# APPENDIX H: COST ESTIMATION SHEETS



#### **Cost Estimation Detail - Corridor 4A**

#### **Corridor Information**

Route	KY 4
From	US 25 (Richmond Road)
То	KY 922 (Newtown Pike)
Highway District	7

#### Characteristics

Functional Class Principal Arterial				
Lanes	4			
Median	Divided			
Posted Speed	55 mph			

#### **New Roadways**

Dranged Concept	Highway	Mileage	Project Cost (\$M)				
Proposed Concept	District	Mileage	D	R	U	С	Total
New 4 Lane Expressway			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
New Super 2 Highway			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
New 2 Lane Highway			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note

#### Maior Widening (Divided Road)

major vitacining (Divided Road)							
Proposed Concept	Highway	Mileage		Pro	ject Cost (S	\$M)	
Proposed Concept	District	ivilleage	D	R	U	С	Total
4 Lane to 6 Lane (Rual)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
4 Lane to 6 Lane (Urban)	7	9	\$16.2	\$58.5	\$13.5	\$108.0	\$196.2
2 Lane to 4 Lane (Rual)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
2 Lane to 4 Lane (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note
Widen to a 6-lane typical section from Versailles Road to Richmond Road.

### Minor Widening (Undivided Road)

				,			
Dunnand Courset	Highway	Mileage	Project Cost (\$M)				
Proposed Concept	District	ivilleage	D	R	U	С	Total
2 Lane to 4 Lane (Rural)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
2 Lane to 4 Lane (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note	

#### Upgrade Arterial to Parkway/Expressway

opplace Arterial to Larkway Expressivay							
Proposed Concept	Highway	Mileage		Pro	ject Cost (	\$M)	
Proposed Concept	District	ivilleage	D	R	U	С	Total
Upgrade with Pavement			\$0.0	\$0.0	\$0.0	ćo o	\$0.0
Reconstruction			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Upgrade with Pavement			ćo o	ćo o	ćo o	ćo o	ćo o
Rehabilitation			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note	

	Grade Sep	aration, ite	v iliterella	inge Acces			
Proposed Concept	Highway	# of		Project Cost (\$M)			
Proposed Concept	District	Interchange	D	R	U	С	Total
New Service Interchange (Rural)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
New Service Interchange (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Interchange Modification (Rural)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Interchange Modification (Urban)	7	3	\$11.3	\$37.5	\$9.4	\$75.0	\$133.1
Grade Separation Only			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note
Improvements are proposed for 3 interchanges.



#### **Major Intersection Improvement**

Existing Facility	Highway	# of	Project Cost (\$M)				
Existing Facility	District	Intersection	D	R	C	С	Total
>= 4 Lanes in Both Directions			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
< 4 Lanes in Both Directions			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note

#### **Major Structure**

Proposed Concept	Highway	Deck Area	Project Cost (\$M)				
Proposed Concept	District	(sq ft)	D	R	U	С	Total
Bridge - Replacement			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Bridge - Rehabilitation	7	136,006	\$6.8	\$3.4	\$1.4	\$40.8	\$52.4

Note
Rehab/widening is recommended for a total of 21
bridges

### Summary of Total Cost (\$M)

Design	\$34.3		
ROW	\$99.4		
Utility	\$24.2		
Construction	\$223.8		
TOTAL	\$381.7		

- 1. The cost estimation may not include additional costs to address the potential impacts of major utilities (e.g., gas line, major water supplier, transmission line) within the proximity of the corridor, due to the lack of data when the report was prepared. Further investigation is recommended in future studies.
- 2. Cost estimation was based on 2020 dollars. There is a 1-3% inflation rate. Estimated cost could vary -50% to +250% of the actual number (as a rule of thumb).
- 3. The widening of a 2-lane facility to a 3-lane facility (with TWLTL or alternating passing lane) is considered as "Minor Widening (Undivided Road) 2 Lane to 4 Lane".
- 4. Major structure costs only include bridges that are within the corridor sections for proposed widening improvements.
- 5. Cost estimation does not account for KYTC projects that are included in the proposed improvement concepts and are already under construction.
- 6. Shoulder widening is not included in the cost estimation, as it is a relatively minor cost.
- 7. If multiple improvement concepts are recommended for the corridor, only the cost of the larger-scale improvement concept is estimated.



#### **Cost Estimation Detail - Corridor 4B**

#### **Corridor Information**

Route	KY 4
From	KY 922 (Newtown Pike)
То	US 25 (Richmond Road)
Highway District	7

#### Characteristics

Functional Class	Principal Arterial				
Lanes	4-6				
Median	Divided				
Posted Speed	45 mph/55 mph				

#### **New Roadways**

new neadurays								
Proposed Concept	Highway District	Mileage	Project Cost (\$M)					
			D	R	U	С	Total	
New 4 Lane Expressway			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	
New Super 2 Highway			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	
New 2 Lane Highway			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	

Note

#### Major Widening (Divided Road)

Proposed Concept	Highway District	Mileage	Project Cost (\$M)					
			D	R	>	С	Total	
4 Lane to 6 Lane (Rual)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	
4 Lane to 6 Lane (Urban)	7	6	\$10.8	\$39.0	\$9.0	\$72.0	\$130.8	
2 Lane to 4 Lane (Rual)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	
2 Lane to 4 Lane (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	

Note
Widen to a 6-lane typical section throughout the entire segment.

#### Minor Widening (Undivided Road)

Proposed Concept	Highway	Mileage	Project Cost (\$M)				
	District	Ivilleage	D	R	U	С	Total
2 Lane to 4 Lane (Rural)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
2 Lane to 4 Lane (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note	

#### Upgrade Arterial to Parkway/Expressway

Opgrade Arterial to Farkway/Expressivay							
Proposed Concept	Highway	Mileage		Pro	ject Cost (	\$M)	
Proposed Concept	District	ivilleage	D	R	U	С	Total
Upgrade with Pavement			\$0.0	\$0.0	\$0.0	ćo o	\$0.0
Reconstruction			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Upgrade with Pavement			ćo o	ćo o	ćo o	ćo o	ćo o
Rehabilitation			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note	

Grade Separation / New Interestings Access							
Proposed Concept	Highway	# of		Pro	ject Cost (S	\$M)	
Proposed Concept	District	Interchange	D	R	U	С	Total
New Service Interchange			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
(Rural)			φο.σ	\$0.0	Ģ0.0	\$0.0	<b>70.0</b>
New Service Interchange			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
(Urban)			Ş0.0	\$0.0	Ş0.0	\$0.0	\$0.0
Interchange Modification			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
(Rural)			Ş0.0	\$0.0	Ş0.0	\$0.0	\$0.0
Interchange Modification			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
(Urban)			Ş0.0	Ş0.0	Ş0.0	Ş0.0	٥.0پ
Grade Separation Only			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Grade Separation Only			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note



#### Major Intersection Improvement

Existing Facility	Highway	# of		Pro	ject Cost (	\$M)	
Existing Facility	District	Intersection	D	R	U	С	Total
>= 4 Lanes in Both Directions	7	11	\$6.6	\$24.2	\$5.5	\$44.0	\$80.3
< 4 Lanes in Both Directions			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note
Spot improvements at 11 intersections.

#### **Major Structure**

Proposed Concept	Highway	Deck Area		Pro	ject Cost (S	\$M)	
Proposed Concept	District	(sq ft)	D	R	U	С	Total
Bridge - Replacement			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Bridge - Rehabilitation	7	33,847	\$1.7	\$0.8	\$0.3	\$10.2	\$13.0

Note
Rehab/widening is recommended for a total of 3 oridges
Note
RJ Corman RR over Broadway and over Todds Road

needs to be widened for the 6 lanes and requires shoofly to keep the railroad operating

Railroad Bridge

Railroad Bridge 7 - - -

Summary	of To	otal Cos	st (\$M)

Design	\$19.1
ROW	\$64.0
Utility	\$14.8
Construction	\$147.7
TOTAL	\$245.6

#### Additional Notes

- 1. The cost estimation may not include additional costs to address the potential impacts of major utilities (e.g., gas line, major water supplier, transmission line) within the proximity of the corridor, due to the lack of data when the report was prepared. Further investigation is recommended in future studies.
- 2. Cost estimation was based on 2020 dollars. There is a 1-3% inflation rate. Estimated cost could vary -50% to +250% of the actual number (as a rule of thumb).
- 3. The widening of a 2-lane facility to a 3-lane facility (with TWLTL or alternating passing lane) is considered as "Minor Widening (Undivided Road) 2 Lane to 4 Lane".

\$21.5

\$21.5

- 4. Major structure costs only include bridges that are within the corridor sections for proposed widening improvements.
- 5. Cost estimation does not account for KYTC projects that are included in the proposed improvement concepts and are already under construction.
- 6. Shoulder widening is not included in the cost estimation, as it is a relatively minor cost.
- 7. If multiple improvement concepts are recommended for the corridor, only the cost of the larger-scale improvement concept is estimated.
- 8. The railraod bridge widening costs are based on the following costs that are based on research of similar projects:

#### RR Bridge at Broadway:

Permanent RR Bridge: \$25K/track feet x 150 TF = \$3.75M x 2 bridges = \$7.5M Temporary RR Bridge: \$13K/track feet x 150 TF = \$1.95M x 2 bridges = \$3.9M

Shoo Fly Temp. Track: \$500/track ft. x 1,000 TF = \$500K Permanent Track: \$500/track ft. x 1,000 TF = \$500K

Miscellaneous (e.g., clearning/grubbing, earthwork, MOT, mobilization/demobilization, additional costs, etc.) = \$3.1M

RR Bridge north of Young Drive

RR Bridge: \$25K/track feet x 120 TF = \$3M

Retaining Walls, Temporary Shoring, Earthwork, Other = \$1.5M Shoo Fly Temp. Track: \$500/track ft. x 1,000 TF = \$500K

Miscellaneous~(e.g.,~clearning/grubbing,~earthwork,~MOT,~mobilization/demobilization,~additional~costs,~etc.) = \$1M



### **Cost Estimation Detail - Corridor 5**

#### **Corridor Information**

Route	Man O' War Boulevard			
From	US 60 (West) in Lexington			
То	I-75 in Lexington			
Highway District	7			

#### Characteristics

Functional Class	Principal Arterial
Lanes	4 or 6
Median	Undivided
Posted Speed	45 – 50 mph

#### **New Roadways**

Proposed Concept	Highway	Mileage	Project Cost (\$M)				
Proposed Concept	District	Mileage	D	R	U	С	Total
New 4 Lane Expressway			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
New Super 2 Highway			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
New 2 Lane Highway			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note

#### Major Widening (Divided Road)

(							
Proposed Concept	Highway	Mileage	Project Cost (\$M)				
	District	Ivilleage	D	R	U	С	Total
4 Lane to 6 Lane (Rual)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
4 Lane to 6 Lane (Urban)	7	16	\$28.8	\$104.0	\$24.0	\$192.0	\$348.8
2 Lane to 4 Lane (Rual)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
2 Lane to 4 Lane (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note
Widen to a 6-lane typical section throughout the entire segment.

#### Minor Widening (Undivided Road)

Proposed Concept	Highway	Mileage	Project Cost (\$M)				
Froposeu Concept	District	Ivilleage	D	R	U	С	Total
2 Lane to 4 Lane (Rural)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
2 Lane to 4 Lane (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note

#### Upgrade Arterial to Parkway/Expressway

10							
Droposed Consent	Highway	Mileage	Project Cost (\$M)				
Proposed Concept	District	ivilleage	D	R	U	С	Total
Upgrade with Pavement Reconstruction			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Upgrade with Pavement Rehabilitation			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note	

Proposed Concept	Highway	# of	Project Cost (\$M)				
Proposed Concept	District	Interchange	D	R	U	С	Total
New Service Interchange (Rural)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
New Service Interchange (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Interchange Modification (Rural)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Interchange Modification (Urban)	7	1	\$3.8	\$12.5	\$3.1	\$25.0	\$44.4
Grade Separation Only			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note	
Improvements are proposed for the existing interchange at I-75.	



#### Major Intersection Improvement

wajor intersection improvement							
Existing Facility	Highway	# of	Project Cost (\$M)				
EXISTING FACILITY	District	Intersection	D	R	U	С	Total
>= 4 Lanes in Both Directions	7	27	\$16.2	\$59.4	\$13.5	\$108.0	\$197.1
< 4 Lanes in Both Directions			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note	
Spot improvements at 27 intersections.	

#### **Major Structure**

Proposed Concept	Highway	Deck Area		Pro	ject Cost (S	\$M)	
Froposed Concept	District	(sq ft)	D	R	U	С	Total
Bridge - Replacement			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Bridge - Rehabilitation	7	8,281	\$0.4	\$0.2	\$0.1	\$2.5	\$3.2

Note	
There are two bridges along the corridor in need of rehab.	

#### Summary of Total Cost (\$M)

Design	\$49.2
ROW	\$176.1
Utility	\$40.7
Construction	\$327.5
TOTAL	\$593.5

- 1. The cost estimation may not include additional costs to address the potential impacts of major utilities (e.g., gas line, major water supplier, transmission line) within the proximity of the corridor, due to the lack of data when the report was prepared. Further investigation is recommended in future studies.
- 2. Cost estimation was based on 2020 dollars. There is a 1-3% inflation rate. Estimated cost could vary -50% to +250% of the actual number (as a rule of thumb).
- 3. The widening of a 2-lane facility to a 3-lane facility (with TWLTL or alternating passing lane) is considered as "Minor Widening (Undivided Road) 2 Lane to 4 Lane".
- $4. \ Major \ structure \ costs \ only \ include \ bridges \ that \ are \ within \ the \ corridor \ sections \ for \ proposed \ widening \ improvements.$
- 5. Cost estimation does not account for KYTC projects that are included in the proposed improvement concepts and are already under construction.
- $6. \ Shoulder \ widening \ is \ not \ included \ in \ the \ cost \ estimation, \ as \ it \ is \ a \ relatively \ minor \ cost.$
- 7. If multiple improvement concepts are recommended for the corridor, only the cost of the larger-scale improvement concept is estimated.



### **Cost Estimation Detail - Corridor 6A**

#### **Corridor Information**

Route	US 60
From	I-64 in Louisville
То	Ky 1848 in Simpsonville
Highway District	5

#### Characteristics

	Minor Arterial/Principal		
Functional Class	Arterial		
Lanes	2-8		
Median	None/Raised		
Posted Speed	35-45 mph		

#### **New Roadways**

Proposed Concept	Highway	Mileage		Pro	ject Cost (S	\$M)	
Proposed Concept	District	Ivilleage	D	R	U	С	Total
New 4 Lane Expressway			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
New Super 2 Highway			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
New 2 Lane Highway			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note

### Major Widening (Divided Road)

wajor widening (bivided Rodd)							
Proposed Concept	Highway	Mileage		Pro	ject Cost (S	\$M)	
Proposed Concept	District	Willeage	D	R	U	С	Total
4 Lane to 6 Lane (Rual)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
4 Lane to 6 Lane (Urban)	5	3.1	\$5.6	\$20.2	\$4.7	\$37.2	\$67.6
2 Lane to 4 Lane (Rual)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
2 Lane to 4 Lane (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note
Widen to a 6-lane typical section from Evergreen Road to Bircham Road

### Minor Widening (Undivided Road)

Proposed Concept	Highway	Mileage		Pro	ject Cost (S	\$M)	
Proposed Concept	District	Ivilleage	D	R	U	С	Total
2 Lane to 4 Lane (Rural)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
2 Lane to 4 Lane (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note

### Upgrade Arterial to Parkway/Expressway

Proposed Concept	Highway	Mileage	Project Cost (\$M)				
Proposed Concept	District	ivilleage	D	R	U	С	Total
Upgrade with Pavement Reconstruction			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Upgrade with Pavement Rehabilitation			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note	

Proposed Concept	Highway	# of		Project Cost (\$M)				
Froposed Concept	District	Interchange	D	R	U	С	Total	
New Service Interchange (Rural)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	
New Service Interchange (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	
Interchange Modification (Rural)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	
Interchange Modification (Urban)	5	1	\$3.8	\$12.5	\$3.1	\$25.0	\$44.4	
Grade Separation Only			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	

Note
Improvement is proposed for interchanges at I-264.



#### **Major Intersection Improvement**

major menocentra mproveniene							
Existing Facility	Highway	# of Project Cost (\$M)					
Existing Facility	District	Intersection	D	R	U	С	Total
>= 4 Lanes in Both Directions	5	21	\$12.6	\$46.2	\$10.5	\$84.0	\$153.3
< 4 Lanes in Both Directions	5	3	\$1.1	\$4.1	\$0.9	\$7.5	\$13.7

ı	lote
Spot improvements at 21	intersections.
Spot improvements at 3 in	itersections.

#### **Major Structure**

Proposed Concept	Highway	Deck Area	Project Cost (\$M)				
Froposed Concept	District	(sq ft)	D	R	U	С	Total
Bridge - Replacement			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Bridge - Rehabilitation			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note	

### Summary of Total Cost (\$M)

Design	\$23.1
ROW	\$83.0
Utility	\$19.2
Construction	\$153.7
TOTAL	\$278.9

- 1. The cost estimation may not include additional costs to address the potential impacts of major utilities (e.g., gas line, major water supplier, transmission line) within the proximity of the corridor, due to the lack of data when the report was prepared. Further investigation is recommended in future studies.
- 2. Cost estimation was based on 2020 dollars. There is a 1-3% inflation rate. Estimated cost could vary -50% to +250% of the actual number (as a rule of thumb).
- 3. The widening of a 2-lane facility to a 3-lane facility (with TWLTL or alternating passing lane) is considered as "Minor Widening (Undivided Road) 2 Lane to 4 Lane".
- 4. Major structure costs only include bridges that are within the corridor sections for proposed widening improvements.
- 5. Cost estimation does not account for KYTC projects that are included in the proposed improvement concepts and are already under construction.
- 6. Shoulder widening is not included in the cost estimation, as it is a relatively minor cost.
- 7. If multiple improvement concepts are recommended for the corridor, only the cost of the larger-scale improvement concept is estimated.



#### **Cost Estimation Detail - Corridor 6B**

#### **Corridor Information**

Route	US 60
From	KY 1848 in Simpsonville
То	US 62 in Versailles
Highway District	5, 7

#### Characteristics

	Minor Arterial/Principal
Functional Class	Arterial
Lanes	2-4
Median	Undivided
Posted Speed	25 - 55 mph

#### **New Roadways**

rett reduitays								
Proposed Concept	Highway	Mileage	Project Cost (\$M)					
	District	ivilleage	D	R	U	С	Total	
New 4 Lane Expressway			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	
New Super 2 Highway			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	
New 2 Lane Highway			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	

Note	

#### Major Widening (Divided Road)

Proposed Concept	Highway District Mile	Mileage	Project Cost (\$M)					
		ivilleage	D	R	U	С	Total	
4 Lane to 6 Lane (Rual)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	
4 Lane to 6 Lane (Urban)	5	2	\$3.6	\$13.0	\$3.0	\$24.0	\$43.6	
2 Lane to 4 Lane (Rual)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	
2 Lane to 4 Lane (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	

Note
Widen to a 5-lane facility (with a TWLTL) from KY 53/K' 55 to 2 miles east of KY 53/KY 55 in Shelby Co.

### Minor Widening (Undivided Road)

Proposed Concept	Highway Mile District	Mileage	Project Cost (\$M)				
			D	R	U	С	Total
2 Lane to 4 Lane (Rural)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
2 Lane to 4 Lane (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note	

### Upgrade Arterial to Parkway/Expressway

Proposed Concept	Highway	Milesas	Project Cost (\$M)				
	District	Mileage	D	R	U	С	Total
Upgrade with Pavement Reconstruction			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Upgrade with Pavement Rehabilitation			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note	

Proposed Concept	Highway	# of		Pro	ject Cost (S	\$M)	
Proposed Concept	District	Interchange	D	R	U	С	Total
New Service Interchange (Rural)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
New Service Interchange (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Interchange Modification (Rural)	5	1	\$3.0	\$10.0	\$2.5	\$20.0	\$35.5
Interchange Modification (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Grade Separation Only			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note
Improvement is proposed for the interchange at I-64.



#### Major Intersection Improvement

wajor intersection improvement								
Existing Facility	Highway	# of	Project Cost (\$M)					
Existing Facility	District	Intersection	D	R	U	С	Total	
>= 4 Lanes in Both Directions	5/7	24	\$14.4	\$52.8	\$12.0	\$96.0	\$175.2	
< 4 Lanes in Both Directions	5	1	\$0.4	\$1.4	\$0.3	\$2.5	\$4.6	

Note	
Spot improvements at 24 intersections.	
Spot improvements at 1 intersection.	

#### **Major Structure**

Proposed Concept	Highway	Deck Area	Project Cost (\$M)				
Froposed Concept	District	(sq ft)	D	R	U	С	Total
Bridge - Replacement			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Bridge - Rehabilitation			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note	

### Summary of Total Cost (\$M)

Design	\$21.4
ROW	\$77.2
Utility	\$17.8
Construction	\$142.5
TOTAL	\$258.9

- 1. The cost estimation may not include additional costs to address the potential impacts of major utilities (e.g., gas line, major water supplier, transmission line) within the proximity of the corridor, due to the lack of data when the report was prepared. Further investigation is recommended in future studies.
- 2. Cost estimation was based on 2020 dollars. There is a 1-3% inflation rate. Estimated cost could vary -50% to +250% of the actual number (as a rule of thumb).
- 3. The widening of a 2-lane facility to a 3-lane facility (with TWLTL or alternating passing lane) is considered as "Minor Widening (Undivided Road) 2 Lane to 4 Lane".
- $4. \ Major \ structure \ costs \ only \ include \ bridges \ that \ are \ within \ the \ corridor \ sections \ for \ proposed \ widening \ improvements.$
- 5. Cost estimation does not account for KYTC projects that are included in the proposed improvement concepts and are already under construction.
- 6. Shoulder widening is not included in the cost estimation, as it is a relatively minor cost.
- 7. If multiple improvement concepts are recommended for the corridor, only the cost of the larger-scale improvement concept is estimated.



#### **Cost Estimation Detail - Corridor 6C**

#### **Corridor Information**

Route	US 60			
From	US 62 in Versailles			
То	I-75 in Lexington			
Highway District	7			

#### Characteristics

Functional Class	Principal Arterial			
Lanes	Lanes 4-6			
Median Undivided				
Posted Speed	35 - 55 mph			

#### **New Roadways**

Dranged Consent	Highway	Daile and		Pro	ject Cost (S	\$M)	
Proposed Concept	District	Mileage	D	R	U	С	Total
New 4 Lane Expressway			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
New Super 2 Highway			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
New 2 Lane Highway			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note

#### Major Widening (Divided Road)

iviajor videning (Siviaca Roda)							
Proposed Concept	Highway	Mileage		Pro	ject Cost (	\$M)	
Proposed Concept	District	ivilleage	D	R	U	С	Total
4 Lane to 6 Lane (Rual)	7	8.7	\$8.7	\$17.4	\$3.5	\$87.0	\$116.6
4 Lane to 6 Lane (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
2 Lane to 4 Lane (Rual)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
2 Lane to 4 Lane (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note
Widen to a 6-lane divided facility from US 62 in Versailles to 0.7 mile west of Bluegrass Pkwy & from 0.7 mile east of Bluegrass Pkwy to New Circle Road.

