

Appendix A

Alternative Summary Sheets

PID 117028, MED IR71 IR271 STUDY

Analysis of Intersection #10 - Alternatives B-1, B-2, & C
SR 94 (Ridge Rd) & SR 3 (Ledge Rd)

Medina County
October 2025

Countermeasure Description

- Total cost estimate: \$4,378,000
- SR-94 Corridor widening Supports this improvement
- SR-94 Corridor widening total cost estimate: \$2,216,000
- Convert existing signalized intersection to single lane roundabout
- Add double lanes for the northbound SR 94 movement
- Approximate roundabout diameter: 150 ft (inscribed), 114 ft (island)

Crash Statistics

Year	Annual Crashes
2020	5
2021	3
2022	8
2023	1
2024	1

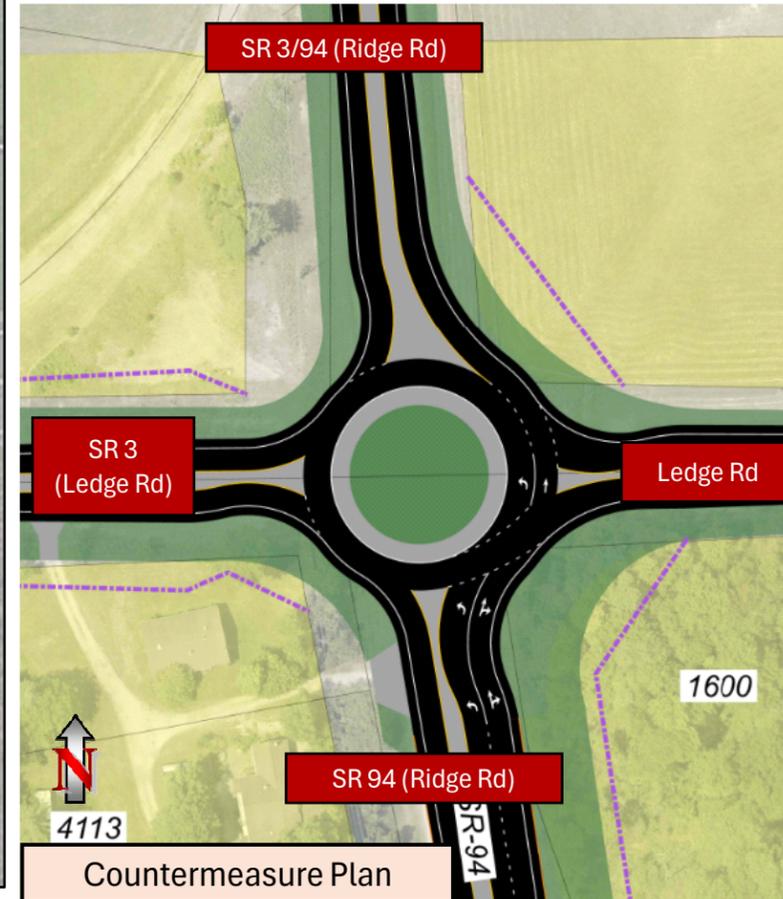
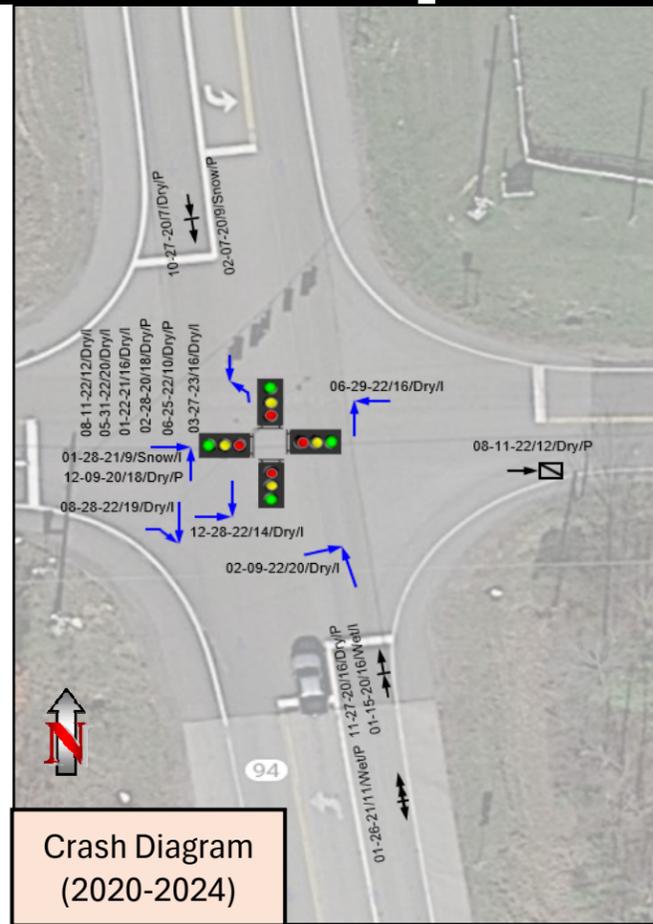
- 18 total crashes were used for the analysis
- All 18 crashes are shown in ADR's existing crash diagram to the right (made in April of 2025)
- 1 serious injury crash, 7 minor injury crashes, 2 possible injury crashes, 8 PDO

