Concept A - US 41 Widening (KY 115 to east of Salubria Springs Road)

Mainline Length (miles)		
	Unit	Unit Cost
Design	%	10%
De31811	70	1070
Right of Way	LS	\$2,750,000
Utilities	LS	\$1,750,000
Construction		
MOT	%	1.5%
Drainage	%	3.0%
Earthwork		
Cut (CY)	CY	\$15
Fill (CY)	CY	\$8
David at 5 H David	CV	\$60
Roadway - Full Depth	SY	\$60
Roadway - Overlay Guardrail	SY	\$20
Sidewalk	LF SY	\$16 \$128
Sidewalk	31	\$128
Structures		
Bridges	SF	\$120
Culvert	CY	\$1,100
Retaining Wall	SF	\$70
Traffic Signal Changes	EA	
+25% Miscellaneous	%	25%
+30% Contingency	%	30%
Total		

US 41		
MP 2.786 to MP 4.0		
1.21		
Quantity	Cost	
1	\$300,000	
1	\$2,750,000	
1	\$1,750,000	
	\$3,000,000	
	\$30,000	
	\$60,000	
	700,000	
11,500	\$200,000	
	\$0	
16,000	\$1,000,000	
15,000	\$300,000	
	\$0	
730	\$100,000	
	4.0	
600	\$0	
600	\$80,000	
	\$0	
	ŞU	
	\$450,000	
	\$670,000	
	7 - 3,000	
	\$7,800,000	

Concept C - KY 115 Widening

Carneal Lane (north of I-24) to Pembroke (north of bridge near Mason Lane)

Mainline Length (miles)		
	Unit	Unit Cost
Design		10%
Right of Way	LS	\$2,500,000
Utilities	LS	\$4,250,000
Construction		
MOT		1.5%
Drainage		3.0%
Earthwork		2.0,0
Cut (CY)	CY	\$10
Fill (CY)	CY	\$8
Roadway - Full Depth	SY	\$60
Roadway - Overlay	SY	\$20
Guardrail	LF	\$16
Structures		
Bridges	SF	\$120
Culvert	CY	\$1,100
Retaining Wall	SF	\$70
Traffic Signal Changes	EA	
+25% Miscellaneous	%	25%
+30% Contingency	%	30%
Total		
1 Otal		

KY 115		
MP 3.137 to MP 10.0		
6	.86	
Quantity	Cost	
1	\$1,500,000	
1	\$2,500,000	
1	\$4,250,000	
	\$14,900,000	
	\$130,000	
	\$260,000	
	\$200,000	
100,000	\$1,000,000	
100,000	\$1,000,000	
	70	
93,000	\$5,600,000	
77,000	\$1,600,000	
1,600	\$30,000	
,	, ,	
3,000	\$400,000	
200	\$30,000	
	\$0	
	40.055.555	
	\$2,300,000	
	\$3,500,000	
	\$22.1E0.000	
	\$23,150,000	

Concept A-to-B2 - US 41 Widening (Concept B2 to east of Salubria Springs Road)

Mainline Length (miles)		
	Unit	Unit Cost
Design	%	10%
Right of Way	LS	\$600,000
Utilities	LS	\$400,000
Construction		
MOT	%	1.5%
Drainage	%	3.0%
Earthwork		
Cut (CY)	CY	\$15
Fill (CY)	CY	\$8
Roadway - Full Depth	SY	\$60
Roadway - Overlay	SY	\$20
Guardrail	LF	\$16
Sidewalk	SY	\$128
Structures		
Bridges	SF	\$120
Culvert	CY	\$1,100
Retaining Wall	SF	\$70
Traffic Signal Changes	EA	
+25% Miscellaneous	%	25%
+30% Contingency	%	30%
7.4.1		
Total		

US 41 MP 3.730 to MP 4.0		
0.27		
Quantity	Cost	
1	\$70,000	
1	\$600,000	
_	7000,000	
1	\$400,000	
	\$630,000	
	\$10,000	
	\$20,000	
3,200	\$50,000	
	\$0	
3,700	\$230,000	
3,300	\$70,000	
	\$0	
0	\$0	
	\$0	
0	\$0	
	\$0	
	\$100,000	
	\$150,000	
	4	
	\$1,700,000	

