGES									
02 RELOCATIONS									
02/02 RAILROADS									
TOTAL RAILROADS									
02/03 UTILITIES									
02/03.18 MECHANICAL	1.00	EA	468,000	0	0	0	0	468,000	468000.00
TOTAL UTILITIES	1.00	EA	468,000	0	0	0	0	468,000	468000.00
TOTAL RELOCATIONS	1.00	EA	468,000	0	0	0	0	468,000	468000.00
09 CHANNELS AND CANALS									
09/01 Canal 6000B									
09/01. 1 CLEARING	219.00	AC	23,290	1,397	1,234	2,074	420	28,415	129.75
09/01. 2 EXCAVATION	584791	CY	293,730	17,624	15,568	26,154	5,296	358,371	0.61
09/01. 3 EMBANKMENT	508513	CY	441,530	26,492	23,401	39,314	7,961	538,697	1.06
09/01. 8 REINFORCED CONCRETE PIPE, 72"	1392.00	LF	263,655	15,819	13,974	23,476	4,754	321,678	231.09
09/01. 9 REINFORCED CONCRETE PIPE, 78"	400.00	LF	122,081	7,325	6,470	10,870	2,201	148,947	372.37
09/01.10 REINFORCED CONCRETE PIPE, 90"	200.00	LF	79,225	4,754	4,199	7,054	1,428	96,660	483.30
09/01.11 REINFORCED CONCRETE PIPE, 96"	2784.00	LF	842,757	50,565	44,666	75,039	15,195	1,028,223	369.33
09/01.13 FLARED END SECTION, 72"	12.00	EA	19,274	1,156	1,022	1,716	348	23,515	1959.62
09/01.14 FLARED END SECTION, 78"	4.00	EA	7,225	433	383	643	130	8,815	2203.63
09/01.15 FLARED END SECTION, 90"	2.00	EA	4,460	268	236	397	80	5,441	2720.57
09/01.16 FLARED END SECTION, 96"	24.00	EA	55,916	3,355	2,964	4,979	1,008	68,222	2842.57
09/01.17 STRUCTURES	1.00	JOB	11,266	676	597	1,003	203	13,745	13745.49
09/01.18 INSTRUMENTATION	1.00	EA	12,000	720	636	1,068	216	14,641	14640.85
09/01.19 GATES, 48"	1.00	EA	1,603	96	85	143	29	1,956	1956.13
09/01.20 8" GRAVEL BASE	1169.00	CY	17,535	1,052	929	1,561	316	21,394	18.30
09/01.21 4" ASPHALT	1.00	JOB	26,325	1,580	1,395	2,344	475	32,118	32118.36
09/01.22 FERTILIZING AND SEEDING	227.00	AC	136,200	8,172	7,219	12,127	2,456	166,174	732.04
09/01.23 ENVIRONMENTAL PROTECTION	1.00	JOB	85,800	5,148	4,547	7,640	1,547	104,682	104682.06
TOTAL Canal 6000B	1.00	JOB	2,443,871	146,632	129,525	217,602	44,064	2,981,695	2981695
09/03 Canal 6600									
09/03. 1 CLEARING	115.00	AC	12,230	734	648	1,089	221	14,921	129.75
09/03. 2 EXCAVATION	220942	CY	110,975	6,659	5,882	9,881	2,001	135,397	0.61
09/03. 3 EMBANKMENT	228218	CY	191,239	11,474	10,136	17,028	3,448	233,325	1.02
09/03. 6 REINFORCED CONCRETE PIPE, 48"	1296.00	LF	117,012	7,021	6,202	10,419	2,110	142,763	110.16

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** PROJECT INDIRECT SUMMARY - Sub-Fcat **

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SUMMARY PAGE 4

		QUANTY UOM	DIRECT	OVERHEAD	Home Ofc	PROFIT	BOND	TOTAL COST	UNIT COST
09/03. 7	REINFORCED CONCRETE PIPE, 60"	1662.00 LF	230,353	13,821	12,209	20,511	4,153	281,047	169.10
09/03. 8	REINFORCED CONCRETE PIPE, 66"	90.00 LF	21,768	1,306	1,154	1,938	392	26,558	295.09
09/03. 9	REINFORCED CONCRETE PIPE, 72"	738.00 LF	139,918	8,395	7,416	12,458	2,523	170,710	231.31
09/03.12	FLARED END SECTION, 48"	16.00 EA	11,253	675	596	1,002	203	13,729	858.07
09/03.13	FLARED END SECTION, 60"	18.00 EA	24,359	1,462	1,291	2,169	439	29,720	1651.11
09/03.14	FLARED END SECTION, 66"	2.00 EA	3,080	185	163	274	56	3,758	1878.81
09/03.15	FLARED END SECTION, 72"	14.00 EA	22,486	1,349	1,192	2,002	405	27,435	1959.62
09/03.16	GATES, 24"	2.00 EA	1,166	70	62	104	21	1,423	711.58
09/03.17	GATES, 30"	2.00 EA	1,867	112	99	166	34	2,277	1138.68
09/03.18	GRAVEL BASE, 8"	1262.00 TON	18,930	1,136	1,003	1,686	341	23,096	18.30
09/03.19	ASPHALT SURFACING, 4"	631.00 TON	28,395	1,704	1,505	2,528	512	34,644	54.90
09/03.20	STRUCTURES	1.00 JOB	9,722	583	515	866	175	11,861	11861.19
09/03.21	INSTRUMENTATION	4.00 EA	48,000	2,880	2,544	4,274	865	58,563	14640.85
09/03.22	FERTILIZING AND SEEDING	56.00 AC	33,600	2,016	1,781	2,992	606	40,994	732.04
09/03.23	ENVIRONMENTAL PROTECTION	1.00 JOB	66,789	4,007	3,540	5,947	1,204	81,487	81487.30
	TOTAL Canal 6600	1.00 JOB	1,093,142	65,589	57,937	97,333	19,710	1,333,711	1333711
09/04	Canal 6600P								
09/04. 1	PVC PIPE, 12"	3300.00 LF	48,584	2,915	2,575	4,326	876	59,275	17.96
09/04. 2	PUMPS CANAL 6600	1.00 JOB	4,957	297	263	441	89	6,047	6047.38
09/04. 3	INSTRUMENTATION	1.00 EA	12,000	720	636	1,068	216	14,641	14640.85
	TOTAL Canal 6600P	1.00 JOB	65,540	3,932	3,474	5,836	1,182	79,964	79963.64
09/05	Canal 6610								
09/05. 1	FILTER GRAVEL	1056.00 TON	15,524	931	823	1,382	280	18,940	17.94
09/05. 2	RIPRAP	3168.00 TON	49,739	2,984	2,636	4,429	897	60,685	19.16
	TOTAL Canal 6610	1.00 JOB	65,263	3,916	3,459	5,811	1,177	79,625	79625.02
	TOTAL CHANNELS AND CANALS	1.00 EA	3,667,816	220,069	194,394	326,582	66,133	4,474,994	4474994
31	CONSTRUCTION MANAGEMENT								
	TOTAL EASTERN ARKANSAS REGIONAL STUDY	1.00 EA	4,135,816	220,069	194,394	326,582	66,133	4,942,994	4942994

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** PROJECT INDIRECT SUMMARY - Element **

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SUMMARY PAGE 5

	QUANTY UOM	DIRECT	OVERHEAD	Home Ofc	PROFIT	BOND	TOTAL COST	UNIT COST
01 LANDS AND DAMAGES								
02 RELOCATIONS								
02/02 RAILROADS								
TOTAL RAILROADS								
02/03 UTILITIES								
02/03.18 MECHANICAL								
02/03.18.01 CANAL 6000	1.00 EA	216,000	0	0	0	0	216,000	216000.00
02/03.18.02 CANAL 6000.2	1.00 EA	14,000	0	0	0	0	14,000	14000.00
02/03.18.03 CANAL 6600	1.00 EA	238,000	0	0	0	0	238,000	238000.00
TOTAL MECHANICAL	1.00 EA	468,000	0	0	0	0	468,000	468000.00
TOTAL UTILITIES	1.00 EA	468,000	0	0	0	0	468,000	468000.00
TOTAL RELOCATIONS	1.00 EA	468,000	0	0	0	0	468,000	468000.00
09 CHANNELS AND CANALS								
09/01 Canal 6000B								
09/01. 1 CLEARING								
09/01. 1. 1 CLEARING	219.00 AC	23,290	1,397	1,234	2,074	420	28,415	129.75
TOTAL CLEARING	219.00 AC	23,290	1,397	1,234	2,074	420	28,415	129.75
09/01. 2 EXCAVATION								
09/01. 2. 1 EXCAVATION	584791 CY	293,730	17,624	15,568	26,154	5,296	358,371	0.61
09/01. 2. 2 EXCAVATION NOT USED IN EMBANKMET	1.00 CY	0	0	0	0	0	0	0.36
TOTAL EXCAVATION	584791 CY	293,730	17,624	15,568	26,154	5,296	358,371	0.61
09/01. 3 EMBANKMENT								
09/01. 3. 1 EMBANKMENT(hauled)	150021 CY	237,930	14,276	12,610	21,185	4,290	290,292	1.94
09/01. 3. 2 EMBANKMENT(Overexcavation)	101724 CY	48,122	2,887	2,550	4,285	868	58,712	0.58
09/01. 3. 3 EMBANKMENT(Placement)	584790 CY	155,478	9,329	8,240	13,844	2,803	189,694	0.32
TOTAL EMBANKMENT	508513 CY	441,530	26,492	23,401	39,314	7,961	538,697	1.06

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SUMMARY PAGE 6

		QUANTY UOM	DIRECT	OVERHEAD	Home Ofc	PROFIT	BOND	TOTAL COST	UNIT COST
09/01. 8 REINFORCED CONCRETE PIPE, 72"									
09/01. 8. 1 REINFORCED CONCRETE PIPE, 72"	1392.00 LF	263,655	15,819	13,974	23,476	4,754		321,678	231.09
TOTAL REINFORCED CONCRETE PIPE, 72"	1392.00 LF	263,655	15,819	13,974	23,476	4,754		321,678	231.09
09/01. 9 REINFORCED CONCRETE PIPE, 78"									
09/01. 9. 1 REINFORCED CONCRETE PIPE, 78"	400.00 LF	122,081	7,325	6,470	10,870	2,201		148,947	372.37
TOTAL REINFORCED CONCRETE PIPE, 78"	400.00 LF	122,081	7,325	6,470	10,870	2,201		148,947	372.37
09/01.10 REINFORCED CONCRETE PIPE, 90"									
09/01.10. 1 REINFORCED CONCRETE PIPE, 90"	200.00 LF	79,225	4,754	4,199	7,054	1,428		96,660	483.30
TOTAL REINFORCED CONCRETE PIPE, 90"	200.00 LF	79,225	4,754	4,199	7,054	1,428		96,660	483.30
09/01.11 REINFORCED CONCRETE PIPE, 96"									
09/01.11. 1 REINFORCED CONCRETE PIPE, 96"	2784.00 LF	842,757	50,565	44,666	75,039	15,195		1,028,223	369.33
TOTAL REINFORCED CONCRETE PIPE, 96"	2784.00 LF	842,757	50,565	44,666	75,039	15,195		1,028,223	369.33
09/01.13 FLARED END SECTION, 72"									
09/01.13. 1 RCP, FLARED END SECTIONS, 72"	12.00 EA	19,274	1,156	1,022	1,716	348		23,515	1959.62
TOTAL FLARED END SECTION, 72"	12.00 EA	19,274	1,156	1,022	1,716	348		23,515	1959.62
09/01.14 FLARED END SECTION, 78"									
09/01.14. 1 RCP, FLARED END SECTIONS, 78"	4.00 EA	7,225	433	383	643	130		8,815	2203.63
TOTAL FLARED END SECTION, 78"	4.00 EA	7,225	433	383	643	130		8,815	2203.63
09/01.15 FLARED END SECTION, 90"									
09/01.15. 1 RCP, FLARED END SECTIONS, 90"	2.00 EA	4,460	268	236	397	80		5,441	2720.57
TOTAL FLARED END SECTION, 90"	2.00 EA	4,460	268	236	397	80		5,441	2720.57
09/01.16 FLARED END SECTION, 96"									