ECAT Tool: Safety Results

	Annual Predicted Crash Frequency	Annual Crash Modification	Safety Benefit	B/C Ratio
Existing Conditions	7.938	-	-	-
Proposed Conditions	1.942	-5.996	\$2,610,874	0.60

ICE Tool: Operational Results

	2050 Levels of Service (LOS)		Operational Benefit	B/C Ratio
	AM Peak Hour	PM Peak Hour		
Existing Conditions	F	E	-	-
Proposed Conditions	A	A	\$30,039,018	6.86



Intersection #10
Alternatives B-1, B-2, B-2a, & C

PID 117028, MED IR71 IR271 STUDY

Analysis of Intersection #30 - Alternative A
SR 3 (Weymouth Rd) & W. 130th St

Medina County
October 2025

Countermeasure Description

- Total cost estimate: \$80,000
- Add a right turning lane to 130th St
- Approximate length of new lane: 160 ft (with 50-ft taper)
- Convert existing lane to left turning lane

Crash Statistics

Year	Annual Crashes
2020	2
2021	3
2022	1
2023	0
2024	0

- 6 total crashes were used for the analysis
- All 6 crashes are shown in ADR's existing crash diagram to the right (made in April of 2025)
- 1 minor injury crash, 1 possible injury crash, 4 PDO

ECAT Tool: Safety Results

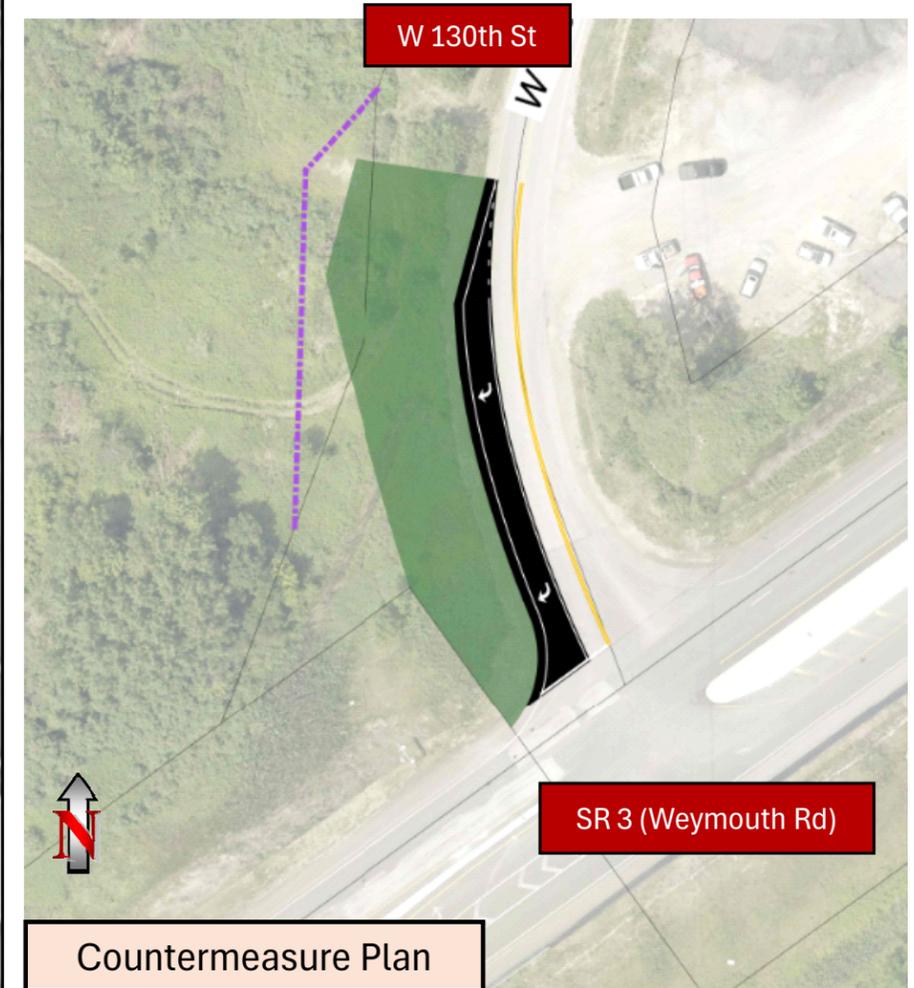
	Annual Expected Crash Frequency	Annual Crash Modification	Safety Benefit	B/C Ratio
Existing Conditions	0.973	-	-	-
Proposed Conditions	0.814	-0.159	\$116,011	1.45

