

---- MOVING VEHICLE

COLLISION WITH FIXED OBJECT

SIDE SWIPE OPPOSITE DIRECTION

**⇒** SIDE SWIPE SAME DIRECTION

REAR END

**SEVERITY CODE** 

N PROPERTY DAMAGE

© POSSIBLE INJURY

**B** MINOR INJURY

**K** FATALITY

**A** SERIOUS INJURY

LIGHT

L = LIGHT

DN = DAWN

DU = DUSK

D = DARK

X = UNKNOWN

**WEATHER** 

C = CLEAR

CL = CLOUDY

R = RAIN

S = SNOW/SLEET

X = OTHER/UNKNOWN

**₹**\_DEER

**∰**\_BICYCLE

₹ PEDESTRIAN

☐ FIXED OBJECT

RIGHT ANGLE

**TRAFFIC** 

ANOKA COUNTY

**ANOKA COUNTY** 

HIGHWAY DEPT.

SEVERITY RATE: 2.36 FAR INDEX: 1.55

**COLLISION** 

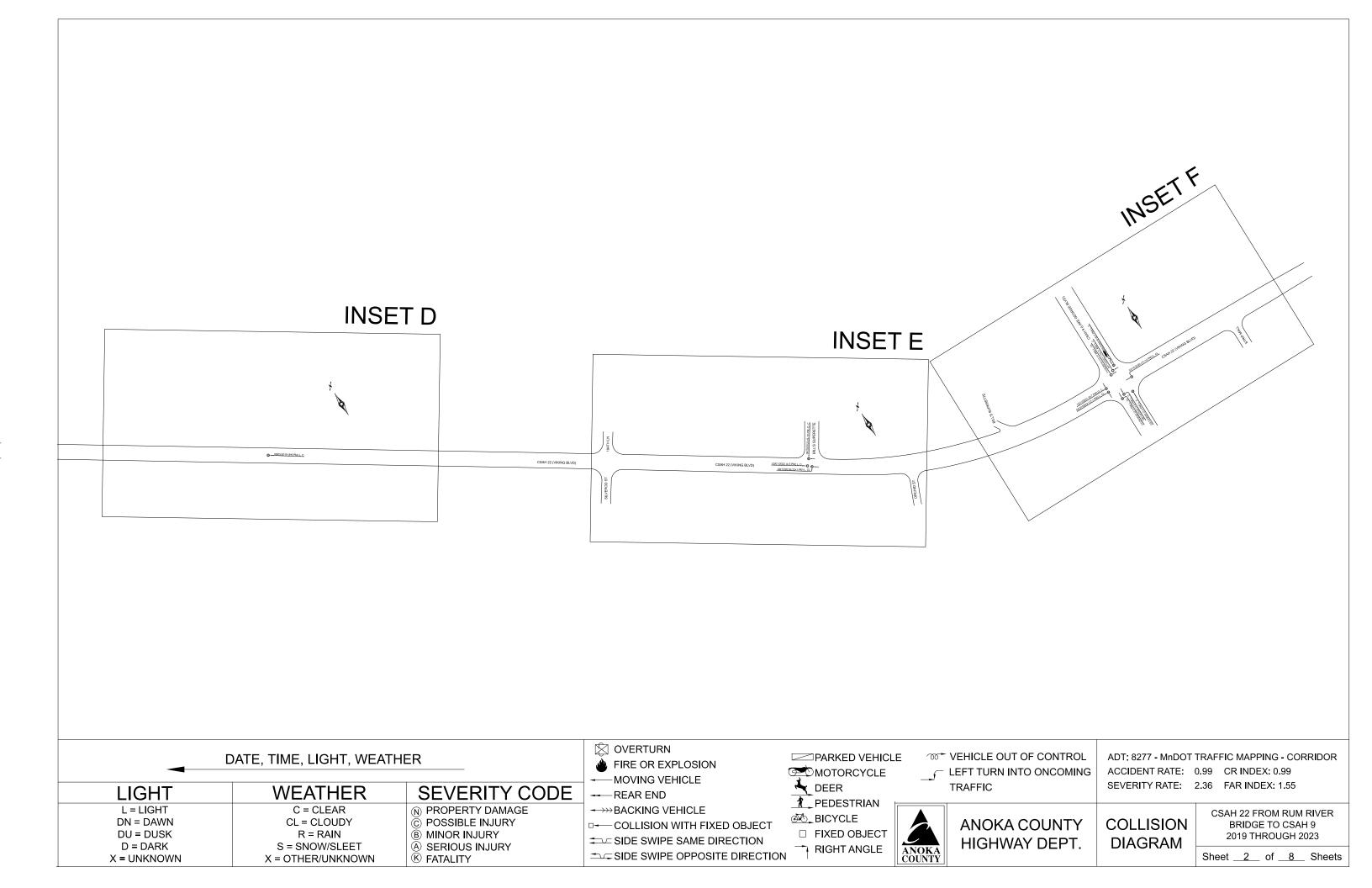
DIAGRAM

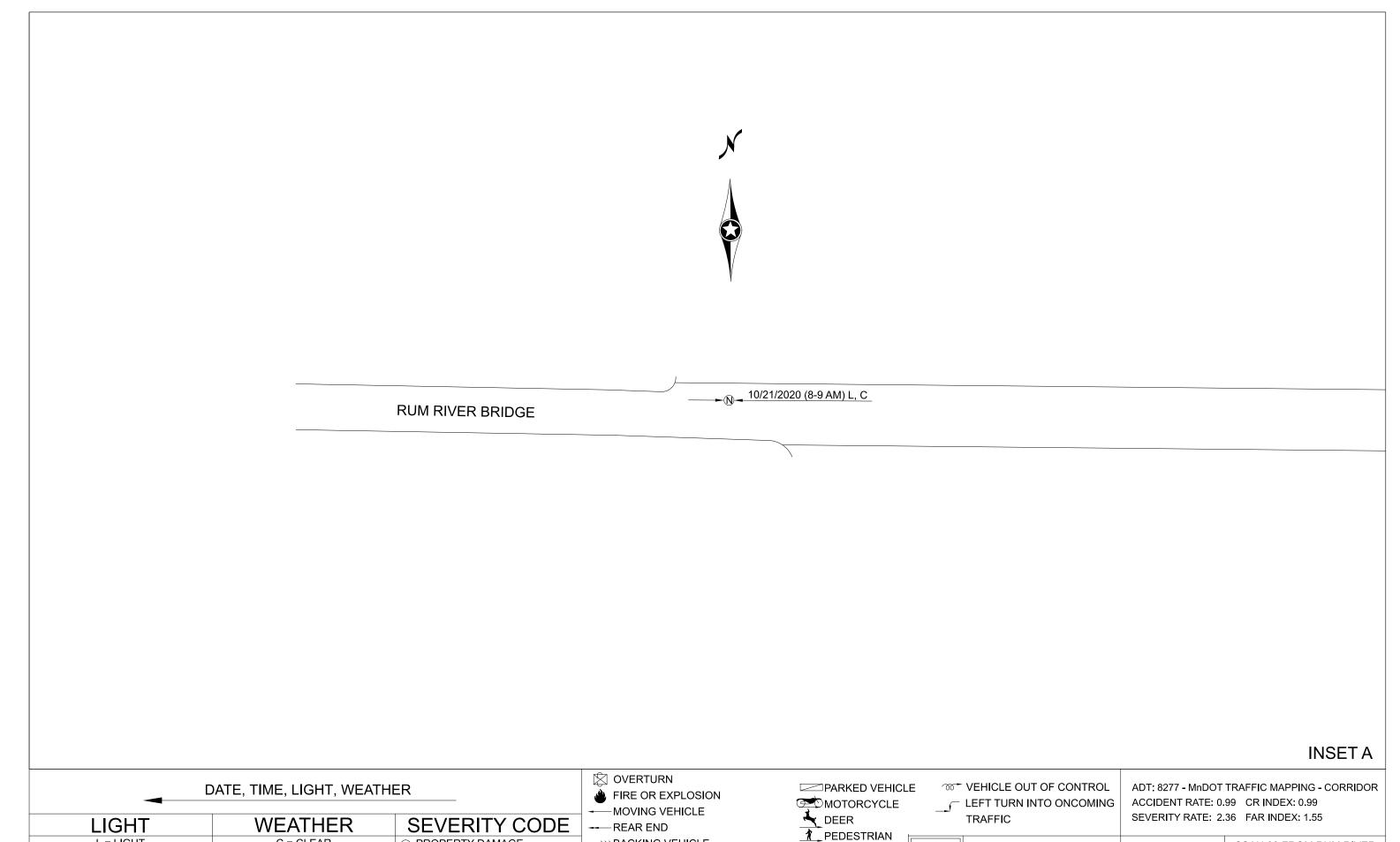
**CSAH 22 FROM RUM RIVER** 

BRIDGE TO CSAH 9

2019 THROUGH 2023

Sheet \_\_1\_ of \_\_8\_ Sheets





□--- COLLISION WITH FIXED OBJECT

SIDE SWIPE SAME DIRECTION

■ Continue of the continue of

SIDE SWIPE OPPOSITE DIRECTION

<u>₩</u>BICYCLE

☐ FIXED OBJECT

RIGHT ANGLE

ANOKA COUNTY

**ANOKA COUNTY** 

HIGHWAY DEPT.