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** PROJECT INDIRECT SUMMARY - Element **

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SUMMARY PAGE 7

		QUANTITY UOM	DIRECT	OVERHEAD	Home Ofc	PROFIT	BOND	TOTAL COST	UNIT COST
	09/01.16. 1 RCP, FLARED END SECTIONS, 96"	24.00 EA	55,916	3,355	2,964	4,979	1,008	68,222	2842.57
	TOTAL FLARED END SECTION, 96"	24.00 EA	55,916	3,355	2,964	4,979	1,008	68,222	2842.57
09/01.17 STRUCTURES									
	09/01.17. 1 STRUCTURES, 48"	1.00 EA	11,266	676	597	1,003	203	13,745	13745.49
	TOTAL STRUCTURES	1.00 JOB	11,266	676	597	1,003	203	13,745	13745.49
09/01.18 INSTRUMENTATION									
	09/01.18. 1 INSTRUMENTATION	1.00 EA	12,000	720	636	1,068	216	14,641	14640.85
	TOTAL INSTRUMENTATION	1.00 EA	12,000	720	636	1,068	216	14,641	14640.85
09/01.19 GATES, 48"									
	09/01.19. 1 GATES 48"	1.00 EA	1,603	96	85	143	29	1,956	1956.13
	TOTAL GATES, 48"	1.00 EA	1,603	96	85	143	29	1,956	1956.13
09/01.20 8" GRAVEL BASE									
	09/01.20. 1 8" GRAVEL BASE	1169.00 CY	17,535	1,052	929	1,561	316	21,394	18.30
	TOTAL 8" GRAVEL BASE	1169.00 CY	17,535	1,052	929	1,561	316	21,394	18.30
09/01.21 4" ASPHALT									
	09/01.21. 1 4" ASPHALT	585.00 TON	26,325	1,580	1,395	2,344	475	32,118	54.90
	TOTAL 4" ASPHALT	1.00 JOB	26,325	1,580	1,395	2,344	475	32,118	32118.36
09/01.22 FERTILIZING AND SEEDING									
	09/01.22. 1 FERTILIZING AND SEEDING	227.00 AC	136,200	8,172	7,219	12,127	2,456	166,174	732.04
	TOTAL FERTILIZING AND SEEDING	227.00 AC	136,200	8,172	7,219	12,127	2,456	166,174	732.04
09/01.23 ENVIRONMENTAL PROTECTION									
	09/01.23. 1 ENVIRONMENTAL PROTECTION		85,800	5,148	4,547	7,640	1,547	104,682	

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	QUANTY	UOM	DIRECT	OVERHEAD	Home Ofc	PROFIT	BOND	TOTAL COST	UNIT COST
TOTAL ENVIRONMENTAL PROTECTION	1.00	JOB	85,800	5,148	4,547	7,640	1,547	104,682	104682.06
TOTAL Canal 6000B	1.00	JOB	2,443,871	146,632	129,525	217,602	44,064	2,981,695	2981695
09/03 Canal 6600									
09/03. 1 CLEARING									
09/03. 1. 1 CLEARING	115.00	AC	12,230	734	648	1,089	221	14,921	129.75
TOTAL CLEARING	115.00	AC	12,230	734	648	1,089	221	14,921	129.75
09/03. 2 EXCAVATION									
09/03. 2. 1 EXCAVATION	220942	CY	110,975	6,659	5,882	9,881	2,001	135,397	0.61
TOTAL EXCAVATION	220942	CY	110,975	6,659	5,882	9,881	2,001	135,397	0.61
09/03. 3 EMBANKMENT									
09/03. 3. 1 EMBANKMENT(hauled)	82106	CY	101,825	6,110	5,397	9,067	1,836	124,234	1.51
09/03. 3. 2 EMBANKMENT(Overexcavation)	41509	CY	19,636	1,178	1,041	1,748	354	23,958	0.58
09/03. 3. 3 EMBANKMENT(Placement)	262451	CY	69,778	4,187	3,698	6,213	1,258	85,133	0.32
TOTAL EMBANKMENT	228218	CY	191,239	11,474	10,136	17,028	3,448	233,325	1.02
09/03. 6 REINFORCED CONCRETE PIPE, 48"									
09/03. 6. 1 REINFORCED CONCRETE PIPE, 48"	1296.00	LF	117,012	7,021	6,202	10,419	2,110	142,763	110.16
TOTAL REINFORCED CONCRETE PIPE, 48"	1296.00	LF	117,012	7,021	6,202	10,419	2,110	142,763	110.16
09/03. 7 REINFORCED CONCRETE PIPE, 60"									
09/03. 7. 1 REINFORCED CONCRETE PIPE, 60"	1662.00	LF	230,353	13,821	12,209	20,511	4,153	281,047	169.10
TOTAL REINFORCED CONCRETE PIPE, 60"	1662.00	LF	230,353	13,821	12,209	20,511	4,153	281,047	169.10
09/03. 8 REINFORCED CONCRETE PIPE, 66"									
09/03. 8. 1 REINFORCED CONCRETE PIPE, 66"	90.00	LF	21,768	1,306	1,154	1,938	392	26,558	295.09
TOTAL REINFORCED CONCRETE PIPE, 66"	90.00	LF	21,768	1,306	1,154	1,938	392	26,558	295.09

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	QUANTITY UOM	DIRECT	OVERHEAD	Home Ofc	PROFIT	BOND	TOTAL COST	UNIT COST
<hr/>								
09/03. 9 REINFORCED CONCRETE PIPE, 72"								
09/03. 9. 1 REINFORCED CONCRETE PIPE, 72"	738.00 LF	139,918	8,395	7,416	12,458	2,523	170,710	231.31
TOTAL REINFORCED CONCRETE PIPE, 72"	738.00 LF	139,918	8,395	7,416	12,458	2,523	170,710	231.31
<hr/>								
09/03.12 FLARED END SECTION, 48"								
09/03.12. 1 RCP, FLARED END SECTIONS, 48"	16.00 EA	11,253	675	596	1,002	203	13,729	858.07
TOTAL FLARED END SECTION, 48"	16.00 EA	11,253	675	596	1,002	203	13,729	858.07
<hr/>								
09/03.13 FLARED END SECTION, 60"								
09/03.13. 1 RCP, FLARED END SECTIONS, 60"	18.00 EA	24,359	1,462	1,291	2,169	439	29,720	1651.11
TOTAL FLARED END SECTION, 60"	18.00 EA	24,359	1,462	1,291	2,169	439	29,720	1651.11
<hr/>								
09/03.14 FLARED END SECTION, 66"								
09/03.14. 1 RCP, FLARED END SECTIONS, 66"	2.00 EA	3,080	185	163	274	56	3,758	1878.81
TOTAL FLARED END SECTION, 66"	2.00 EA	3,080	185	163	274	56	3,758	1878.81
<hr/>								
09/03.15 FLARED END SECTION, 72"								
09/03.15. 1 RCP, FLARED END SECTIONS, 72"	14.00 EA	22,486	1,349	1,192	2,002	405	27,435	1959.62
TOTAL FLARED END SECTION, 72"	14.00 EA	22,486	1,349	1,192	2,002	405	27,435	1959.62
<hr/>								
09/03.16 GATES, 24"								
09/03.16. 1 GATES, 24"	2.00 EA	1,166	70	62	104	21	1,423	711.58
TOTAL GATES, 24"	2.00 EA	1,166	70	62	104	21	1,423	711.58
<hr/>								
09/03.17 GATES, 30"								
09/03.17. 1 GATES, 30"	2.00 EA	1,867	112	99	166	34	2,277	1138.68
TOTAL GATES, 30"	2.00 EA	1,867	112	99	166	34	2,277	1138.68
<hr/>								
09/03.18 GRAVEL BASE, 8"								

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	QUANTITY UOM	DIRECT	OVERHEAD	Home Ofc	PROFIT	BOND	TOTAL COST	UNIT COST
09/03.18. 1 GRAVEL BASE, 8"	1262.00 TON	18,930	1,136	1,003	1,686	341	23,096	18.30
TOTAL GRAVEL BASE, 8"	1262.00 TON	18,930	1,136	1,003	1,686	341	23,096	18.30
09/03.19 ASPHALT SURFACING, 4"								
09/03.19. 1 ASPHALT SURFACING, 4"	631.00 TON	28,395	1,704	1,505	2,528	512	34,644	54.90
TOTAL ASPHALT SURFACING, 4"	631.00 TON	28,395	1,704	1,505	2,528	512	34,644	54.90
09/03.20 STRUCTURES								
09/03.20. 1 STRUCTURES, 30"	1.00 EA	9,722	583	515	866	175	11,861	11861.19
TOTAL STRUCTURES	1.00 JOB	9,722	583	515	866	175	11,861	11861.19
09/03.21 INSTRUMENTATION								
09/03.21. 1 INSTRUMENTATION	4.00 EA	48,000	2,880	2,544	4,274	865	58,563	14640.85
TOTAL INSTRUMENTATION	4.00 EA	48,000	2,880	2,544	4,274	865	58,563	14640.85
09/03.22 FERTILIZING AND SEEDING								
09/03.22. 1 FERTILIZING AND SEEDING	56.00 AC	33,600	2,016	1,781	2,992	606	40,994	732.04
TOTAL FERTILIZING AND SEEDING	56.00 AC	33,600	2,016	1,781	2,992	606	40,994	732.04
09/03.23 ENVIRONMENTAL PROTECTION								
09/03.23. 1 ENVIRONMENTAL PROTECTION		66,789	4,007	3,540	5,947	1,204	81,487	
TOTAL ENVIRONMENTAL PROTECTION	1.00 JOB	66,789	4,007	3,540	5,947	1,204	81,487	81487.30
TOTAL Canal 6600	1.00 JOB	1,093,142	65,589	57,937	97,333	19,710	1,333,711	1333711
09/04 Canal 6600P								
09/04. 1 PVC PIPE, 12"								
09/04. 1. 1 PVC PIPE, 12"	3300.00 LF	48,584	2,915	2,575	4,326	876	59,275	17.96
TOTAL PVC PIPE, 12"	3300.00 LF	48,584	2,915	2,575	4,326	876	59,275	17.96