ICE Tool: Operational Results

	2050 Levels of Service (LOS)		Operational Benefit	B/C Ratio
	AM Peak Hour	PM Peak Hour		
Existing Conditions	E*	F*	-	-
Proposed Conditions	E*	F*	\$748,669	9.36



Crash Diagram (2020-2024)



Countermeasure Plan

Intersection #30

Alternative A

Sheet 2 of 7

*Instead of the average LOS, unsignalized intersections use the slowest impeded movement's LOS (left turn, southbound W. 130th St to northbound SR 3)

PID 117028, MED IR71 IR271 STUDY

Analysis of Intersection #40 - Alternatives A & B
 SR 3 (Weymouth Rd) & IR-71 NB Ramps

Medina County
 October 2025

Countermeasure Description

- Total cost estimate: \$1,631,000
- Add an additional eastbound left turning lane for SR 3, a Westbound Right turn lane on SR 3, and a northbound receiving lane on entrance ramp for IR-71
- Approximate length of new (leftmost) turning lane: 170 ft
- Protect left turning phase

Crash Statistics

Year	Annual Crashes
2020	1
2021	3
2022	3
2023	3
2024	1

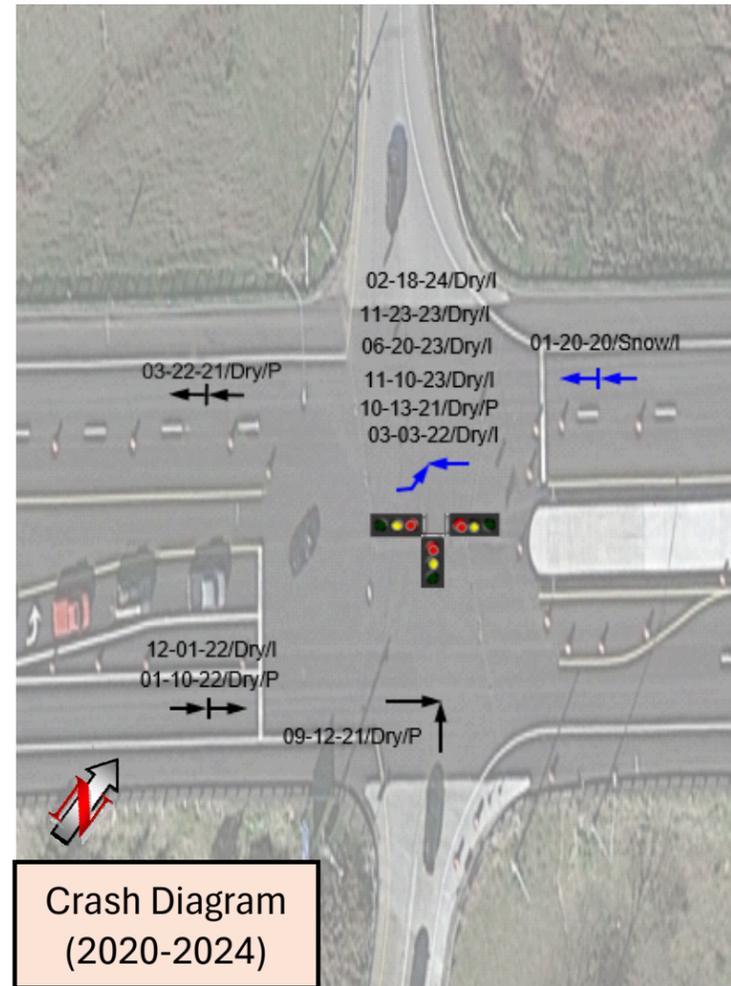
- 11 total crashes were used for the analysis
- All 11 crashes are shown in ADR's existing crash diagram to the right (made in April of 2025)
- 1 serious injury crash, 5 minor injury crashes, 1 injury possible crash, 4 PDO