### Minor Widening (Undivided Road)

Proposed Concept	Highway	Mileage	Highway Project Cost (\$M)					
Froposed Concept	District		D	R	U	С	Total	
2 Lane to 4 Lane (Rural)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	
2 Lane to 4 Lane (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	

N	ote

#### Upgrade Arterial to Parkway/Expressway

Proposed Concept	Highway	Mileage		Pro	ject Cost (S	\$M)	
Froposed Concept	District	ivilleage	D	R	U	С	Total
Upgrade with Pavement			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Reconstruction			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Upgrade with Pavement			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Rehabilitation			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note

Dranged Concept	Highway	# of	Project Cost (\$M)				
Proposed Concept	District	Interchange	D	R	U	С	Total
New Service Interchange (Rural)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
New Service Interchange (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Interchange Modification (Rural)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Interchange Modification (Urban)	7	1	\$3.8	\$12.5	\$3.1	\$25.0	\$44.4
Grade Separation Only			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note
Bluegrass Pkwy interchange would need to be modified
if the gap to I-64 is ever closed.



#### Major Intersection Improvement

major meersection improvement								
Existing Facility	Highway	# of	Project Cost (\$M)					
Existing Facility	District	Intersection	D	R	U	С	Total	
>= 4 Lanes in Both Directions	7	37	\$22.2	\$81.4	\$18.5	\$148.0	\$270.1	
< 4 Lanes in Both Directions			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	

Note	
Spot improvements at 37 intersections.	

#### **Major Structure**

Dranged Consent	Highway	Deck Area	Project Cost (\$M)				
Proposed Concept	District	(sq ft)	D	R	U	С	Total
Bridge - Replacement			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Bridge - Rehabilitation	7	46,469	\$2.3	\$1.2	\$0.5	\$13.9	\$17.9

Note
2 bridges for rehab/widening.

### Summary of Total Cost (\$M)

Design	\$37.0
ROW	\$112.5
Utility	\$25.6
Construction	\$273.9
TOTAL	\$448.9

- 1. The cost estimation may not include additional costs to address the potential impacts of major utilities (e.g., gas line, major water supplier, transmission line) within the proximity of the corridor, due to the lack of data when the report was prepared. Further investigation is recommended in future studies.
- 2. Cost estimation was based on 2020 dollars. There is a 1-3% inflation rate. Estimated cost could vary -50% to +250% of the actual number (as a rule of thumb).
- 3. The widening of a 2-lane facility to a 3-lane facility (with TWLTL or alternating passing lane) is considered as "Minor Widening (Undivided Road) 2 Lane to 4 Lane".
- 4. Major structure costs only include bridges that are within the corridor sections for proposed widening improvements.
- 5. Cost estimation does not account for KYTC projects that are included in the proposed improvement concepts and are already under construction.
- ${\bf 6. \ Shoulder \ widening \ is \ not \ included \ in \ the \ cost \ estimation, \ as \ it \ is \ a \ relatively \ minor \ cost.}$
- 7. If multiple improvement concepts are recommended for the corridor, only the cost of the larger-scale improvement concept is estimated.



#### **Cost Estimation Detail - Corridor 9**

#### **Corridor Information**

Route	KY 9 (AA Highway)
From	I-275
То	I-64 near Grayson
Highway District	6, 9

#### Characteristics

Functional Class	Principal Arterial
Lanes	2-6
Median	Divided/Undivided
Posted Speed	45 - 55 mph

#### **New Roadways**

Proposed Concept	Highway District	Mileage	Project Cost (\$M)					
Proposed Concept			D	R	U	С	Total	
New 4 Lane Expressway			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	
New Super 2 Highway			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	
New 2 Lane Highway			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	

Note	

#### Major Widening (Divided Road)

Proposed Concept	Highway District	Mileage	Project Cost (\$M)					
Proposed Concept			D	R	U	С	Total	
4 Lane to 6 Lane (Rual)	6	7.6	\$7.6	\$15.2	\$3.0	\$76.0	\$101.8	
4 Lane to 6 Lane (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	
2 Lane to 4 Lane (Rual)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	
2 Lane to 4 Lane (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	

Note
Widen to a 6-lane divided section from I-275 to KY 547 (Four Mile Rd) in Alexandria .

#### Minor Widening (Undivided Road)

Proposed Concept	Highway	Mileage		Pro	ject Cost (S	\$M)	
Proposed Concept	District		D	R	U	С	Total
2 Lane to 4 Lane (Rural)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
2 Lane to 4 Lane (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note	

## Upgrade Arterial to Parkway/Expressway

Proposed Concept	Highway	Mileage		Pro	ject Cost (S	\$M)	
Froposeu Concept	District		D	R	U	С	Total
Upgrade with Pavement Reconstruction			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Upgrade with Pavement Rehabilitation			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note

Proposed Concept	Highway	# of	Project Cost (\$M)				
Froposed Concept	District	Interchange	D	R	U	С	Total
New Service Interchange (Rural)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
New Service Interchange (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Interchange Modification (Rural)	6	1	\$3.0	\$10.0	\$2.5	\$20.0	\$35.5
Interchange Modification (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Grade Separation Only			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note
Improvement is proposed for the interchange at I-275.



#### Major Intersection Improvement

major mersection improvement							
Existing Facility	Highway	# of	Project Cost (\$M)				
Existing Facility	District	Intersection	D	R	U	С	Total
>= 4 Lanes in Both Directions	6 & 9	11	\$6.4	\$22.5	\$5.4	\$43.5	\$77.7
< 4 Lanes in Both Directions	6	1	\$0.4	\$1.4	\$0.3	\$2.5	\$4.6

Note
Spot improvements at 11 intersections.
Spot improvement at 1 intersection.

#### **Major Structure**

Proposed Concept	Highway Deck Area			Pro	ject Cost (	\$M)	
Froposed Concept	District	(sq ft)	D	R	U	С	Total
Bridge - Replacement			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Bridge - Rehabilitation	6	24,488	\$1.2	\$0.6	\$0.2	\$7.3	\$9.4

Note
Rehab/widen KY 547 & 4 MI Creek Bridge.

#### Summary of Total Cost (\$M)

Design	\$18.5
ROW	\$49.7
Utility	\$11.4
Construction	\$149.3
TOTAL	\$229.0

- 1. The cost estimation may not include additional costs to address the potential impacts of major utilities (e.g., gas line, major water supplier, transmission line) within the proximity of the corridor, due to the lack of data when the report was prepared. Further investigation is recommended in future studies.
- 2. Cost estimation was based on 2020 dollars. There is a 1-3% inflation rate. Estimated cost could vary -50% to +250% of the actual number (as a rule of thumb).
- 3. The widening of a 2-lane facility to a 3-lane facility (with TWLTL or alternating passing lane) is considered as "Minor Widening (Undivided Road) 2 Lane to 4 Lane".
- 4. Major structure costs only include bridges that are within the corridor sections for proposed widening improvements.
- 5. Cost estimation does not account for KYTC projects that are included in the proposed improvement concepts and are already under construction.
- ${\it 6. Shoulder widening is not included in the cost estimation, as it is a relatively minor cost.}\\$
- 7. If multiple improvement concepts are recommended for the corridor, only the cost of the larger-scale improvement concept is estimated.



#### **Cost Estimation Detail - Corridor 10**

#### **Corridor Information**

Route	US 79 / KY 100
From	Tennessee State Line
То	I-65 near Franklin
Highway District	3

#### Characteristics

	Principal Arterial/Minor
Functional Class	Arterial
Lanes	2-4
Median	Divided/Undivided
Posted Speed	Typically 55 mph

### **New Roadways**

Proposed Concept	Highway	Highway Milesga	Mileage Project Cost (\$M)				
Proposed Concept	District	ivilleage	D	R	U	С	Total
New 4 Lane Expressway			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
New Super 2 Highway			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
New 2 Lane Highway			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note	:

#### Major Widening (Divided Road)

Proposed Concept	Highway	Mileage		Pro	ject Cost (	\$M)	
Froposed Concept	District	Willeage	D	R	U	С	Total
4 Lane to 6 Lane (Rual)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
4 Lane to 6 Lane (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
2 Lane to 4 Lane (Rual)	3	5	\$5.5	\$3.0	\$2.5	\$20.0	\$31.0
2 Lane to 4 Lane (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note
Widen to a 2+1 lane section (MP 0-3 in Todd County)
and a 4-lane divided section (from US 431 to KY 100).

### Minor Widening (Undivided Road)

Proposed Concept	Highway	Mileage	Project Cost (\$M)				
Proposed Concept	District	Ivilleage	D	R	U	С	Total
2 Lane to 4 Lane (Rural)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
2 Lane to 4 Lane (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

N	lote

### Upgrade Arterial to Parkway/Expressway

Proposed Concept	Highway	Mileage	Project Cost (\$M)				
Proposed Concept	District	ivilleage	D	R	U	С	Total
Upgrade with Pavement			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Reconstruction			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Upgrade with Pavement			60.0	ć0.0	ćo o	ć0.0	60.0
Rehabilitation			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note	

		<u> </u>					
Proposed Concept	Highway	# of		Pro	ject Cost (S	\$M)	
Froposed Concept	District	Interchange	D	R	U	С	Total
New Service Interchange			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
(Rural)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
New Service Interchange			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
(Urban)			\$0.0	\$0.0	ŞU.U	\$0.0	\$0.0
Interchange Modification			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
(Rural)			\$0.0	\$0.0	ŞU.U	\$0.0	\$0.0
Interchange Modification			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
(Urban)			Ş0.0	Ş0.0	Ş0.0	Ş0.0	٥.0 پ
Grade Separation Only			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Grade Separation Only			ŞÜ.Ü	\$0.0	ŞU.U	ŞÜ.Ü	ŞU.U

1	lote



#### **Major Intersection Improvement**

Existing Facility	Highway	# of	Project Cost (\$M)				
Existing Facility	District	Intersection	D	R	U	С	Total
>= 4 Lanes in Both Directions	3	1	\$0.1	\$0.2	\$0.3	\$4.0	\$4.6
< 4 Lanes in Both Directions	3	6	\$0.6	\$0.6	\$0.6	\$12.0	\$13.8

Note
Spot improvement at 1 intersection.
Spot improvements at 6 intersection.

#### **Major Structure**

Proposed Concept	Highway	Deck Area	Project Cost (\$M)					
Froposed Concept	District	(sq ft)	D	R	U	С	Total	
Bridge - Replacement			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	
Bridge - Rehabilitation	3	3382	\$0.1	\$0.0	\$0.0	\$1.0	\$1.1	

Note

#### Summary of Total Cost (\$M)

Design	\$6.3
ROW	\$3.8
Utility	\$3.4
Construction	\$37.0
TOTAL	\$50.5

- 1. The cost estimation may not include additional costs to address the potential impacts of major utilities (e.g., gas line, major water supplier, transmission line) within the proximity of the corridor, due to the lack of data when the report was prepared. Further investigation is recommended in future studies.
- 2. Cost estimation was based on 2020 dollars. There is a 1-3% inflation rate. Estimated cost could vary -50% to +250% of the actual number (as a rule of thumb).
- 3. The widening of a 2-lane facility to a 3-lane facility (with TWLTL or alternating passing lane) is considered as "Minor Widening (Undivided Road) 2 Lane to 4 Lane".
- 4. Major structure costs only include bridges that are within the corridor sections for proposed widening improvements.
- 5. Cost estimation does not account for KYTC projects that are included in the proposed improvement concepts and are already under construction.
- 6. Shoulder widening is not included in the cost estimation, as it is a relatively minor cost.
- 7. If multiple improvement concepts are recommended for the corridor, only the cost of the larger-scale improvement concept is estimated.



#### **Cost Estimation Detail - Corridor 12**

#### **Corridor Information**

Route	KY 922/US 25
From	US 68 in Lexington
То	I-64/I-75 in Lexington
Highway District	7

#### Characteristics

Functional Class	Principal Arterial
Lanes	2-6
Median	Divided/Undivided
Posted Speed	35-55 mph

#### **New Roadways**

Proposed Concept	Highway Mileag	Mileage	Project Cost (\$M)					
		ivilleage	D	R	U	С	Total	
New 4 Lane Expressway			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	
New Super 2 Highway			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	
New 2 Lane Highway			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	

Note

#### Major Widening (Divided Road)

inajor vitacining (Diviaca Roda)								
Proposed Concept	Highway	Mileage		Pro	ject Cost (	t Cost (\$M)		
	District	ivilleage	D	R	U	С	Total	
4 Lane to 6 Lane (Rual)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	
4 Lane to 6 Lane (Urban)	7	1.8	\$3.2	\$11.7	\$2.7	\$21.6	\$39.2	
2 Lane to 4 Lane (Rual)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	
2 Lane to 4 Lane (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	

		d section with acces	
management	from New	Circle Road to I-75.	

#### Minor Widening (Undivided Road)

0(/								
Proposed Concept	Highway	Mileage	Project Cost (\$M)					
	District		D	R	U	С	Total	
2 Lane to 4 Lane (Rural)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	
2 Lane to 4 Lane (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	

Note

#### Upgrade Arterial to Parkway/Expressway

opgrade Arterial to Farkway/ Expressivay							
Proposed Concept	Highway	Mileage		Pro	ject Cost (	\$M)	
Proposed Concept	District	ivilleage	D	R	U	С	Total
Upgrade with Pavement			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Reconstruction			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Upgrade with Pavement			60.0	ćo o	60.0	ć0.0	ćo o
Rehabilitation			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note	

Proposed Concept	Highway	# of		Pro	ject Cost (S	\$M)	
Proposed Concept	District	Interchange	D	R	U	С	Total
New Service Interchange			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
(Rural)			90.0	90.0	90.0	\$0.0	90.0
New Service Interchange			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
(Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Interchange Modification			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
(Rural)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Interchange Modification	7	2	\$7.5	\$25.0	\$6.3	\$50.0	\$88.8
(Urban)	/	2	\$7.5	\$25.0	\$6.3	\$50.0	\$88.8
Crada Sanaratian Only			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Grade Separation Only			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note
Improvements are proposed for interchanges at KY 4 and I-75.



#### Major Intersection Improvement

	wajor intersection improvement						
Existing Facility	Highway	# of	Project Cost (\$M)				
EXISTING FACILITY	District	Intersection	D	R	U	С	Total
>= 4 Lanes in Both Directions	7	13	\$7.8	\$28.6	\$6.5	\$52.0	\$94.9
< 4 Lanes in Both Directions			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note
Spot improvements at 13 intersections.

#### **Major Structure**

Proposed Concept	Highway	Deck Area		Pro	ject Cost (S	\$M)	
Proposed Concept	District	(sq ft)	D	R	U	С	Total
Bridge - Replacement			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Bridge - Rehabilitation	7	34,713	\$1.7	\$0.9	\$0.3	\$10.4	\$13.4

Note
Widening is recommended for one bridge

#### Summary of Total Cost (\$M)

Design	\$20.3
ROW	\$66.2
Utility	\$15.8
Construction	\$134.0
TOTAL	\$236.3

- 1. The cost estimation may not include additional costs to address the potential impacts of major utilities (e.g., gas line, major water supplier, transmission line) within the proximity of the corridor, due to the lack of data when the report was prepared. Further investigation is recommended in future studies.
- 2. Cost estimation was based on 2020 dollars. There is a 1-3% inflation rate. Estimated cost could vary -50% to +250% of the actual number (as a rule of thumb).
- 3. The widening of a 2-lane facility to a 3-lane facility (with TWLTL or alternating passing lane) is considered as "Minor Widening (Undivided Road) 2 Lane to 4 Lane".
- 4. Major structure costs only include bridges that are within the corridor sections for proposed widening improvements.
- 5. Cost estimation does not account for KYTC projects that are included in the proposed improvement concepts and are already under construction.
- 6. Shoulder widening is not included in the cost estimation, as it is a relatively minor cost.
- 7. If multiple improvement concepts are recommended for the corridor, only the cost of the larger-scale improvement concept is estimated.



### **Cost Estimation Detail - Corridor 15**

#### **Corridor Information**

Route	KY 15, KY 7, KY 15S, KY 30
From	Mountain Pkwy
То	US 119
Highway District	10, 12

#### Characteristics

Functional Class	Principal Arterial
Lanes	2-4
Median	Divided/Undivided
Posted Speed	Typically 55 mph

#### **New Roadways**

Proposed Concept	Highway	Mileage	Project Cost (\$M)				
	District	ivilleage	D	R	U	С	Total
New 4 Lane Expressway			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
New Super 2 Highway			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
New 2 Lane Highway			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note	

#### Major Widening (Divided Road)

Proposed Concept	Highway	Mileage	Project Cost (\$M)				
	District	ivilleage	D	R	U	С	Total
4 Lane to 6 Lane (Rual)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
4 Lane to 6 Lane (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
2 Lane to 4 Lane (Rual)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
2 Lane to 4 Lane (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note

#### Minor Widening (Undivided Road)

Proposed Concept Highway		Mileage		Project Cost (\$M)			
Froposed Concept	District	Willeage	D	R	U	С	Total
2 Lane to 4 Lane (Rural)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
2 Lane to 4 Lane (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note

#### Upgrade Arterial to Parkway/Expressway

Proposed Concept	Highway	Mileage	Project Cost (\$M)					
Proposed Concept	District	istrict Mileage		R	U	С	Total	
Upgrade with Pavement Reconstruction			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	
Upgrade with Pavement Rehabilitation			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	

	Note	

Proposed Concept	Highway	# of		Pro	ject Cost (S	\$M)	
Proposed Concept	District	Interchange	D	R	U	С	Total
New Service Interchange (Rural)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
New Service Interchange (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Interchange Modification (Rural)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Interchange Modification (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Grade Separation Only			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note	



#### Major Intersection Improvement

Existing Facility	Highway	# of	Project Cost (\$M)				
Existing Facility	District	Intersection	D	R	U	С	Total
>= 4 Lanes in Both Directions	10,12	7	\$2.5	\$3.5	\$2.5	\$24.5	\$32.9
< 4 Lanes in Both Directions	10	1	\$0.3	\$0.4	\$0.3	\$2.0	\$2.9

	Note
Spot imp	provements at 7 intersections.
Spot imp	provement at 1 intersection.

#### **Major Structure**

Proposed Concept	Highway	Deck Area	Project Cost (\$M)				
Proposed Concept	District	(sq ft)	D	R	U	С	Total
Bridge - Replacement			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Bridge - Rehabilitation			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note

#### Summary of Total Cost (\$M)

Design	\$2.7
ROW	\$3.9
Utility	\$2.7
Construction	\$26.5
TOTAL	\$35.8

- 1. The cost estimation may not include additional costs to address the potential impacts of major utilities (e.g., gas line, major water supplier, transmission line) within the proximity of the corridor, due to the lack of data when the report was prepared. Further investigation is recommended in future studies.
- 2. Cost estimation was based on 2020 dollars. There is a 1-3% inflation rate. Estimated cost could vary -50% to +250% of the actual number (as a rule of thumb).
- 3. The widening of a 2-lane facility to a 3-lane facility (with TWLTL or alternating passing lane) is considered as "Minor Widening (Undivided Road) 2 Lane to 4 Lane".
- 4. Major structure costs only include bridges that are within the corridor sections for proposed widening improvements.
- 5. Cost estimation does not account for KYTC projects that are included in the proposed improvement concepts and are already under construction.
- 6. Shoulder widening is not included in the cost estimation, as it is a relatively minor cost.
- 7. If multiple improvement concepts are recommended for the corridor, only the cost of the larger-scale improvement concept is estimated.



## **Cost Estimation Detail - Corridor 18A**

#### **Corridor Information**

Route	US 31 W / KY 61
From	Columbia
То	I-65 near Elizabethtown
Highway District	4, 8

#### Characteristics

Functional Class	Minor Arterial/Principal Arterial
Lanes	2-4
Median	Divided/Undivided
Posted Speed	35-70 mph

#### **New Roadways**

new nodaways							
Proposed Concept	Highway	Mileage	Project Cost (\$M)				
Proposed Concept	District	lvilleage	D	R	U	С	Total
New 4 Lane Expressway			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
New Super 2 Highway			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
New 2 Lane Highway			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note	

### Major Widening (Divided Road)

major whaching (broade hous)							
Proposed Concept	Highway	Mileage	Project Cost (\$M)				
Proposed Concept	District	D	R	U	С	Total	
4 Lane to 6 Lane (Rual)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
4 Lane to 6 Lane (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
2 Lane to 4 Lane (Rual)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
2 Lane to 4 Lane (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note

### Minor Widening (Undivided Road)

Proposed Concept	Highway	Mileage	Project Cost (\$M)				
Froposed Concept	District	ivilleage	D	R	U	С	Total
2 Lane to 4 Lane (Rural)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
2 Lane to 4 Lane (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note	

### Upgrade Arterial to Parkway/Expressway

Proposed Concept Highway	Mileage		\$M)				
Froposeu Concept	ncept District Mileage	D	R	U	С	Total	
Upgrade with Pavement Reconstruction			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Upgrade with Pavement Rehabilitation			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note	

Proposed Concept	Highway	# of		Pro	ject Cost (	\$M)	
Proposed Concept	District	Interchange	D	R	U	С	Total
New Service Interchange (Rural)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
New Service Interchange (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Interchange Modification (Rural)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Interchange Modification (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Grade Separation Only			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note



#### Major Intersection Improvement

	major intersection improvement						
Existing Facility	Highway	# of		Pro	ject Cost (S	\$M)	
Existing Facility	District	Intersection	D	R	U	С	Total
>= 4 Lanes in Both Directions	4	2	\$0.2	\$0.4	\$0.6	\$8.0	\$9.2
< 4 Lanes in Both Directions			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note	
Spot improvements at 2 intersections.	