Concept B1 - Pembroke Connector (Through Movement with KY 115 to US 41)

Mainline Length (miles)		
	Unit	Unit Cost
Design		10%
Right of Way	LS	\$1,000,000
Utilities	LS	\$500,000
Construction		
MOT		1.5%
Drainage		3.0%
Earthwork		
Cut (CY)	CY	\$10
Fill (CY)	CY	\$8
Roadway - Full Depth	SY	\$60
Roadway - Overlay	SY	\$20
Guardrail	LF	\$16
Structures		
85' Steel Girder Three-Span Bridge	SF	\$150
Culvert	CY	\$1,100
Retaining Wall	SF	\$70
Traffic Signal Changes	EA	
+25% Miscellaneous	%	25%
+30% Contingency	%	30%
Total		

New Connector MP 0 to MP 1.909	KY 115 Tee MP 0 to MP 0.117	
2.03		
Quantity	Cost	
1	\$1,100,000	
1	\$1,000,000	
	. , ,	
1	\$500,000	
	\$11,000,000	
	\$100,000	
	\$200,000	
	. ,	
	\$0	
128,000	\$1,100,000	
45,300	\$2,800,000	
0.400	\$0	
3,100	\$50,000	
13,000	\$2,000,000	
2,200	\$400,000	
	40	
	\$0	
	\$1,700,000	
	\$2,600,000	
	+ =,000,000	
	\$13,600,000	

Concept B1 - Pembroke Connector - Shared Use Path (Through Movement with KY 115 to US 41)

Mainline Length (miles)		
	Unit	Unit Cost
Design		10%
Jesign		1070
Right of Way	LS	\$140,000
Utilities	LS	\$70,000
Construction		
MOT		1.5%
Drainage		3.0%
Earthwork		
Cut (CY)	CY	\$10
Fill (CY)	CY	\$8
Roadway - Full Depth	SY	\$60
Roadway - Overlay	SY	\$20
Guardrail	LF	\$16
Sidewalk	SY	\$128
Structures	65	4150
85' Steel Girder Three-Span Bridge	SF	\$150
Culvert	CY	\$1,100 \$70
Retaining Wall	SF EA	\$/0
Traffic Signal Changes	EA	
+25% Miscellaneous	%	25%
+30% Contingency	%	30%
Total		

New Connector MP 0 to MP 1.909	KY 115 Tee MP 0 to MP 0.117		
2.03			
Quantity	Cost		
1	\$370,000		
1	\$140,000		
<u> </u>	3140,000		
1	\$70,000		
	\$3,620,000		
	\$100,000		
	,,		
	\$0		
13,913	\$120,000		
	\$0		
	\$0		
	\$0		
11,200	\$1,500,000		
2,000	\$450,000		
3,000 300	\$450,000 \$50,000		
300	750,000		
	\$0		
	\$560,000		
	\$560,000 \$840,000		
	φο .σ,σσσ		
	4		
	\$4,200,000		

Concept B2 - Pembroke Connector (Through Movment with KY 115 to US 41)

Mainline Length (miles)		
	Unit	Unit Cost
Design		10%
Right of Way	LS	\$500,000
Utilities	LS	\$500,000
Construction		
MOT		1.5%
Drainage		3.0%
Earthwork		
Cut (CY)	CY	\$10
Fill (CY)	CY	\$8
Roadway - Full Depth	SY	\$60
Roadway - Overlay	SY	\$20
Guardrail	LF	\$16
Structures		
240' Pre-Stressed Concrete I-Beam (PCIB) Three-Span Bridge	SF	\$120
Culvert	CY	\$1,100
Retaining Wall	SF	\$70
Traffic Signal Changes	EA	
+25% Miscellaneous	%	25%
+30% Contingency	%	30%
Total		

New Connector MP 0 to MP 1.365	KY 115 Tee MP 0 to MP 0.117	
1.48		
Quantity	Cost	
1	\$900,000	
1	\$500,000	
1	\$500,000	
	\$8,500,000	
	\$80,000	
	\$150,000	
	7150,000	
	\$0	
135,000	\$1,100,000	
133,000	71,100,000	
34,000	\$2,100,000	
	\$0	
3,100	\$50,000	
11,000	\$1,400,000	
2,200	\$300,000	
	\$0	
	\$1,300,000	
	\$2,000,000	
	\$10,400,000	