ECAT Tool: Safety Results

	Annual Expected Crash Frequency	Annual Crash Modification	Safety Benefit	B/C Ratio
Existing Conditions	2.677	-	-	-
Proposed Conditions	2.008	-0.669	\$329,032	0.20

ICE Tool: Operational Results

	2050 Levels of Service (LOS)		Operational Benefit	B/C Ratio
	AM Peak Hour	PM Peak Hour		
Existing Conditions	E	C	-	-
Proposed Conditions	C	C	\$8,478,090	5.20



Crash Diagram
(2020-2024)



Countermeasure Plan

Intersection #40
 Alternatives A & B

Sheet 3 of 7

PID 117028, MED IR71 IR271 STUDY

Analysis of Intersection #70 - Alternatives A & B
SR 3 (Weymouth Rd) & Remsen/Foskett Rd

Medina County
October 2025

Countermeasure Description

- Total cost estimate: \$1,353,000
- Add left turn lanes for each direction on SR 3 (Weymouth Rd)
- The approximate length of each new lane is 300 ft

Crash Statistics

Year	Annual Crashes
2020	-
2021	-
2022	7
2023	6
2024	2

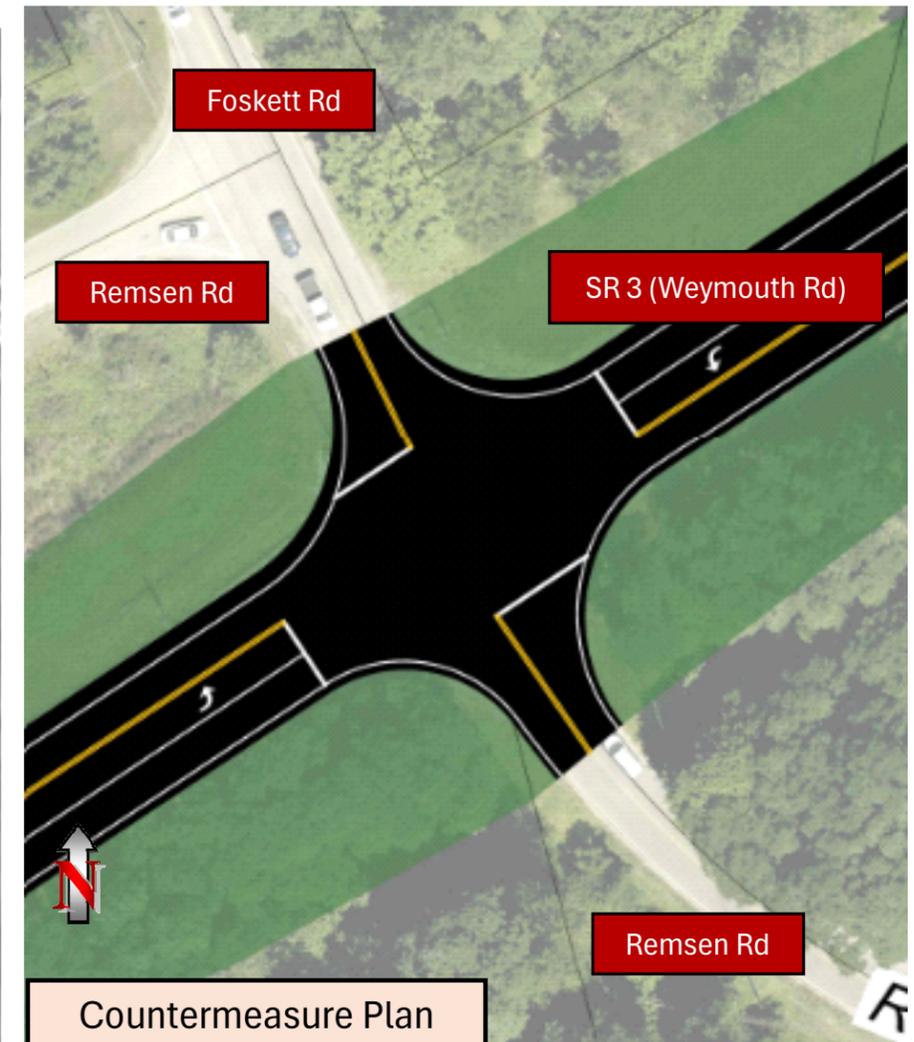
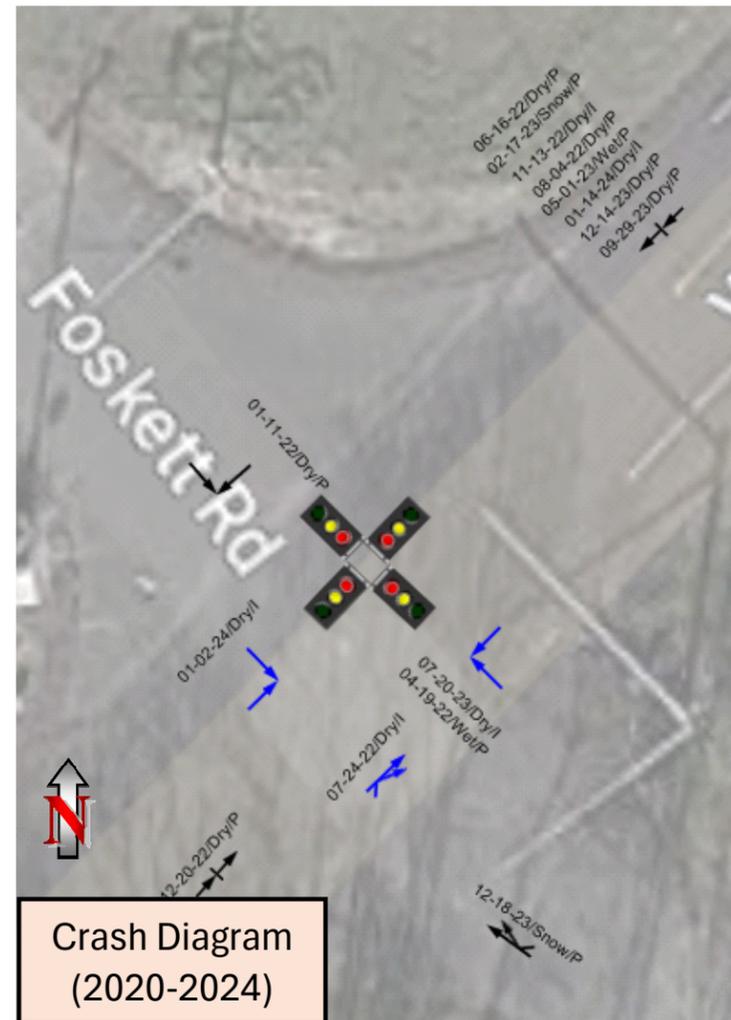
- 15 total crashes were used for the analysis
- All 15 crashes are shown in ADR's existing crash diagram to the right (made in April of 2025)
- 2 serious injury crashes, 3 minor injury crashes, 10 PDO