C = CLEAR

CL = CLOUDY

R = RAIN

S = SNOW/SLEET

X = OTHER/UNKNOWN

L = LIGHT

DN = DAWN

DU = DUSK

D = DARK

X = UNKNOWN

N PROPERTY DAMAGE

© POSSIBLE INJURY

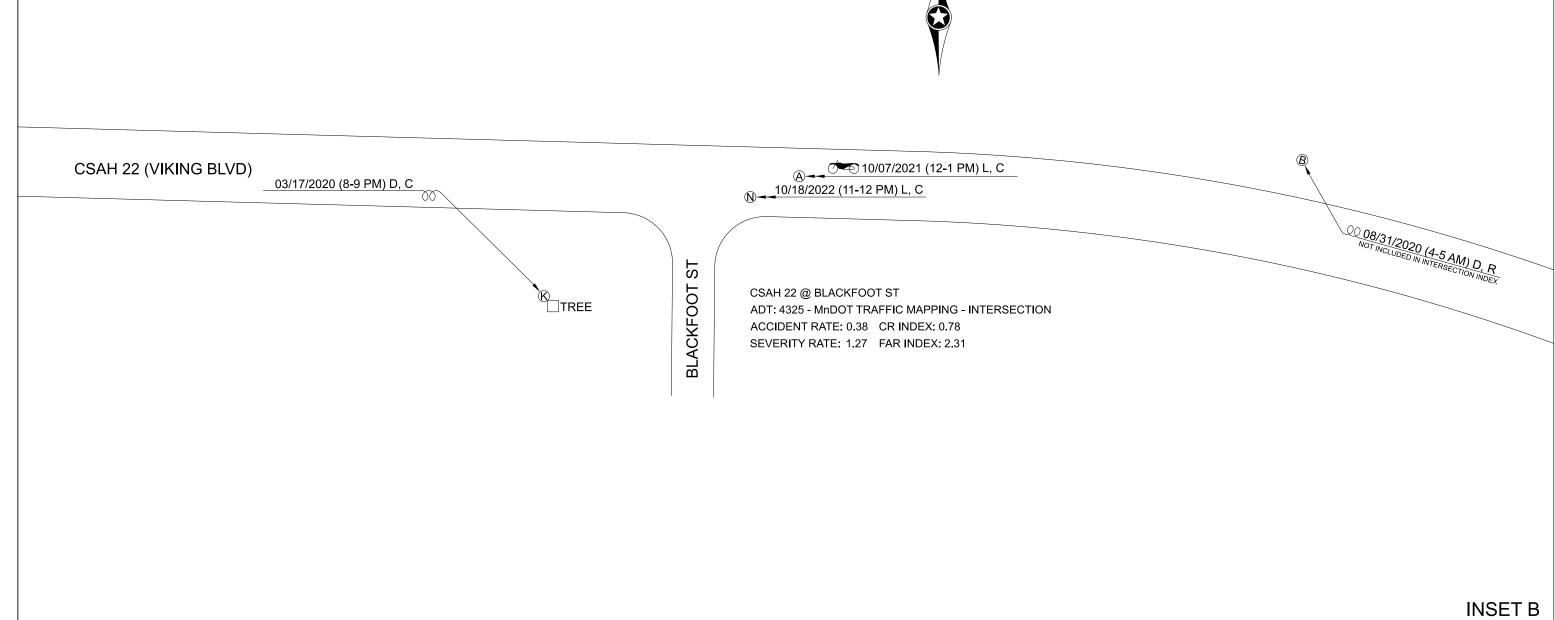
A SERIOUS INJURY

**B** MINOR INJURY

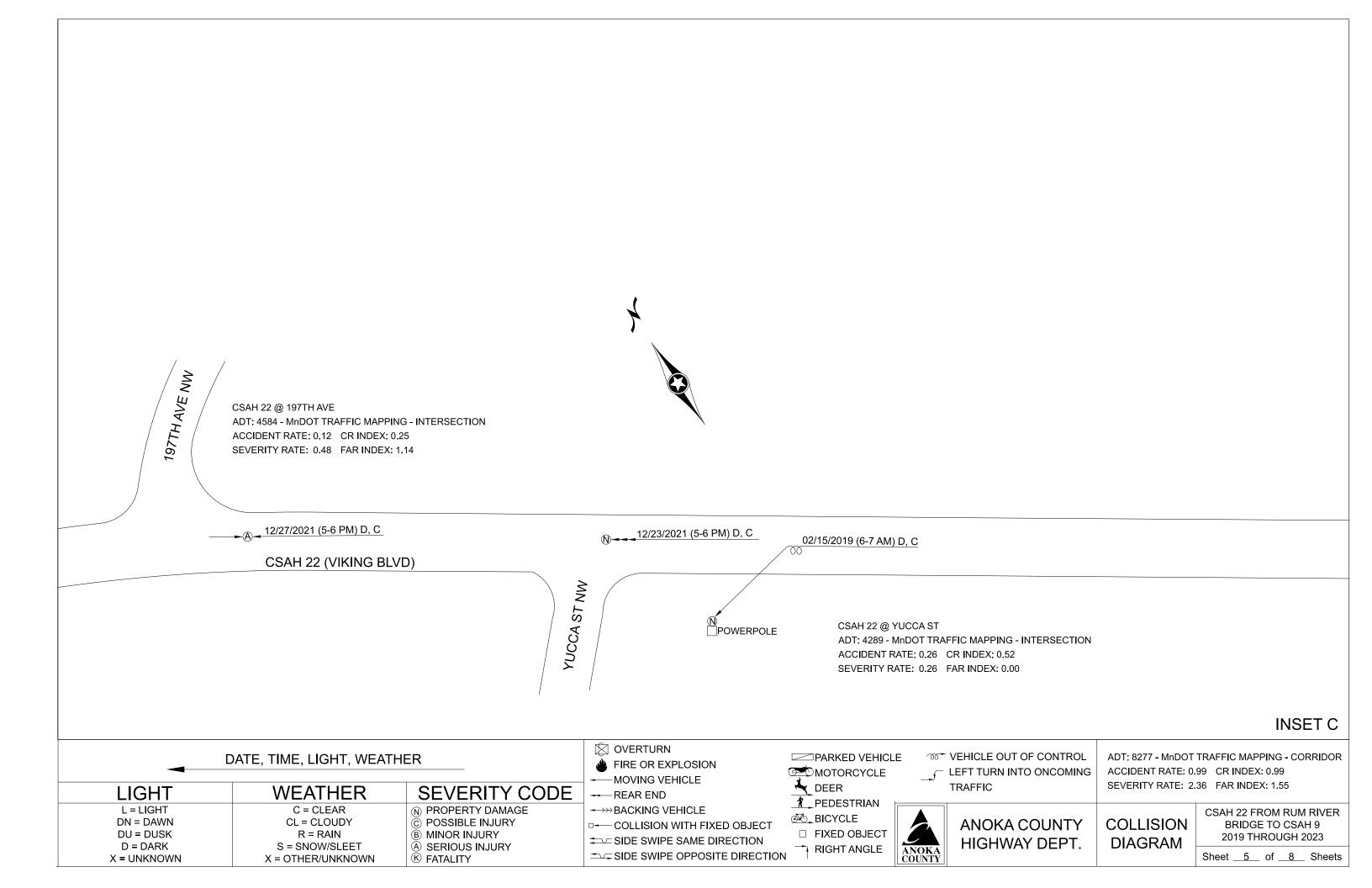
**®** FATALITY

CSAH 22 FROM RUM RIVER **COLLISION** BRIDGE TO CSAH 9 2019 THROUGH 2023 DIAGRAM Sheet 3 of 8 Sheets





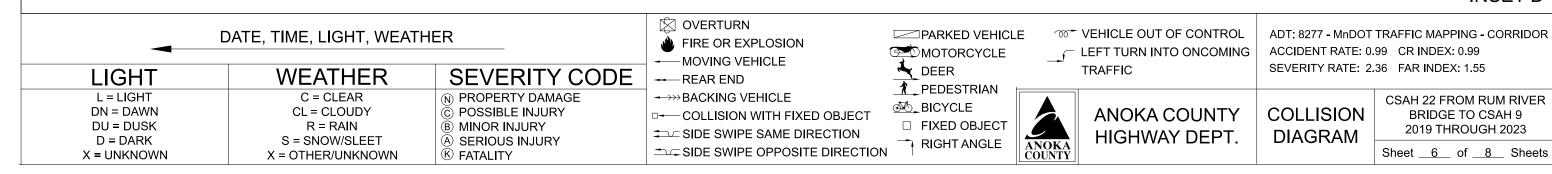
<b>—</b> [	DATE, TIME, LIGHT, WEATH	HER	OVERTURN FIRE OR EXPLOSION MOVING VEHICLE	PARKED VEHICLE MOTORCYCLE		VEHICLE OUT OF CONTROL LEFT TURN INTO ONCOMING	ACCIDENT RATE: (	TRAFFIC MAPPING - CORRIDOR 0.99 CR INDEX: 0.99
LIGHT	WEATHER	SEVERITY CODE	REAR END	DEER  PEDESTRIAN		TRAFFIC	SEVERITY RATE: 2	2.36 FAR INDEX: 1.55
L = LIGHT DN = DAWN DU = DUSK D = DARK	C = CLEAR CL = CLOUDY R = RAIN S = SNOW/SLEET	PROPERTY DAMAGE     POSSIBLE INJURY     MINOR INJURY     SERIOUS INJURY	→→→→ BACKING VEHICLE  □ ← COLLISION WITH FIXED OBJECT  ⇒ SIDE SWIPE SAME DIRECTION	BICYCLE  FIXED OBJECT		ANOKA COUNTY HIGHWAY DEPT.	COLLISION DIAGRAM	CSAH 22 FROM RUM RIVER BRIDGE TO CSAH 9 2019 THROUGH 2023
X = UNKNOWN	X = OTHER/UNKNOWN	© SERIOUS INJURY  © FATALITY	SIDE SWIPE OPPOSITE DIRECTION	RIGHTANGLE	ANOKA COUNTY		Dir Cor V (IV)	Sheet 4 of 8 Sheets

