



I-270 over the Mississippi River

Phase I Study - Addendum

Madison County

Exhibit H – Cost Estimate

FAI 270 PHASE I BRIDGE REPLACEMENT PREFERRED ALT COST ESTIMATE

I 270 Bridge over the Mississippi River		Preferred Option			
Pay Items	Unit Cost	Illinois	Missouri	River Bridge	Total
Gross Length of Alternative (FT)		7,076 FT	3,959 FT	5,483 FT	16,518 FT
Length of Bridge Omissions (FT)			0,232 FT	5,483 FT	5,715 FT
Length of Alternative (FT)		7,076 FT	3,727 FT		10,803 FT
1 Removal Items					
Roadway Removal	\$ 1,108,209.93	\$ 560,000.00	\$ 560,000.00		\$ 1,120,000.00
2 Earthwork					
Earth Excavation	\$ 13.00 / Cu Yd	64,831 \$ 850,000.00	117,691 \$ 1,530,000.00	\$ -	182,522 \$ 2,380,000.00
Furnished Excavation	\$ 9.50 / Cu Yd	116,830 \$ 1,110,000.00	48,000 \$ 460,000.00	\$ -	164,830 \$ 1,570,000.00
3 Erosion Control	\$ 10,635.00 / Acre	29 \$ 310,000.00	19 \$ 210,000.00	\$ -	48 \$ 520,000.00
4 Drainage					
Mainline	\$ 145.00 / Ft	7,076 \$ 1,030,000.00	3,727 \$ 550,000.00	\$ -	10,803 \$ 1,580,000.00
5 Subbase, Base, Surface, Shoulders					
Mainline	\$ 96.45 / Sq Yd	72,563 \$ 7,000,000.00	47,832 \$ 4,620,000.00	\$ -	120,395 \$ 11,620,000.00
Mainline Resurfacing	\$ 34.90 / Sq Yd	- \$ -	11,744 \$ 410,000.00	\$ -	11,744 \$ 410,000.00
Ramps	\$ 93.15 / Sq Yd	- \$ -	8,140 \$ 760,000.00	\$ -	8,140 \$ 760,000.00
Riverview Drive	\$ 78.04 / Sq Yd	- \$ -	- \$ -	\$ -	- \$ -
6 Guardrail, Roadside Safety	\$ 224.50 / Ft	7,076 \$ 1,590,000.00	3,727 \$ 840,000.00	\$ -	10,803 \$ 2,430,000.00
7 Traffic Signals	\$ 350,000.00 / Int	-	2 \$ 700,000.00		2 \$ 700,000.00
8 Traffic Control Items		\$ 530,000.00	\$ 840,000.00	\$ 1,500,000.00	\$ 2,870,000.00
10 Field Office and Laboratory	\$ 2,000.00 / Cal Mon	48 \$ 96,000.00			48 \$ 96,000.00
11 Environmental Mitigation / Incidental Items					
12 Subtotal (Roadway Costs)		\$ 13,076,000.00	\$ 11,480,000.00	\$ 1,500,000.00	\$ 26,056,000.00
13 Structure Removal (Assumed No Cofferdams Req)			\$ 250,000.00	\$ 6,000,000.00	\$ 6,250,000.00
14 Major Culverts	\$ 600.00 / Ft	990 \$ 600,000.00	720 \$ 440,000.00		\$ 1,040,000.00
Estimated 5 @ 330'					
15 Bridges					
River Crossing (See Supplemental Sheet For Details)				\$ 155,840,000.00	\$ 155,840,000.00
River Crossing Ramp					
Riverview Dr Crossing			\$ 4,400,000.00		\$ 4,400,000.00
Proposed Retaining Walls					
17 Subtotal (Structural Costs)		\$ 600,000.00	\$ 5,090,000.00	\$ 161,840,000.00	\$ 167,530,000.00
18 Subtotal (Roadway + Structural Costs)		\$ 13,676,000.00	\$ 16,570,000.00	\$ 163,340,000.00	\$ 193,586,000.00
19 Contingency	20%	\$ 2,740,000.00	\$ 3,320,000.00	\$ 32,670,000.00	\$ 38,730,000.00
20 Mobilization	6%	\$ 985,000.00	\$ 1,194,000.00	\$ 11,761,000.00	\$ 13,940,000.00
21 Total Construction Cost at Construction		\$ 17,401,000.00	\$ 21,084,000.00	\$ 207,771,000.00	\$ 246,256,000.00

Programming has reviewed the scope of work as presented in this report, as well as the cost estimate.

Karl H. Brown

I-270 Bridge over the Mississippi River Supplemental Bridge Costs

ALL PRICES IN 2018 DOLLARS

				Preferred Option		
				Final - Quantity		Cost
				EB	WB	
Length (WA-P4)		Unit Price		594	427	
Deck Width (WA-P4)				66.83	66.83	
Length (P4-P6)	LF	-		300	250	-
Average Variable Deck Width (P4-P6)	LF	-		63	63	-
Length (P6-EA)	LF	-		4,566	4,800	-
Typical Width (P6-EA)	LF	-		58.83	58.83	-
Deck	SF	\$ 30.00		327,180	326,644	\$ 19,614,715.40
Barrier	LF	\$ 170.00		10,920	10,954	\$ 3,718,580.00
Median Barrier	LF	\$ 370.00		0	0	\$ -
Primary Structural Steel	SF	\$ 77.00		327,180	326,644	\$ 50,344,436.19
Cap	CY	\$ 1,125.00		3,627	3,627	\$ 8,160,000.00
Column	CY	\$ 1,125.00		4,494	4,494	\$ 10,111,805.00
Strut	CY	\$ 1,125.00		914	914	\$ 2,056,000.00
Shaft	CY	\$ 1,560.00		9,168	9,168	\$ 28,604,012.62
Rock Socket	CY	\$ 3,760.00		2,680	2,680	\$ 20,150,786.15
Abutments	CY	\$ 1,125.00		325	325	\$ 730,328.13
Abutment Pile	LF	\$ 86.00		3,760	3,760	\$ 646,720.00
Lighting	Each	\$ 600.00		50	50	\$ 60,000.00
Pier Joints	LF	\$ 2,350.00		265	265	\$ 1,245,500.00
Abutment Joints	LF	\$ 770.00		129	129	\$ 198,660.00
SUBTOTAL						\$ 145,641,543
Miscellaneous	% of Subtotal	7				\$ 10,194,908
GRAND TOTAL						\$ 155,840,000