Concept B2 - Pembroke Connector - Shared Use Path (Through Movement with KY 115 to US 41)

Mainline Length (miles)		
	Unit	Unit Cost
Design		10%
Right of Way	LS	\$70,000
Utilities	LS	\$70,000
Construction		
MOT		1.5%
Drainage		3.0%
Earthwork		0.070
Cut (CY)	CY	\$10
Fill (CY)	CY	\$8
Roadway - Full Depth	SY	\$60
Roadway - Overlay	SY	\$20
Guardrail	LF	\$16
Sidewalk	SY	\$128
Structures		
240' Pre-Stressed Concrete I-Beam (PCIB) Three-Span Bridge	SF	\$120
Culvert	CY	\$1,100
Retaining Wall	SF	\$70
Traffic Signal Changes	EA	
+25% Miscellaneous	%	25%
+30% Contingency	%	30%
Total		

New Connector MP 0 to MP 1.365	KY 115 Tee MP 0 to MP 0.117
1.	48
Quantity	Cost
	40.00
1	\$260,000
1	\$70,000
1	\$70,000
	\$2,600,000
	\$50,000
	40
14,674	\$0 \$120,000
11,071	ψ120,000
	\$0
	\$0 \$0
8,010	\$1,030,000
3,000	\$360,000
200	\$30,000
	\$0
	, , , ,
	\$400,000
	\$600,000
	43.000.000
	\$3,000,000

Concept C-to-B - KY 115 Widening From Carneal Lane (north of I-24) to Pembroke Conector Tie-in

Mainline Length (miles)		
	Unit	Unit Cost
Design		10%
Right of Way	LS	\$2,300,000
Utilities	LS	\$3,900,000
Construction		
MOT		1.5%
Drainage		3.0%
Earthwork		
Cut (CY)	CY	\$10
Fill (CY)	CY	\$8
Roadway - Full Depth	SY	\$60
Roadway - Overlay	SY	\$20
Guardrail	LF	\$16
Structures	CE	Ć120
Bridges	SF	\$120
Culvert Retaining Wall	CY SF	\$1,100 \$70
Traffic Signal Changes	EA	3/0
Trainic Signal Changes	LA	
+25% Miscellaneous	%	25%
+30% Contingency	%	30%
		
Total		

KY 115 MP 3.137 to MP 9.45		
6.31		
Quantity	Cost	
1	\$1,400,000	
1	\$2,300,000	
1	ć2 000 000	
1	\$3,900,000	
	\$13,400,000	
	\$120,000	
	\$240,000	
100,000	\$1,000,000	
	\$0	
86,000	\$5,200,000	
71,000	\$1,500,000	
1,600	\$30,000	
	\$0	
200	\$30,000	
_		
	\$0	
	\$2,100,000	
	\$3,100,000	
	\$21,000.000	
	\$21,000,000	