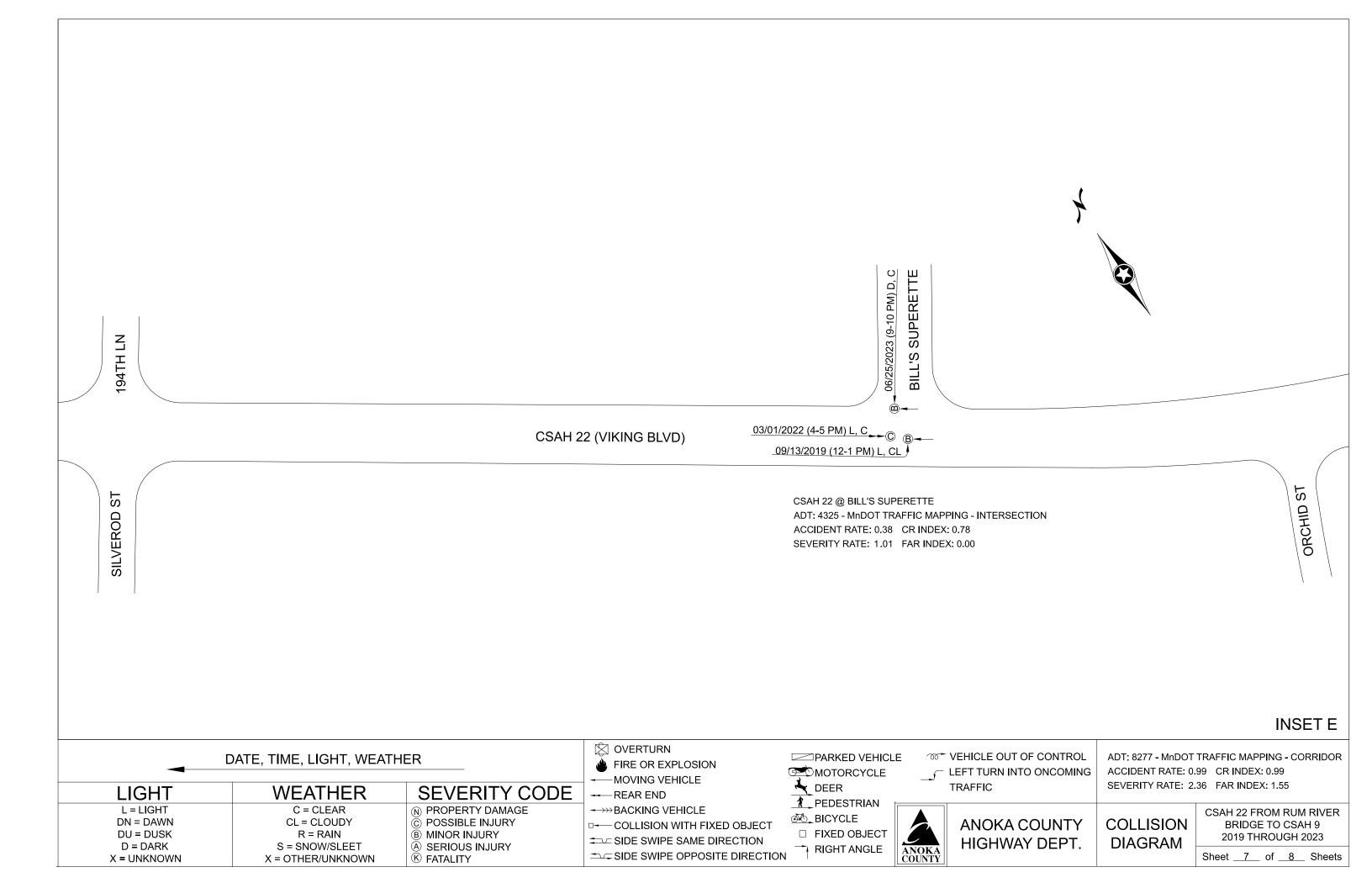


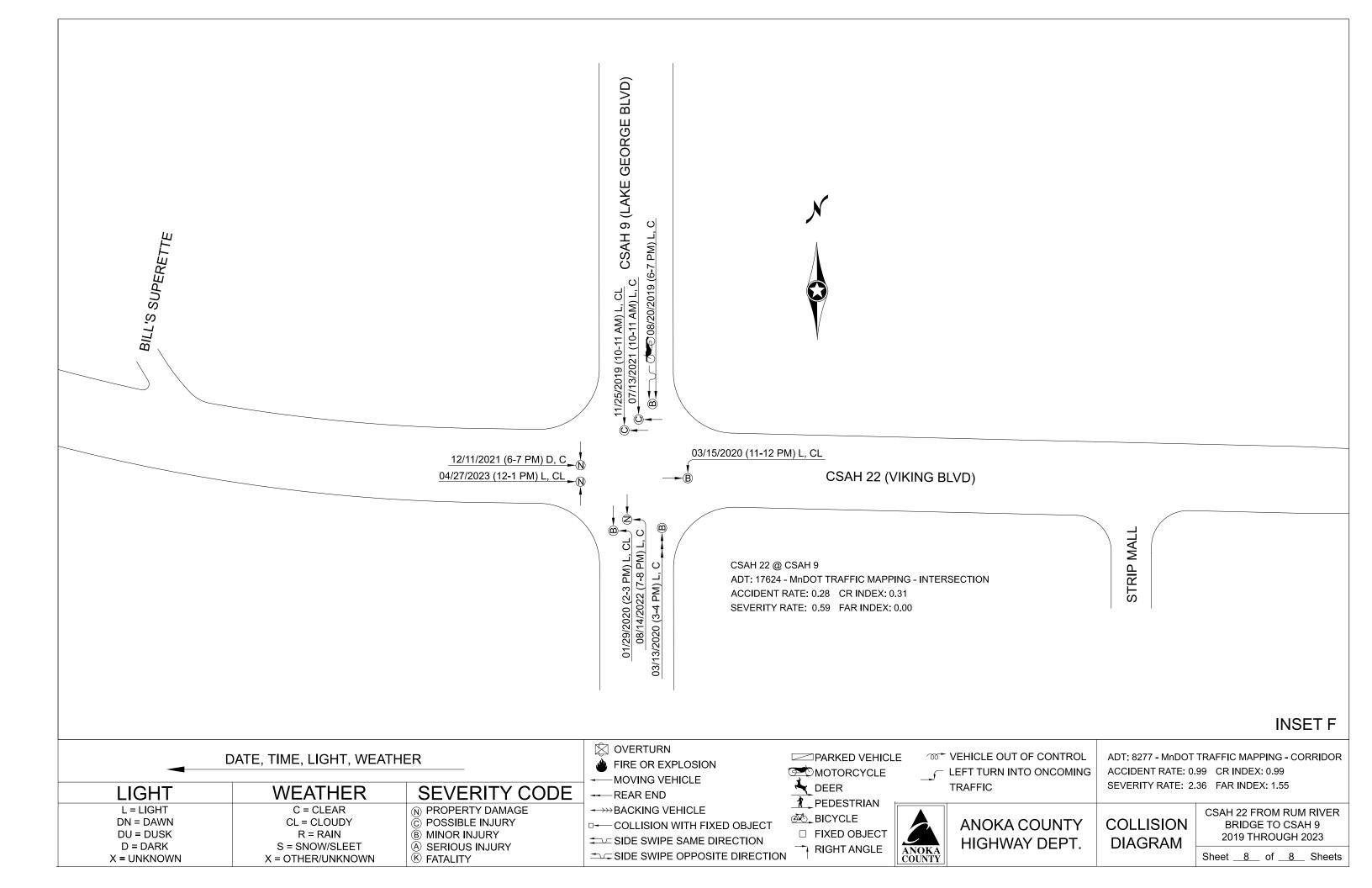


® -- 06/05/2019 (8-9 PM) L, C

#### INSET D







	ACCIDENT A	AND SEVERITY RATES FOR ACORRIDOR	
Segment:	CSAH 22 from Rum	River Bridge to CSAH 9	
Study Start Date:	01/01/2019	Miles = 1.400	
Study End Date	12/31/2023		
Length of study in years:	5.00	Days = 1825	Weighted
Average ADT for Corridor:	8277	Total Accidents = 21	
Number of Fatal Accidents:	1	Total Fatal Accidents = 1	5
Number of "A" P.I. Accidents:	2	Total "A" Injury Accidents = 2	8
Number of "B" P.I. Accidents:	8	Total "B" Injury Accidents = 8	24
Number of "C" P.I. Accidents:	3	Total "C" Injury Accidents = 3	6
Number of Property Damage Accidents:	7	Total Property Damage Accidents = 7	7
	•	Sum of weighted accidents =	50
Accident Rate (AR) =	0.99		
Severity Rate (SR) =	2.36		

# **Segment Safety Screening**

Segment: CSAH 22 from Rum River Bridge to CSAH 9

Statewide Averages based on 2018-2022 crashes

Crashes by Crash Severity	
Fatal (K)	1
Incapacitating Injury (A)	2
Minor Injury (B)	8
Possible Injury (C)	3
Property Damage (PDO)	7
Total Crashes	21

Analysis Description		
Length	1.400 miles	
VMT	21,159,323	
Non-junction A	ND Junction Crashes	

Annual crash cost per mile = \$813,571

Statewide comparison = Rural 2-Lane AADT 8000+

Total Crash Rate (CR)	)
Observed	0.992
Statewide Average	0.560
Critical Rate	1.000
Critical Index	0.99

Fatal & Serious Injury Cra	sh Rate (FAR)
Observed	14.178
Statewide Average	2.427
Critical Rate	9.130
Critical Index	1.55