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	QUANTITY UOM	DIRECT	OVERHEAD	Home Ofc	PROFIT	BOND	TOTAL COST	UNIT COST

09/04. 2 PUMPS CANAL 6600								
09/04. 2. 1 PUMPS CANAL 6600	7.50 HP	4,957	297	263	441	89	6,047	806.32
TOTAL PUMPS CANAL 6600	1.00 JOB	4,957	297	263	441	89	6,047	6047.38

09/04. 3 INSTRUMENTATION								
09/04. 3. 1 INSTRUMENTATION	1.00 EA	12,000	720	636	1,068	216	14,641	14640.85
TOTAL INSTRUMENTATION	1.00 EA	12,000	720	636	1,068	216	14,641	14640.85
TOTAL Canal 6600P	1.00 JOB	65,540	3,932	3,474	5,836	1,182	79,964	79963.64

09/05 Canal 6610								
09/05. 1 FILTER GRAVEL	1056.00 TON	15,524	931	823	1,382	280	18,940	17.94
09/05. 2 RIPRAP	3168.00 TON	49,739	2,984	2,636	4,429	897	60,685	19.16
TOTAL Canal 6610	1.00 JOB	65,263	3,916	3,459	5,811	1,177	79,625	79625.02
TOTAL CHANNELS AND CANALS	1.00 EA	3,667,816	220,069	194,394	326,582	66,133	4,474,994	4474994

31 CONSTRUCTION MANAGEMENT								
TOTAL EASTERN ARKANSAS REGIONAL STUDY	1.00 EA	4,135,816	220,069	194,394	326,582	66,133	4,942,994	4942994

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		QUANTY UOM	LABOR	EQUIPMNT	MATERIAL	SUPPLIE	TOTAL COST	UNIT COST
02	RELOCATIONS	1.00 EA	0	0	468,000	0	468,000	468000.00
09	CHANNELS AND CANALS	1.00 EA	356,111	1,155,929	2155776	0	3,667,816	3667816
31	CONSTRUCTION MANAGEMENT							
	TOTAL EASTERN ARKANSAS REGIONAL STUDY	1.00 EA	356,111	1,155,929	2623776	0	4,135,816	4135816
	Overhead						220,069	
	SUBTOTAL						4,355,885	
	Home Office						194,394	
	SUBTOTAL						4,550,279	
	Profit						326,582	
	SUBTOTAL						4,876,862	
	Bond						66,133	
	TOTAL INCL INDIRECTS						4,942,994	

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	QUANTY	UOM	LABOR	EQUIPMT	MATERIAL	SUPPLIE	TOTAL COST	UNIT COST
<hr/>								
01 LANDS AND DAMAGES								
02 RELOCATIONS								
02/03 UTILITIES	1.00	EA	0	0	468,000	0	468,000	468000.00
TOTAL RELOCATIONS	1.00	EA	0	0	468,000	0	468,000	468000.00
09 CHANNELS AND CANALS								
09/01 Canal 6000B	1.00	JOB	230,944	806,467	1406460	0	2,443,871	2443871
09/03 Canal 6600	1.00	JOB	107,492	327,235	658,415	0	1,093,142	1093142
09/04 Canal 6600P	1.00	JOB	10,325	7,610	47,605	0	65,540	65540.17
09/05 Canal 6610	1.00	JOB	7,350	14,617	43,296	0	65,263	65262.63
TOTAL CHANNELS AND CANALS	1.00	EA	356,111	1,155,929	2155776	0	3,667,816	3667816
31 CONSTRUCTION MANAGEMENT								
TOTAL EASTERN ARKANSAS REGIONAL STUDY	1.00	EA	356,111	1,155,929	2623776	0	4,135,816	4135816
Overhead							220,069	
SUBTOTAL							4,355,885	
Home Office							194,394	
SUBTOTAL							4,550,279	
Profit							326,582	
SUBTOTAL							4,876,862	
Bond							66,133	
TOTAL INCL INDIRECTS							4,942,994	

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	QUANTY	UOM	LABOR	EQUIPM'T	MATERIAL	SUPPLIE	TOTAL COST	UNIT COST
01 LANDS AND DAMAGES								
02 RELOCATIONS								
02/02 RAILROADS								
TOTAL RAILROADS								
02/03 UTILITIES								
02/03.18 MECHANICAL	1.00	EA	0	0	468,000	0	468,000	468000.00
TOTAL UTILITIES	1.00	EA	0	0	468,000	0	468,000	468000.00
TOTAL RELOCATIONS	1.00	EA	0	0	468,000	0	468,000	468000.00
09 CHANNELS AND CANALS								
09/01 Canal 6000B								
09/01. 1 CLEARING	219.00	AC	6,548	16,741	0	0	23,290	106.35
09/01. 2 EXCAVATION	584791	CY	48,087	245,643	0	0	293,730	0.50
09/01. 3 EMBANKMENT	508513	CY	81,736	359,793	0	0	441,530	0.87
09/01. 8 REINFORCED CONCRETE PIPE, 72"	1392.00	LF	19,668	34,178	209,808	0	263,655	189.41
09/01. 9 REINFORCED CONCRETE PIPE, 78"	400.00	LF	16,806	42,821	62,454	0	122,081	305.20
09/01.10 REINFORCED CONCRETE PIPE, 90"	200.00	LF	8,054	19,241	51,930	0	79,225	396.13
09/01.11 REINFORCED CONCRETE PIPE, 96"	2784.00	LF	44,673	80,742	717,342	0	842,757	302.71
09/01.13 FLARED END SECTION, 72"	12.00	EA	1,036	1,437	16,800	0	19,274	1606.15
09/01.14 FLARED END SECTION, 78"	4.00	EA	345	479	6,400	0	7,225	1806.15
09/01.15 FLARED END SECTION, 90"	2.00	EA	276	383	3,800	0	4,460	2229.84
09/01.16 FLARED END SECTION, 96"	24.00	EA	3,317	4,600	48,000	0	55,916	2329.84
09/01.17 STRUCTURES	1.00	JOB	339	361	10,566	0	11,266	11266.15
09/01.18 INSTRUMENTATION	1.00	EA	0	0	12,000	0	12,000	12000.00
09/01.19 GATES, 48"	1.00	EA	57	46	1,500	0	1,603	1603.29
09/01.20 8" GRAVEL BASE	1169.00	CY	0	0	17,535	0	17,535	15.00
09/01.21 4" ASPHALT	1.00	JOB	0	0	26,325	0	26,325	26325.00
09/01.22 FERTILIZING AND SEEDING	227.00	AC	0	0	136,200	0	136,200	600.00
09/01.23 ENVIRONMENTAL PROTECTION	1.00	JOB	0	0	85,800	0	85,800	85800.00
TOTAL Canal 6000B	1.00	JOB	230,944	806,467	1406460	0	2,443,871	2443871
09/03 Canal 6600								
09/03. 1 CLEARING	115.00	AC	3,439	8,791	0	0	12,230	106.35
09/03. 2 EXCAVATION	220942	CY	18,168	92,807	0	0	110,975	0.50
09/03. 3 EMBANKMENT	228218	CY	39,369	151,870	0	0	191,239	0.84
09/03. 6 REINFORCED CONCRETE PIPE, 48"	1296.00	LF	8,995	12,855	95,162	0	117,012	90.29

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			QUANTY	UOM	LABOR	EQUIPMNT	MATERIAL SUPPLIE	TOTAL COST	UNIT COST	
09/03. 7	REINFORCED CONCRETE PIPE, 60"	1662.00	LF	20,344	31,677	178,333	0	230,353	138.60	
09/03. 8	REINFORCED CONCRETE PIPE, 66"	90.00	LF	2,778	7,308	11,682	0	21,768	241.86	
09/03. 9	REINFORCED CONCRETE PIPE, 72"	738.00	LF	10,542	17,941	111,435	0	139,918	189.59	
09/03.12	FLARED END SECTION, 48"	16.00	EA	910	742	9,600	0	11,253	703.29	
09/03.13	FLARED END SECTION, 60"	18.00	EA	1,024	835	22,500	0	24,359	1353.29	
09/03.14	FLARED END SECTION, 66"	2.00	EA	138	192	2,750	0	3,080	1539.92	
09/03.15	FLARED END SECTION, 72"	14.00	EA	1,209	1,677	19,600	0	22,486	1606.15	
09/03.16	GATES, 24"	2.00	EA	72	44	1,050	0	1,166	583.23	
09/03.17	GATES, 30"	2.00	EA	114	93	1,660	0	1,867	933.29	
09/03.18	GRAVEL BASE, 8"	1262.00	TON	0	0	18,930	0	18,930	15.00	
09/03.19	ASPHALT SURFACING, 4"	631.00	TON	0	0	28,395	0	28,395	45.00	
09/03.20	STRUCTURES	1.00	JOB	390	403	8,929	0	9,722	9721.73	
09/03.21	INSTRUMENTATION	4.00	EA	0	0	48,000	0	48,000	12000.00	
09/03.22	FERTILIZING AND SEEDING	56.00	AC	0	0	33,600	0	33,600	600.00	
09/03.23	ENVIRONMENTAL PROTECTION	1.00	JOB	0	0	66,789	0	66,789	66789.00	
	TOTAL Canal 6600		1.00	JOB	107,492	327,235	658,415	0	1,093,142	1093142
	09/04 Canal 6600P									
09/04. 1	PVC PIPE, 12"	3300.00	LF	10,211	7,517	30,855	0	48,584	14.72	
09/04. 2	PUMPS CANAL 6600	1.00	JOB	114	93	4,750	0	4,957	4956.58	
09/04. 3	INSTRUMENTATION	1.00	EA	0	0	12,000	0	12,000	12000.00	
	TOTAL Canal 6600P		1.00	JOB	10,325	7,610	47,605	0	65,540	65540.17
	09/05 Canal 6610									
09/05. 1	FILTER GRAVEL	1056.00	TON	1,837	3,654	10,032	0	15,524	14.70	
09/05. 2	RIPRAP	3168.00	TON	5,512	10,963	33,264	0	49,739	15.70	
	TOTAL Canal 6610		1.00	JOB	7,350	14,617	43,296	0	65,263	65262.63
	TOTAL CHANNELS AND CANALS		1.00	EA	356,111	1,155,929	2155776	0	3,667,816	3667816
	31 CONSTRUCTION MANAGEMENT									
	TOTAL EASTERN ARKANSAS REGIONAL STUDY		1.00	EA	356,111	1,155,929	2623776	0	4,135,816	4135816
	Overhead							220,069		
	SUBTOTAL							4,355,885		
	Home Office							194,394		
	SUBTOTAL							4,550,279		
	Profit							326,582		
	SUBTOTAL							4,876,862		
	Bond							66,133		

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	QUANTY UOM	LABOR	EQUIPMT	MATERIAL SUPPLIE	TOTAL COST	UNIT COST
TOTAL INCL INDIRECTS					4,942,994	

