

Highway 22 Corridor Study - Implementation Plan (Segment 1)

Seg.	Recommended Project	Need Justification	Priority	Phasing Sequence	Quantity (Length or Each)	Planning-Level Unit Cost				Planning-Level Cost	
						Option 1		Option 2		Option 1	Option 2
1	Widen Highway 22 to a three-lane roadway (continuous left-turn lane) from 470th Street (TWP 140) to CSAH 2	To improve access 2045 ADT predicted to justify need for three-lane undivided highway	Medium	Long-Term	2.0	\$3,100,000	Three-lane rural reconstruct			\$6,200,000	
1	Resurface/reconstruct Highway 22 from US 169 to 470th Street (TWP 140) including adding a dedicated northbound left-turn lane at CSAH 45	2017 RQI is fair condition RQI predicted to be 2.0 by the year 2022 Remaining service life for 2017 is 0-4 years Existing safety analysis at Highway 22 and CSAH 45 intersection indicates this intersection has a crash rate below the statewide average crash rate for similar locations	High	Short-Term	3.1	\$500,000	Two-lane rural resurface	\$2,600,000	Two-lane rural reconstruct	\$1,550,000	\$8,060,000
1	Construct roundabout at CSAH 21	Existing safety analysis indicates this intersection has a crash rate of 0.65 crashes per MEV which exceeds the statewide average crash rate for similar locations Intersection LOS D anticipated by 2045 during a.m. and p.m. peak hours ICE report recommends roundabout for future traffic control	Medium	Short-Term	1.0	\$1,600,000	1x1 Roundabout			\$1,600,000	
1	Construct a multiuse trail on the west side of Highway 22 from CSAH 45 (tie into existing multiuse trail) to County Road 102 (460th Street)		Low	Opportunity Driven	1.5	\$200,000	Multiuse trail (1 side)			\$300,000	

Highway 22 Corridor Study - Implementation Plan (Segment 2)

Seg.	Recommended Project	Need Justification	Priority	Phasing Sequence	Quantity (Length or Each)	Planning-Level Unit Cost						Planning-Level Cost		
						Option 1		Option 2		Option 3		Option 1	Option 2	Option 3
2	Widen Highway 22 to a three-lane roadway (continuous left-turn lane) from CSAH 2 to CSAH 57 (North Riverfront Drive)	2017 RQI is fair condition	Medium	Short-Term	1.6	\$3,100,000	Three-lane rural reconstruct					\$4,960,000		
		RQI predicted to be 2.0 by the year 2023												
		Remaining service life for 2017 is 0-4 years												
		2045 ADT predicted to justify need for three-lane undivided highway to improve access												
2	Resurface/reconstruct Highway 22 from CSAH 57 (North Riverfront Drive) to CSAH 26 (227th Street)	2017 RQI is fair condition	High	Short-Term	1.6	\$800,000	Four-lane rural resurface	\$4,600,000	Four-lane rural reconstruct			\$1,280,000	\$7,360,000	
		RQI predicted to be 2.0 by the year 2029												
		Remaining service life for 2017 is 0-4 years												
2	Resurface/reconstruct Highway 22 from CSAH 26 (227th Street) to CSAH 3 (North Victory Drive)	2017 RQI is fair condition	High	Short-Term	1.0	\$800,000	Four-lane rural resurface	\$4,600,000	Four-lane rural reconstruct	\$5,500,000	Four-lane urban reconstruction	\$800,000	\$4,600,000	\$5,500,000
		RQI predicted to be 2.0 by the year 2029												
		Remaining service life for 2017 is 0-4 years												
2	Resurface/reconstruct Highway 22 from CSAH 3 (North Victory Drive) to US 14	2017 RQI is fair condition	High	Short-Term	0.4	\$800,000	Four-lane rural resurface	\$4,600,000	Four-lane rural reconstruct	\$5,500,000	Four-lane urban reconstruction	\$320,000	\$1,840,000	\$2,200,000
		RQI predicted to be 2.0 by the year 2030												
		Remaining service life for 2017 is 2 years												
2	Resurface/reconstruct Highway 22 from US 14 to Highway 83/CSAH 60 (Stadium Road)	2017 RQI is fair to good condition	High	Short-Term	2.1	\$800,000	Four-lane rural resurface	\$4,600,000	Four-lane rural reconstruct	\$5,500,000	Four-lane urban reconstruction	\$1,680,000	\$9,660,000	\$11,550,000
		RQI predicted to be 2.0 by the year 2027												
		Remaining service life for 2017 is 5 years												
2	Resurface/reconstruct Highway 22 from Highway 83/CSAH 60 (Stadium Road) to CSAH 90	2017 RQI is fair to good condition	Medium	Long-Term	2.6	\$800,000	Four-lane rural resurface	\$4,600,000	Four-lane rural reconstruct	\$5,500,000	Four-lane urban reconstruction	\$2,080,000	\$11,960,000	\$14,300,000
		RQI predicted to be 2.0 by the year 2029												
		Remaining service life for 2017 is 5-12 years												
2	Construct continuous-T or roundabout at CSAH 57 (North Riverfront Drive)	2017 RQI is fair condition	High	Short-Term	1.0	\$1,800,000	Continuous-T	\$2,100,000	2x1 Roundabout			\$1,800,000	\$2,100,000	
		RQI predicted to be 2.0 by the year 2021												
		Existing safety analysis indicates this intersection has a crash rate of 0.41 crashes per MEV which exceeds the statewide average crash rate for similar locations												
		Intersection LOS E anticipated by 2030 and LOS F by 2045 during p.m. peak hour												
2	Construct roundabout at CSAH 26 (227th Street)	2017 RQI is fair condition	Low	Opportunity Driven	1.0	\$2,100,000	2x1 Roundabout					\$2,100,000		
		RQI predicted to be 2.0 by the year 2032												
		ICE report recommends a roundabout for future traffic control												
		Intersection operations are expected to be acceptable under existing signal control in 2045.												