The observed crash rate is the number of crashes per million vehicle miles traveled (MVMT). The critical rate is a statistical comparison based on similar trunk highways statewide. An observed crash rate greater than the critical rate indicates that the section operates outside the expected, normal range. The critical index reports the magnitude of this difference (i.e. observed crash rate ÷ critical crash rate).

The observed total crash rate for this period is 0.99 per MVMT; this is 1% below the critical rate. Based on similar statewide segments, an additional 1 crashes over the five years would indicate this section operates outside the normal range.

The observed fatal and serious injury crash rate for this period is 14.18 per 100 MVMT; this is 1.6 times the critical rate. This section may be a sustained severe crash location.

Intersection: CS	SAH 22 @ Blackfo	oot St	
Study Start Date:	01/01/2019		
Study End Date	12/31/2023		
Length of study in years:	5.00	Days = 1825	Weighted
Intersection ADT:	4325	Total Accidents = 3	
Number of Fatal Accidents:	1	Total Fatal Accidents = 1	5
Number of "A" P.I. Accidents:	1	Total "A" Injury Accidents = 1	4
Number of "B" P.I. Accidents:	0	Total "B" Injury Accidents = 0	0
Number of "C" P.I. Accidents:	0	Total "C" Injury Accidents = 0	0
mber of Property Damage Accidents:	1	Total Property Damage Accidents = 1	1
		Sum of weighted accidents =	10
Accident Rate (AR) =	0.38		
Severity Rate (SR) =	1.27		

Intersection: CSAH 22 @ Blackfoot St

Statewide Averages based on 2018-2022 crashes

Crashes by Crash Severity	
Fatal (K)	1
Serious Injury (A)	1
Minor Injury (B)	0
Possible Injury (C)	0
Property Damage (PDO)	1
Total Crashes	3