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	QUANTY UOM	LABOR	EQUIPM'T	MATERIAL	SUPPLIE	TOTAL COST	UNIT COST
01 LANDS AND DAMAGES							
02 RELOCATIONS							
02/02 RAILROADS							
TOTAL RAILROADS							
02/03 UTILITIES							
02/03.18 MECHANICAL							
02/03.18.01 CANAL 6000	1.00 EA	0	0	216,000	0	216,000	216000.00
02/03.18.02 CANAL 6000.2	1.00 EA	0	0	14,000	0	14,000	14000.00
02/03.18.03 CANAL 6600	1.00 EA	0	0	238,000	0	238,000	238000.00
TOTAL MECHANICAL	1.00 EA	0	0	468,000	0	468,000	468000.00
TOTAL UTILITIES	1.00 EA	0	0	468,000	0	468,000	468000.00
TOTAL RELOCATIONS	1.00 EA	0	0	468,000	0	468,000	468000.00
09 CHANNELS AND CANALS							
09/01 Canal 6000B							
09/01. 1 CLEARING							
09/01. 1. 1 CLEARING	219.00 AC	6,548	16,741	0	0	23,290	106.35
TOTAL CLEARING	219.00 AC	6,548	16,741	0	0	23,290	106.35
09/01. 2 EXCAVATION							
09/01. 2. 1 EXCAVATION	584791 CY	48,087	245,642	0	0	293,730	0.50
09/01. 2. 2 EXCAVATION NOT USED IN EMBANKMET	1.00 CY	0	0	0	0	0	0.29
TOTAL EXCAVATION	584791 CY	48,087	245,643	0	0	293,730	0.50
09/01. 3 EMBANKMENT							
09/01. 3. 1 EMBANKMENT(hauled)	150021 CY	30,415	207,515	0	0	237,930	1.59
09/01. 3. 2 EMBANKMENT(Overexcavation)	101724 CY	7,604	40,517	0	0	48,122	0.47
09/01. 3. 3 EMBANKMENT(Placement)	584790 CY	43,717	111,761	0	0	155,478	0.27
TOTAL EMBANKMENT	508513 CY	81,736	359,793	0	0	441,530	0.87

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		QUANTY	UOM	LABOR	EQUIPM'T	MATERIAL	SUPPLIE	TOTAL COST	UNIT COST
09/01. 8 REINFORCED CONCRETE PIPE, 72"									
09/01. 8. 1 REINFORCED CONCRETE PIPE, 72"	1392.00	LF	19,668	34,178	209,808	0	263,655	189.41	
TOTAL REINFORCED CONCRETE PIPE, 72"	1392.00	LF	19,668	34,178	209,808	0	263,655	189.41	
09/01. 9 REINFORCED CONCRETE PIPE, 78"									
09/01. 9. 1 REINFORCED CONCRETE PIPE, 78"	400.00	LF	16,806	42,821	62,454	0	122,081	305.20	
TOTAL REINFORCED CONCRETE PIPE, 78"	400.00	LF	16,806	42,821	62,454	0	122,081	305.20	
09/01.10 REINFORCED CONCRETE PIPE, 90"									
09/01.10. 1 REINFORCED CONCRETE PIPE, 90"	200.00	LF	8,054	19,241	51,930	0	79,225	396.13	
TOTAL REINFORCED CONCRETE PIPE, 90"	200.00	LF	8,054	19,241	51,930	0	79,225	396.13	
09/01.11 REINFORCED CONCRETE PIPE, 96"									
09/01.11. 1 REINFORCED CONCRETE PIPE, 96"	2784.00	LF	44,673	80,742	717,342	0	842,757	302.71	
TOTAL REINFORCED CONCRETE PIPE, 96"	2784.00	LF	44,673	80,742	717,342	0	842,757	302.71	
09/01.13 FLARED END SECTION, 72"									
09/01.13. 1 RCP, FLARED END SECTIONS, 72"	12.00	EA	1,036	1,437	16,800	0	19,274	1606.15	
TOTAL FLARED END SECTION, 72"	12.00	EA	1,036	1,437	16,800	0	19,274	1606.15	
09/01.14 FLARED END SECTION, 78"									
09/01.14. 1 RCP, FLARED END SECTIONS, 78"	4.00	EA	345	479	6,400	0	7,225	1806.15	
TOTAL FLARED END SECTION, 78"	4.00	EA	345	479	6,400	0	7,225	1806.15	
09/01.15 FLARED END SECTION, 90"									
09/01.15. 1 RCP, FLARED END SECTIONS, 90"	2.00	EA	276	383	3,800	0	4,460	2229.84	
TOTAL FLARED END SECTION, 90"	2.00	EA	276	383	3,800	0	4,460	2229.84	
09/01.16 FLARED END SECTION, 96"									

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	QUANTY UOM	LABOR	EQUIPMT	MATERIAL SUPPLIE	TOTAL COST	UNIT COST
09/01.16. 1 RCP, FLARED END SECTIONS, 96"	24.00 EA	3,317	4,600	48,000	0	55,916 2329.84
TOTAL FLARED END SECTION, 96"	24.00 EA	3,317	4,600	48,000	0	55,916 2329.84
09/01.17 STRUCTURES						
09/01.17. 1 STRUCTURES, 48"	1.00 EA	339	361	10,566	0	11,266 11266.15
TOTAL STRUCTURES	1.00 JOB	339	361	10,566	0	11,266 11266.15
09/01.18 INSTRUMENTATION						
09/01.18. 1 INSTRUMENTATION	1.00 EA	0	0	12,000	0	12,000 12000.00
TOTAL INSTRUMENTATION	1.00 EA	0	0	12,000	0	12,000 12000.00
09/01.19 GATES, 48"						
09/01.19. 1 GATES 48"	1.00 EA	57	46	1,500	0	1,603 1603.29
TOTAL GATES, 48"	1.00 EA	57	46	1,500	0	1,603 1603.29
09/01.20 8" GRAVEL BASE						
09/01.20. 1 8" GRAVEL BASE	1169.00 CY	0	0	17,535	0	17,535 15.00
TOTAL 8" GRAVEL BASE	1169.00 CY	0	0	17,535	0	17,535 15.00
09/01.21 4" ASPHALT						
09/01.21. 1 4" ASPHALT	585.00 TON	0	0	26,325	0	26,325 45.00
TOTAL 4" ASPHALT	1.00 JOB	0	0	26,325	0	26,325 26325.00
09/01.22 FERTILIZING AND SEEDING						
09/01.22. 1 FERTILIZING AND SEEDING	227.00 AC	0	0	136,200	0	136,200 600.00
TOTAL FERTILIZING AND SEEDING	227.00 AC	0	0	136,200	0	136,200 600.00
09/01.23 ENVIRONMENTAL PROTECTION						
09/01.23. 1 ENVIRONMENTAL PROTECTION		0	0	85,800	0	85,800

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	QUANTY	UOM	LABOR	EQUIPMNT	MATERIAL	SUPPLIE	TOTAL COST	UNIT COST
TOTAL ENVIRONMENTAL PROTECTION	1.00	JOB	0	0	85,800	0	85,800	85800.00
TOTAL Canal 6000B	1.00	JOB	230,944	806,467	1406460	0	2,443,871	2443871
09/03 Canal 6600								
09/03. 1 CLEARING								
09/03. 1. 1 CLEARING	115.00	AC	3,439	8,791	0	0	12,230	106.35
TOTAL CLEARING	115.00	AC	3,439	8,791	0	0	12,230	106.35
09/03. 2 EXCAVATION								
09/03. 2. 1 EXCAVATION	220942	CY	18,168	92,807	0	0	110,975	0.50
TOTAL EXCAVATION	220942	CY	18,168	92,807	0	0	110,975	0.50
09/03. 3 EMBANKMENT								
09/03. 3. 1 EMBANKMENT(hauled)	82106	CY	16,646	85,179	0	0	101,825	1.24
09/03. 3. 2 EMBANKMENT(Overexcavation)	41509	CY	3,103	16,533	0	0	19,636	0.47
09/03. 3. 3 EMBANKMENT(Placement)	262451	CY	19,620	50,158	0	0	69,778	0.27
TOTAL EMBANKMENT	228218	CY	39,369	151,870	0	0	191,239	0.84
09/03. 6 REINFORCED CONCRETE PIPE, 48"								
09/03. 6. 1 REINFORCED CONCRETE PIPE, 48"	1296.00	LF	8,995	12,855	95,162	0	117,012	90.29
TOTAL REINFORCED CONCRETE PIPE, 48"	1296.00	LF	8,995	12,855	95,162	0	117,012	90.29
09/03. 7 REINFORCED CONCRETE PIPE, 60"								
09/03. 7. 1 REINFORCED CONCRETE PIPE, 60"	1662.00	LF	20,344	31,677	178,333	0	230,353	138.60
TOTAL REINFORCED CONCRETE PIPE, 60"	1662.00	LF	20,344	31,677	178,333	0	230,353	138.60
09/03. 8 REINFORCED CONCRETE PIPE, 66"								
09/03. 8. 1 REINFORCED CONCRETE PIPE, 66"	90.00	LF	2,778	7,308	11,682	0	21,768	241.86
TOTAL REINFORCED CONCRETE PIPE, 66"	90.00	LF	2,778	7,308	11,682	0	21,768	241.86

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		QUANTY UOM	LABOR	EQUIPMT	MATERIAL	SUPPLIE	TOTAL COST	UNIT COST
<hr/>								
	09/03. 9 REINFORCED CONCRETE PIPE, 72"							
	09/03. 9. 1 REINFORCED CONCRETE PIPE, 72"	738.00 LF	10,542	17,941	111,435	0	139,918	189.59
	TOTAL REINFORCED CONCRETE PIPE, 72"	738.00 LF	10,542	17,941	111,435	0	139,918	189.59
<hr/>								
	09/03.12 FLARED END SECTION, 48"							
	09/03.12. 1 RCP, FLARED END SECTIONS, 48"	16.00 EA	910	742	9,600	0	11,253	703.29
	TOTAL FLARED END SECTION, 48"	16.00 EA	910	742	9,600	0	11,253	703.29
<hr/>								
	09/03.13 FLARED END SECTION, 60"							
	09/03.13. 1 RCP, FLARED END SECTIONS, 60"	18.00 EA	1,024	835	22,500	0	24,359	1353.29
	TOTAL FLARED END SECTION, 60"	18.00 EA	1,024	835	22,500	0	24,359	1353.29
<hr/>								
	09/03.14 FLARED END SECTION, 66"							
	09/03.14. 1 RCP, FLARED END SECTIONS, 66"	2.00 EA	138	192	2,750	0	3,080	1539.92
	TOTAL FLARED END SECTION, 66"	2.00 EA	138	192	2,750	0	3,080	1539.92
<hr/>								
	09/03.15 FLARED END SECTION, 72"							
	09/03.15. 1 RCP, FLARED END SECTIONS, 72"	14.00 EA	1,209	1,677	19,600	0	22,486	1606.15
	TOTAL FLARED END SECTION, 72"	14.00 EA	1,209	1,677	19,600	0	22,486	1606.15
<hr/>								
	09/03.16 GATES, 24"							
	09/03.16. 1 GATES, 24"	2.00 EA	72	44	1,050	0	1,166	583.23
	TOTAL GATES, 24"	2.00 EA	72	44	1,050	0	1,166	583.23
<hr/>								
	09/03.17 GATES, 30"							
	09/03.17. 1 GATES, 30"	2.00 EA	114	93	1,660	0	1,867	933.29
	TOTAL GATES, 30"	2.00 EA	114	93	1,660	0	1,867	933.29
<hr/>								
	09/03.18 GRAVEL BASE, 8"							