#### **Major Structure**

Proposed Concept	Highway Deck Area		Pro	ject Cost (	\$M)		
Froposeu Concept	District	(sq ft)	D	R	U	С	Total
Bridge - Replacement			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Bridge - Rehabilitation			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note

#### Summary of Total Cost (\$M)

Design	\$0.2
ROW	\$0.4
Utility	\$0.6
Construction	\$8.0
TOTAL	\$9.2

- 1. The cost estimation may not include additional costs to address the potential impacts of major utilities (e.g., gas line, major water supplier, transmission line) within the proximity of the corridor, due to the lack of data when the report was prepared. Further investigation is recommended in future studies.
- 2. Cost estimation was based on 2020 dollars. There is a 1-3% inflation rate. Estimated cost could vary -50% to +250% of the actual number (as a rule of thumb).
- 3. The widening of a 2-lane facility to a 3-lane facility (with TWLTL or alternating passing lane) is considered as "Minor Widening (Undivided Road) 2 Lane to 4 Lane".
- 4. Major structure costs only include bridges that are within the corridor sections for proposed widening improvements.
- 5. Cost estimation does not account for KYTC projects that are included in the proposed improvement concepts and are already under construction.
- 6. Shoulder widening is not included in the cost estimation, as it is a relatively minor cost.
- 7. If multiple improvement concepts are recommended for the corridor, only the cost of the larger-scale improvement concept is estimated.

 $<sup>^{*}</sup>$  Proposed improvement of widening shoulders to 6' or more from US 31E to KY 88



### **Cost Estimation Detail - Corridor 18B**

#### **Corridor Information**

Route	US 31 W / KY 9001
From	I-65
То	I-265 in Louisville
Highway District	4, 5

#### Characteristics

Functional Class	Principal Arterial
Lanes	2-6
Median	Divided/Undivided
Posted Speed	Typically 55 mph

#### **New Roadways**

Proposed Concept	Highway	Mileage		Pro	ject Cost (S	M)	
Proposed Concept	District	ivilleage	D	R	U	С	Total
New 4 Lane Expressway			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
New Super 2 Highway			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
New 2 Lane Highway			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note

#### Major Widening (Divided Road)

major viacining (biviaca noda)							
Proposed Concept	Highway	Mileage		Pro	ject Cost (	\$M)	
Froposed Concept	District	ivilleage	D	R	U	С	Total
4 Lane to 6 Lane (Rual)	5, 4	26.1	\$36.4	\$23.5	\$12.5	\$138.0	\$210.3
4 Lane to 6 Lane (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
2 Lane to 4 Lane (Rual)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
2 Lane to 4 Lane (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note	
Widen to a 6-lane divided arterial fro	•
Station Rd) to KY 841 (Gene Snyder F Louisville. Add auxillary lane from We	
Pkwy to KY 1638 (Old Mill Rd) in Mul	,

### Minor Widening (Undivided Road)

		0 1					
Proposed Concept	Highway	Mileage		Pro	ject Cost (S	\$M)	
Proposed Concept	District	ivilleage	D	R	U	С	Total
2 Lane to 4 Lane (Rural)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
2 Lane to 4 Lane (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

1	Note

#### Upgrade Arterial to Parkway/Expressway

Proposed Concept	Highway	Mileage		Pro	ject Cost (S	\$M)	
Proposed Concept	District	ivilleage	D	R	U	С	Total
Upgrade with Pavement Reconstruction			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Upgrade with Pavement Rehabilitation			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

	Note	

Proposed Concept	Highway		Pro	ject Cost (	\$M)		
Proposed Concept	District	Interchange	D	R	U	С	Total
New Service Interchange (Rural)	4	2	\$2.8	\$2.0	\$1.6	\$17.0	\$23.4
New Service Interchange (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Interchange Modification (Rural)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Interchange Modification (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Grade Separation Only			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note
New interchanges are proposed at KY 1357 and US 60.



#### Major Intersection Improvement

Major intersection improvement								
Existing Facility Highway # of			Project Cost (\$M)					
Existing Facility	District	Intersection	D	R	U	С	Total	
>= 4 Lanes in Both Directions	4,5	21	\$2.6	\$6.2	\$6.5	\$84.0	\$99.3	
< 4 Lanes in Both Directions			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	

Note	
Spot improvements at 21 intersections.	

#### **Major Structure**

Proposed Concept Highway Deck Area			Project Cost (\$M)				
Froposed concept	District	(sq ft)	D	R	U	С	Total
Bridge - Replacement			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Bridge - Rehabilitation	5	34,992	\$1.7	\$0.9	\$0.3	\$10.5	\$13.5

Note
Rehab/widening is recommended for a total of two bridges.

#### Summary of Total Cost (\$M)

Design	\$43.5		
ROW	\$32.6		
Utility	\$20.9		
Construction	\$249.5		
TOTAL	\$346.5		

- 1. The cost estimation may not include additional costs to address the potential impacts of major utilities (e.g., gas line, major water supplier, transmission line) within the proximity of the corridor, due to the lack of data when the report was prepared. Further investigation is recommended in future studies.
- 2. Cost estimation was based on 2020 dollars. There is a 1-3% inflation rate. Estimated cost could vary -50% to +250% of the actual number (as a rule of thumb).
- 3. The widening of a 2-lane facility to a 3-lane facility (with TWLTL or alternating passing lane) is considered as "Minor Widening (Undivided Road) 2 Lane to 4 Lane".
- $4. \ Major\ structure\ costs\ only\ include\ bridges\ that\ are\ within\ the\ corridor\ sections\ for\ proposed\ widening\ improvements.$
- 5. Cost estimation does not account for KYTC projects that are included in the proposed improvement concepts and are already under construction.
- 6. Shoulder widening is not included in the cost estimation, as it is a relatively minor cost.
- 7. If multiple improvement concepts are recommended for the corridor, only the cost of the larger-scale improvement concept is estimated.



### **Cost Estimation Detail - Corridor 18C**

#### **Corridor Information**

Route	US 31 W / US 150
From	I-265 in Louisville
То	I-64 in Louisville
Highway District	5

#### Characteristics

Functional Class	Principal Arterial
Lanes	2-6
Median	Undivided
Posted Speed	Typically 35 mph

#### **New Roadways**

Proposed Concept	Highway District Mileage	Milesas	Project Cost (\$M)				
		Willeage	D	R	U	С	Total
New 4 Lane Expressway			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
New Super 2 Highway			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
New 2 Lane Highway			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note	

#### Major Widening (Divided Road)

Proposed Concept	Highway District	Mileage	Project Cost (\$M)				
		Ivilleage	D	R	U	С	Total
4 Lane to 6 Lane (Rual)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
4 Lane to 6 Lane (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
2 Lane to 4 Lane (Rual)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
2 Lane to 4 Lane (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note

#### Minor Widening (Undivided Road)

Proposed Concept	Highway Mileag	Mileage	Project Cost (\$M)				
		Ivilleage	D	R	U	С	Total
2 Lane to 4 Lane (Rural)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
2 Lane to 4 Lane (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note	

## Upgrade Arterial to Parkway/Expressway

Proposed Concept	Highway Mileage	Project Cost (\$M)					
Proposed Concept	District	ivilleage	D	R	U	С	Total
Upgrade with Pavement Reconstruction			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Upgrade with Pavement Rehabilitation			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note	

Proposed Concept	Highway	# of	Project Cost (\$M)				
Froposed Concept	District	Interchange	D	R	U	С	Total
New Service Interchange (Rural)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
New Service Interchange (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Interchange Modification (Rural)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Interchange Modification (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Grade Separation Only			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note



#### Major Intersection Improvement

Existing Facility	Highway	# of		Pro	ject Cost (S	\$M)	
Existing Facility	District	Intersection	D	R	U	С	Total
>= 4 Lanes in Both Directions	5	24	\$14.4	\$52.8	\$12.0	\$96.0	\$175.2
< 4 Lanes in Both Directions	5	3	\$1.1	\$4.1	\$0.9	\$7.5	\$13.7

Note
Spot improvements at 24 intersections.
Spot improvements at 3 intersections.

#### **Major Structure**

Proposed Concept	Highway	Deck Area		Pro	ject Cost (	\$M)	
Proposed Concept	District	(sq ft)	D	R	U	С	Total
Bridge - Replacement			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Bridge - Rehabilitation			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note	

#### Summary of Total Cost (\$M)

Design	\$15.5
ROW	\$56.9
Utility	\$12.9
Construction	\$103.5
TOTAL	\$188.9

- 1. The cost estimation may not include additional costs to address the potential impacts of major utilities (e.g., gas line, major water supplier, transmission line) within the proximity of the corridor, due to the lack of data when the report was prepared. Further investigation is recommended in future studies.
- 2. Cost estimation was based on 2020 dollars. There is a 1-3% inflation rate. Estimated cost could vary -50% to +250% of the actual number (as a rule of thumb).
- 3. The widening of a 2-lane facility to a 3-lane facility (with TWLTL or alternating passing lane) is considered as "Minor Widening (Undivided Road) 2 Lane to 4 Lane".
- 4. Major structure costs only include bridges that are within the corridor sections for proposed widening improvements.
- 5. Cost estimation does not account for KYTC projects that are included in the proposed improvement concepts and are already under construction.
- 6. Shoulder widening is not included in the cost estimation, as it is a relatively minor cost.
- 7. If multiple improvement concepts are recommended for the corridor, only the cost of the larger-scale improvement concept is estimated.

<sup>\*</sup> Propose Access Manangement and Complete Streets throughout segment.



### **Cost Estimation Detail - Corridor 19**

#### **Corridor Information**

Route	US 119 / US 25 E / US 23
From	I-75
То	West Virginia State Border
Highway District	11, 12

#### Characteristics

Functional Class	Principal Arterial
Lanes	2-4
Median	Divided/Undivided
Posted Speed	Typically 55 mph

#### **New Roadways**

Proposed Concept	Highway	Mileage	Project Cost (\$M)				
Proposed Concept	District	ivilleage	D	R	U	С	Total
New 4 Lane Expressway			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
New Super 2 Highway			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
New 2 Lane Highway			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note	

#### Major Widening (Divided Road)

Proposed Concept Highwa	Highway	Mileage	Project Cost (\$M)				
Proposed Concept	District	Ivilleage	D	R	U	С	Total
4 Lane to 6 Lane (Rual)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
4 Lane to 6 Lane (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
2 Lane to 4 Lane (Rual)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
2 Lane to 4 Lane (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note

#### Minor Widening (Undivided Road)

Proposed Concept	Highway	Mileage		Pro	ject Cost (S	\$M)	
Froposed Concept	District	Ivilleage	D	R	U	С	Total
2 Lane to 4 Lane (Rural)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
2 Lane to 4 Lane (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note

## Upgrade Arterial to Parkway/Expressway

Proposed Concept	Highway	Mileage		Pro	ject Cost (S	\$M)	
Proposed Concept	District	ivilleage	D	R	U	С	Total
Upgrade with Pavement Reconstruction			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Upgrade with Pavement Rehabilitation			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note	

Proposed Concept	Highway	# of		Pro	ject Cost (	\$M)	
Proposed Concept	District	Interchange	D	R	U	С	Total
New Service Interchange (Rural)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
New Service Interchange (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Interchange Modification (Rural)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Interchange Modification (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Grade Separation Only			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note



#### **Major Intersection Improvement**

Existing Facility	Highway	# of		Pro	ject Cost (	\$M)	
EXISTING FACILITY	District	Intersection	D	R	C	С	Total
>= 4 Lanes in Both Directions	10,12	17	\$6.0	\$8.5	\$6.0	\$59.5	\$79.9
< 4 Lanes in Both Directions			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note	
Spot improvements at 17 intersections.	

#### **Major Structure**

		•					
Proposed Concept	Highway	Deck Area		Pro	ject Cost (S	\$M)	
Froposed Concept	District	(sq ft)	D	R	U	С	Total
Bridge - Replacement			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Bridge - Rehabilitation			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note	

<sup>\*</sup> Propose Improve shoulders and widen lanes to match the upgraded section between Harlan and Oven Fork, and spot improvements.

### Summary of Total Cost (\$M)

Design	\$6.0
ROW	\$8.5
Utility	\$6.0
Construction	\$59.5
TOTAL	\$79.9

- 1. The cost estimation may not include additional costs to address the potential impacts of major utilities (e.g., gas line, major water supplier, transmission line) within the proximity of the corridor, due to the lack of data when the report was prepared. Further investigation is recommended in future studies.
- 2. Cost estimation was based on 2020 dollars. There is a 1-3% inflation rate. Estimated cost could vary -50% to +250% of the actual number (as a rule of thumb).
- 3. The widening of a 2-lane facility to a 3-lane facility (with TWLTL or alternating passing lane) is considered as "Minor Widening (Undivided Road) 2 Lane to 4 Lane".
- 4. Major structure costs only include bridges that are within the corridor sections for proposed widening improvements.
- 5. Cost estimation does not account for KYTC projects that are included in the proposed improvement concepts and are already under construction.
- $6. \, Shoulder \, widening \, is \, not \, included \, in \, the \, cost \, estimation, \, as \, it \, is \, a \, relatively \, minor \, cost.$
- $7. \ If multiple improvement concepts are recommended for the corridor, only the cost of the larger-scale improvement concept is estimated.$



### **Cost Estimation Detail - Corridor 23**

#### **Corridor Information**

Route US 23		
From	Ohio State Line	
То	US 119 near Pikeville	
Highway District	9, 12	

#### Characteristics

Functional Class	Principal Arterial
Lanes	2-6
Median	Divided/Undivided
Posted Speed	Typically 55 mph

#### **New Roadways**

Proposed Concept	Highway District	Mileage	Project Cost (\$M)				
			D	R	U	С	Total
New 4 Lane Expressway			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
New Super 2 Highway			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
New 2 Lane Highway			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note	

#### Major Widening (Divided Road)

iviajoi wideiliig (Divided Road)								
Proposed Concept	Highway	Mileage		Project Cost (\$M)				
Proposed Concept	District	ivilleage	D	R	U	С	Total	
4 Lane to 6 Lane (Rual)	9	5	\$7.5	\$3.0	\$2.5	\$20.0	\$33.0	
4 Lane to 6 Lane (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	
2 Lane to 4 Lane (Rual)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	
2 Lane to 4 Lane (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	

Note	
Widen to a 6-lane divided section with access	
management from Winchester Ave in Ashland to KY	207
(Argillite Rd) in Flatwoods.	

### Minor Widening (Undivided Road)

3(1)							
Proposed Concept	Highway Mileage District	Project Cost (\$M)					
		ivilleage	D	R	U	С	Total
2 Lane to 4 Lane (Rural)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
2 Lane to 4 Lane (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note	

#### Upgrade Arterial to Parkway/Expressway

	Opgrade Arterial to Farkway, Expressway							
Proposed Concept	Highway		Project Cost (\$M)					
	District Mileage	D	R	U	С	Total		
Upgrade with Pavement			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	
Reconstruction			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	
Upgrade with Pavement			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	
Rehabilitation			ŞU.U	\$0.0	\$0.0	\$0.0	\$0.0	

Note

and a special control of the special control							
Proposed Concept	Highway	# of	Project Cost (\$M)				
Proposed Concept	District	Interchange	D	R	U	С	Total
New Service Interchange (Rural)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
New Service Interchange (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Interchange Modification (Rural)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Interchange Modification (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Grade Separation Only			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note



#### Major Intersection Improvement

major meroection improvement								
Existing Facility	Highway	# of	Project Cost (\$M)					
Existing Facility	District	Intersection	D	R	U	С	Total	
>= 4 Lanes in Both Directions	9,12	31	\$5.9	\$9.5	\$9.9	\$118.5	\$143.7	
< 4 Lanes in Both Directions			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	

Note	
Spot improvements at 33 intersections.	

#### **Major Structure**

Proposed Concept	Acced Concept Highway Deck Area Project Cost (\$M)						
Froposeu Concept	District	(sq ft)	D	R	U	С	Total
Bridge - Replacement			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Bridge - Rehabilitation	9	37,005	\$0.9	\$0.0	\$0.0	\$11.1	\$12.0

Note
Rehab/widening is recommended for a total of two bridges.

#### Summary of Total Cost (\$M)

Design	\$14.3
ROW	\$12.5
Utility	\$12.4
Construction	\$149.6
TOTAL	\$188.7

- 1. The cost estimation may not include additional costs to address the potential impacts of major utilities (e.g., gas line, major water supplier, transmission line) within the proximity of the corridor, due to the lack of data when the report was prepared. Further investigation is recommended in future studies.
- 2. Cost estimation was based on 2020 dollars. There is a 1-3% inflation rate. Estimated cost could vary -50% to +250% of the actual number (as a rule of thumb).
- 3. The widening of a 2-lane facility to a 3-lane facility (with TWLTL or alternating passing lane) is considered as "Minor Widening (Undivided Road) 2 Lane to 4 Lane".
- 4. Major structure costs only include bridges that are within the corridor sections for proposed widening improvements.
- 5. Cost estimation does not account for KYTC projects that are included in the proposed improvement concepts and are already under construction.
- 6. Shoulder widening is not included in the cost estimation, as it is a relatively minor cost.
- 7. If multiple improvement concepts are recommended for the corridor, only the cost of the larger-scale improvement concept is estimated.



### **Cost Estimation Detail - Corridor 27A**

#### **Corridor Information**

Route	US 27			
From	US 421 in Lexington			
То	US 27/ US 68 Split in Paris			
Highway District	7			

#### Characteristics

Functional Class	Principal Arterial		
Lanes	4		
Median	Undivided		
Posted Speed	Typically 55 mph		

#### **New Roadways**

Proposed Concept	Highway	Mileage	Project Cost (\$M)				
Proposed Concept	District		D	R	U	С	Total
New 4 Lane Expressway			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
New Super 2 Highway			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
New 2 Lane Highway			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note	

#### Major Widening (Divided Road)

Proposed Concept	Highway	Highway Mileage		Pro	ject Cost (S	\$M)	
Proposed Concept	District	Ivilleage	D	R	U	С	Total
4 Lane to 6 Lane (Rual)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
4 Lane to 6 Lane (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
2 Lane to 4 Lane (Rual)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
2 Lane to 4 Lane (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note	

#### Minor Widening (Undivided Road)

Proposed Concept	Highway	Mileage		Pro	ject Cost (S	\$M)	
Froposed Concept	District	ivilleage	D	R	U	С	Total
2 Lane to 4 Lane (Rural)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
2 Lane to 4 Lane (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note	

#### Upgrade Arterial to Parkway/Expressway

	10			<u> </u>			
Proposed Concept	Highway	Mileage	Project Cost (\$M)				
Proposed Concept	District	ivilleage	D	R	U	С	Total
Upgrade with Pavement Reconstruction			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Upgrade with Pavement Rehabilitation			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note	

Proposed Concept	Highway	# of	Project Cost (\$M)				
Froposed Concept	District	Interchange	D	R	U	С	Total
New Service Interchange (Rural)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
New Service Interchange (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Interchange Modification (Rural)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Interchange Modification (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Grade Separation Only			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note



#### Major Intersection Improvement

······jo······························							
Existing Facility	Highway	# of	Project Cost (\$M)				
Existing Facility	District	Intersection	D	R	U	С	Total
>= 4 Lanes in Both Directions	7	12	\$7.2	\$26.4	\$6.0	\$48.0	\$87.6
< 4 Lanes in Both Directions			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note	
Spot improvements at 12 intersections.	

#### **Major Structure**

Proposed Concept	Highway	Deck Area	Project Cost (\$M)				
Proposed Concept	District	(sq ft)	D	R	U	С	Total
Bridge - Replacement			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Bridge - Rehabilitation			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note	

### Summary of Total Cost (\$M)

Design	\$7.2
ROW	\$26.4
Utility	\$6.0
Construction	\$48.0
TOTAL	\$87.6

- 1. The cost estimation may not include additional costs to address the potential impacts of major utilities (e.g., gas line, major water supplier, transmission line) within the proximity of the corridor, due to the lack of data when the report was prepared. Further investigation is recommended in future studies.
- 2. Cost estimation was based on 2020 dollars. There is a 1-3% inflation rate. Estimated cost could vary -50% to +250% of the actual number (as a rule of thumb).
- 3. The widening of a 2-lane facility to a 3-lane facility (with TWLTL or alternating passing lane) is considered as "Minor Widening (Undivided Road) 2 Lane to 4 Lane".
- 4. Major structure costs only include bridges that are within the corridor sections for proposed widening improvements.
- 5. Cost estimation does not account for KYTC projects that are included in the proposed improvement concepts and are already under construction.
- 6. Shoulder widening is not included in the cost estimation, as it is a relatively minor cost.
- 7. If multiple improvement concepts are recommended for the corridor, only the cost of the larger-scale improvement concept is estimated.

<sup>\*</sup>Proposed Complete Streets and Access Management from US 421 (Main Street) to I-64/I-75.



#### **Cost Estimation Detail - Corridor 27B**

#### **Corridor Information**

Route	US 27
From	US 27/ US 68 Split in Paris
То	KY 9 (AA Highway) in Campbell County
Highway District	6, 7

#### Characteristics

Functional Class	Principal Arterial
Lanes	2-4
Median	Undivided/Divided
Posted Speed	Typically 55 mph

#### **New Roadways**

Proposed Concept	Highway	Mileage	Project Cost (\$M)				
	District	Willeage	D	R	U	С	Total
New 4 Lane Expressway			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
New Super 2 Highway			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
New 2 Lane Highway			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note

#### Major Widening (Divided Road)

Proposed Concept	Highway	Mileage	Project Cost (\$M)				
Froposed Concept	District	Willeage	D	R	U	С	Total
4 Lane to 6 Lane (Rual)	6,7	3.7	\$3.7	\$7.4	\$1.5	\$37.0	\$49.6
4 Lane to 6 Lane (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
2 Lane to 4 Lane (Rual)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
2 Lane to 4 Lane (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note
Widen to a 6-lane divided arterial from KY 10 (E. Main
Street) to KY 9 (AA Highway) near Alexandria.

#### Minor Widening (Undivided Road)

Proposed Concept	Highway	Mileage	Project Cost (\$M)					
Proposed Concept	District	Ivilleage	D	R	U	С	Total	
2 Lane to 4 Lane (Rural)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	
2 Lane to 4 Lane (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	

Note	

#### Upgrade Arterial to Parkway/Expressway

Opgrade Arterial to Farkway, Expressway								
Proposed Concept	Highway	Mileage	Project Cost (\$M)					
Proposed Concept	District	ivilleage	D	R	U	С	Total	
Upgrade with Pavement			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	
Reconstruction			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	
Upgrade with Pavement			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	
Rehabilitation			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	

Note

Proposed Concept	Highway	# of	Project Cost (\$M)				
Proposed Concept	District	Interchange	D	R	U	С	Total
New Service Interchange (Rural)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
New Service Interchange (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Interchange Modification (Rural)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Interchange Modification (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Grade Separation Only			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note



#### **Major Intersection Improvement**

Existing Facility	Highway	# of	Project Cost (\$M)					
Existing Facility	District	Intersection	D	R	U	С	Total	
>= 4 Lanes in Both Directions	6	5	\$3.0	\$11.0	\$2.5	\$20.0	\$36.5	
< 4 Lanes in Both Directions	6	2	\$0.8	\$2.8	\$0.6	\$5.0	\$9.1	

Note
Spot improvements at 5 intersections.
Spot improvements at 2 intersections.