Intersection Ch	aracteristics
Entering Volume	4,325
Environment	Rural
Lighting	Lit
Traffic Control	Thru-Stop

Annual crash cost = \$483,000

Statewide comparison = Rural, Thru/STOP

Total Crash Rate	
Observed	0.380
Statewide Average	0.116
Critical Rate	0.490
Critical Index	0.78

Fatal & Serious Injury (	Crash Rate
Observed	25.325
Statewide Average	0.726
Critical Rate	10.940
Critical Index	2.31

The observed crash rate is the number of crashes per million entering vehicles (MEV). The critical rate is a statistical comparison based on similar intersections statewide. An observed crash rate greater than the critical rate indicates that the intersection operates outside the expected, normal range. The critical index reports the magnitude of this difference (i.e. observed crash rate ÷ critical crash rate).

The observed total crash rate for this period is 0.38 per MEV; this is 22% below the critical rate. Based on similar statewide intersections, an additional 1 crashes over the five years would indicate this intersection operates outside the normal range.

The observed fatal and serious injury crash rate for this period is 25.33 per 100 MEV; this is 2.3 times the critical rate. This site may be a sustained severe crash location.

		SAH 22 @ 197th Ave	Intersection: Cf
		01/01/2019	Study Start Date:
		12/31/2023	Study End Date
Weighted	Days = 1825	5.00	Length of study in years:
	Total Accidents = 1	4584	Intersection ADT:
0	Total Fatal Accidents = 0	0	Number of Fatal Accidents:
4	Total "A" Injury Accidents = 1	1	Number of "A" P.I. Accidents:
0	Total "B" Injury Accidents = 0	0	Number of "B" P.I. Accidents:
0	Total "C" Injury Accidents = 0	0	Number of "C" P.I. Accidents:
0	Total Property Damage Accidents = 0	0	Number of Property Damage Accidents:
= 4	Sum of weighted accidents =		
	_	0.12	Accident Rate (AR) =
		0.48	Severity Rate (SR) =

Intersection: CSAH 22 @ 197th Ave

Statewide Averages based on 2018-2022 crashes

Crashes by Crash Severity			
Fatal (K)	0		
Serious Injury (A)	1		
Minor Injury (B)	0		
Possible Injury (C)	0		
Property Damage (PDO)	0		
Total Crashes	1		

Intersection Characteristics			
Entering Volume	4,584		
Environment	Rural		
Lighting	Unlit		
Traffic Control	Thru-Stop		

Annual crash cost = \$160,000

Statewide comparison = Rural, Thru/STOP

Total Crash Rate			
Observed	0.119		
Statewide Average	0.116		
Critical Rate	0.480		
Critical Index	0.25		

Fatal & Serious Injury Crash Rate			
Observed	11.947		
Statewide Average	0.726		
Critical Rate	10.480		
Critical Index	1.14		

The observed crash rate is the number of crashes per million entering vehicles (MEV). The critical rate is a statistical comparison based on similar intersections statewide. An observed crash rate greater than the critical rate indicates that the intersection operates outside the expected, normal range. The critical index reports the magnitude of this difference (i.e. observed crash rate ÷ critical crash rate).

The observed total crash rate for this period is 0.12 per MEV; this is 75% below the critical rate. Based on similar statewide intersections, an additional 4 crashes over the five years would indicate this intersection operates outside the normal range.

The observed fatal and serious injury crash rate for this period is 11.95 per 100 MEV; this is 1.1 times the critical rate. This site may be a sustained severe crash location.

		MIL 22 O V CI	
		AH 22 @ Yucca St	Intersection:
		01/01/2019	Study Start Date:
		12/31/2023	Study End Date
= 1825 v	Days =	5.00	Length of study in years:
= 2	Total Accidents =	4289	Intersection ADT:
= 0	Total Fatal Accidents =	0	Number of Fatal Accidents:
= 0	Total "A" Injury Accidents =	0	Number of "A" P.I. Accidents:
= 0	Total "B" Injury Accidents =	0	Number of "B" P.I. Accidents:
= 0	Total "C" Injury Accidents =	0	Number of "C" P.I. Accidents:
= 2	Total Property Damage Accidents =	2	Number of Property Damage Accidents:
d accidents =	Sum of weighted a		_
		0.26	Accident Rate (AR) =
		0.26	Severity Rate (SR) =

Intersection: CSAH 22 @ Yucca St

Statewide Averages based on 2018-2022 crashes

Crashes by Crash Severity			
Fatal (K)	0		
Serious Injury (A)	0		
Minor Injury (B)	0		
Possible Injury (C)	0		
Property Damage (PDO)	2		
Total Crashes	2		

Intersection Characteristics			
Entering Volume	4,289		
Environment	Rural		
Lighting	Unlit		
Traffic Control	Thru-Stop		

Annual crash cost = \$6,000

Statewide comparison = Rural, Thru/STOP

Total Crash Rate			
Observed	0.255		
Statewide Average	0.116		
Critical Rate	0.490		
Critical Index	0.52		

Fatal & Serious Injury Crash Rate			
Observed	0.000		
Statewide Average	0.726		
Critical Rate	11.010		
Critical Index	0.00		

The observed crash rate is the number of crashes per million entering vehicles (MEV). The critical rate is a statistical comparison based on similar intersections statewide. An observed crash rate greater than the critical rate indicates that the intersection operates outside the expected, normal range. The critical index reports the magnitude of this difference (i.e. observed crash rate ÷ critical crash rate).