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		QUANTY UOM	LABOR	EQUIPM'T	MATERIAL SUPPLIE	TOTAL COST	UNIT COST
	09/03.18. 1 GRAVEL BASE, 8"	1262.00 TON	0	0	18,930	0	18,930 15.00
	TOTAL GRAVEL BASE, 8"	1262.00 TON	0	0	18,930	0	18,930 15.00
	09/03.19 ASPHALT SURFACING, 4"						
	09/03.19. 1 ASPHALT SURFACING, 4"	631.00 TON	0	0	28,395	0	28,395 45.00
	TOTAL ASPHALT SURFACING, 4"	631.00 TON	0	0	28,395	0	28,395 45.00
	09/03.20 STRUCTURES						
	09/03.20. 1 STRUCTURES, 30"	1.00 EA	390	403	8,929	0	9,722 9721.73
	TOTAL STRUCTURES	1.00 JOB	390	403	8,929	0	9,722 9721.73
	09/03.21 INSTRUMENTATION						
	09/03.21. 1 INSTRUMENTATION	4.00 EA	0	0	48,000	0	48,000 12000.00
	TOTAL INSTRUMENTATION	4.00 EA	0	0	48,000	0	48,000 12000.00
	09/03.22 FERTILIZING AND SEEDING						
	09/03.22. 1 FERTILIZING AND SEEDING	56.00 AC	0	0	33,600	0	33,600 600.00
	TOTAL FERTILIZING AND SEEDING	56.00 AC	0	0	33,600	0	33,600 600.00
	09/03.23 ENVIRONMENTAL PROTECTION						
	09/03.23. 1 ENVIRONMENTAL PROTECTION		0	0	66,789	0	66,789
	TOTAL ENVIRONMENTAL PROTECTION	1.00 JOB	0	0	66,789	0	66,789 66789.00
	TOTAL Canal 6600	1.00 JOB	107,492	327,235	658,415	0	1,093,142 1093142
	09/04 Canal 6600P						
	09/04. 1 PVC PIPE, 12"						
	09/04. 1. 1 PVC PIPE, 12"	3300.00 LF	10,211	7,517	30,855	0	48,584 14.72
	TOTAL PVC PIPE, 12"	3300.00 LF	10,211	7,517	30,855	0	48,584 14.72

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		QUANTY	UOM	LABOR	EQUIPMNT	MATERIAL	SUPPLIE	TOTAL COST	UNIT COST
	09/04. 2 PUMPS CANAL 6600								
	09/04. 2. 1 PUMPS CANAL 6600	7.50	HP	114	93	4,750	0	4,957	660.88
	TOTAL PUMPS CANAL 6600	1.00	JOB	114	93	4,750	0	4,957	4956.58
	09/04. 3 INSTRUMENTATION								
	09/04. 3. 1 INSTRUMENTATION	1.00	EA	0	0	12,000	0	12,000	12000.00
	TOTAL INSTRUMENTATION	1.00	EA	0	0	12,000	0	12,000	12000.00
	TOTAL Canal 6600P	1.00	JOB	10,325	7,610	47,605	0	65,540	65540.17
	09/05 Canal 6610								
	09/05. 1 FILTER GRAVEL	1056.00	TON	1,837	3,654	10,032	0	15,524	14.70
	09/05. 2 RIPRAP	3168.00	TON	5,512	10,963	33,264	0	49,739	15.70
	TOTAL Canal 6610	1.00	JOB	7,350	14,617	43,296	0	65,263	65262.63
	TOTAL CHANNELS AND CANALS	1.00	EA	356,111	1,155,929	2155776	0	3,667,816	3667816
	31 CONSTRUCTION MANAGEMENT								
	TOTAL EASTERN ARKANSAS REGIONAL STUDY	1.00	EA	356,111	1,155,929	2623776	0	4,135,816	4135816
	Overhead							220,069	
	SUBTOTAL							4,355,885	
	Home Office							194,394	
	SUBTOTAL							4,550,279	
	Profit							326,582	
	SUBTOTAL							4,876,862	
	Bond							66,133	
	TOTAL INCL INDIRECTS							4,942,994	

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No errors detected...

* * * END OF ERROR REPORT * * *

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TITLE PAGE 1

EASTERN ARKANSAS REGIONAL STUDY
GRAND PRAIRIE DEMONSTRATION
PROJECT
ITEM NO 13

Designed By:
Estimated By: JAMES MOORE

Prepared By:

Preparation Date: 01/29/97
Effective Date of Pricing: 01/29/97

Sales Tax: 0.00%

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	QUANTY UOM	DIRECT	OVERHEAD	Home Ofc	PROFIT	BOND	TOTAL COST	UNIT COST
<hr/>								
01 LANDS AND DAMAGES								
02 RELOCATIONS								
02/03 UTILITIES	1.00 EA	508,000	0	0	0	0	508,000	508000.00
TOTAL RELOCATIONS	1.00 EA	508,000	0	0	0	0	508,000	508000.00
09 CHANNELS AND CANALS								
09/01 Canal 6200A (0+00 - 743+56)	1.00 JOB	4,495,512	269,731	285,915	404,093	81,829	5,537,079	5537079
09/02 Canal 6200B (STA 743+56-1160+54)	1.00 JOB	2,770,798	166,248	176,223	249,061	50,435	3,412,765	3412765
09/03 Canal 6200P	1.00 JOB	133,089	7,985	8,664	11,963	2,423	163,925	163925.01
09/04 Canal 6210	1.00 JOB	28,846	1,731	1,835	2,593	525	35,529	35528.98
TOTAL CHANNELS AND CANALS	1.00 EA	7,428,245	445,695	472,436	667,710	135,211	9,149,297	9149297
31 CONSTRUCTION MANAGEMENT								
TOTAL EASTERN ARKANSAS REGIONAL STUDY	1.00 EA	7,936,245	445,695	472,436	667,710	135,211	9,657,297	9657297

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	QUANTITY	UOM	DIRECT	OVERHEAD	Home Ofc	PROFIT	BOND	TOTAL COST	UNIT COST
01 LANDS AND DAMAGES									
02 RELOCATIONS									
02/02 RAILROADS									
TOTAL RAILROADS									
02/03 UTILITIES									
02/03.18 MECHANICAL	1.00	EA	508,000	0	0	0	0	508,000	508000.00
TOTAL UTILITIES	1.00	EA	508,000	0	0	0	0	508,000	508000.00
TOTAL RELOCATIONS	1.00	EA	508,000	0	0	0	0	508,000	508000.00
09 CHANNELS AND CANALS									
09/01 Canal 6200A (0+00 - 743+56)									
09/01. 1 CLEARING	312.00	AC	33,180	1,991	2,110	2,983	604	40,868	130.99
09/01. 2 EXCAVATION	1346711	CY	839,558	50,373	53,396	75,466	15,282	1,034,075	0.77
09/01. 3 EMBANKMENT	1330588	CY	1,060,583	63,635	67,453	95,334	19,305	1,306,310	0.98
09/01. 4 REIN CONCRETE BOX CULVERT, 9 X 9	1.00	JOB	264,247	15,855	16,806	23,753	4,810	325,470	325470.21
09/01. 5 REIN CONCRETE BOX CULV, 8 X 8	1.00	JOB	109,919	6,595	6,991	9,880	2,001	135,386	135385.83
09/01. 9 REINFORCED CONCRETE PIPE, 48"	300.00	LF	29,432	1,766	1,872	2,646	536	36,252	120.84
09/01.10 REINFORCED CONCRETE PIPE, 54"	636.00	LF	69,034	4,142	4,391	6,205	1,257	85,028	133.69
09/01.11 REINFORCED CONCRETE PIPE, 60"	212.00	LF	29,693	1,782	1,889	2,669	540	36,573	172.51
09/01.12 REINFORCED CONCRETE PIPE, 66"	450.00	LF	72,938	4,376	4,639	6,556	1,328	89,837	199.64
09/01.13 REINFORCED CONCRETE PIPE, 78"	600.00	LF	118,821	7,129	7,557	10,681	2,163	146,350	243.92
09/01.14 REINFORCED CONCRETE PIPE, 90"	450.00	LF	136,578	8,195	8,686	12,277	2,486	168,222	373.83
09/01.15 REINFORCED CONCRETE PIPE, 96"	3396.00	LF	1,032,846	61,971	65,689	92,840	18,800	1,272,146	374.60
09/01.18 FLARED END SECTION, 48"	4.00	EA	2,813	169	179	253	51	3,465	866.24
09/01.19 FLARED END SECTION, 54"	10.00	EA	11,533	692	733	1,037	210	14,205	1420.50
09/01.20 FLARED END SECTION, 60"	2.00	EA	2,707	162	172	243	49	3,334	1666.84
09/01.21 FLARED END SECTION, 66"	4.00	EA	6,160	370	392	554	112	7,587	1896.71
09/01.22 FLARED END SECTION, 72"	2.00	EA	3,212	193	204	289	58	3,957	1978.28
09/01.23 FLARED END SECTION, 78"	8.00	EA	14,449	867	919	1,299	263	17,797	2224.62
09/01.24 FLARED END SECTION, 90"	6.00	EA	13,379	803	851	1,203	244	16,479	2746.48
09/01.25 FLARED END SECTION, 96"	30.00	EA	69,895	4,194	4,445	6,283	1,272	86,089	2869.65
09/01.26 CANAL GATES 24"	4.00	EA	583	35	37	52	11	718	179.59
09/01.27 CANAL GATES 42"	3.00	EA	1,253	75	80	113	23	1,544	514.56
09/01.28 CANAL GATES 54"	2.00	EA	3,657	219	233	329	67	4,504	2251.89
09/01.29 CANAL GATES 60"	2.00	EA	4,275	257	272	384	78	5,266	2633.01
09/01.30 STRUCTURES	10.00	JOB	137,019	8,221	8,714	12,316	2,494	168,764	16876.45
09/01.31 8" GRAVEL BASE	4965.00	CY	74,475	4,469	4,737	6,694	1,356	91,730	18.48
09/01.32 4" ASPHALT	1.00	JOB	4,500	270	286	404	82	5,543	5542.61
09/01.33 FERTILIZING AND SEEDING	177.00	AC	106,200	6,372	6,754	9,546	1,933	130,806	739.01