#### **Major Structure**

Proposed Concept	Highway	Deck Area		Project Cost (\$M)			
Proposed Concept	District	(sq ft)	D	R	U	С	Total
Bridge - Replacement			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Bridge - Rehabilitation			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

No	te

### Summary of Total Cost (\$M)

Design	\$7.5
ROW	\$21.2
Utility	\$4.6
Construction	\$62.0
TOTAL	\$95.2

- 1. The cost estimation may not include additional costs to address the potential impacts of major utilities (e.g., gas line, major water supplier, transmission line) within the proximity of the corridor, due to the lack of data when the report was prepared. Further investigation is recommended in future studies.
- 2. Cost estimation was based on 2020 dollars. There is a 1-3% inflation rate. Estimated cost could vary -50% to +250% of the actual number (as a rule of thumb).
- 3. The widening of a 2-lane facility to a 3-lane facility (with TWLTL or alternating passing lane) is considered as "Minor Widening (Undivided Road) 2 Lane to 4 Lane".
- 4. Major structure costs only include bridges that are within the corridor sections for proposed widening improvements.
- 5. Cost estimation does not account for KYTC projects that are included in the proposed improvement concepts and are already under construction.
- 6. Shoulder widening is not included in the cost estimation, as it is a relatively minor cost.
- $7.\ If multiple improvement concepts are recommended for the corridor, only the cost of the larger-scale improvement concept is estimated.$

<sup>\*</sup>From 0.4 mile north of KY 1893 to 0.5 mile south of US 62 improve shoulders.



#### **Cost Estimation Detail - Corridor 27C**

#### **Corridor Information**

Route	US 27
From	AA Highway (KY 9)
То	Ohio State Line (Cincinnati)
Highway District	6

#### Characteristics

Functional Class	Principal Arterial
Lanes	2-6
Median	Undivided
Posted Speed	25-45 mph

**New Roadways** 

		11011 1100	attays				
Proposed Concept Highway District	Highway	Mileage	Project Cost (\$M)				
	District	Mileage	D	R	U	С	Total
New 4 Lane Expressway			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
New Super 2 Highway			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
New 2 Lane Highway			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note	

Major Widening (Divided Road)

major whaching (broaded noda)							
Proposed Concept	Highway	Mileage		Pro	ject Cost (	\$M)	
Froposed Concept	District	ivilleage	D	R	J	С	Total
4 Lane to 6 Lane (Rual)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
4 Lane to 6 Lane (Urban)	6	3	\$5.4	\$19.5	\$4.5	\$36.0	\$65.4
2 Lane to 4 Lane (Rual)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
2 Lane to 4 Lane (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

	Note		
ike on its e	existing alig	from AA Highwa nment. Access or.	y to

Minor Widening (Undivided Road)

				,			
Proposed Concept	Highway District Mileage	Mileege	Project Cost (\$M)				
		D	R	U	С	Total	
2 Lane to 4 Lane (Rural)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
2 Lane to 4 Lane (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note	

Upgrade Arterial to Parkway/Expressway

Proposed Concept	Highway	Mileage	Project Cost (\$M)				
Proposed Concept	District	ivilleage	D	R	U	С	Total
Upgrade with Pavement			\$0.0	\$0.0	\$0.0	ćo o	\$0.0
Reconstruction			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Upgrade with Pavement			40.0	40.0	40.0	40.0	40.0
Rehabilitation			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note

Proposed Concept	Highway	# of	Project Cost (\$M)				
Proposed Concept	District	Interchange	D	R	U	С	Total
New Service Interchange			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
(Rural)			Ş0.0	Ş0.0	Ş0.0	Ş0.0	٥.0 پ
New Service Interchange			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
(Urban)			Ç0.0	Ş0.0	Ş0.0	Ç0.0	Ş0.0
Interchange Modification			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
(Rural)			φο.σ	90.0	Ģ0.0	90.0	70.0
Interchange Modification	6	1	\$3.8	\$12.5	\$3.1	\$25.0	\$44.4
(Urban)	Ŭ	-	<b>\$5.0</b>	712.5	75.1	Ψ23.0	<b>У</b> -т-т-
Grade Separation Only			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Grade Separation Only			Ş0.0	Ş0.0	Ş0.0	Ş0.0	Ç0.0

Note
Improvement is proposed for the interchagne at I-471.



#### Major Intersection Improvement

major intersection improvement							
Existing Facility	Highway	# of	Project Cost (\$M)				
Existing Facility	District	Intersection	D	R	U	С	Total
>= 4 Lanes in Both Directions	6	13	\$7.8	\$28.6	\$6.5	\$52.0	\$94.9
< 4 Lanes in Both Directions	6	9	\$3.4	\$12.4	\$2.8	\$22.5	\$41.1

Note
Spot improvements at 13 intersections.
Spot improvements at 9 intersections.

#### **Major Structure**

Proposed Concept	Highway	# of	Project Cost (\$M)				
Proposed Concept	District	Intersection	D	R	U	С	Total
Bridge - Replacement			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Bridge - Rehabilitation			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note

<sup>\*</sup>Propose road diet from Highland Avenue to Carothers Street Road per the US 27 Traffic Analysis for the City of Newport.

Propose a 3-lane section with 2 northbound lane and 1 southbound lane from 11th Street to Carothers Street per the US 27 Traffic Analysis for the City of Newport

### Summary of Total Cost (\$M)

Design	\$20.3
ROW	\$73.0
Utility	\$16.9
Construction	\$135.5
TOTAL	\$245.7

- 1. The cost estimation may not include additional costs to address the potential impacts of major utilities (e.g., gas line, major water supplier, transmission line) within the proximity of the corridor, due to the lack of data when the report was prepared. Further investigation is recommended in future studies.
- 2. Cost estimation was based on 2020 dollars. There is a 1-3% inflation rate. Estimated cost could vary -50% to +250% of the actual number (as a rule of thumb).
- 3. The widening of a 2-lane facility to a 3-lane facility (with TWLTL or alternating passing lane) is considered as "Minor Widening (Undivided Road) 2 Lane to 4 Lane".
- 4. Major structure costs only include bridges that are within the corridor sections for proposed widening improvements.
- 5. Cost estimation does not account for KYTC projects that are included in the proposed improvement concepts and are already under construction.
- 6. Shoulder widening is not included in the cost estimation, as it is a relatively minor cost.
- 7. If multiple improvement concepts are recommended for the corridor, only the cost of the larger-scale improvement concept is estimated.



### **Cost Estimation Detail - Corridor 28A**

#### **Corridor Information**

Route	US 68				
From	Man o' War Blvd				
То	I-64/I-75 Interchange				
Highway District	7				

#### Characteristics

Functional Class	Principal Arterial
Lanes	4-6
Median	Undivided/Divided
Posted Speed	Typically 45 mph

#### **New Roadways**

new neadurays								
Proposed Concept	Highway	8.011	Project Cost (\$M)					
	District	Mileage	D	R	U	С	Total	
New 4 Lane Expressway			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	
New Super 2 Highway			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	
New 2 Lane Highway			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	

Note

### Major Widening (Divided Road)

Proposed Concept	Highway District	Mileage	Project Cost (\$M)					
Proposed Concept			D	R	U	С	Total	
4 Lane to 6 Lane (Rual)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	
4 Lane to 6 Lane (Urban)	7	3.4	\$6.1	\$22.1	\$5.1	\$40.8	\$74.1	
2 Lane to 4 Lane (Rual)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	
2 Lane to 4 Lane (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	

Note
Man O' War Boulevard to Waller Avenue widen to 6 lanes.

## Minor Widening (Undivided Road)

0(								
Proposed Concept	Highway	Mileage	Project Cost (\$M)					
	District		D	R	U	С	Total	
2 Lane to 4 Lane (Rural)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	
2 Lane to 4 Lane (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	

Note

## Upgrade Arterial to Parkway/Expressway

oppliate fitterial to landway, Expressivay							
Proposed Concept	Highway	Mileage		Pro	ject Cost (	\$M)	
Proposed Concept	District	ivilleage	D	R	U	С	Total
Upgrade with Pavement			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Reconstruction			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Upgrade with Pavement			ćo o	ćo o	ćo o	ćo o	ćo o
Rehabilitation			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note	

Grade Separation / New Interminings Addess							
Proposed Concept	Highway	# of		Pro	ject Cost (S	\$M)	
Proposed Concept	District	Interchange	D	R	U	С	Total
New Service Interchange			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
(Rural)			Ç0.0	Ç0.0	Ş0.0	Ç0.0	Ş0.0
New Service Interchange			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
(Urban)			Ç0.0	\$0.0	Ş0.0	\$0.0	Ş0.0
Interchange Modification			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
(Rural)			\$0.0	\$0.0	Ģ0.0	\$0.0	90.0
Interchange Modification			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
(Urban)			90.0	90.0	90.0	90.0	90.0
Grade Separation Only			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Grade Separation Only			90.0	70.0	Ç0.0	70.0	90.0

Note	



#### Major Intersection Improvement

major intersection improvement							
Existing Facility	Highway	# of		Pro	ject Cost (	\$M)	
EXISTING FACILITY	District	Intersection	D	R	U	С	Total
>= 4 Lanes in Both Directions	7	22	\$13.2	\$48.4	\$11.0	\$88.0	\$160.6
< 4 Lanes in Both Directions			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note

#### **Major Structure**

Proposed Concept	Highway	Deck Area		Pro	ject Cost (S	\$M)	
Froposed Concept	District	(sq ft)	D	R	U	С	Total
Bridge - Replacement			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Bridge - Rehabilitation	7	1,210	\$0.1	\$0.0	\$0.0	\$0.4	\$0.5

Note
Rehab/widening is recommended for 1 bridge.

### Summary of Total Cost (\$M)

Design	\$19.4
ROW	\$70.5
Utility	\$16.1
Construction	\$129.2
TOTAL	\$235.2

- 1. The cost estimation may not include additional costs to address the potential impacts of major utilities (e.g., gas line, major water supplier, transmission line) within the proximity of the corridor, due to the lack of data when the report was prepared. Further investigation is recommended in future studies.
- 2. Cost estimation was based on 2020 dollars. There is a 1-3% inflation rate. Estimated cost could vary -50% to +250% of the actual number (as a rule of thumb).
- 3. The widening of a 2-lane facility to a 3-lane facility (with TWLTL or alternating passing lane) is considered as "Minor Widening (Undivided Road) 2 Lane to 4 Lane".
- $4. \ Major \ structure \ costs \ only \ include \ bridges \ that \ are \ within \ the \ corridor \ sections \ for \ proposed \ widening \ improvements.$
- 5. Cost estimation does not account for KYTC projects that are included in the proposed improvement concepts and are already under construction.
- 6. Shoulder widening is not included in the cost estimation, as it is a relatively minor cost.
- 7. If multiple improvement concepts are recommended for the corridor, only the cost of the larger-scale improvement concept is estimated.



### **Cost Estimation Detail - Corridor 28B**

#### **Corridor Information**

Route	US 68 / US 27
From	I-64/ I-75 in Fayette County
То	Ohio State Line – Mason County
Highway District	6, 7, 9

### Characteristics

Functional Class	Principal Arterial
Lanes	2-4
Median	Undivided/Divided
Posted Speed	Typically 55 mph

#### **New Roadways**

Proposed Concept	Highway	Mileage	Project Cost (\$M)				
Proposed Concept	District	ivilleage	D	R	U	С	Total
New 4 Lane Expressway			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
New Super 2 Highway			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
New 2 Lane Highway			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note	

### Major Widening (Divided Road)

Proposed Concept Highway Mileage				Project Cost (\$M)			
Proposed Concept	District	ivilleage	D	R	U	С	Total
4 Lane to 6 Lane (Rual)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
4 Lane to 6 Lane (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
2 Lane to 4 Lane (Rual)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
2 Lane to 4 Lane (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note	

### Minor Widening (Undivided Road)

Proposed Concept	Highway	Mileage	Project Cost (\$M)				
Froposed Concept	District	ivilleage	D	R	U	С	Total
2 Lane to 4 Lane (Rural)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
2 Lane to 4 Lane (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note

## Upgrade Arterial to Parkway/Expressway

Proposed Concept	Highway	Mileage	Project Cost (\$M)				
Proposed Concept	District	willeage	D	R	U	С	Total
Upgrade with Pavement Reconstruction			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Upgrade with Pavement Rehabilitation			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note	

Proposed Concept	Highway # of			f Project Cost (\$			SM)		
Proposed Concept	District	Interchange	D	R	U	С	Total		
New Service Interchange (Rural)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0		
New Service Interchange (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0		
Interchange Modification (Rural)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0		
Interchange Modification (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0		
Grade Separation Only			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0		

Note



#### Major Intersection Improvement

Existing Facility	Highway	# of	Project Cost (\$M)				
Existing Facility	District	Intersection	D	R	U	С	Total
>= 4 Lanes in Both Directions	7	5	\$3.0	\$11.0	\$2.5	\$20.0	\$36.5
< 4 Lanes in Both Directions			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note	
Spot improvements at 5 intersections.	

#### **Major Structure**

Proposed Concept	Highway	Deck Area	Project Cost (\$M)				
Froposed Concept	District	(sq ft)	D	R	U	С	Total
Bridge - Replacement			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Bridge - Rehabilitation			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note

#### Summary of Total Cost (\$M)

Design	\$3.0
ROW	\$11.0
Utility	\$2.5
Construction	\$20.0
TOTAL	\$36.5

- 1. The cost estimation may not include additional costs to address the potential impacts of major utilities (e.g., gas line, major water supplier, transmission line) within the proximity of the corridor, due to the lack of data when the report was prepared. Further investigation is recommended in future studies.
- 2. Cost estimation was based on 2020 dollars. There is a 1-3% inflation rate. Estimated cost could vary -50% to +250% of the actual number (as a rule of thumb).
- 3. The widening of a 2-lane facility to a 3-lane facility (with TWLTL or alternating passing lane) is considered as "Minor Widening (Undivided Road) 2 Lane to 4 Lane".
- 4. Major structure costs only include bridges that are within the corridor sections for proposed widening improvements.
- 5. Cost estimation does not account for KYTC projects that are included in the proposed improvement concepts and are already under construction.
- 6. Shoulder widening is not included in the cost estimation, as it is a relatively minor cost.
- 7. If multiple improvement concepts are recommended for the corridor, only the cost of the larger-scale improvement concept is estimated.

<sup>\*</sup> Improve shoulders from Millersburg Bypass to KY 1244.



### **Cost Estimation Detail - Corridor 30A**

#### **Corridor Information**

Route	US 27
From	Tennessee State Line
То	US 27 Bypass near Nicholasville
Highway District	7.8

#### Characteristics

Functional Class	Principal Arterial
Lanes	2-6
Median	Undivided/Divided
Posted Speed	Typically 55 mph

#### **New Roadways**

new nodaways								
Droposod Concept	Highway Mileage District	Project Cost (\$M)						
Proposed Concept		D	R	U	С	Total		
New 4 Lane Expressway	7	3.28	\$4.9	\$6.6	\$1.3	\$32.8	\$45.6	
New Super 2 Highway			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	
New 2 Lane Highway			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	

Note
A new western bypass around Lancaster

### Major Widening (Divided Road)

Proposed Concept	Highway	Mileage	Project Cost (\$M)					
Proposed Concept	District	Willeage	D	R	U	С	Total	
4 Lane to 6 Lane (Rual)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	
4 Lane to 6 Lane (Urban)	7	3	\$5.4	\$19.5	\$4.5	\$36.0	\$65.4	
2 Lane to 4 Lane (Rual)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	
2 Lane to 4 Lane (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	

Note						
Widen to a 6-lane divided facility from Wichita Drive to US 27 Bus (north) in Nicholasville.						

#### Minor Widening (Undivided Road)

, , , , , , , , , , , , , , , , , , ,							
Proposed Concept	Highway Mileage	Project Cost (\$M)					
	District	District	D	R	U	С	Total
2 Lane to 4 Lane (Rural)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
2 Lane to 4 Lane (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note	

## Upgrade Arterial to Parkway/Expressway

Proposed Concept	Highway	Mileage	Project Cost (\$M)					
Proposed Concept	District		D	R	U	С	Total	
Upgrade with Pavement			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	
Reconstruction			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	
Upgrade with Pavement			60.0	ćo o	ćo o	ćo o	60.0	
Rehabilitation			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	

Note

Proposed Concept	Highway	# of		Pro	ject Cost (S	\$M)	
Proposed Concept	District	Interchange	D	R	U	С	Total
New Service Interchange (Rural)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
New Service Interchange (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Interchange Modification (Rural)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Interchange Modification (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Grade Separation Only			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note	
	Note



#### Major Intersection Improvement

Existing Facility Highway		# of	Project Cost (\$M)				
Existing Facility	District	Intersection	D	R	U	С	Total
>= 4 Lanes in Both Directions	7,8	22	\$6.2	\$20.4	\$8.2	\$88.0	\$122.8
< 4 Lanes in Both Directions			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note	
Spot improvements at 22 intersections.	

#### **Major Structure**

Proposed Concept	Highway	Deck Area		Pro	ject Cost (S	\$M)	
Proposed Concept	District	(sq ft)	D	R	U	С	Total
Bridge - Replacement			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Bridge - Rehabilitation			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note

#### **Major Structure**

Proposed Concept	Highway Deck Area			Pro	ject Cost (S	\$M)	
Froposed Concept	District	(sq ft)	D	R	U	С	Total
Bridge - Replacement			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Bridge - Rehabilitation	7	28,034	\$1.4	\$0.7	\$0.3	\$8.4	\$10.8

Note
1 bridge for rehab/widening.

<sup>\*</sup>KY 70 (near Eubank) to KY 78 (in Stanford) & KY 590 (in Stanford) to KY 39 (in Lancaster) improve shoulders.

### Summary of Total Cost (\$M)

Design	\$13.0
ROW	\$40.6
Utility	\$13.0
Construction	\$132.4
TOTAL	\$199.0

- 1. The cost estimation may not include additional costs to address the potential impacts of major utilities (e.g., gas line, major water supplier, transmission line) within the proximity of the corridor, due to the lack of data when the report was prepared. Further investigation is recommended in future studies.
- 2. Cost estimation was based on 2020 dollars. There is a 1-3% inflation rate. Estimated cost could vary -50% to +250% of the actual number (as a rule of thumb).
- 3. The widening of a 2-lane facility to a 3-lane facility (with TWLTL or alternating passing lane) is considered as "Minor Widening (Undivided Road) 2 Lane to 4 Lane".
- 4. Major structure costs only include bridges that are within the corridor sections for proposed widening improvements.
- 5. Cost estimation does not account for KYTC projects that are included in the proposed improvement concepts and are already under construction.
- 6. Shoulder widening is not included in the cost estimation, as it is a relatively minor cost.
- 7. If multiple improvement concepts are recommended for the corridor, only the cost of the larger-scale improvement concept is estimated.



### **Cost Estimation Detail - Corridor 30B**

### **Corridor Information**

Route	US 27
	US 27 Bypass/US 27 Business/S. Main
From	Street in Nicholasville
То	E. Main Street/US 25 in Lexington
Highway District	7

#### Characteristics

Functional Class	Principal Arterial
Lanes	4-10
Median	Undivided
Posted Speed	35-55 mph

### **New Roadways**

Proposed Concept	Highway	Mileage	Project Cost (\$M)				
Froposed Concept	District	Willeage	D	R	_	С	Total
New 4 Lane Expressway			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
New Super 2 Highway			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
New 2 Lane Highway			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note

#### Major Widening (Divided Road)

Dronocod Concent	Proposed Concept Highway Mileage Project Cost (\$M)						
Proposed Concept	District	ivilleage	D	R	U	С	Total
4 Lane to 6 Lane (Rual)	7	1.8	\$1.8	\$3.6	\$0.7	\$18.0	\$24.1
4 Lane to 6 Lane (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
2 Lane to 4 Lane (Rual)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
2 Lane to 4 Lane (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note	
Widen to 6-lane divided section from KY 1980 to Man O' War Boulevard	_
	_
	_

### Minor Widening (Undivided Road)

Proposed Concept	Highway	Mileage		Pro	ject Cost (	\$M)	
Froposeu Concept	District	Willeage	D	R	_	С	Total
2 Lane to 4 Lane (Rural)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
2 Lane to 4 Lane (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note	

#### Upgrade Arterial to Parkway/Expressway

Proposed Concept Highway		Mileage	Project Cost (\$M)					
Froposeu Concept	District	Willeage	D	R	_	С	Total	
Upgrade with Pavement Reconstruction			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	
Upgrade with Pavement Rehabilitation			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	

Note

Grade Separation / New Interchange Access								
Proposed Concept	Highway	# of	Project Cost (\$M)					
Proposed Concept	District	Interchange	D	R	U	С	Total	
New Service Interchange (Rural)	7	1	\$1.5	\$3.0	\$0.6	\$15.0	\$20.1	
New Service Interchange (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	
Interchange Modification (Rural)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	
Interchange Modification (Urban)	7	1	\$3.8	\$12.5	\$3.1	\$25.0	\$44.4	
Grade Separation Only			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	

Note
New interchange north of the existing US 27 and US 27 bypass intersection.
Improvement is proposed for the interchange at KY 4.



#### **Major Intersection Improvement**

Existing Facility	Highway	# of	Project Cost (\$M)				
Existing Facility	District	Intersection	D	R	U	С	Total
>= 4 Lanes in Both Directions	7	26	\$15.6	\$57.2	\$13.0	\$104.0	\$189.8
< 4 Lanes in Both Directions			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note	
Spot improvements at 26 intersections.	

#### **Major Structure**

Proposed Concept	Highway	Deck Area	Project Cost (\$M)					
Froposed Concept	District	(sq ft)	D	R	U	С	Total	
Bridge - Replacement			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	
Bridge - Rehabilitation			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	

Note

### Summary of Total Cost (\$M)

Design	\$22.7
ROW	\$76.3
Utility	\$17.4
Construction	\$162.0
TOTAL	\$278.4

- 1. The cost estimation may not include additional costs to address the potential impacts of major utilities (e.g., gas line, major water supplier, transmission line) within the proximity of the corridor, due to the lack of data when the report was prepared. Further investigation is recommended in future studies.
- 2. Cost estimation was based on 2020 dollars. There is a 1-3% inflation rate. Estimated cost could vary -50% to +250% of the actual number (as a rule of thumb).
- 3. The widening of a 2-lane facility to a 3-lane facility (with TWLTL or alternating passing lane) is considered as "Minor Widening (Undivided Road) 2 Lane to 4 Lane".
- 4. Major structure costs only include bridges that are within the corridor sections for proposed widening improvements.
- 5. Cost estimation does not account for KYTC projects that are included in the proposed improvement concepts and are already under construction.
- 6. Shoulder widening is not included in the cost estimation, as it is a relatively minor cost.
- 7. If multiple improvement concepts are recommended for the corridor, only the cost of the larger-scale improvement concept is estimated.