ECAT Tool: Safety Results

	Annual Expected Crash Frequency	Annual Crash Modification	Safety Benefit	B/C Ratio
Existing Conditions	10.554	-	-	-
Proposed Conditions	7.071	-3.483	\$1,568,107	1.16

ICE Tool: Operational Results

	2050 Levels of Service (LOS)		Operational Benefit	B/C Ratio
	AM Peak Hour	PM Peak Hour		
Existing Conditions	C	C	-	-
Proposed Conditions	C	C	-\$596,682	-0.44



Intersection #70
Alternatives A & B

Sheet 4 of 7

Appendix A

PID 117028, MED IR71 IR271 STUDY

Analysis of Intersection #230 - Alternatives A, B-1, B-2, & C
SR 94 (Ridge Rd) & IR-271 NB Ramps

Medina County
October 2025

Countermeasure Description

- Total cost estimate: \$3,000,000
- Convert existing unsignalized intersection to single lane roundabout
- Approximate roundabout diameter: 150 ft (inscribed), 114 ft (island)

Crash Statistics

Year	Annual Crashes
2020	1
2021	3
2022	3
2023	1
2024	1

- 9 total crashes were used for the analysis
- All 9 crashes are shown in ADR's existing crash diagram to the right (made in April of 2025)
- 3 minor injury crashes, 1 injury possible crash, 5 PDO

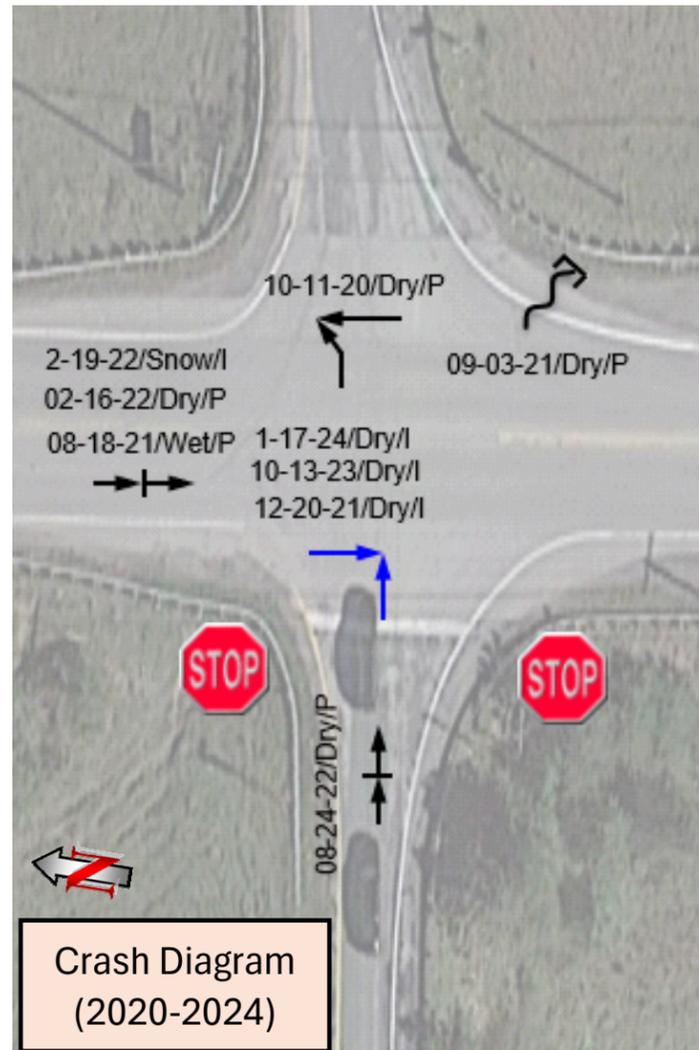
ECAT Tool: Safety Results

	Annual Predicted Crash Frequency	Annual Crash Modification	Safety Benefit	B/C Ratio
Existing Conditions	1.163	-	-	-
Proposed Conditions	0.785	-0.378	\$267,468	0.09