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SUMMARY PAGE 3

		QUANTITY UOM	DIRECT	OVERHEAD	Home Ofc	PROFIT	BOND	TOTAL COST	UNIT COST
09/01.34	ENVIRONMENTAL PROTECTION	1.00 JOB	111,534	6,692	7,094	10,026	2,030	137,375	137375.35
09/01.35	WASTEWAYS	1.00 JOB	11,039	662	702	992	201	13,596	13596.08
09/01.36	INSTRUMENTATION	10.00 EA	120,000	7,200	7,632	10,787	2,184	147,803	14780.28
TOTAL Canal 6200A (0+00 - 743+56)		1.00 JOB	4,495,512	269,731	285,915	404,093	81,829	5,537,079	5537079
09/02 Canal 6200B (STA 743+56-1160+54)									
09/02. 1	CLEARING	206.00 AC	21,907	1,314	1,393	1,969	399	26,983	130.99
09/02. 2	EXCAVATION	574127 CY	306,412	18,385	19,488	27,543	5,577	377,405	0.66
09/02. 3	EMBANKMENT	429682 CY	384,480	23,069	24,453	34,560	6,998	473,561	1.10
09/02. 4	REIN CONCRETE BOX CULV, 10 X 10	1.00 JOB	468,811	28,129	29,816	42,140	8,533	577,429	577429.47
09/02. 5	REIN CONCRETE BOX CULVERT, 7 X 7	1.00 JOB	179,412	10,765	11,411	16,127	3,266	220,980	220979.82
09/02. 6	REIN CONCRETE BOX CULV, 8 X 8	1.00 JOB	989,269	59,356	62,917	88,923	18,007	1,218,472	1218472
09/02. 8	REINFORCED CONCRETE PIPE, 48"	150.00 LF	13,691	821	871	1,231	249	16,863	112.42
09/02. 9	REINFORCED CONCRETE PIPE, 54"	1060.00 LF	114,182	6,851	7,262	10,264	2,078	140,637	132.68
09/02.10	REINFORCED CONCRETE PIPE, 72"	300.00 LF	53,453	3,207	3,400	4,805	973	65,838	219.46
09/02.12	FLARED END SECTION, 48"	2.00 EA	1,407	84	89	126	26	1,732	866.24
09/02.13	FLARED END SECTION, 54"	4.00 EA	4,613	277	293	415	84	5,682	1420.50
09/02.14	FLARED END SECTION, 72"	4.00 EA	6,425	385	409	577	117	7,913	1978.28
09/02.15	CANAL GATES 24"	4.00 EA	2,333	140	148	210	42	2,873	718.36
09/02.16	FERTILIZING AND SEEDING	122.00 AC	73,200	4,392	4,656	6,580	1,332	90,160	739.01
09/02.17	ENVIRONMENTAL PROTECTION	1.00 JOB	88,940	5,336	5,657	7,995	1,619	109,546	109545.92
09/02.18	INSTRUMENTATION	1.00 EA	12,000	720	763	1,079	218	14,780	14780.28
09/02.19	STRUCTURES	1.00 JOB	50,263	3,016	3,197	4,518	915	61,908	61908.48
TOTAL Canal 6200B (STA 743+56-1160+54)		1.00 JOB	2,770,798	166,248	176,223	249,061	50,435	3,412,765	3412765
09/03 Canal 6200P									
09/03. 1	PVC PIPE, 8"	5443.00 LF	51,387	3,083	3,268	4,619	935	63,293	11.63
09/03. 2	PVC PIPE, 12"	2800.00 LF	40,582	2,435	2,581	3,648	739	49,985	17.85
09/03. 5	PUMPS CANAL 6200	1.00 JOB	5,120	307	326	460	93	6,306	6305.95
09/03. 6	INSTRUMENTATION	3.00 EA	36,000	2,160	2,290	3,236	655	44,341	14780.28
TOTAL Canal 6200P		1.00 JOB	133,089	7,985	8,464	11,963	2,423	163,925	163925.01
09/04 Canal 6210									
09/04. 1	FILTER GRAVEL	467.00 TON	6,865	412	437	617	125	8,456	18.11
09/04. 2	RIPRAP	1400.00 TON	21,981	1,319	1,398	1,976	400	27,073	19.34
TOTAL Canal 6210		1.00 JOB	28,846	1,731	1,835	2,593	525	35,529	35528.98
TOTAL CHANNELS AND CANALS		1.00 EA	7,428,245	445,695	472,436	667,710	135,211	9,149,297	9149297
31 CONSTRUCTION MANAGEMENT									

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** PROJECT INDIRECT SUMMARY - Sub-Feat **

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	QUANTY UOM	DIRECT	OVERHEAD	Home Ofc	PROFIT	BOND	TOTAL COST	UNIT COST
TOTAL EASTERN ARKANSAS REGIONAL STUDY	1.00 EA	7,936,245	445,695	472,436	667,710	135,211	9,657,297	9657297

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	QUANTY	UOM	LABOR	EQUIPMT	MATERIAL	SUPPLIE	TOTAL COST	UNIT COST
<hr/>								
01 LANDS AND DAMAGES								
02 RELOCATIONS								
02/03 UTILITIES	1.00	EA	0	0	508,000	0	508,000	508000.00
TOTAL RELOCATIONS	1.00	EA	0	0	508,000	0	508,000	508000.00
09 CHANNELS AND CANALS								
09/01 Canal 6200A (0+00 - 743+56)	1.00	JOB	503,592	1,771,462	2220458	0	4,495,512	4495512
09/02 Canal 6200B (STA 743+56-1160+54)	1.00	JOB	221,981	811,514	1737303	0	2,770,798	2770798
09/03 Canal 6200P	1.00	JOB	26,440	13,394	95,256	0	133,089	133089.47
09/04 Canal 6210	1.00	JOB	3,249	6,461	19,137	0	28,846	28845.71
TOTAL CHANNELS AND CANALS	1.00	EA	753,261	2,602,830	4072154	0	7,428,245	7428245
31 CONSTRUCTION MANAGEMENT								
TOTAL EASTERN ARKANSAS REGIONAL STUDY	1.00	EA	753,261	2,602,830	4580154	0	7,936,245	7936245
Overhead							445,695	
SUBTOTAL							8,381,940	
Home Office							472,436	
SUBTOTAL							8,854,376	
Profit							667,710	
SUBTOTAL							9,522,086	
Bond							135,211	
TOTAL INCL INDIRECTS							9,657,297	

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		QUANTY	UOM	LABOR	EQUIPMT	MATERIAL	SUPPLIE	TOTAL COST	UNIT COST

01	LANDS AND DAMAGES								
02	RELOCATIONS								
02/02	RAILROADS								

TOTAL RAILROADS									
02/03	UTILITIES								
02/03.18	MECHANICAL	1.00	EA	0	0	508,000	0	508,000	508000.00

TOTAL UTILITIES									
TOTAL RELOCATIONS									
09	CHANNELS AND CANALS								
09/01	Canal 6200A (0+00 - 743+56)								
09/01. 1	CLEARING	312.00	AC	9,329	23,851	0	0	33,180	106.35
09/01. 2	EXCAVATION	1346711	CY	152,476	687,082	0	0	839,558	0.62
09/01. 3	EMBANKMENT	1330588	CY	219,351	841,232	0	0	1,060,583	0.80
09/01. 4	REIN CONCRETE BOX CULVERT, 9 X 9	1.00	JOB	11,047	33,512	219,688	0	264,247	264246.79
09/01. 5	REIN CONCRETE BOX CULV, 8 X 8	1.00	JOB	4,828	14,556	90,534	0	109,919	109918.73
09/01. 9	REINFORCED CONCRETE PIPE, 48"	300.00	LF	2,337	3,556	23,540	0	29,432	98.11
09/01.10	REINFORCED CONCRETE PIPE, 54"	636.00	LF	4,942	7,475	56,616	0	69,034	108.54
09/01.11	REINFORCED CONCRETE PIPE, 60"	212.00	LF	2,664	4,280	22,750	0	29,693	140.06
09/01.12	REINFORCED CONCRETE PIPE, 66"	450.00	LF	5,803	9,936	57,198	0	72,938	162.08
09/01.13	REINFORCED CONCRETE PIPE, 78"	600.00	LF	10,209	17,214	91,398	0	118,821	198.03
09/01.14	REINFORCED CONCRETE PIPE, 90"	450.00	LF	8,170	13,857	114,552	0	136,578	303.51
09/01.15	REINFORCED CONCRETE PIPE, 96"	3396.00	LF	59,553	99,459	873,834	0	1,032,846	304.14
09/01.18	FLARED END SECTION, 48"	4.00	EA	228	186	2,400	0	2,813	703.29
09/01.19	FLARED END SECTION, 54"	10.00	EA	569	464	10,500	0	11,533	1153.29
09/01.20	FLARED END SECTION, 60"	2.00	EA	114	93	2,500	0	2,707	1353.29
09/01.21	FLARED END SECTION, 66"	4.00	EA	276	383	5,500	0	6,160	1539.92
09/01.22	FLARED END SECTION, 72"	2.00	EA	173	240	2,800	0	3,212	1606.15
09/01.23	FLARED END SECTION, 78"	8.00	EA	691	958	12,800	0	14,449	1806.15
09/01.24	FLARED END SECTION, 90"	6.00	EA	829	1,150	11,400	0	13,379	2229.84
09/01.25	FLARED END SECTION, 96"	30.00	EA	4,146	5,750	60,000	0	69,895	2329.84
09/01.26	CANAL GATES 24"	4.00	EA	36	22	525	0	583	145.81
09/01.27	CANAL GATES 42"	3.00	EA	57	46	1,150	0	1,253	417.76
09/01.28	CANAL GATES 54"	2.00	EA	114	93	3,450	0	3,657	1828.29
09/01.29	CANAL GATES 60"	2.00	EA	152	124	4,000	0	4,275	2137.72
09/01.30	STRUCTURES	10.00	JOB	4,503	4,080	128,436	0	137,019	13701.86
09/01.31	8" GRAVEL BASE	4965.00	CY	0	0	74,475	0	74,475	15.00
09/01.32	4" ASPHALT	1.00	JOB	0	0	4,500	0	4,500	4500.00
09/01.33	FERTILIZING AND SEEDING	177.00	AC	0	0	106,200	0	106,200	600.00