## **Cost Estimation Detail - Corridor 31A**

#### **Corridor Information**

Route	US 31 E / US 150
From	Bluegrass Pkwy
То	I-265 in Louisville
Highway District	4, 5

#### Characteristics

Functional Class	Minor Arterial
Lanes	2 or 4
Median	Undivided / Divided
Posted Speed	35 - 55 mph

## **New Roadways**

Proposed Concept	Highway	· Mileage	Project Cost (\$M)					
	District		D	R	U	С	Total	
New 4 Lane Expressway			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	
New Super 2 Highway			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	
New 2 Lane Highway			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	

Note

### Major Widening (Divided Road)

major whaching (broade Road)									
Proposed Concept	Highway Mileage District	Mileege	Project Cost (\$M)						
		ivilleage	D	R	٥	С	Total		
4 Lane to 6 Lane (Rual)	5	6.9	\$6.9	\$13.8	\$2.8	\$69.0	\$92.5		
4 Lane to 6 Lane (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0		
2 Lane to 4 Lane (Rual)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0		
2 Lane to 4 Lane (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0		

Note
Widen to a 6-lane divided arterial from KY 44 in Mt. Washington to I-265.

### Minor Widening (Undivided Road)

Drangered Concept	Highway	Mileoge	Project Cost (\$M)						
Proposed Concept	District	Mileage	D	R	U	С	Total		
2 Lane to 4 Lane (Rural)	4	2	\$2.2	\$1.2	\$0.8	\$8.0	\$12.2		
2 Lane to 4 Lane (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0		

Note
Widen to a 4-lane undivided arterial from Bluegrass
Pkwy to US 62 in Bardstown.

### Upgrade Arterial to Parkway/Expressway

Proposed Concept	Highway	Mileage	Project Cost (\$M)					
	District		D	R	U	С	Total	
Upgrade with Pavement Reconstruction			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	
Upgrade with Pavement Rehabilitation			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	

Note	
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Proposed Concept	Highway	Project Cost (\$M)					
Proposed Concept	District	Interchange	D	R	U	С	Total
New Service Interchange			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
(Rural)			Ş0.0	Ş0.0	30.0	Ş0.0	30.0
New Service Interchange			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
(Urban)			Ş0.0	Ş0.0	Ç0.0	Ş0.0	Ş0.0
Interchange Modification			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
(Rural)			Ş0.0	Ş0.0	Ç0.0	Ş0.0	Ş0.0
Interchange Modification	5	1	\$3.8	\$12.5	\$3.1	\$25.0	\$44.4
(Urban)		-	φσ.σ	<b>V12.</b> 3	ψ0.1	Ψ25.0	Ψ·····
Grade Separation Only			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Grade Separation Only			Ş0.0	Ş0.0	Ş0.0	0.00	0.0

Note
Improvement is proposed for the interchange at I-265.



#### **Major Intersection Improvement**

Existing Facility Highway		# of	Project Cost (\$M)				
Existing Facility	District	Intersection	D	R	U	С	Total
>= 4 Lanes in Both Directions	4,5	9	\$3.4	\$11.8	\$3.7	\$36.0	\$54.9
< 4 Lanes in Both Directions	4	4	\$0.4	\$0.4	\$0.4	\$8.0	\$9.2

Note	
Spot improvements at 9 intersections.	
Spot improvements at 4 intersections.	

#### **Major Structure**

Proposed Concept Highway Deck Area (sq		Project Cost (\$M)					
Proposed Concept	District	ft)	D	R	U	С	Total
Bridge - Replacement			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Bridge - Rehabilitation	4,5	65,527	\$2.6	\$0.9	\$0.4	\$19.7	\$23.5

Note
Rehab/widening is recommended for a total of 4 bridges.

### Summary of Total Cost (\$M)

Design	\$19.2
ROW	\$40.6
Utility	\$11.1
Construction	\$165.7
TOTAL	\$236.6

- 1. The cost estimation may not include additional costs to address the potential impacts of major utilities (e.g., gas line, major water supplier, transmission line) within the proximity of the corridor, due to the lack of data when the report was prepared. Further investigation is recommended in future studies.
- 2. Cost estimation was based on 2020 dollars. There is a 1-3% inflation rate. Estimated cost could vary -50% to +250% of the actual number (as a rule of thumb).
- 3. The widening of a 2-lane facility to a 3-lane facility (with TWLTL or alternating passing lane) is considered as "Minor Widening (Undivided Road) 2 Lane to 4 Lane".
- 4. Major structure costs only include bridges that are within the corridor sections for proposed widening improvements.
- 5. Cost estimation does not account for KYTC projects that are included in the proposed improvement concepts and are already under construction.
- 6. Shoulder widening is not included in the cost estimation, as it is a relatively minor cost.
- 7. If multiple improvement concepts are recommended for the corridor, only the cost of the larger-scale improvement concept is estimated.



### **Cost Estimation Detail - Corridor 32**

#### **Corridor Information**

Route	KY 11 / KY 32 / US 460
From	AA Highway
То	US 23 in Paintsville
Highway District	9, 10, 12

#### Characteristics

Functional Class	Minor Arterial
Lanes	2-4
Median	Undivided
Posted Speed	Typically 55 mph

#### **New Roadways**

Proposed Concept Highway Milea		Mileage	Project Cost (\$M)				
Proposed Concept	District	ivilleage	D	R	U	С	Total
New 4 Lane Expressway			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
New Super 2 Highway			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
New 2 Lane Highway			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note

#### Major Widening (Divided Road)

wajor wacama (biviaca noda)							
Proposed Concept	Highway	Highway Mileage		Pro	ject Cost (	\$M)	
Proposed Concept	District	Willeage	D	R	_	С	Total
4 Lane to 6 Lane (Rual)	9	2.8	\$4.2	\$1.7	\$1.4	\$11.2	\$18.5
4 Lane to 6 Lane (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
2 Lane to 4 Lane (Rual)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
2 Lane to 4 Lane (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note	
Widen to a 6-lane divided section with access n from I-64 to US 60.	nanagement

## Minor Widening (Undivided Road)

Proposed Concept Highway Mileage		Mileage	Project Cost (\$M)				
Proposed Concept	District	ivilleage	D	R	U	С	Total
2 Lane to 4 Lane (Rural)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
2 Lane to 4 Lane (Urban)	9	0.5	\$0.8	\$0.6	\$0.4	\$2.6	\$4.3

Note	
Widen to a 4-lane divided section with turn lanes at intersections from KY 32 to KY 519.	

### Upgrade Arterial to Parkway/Expressway

Proposed Concept	Highway	Highway Mileage				Project Cost (\$M)		
Proposed Concept	District	ivilleage	D	R	U	С	Total	
Upgrade with Pavement Reconstruction			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	
Upgrade with Pavement Rehabilitation			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	

Note	

Proposed Concept	Highway	# of		Project Cost (\$M)				
	District	Interchange	D	R	U	С	Total	
New Service Interchange (Rural)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	
New Service Interchange (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	
Interchange Modification (Rural)	9	1	\$0.6	\$1.2	\$0.3	\$7.2	\$9.3	
Interchange Modification (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	
Grade Separation Only			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	

Note
Improvement is proposed for the interchange at I-64.



#### **Major Intersection Improvement**

Existing Facility	Highway	# of	Project Cost (\$M)				
Existing Facility	District	Intersection	D	R	0	С	Total
>= 4 Lanes in Both Directions	9,10	13	\$1.6	\$2.9	\$4.0	\$51.5	\$59.9
< 4 Lanes in Both Directions			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

	Note	
Spot improvement	s at 13 intersections.	

#### **Major Structure**

Proposed Concept	Highway	Deck Area	Project Cost (\$M)				
Proposed Concept	District	(sq ft)	D	R	U	С	Total
Bridge - Replacement			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Bridge - Rehabilitation			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note

### Summary of Total Cost (\$M)

Design	\$7.1
ROW	\$6.4
Utility	\$6.0
Construction	\$72.5
TOTAL	\$92.0

- 1. The cost estimation may not include additional costs to address the potential impacts of major utilities (e.g., gas line, major water supplier, transmission line) within the proximity of the corridor, due to the lack of data when the report was prepared. Further investigation is recommended in future studies.
- 2. Cost estimation was based on 2020 dollars. There is a 1-3% inflation rate. Estimated cost could vary -50% to +250% of the actual number (as a rule of thumb).
- 3. The widening of a 2-lane facility to a 3-lane facility (with TWLTL or alternating passing lane) is considered as "Minor Widening (Undivided Road) 2 Lane to 4 Lane".
- $4. \ Major \ structure \ costs \ only \ include \ bridges \ that \ are \ within \ the \ corridor \ sections \ for \ proposed \ widening \ improvements.$
- 5. Cost estimation does not account for KYTC projects that are included in the proposed improvement concepts and are already under construction.
- ${\it 6. Shoulder widening is not included in the cost estimation, as it is a relatively minor cost.}\\$
- 7. If multiple improvement concepts are recommended for the corridor, only the cost of the larger-scale improvement concept is estimated.



### **Cost Estimation Detail - Corridor 33A**

#### **Corridor Information**

Route	US 127
From	TN State Line
То	I-64 near Frankfort
Highway District	5, 7, 8

#### Characteristics

Functional Class	Principal Arterial
Lanes	2 or 4
Median	Undivided / Divided
Posted Speed	55 mph

#### **New Roadways**

Proposed Concept	Highway	Mileage	Project Cost (\$M)				
	District	ivilleage	D	R	U	С	Total
New 4 Lane Expressway			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
New Super 2 Highway			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
New 2 Lane Highway			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note

### Major Widening (Divided Road)

Proposed Concept	Highway	Mileage	Project Cost (\$M)				
	District	ivilleage	D	R	U	С	Total
4 Lane to 6 Lane (Rual)	7	1.5	\$1.5	\$3.0	\$0.6	\$15.0	\$20.1
4 Lane to 6 Lane (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
2 Lane to 4 Lane (Rual)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
2 Lane to 4 Lane (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note
Widen to a 6-lane divided arterial from 0.7 mile south of
US 62 to KY 44 in Lawrenceburg.

## Minor Widening (Undivided Road)

Proposed Concept	Highway Mileage	Project Cost (\$M)					
	District	ivilleage	D	R	٥	С	Total
2 Lane to 4 Lane (Rural)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
2 Lane to 4 Lane (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note	

#### Upgrade Arterial to Parkway/Expressway

Proposed Concept	Highway	Mileage	Project Cost (\$M)				
Proposed Concept	District	ivilleage	D	R	U	С	Total
Upgrade with Pavement			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Reconstruction			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Upgrade with Pavement			ćo o	ćo o	\$0.0	ćo o	\$0.0
Rehabilitation			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note

and a copulation / man man go made of							
Proposed Concept	# of	Project Cost (\$M)					
Proposed Concept	District	Interchange	D	R	U	С	Total
New Service Interchange			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
(Rural)			Ş0.0	Ş0.0	Ş0.0	٥.00	Ş0.0
New Service Interchange			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
(Urban)			Ş0.0	Ş0.0	Ş0.0	٥.00	Ş0.0
Interchange Modification			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
(Rural)			Ş0.0	Ş0.0	Ş0.0	٥.00	Ş0.0
Interchange Modification			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
(Urban)			90.0	φο.σ	90.0	90.0	90.0
Grade Separation Only			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Grade Separation Only			\$0.0	\$0.0	\$0.0	\$0.0	Ş0.0

Note	



#### **Major Intersection Improvement**

	iviaj	or intersectio	ii iiiipi ovc	iliciic			
Existing Facility	Highway	# of	Project Cost (\$M)				
Existing Facility	District	Intersection	D	R	٥	С	Total
>= 4 Lanes in Both Directions	5, 7	15	\$9.0	\$33.0	\$7.5	\$60.0	\$109.5
< 4 Lanes in Both Directions	8	4	\$0.4	\$0.4	\$0.4	\$8.0	\$9.2

Note
Spot improvements at 15 intersections.
Spot improvements at 4 intersections.

#### **Major Structure**

Proposed Concept	Highway	Deck Area		Pro	ject Cost (	\$M)	
Froposed Concept	District	(sq ft)	D	R	٥	С	Total
Bridge - Replacement			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Bridge - Rehabilitation			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note

## Summary of Total Cost (\$M)

Design	\$10.9
ROW	\$36.4
Utility	\$8.5
Construction	\$83.0
TOTAL	\$138.8

- 1. The cost estimation may not include additional costs to address the potential impacts of major utilities (e.g., gas line, major water supplier, transmission line) within the proximity of the corridor, due to the lack of data when the report was prepared. Further investigation is recommended in future studies.
- 2. Cost estimation was based on 2020 dollars. There is a 1-3% inflation rate. Estimated cost could vary -50% to +250% of the actual number (as a rule of thumb).
- 3. The widening of a 2-lane facility to a 3-lane facility (with TWLTL or alternating passing lane) is considered as "Minor Widening (Undivided Road) 2 Lane to 4 Lane".
- 4. Major structure costs only include bridges that are within the corridor sections for proposed widening improvements.
- 5. Cost estimation does not account for KYTC projects that are included in the proposed improvement concepts and are already under construction.
- 6. Shoulder widening is not included in the cost estimation, as it is a relatively minor cost.
- 7. If multiple improvement concepts are recommended for the corridor, only the cost of the larger-scale improvement concept is estimated.



## **Cost Estimation Detail - Corridor 33B**

#### **Corridor Information**

Route	US 127
From	I-64 near Frankfort
То	I-71
Highway District	5, 6

#### Characteristics

	Principal Arterial or Minor
Functional Class	Arterial
Lanes	2 or 4
Median	Undivided / Divided
Posted Speed	45 or 55 mph

#### **New Roadways**

new modularys							
Proposed Concept	Highway	Mileage	Project Cost (\$M)				
Froposed Concept	District	ivilleage	D	R	٥	С	Total
New 4 Lane Expressway			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
New Super 2 Highway			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
New 2 Lane Highway			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note	

#### Major Widening (Divided Road)

wajor widening (bivided Rodd)							
Burness d Coursest	Highway	Mileage		Pro	ject Cost (	<b>\$М)</b>	
Proposed Concept	District	Mileage	D	R	U	С	Total
4 Lane to 6 Lane (Rual)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
4 Lane to 6 Lane (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
2 Lane to 4 Lane (Rual)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
2 Lane to 4 Lane (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note

## Minor Widening (Undivided Road)

Proposed Concept	Highway	· Mileage	Project Cost (\$M)					
Proposed Concept	District		D	R	٥	С	Total	
2 Lane to 4 Lane (Rural)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	
2 Lane to 4 Lane (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	

Note	

#### Upgrade Arterial to Parkway/Expressway

Proposed Concept	Highway	Mileege	Project Cost (\$M)				
Proposed Concept	District	Mileage	D	R	U	С	Total
Upgrade with Pavement Reconstruction			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Upgrade with Pavement Rehabilitation			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note

Grade Separation / New Interestange Access							
Proposed Concept	Highway	# of	Project Cost (\$M)				
Proposed Concept	District	Interchange	D	R	U	С	Total
New Service Interchange			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
(Rural)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
New Service Interchange			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
(Urban)			Ş0.0	Ş0.0	Ş0.0	Ş0.0	\$0.0
Interchange Modification			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
(Rural)			Ş0.0	Ş0.0	Ş0.0	Ş0.0	\$0.0
Interchange Modification			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
(Urban)			φο.σ	90.0	φο.σ	90.0	\$0.0
Grade Separation Only			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Grade Separation Only			Ş0.0	0.00	Ş0.0	0.00	Ş0.0

Note



#### **Major Intersection Improvement**

Existing Facility	Highway	# of	Project Cost (\$M)					
Existing Facility	District	Intersection	D	R	U	С	Total	
>= 4 Lanes in Both Directions	5	2	\$1.2	\$4.4	\$1.0	\$8.0	\$14.6	
< 4 Lanes in Both Directions	6	2	\$0.8	\$2.8	\$0.6	\$5.0	\$9.1	

Note
Spot improvements at 2 intersections.
Spot improvements at 2 intersections.

#### **Major Structure**

Proposed Concept	Deck Area (sq	Project Cost (\$M)					
Proposed Concept	District	ft)	D	R	U	С	Total
Bridge - Replacement			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Bridge - Rehabilitation			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note	

### Summary of Total Cost (\$M)

Design	\$2.0
ROW	\$7.2
Utility	\$1.6
Construction	\$13.0
TOTAL	\$23.7

- 1. The cost estimation may not include additional costs to address the potential impacts of major utilities (e.g., gas line, major water supplier, transmission line) within the proximity of the corridor, due to the lack of data when the report was prepared. Further investigation is recommended in future studies.
- 2. Cost estimation was based on 2020 dollars. There is a 1-3% inflation rate. Estimated cost could vary -50% to +250% of the actual number (as a rule of thumb).
- 3. The widening of a 2-lane facility to a 3-lane facility (with TWLTL or alternating passing lane) is considered as "Minor Widening (Undivided Road) 2 Lane to 4 Lane".
- 4. Major structure costs only include bridges that are within the corridor sections for proposed widening improvements.
- 5. Cost estimation does not account for KYTC projects that are included in the proposed improvement concepts and are already under construction.
- 6. Shoulder widening is not included in the cost estimation, as it is a relatively minor cost.
- 7. If multiple improvement concepts are recommended for the corridor, only the cost of the larger-scale improvement concept is estimated.



### **Cost Estimation Detail - Corridor 35A**

#### **Corridor Information**

Route	US 231/US 31 E
From	TN State Line
То	Natcher Parkway (South of Bowling Green)
Highway District	3

#### Characteristics

Functional Class	Principal Arterial
Lanes	2 or 4
Median	Undivided / Divided
Posted Speed	55 or 65 mph

#### **New Roadways**

Proposed Concept	Highway Mileag	Mileage		Pro	ject Cost (S	śM)	
District	ivilleage	D	R	U	С	Total	
New 4 Lane Expressway			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
New Super 2 Highway			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
New 2 Lane Highway			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note	

#### Major Widening (Divided Road)

major widening (Sivided Rodd)								
Proposed Concept	Highway	Mileage		Pro	ject Cost (\$	śM)		
	District	strict	D	R	U	С	Total	
4 Lane to 6 Lane (Rual)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	
4 Lane to 6 Lane (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	
2 Lane to 4 Lane (Rual)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	
2 Lane to 4 Lane (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	

Note

## Minor Widening (Undivided Road)

Proposed Concept Highway	Mileage	Project Cost (\$M)					
Froposed Concept	District	ivilleage	D	R	٥	С	Total
2 Lane to 4 Lane (Rural)	3	1.2	\$1.3	\$0.7	\$0.5	\$4.8	\$7.3
2 Lane to 4 Lane (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

	Note
Widen to a 3-lane 980 in Scottsville.	facility with TWLT From KY 100 to KY
	identity with FWEI From KI 100 to KI

#### Upgrade Arterial to Parkway/Expressway

Proposed Concept	osed Concept Highway Mileage		Project Cost (\$M)				
Proposed Concept	District	ivilleage	D	R	U	С	Total
Upgrade with Pavement			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Reconstruction			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Upgrade with Pavement			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Rehabilitation			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note

- and opposition, the manage the con-							
Proposed Concept	Highway	# of		Pro	ject Cost (\$	<b>\$М)</b>	
Proposed Concept	District	Interchange	D	R	U	С	Total
New Service Interchange			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
(Rural)			Ş0.0	Ş0.0	Ş0.0	٥.00	Ş0.0
New Service Interchange			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
(Urban)			Ş0.0	Ş0.0	Ş0.0	٥.00	Ş0.0
Interchange Modification			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
(Rural)			Ş0.0	Ş0.0	Ş0.0	٥.00	Ş0.0
Interchange Modification			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
(Urban)			90.0	φο.σ	90.0	90.0	90.0
Grade Separation Only			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Grade Separation Only			\$0.0	\$0.0	\$0.0	\$0.0	Ş0.0

Note	



#### **Major Intersection Improvement**

Existing Facility	Highway	# of	Project Cost (\$M)				
Existing Facility	District	Intersection	D	R	U	С	Total
>= 4 Lanes in Both Directions	3	1	\$0.1	\$0.2	\$0.3	\$4.0	\$4.6
< 4 Lanes in Both Directions	3	2	\$0.2	\$0.2	\$0.2	\$4.0	\$4.6

Note
Spot improvements at 1 intersection.
Spot improvements at 2 intersections.

#### **Major Structure**

Drawacad Cancant	Highway	Deck Area (sq	Project Cost (\$M)				
Proposed Concept	District	ft)	D	R	U	С	Total
Bridge - Replacement			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Bridge - Rehabilitation			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note

### Summary of Total Cost (\$M)

Design	\$1.6
ROW	\$1.1
Utility	\$1.0
Construction	\$12.8
TOTAL	\$16.5

- 1. The cost estimation may not include additional costs to address the potential impacts of major utilities (e.g., gas line, major water supplier, transmission line) within the proximity of the corridor, due to the lack of data when the report was prepared. Further investigation is recommended in future studies.
- 2. Cost estimation was based on 2020 dollars. There is a 1-3% inflation rate. Estimated cost could vary -50% to +250% of the actual number (as a rule of thumb).
- 3. The widening of a 2-lane facility to a 3-lane facility (with TWLTL or alternating passing lane) is considered as "Minor Widening (Undivided Road) 2 Lane to 4 Lane".
- 4. Major structure costs only include bridges that are within the corridor sections for proposed widening improvements.
- 5. Cost estimation does not account for KYTC projects that are included in the proposed improvement concepts and are already under construction.
- $6. \ Shoulder \ widening \ is \ not \ included \ in \ the \ cost \ estimation, \ as \ it \ is \ a \ relatively \ minor \ cost.$
- 7. If multiple improvement concepts are recommended for the corridor, only the cost of the larger-scale improvement concept is estimated.



