
The purpose of this project is to provide flood damage reduction for parts of northwest Fort Smith. Project features included common excavation, road relocations and new road construction, bridge and culvert construction, utility relocations, and building removal. Bridge construction involves constructing both railroad bridges as well as automobile bridges.

MAJOR ASSUMPTIONS:

1. All excavated material must be hauled off-site for disposal.
2. The non-Federal sponsor will be responsible for relocation of gas, water, telephone, stormwater, sanitary utilities, bridge, and culvert construction.
3. There are no culverts or bridges to be demolished in this project.
4. There is a substantial increase in the steel price. The current estimate reflects the price increase to March 2004.

ITEMS INCLUDED:

1. 10-20% Contingency.
2. 6.63 percent sales tax.
3. Escalation to the mid-point of construction (March 2010). The cost indices for each feature code is calculated using the most current indices for Civil Works Construction Cost Index System (CWCCIS) as shown in EM 1110-2-1304 Revised September 2003.
4. The Escalation for Planning, Engineering, and Design (PED), and Supervision and Administration (S&A) is calculated based on the guidelines in EC 11-2-184, for FY 05 Program, dated March 2003. The Table-1 factors for "Cost Estimating Updating Rates" are used to get the % of escalation.
5. The contract close-out time of 60 Calendar Days is not included in the estimated construction time.
6. After the instructions from the Project Manager, to reduce the construction time in half from the previous estimate, the construction time is estimated assuming multiple contractors working with multiple crews, in multiple reaches at the same time.
7. The construction effort is 1,225 Calendar Days.

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U.S. Army Corps of Engineers
 PROJECT 10YRRE: MAY BRANCH - FEASI. STUDY - C-10 - 10-Year Channel Alternative
 Feasibility Cost Estimate - 10 Yr Plan (C-10)
 ** PROJECT OWNER SUMMARY - Feature **

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SUMMARY PAGE 1

		QUANTITY	UOM	CONTRACT	CONTINGN	ESCALATN	TOTAL COST	UNIT COST
01	Lands and Damages	1.00	EA	2,616,700	523,340	471,006	3,611,046	3611046.00
02	Relocations	1.00	EA	2,406,218	240,622	413,717	3,060,557	3060556.89
08	Roads, Railroads, and Bridges	1.00	EA	3,561,317	534,198	640,153	4,735,668	4735668.04
09	Channels and Canals	1.00	EA	6,259,533	938,930	1,125,016	8,323,480	8323479.53
15	Floodway Control-Diversion Struc	1.00	EA	471,618	70,743	84,771	627,132	627132.03
30	Planning, Engineering & Design	1.00	EA	1,272,451	127,245	263,143	1,662,839	1662838.97
31	Supervision and Administration	1.00	EA	1,145,207	114,521	288,478	1,548,205	1548205.34
TOTAL MAY BRANCH - FEASI. STUDY - C-10		1.00	EA	17,733,045	2,549,598	3,286,284	23,568,927	23568926.80

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		QUANTITY	UOM	CONTRACT	CONTINGN	ESCALATN	TOTAL COST	UNIT COST

01	Lands and Damages							
01.01	Reach 1	1.00	EA	423,800	84,760	76,284	584,844	584844.00
01.02	Reach 2	1.00	EA	1,097,600	219,520	197,568	1,514,688	1514688.00
01.03	Reach 3	1.00	EA	303,000	60,600	54,540	418,140	418140.00
01.04	Reach 4	1.00	EA	792,300	158,460	142,614	1,093,374	1093374.00
	TOTAL Lands and Damages	1.00	EA	2,616,700	523,340	471,006	3,611,046	3611046.00

02	Relocations							
02.03	Cementeries, Utilities & Str.	1.00	EA	2,406,218	240,622	413,717	3,060,557	3060556.89
	TOTAL Relocations	1.00	EA	2,406,218	240,622	413,717	3,060,557	3060556.89