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		QUANTY	UOM	LABOR	EQUIPMT	MATERIAL	SUPPLIE	TOTAL COST	UNIT COST
09/01.34	ENVIRONMENTAL PROTECTION	1.00	JOB	0	0	111,534	0	111,534	111534.00
09/01.35	WASTeways	1.00	JOB	996	1,863	8,179	0	11,039	11038.55
09/01.36	INSTRUMENTATION	10.00	EA	0	0	120,000	0	120,000	12000.00
	TOTAL Canal 6200A (0+00 - 743+56)	1.00	JOB	503,592	1,771,462	2220458	0	4,495,512	4495512
09/02	Canal 6200B (STA 743+56-1160+54)								
09/02. 1	CLEARING	206.00	AC	6,160	15,748	0	0	21,907	106.35
09/02. 2	EXCAVATION	574127	CY	51,825	254,587	0	0	306,412	0.53
09/02. 3	EMBANKMENT	429682	CY	78,317	306,164	0	0	384,480	0.89
09/02. 4	REIN CONCRETE BOX CULV, 10 X 10	1.00	JOB	18,811	57,270	392,730	0	468,811	468810.59
09/02. 5	REIN CONCRETE BOX CULVERT, 7 X 7	1.00	JOB	8,367	25,097	145,968	0	179,412	179411.83
09/02. 6	REIN CONCRETE BOX CULV, 8 X 8	1.00	JOB	43,456	131,007	814,806	0	989,269	989268.53
09/02. 8	REINFORCED CONCRETE PIPE, 48"	150.00	LF	1,079	1,601	11,012	0	13,691	91.28
09/02. 9	REINFORCED CONCRETE PIPE, 54"	1060.00	LF	8,105	12,377	93,700	0	114,182	107.72
09/02.10	REINFORCED CONCRETE PIPE, 72"	300.00	LF	3,326	5,241	44,886	0	53,453	178.18
09/02.12	FLARED END SECTION, 48"	2.00	EA	114	93	1,200	0	1,407	703.29
09/02.13	FLARED END SECTION, 54"	4.00	EA	228	186	4,200	0	4,613	1153.29
09/02.14	FLARED END SECTION, 72"	4.00	EA	345	479	5,600	0	6,425	1606.15
09/02.15	CANAL GATES 24"	4.00	EA	144	89	2,100	0	2,333	583.23
09/02.16	FERTILIZING AND SEEDING	122.00	AC	0	0	73,200	0	73,200	600.00
09/02.17	ENVIRONMENTAL PROTECTION	1.00	JOB	0	0	88,940	0	88,940	88939.50
09/02.18	INSTRUMENTATION	1.00	EA	0	0	12,000	0	12,000	12000.00
09/02.19	STRUCTURES	1.00	JOB	1,704	1,577	46,982	0	50,263	50263.02
	TOTAL Canal 6200B (STA 743+56-1160+54)	1.00	JOB	221,981	811,514	1737303	0	2,770,798	2770798
09/03	Canal 6200P								
09/03. 1	PVC PIPE, 8"	5443.00	LF	15,310	7,502	28,576	0	51,387	9.44
09/03. 2	PVC PIPE, 12"	2800.00	LF	8,788	5,614	26,180	0	40,582	14.49
09/03. 5	PUMPS CANAL 6200	1.00	JOB	341	278	4,500	0	5,120	5119.75
09/03. 6	INSTRUMENTATION	3.00	EA	0	0	36,000	0	36,000	12000.00
	TOTAL Canal 6200P	1.00	JOB	24,440	13,394	95,256	0	133,089	133089.47
09/04	Canal 6210								
09/04. 1	FILTER GRAVEL	467.00	TON	813	1,616	4,437	0	6,865	14.70
09/04. 2	RIPRAP	1400.00	TON	2,436	4,845	14,700	0	21,981	15.70
	TOTAL Canal 6210	1.00	JOB	3,249	6,461	19,137	0	28,846	28845.71
	TOTAL CHANNELS AND CANALS	1.00	EA	753,261	2,602,830	4072154	0	7,428,245	7428245

31 CONSTRUCTION MANAGEMENT

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	QUANTITY	UOM	LABOR	EQUIPM'T	MATERIAL	SUPPLIES	TOTAL COST	UNIT COST
TOTAL EASTERN ARKANSAS REGIONAL STUDY	1.00	EA	753,261	2,602,830	4580154	0	7,936,245	7936245
Overhead							445,695	
SUBTOTAL							8,381,940	
Home Office							472,436	
SUBTOTAL							8,854,376	
Profit							667,710	
SUBTOTAL							9,522,086	
Bond							135,211	
TOTAL INCL INDIRECTS							9,657,297	

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ERROR REPORT

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R2032: 0203180108
R2032: 0203180122
R2032: 0203180130

115/161 KV P Detail item has zero quantity - no costs reported
115/161 KV P Detail item has zero quantity - no costs reported
115/161 KV P Detail item has zero quantity - no costs reported

* * * END OF ERROR REPORT * * *

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TITLE PAGE 1

EASTERN ARKANSAS REGIONAL STUDY
GRAND PRAIRIE DEMOINSTRATION
PROJECT
ITEM NO 14

Designed By:
Estimated By: JAMES MOORE

Prepared By:

Preparation Date: 01/29/97
Effective Date of Pricing: 01/29/97

Sales Tax: 0.00%

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** PROJECT INDIRECT SUMMARY - Facility **

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	QUANTITY UOM	DIRECT	OVERHEAD	HOME OFC	PROFIT	BOND	TOTAL COST	UNIT COST
<hr/>								
01 LANDS AND DAMAGES								
02 RELOCATIONS								
02.03 UTILITIES	1.00 EA	12,000	0	0	0	0	12,000	12000.00
TOTAL RELOCATIONS	1.00 EA	12,000	0	0	0	0	12,000	12000.00
09 CHANNELS AND CANALS								
09.01 Canal 6100	1.00 JOB	466,738	28,004	24,737	41,558	8,416	569,454	569453.75
09.02 Canal 6100P	1.00 JOB	4,908,626	294,518	260,157	437,064	88,505	5,988,871	5988871
09.03 Canal 6205	1.00 JOB	60,474	3,628	3,205	5,385	1,090	73,783	73782.55
09.04 Canal 6215	1.00 JOB	37,206	2,232	1,972	3,313	671	45,395	45394.55
09.05 Canal 6216	1.00 JOB	50,211	3,013	2,661	4,471	905	61,260	61260.49
09.07 Canal 6230P	1.00 JOB	60,915	3,655	3,228	5,424	1,098	74,320	74320.06
09.08 Canal 6230	1.00 JOB	117,323	7,039	6,218	10,446	2,115	143,142	143142.47
TOTAL CHANNELS AND CANALS	1.00 EA	5,701,494	342,090	302,179	507,661	102,801	6,958,225	6956225
31 CONSTRUCTION MANAGEMENT								
TOTAL EASTERN ARKANSAS REGIONAL STUDY	1.00 EA	5,713,494	342,090	302,179	507,661	102,801	6,968,225	6968225

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	QUANTITY UOM	DIRECT	OVERHEAD	HOME OFC	PROFIT	BOND	TOTAL COST	UNIT COST
<hr/>								
01 LANDS AND DAMAGES								
02 RELOCATIONS								
02.02 RAILROADS								
TOTAL RAILROADS								
02.03 UTILITIES								
02.03.18 UTILITIES	1.00 EA	12,000	0	0	0	0	12,000	12000.00
TOTAL UTILITIES	1.00 EA	12,000	0	0	0	0	12,000	12000.00
TOTAL RELOCATIONS	1.00 EA	12,000	0	0	0	0	12,000	12000.00
09 CHANNELS AND CANALS								
09.01 Canal 6100								
09.01. 1 FILTER GRAVEL	7552.00 TON	111,017	6,661	5,884	9,885	2,002	135,448	17.94
09.01. 2 RIPRAP	22657.00 TON	355,722	21,343	18,853	31,673	6,414	434,006	19.16
TOTAL Canal 6100	1.00 JOB	466,738	28,004	24,737	41,558	8,416	569,454	569453.75
09.02 Canal 6100P								
09.02. 1 6" PVC Pipe	26355.00 LF	194,737	11,684	10,321	17,339	3,511	237,593	9.02
09.02. 2 8" PVC Pipe	7724.00 LF	60,935	3,656	3,230	5,426	1,099	74,345	9.63
09.02. 3 PVC PIPE, 10"	8314.00 LF	36,737	2,204	1,947	3,271	662	44,822	5.39
09.02. 4 PVC PIPE, 12"	32851.00 LF	248,761	14,926	13,184	22,150	4,485	303,506	9.24
09.02. 5 PVC PIPE, 14"	19137.00 LF	178,386	10,703	9,454	15,883	3,216	217,643	11.37
09.02. 6 REINFORCED CONCRETE PIPE, 18"	15151.00 LF	299,313	17,959	15,864	26,651	5,397	365,183	24.10
09.02. 7 REINFORCED CONCRETE PIPE, 24"	34400.00 LF	993,005	59,580	52,629	88,417	17,904	1,211,536	35.22
09.02. 8 REINFORCED CONCRETE PIPE, 30"	49077.00 LF	2,116,371	126,982	112,168	188,442	38,159	2,582,123	52.61
09.02. 9 PUMPS CANAL 6100	1.00 JOB	540,382	32,423	28,640	48,116	9,743	659,304	659303.78
09.02. A INSTRUMENTATION	20.00 EA	240,000	14,400	12,720	21,370	4,327	292,817	14640.85
TOTAL Canal 6100P	1.00 JOB	4,908,626	294,518	260,157	437,064	88,505	5,988,871	5988871
09.03 Canal 6205								
09.03. 1 CLEARING	40.00 AC	4,254	255	225	379	77	5,190	129.75
09.03. 2 EXCAVATION	28630.00 CY	14,380	863	762	1,280	259	17,545	0.61
09.03. 3 EMBANKMENT	42272.00 CY	22,340	1,340	1,184	1,989	403	27,256	0.64
09.03. 4 FERTILIZING AND SEEDING	20.00 AC	12,000	720	636	1,068	216	14,641	732.04

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		QUANTITY UOM	DIRECT	OVERHEAD	HOME OFC	PROFIT	BOND	TOTAL COST	UNIT COST
09.03. 5	ENVIRONMENTAL PROTECTION	1.00 JOB	7,500	450	398	668	135	9,151	9150.53
	TOTAL Canal 6205	1.00 JOB	60,474	3,628	3,205	5,385	1,090	73,783	73782.55
09.04	Canal 6215								
09.04. 1	CLEARING	18.00 AC	1,914	115	101	170	35	2,336	129.75
09.04. 2	EXCAVATION	12880.00 CY	6,469	388	343	576	117	7,893	0.61
09.04. 3	EMBANKMENT	19020.00 CY	10,073	604	534	897	182	12,290	0.65
09.04. 4	FERTILIZING AND SEEDING	10.00 AC	6,000	360	318	534	108	7,320	732.04
09.04. 5	ENVIRONMENTAL PROTECTION	1.00 JOB	7,500	450	398	668	135	9,151	9150.53
09.04. 6	8" GRAVEL BASE	350.00 CY	5,250	315	278	467	95	6,405	18.30
	TOTAL Canal 6215	1.00 JOB	37,206	2,232	1,972	3,313	671	45,395	45394.55
09.05	Canal 6216								
09.05. 1	CLEARING	30.00 AC	3,190	191	169	284	58	3,893	129.75
09.05. 2	EXCAVATION	21475.00 CY	10,786	647	572	960	194	13,160	0.61
09.05. 3	EMBANKMENT	31700.00 CY	16,734	1,004	887	1,490	302	20,416	0.64
09.05. 4	FERTILIZING AND SEEDING	20.00 AC	12,000	720	636	1,068	216	14,641	732.04
09.05. 5	ENVIRONMENTAL PROTECTION	1.00 JOB	7,500	450	398	668	135	9,151	9150.53
	TOTAL Canal 6216	1.00 JOB	50,211	3,013	2,661	4,471	905	61,260	61260.49
09.07	Canal 6230P								
09.07. 1	6" PVC PIPE	511.00 LF	3,776	227	200	336	68	4,607	9.02
09.07. 2	8" PVC PIPE	1270.00 LF	10,019	601	531	892	181	12,224	9.63
09.07. 3	PUMPS CANAL 6230	1.00 JOB	11,120	667	589	990	200	13,567	13566.88
09.07. 4	INSTRUMENTATION	3.00 EA	36,000	2,160	1,908	3,205	649	43,923	14640.85
	TOTAL Canal 6230P	1.00 JOB	60,915	3,655	3,228	5,424	1,098	74,320	74320.06
09.08	Canal 6230								
09.08. 1	CLEARING	12.00 AC	1,276	77	68	114	23	1,557	129.75
09.08. 2	EXCAVATION	10495.00 CY	5,272	316	279	469	95	6,432	0.61
09.08. 3	EMBANKMENT	17896.00 CY	11,286	677	598	1,005	203	13,769	0.77
09.08. 6	GATES 18"	1.00 EA	508	30	27	45	9	620	620.07
09.08. 7	FILTER GRAVEL	1026.00 TON	15,083	905	799	1,343	272	18,402	17.94
09.08. 8	RIPRAP	3074.00 TON	48,263	2,896	2,558	4,297	870	58,884	19.16
09.08. 9	FERTILIZING AND SEEDING	8.00 AC	4,800	288	254	427	87	5,856	732.04
09.08. A	ENVIRONMENTAL PROTECTION	1.00 JOB	7,920	475	420	705	143	9,663	9662.96
09.08. B	INSTRUMENTATION	1.00 EA	12,000	720	636	1,068	216	14,641	14640.85
09.08. C	STRUCTURES	1.00 JOB	10,916	655	579	972	197	13,318	13318.37