### **Cost Estimation Detail - Corridor 35B**

#### **Corridor Information**

Route	US 231
From	Natcher Parkway (South of Bowling Green)
То	US 68 in Bowling Green
Highway District	3

#### Characteristics

Functional Class	Principal Arterial
Lanes	4
Median	Divided
Posted Speed	45 mph

#### **New Roadways**

Proposed Concept	Highway	Mileage	Project Cost (\$M)				
Proposed Concept	District	Mileage	D	R	U	С	Total
New 4 Lane Expressway			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
New Super 2 Highway			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
New 2 Lane Highway			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note

#### Major Widening (Divided Road)

iviajor vitacining (Biviaca Roda)							
Branacad Cancant	Proposed Concept Highway Mileage	Project Cost (\$M)					
Proposed Concept	District	ivilleage	D	R	J	С	Total
4 Lane to 6 Lane (Rual)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
4 Lane to 6 Lane (Urban)	3	6.1	\$6.1	\$7.3	\$4.9	\$31.7	\$50.0
2 Lane to 4 Lane (Rual)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
2 Lane to 4 Lane (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Plano

### Minor Widening (Undivided Road)

				,			
Proposed Concept	Highway Mileage	Project Cost (\$M)					
	District	ivilleage	D	R	U	С	Total
2 Lane to 4 Lane (Rural)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
2 Lane to 4 Lane (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note	

#### Upgrade Arterial to Parkway/Expressway

opgrade Arterial to Fairway/Expressway							
Proposed Concept	Highway	Mileage	Project Cost (\$M)				
Proposed Concept	District	ivilleage	D	R	U	С	Total
Upgrade with Pavement			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Reconstruction			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Upgrade with Pavement			60.0	ćo o	60.0	ć0.0	ćo o
Rehabilitation			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note	

Grade Separation / New Interchange Access							
Proposed Concept	Highway	# of	Project Cost (\$M)				
Proposed Concept	District	Interchange	D	R	U	С	Total
New Service Interchange			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
(Rural)			φο.σ	\$0.0	Ģ0.0	\$0.0	<b>70.0</b>
New Service Interchange			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
(Urban)			Ş0.0	\$0.0	Ş0.0	\$0.0	\$0.0
Interchange Modification			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
(Rural)			Ş0.0	\$0.0	Ş0.0	\$0.0	\$0.0
Interchange Modification			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
(Urban)			Ş0.0	Ş0.0	Ş0.0	Ş0.0	٥.0پ
Grade Separation Only			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Grade Separation Only			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note



#### Major Intersection Improvement

major intersection improvement								
Existing Facility	Highway	# of	Project Cost (\$M)					
Existing Facility	District	Intersection	D	R	U	С	Total	
>= 4 Lanes in Both Directions	3	8	\$0.8	\$1.6	\$2.4	\$32.0	\$36.8	
< 4 Lanes in Both Directions			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	

Note	
Spot improvements at 8 intersecti	ons.

#### **Major Structure**

Proposed Concept	Highway	Deck Area (sq	Project Cost (\$M)				
Proposed Concept	District	ft)	D	R	U	С	Total
Bridge - Replacement			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Bridge - Rehabilitation	3	14,109	\$0.4	\$0.0	\$0.0	\$4.2	\$4.6

Note
Rehab/widening is recommended for one bridges.

## Summary of Total Cost (\$M)

Design	\$7.3
ROW	\$8.9
Utility	\$7.3
Construction	\$68.0
TOTAL	\$91.4

- 1. The cost estimation may not include additional costs to address the potential impacts of major utilities (e.g., gas line, major water supplier, transmission line) within the proximity of the corridor, due to the lack of data when the report was prepared. Further investigation is recommended in future studies.
- 2. Cost estimation was based on 2020 dollars. There is a 1-3% inflation rate. Estimated cost could vary -50% to +250% of the actual number (as a rule of thumb).
- 3. The widening of a 2-lane facility to a 3-lane facility (with TWLTL or alternating passing lane) is considered as "Minor Widening (Undivided Road) 2 Lane to 4 Lane".
- 4. Major structure costs only include bridges that are within the corridor sections for proposed widening improvements.
- 5. Cost estimation does not account for KYTC projects that are included in the proposed improvement concepts and are already under construction.
- 6. Shoulder widening is not included in the cost estimation, as it is a relatively minor cost.
- 7. If multiple improvement concepts are recommended for the corridor, only the cost of the larger-scale improvement concept is estimated.



### **Cost Estimation Detail - Corridor 36A**

#### **Corridor Information**

Route	KY 536
From	US 42 in Union
То	KY 17
Highway District	6

### Characteristics

Functional Class	Minor Arterial
Lanes	2
Median	Undivided
Posted Speed	35 or 45 mph

#### **New Roadways**

Proposed Concept	Highway District	Mileage	Project Cost (\$M)				
			D	R	U	С	Total
New 4 Lane Expressway			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
New Super 2 Highway			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
New 2 Lane Highway			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note

### Major Widening (Divided Road)

	Highway	,			ject Cost (S	śM)	
Proposed Concept	District	Mileage	D	R	U	C	Total
4 Lane to 6 Lane (Rual)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
4 Lane to 6 Lane (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
2 Lane to 4 Lane (Rual)	6	5.2	\$5.2	\$10.4	\$2.1	\$52.0	\$69.7
2 Lane to 4 Lane (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note
Widen to a 5-lane divided arterial from US 25 to KY 17. Do not include the widening projects from US 42 to US 25, which are currently under construction.

### Minor Widening (Undivided Road)

Proposed Concept	Highway	Mileage	Project Cost (\$M)				
	District	Willeage	D	R	U	С	Total
2 Lane to 4 Lane (Rural)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
2 Lane to 4 Lane (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note

## Upgrade Arterial to Parkway/Expressway

Proposed Concept	Highway	Mileage	Project Cost (\$M)				
	District	ivilleage	D	R	U	С	Total
Upgrade with Pavement Reconstruction			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Upgrade with Pavement Rehabilitation			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note

Proposed Concept	Highway	# of	Project Cost (\$M)				
Proposed Concept	District	Interchange	D	R	U	С	Total
New Service Interchange (Rural)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
New Service Interchange (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Interchange Modification (Rural)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Interchange Modification (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Grade Separation Only			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note



#### **Major Intersection Improvement**

Existing Facility	Highway	# of	Project Cost (\$M)						
Existing Facility	District	Intersection	D	R	U	С	Total		
>= 4 Lanes in Both Directions			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0		
< 4 Lanes in Both Directions	6	5	\$1.9	\$6.9	\$1.6	\$12.5	\$22.8		

Note
Spot improvements at 5 intersections from US 25 to KY 17. Do not include improvements at intersections from US 42 to US 25, which are currently under construction.

#### **Major Structure**

Proposed Concept	Highway	Deck Area (sq	Project Cost (\$M)				
Proposed Concept	District	ft)	D	R	U	С	Total
Bridge - Replacement			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Bridge - Rehabilitation	6	32,120	\$1.6	\$0.8	\$0.3	\$9.6	\$12.4

Note	
Rehab/widening is recommended for a total of 2	
bridges.	

## Summary of Total Cost (\$M)

Design	\$8.7
ROW	\$18.1
Utility	\$4.0
Construction	\$74.1
TOTAL	\$104.9

- 1. The cost estimation may not include additional costs to address the potential impacts of major utilities (e.g., gas line, major water supplier, transmission line) within the proximity of the corridor, due to the lack of data when the report was prepared. Further investigation is recommended in future studies.
- 2. Cost estimation was based on 2020 dollars. There is a 1-3% inflation rate. Estimated cost could vary -50% to +250% of the actual number (as a rule of thumb).
- 3. The widening of a 2-lane facility to a 3-lane facility (with TWLTL or alternating passing lane) is considered as "Minor Widening (Undivided Road) 2 Lane to 4 Lane".
- $4. \ Major \ structure \ costs \ only \ include \ bridges \ that \ are \ within \ the \ corridor \ sections \ for \ proposed \ widening \ improvements.$
- 5. Cost estimation does not account for KYTC projects that are included in the proposed improvement concepts and are already under construction.
- 6. Shoulder widening is not included in the cost estimation, as it is a relatively minor cost.
- 7. If multiple improvement concepts are recommended for the corridor, only the cost of the larger-scale improvement concept is estimated.



### **Cost Estimation Detail - Corridor 36B**

#### **Corridor Information**

Route	KY 536
From	KY 17
То	US 27 near Alexandria
Highway District	6

#### Characteristics

Functional Class	Major Collector
Lanes	2
Median	Undivided
Posted Speed	45 or 55 mph

### **New Roadways**

Proposed Concept Highway	Mileage	Project Cost (\$M)					
Proposed Concept	District	Ivilleage	D	R	U	С	Total
New 4 Lane Expressway			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
New Super 2 Highway			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
New 2 Lane Highway	6	0.4	\$0.5	\$0.6	\$0.1	\$3.0	\$4.2

Note
Construct a new 2-lane undivided facility nearby in

### Major Widening (Divided Road)

Proposed Concept	Highway	Mileage		Pro	ject Cost (S	\$M)	
Proposed Concept	District	Willeage	D	R	U	С	Total
4 Lane to 6 Lane (Rual)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
4 Lane to 6 Lane (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
2 Lane to 4 Lane (Rual)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
2 Lane to 4 Lane (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note

### Minor Widening (Undivided Road)

Proposed Concept	Highway	Mileage		Pro	ject Cost (	\$M)	
Froposed Concept	District		D	R	U	С	Total
2 Lane to 4 Lane (Rural)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
2 Lane to 4 Lane (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note

## Upgrade Arterial to Parkway/Expressway

Proposed Concept	Highway	Mileage		Pro	ject Cost (S	\$M)	
Froposeu Concept	District	Ivilleage	D	R	U	С	Total
Upgrade with Pavement Reconstruction			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Upgrade with Pavement Rehabilitation			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

N	ote

Proposed Concept	Highway	# of	Project Cost (\$M)				
Froposed Concept	District	Interchange	D	R	U	С	Total
New Service Interchange (Rural)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
New Service Interchange (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Interchange Modification (Rural)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Interchange Modification (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Grade Separation Only			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note



#### **Major Intersection Improvement**

Existing Facility	Highway	# of	Project Cost (\$M)				
Existing Facility	District	Intersection	D	R	U	С	Total
>= 4 Lanes in Both Directions			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
< 4 Lanes in Both Directions	6	5	\$1.9	\$6.9	\$1.6	\$12.5	\$22.8

Note	
Spot improvements at 5 intersections.	

#### **Major Structure**

Proposed Concept	Highway	Deck Area (sq	Project Cost (\$M)				
Proposed Concept	District	ft)	D	R	U	С	Total
Bridge - Replacement			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Bridge - Rehabilitation			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note

### Summary of Total Cost (\$M)

Design	\$2.3
ROW	\$7.5
Utility	\$1.7
Construction	\$15.5
TOTAL	\$27.0

- 1. The cost estimation may not include additional costs to address the potential impacts of major utilities (e.g., gas line, major water supplier, transmission line) within the proximity of the corridor, due to the lack of data when the report was prepared. Further investigation is recommended in future studies.
- 2. Cost estimation was based on 2020 dollars. There is a 1-3% inflation rate. Estimated cost could vary -50% to +250% of the actual number (as a rule of thumb).
- 3. The widening of a 2-lane facility to a 3-lane facility (with TWLTL or alternating passing lane) is considered as "Minor Widening (Undivided Road) 2 Lane to 4 Lane".
- 4. Major structure costs only include bridges that are within the corridor sections for proposed widening improvements.
- 5. Cost estimation does not account for KYTC projects that are included in the proposed improvement concepts and are already under construction.
- $6. \ Shoulder \ widening \ is \ not \ included \ in \ the \ cost \ estimation, \ as \ it \ is \ a \ relatively \ minor \ cost.$
- 7. If multiple improvement concepts are recommended for the corridor, only the cost of the larger-scale improvement concept is estimated.



### **Cost Estimation Detail - Corridor 38**

#### **Corridor Information**

	US 431
Route	
From	TN State Line
То	US 60 in Owensboro
Highway District	2,3

#### Characteristics

	Principal Arterial or Minor			
Functional Class	Arterial			
Lanes	2 or 4			
Median	Undivided / Divided			
Posted Speed	55 mph			

#### **New Roadways**

Proposed Concept	Highway	Mileage	Project Cost (\$M)					
Proposed Concept	District		D	R	U	С	Total	
New 4 Lane Expressway			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	
New Super 2 Highway			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	
New 2 Lane Highway			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	

Note

### Major Widening (Divided Road)

major triadining (2 triada nota)								
Proposed Concept	Highway	Mileage	Project Cost (\$M)					
Proposed Concept	District		D	R	٥	С	Total	
4 Lane to 6 Lane (Rual)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	
4 Lane to 6 Lane (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	
2 Lane to 4 Lane (Rual)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	
2 Lane to 4 Lane (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	

Note	

## Minor Widening (Undivided Road)

Proposed Concept	Highway	Mileage		Pro	ject Cost (	<b>\$М)</b>	
Froposed Concept	District		D	R	٥	С	Total
2 Lane to 4 Lane (Rural)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
2 Lane to 4 Lane (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note	

#### Upgrade Arterial to Parkway/Expressway

Dranged Concept	Highway	Mileage		Pro	ject Cost (	śM)	
Proposed Concept	District	ivilleage	D	R	U	С	Total
Upgrade with Pavement Reconstruction			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Upgrade with Pavement Rehabilitation			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note

Crade department, Treatment and Process							
Proposed Concept	Highway	# of		Pro	ject Cost (\$	<b>\$М)</b>	
Proposed Concept	District	Interchange	D	R	U	С	Total
New Service Interchange (Rural)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
New Service Interchange (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Interchange Modification (Rural)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Interchange Modification (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Grade Separation Only			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note



#### Major Intersection Improvement

major intersection improvement								
Existing Facility	Highway	# of	Project Cost (\$M)					
Existing Facility	District	Intersection	D	R	٥	С	Total	
>= 4 Lanes in Both Directions	2,3	5	\$0.5	\$1.0	\$1.5	\$20.0	\$23.0	
< 4 Lanes in Both Directions	2,3	3	\$0.3	\$0.3	\$0.3	\$6.0	\$6.9	

Note	
Spot improvements at 5 intersections.	
Spot improvements at 3 intersections.	

#### **Major Structure**

Proposed Concept	Highway	Deck Area (sq		Pro	ject Cost (\$	śM)	
Proposed Concept	District	ft)	D	R	U	С	Total
Bridge - Replacement			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Bridge - Rehabilitation			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note	

### Summary of Total Cost (\$M)

Design	\$0.8
ROW	\$1.3
Utility	\$1.8
Construction	\$26.0
TOTAL	\$29.9

- 1. The cost estimation may not include additional costs to address the potential impacts of major utilities (e.g., gas line, major water supplier, transmission line) within the proximity of the corridor, due to the lack of data when the report was prepared. Further investigation is recommended in future studies.
- 2. Cost estimation was based on 2020 dollars. There is a 1-3% inflation rate. Estimated cost could vary -50% to +250% of the actual number (as a rule of thumb).
- 3. The widening of a 2-lane facility to a 3-lane facility (with TWLTL or alternating passing lane) is considered as "Minor Widening (Undivided Road) 2 Lane to 4 Lane".
- 4. Major structure costs only include bridges that are within the corridor sections for proposed widening improvements.
- 5. Cost estimation does not account for KYTC projects that are included in the proposed improvement concepts and are already under construction.
- ${\bf 6.}\ Shoulder\ widening\ is\ not\ included\ in\ the\ cost\ estimation,\ as\ it\ is\ a\ relatively\ minor\ cost.$
- 7. If multiple improvement concepts are recommended for the corridor, only the cost of the larger-scale improvement concept is estimated.



### **Cost Estimation Detail - Corridor 39**

#### **Corridor Information**

Route	KY 100/US 31E/KY 90
From	I-65 Exit 6
То	US 27 near Somerset
Highway District	3,8

#### Characteristics

	Minor Arterial or Minor
Functional Class	Collector
Lanes	2 or 4
Median	Undivided
Posted Speed	55 mph

#### **New Roadways**

Proposed Concept	Highway	Mileage	Project Cost (\$M)				
Proposed Concept	District	ivilleage	D	R	U	С	Total
New 4 Lane Expressway			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
New Super 2 Highway			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
New 2 Lane Highway			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

	Note
ĺ	

### Major Widening (Divided Road)

Proposed Concept	Highway	Mileage	Project Cost (\$M)				
Proposed Concept	District	ivilleage	D	R	٥	С	Total
4 Lane to 6 Lane (Rual)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
4 Lane to 6 Lane (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
2 Lane to 4 Lane (Rual)	3	0.9	\$1.0	\$0.5	\$0.5	\$3.6	\$5.6
2 Lane to 4 Lane (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note
-lane divided arterial from Dockery Heights

## Minor Widening (Undivided Road)

Proposed Concept	Highway	Mileage	Project Cost (\$M)				
	District	Ivilleage	D	R	٥	С	Total
2 Lane to 4 Lane (Rural)	3	1.2	\$1.3	\$0.7	\$0.5	\$4.8	\$7.3
2 Lane to 4 Lane (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note
Widen to a 3-lane facility with TWLT From KY 100 to KY 980 in Scottsville.

#### Upgrade Arterial to Parkway/Expressway

Highway Project Cost (\$M)							
Proposed Concept	District	Mileage	D	R	U	C	Total
Upgrade with Pavement Reconstruction			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Upgrade with Pavement Rehabilitation			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note	

Proposed Concept	Highway	# of	Project Cost (\$M)				
Proposed Concept	District	Interchange	D	R	U	С	Total
New Service Interchange (Rural)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
New Service Interchange (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Interchange Modification (Rural)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Interchange Modification (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Grade Separation Only			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note	



#### Major Intersection Improvement

	,						
Existing Facility	Highway	# of	Project Cost (\$M)				
Existing Facility	District	Intersection	D	R	٥	С	Total
>= 4 Lanes in Both Directions			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
< 4 Lanes in Both Directions	3, 8	8	\$0.8	\$0.8	\$0.8	\$16.0	\$18.4

Note	
Spot improvements at 8 intersections.	

#### **Major Structure**

Proposed Concept	Highway	Deck Area (sq	Project Cost (\$M)				
Froposed Concept	District	ft)	D	R	٥	С	Total
Bridge - Replacement			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Bridge - Rehabilitation			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note	

## Summary of Total Cost (\$M)

Design	\$3.1
ROW	\$2.1
Utility	\$1.7
Construction	\$24.4
TOTAL	\$31.3

- 1. The cost estimation may not include additional costs to address the potential impacts of major utilities (e.g., gas line, major water supplier, transmission line) within the proximity of the corridor, due to the lack of data when the report was prepared. Further investigation is recommended in future studies.
- 2. Cost estimation was based on 2020 dollars. There is a 1-3% inflation rate. Estimated cost could vary -50% to +250% of the actual number (as a rule of thumb).
- 3. The widening of a 2-lane facility to a 3-lane facility (with TWLTL or alternating passing lane) is considered as "Minor Widening (Undivided Road) 2 Lane to 4 Lane".
- 4. Major structure costs only include bridges that are within the corridor sections for proposed widening improvements.
- 5. Cost estimation does not account for KYTC projects that are included in the proposed improvement concepts and are already under construction.
- ${\bf 6.}\ Shoulder\ widening\ is\ not\ included\ in\ the\ cost\ estimation,\ as\ it\ is\ a\ relatively\ minor\ cost.$
- 7. If multiple improvement concepts are recommended for the corridor, only the cost of the larger-scale improvement concept is estimated.



### **Cost Estimation Detail - Corridor 40**

#### **Corridor Information**

Route	US 641
From	Tennessee State Line
То	US 60 in Marion
Highway District	1, 2

#### Characteristics

	Pricipal Arterial or Minor
Functional Class	Arterial
Lanes	2 or 4
Median	Undivided / Divided
Posted Speed	55 or 65 mph

#### **New Roadways**

			, .				
Proposed Concept	Highway	Mileage	Project Cost (\$M)				
Proposed Concept	District	Willeage	D	R	U	С	Total
New 4 Lane Expressway			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
New Super 2 Highway			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
New 2 Lane Highway			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note

Do not include a new 4-lane divided facility parallel to US 641 near TN State line (the project is funded by BUILD grant with construction starting in fall 2020).

#### Major Widening (Divided Road)

		Jo. 11100	(	,			
Drawagad Canaant	Highway	Mileage		Pro	ject Cost (	SM)	
Proposed Concept	District	Mileage	D	R	U	С	Total
4 Lane to 6 Lane (Rual)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
4 Lane to 6 Lane (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
2 Lane to 4 Lane (Rual)	1, 2	8.6	\$9.5	\$5.2	\$4.3	\$34.4	\$53.3
2 Lane to 4 Lane (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note
-lane divided facility from Eddyville north to e project is in KYTC's SYP).

## Minor Widening (Undivided Road)

Proposed Concept	Highway	Mileage	Project Cost (\$M)				
Proposed Concept	District	ivilleage	D	R	J	С	Total
2 Lane to 4 Lane (Rural)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
2 Lane to 4 Lane (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note

## Upgrade Arterial to Parkway/Expressway

Proposed Concept	Highway Mileage		Project Cost (\$M)				
	District	ivilleage	D	R	U	С	Total
Upgrade with Pavement Reconstruction			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Upgrade with Pavement Rehabilitation			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

	Note		

Proposed Concept	Highway	# of	Project Cost (\$M)				
Froposed Concept	District	Interchange	D	R	5	С	Total
New Service Interchange (Rural)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
New Service Interchange (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Interchange Modification (Rural)	1	1	\$0.6	\$1.2	\$0.3	\$7.2	\$9.3
Interchange Modification (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Grade Separation Only			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

		Note		
Improvemen	t is propose	ed for the ir	nterchange at I-2	4.



#### Major Intersection Improvement

······jo······························								
Existing Facility	Highway	# of	Project Cost (\$M)					
Existing Facility	District	Intersection	D	R	U	С	Total	
>= 4 Lanes in Both Directions	1	10	\$1.0	\$2.0	\$3.0	\$40.0	\$46.0	
< 4 Lanes in Both Directions	1, 2	4	\$0.4	\$0.4	\$0.4	\$8.0	\$9.2	

Note
Spot improvements at 10 intersections.
Spot improvements at 4 intersections.

### **Major Structure**

Proposed Concept	Highway	way Deck Area (sq		Project Cost (\$M)				
Froposed Concept	District	ft)	D	R	J	С	Total	
Bridge - Replacement			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	
Bridge - Rehabilitation	1, 2	9,538	\$0.2	\$0.0	\$0.0	\$2.9	\$3.1	

Note
Rehab/widening is recommended for a total of 4 bridges.

### Summary of Total Cost (\$M)

Design	\$11.7
ROW	\$8.8
Utility	\$8.0
Construction	\$92.5
TOTAL	\$120.9

- 1. The cost estimation may not include additional costs to address the potential impacts of major utilities (e.g., gas line, major water supplier, transmission line) within the proximity of the corridor, due to the lack of data when the report was prepared. Further investigation is recommended in future studies.
- 2. Cost estimation was based on 2020 dollars. There is a 1-3% inflation rate. Estimated cost could vary -50% to +250% of the actual number (as a rule of thumb).
- 3. The widening of a 2-lane facility to a 3-lane facility (with TWLTL or alternating passing lane) is considered as "Minor Widening (Undivided Road) 2 Lane to 4 Lane".
- $4. \ Major \ structure \ costs \ only \ include \ bridges \ that \ are \ within \ the \ corridor \ sections \ for \ proposed \ widening \ improvements.$
- 5. Cost estimation does not account for KYTC projects that are included in the proposed improvement concepts and are already under construction.
- 6. Shoulder widening is not included in the cost estimation, as it is a relatively minor cost.
- 7. If multiple improvement concepts are recommended for the corridor, only the cost of the larger-scale improvement concept is estimated.