08	Roads, Railroads, and Bridges							
08.01	Roads	1.00	EA	1,567,677	235,152	281,793	2,084,621	2084621.18
08.02	Railroads	1.00	EA	1,993,640	299,046	358,360	2,651,047	2651046.86
	TOTAL Roads, Railroads, and Bridges	1.00	EA	3,561,317	534,198	640,153	4,735,668	4735668.04

09	Channels and Canals							
09.01	Channels	1.00	EA	6,259,533	938,930	1,125,016	8,323,480	8323479.53
	TOTAL Channels and Canals	1.00	EA	6,259,533	938,930	1,125,016	8,323,480	8323479.53

15	Floodway Control-Diversion Struc							
15.01	Hydraulic Control Structure	1.00	EA	471,618	70,743	84,771	627,132	627132.03
	TOTAL Floodway Control-Diversion Struc	1.00	EA	471,618	70,743	84,771	627,132	627132.03

30	Planning, Engineering & Design							
30.10	Planning, Engineering & Design	1.00	EA	1,272,451	127,245	263,143	1,662,839	1662838.97
	TOTAL Planning, Engineering & Design	1.00	EA	1,272,451	127,245	263,143	1,662,839	1662838.97

31	Supervision and Administration							
31.10	Supervision and Administration	1.00	EA	1,145,207	114,521	288,478	1,548,205	1548205.34

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U.S. Army Corps of Engineers
PROJECT 10YRRE: MAY BRANCH - FEASI. STUDY - C-10 - 10-Year Channel Alternative
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	QUANTITY	UOM	CONTRACT	CONTINGN	ESCALATN	TOTAL COST	UNIT COST
TOTAL Supervision and Administration	1.00	EA	1,145,207	114,521	288,478	1,548,205	1548205.34
TOTAL MAY BRANCH - FEASI. STUDY - C-10	1.00	EA	17,733,045	2,549,598	3,286,284	23,568,927	23568926.80

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 PROJECT 10YRRE: MAY BRANCH - FEAS. STUDY - C-10 - 10-Year Channel Alternative
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		QUANTITY	UOM	CONTRACT	CONTINGN	ESCALATN	TOTAL COST	UNIT COST

01 Lands and Damages								
01.01 Reach 1								
01.01.23	Construction Contract Documents	1.00	EA	423,800	84,760	76,284	584,844	584844.00
TOTAL Reach 1		1.00	EA	423,800	84,760	76,284	584,844	584844.00
01.02 Reach 2								
01.02.23	Construction Contract Documents	1.00	EA	1,097,600	219,520	197,568	1,514,688	1514688.00
TOTAL Reach 2		1.00	EA	1,097,600	219,520	197,568	1,514,688	1514688.00
01.03 Reach 3								
01.03.23	Construction Contract Documents	1.00	EA	303,000	60,600	54,540	418,140	418140.00
TOTAL Reach 3		1.00	EA	303,000	60,600	54,540	418,140	418140.00
01.04 Reach 4								
01.04.23	Construction Contract Documents	1.00	EA	792,300	158,460	142,614	1,093,374	1093374.00
TOTAL Reach 4		1.00	EA	792,300	158,460	142,614	1,093,374	1093374.00
TOTAL Lands and Damages		1.00	EA	2,616,700	523,340	471,006	3,611,046	3611046.00
02 Relocations								
02.03 Cementeries, Utilities & Str.								
02.03.18	Utilities	1.00	EA	2,131,500	213,150	366,483	2,711,132	2711132.17
02.03.47	Structures	1.00	EA	274,719	27,472	47,234	349,425	349424.72
TOTAL Cementeries, Utilities & Str.		1.00	EA	2,406,218	240,622	413,717	3,060,557	3060556.89
TOTAL Relocations		1.00	EA	2,406,218	240,622	413,717	3,060,557	3060556.89
08 Roads, Railroads, and Bridges								
08.01 Roads								
08.01.01	Demolition	1.00	EA	43,236	6,485	7,772	57,494	57493.58
08.01.02	Drainage - Box Culverts (NEW)	1.00	EA	609,303	91,396	109,523	810,222	810222.34