**Highway 22 Corridor Study - Implementation Plan (Segment 2)**

Seg.	Recommended Project	Need Justification	Priority	Phasing Sequence	Quantity (Length or Each)	Planning-Level Unit Cost		Planning-Level Cost
						Option 1	Option 1	
2	Construct roundabout at Augusta Drive	2017 RQI is fair condition	High	Short-Term	1.0	\$2,100,000	2x1 Roundabout	\$2,100,000
		RQI predicted to be 2.0 by the year 2032						
		Existing safety analysis indicates this intersection has a crash rate of 0.51 crashes per MEV which matches (critical index = 1.00) the statewide critical crash rate for similar locations						
		Intersection LOS F anticipated by 2030 during a.m. and p.m. peak hours						
2	Construct roundabout at CSAH 3 (North Victory Drive)	ICE report recommends a roundabout for future traffic control	Medium	Short-Term	1.0	\$2,600,000	2x2 Roundabout	\$2,600,000
		2017 RQI is fair condition						
		RQI predicted to be 2.0 by the year 2032						
		Existing safety analysis indicates this intersection has a crash rate of 0.66 crashes per MEV which is above the statewide average crash rate for similar locations						
2	Construct roundabout at Bassett Drive	ICE report recommends a roundabout for future traffic control	High	Short-Term	1.0	\$2,100,000	2x1 Roundabout	\$2,100,000
		Intersection LOS D anticipated by 2045 during p.m. peak hour						
		RQI is good condition						
		RQI predicted to be 2.0 by the year 2027						
2	Construct roundabout at Hoffman Road	Existing safety analysis indicates this intersection has a crash rate of 1.23 crashes per MEV which exceeds (critical index = 1.48) the statewide critical crash rate for similar locations	Medium	Short-Term	1.0	\$2,100,000	2x1 Roundabout	\$2,100,000
		ICE report recommends a roundabout for future traffic control						
		Intersection operations are expected to be acceptable under existing signal control in 2045.						
		RQI is good condition						
2	Construct roundabout at Highway 83/CSAH 60 (Stadium Road)	RQI predicted to be 2.0 by the year 2030	Medium	Long-Term	1.0	\$2,100,000	2x1 Roundabout	\$2,100,000
		Existing safety analysis indicates this intersection has a crash rate of 0.86 crashes per MEV which exceeds the statewide average crash rate for similar locations						
		ICE report recommends a roundabout for future traffic control						
		RQI is good condition						
2	Replace and widen bridge #07036 (south of Jayhawk Road) to accommodate three-lane section and replace bridge #8436 (north of Jayhawk Road)	Bridge #07036 age is approximately 40 years, 2017 rating is structurally good	High	Short-Term	1.0	\$3,500,000	Bridge	\$3,500,000
		2017 bridge rating for #8436 is structurally deficient						
2	Construct a multiuse trail on the west side of Highway 22 from Hoffman Road to CSAH 90		Low	Opportunity Driven	3.4	\$200,000	Multiuse trail (1 side)	\$680,000
2	Construct a pedestrian overpass near Prairie Winds Middle School		Medium	Opportunity Driven	1.0	\$1,900,000	Pedestrian Overpass	\$1,900,000
2	Construct a pedestrian overpass between CSAH 3 (North Victory Drive) and Augusta Drive		Low	Opportunity Driven	1.0	\$2,500,000	Pedestrian Overpass	\$2,500,000

Highway 22 Corridor Study - Implementation Plan (Segment 3)

Seg.	Recommended Project	Need Justification	Priority	Phasing Sequence	Quantity (Length or Each)	Planning-Level Unit Cost				Planning-Level Cost	
						Option 1		Option 2		Option 1	Option 2
3	Resurface/reconstruct Highway 22 from 1,400 feet south of Borchert Street SE/127th Street (TWP 49) to Highway 30/CSAH 29	2017 RQI is fair condition	High	Short-Term	1.8	\$500,000	Two-lane rural resurface	\$2,600,000	Two-lane rural reconstruct	\$900,000	\$4,680,000
		RQI predicted to be 2.0 by the year 2024									
		Remaining service life for 2017 is 2 years									
3	Widen Highway 22 to a three-lane urban roadway (continuous left-turn lane with curb and gutter) from 1,700 feet north of CSAH 7 (Central Avenue) to 1,400 feet south of Borchert Street SE/127th Street (TWP 49)	2017 RQI is fair condition	Low	Long-Term	1.9	\$3,700,000	Three-lane urban reconstruct			\$7,030,000	
		RQI predicted to be 2.0 by the year 2023									
		Remaining service life for 2017 is 0-2 years									
		To improve business access									
3	Resurface/reconstruct Highway 22 from County Road 162 (134th Street) to 1,700 feet north of CSAH 7 (Central Avenue)	2017 RQI is fair condition	High	Short-Term	0.2	\$500,000	Two-lane rural resurface	\$2,600,000	Two-lane rural reconstruct	\$100,000	\$520,000
		RQI predicted to be 2.0 by the year 2021									
		Remaining service life for 2017 is 0 years									
3	Construct a multiuse trail on the west side of Highway 22 from CSAH 7 (Central Avenue) to Borchert Street SE/127th Street (TWP 49)		Low	Opportunity Driven	1.3	\$200,000	Multiuse trail (1 side)			\$260,000	