### **Cost Estimation Detail - Corridor 41A**

#### **Corridor Information**

Route	US 421 (Leestown Rd)
From	US 27 in Lexington
То	KY 341 (I-64 Exit 65)
Highway District	7

#### Characteristics

	Principal Arterial or Minor
Functional Class	Arterial
Lanes	2 or 4
Median	Undivided / Divided
Posted Speed	35 - 55 mph

#### **New Roadways**

Proposed Concept	Highway	Mileage	Project Cost (\$M)					
	District		D	R	U	С	Total	
New 4 Lane Expressway			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	
New Super 2 Highway			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	
New 2 Lane Highway			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	

Note

## Major Widening (Divided Road)

major triadining (2 triada notal)										
Proposed Concept	Highway	Mileage	Project Cost (\$M)							
	District	ivilleage	D	R	٥	С	Total			
4 Lane to 6 Lane (Rual)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0			
4 Lane to 6 Lane (Urban)	7	2	\$3.6	\$13.0	\$3.0	\$24.0	\$43.6			
2 Lane to 4 Lane (Rual)	7	8.2	\$8.2	\$16.4	\$3.3	\$82.0	\$109.9			
2 Lane to 4 Lane (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0			

Note
Widen to a 6-lane divided arterial from KY 4 (New Circle Rd) to Ruffian Way.
Widen to a 4-lane divided arterial from Ruffian Way to KY 341 (I-64 Exit 65).

## Minor Widening (Undivided Road)

Proposed Concept	Highway	Mileage	Project Cost (\$M)					
	District	ivilleage	D	R	٥	С	Total	
2 Lane to 4 Lane (Rural)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	
2 Lane to 4 Lane (Urban)	7	0.5	\$0.9	\$3.3	\$0.8	\$6.0	\$10.9	

Note
Widen to a 4-lane undivided arterial from Forbes Road to KY 4 (New Circle Rd).

#### Upgrade Arterial to Parkway/Expressway

Proposed Concept	Highway	Mileage	Project Cost (\$M)					
	District	District	D	R	U	С	Total	
Upgrade with Pavement Reconstruction			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	
Upgrade with Pavement Rehabilitation			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	

Note	

Grade Separation / New Intermitings Addess										
Proposed Concept	Highway	# of	Project Cost (\$M)							
Proposed Concept	District	Interchange	D	R	U	С	Total			
New Service Interchange (Rural)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0			
New Service Interchange (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0			
Interchange Modification (Rural)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0			
Interchange Modification (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0			
Grade Separation Only			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0			

Note



#### **Major Intersection Improvement**

Existing Facility	Highway	# of	Project Cost (\$M)				
Existing Facility	District	Intersection	D	R	٥	С	Total
>= 4 Lanes in Both Directions	7	6	\$3.6	\$13.2	\$3.0	\$24.0	\$43.8
< 4 Lanes in Both Directions	7	4	\$1.5	\$5.5	\$1.3	\$10.0	\$18.3

Note
Spot improvements at 6 intersections.
Spot improvements at 4 intersections.

#### **Major Structure**

Drawacad Cancant	Highway	Deck Area (sq	q Project Cost (\$M)				
Proposed Concept	District	ft)	D	R	U	С	Total
Bridge - Replacement			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Bridge - Rehabilitation	7	18,134	\$0.9	\$0.5	\$0.2	\$5.4	\$7.0

Note
Rehab/widening is recommended for a total of 3 bridges.

### Summary of Total Cost (\$M)

Design	\$18.7
ROW	\$51.8
Utility	\$11.5
Construction	\$151.4
TOTAL	\$233.4

- 1. The cost estimation may not include additional costs to address the potential impacts of major utilities (e.g., gas line, major water supplier, transmission line) within the proximity of the corridor, due to the lack of data when the report was prepared. Further investigation is recommended in future studies.
- 2. Cost estimation was based on 2020 dollars. There is a 1-3% inflation rate. Estimated cost could vary -50% to +250% of the actual number (as a rule of thumb).
- 3. The widening of a 2-lane facility to a 3-lane facility (with TWLTL or alternating passing lane) is considered as "Minor Widening (Undivided Road) 2 Lane to 4 Lane".
- 4. Major structure costs only include bridges that are within the corridor sections for proposed widening improvements.
- 5. Cost estimation does not account for KYTC projects that are included in the proposed improvement concepts and are already under construction.
- 6. Shoulder widening is not included in the cost estimation, as it is a relatively minor cost.
- 7. If multiple improvement concepts are recommended for the corridor, only the cost of the larger-scale improvement concept is estimated.



### **Cost Estimation Detail - Corridor 41B**

#### **Corridor Information**

Route	US 421 (Leestown Rd)
From	KY 341 (I-64 Exit 65)
То	Indiana State Line
Highway District	5, 7

#### Characteristics

	Principal Arterial or Minor
Functional Class	Arterial
Lanes	2 or 4
Median	Undivided / Divided
Posted Speed	45 or 55 mph

#### **New Roadways**

Proposed Concept	Highway	Project Cost (\$M)					
Proposed Concept	District	Mileage	D	R	U	С	Total
New 4 Lane Expressway			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
New Super 2 Highway			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
New 2 Lane Highway			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note

## Major Widening (Divided Road)

	-	,		- · · ,			
Proposed Concept	Highway	Mileage		Pro	ject Cost (	<b>\$М)</b>	
Proposed Concept	District	Mileage	D	R	٥	С	Total
4 Lane to 6 Lane (Rual)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
4 Lane to 6 Lane (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
2 Lane to 4 Lane (Rual)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
2 Lane to 4 Lane (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note

#### Minor Widening (Undivided Road)

		», ««««»», ««		,			
Dunnand Course	Highway	Mileoge		Pro	ject Cost (	\$M)	
Proposed Concept	District	Mileage	D	R	U	С	Total
2 Lane to 4 Lane (Rural)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
2 Lane to 4 Lane (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note

#### Upgrade Arterial to Parkway/Expressway

Dranged Concept	Highway	Mileege	Project Cost (\$M)				
Proposed Concept	District	Mileage	D	R	U	С	Total
Upgrade with Pavement			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Reconstruction			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Upgrade with Pavement			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Rehabilitation			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note

Proposed Concept	Highway	# of	Project Cost (\$M)				
Proposed Concept	District	Interchange	D	R	U	С	Total
New Service Interchange			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
(Rural)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
New Service Interchange			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
(Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Interchange Modification			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
(Rural)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Interchange Modification			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
(Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Canda Consentina Only			ćo o	ćo o	ćo o	ćo o	¢0.0
Grade Separation Only			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note



#### **Major Intersection Improvement**

Existing Facility	Highway	# of	Project Cost (\$M)				
Existing Facility	District	Intersection	D	R	٥	С	Total
>= 4 Lanes in Both Directions	5	7	\$4.2	\$15.4	\$3.5	\$28.0	\$51.1
< 4 Lanes in Both Directions	5, 7	5	\$1.9	\$6.9	\$1.6	\$12.5	\$22.8

Note
Spot improvements at 7 intersections.
Spot improvements at 5 intersections.

#### **Major Structure**

Duamacad Concept	Highway	Deck Area (sq	Project Cost (\$M)				
Proposed Concept	District	ft)	D	R	U	С	Total
Bridge - Replacement			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Bridge - Rehabilitation			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note

### Summary of Total Cost (\$M)

Design	\$6.1
ROW	\$22.3
Utility	\$5.1
Construction	\$40.5
TOTAL	\$73.9

- 1. The cost estimation may not include additional costs to address the potential impacts of major utilities (e.g., gas line, major water supplier, transmission line) within the proximity of the corridor, due to the lack of data when the report was prepared. Further investigation is recommended in future studies.
- 2. Cost estimation was based on 2020 dollars. There is a 1-3% inflation rate. Estimated cost could vary -50% to +250% of the actual number (as a rule of thumb).
- 3. The widening of a 2-lane facility to a 3-lane facility (with TWLTL or alternating passing lane) is considered as "Minor Widening (Undivided Road) 2 Lane to 4 Lane".
- 4. Major structure costs only include bridges that are within the corridor sections for proposed widening improvements.
- 5. Cost estimation does not account for KYTC projects that are included in the proposed improvement concepts and are already under construction.
- 6. Shoulder widening is not included in the cost estimation, as it is a relatively minor cost.
- 7. If multiple improvement concepts are recommended for the corridor, only the cost of the larger-scale improvement concept is estimated.



### **Cost Estimation Detail - Corridor 42A**

#### **Corridor Information**

Route	US 421
From	Virginia State Line
То	I-75 (Igo Rd) north of Richmond
Highway District	7, 8, 11

#### Characteristics

	Principal Arterial or Minor				
Functional Class	Arterial				
Lanes	2 or 4				
Median	Undivided / Divided				
Posted Speed	55 mph				

#### **New Roadways**

Proposed Concept	Highway	Mileogo	Project Cost (\$M)					
	District	Mileage	D	R	U	С	Total	
New 4 Lane Expressway			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	
New Super 2 Highway			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	
New 2 Lane Highway			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	

	Note	

### Major Widening (Divided Road)

Proposed Concept	Highway	Mileage	Project Cost (\$M)					
Proposed Concept	District	ivilleage	D	R	٥	С	Total	
4 Lane to 6 Lane (Rual)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	
4 Lane to 6 Lane (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	
2 Lane to 4 Lane (Rual)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	
2 Lane to 4 Lane (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	

Note

#### Minor Widening (Undivided Road)

				,			
Proposed Concept	Highway	Mileage	Project Cost (\$M)				
Proposed Concept	District		D	R	U	С	Total
2 Lane to 4 Lane (Rural)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
2 Lane to 4 Lane (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note	

#### Upgrade Arterial to Parkway/Expressway

Proposed Concept Highway Mileage		Mileage	Project Cost (\$M)					
Proposed Concept	District	ivilleage	D	R	U	С	Total	
Upgrade with Pavement			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	
Reconstruction			\$0.0	\$0.0	\$0.0	\$0.0	Ş0.0	
Upgrade with Pavement			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	
Rehabilitation			φυ.υ	ŞU.U	<b>ఫ</b> 0.0	φυ.υ	<b>ఫ</b> 0.0	

Note	

	Grade Se	paration, ite		inge meees	•			
Proposed Concept Highway # of				Pro	Project Cost (\$M)			
Proposed Concept	District	Interchange	D	R	U	С	Total	
New Service Interchange (Rural)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	
New Service Interchange (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	
Interchange Modification (Rural)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	
Interchange Modification (Urban)	7	1	\$3.8	\$12.5	\$3.1	\$25.0	\$44.4	
Grade Separation Only			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	

Note
Improvement is proposed for the interchange at I-75 in Richmond.



#### Major Intersection Improvement

major intersection improvement								
Existing Facility	Highway	# of	Project Cost (\$M)					
Existing Facility	District	Intersection	D	R	U	С	Total	
>= 4 Lanes in Both Directions	7, 11	8	\$4.3	\$14.2	\$3.7	\$31.0	\$53.2	
< 4 Lanes in Both Directions	7, 11	7	\$1.9	\$3.5	\$1.8	\$14.5	\$21.7	

Note
Spot improvements at 8 intersections.
Spot improvements at 7 intersections.

#### **Major Structure**

Proposed Concept	Highway	Deck Area (sq	Project Cost (\$M)					
Froposed Concept	District	ft)	D	R	٥	С	Total	
Bridge - Replacement			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	
Bridge - Rehabilitation			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	

Note

## Summary of Total Cost (\$M)

Design	\$9.9
ROW	\$30.2
Utility	\$8.6
Construction	\$70.5
TOTAL	\$119.2

- 1. The cost estimation may not include additional costs to address the potential impacts of major utilities (e.g., gas line, major water supplier, transmission line) within the proximity of the corridor, due to the lack of data when the report was prepared. Further investigation is recommended in future studies.
- 2. Cost estimation was based on 2020 dollars. There is a 1-3% inflation rate. Estimated cost could vary -50% to +250% of the actual number (as a rule of thumb).
- 3. The widening of a 2-lane facility to a 3-lane facility (with TWLTL or alternating passing lane) is considered as "Minor Widening (Undivided Road) 2 Lane to 4 Lane".
- $4. \ Major \ structure \ costs \ only \ include \ bridges \ that \ are \ within \ the \ corridor \ sections \ for \ proposed \ widening \ improvements.$
- 5. Cost estimation does not account for KYTC projects that are included in the proposed improvement concepts and are already under construction.
- ${\bf 6.\ Shoulder\ widening\ is\ not\ included\ in\ the\ cost\ estimation,\ as\ it\ is\ a\ relatively\ minor\ cost.}$
- 7. If multiple improvement concepts are recommended for the corridor, only the cost of the larger-scale improvement concept is estimated.



#### **Cost Estimation Detail - Corridor 42B**

#### **Corridor Information**

Route	US 421 (Richmond Rd)
From	I-75 (Exit 104) in Lexington
То	US 27 in Lexington
Highway District	7

#### Characteristics

Functional Class	Principal Arterial			
Lanes	4 or 6			
Median	Undivided / Divided			
Posted Speed	35 - 55 mph			

#### **New Roadways**

Proposed Concept	Highway	Mileage	Project Cost (\$M)					
Proposed Concept	District	ivilleage	D	R	٥	С	Total	
New 4 Lane Expressway			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	
New Super 2 Highway			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	
New 2 Lane Highway			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	

Note

#### Major Widening (Divided Road)

Proposed Concept	Highway	Mileage	Project Cost (\$M)					
Proposed Concept	District		D	R	U	С	Total	
4 Lane to 6 Lane (Rual)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	
4 Lane to 6 Lane (Urban)	7	1.8	\$3.2	\$11.7	\$2.7	\$21.6	\$39.2	
2 Lane to 4 Lane (Rual)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	
2 Lane to 4 Lane (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	

Note
Widen to a 6-lane divided arterial from Hays Blvd to Man O War Blvd.

#### Minor Widening (Undivided Road)

Proposed Concept	Highway	Mileage	Project Cost (\$M)					
	District	ivilleage	D	R	U	С	Total	
2 Lane to 4 Lane (Rural)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	
2 Lane to 4 Lane (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	

Note	

## Upgrade Arterial to Parkway/Expressway

Proposed Concept	Highway	Mileage		Pro	ject Cost (\$	śM)	
Froposed Concept	District	ivilleage	D	R	U	С	Total
Upgrade with Pavement Reconstruction			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Upgrade with Pavement			ćo o	ć0.0	ćo o	¢o o	ć0.0
Rehabilitation			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note	

Proposed Concept	Highway	# of		Pro	ject Cost (	M)	
Proposed Concept	District	Interchange	D	R	U	С	Total
New Service Interchange			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
(Rural)			\$0.0	\$0.0	\$0.0	\$0.0	Ş0.0
New Service Interchange			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
(Urban)			Ş0.0	Ş0.0	Ş0.0	٥.00	Ş0.0
Interchange Modification			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
(Rural)			\$0.0	\$0.0	\$0.0	\$0.0	Ş0.0
Interchange Modification	7	1	\$3.8	\$12.5	\$3.1	\$25.0	\$44.4
(Urban)	,	_	<b>95.0</b>	712.5	<b>95.1</b>	Ş23.0	Ş44.4
Grade Separation Only			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Grade Separation Only			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note
Improvement is proposed for the interchange at I-75 in Lexington.



#### **Major Intersection Improvement**

,							
Existing Facility	Highway	# of		Pro	ject Cost (	\$M)	
Existing Facility	District	Intersection	D	R	U	С	Total
>= 4 Lanes in Both Directions	7	18	\$10.8	\$39.6	\$9.0	\$72.0	\$131.4
< 4 Lanes in Both Directions			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note				
Spot improvements at 18 intersections.				

#### **Major Structure**

Proposed Concept	Highway	Deck Area (sq		Pro	ject Cost (	\$M)	
Froposed Concept	District	ft)	D	R	٥	С	Total
Bridge - Replacement			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Bridge - Rehabilitation			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note

#### Summary of Total Cost (\$M)

Design	\$17.8
ROW	\$63.8
Utility	\$14.8
Construction	\$118.6
TOTAL	\$215.0

- 1. The cost estimation may not include additional costs to address the potential impacts of major utilities (e.g., gas line, major water supplier, transmission line) within the proximity of the corridor, due to the lack of data when the report was prepared. Further investigation is recommended in future studies.
- 2. Cost estimation was based on 2020 dollars. There is a 1-3% inflation rate. Estimated cost could vary -50% to +250% of the actual number (as a rule of thumb).
- 3. The widening of a 2-lane facility to a 3-lane facility (with TWLTL or alternating passing lane) is considered as "Minor Widening (Undivided Road) 2 Lane to 4 Lane".
- 4. Major structure costs only include bridges that are within the corridor sections for proposed widening improvements.
- 5. Cost estimation does not account for KYTC projects that are included in the proposed improvement concepts and are already under construction.
- $6. \ Shoulder \ widening \ is \ not \ included \ in \ the \ cost \ estimation, \ as \ it \ is \ a \ relatively \ minor \ cost.$
- 7. If multiple improvement concepts are recommended for the corridor, only the cost of the larger-scale improvement concept is estimated.



#### **Cost Estimation Detail - Corridor 44A**

#### **Corridor Information**

Route	KY 44
From	I-65
То	KY 1319
Highway District	5

#### Characteristics

Functional Class	Minor Arterial
Lanes	2
Median	Undivided
Posted Speed	45 or 55 mph

#### **New Roadways**

		11011 1100					
Proposed Concept	Highway	Mileage		Pro	ject Cost (S	M)	
Proposed Concept	District	ivilleage	D	R	U	С	Total
New 4 Lane Expressway	5	7.9	\$11.9	\$15.8	\$3.2	\$79.0	\$109.8
New Super 2 Highway			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
New 2 Lane Highway			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note
arterial connector on a new of Mt. Washington. Alignment ncept is preliminary.

#### Major Widening (Divided Road)

		,	•				
Proposed Concept	Highway	way Mileage		Pro	ject Cost (	\$M)	
Froposed Concept	District	Ivilleage	D	R	U	С	Total
4 Lane to 6 Lane (Rual)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
4 Lane to 6 Lane (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
2 Lane to 4 Lane (Rual)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
2 Lane to 4 Lane (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note	

#### Minor Widening (Undivided Road)

Drawasad Cancont	Highway	Mileage		Pro	ject Cost (S	\$M)	
Proposed Concept	District	ivilleage	D	R	U	С	Total
2 Lane to 4 Lane (Rural)	5	7	\$8.4	\$11.2	\$2.2	\$56.0	\$77.8
2 Lane to 4 Lane (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

1	Note
	arterial facility with a TWLTL ane from I-65 to west of Mt.

## Upgrade Arterial to Parkway/Expressway

Proposed Concept	Highway	ghway Mileage		Project Cost (\$M)				
Froposed Concept	District	Willeage	D	R	U	С	Total	
Upgrade with Pavement Reconstruction			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	
Upgrade with Pavement Rehabilitation			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	

Note

Proposed Concept	Highway	# of	Project Cost (\$M)				
Froposeu concept	District	Interchange	D	R	U	С	Total
New Service Interchange (Rural)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
New Service Interchange (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Interchange Modification (Rural)	5	1	\$3.0	\$10.0	\$2.5	\$20.0	\$35.5
Interchange Modification (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Grade Separation Only			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note	
Improvement is proposed for the interchange at I-65.	



#### Major Intersection Improvement

	iviaj		p.ovc					
Existing Facility	Highway # of P				Project Cost (\$M)			
Existing racility	District	Intersection	D	R	U	С	Total	
>= 4 Lanes in Both Directions	5	1	\$0.6	\$2.2	\$0.5	\$4.0	\$7.3	
< 4 Lanes in Both Directions	5	5	\$1.9	\$6.9	\$1.6	\$12.5	\$22.8	

Note
Spot improvements at 1 intersection.
Spot improvements at 5 intersections.

#### **Major Structure**

Proposed Concept	Highway	Deck Area (sq		Pro	ject Cost (S	\$M)	
Proposed Concept	District	ft)	D	R	U	С	Total
Bridge - Replacement			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Bridge - Rehabilitation	5	14,112	\$0.7	\$0.4	\$0.1	\$4.2	\$5.4

Note
Rehab/widening is recommended for one bridge.

#### Summary of Total Cost (\$M)

Design	\$26.4
ROW	\$46.4
Utility	\$10.1
Construction	\$175.7
TOTAL	\$258.7

- 1. The cost estimation may not include additional costs to address the potential impacts of major utilities (e.g., gas line, major water supplier, transmission line) within the proximity of the corridor, due to the lack of data when the report was prepared. Further investigation is recommended in future studies.
- 2. Cost estimation was based on 2020 dollars. There is a 1-3% inflation rate. Estimated cost could vary -50% to +250% of the actual number (as a rule of thumb).
- 3. The widening of a 2-lane facility to a 3-lane facility (with TWLTL or alternating passing lane) is considered as "Minor Widening (Undivided Road) 2 Lane to 4 Lane".
- 4. Major structure costs only include bridges that are within the corridor sections for proposed widening improvements.
- 5. Cost estimation does not account for KYTC projects that are included in the proposed improvement concepts and are already under construction.
- 6. Shoulder widening is not included in the cost estimation, as it is a relatively minor cost.
- 7. If multiple improvement concepts are recommended for the corridor, only the cost of the larger-scale improvement concept is estimated.



#### **Cost Estimation Detail - Corridor 44B**

#### **Corridor Information**

Route	KY 44
From	KY 1319
То	KY 55
Highway District	5

#### Characteristics

Functional Class	Minor Arterial
Lanes	2
Median	Undivided
Posted Speed	35 - 55 mph

#### **New Roadways**

new nodaways								
Dranged Concept	Highway	Milesas	Project Cost (\$M)					
Proposed Concept	District	Mileage	D	R	U	С	Total	
New 4 Lane Expressway	5	3.8	\$5.7	\$7.6	\$1.5	\$38.0	\$52.8	
New Super 2 Highway			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	
New 2 Lane Highway			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	

Construction of a	4-lane divided arterial on a new
alignment is part	of the proposed connector between
KY 44 and KY 55.	