The observed total crash rate for this period is 0.26 per MEV; this is 48% below the critical rate. Based on similar statewide intersections, an additional 2 crashes over the five years would indicate this intersection operates outside the normal range.

The observed fatal and serious injury crash rate for this period is 0.00 per 100 MEV; this is 100% below the critical rate. The intersection operates within the normal range.

Intersection: C	SAH 22 @ Bill's S	uperette	
Study Start Date:	01/01/2019		
Study End Date	12/31/2023		
Length of study in years:	5.00	Days = 1825	Weighted
Intersection ADT:	4325	Total Accidents = 3	
Number of Fatal Accidents:	0	Total Fatal Accidents = 0	0
Number of "A" P.I. Accidents:	0	Total "A" Injury Accidents = 0	0
Number of "B" P.I. Accidents:	2	Total "B" Injury Accidents = 2	6
Number of "C" P.I. Accidents:	1	Total "C" Injury Accidents = 1	2
ımber of Property Damage Accidents:	0	Total Property Damage Accidents = 0	0
		Sum of weighted accidents =	8
Accident Rate (AR) =	0.38		
Severity Rate (SR) =	1.01		

Intersection: CSAH 22 @ Bill's Superette

Statewide Averages based on 2018-2022 crashes

Crashes by Crash Severity			
Fatal (K)	0		
Serious Injury (A)	0		
Minor Injury (B)	2		
Possible Injury (C)	1		
Property Damage (PDO)	0		
Total Crashes	3		

Intersection Characteristics			
Entering Volume	4,325		
Environment	Rural		
Lighting	Unlit		
Traffic Control	Thru-Stop		

Annual crash cost = \$126,000

Statewide comparison = Rural, Thru/STOP

Total Crash Rate					
Observed	0.380				
Statewide Average	0.116				
Critical Rate	0.490				
Critical Index	0.78				

Fatal & Serious Injury Crash Rate			
Observed	0.000		
Statewide Average	0.726		
Critical Rate	10.940		
Critical Index	0.00		

The observed crash rate is the number of crashes per million entering vehicles (MEV). The critical rate is a statistical comparison based on similar intersections statewide. An observed crash rate greater than the critical rate indicates that the intersection operates outside the expected, normal range. The critical index reports the magnitude of this difference (i.e. observed crash rate ÷ critical crash rate).

The observed total crash rate for this period is 0.38 per MEV; this is 22% below the critical rate. Based on similar statewide intersections, an additional 1 crashes over the five years would indicate this intersection operates outside the normal range.

The observed fatal and serious injury crash rate for this period is 0.00 per 100 MEV; this is 100% below the critical rate. The intersection operates within the normal range.

Intersection: CS/	AH 22 @ CSAH 9		
Study Start Date:	01/01/2019		
Study End Date	12/31/2023		
Length of study in years:	5.00	Days = 1825	Weighted
Intersection ADT:	17624	Total Accidents = 9	
Number of Fatal Accidents:	0	Total Fatal Accidents = 0	0
Number of "A" P.I. Accidents:	0	Total "A" Injury Accidents = 0	0
Number of "B" P.I. Accidents:	4	Total "B" Injury Accidents = 4	12
Number of "C" P.I. Accidents:	2	Total "C" Injury Accidents = 2	4
of Property Damage Accidents:	3	Total Property Damage Accidents = 3	3
		Sum of weighted accidents =	19
Accident Rate (AR) =	0.28	_	
Severity Rate (SR) =	0.59		

Intersection: CSAH 22 @ CSAH 9

Statewide Averages based on 2018-2022 crashes

Crashes by Crash Severity				
Fatal (K)	0			
Serious Injury (A)	0			
Minor Injury (B)	4			
Possible Injury (C)	2			
Property Damage (PDO)	3			
Total Crashes	9			

Intersection Characteristics		
Entering Volume	17,624	
Environment	Rural	
Lighting	Lit	
Traffic Control	Signal	

Annual crash cost = \$261,000

Statewide comparison = Signal, Low Volume (<=20K)

Total Crash Rate					
Observed	0.280				
Statewide Average	0.548				
Critical Rate	0.900				
Critical Index	0.31				

Fatal & Serious Injury Crash Rate			
Observed	0.000		
Statewide Average	1.024		
Critical Rate	4.860		
Critical Index	0.00		

The observed crash rate is the number of crashes per million entering vehicles (MEV). The critical rate is a statistical comparison based on similar intersections statewide. An observed crash rate greater than the critical rate indicates that the intersection operates outside the expected, normal range. The critical index reports the magnitude of this difference (i.e. observed crash rate ÷ critical crash rate).

The observed total crash rate for this period is 0.28 per MEV; this is 69% below the critical rate. Based on similar statewide intersections, an additional 20 crashes over the five years would indicate this intersection operates outside the normal range.

The observed fatal and serious injury crash rate for this period is 0.00 per 100 MEV; this is 100% below the critical rate. The intersection operates within the normal range.