Concept A_I1 - ImproveUS 41/KY 115 Intersection

Unit Unit Cost	Mainline Length (miles)		
Right of Way LS \$100,000 Utilities LS \$150,000 Construction MOT % 1.5% Drainage % 3.0% Earthwork Cut (CY) CY \$15 Fill (CY) CY \$15 Roadway - Full Depth SY \$60 Roadway - Surface Only SY \$6 Guardrail LF \$16 Sidewalk SY \$128 Structures Bridges SF \$120 Culvert CY \$1,100 Retaining Wall SF \$70 Traffic Signal Changes EA +25% Miscellaneous % 25% +30% Contingency % 30%		Unit	Unit Cost
Right of Way LS \$100,000 Utilities LS \$150,000 Construction MOT % 1.5% Drainage % 3.0% Earthwork Cut (CY) CY \$15 Fill (CY) CY \$15 Roadway - Full Depth SY \$60 Roadway - Surface Only SY \$6 Guardrail LF \$16 Sidewalk SY \$128 Structures Bridges SF \$120 Culvert CY \$1,100 Retaining Wall SF \$70 Traffic Signal Changes EA +25% Miscellaneous % 25% +30% Contingency % 30%	Design	LS	\$25,000
Utilities LS \$150,000 Construction WOT % 1.5% Drainage % 3.0% Earthwork Cut (CY) CY \$15 Fill (CY) CY \$15 Roadway - Full Depth SY \$60 Roadway - Surface Only SY \$6 Guardrail LF \$16 Sidewalk SY \$128 Structures Bridges SF \$120 Culvert CY \$1,100 Retaining Wall SF \$70 Traffic Signal Changes EA +25% Miscellaneous % 25% +30% Contingency % 30%			. ,
Construction % 1.5% Drainage % 3.0% Earthwork Cut (CY) CY \$15 Fill (CY) CY \$15 Roadway - Full Depth SY \$60 Roadway - Surface Only SY \$6 Guardrail LF \$16 Sidewalk SY \$128 Structures Bridges SF \$120 Culvert CY \$1,100 Retaining Wall SF \$70 Traffic Signal Changes EA +25% Miscellaneous % 25% +30% Contingency % 30%	Right of Way	LS	\$100,000
MOT % 1.5% Drainage % 3.0% Earthwork Cut (CY) CY \$15 Fill (CY) CY \$15 Roadway - Full Depth SY \$60 Roadway - Surface Only SY \$6 Guardrail LF \$16 Sidewalk SY \$128 Structures Bridges SF \$120 Culvert CY \$1,100 Retaining Wall SF \$70 Traffic Signal Changes EA +25% Miscellaneous % 25% +30% Contingency % 30%	Utilities	LS	\$150,000
Drainage Earthwork Cut (CY) CY \$15 Fill (CY) CY \$15 Roadway - Full Depth SY \$60 Roadway - Surface Only SY \$6 Guardrail LF \$16 Sidewalk SY \$128 Structures Bridges SF \$120 Culvert CY \$1,100 Retaining Wall SF \$70 Traffic Signal Changes +25% Miscellaneous % 25% +30% Contingency % 30%	Construction		
Earthwork Cut (CY) CY \$15 Fill (CY) CY \$15 Roadway - Full Depth SY \$60 Roadway - Surface Only SY \$6 Guardrail LF \$16 Sidewalk SY \$128 Structures Bridges SF \$120 Culvert CY \$1,100 Retaining Wall SF \$70 Traffic Signal Changes +25% Miscellaneous % 25% +30% Contingency % 30%	MOT	%	1.5%
Cut (CY) CY \$15 Fill (CY) CY \$15 Roadway - Full Depth SY \$60 Roadway - Surface Only SY \$6 Guardrail LF \$16 Sidewalk SY \$128 Structures Bridges Bridges SF \$120 Culvert CY \$1,100 Retaining Wall SF \$70 Traffic Signal Changes EA +25% Miscellaneous +25% Miscellaneous % 25% +30% Contingency % 30%	Drainage	%	3.0%
Fill (CY) CY \$15 Roadway - Full Depth SY \$60 Roadway - Surface Only SY \$6 Guardrail LF \$16 Sidewalk SY \$128 Structures SF \$120 Culvert CY \$1,100 Retaining Wall SF \$70 Traffic Signal Changes EA +25% Miscellaneous % 25% +30% Contingency % 30%	Earthwork		
Roadway - Full Depth SY \$60 Roadway - Surface Only SY \$6 Guardrail LF \$16 Sidewalk SY \$128 Structures Bridges SF \$120 Culvert CY \$1,100 Retaining Wall SF \$70 Traffic Signal Changes EA +25% Miscellaneous % 25% +30% Contingency % 30%	Cut (CY)	CY	\$15
Roadway - Surface Only Guardrail LF \$16 Sidewalk SY \$128 Structures Bridges SF \$120 Culvert CY \$1,100 Retaining Wall SF \$70 Traffic Signal Changes EA +25% Miscellaneous % 25% +30% Contingency % 30%	Fill (CY)	CY	\$15
Roadway - Surface Only Guardrail LF \$16 Sidewalk SY \$128 Structures Bridges SF \$120 Culvert CY \$1,100 Retaining Wall SF \$70 Traffic Signal Changes EA +25% Miscellaneous % 25% +30% Contingency % 30%			
Guardrail LF \$16 Sidewalk SY \$128 Structures Bridges SF \$120 Culvert CY \$1,100 Retaining Wall SF \$70 Traffic Signal Changes EA +25% Miscellaneous % 25% +30% Contingency % 30%	Roadway - Full Depth	SY	\$60
Sidewalk SY \$128 Structures Bridges SF \$120 Culvert CY \$1,100 Retaining Wall SF \$70 Traffic Signal Changes EA +25% Miscellaneous % 25% +30% Contingency % 30%			
Structures Bridges SF \$120 Culvert CY \$1,100 Retaining Wall SF \$70 Traffic Signal Changes EA +25% Miscellaneous % 25% +30% Contingency % 30%	Guardrail	LF	\$16
Bridges SF \$120 Culvert CY \$1,100 Retaining Wall SF \$70 Traffic Signal Changes EA +25% Miscellaneous % 25% +30% Contingency % 30%	Sidewalk	SY	\$128
Bridges SF \$120 Culvert CY \$1,100 Retaining Wall SF \$70 Traffic Signal Changes EA +25% Miscellaneous % 25% +30% Contingency % 30%			
Bridges SF \$120 Culvert CY \$1,100 Retaining Wall SF \$70 Traffic Signal Changes EA +25% Miscellaneous % 25% +30% Contingency % 30%			
Bridges SF \$120 Culvert CY \$1,100 Retaining Wall SF \$70 Traffic Signal Changes EA +25% Miscellaneous % 25% +30% Contingency % 30%			
Bridges SF \$120 Culvert CY \$1,100 Retaining Wall SF \$70 Traffic Signal Changes EA +25% Miscellaneous % 25% +30% Contingency % 30%			
Bridges SF \$120 Culvert CY \$1,100 Retaining Wall SF \$70 Traffic Signal Changes EA +25% Miscellaneous % 25% +30% Contingency % 30%			
Culvert CY \$1,100 Retaining Wall SF \$70 Traffic Signal Changes EA +25% Miscellaneous % 25% +30% Contingency % 30%			
Retaining Wall SF \$70 Traffic Signal Changes EA +25% Miscellaneous % 25% +30% Contingency % 30%		SF	\$120
Traffic Signal Changes EA +25% Miscellaneous % 25% +30% Contingency % 30%			
+25% Miscellaneous % 25% +30% Contingency % 30%	Retaining Wall	SF	\$70
+30% Contingency % 30%	Traffic Signal Changes	EA	
+30% Contingency % 30%	±25% Miscellancous	0/2	25%
Total	130% Contingency	/0	3070
Total	+		
Total	 		
	Total		