## Major Widening (Divided Road)

Proposed Concept	Highway	Mileage	Project Cost (\$M)					
Proposed Concept	District	ivilleage	D	R	U	С	Total	
4 Lane to 6 Lane (Rual)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	
4 Lane to 6 Lane (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	
2 Lane to 4 Lane (Rual)	5	2.7	\$2.7	\$5.4	\$1.1	\$27.0	\$36.2	
2 Lane to 4 Lane (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	

Note
Upgrade of the exsting KY 1169 to a 4-lane divided arterial is part of the proposed connector between KY 44 and KY 55.

## Minor Widening (Undivided Road)

Proposed Concept	Highway Mileage	Project Cost (\$M)					
Froposed Concept	District	ivilleage	D	R	U	С	Total
2 Lane to 4 Lane (Rural)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
2 Lane to 4 Lane (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Not	е

## Upgrade Arterial to Parkway/Expressway

				. ,			
Proposed Concept	Highway	Mileage		Pro	ject Cost (S	\$M)	
Proposed Concept	District	D	R	U	С	Total	
Upgrade with Pavement Reconstruction			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Upgrade with Pavement Rehabilitation			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

	Note	

Proposed Concept	Highway	# of	Project Cost (\$M)				
Proposed Concept	District	Interchange	D	R	U	С	Total
New Service Interchange (Rural)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
New Service Interchange (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Interchange Modification (Rural)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Interchange Modification (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Grade Separation Only			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note



#### Major Intersection Improvement

Existing Facility	Highway	# of	Project Cost (\$M)				
Existing Facility	District	Intersection	D	R	U	С	Total
>= 4 Lanes in Both Directions			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
< 4 Lanes in Both Directions	5	1	\$0.4	\$1.4	\$0.3	\$2.5	\$4.6

Note	
Spot improvements at 1 intersection.	

#### **Major Structure**

Proposed Concept	Highway	Deck Area (sq	Project Cost (\$M)				
Proposed Concept	District	ft)	D	R	U	С	Total
Bridge - Replacement			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Bridge - Rehabilitation			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note	

#### Summary of Total Cost (\$M)

Design	\$8.8
ROW	\$14.4
Utility	\$2.9
Construction	\$67.5
TOTAL	\$93.6

- 1. The cost estimation may not include additional costs to address the potential impacts of major utilities (e.g., gas line, major water supplier, transmission line) within the proximity of the corridor, due to the lack of data when the report was prepared. Further investigation is recommended in future studies.
- 2. Cost estimation was based on 2020 dollars. There is a 1-3% inflation rate. Estimated cost could vary -50% to +250% of the actual number (as a rule of thumb).
- 3. The widening of a 2-lane facility to a 3-lane facility (with TWLTL or alternating passing lane) is considered as "Minor Widening (Undivided Road) 2 Lane to 4 Lane".
- $4. \ Major \ structure \ costs \ only \ include \ bridges \ that \ are \ within \ the \ corridor \ sections \ for \ proposed \ widening \ improvements.$
- 5. Cost estimation does not account for KYTC projects that are included in the proposed improvement concepts and are already under construction.
- 6. Shoulder widening is not included in the cost estimation, as it is a relatively minor cost.
- 7. If multiple improvement concepts are recommended for the corridor, only the cost of the larger-scale improvement concept is estimated.



## **Cost Estimation Detail - Corridor 46A**

#### **Corridor Information**

Route	KY 245
From	I-65 in Clermont
То	Bluegrass Parkway
Highway District	4, 5

#### Characteristics

Functional Class	Minor Arterial		
Lanes	2 or 4		
Median	Undivided / Divided		
Posted Speed	55 mph		

#### **New Roadways**

new nodaways								
Dranged Concept	Highway	Mileage	Project Cost (\$M)					
Proposed Concept	District		D	R	U	С	Total	
New 4 Lane Expressway			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	
New Super 2 Highway			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	
New 2 Lane Highway			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	

Note

#### Major Widening (Divided Road)

		Jo. 11.000B	,	,			
Proposed Concept	Highway	Mileage	Project Cost (\$M)				
Proposed Concept	District	ivilleage	D	R	U	С	Total
4 Lane to 6 Lane (Rual)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
4 Lane to 6 Lane (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
2 Lane to 4 Lane (Rual)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
2 Lane to 4 Lane (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note

### Minor Widening (Undivided Road)

				,				
Proposed Concept	Highway	Mileoge	Project Cost (\$M)					
Proposed Concept	District	Mileage	D	R	U	С	Total	
2 Lane to 4 Lane (Rural)	4, 5	D4: 3.3 D5: 1.7	\$5.7	\$4.7	\$1.9	\$26.8	\$39.0	
2 Lane to 4 Lane (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	

Note
Widen to a 3-lane facility from I-65 to CR 1135 (Happy Hollow Rd) and from Deatsville to 1 mile east of Samuels.

#### Upgrade Arterial to Parkway/Expressway

	- 1-0						
Proposed Concept	Highway	Mileage	Project Cost (\$M)				
Proposed Concept	District	ivilleage	D	R	U	С	Total
Upgrade with Pavement			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Reconstruction			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Upgrade with Pavement			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Rehabilitation			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note

	Grade Se	paration, itc	w micci ciia	inge Acces			
Proposed Concept	Highway	# of	Project Cost (\$M)				
Proposed Concept	District	Interchange	D	R	U	С	Total
New Service Interchange			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
(Rural)			\$0.0	\$0.0	Ş0.0	\$0.0	\$0.0
New Service Interchange			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
(Urban)			Ş0.0	٥.00	٥.0٠	٥.00	\$0.0
Interchange Modification			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
(Rural)			φο.σ	90.0	70.0	90.0	\$0.0
Interchange Modification			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
(Urban)			φο.σ	90.0	70.0	90.0	\$0.0
Grade Separation Only			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Grade Separation Only			50.0	Ş0.0	Ş0.0	50.0	50.0

Note



#### **Major Intersection Improvement**

wajor mersection improvement							
Existing Facility	Fuirting Facility Highway # of Project Cost (\$M)						
EXISTING FACILITY	District	Intersection	D	R	٥	С	Total
>= 4 Lanes in Both Directions	4	3	\$0.3	\$0.6	\$0.9	\$12.0	\$13.8
< 4 Lanes in Both Directions	4	3	\$0.3	\$0.3	\$0.3	\$6.0	\$6.9

Note
Spot improvements at 3 intersections.
Spot improvements at 3 intersections.

#### **Major Structure**

Proposed Concept	Highway	Deck Area (sq		Pro	ject Cost (	śM)	
Proposed Concept	District	ft)	D	R	٥	С	Total
Bridge - Replacement			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Bridge - Rehabilitation			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note

### Summary of Total Cost (\$M)

Design	\$6.3
ROW	\$5.6
Utility	\$3.1
Construction	\$44.8
TOTAL	\$59.7

- 1. The cost estimation may not include additional costs to address the potential impacts of major utilities (e.g., gas line, major water supplier, transmission line) within the proximity of the corridor, due to the lack of data when the report was prepared. Further investigation is recommended in future studies.
- 2. Cost estimation was based on 2020 dollars. There is a 1-3% inflation rate. Estimated cost could vary -50% to +250% of the actual number (as a rule of thumb).
- 3. The widening of a 2-lane facility to a 3-lane facility (with TWLTL or alternating passing lane) is considered as "Minor Widening (Undivided Road) 2 Lane to 4 Lane".
- 4. Major structure costs only include bridges that are within the corridor sections for proposed widening improvements.
- 5. Cost estimation does not account for KYTC projects that are included in the proposed improvement concepts and are already under construction.
- 6. Shoulder widening is not included in the cost estimation, as it is a relatively minor cost.
- 7. If multiple improvement concepts are recommended for the corridor, only the cost of the larger-scale improvement concept is estimated.



## **Cost Estimation Detail - Corridor 46B**

#### **Corridor Information**

Route	US 150
From	Bluegrass Parkway
То	I-75
Highway District	4, 7, 8

#### Characteristics

	Principal Arterial or Minor
Functional Class	Arterial
Lanes	2 or 4
Median	Undivided / Divided
Posted Speed	55 mph

#### **New Roadways**

New Noadways								
Proposed Concept	Highway Mileage District	Mileege	Project Cost (\$M)					
		Ivilleage	D	R	U	С	Total	
New 4 Lane Expressway			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	
New Super 2 Highway			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	
New 2 Lane Highway			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	

No	ote

## Major Widening (Divided Road)

Proposed Concept	Highway	Mileage	Project Cost (\$M)				
	District	Ivilleage	D	R	U	С	Total
4 Lane to 6 Lane (Rual)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
4 Lane to 6 Lane (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
2 Lane to 4 Lane (Rual)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
2 Lane to 4 Lane (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note

#### Minor Widening (Undivided Road)

Proposed Concept	Highway	Mileage	Project Cost (\$M)				
	District		D	R	J	С	Total
2 Lane to 4 Lane (Rural)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
2 Lane to 4 Lane (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note	

#### Upgrade Arterial to Parkway/Expressway

				. ,			
Proposed Concept	Highway	Mileage	Project Cost (\$M)				
	District		D	R	U	С	Total
Upgrade with Pavement Reconstruction			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Upgrade with Pavement Rehabilitation			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

	Note		

Proposed Concept	Highway # of		Project Cost (\$M)				
Proposed Concept	District	Interchange	D	R	U	С	Total
New Service Interchange (Rural)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
New Service Interchange (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Interchange Modification (Rural)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Interchange Modification (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Grade Separation Only			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note
Do not include the interchange modification at I-75 Exit 59, which is currently under construction as part of a KYTC I-75 widening project.



#### Major Intersection Improvement

wajor intersection improvement							
Existing Facility	Highway	# of		Pro	ject Cost (\$	M)	
Existing Facility	District	Intersection	D	R	U	С	Total
>= 4 Lanes in Both Directions	7, 8	4	\$1.9	\$6.8	\$1.8	\$16.0	\$26.5
< 4 Lanes in Both Directions	4, 8	4	\$0.4	\$0.4	\$0.4	\$8.0	\$9.2

Note
Spot improvements at 4 intersections.
Spot improvements at 4 intersections.

#### **Major Structure**

Proposed Concept	Highway	Deck Area (sq		Pro	ject Cost (	M)	
Proposed Concept	District	ft)	D	R	U	С	Total
Bridge - Replacement			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Bridge - Rehabilitation			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note

#### Summary of Total Cost (\$M)

Design	\$2.3
ROW	\$7.2
Utility	\$2.2
Construction	\$24.0
TOTAL	\$35.7

- 1. The cost estimation may not include additional costs to address the potential impacts of major utilities (e.g., gas line, major water supplier, transmission line) within the proximity of the corridor, due to the lack of data when the report was prepared. Further investigation is recommended in future studies.
- 2. Cost estimation was based on 2020 dollars. There is a 1-3% inflation rate. Estimated cost could vary -50% to +250% of the actual number (as a rule of thumb).
- 3. The widening of a 2-lane facility to a 3-lane facility (with TWLTL or alternating passing lane) is considered as "Minor Widening (Undivided Road) 2 Lane to 4 Lane".
- 4. Major structure costs only include bridges that are within the corridor sections for proposed widening improvements.
- 5. Cost estimation does not account for KYTC projects that are included in the proposed improvement concepts and are already under construction.
- $6. \ Shoulder \ widening \ is \ not \ included \ in \ the \ cost \ estimation, \ as \ it \ is \ a \ relatively \ minor \ cost.$
- $7. \ If multiple improvement concepts are recommended for the corridor, only the cost of the larger-scale improvement concept is estimated.$



#### **Cost Estimation Detail - Corridor 50A**

#### **Corridor Information**

Route	US 60
From	Illinois State Line
То	KY 425 BYP in Henderson
Highway District	1, 2

#### Characteristics

	Principal Arterial or Minor
Functional Class	Arterial
Lanes	2 or 4
Median	Undivided / Divided
Posted Speed	45 or 55 mph

#### New Roadways

Proposed Concept	Highway	Mileage	Project Cost (\$M)				
Proposed Concept	District	Ivilleage	D	R	U	С	Total
New 4 Lane Expressway			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
New Super 2 Highway			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
New 2 Lane Highway			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note	

## Major Widening (Divided Road)

(							
Proposed Concept	Highway	Mileage	Project Cost (\$M)				
Proposed Concept	District	ivilleage	D	R	U	С	Total
4 Lane to 6 Lane (Rual)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
4 Lane to 6 Lane (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
2 Lane to 4 Lane (Rual)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
2 Lane to 4 Lane (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note

#### Minor Widening (Undivided Road)

Proposed Concept	Highway	Mileage		Pro	ject Cost (S	\$M)	
Froposeu Concept	District		D	R	U	С	Total
2 Lane to 4 Lane (Rural)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
2 Lane to 4 Lane (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

	Note	

## Upgrade Arterial to Parkway/Expressway

Proposed Concept	Highway	Mileage	Highway Mileage Project				ect Cost (\$M)		
Froposeu Concept	District	ivilleage	D	R	U	С	Total		
Upgrade with Pavement Reconstruction			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0		
Upgrade with Pavement Rehabilitation			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0		

Note

Proposed Concept	Highway	# of		Pro	ject Cost (	\$M)	
Froposeu Concept	District	Interchange	D	R	U	С	Total
New Service Interchange (Rural)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
New Service Interchange (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Interchange Modification (Rural)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Interchange Modification (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Grade Separation Only			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note



#### Major Intersection Improvement

Existing Facility	Highway	# of		Pro	ject Cost (S	\$M)	
LAISTING FACILITY	District	Intersection	D	R	U	С	Total
>= 4 Lanes in Both Directions	1	18	\$1.8	\$3.6	\$5.4	\$72.0	\$82.8
< 4 Lanes in Both Directions	1, 2	4	\$0.4	\$0.4	\$0.4	\$8.0	\$9.2

Note	
Spot improvements at 18 intersections.	
Spot improvements at 4 intersections.	

#### **Major Structure**

B	Highway	Deck Area (sq		Pro	ject Cost (S	\$M)	
Proposed Concept	District	ft)	D	R	U	С	Total
Bridge - Replacement			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Bridge - Rehabilitation			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note	

#### Summary of Total Cost (\$M)

Design	\$2.2
ROW	\$4.0
Utility	\$5.8
Construction	\$80.0
TOTAL	\$92.0

- 1. The cost estimation may not include additional costs to address the potential impacts of major utilities (e.g., gas line, major water supplier, transmission line) within the proximity of the corridor, due to the lack of data when the report was prepared. Further investigation is recommended in future studies.
- 2. Cost estimation was based on 2020 dollars. There is a 1-3% inflation rate. Estimated cost could vary -50% to +250% of the actual number (as a rule of thumb).
- 3. The widening of a 2-lane facility to a 3-lane facility (with TWLTL or alternating passing lane) is considered as "Minor Widening (Undivided Road) 2 Lane to 4 Lane".
- 4. Major structure costs only include bridges that are within the corridor sections for proposed widening improvements.
- 5. Cost estimation does not account for KYTC projects that are included in the proposed improvement concepts and are already under construction.
- ${\it 6. Shoulder widening is not included in the cost estimation, as it is a relatively minor cost.}\\$
- 7. If multiple improvement concepts are recommended for the corridor, only the cost of the larger-scale improvement concept is estimated.



## **Cost Estimation Detail - Corridor 50B**

#### **Corridor Information**

Route	US 60
From	KY 425 BYP in Henderson
То	Natcher Parkway in Owensboro
Highway District	2

#### Characteristics

	Principal Arterial or Minor				
	Arterial or Other				
Functional Class	Frwy/Expwy				
Lanes	2 or 4				
Median	Undivided / Divided				
Posted Speed	45 or 55 or 65 mph				

#### **New Roadways**

Proposed Concept	Highway Mileage District	Mileage	Project Cost (\$M)				
Proposed Concept		willeage	D	R	U	С	Total
New 4 Lane Expressway			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
New Super 2 Highway			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
New 2 Lane Highway			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

	Note
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#### Major Widening (Divided Road)

3, 3, 3, 3, 3, 3, 3, 3, 3, 3, 3, 3, 3, 3							
Proposed Concept	Highway	Mileage	Project Cost (\$M)				
	District	Ivilleage	D	R	C	С	Total
4 Lane to 6 Lane (Rual)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
4 Lane to 6 Lane (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
2 Lane to 4 Lane (Rual)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
2 Lane to 4 Lane (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note

#### Minor Widening (Undivided Road)

Proposed Concept	Highway	Highway District Mileage	Project Cost (\$M)				
	District		D	R	U	С	Total
2 Lane to 4 Lane (Rural)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
2 Lane to 4 Lane (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note	

### Upgrade Arterial to Parkway/Expressway

Proposed Concept	Highway Mileage		Project Cost (\$M)				
	District	ivilleage	D	R	U	С	Total
Upgrade with Pavement Reconstruction			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Upgrade with Pavement Rehabilitation			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note	

Proposed Concept	Highway	# of	Project Cost (\$M)				
Proposed Concept	District	Interchange	D	R	U	С	Total
New Service Interchange (Rural)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
New Service Interchange (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Interchange Modification (Rural)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Interchange Modification (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Grade Separation Only			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note



#### **Major Intersection Improvement**

Evicting Equility	Highway	# of	Project Cost (\$M)				
Existing Facility	District	Intersection	D	R	U	С	Total
>= 4 Lanes in Both Directions	2	6	\$0.6	\$1.2	\$1.8	\$24.0	\$27.6
< 4 Lanes in Both Directions			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note	
Spot improvements at 6 intersections.	

#### **Major Structure**

Proposed Concept	Highway	Deck Area (sq		Pro	ject Cost (	\$M)	
Proposed Concept	District	ft)	D	R	C	С	Total
Bridge - Replacement			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Bridge - Rehabilitation			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note

#### Summary of Total Cost (\$M)

Design	\$0.6
ROW	\$1.2
Utility	\$1.8
Construction	\$24.0
TOTAL	\$27.6

- 1. The cost estimation may not include additional costs to address the potential impacts of major utilities (e.g., gas line, major water supplier, transmission line) within the proximity of the corridor, due to the lack of data when the report was prepared. Further investigation is recommended in future studies.
- 2. Cost estimation was based on 2020 dollars. There is a 1-3% inflation rate. Estimated cost could vary -50% to +250% of the actual number (as a rule of thumb).
- 3. The widening of a 2-lane facility to a 3-lane facility (with TWLTL or alternating passing lane) is considered as "Minor Widening (Undivided Road) 2 Lane to 4 Lane".
- 4. Major structure costs only include bridges that are within the corridor sections for proposed widening improvements.
- 5. Cost estimation does not account for KYTC projects that are included in the proposed improvement concepts and are already under construction.
- ${\bf 6. \, Shoulder \, widening \, is \, not \, included \, in \, the \, cost \, estimation, \, as \, it \, is \, a \, relatively \, minor \, cost.}$
- 7. If multiple improvement concepts are recommended for the corridor, only the cost of the larger-scale improvement concept is estimated.



## **Cost Estimation Detail - Corridor 50C**

#### **Corridor Information**

Route	US 60			
From	Natcher Parkway in Owensboro			
То	US 31 W north of Radcliff			
Highway District	2, 4			

#### Characteristics

Functional Class	Principal Arterial or Minor Arterial or Other Frwy/Expwy		
Lanes	2 or 4		
Median	Undivided / Divided		
Posted Speed	55 or 65 mph		

#### **New Roadways**

Proposed Concept	Highway	Mileage	Mileage Project Cost (\$M)				
Froposeu concept	District	ivilleage	D	R	U	С	Total
New 4 Lane Expressway			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
New Super 2 Highway			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
New 2 Lane Highway			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note

## Major Widening (Divided Road)

Proposed Concept	Highway	way Mileage	Project Cost (\$M)				
Proposed Concept	District	Willeage	D	R	U	С	Total
4 Lane to 6 Lane (Rual)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
4 Lane to 6 Lane (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
2 Lane to 4 Lane (Rual)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
2 Lane to 4 Lane (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note

## Minor Widening (Undivided Road)

·		0 (		,			
Proposed Concept	Highway	Highway Mileage Project Cost (\$M)				\$M)	
Proposed Concept	District	Ivilleage	D	R	U	С	Total
2 Lane to 4 Lane (Rural)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
2 Lane to 4 Lane (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note	

#### Upgrade Arterial to Parkway/Expressway

oppliate Arterial to Landway, Expressing							
Proposed Concept	Highway	Project Cost (\$M)					
Froposeu Concept	District	District Mileage	D	R	U	С	Total
Upgrade with Pavement Reconstruction			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Upgrade with Pavement Rehabilitation			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note	
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are a separation of the separa							
Proposed Concept	Highway	# of	Project Cost (\$M)				
Proposed Concept	District	Interchange	D	R	U	С	Total
New Service Interchange (Rural)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
New Service Interchange (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Interchange Modification (Rural)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Interchange Modification (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Grade Separation Only			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note



#### **Major Intersection Improvement**

Existing Facility	Highway # of		Project Cost (\$M)				
Existing Facility	District	Intersection	D	R	U	С	Total
>= 4 Lanes in Both Directions	2, 4	3	\$0.3	\$0.6	\$0.9	\$12.0	\$13.8
< 4 Lanes in Both Directions	2, 4	2	\$0.2	\$0.2	\$0.2	\$4.0	\$4.6

Note
Spot improvements at 3 intersections
Spot improvements at 2 intersections

#### **Major Structure**

Proposed Concept	Highway Deck Area (sq		Project Cost (\$M)				
Froposeu Concept	District	ft)	D	R	U	С	Total
Bridge - Replacement			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Bridge - Rehabilitation			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

	Note	

#### Summary of Total Cost (\$M)

Design	\$0.5
ROW	\$0.8
Utility	\$1.1
Construction	\$16.0
TOTAL	\$18.4

- 1. The cost estimation may not include additional costs to address the potential impacts of major utilities (e.g., gas line, major water supplier, transmission line) within the proximity of the corridor, due to the lack of data when the report was prepared. Further investigation is recommended in future studies.
- 2. Cost estimation was based on 2020 dollars. There is a 1-3% inflation rate. Estimated cost could vary -50% to +250% of the actual number (as a rule of thumb).
- 3. The widening of a 2-lane facility to a 3-lane facility (with TWLTL or alternating passing lane) is considered as "Minor Widening (Undivided Road) 2 Lane to 4 Lane".
- 4. Major structure costs only include bridges that are within the corridor sections for proposed widening improvements.
- 5. Cost estimation does not account for KYTC projects that are included in the proposed improvement concepts and are already under construction.
- ${\it 6. Shoulder widening is not included in the cost estimation, as it is a relatively minor cost.}\\$
- $7. \ If \ multiple \ improvement \ concepts \ are \ recommended \ for \ the \ corridor, \ only \ the \ cost \ of \ the \ larger-scale \ improvement \ concept \ is \ estimated.$