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	QUANTITY UOM	DIRECT	OVERHEAD	HOME OFC	PROFIT	BOND	TOTAL COST	UNIT COST
TOTAL Canal 6230	1.00 JOB	117,323	7,039	6,218	10,446	2,115	143,142	143142.47
TOTAL CHANNELS AND CANALS	1.00 EA	5,701,494	342,090	302,179	507,661	102,801	6,956,225	6956225
31 CONSTRUCTION MANAGEMENT								
TOTAL EASTERN ARKANSAS REGIONAL STUDY	1.00 EA	5,713,494	342,090	302,179	507,661	102,801	6,968,225	6968225

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	QUANTITY	UOM	MANHRS	LABOR	EQUIPMNT	MATERIAL	OTHER	TOTAL COST	UNIT COST
<hr/>									
01 LANDS AND DAMAGES									
02 RELOCATIONS									
02.03 UTILITIES	1.00	EA	0	0	0	12,000	0	12,000	12000.00
TOTAL RELOCATIONS	1.00	EA	0	0	0	12,000	0	12,000	12000.00
09 CHANNELS AND CANALS									
09.01 Canal 6100	1.00	JOB	4,370	52,501	104,595	309,643	0	466,738	466738.36
09.02 Canal 6100P	1.00	JOB	36,749	735,947	452,627	3720053	0	4,908,626	4908626
09.03 Canal 6205	1.00	JOB	0	8,672	32,302	19,500	0	60,474	60474.00
09.04 Canal 6215	1.00	JOB	0	3,905	14,551	18,750	0	37,206	37206.50
09.05 Canal 6216	1.00	JOB	0	6,501	24,210	19,500	0	50,211	50210.61
09.07 Canal 6230P	1.00	JOB	475	5,852	4,365	50,697	0	60,915	60914.56
09.08 Canal 6230	1.00	JOB	601	11,175	28,760	77,389	0	117,323	117323.11
TOTAL CHANNELS AND CANALS	1.00	EA	42,195	824,553	661,409	4215531	0	5,701,494	5701494
31 CONSTRUCTION MANAGEMENT									
TOTAL EASTERN ARKANSAS REGIONAL STUDY	1.00	EA	42,195	824,553	661,409	4227531	0	5,713,494	5713494
OVERHEAD								342,090	
SUBTOTAL HOME OFC								6,055,583	
								302,179	
SUBTOTAL PROFIT								6,357,762	
								507,661	
SUBTOTAL BOND								6,865,423	
								102,801	
TOTAL INCL INDIRECTS								6,968,225	

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	QUANTITY	UOM	MANHRS	LABOR	EQUIPMNT	MATERIAL	OTHER	TOTAL COST	UNIT COST
<hr/>									
01 LANDS AND DAMAGES									
02 RELOCATIONS									
02.02 RAILROADS									
TOTAL RAILROADS									
02.03 UTILITIES									
02.03.18 UTILITIES	1.00	EA	0	0	0	12,000	0	12,000	12000.00
TOTAL UTILITIES	1.00	EA	0	0	0	12,000	0	12,000	12000.00
TOTAL RELOCATIONS	1.00	EA	0	0	0	12,000	0	12,000	12000.00
09 CHANNELS AND CANALS									
09.01 Canal 6100									
09.01. 1 FILTER GRAVEL	7552.00	TON	1,093	13,125	26,148	71,744	0	111,017	14.70
09.01. 2 RIPRAP	22657.00	TON	3,278	39,376	78,447	237,899	0	355,722	15.70
TOTAL Canal 6100	1.00	JOB	4,370	52,501	104,595	309,643	0	466,738	466738.36
09.02 Canal 6100P									
09.02. 1 6" PVC Pipe	26355.00	LF	6,589	81,550	60,477	52,710	0	194,737	7.39
09.02. 2 8" PVC Pipe	7724.00	LF	1,931	23,900	17,724	19,310	0	60,935	7.89
09.02. 3 PVC PIPE, 10"	8314.00	LF	0	8,209	3,587	24,942	0	36,737	4.42
09.02. 4 PVC PIPE, 12"	32851.00	LF	4,106	93,126	40,656	114,979	0	248,761	7.57
09.02. 5 PVC PIPE, 14"	19137.00	LF	2,392	54,238	23,678	100,469	0	178,386	9.32
09.02. 6 REINFORCED CONCRETE PIPE, 18"	15151.00	LF	1,894	54,532	25,849	218,932	0	299,313	19.76
09.02. 7 REINFORCED CONCRETE PIPE, 24"	34400.00	LF	4,300	123,775	76,310	792,920	0	993,005	28.87
09.02. 8 REINFORCED CONCRETE PIPE, 30"	49077.00	LF	15,337	294,340	202,490	1619541	0	2,116,371	43.12
09.02. 9 PUMPS CANAL 6100	1.00	JOB	200	2,276	1,856	536,250	0	540,382	540381.66
09.02. A INSTRUMENTATION	20.00	EA	0	0	0	240,000	0	240,000	12000.00
TOTAL Canal 6100P	1.00	JOB	36,749	735,947	452,627	3720053	0	4,908,626	4908626
09.03 Canal 6205									
09.03. 1 CLEARING	40.00	AC	0	1,196	3,058	0	0	4,254	106.35
09.03. 2 EXCAVATION	28630.00	CY	0	2,354	12,026	0	0	14,380	0.50
09.03. 3 EMBANKMENT	42272.00	CY	0	5,122	17,218	0	0	22,340	0.53
09.03. 4 FERTILIZING AND SEEDING	20.00	AC	0	0	0	12,000	0	12,000	600.00

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		QUANTITY	UOM	MANHRS	LABOR	EQUIPMNT	MATERIAL	OTHER	TOTAL COST	UNIT COST
09.03. 5	ENVIRONMENTAL PROTECTION	1.00	JOB	0	0	0	7,500	0	7,500	7500.00
	TOTAL Canal 6205	1.00	JOB	0	8,672	32,302	19,500	0	60,474	60474.00
09.04	Canal 6215									
09.04. 1	CLEARING	18.00	AC	0	538	1,376	0	0	1,914	106.35
09.04. 2	EXCAVATION	12880.00	CY	0	1,059	5,410	0	0	6,469	0.50
09.04. 3	EMBANKMENT	19020.00	CY	0	2,308	7,765	0	0	10,073	0.53
09.04. 4	FERTILIZING AND SEEDING	10.00	AC	0	0	0	6,000	0	6,000	600.00
09.04. 5	ENVIRONMENTAL PROTECTION	1.00	JOB	0	0	0	7,500	0	7,500	7500.00
09.04. 6	8" GRAVEL BASE	350.00	CY	0	0	0	5,250	0	5,250	15.00
	TOTAL Canal 6215	1.00	JOB	0	3,905	14,551	18,750	0	37,206	37206.50
09.05	Canal 6216									
09.05. 1	CLEARING	30.00	AC	0	897	2,293	0	0	3,190	106.35
09.05. 2	EXCAVATION	21475.00	CY	0	1,766	9,021	0	0	10,786	0.50
09.05. 3	EMBANKMENT	31700.00	CY	0	3,838	12,896	0	0	16,734	0.53
09.05. 4	FERTILIZING AND SEEDING	20.00	AC	0	0	0	12,000	0	12,000	600.00
09.05. 5	ENVIRONMENTAL PROTECTION	1.00	JOB	0	0	0	7,500	0	7,500	7500.00
	TOTAL Canal 6216	1.00	JOB	0	6,501	24,210	19,500	0	50,211	50210.61
09.07	Canal 6230P									
09.07. 1	6" PVC Pipe	511.00	LF	128	1,581	1,173	1,022	0	3,776	7.39
09.07. 2	8" PVC Pipe	1270.00	LF	318	3,930	2,914	3,175	0	10,019	7.89
09.07. 3	PUMPS CANAL 6230	1.00	JOB	30	341	278	10,500	0	11,120	11119.75
09.07. 4	INSTRUMENTATION	3.00	EA	0	0	0	36,000	0	36,000	12000.00
	TOTAL Canal 6230P	1.00	JOB	475	5,852	4,365	50,697	0	60,915	60914.56
09.08	Canal 6230									
09.08. 1	CLEARING	12.00	AC	0	359	917	0	0	1,276	106.35
09.08. 2	EXCAVATION	10495.00	CY	0	863	4,409	0	0	5,272	0.50
09.08. 3	EMBANKMENT	17896.00	CY	0	2,464	8,822	0	0	11,286	0.63
09.08. 6	GATES 18"	1.00	EA	0	36	22	450	0	508	508.23
09.08. 7	FILTER GRAVEL	1026.00	TON	148	1,783	3,552	9,747	0	15,083	14.70
09.08. 8	RIPRAP	3074.00	TON	445	5,342	10,643	32,277	0	48,263	15.70
09.08. 9	FERTILIZING AND SEEDING	8.00	AC	0	0	0	4,800	0	4,800	600.00
09.08. A	ENVIRONMENTAL PROTECTION	1.00	JOB	0	0	0	7,920	0	7,920	7920.00
09.08. B	INSTRUMENTATION	1.00	EA	0	0	0	12,000	0	12,000	12000.00
09.08. C	STRUCTURES	1.00	JOB	7	327	394	10,195	0	10,916	10916.07

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	QUANTITY	UOM	MANHRS	LABOR	EQUIPMNT	MATERIAL	OTHER	TOTAL COST	UNIT COST
TOTAL Canal 6230	1.00	JOB	601	11,175	28,760	77,389	0	117,323	117323.11
TOTAL CHANNELS AND CANALS	1.00	EA	42,195	824,553	661,409	4215531	0	5,701,494	5701494
31 CONSTRUCTION MANAGEMENT									
TOTAL EASTERN ARKANSAS REGIONAL STUDY	1.00	EA	42,195	824,553	661,409	4227531	0	5,713,494	5713494
OVERHEAD								342,090	
SUBTOTAL HOME OFC								6,055,583	
SUBTOTAL PROFIT								302,179	
SUBTOTAL BOND								6,357,762	
TOTAL INCL INDIRECTS								507,661	
								6,865,423	
								102,801	
								6,968,225	

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No errors detected...

* * * END OF ERROR REPORT * * *