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	QUANTITY	UOM	CONTRACT	CONTINGN	ESCALATN	TOTAL COST	UNIT COST
08.01.05 Bridges, Foundations	1.00	EA	193,013	28,952	34,694	256,659	256659.04
08.01.06 Bridges, Abutments and Piers	1.00	EA	76,327	11,449	13,720	101,496	101496.37
08.01.07 Bridges, Superstructure & Deck	1.00	EA	498,038	74,706	89,523	662,267	662266.61
08.01.19 Construct Road to Subgrade	1.00	EA	76,229	11,434	13,702	101,366	101365.97
08.01.39 Road Surfacing	1.00	EA	71,530	10,730	12,858	95,117	95117.27
TOTAL Roads	1.00	EA	1,567,677	235,152	281,793	2,084,621	2084621.18
08.02 Railroads							
08.02.01 Mob, Demob, & Preparatory Work	1.00	JOB	290,872	43,631	52,285	386,788	386787.98
08.02.02 Demolition	1.00	EA	33,015	4,952	5,934	43,901	43901.19
08.02.07 Bridges, Superstructure & Deck	1.00	EA	1,669,754	250,463	300,141	2,220,358	2220357.70
TOTAL Railroads	1.00	EA	1,993,640	299,046	358,360	2,651,047	2651046.86
TOTAL Roads, Railroads, and Bridges	1.00	EA	3,561,317	534,198	640,153	4,735,668	4735668.04
09 Channels and Canals							
09.01 Channels							
09.01.01 Mob, Demob & Preparatory Work	1.00	EA	142,528	21,379	25,616	189,523	189523.28
09.01.02 Drainage	1.00	EA	168,071	25,211	30,207	223,489	223489.42
09.01.03 Concrete	1.00	EA	916,461	137,469	164,714	1,218,645	1218644.87
09.01.31 Earthwork	1.00	EA	3,847,840	577,176	691,566	5,116,582	5116581.92
09.01.99 Associated General Items	1.00	EA	1,184,633	177,695	212,912	1,575,240	1575240.05
TOTAL Channels	1.00	EA	6,259,533	938,930	1,125,016	8,323,480	8323479.53
TOTAL Channels and Canals	1.00	EA	6,259,533	938,930	1,125,016	8,323,480	8323479.53
15 Floodway Control-Diversion Struc							
15.01 Hydraulic Control Structure							
15.01.05 Bridges, Foundations	1.00	EA	4,177	627	751	5,554	5554.36
15.01.06 Bridges, Abutments and Piers	1.00	EA	10,344	1,552	1,859	13,755	13755.18
15.01.07 Bridges, Superstructure and Deck	1.00	EA	129,857	19,479	23,341	172,677	172676.82
15.01.08 Bridges, Associated General Item	1.00	EA	327,240	49,086	58,820	435,146	435145.68
TOTAL Hydraulic Control Structure	1.00	EA	471,618	70,743	84,771	627,132	627132.03
TOTAL Floodway Control-Diversion Struc	1.00	EA	471,618	70,743	84,771	627,132	627132.03
30 Planning, Engineering & Design							

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	QUANTITY	UOM	CONTRACT	CONTINGN	ESCALATN	TOTAL COST	UNIT COST

30.10							
Planning, Engineering & Design							
30.10.10	1.00	EA	1,272,451	127,245	263,143	1,662,839	1662838.97
TOTAL Planning, Engineering & Design	1.00	EA	1,272,451	127,245	263,143	1,662,839	1662838.97
TOTAL Planning, Engineering & Design	1.00	EA	1,272,451	127,245	263,143	1,662,839	1662838.97
31							
Supervision and Administration							
31.10							
Supervision and Administration							
31.10.10	1.00	EA	1,145,207	114,521	288,478	1,548,205	1548205.34
TOTAL Supervision and Administration	1.00	EA	1,145,207	114,521	288,478	1,548,205	1548205.34
TOTAL Supervision and Administration	1.00	EA	1,145,207	114,521	288,478	1,548,205	1548205.34
TOTAL MAY BRANCH - FEASIBILITY STUDY - C-10	1.00	EA	17,733,045	2,549,598	3,286,284	23,568,927	23568926.80