US 41 - MP 2.786 KY 115 - MP 10.662

Quantity	Cost
1	\$25,000
1	\$100,000
1	\$150,000
	\$100,000
	\$1,000
	\$2,000
-	\$0
	\$0
500	\$30,000
760	\$5,000
	\$0
130	\$20,000
	ćo
	\$0 \$0
	ŞU
	\$0
	γ υ
	\$15,000
	\$22,000
	. ,
	\$375,000

Concept D - KY 115 Bridge Replacement

	Unit	Unit Cost
Design		10%
Design		10%
Right of Way	LS	\$36,443
Utilities	LS	61,953
Construction		
MOT		1.5%
Drainage		3.0%
Earthwork		
Cut (CY)	CY	\$10
Fill (CY)	CY	\$8
Roadway - Full Depth	SY	\$60
Roadway - Overlay	SY	\$20
Guardrail	LF	\$16
Charles		
Structures Bridges	SF	\$120
Culvert	CY	\$1,100
Retaining Wall	SF	\$70
Traffic Signal Changes	EA	Ψ, σ
+25% Miscellaneous	%	25%
+30% Contingency	%	30%

KY 115 MP 9.86 to MP 9.96		
6.	86	
Quantity	Cost	
1	\$100,000	
	4.0.000	
1	\$40,000	
1	\$70,000	
	\$900,000	
	\$10,000	
	\$20,000	
	\$0	
	\$0	
	, , ,	
1,111	\$100,000	
	\$0	
	\$0	
3,000	\$400,000	
,	\$0	
_		
	\$0	
	\$122,000	
	\$133,000 \$199,000	
	7155,000	
	\$1,110,000	