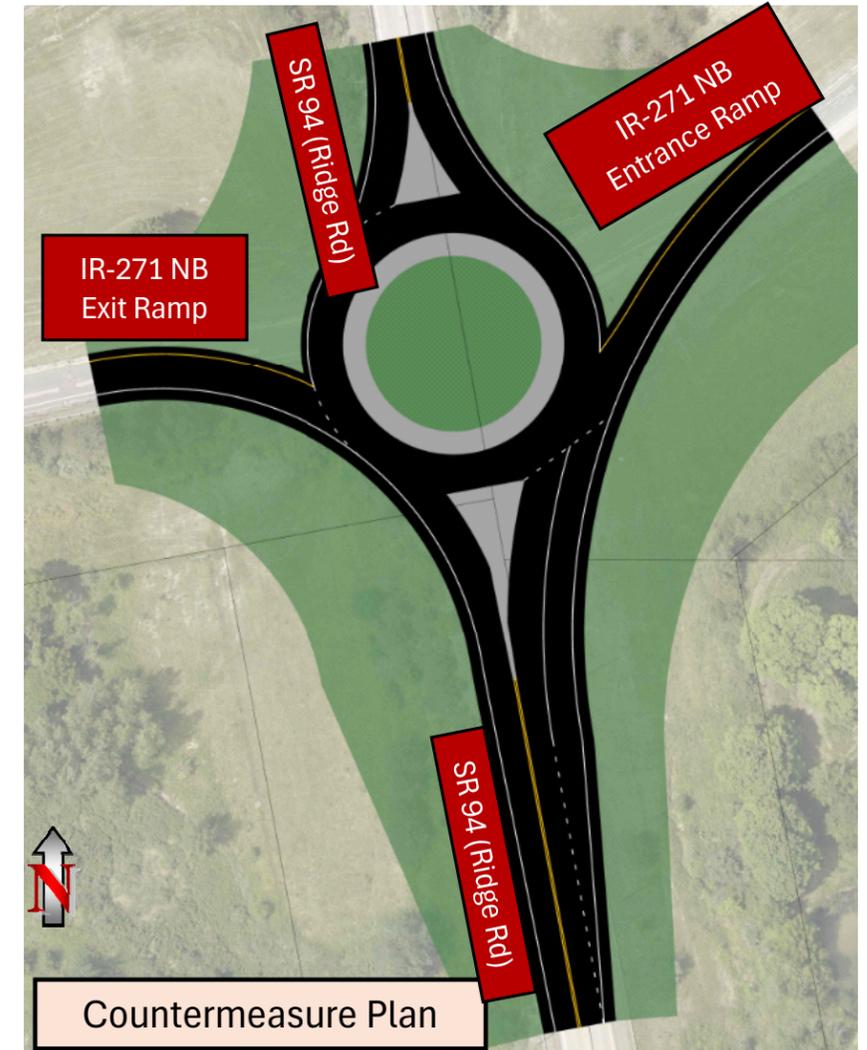
ICE Tool: Operational Results

	2050 Levels of Service (LOS)		Operational Benefit	B/C Ratio
	AM Peak Hour	PM Peak Hour		
Existing Conditions	Not Defined*	F*	-	-
Proposed Conditions	D	A	\$25,834,770	8.61

*Unsignalized intersections use the slowest impeded movement (left turn, I-271 exit ramp to northbound SR 94)



Intersection #230
Alternatives A, B-1, B-2, B-2a, & C



Countermeasure Plan

PID 117028, MED IR71 IR271 STUDY

Analysis of Intersection #250 - Medium-Term Alternative
SR 94 (Ridge Rd) & Remsen Rd (North)

Medina County
October 2025

Countermeasure Description

- Total cost estimate: \$692,000
- Add a left turning lane to SR 94 (Ridge Rd) northbound
- Approximate length of new lane: 54 ft (with 50-ft taper)
- "Medium-Term" refers to the relatively short construction phase

Crash Statistics

Year	Annual Crashes
2020	1
2021	0
2022	2
2023	1
2024	0

- 4 total crashes were used for the analysis
- All 4 crashes are shown in ADR's existing crash diagram to the right (made in April of 2025)
- 1 minor injury crash, 3 PDO

ECAT Tool: Safety Results

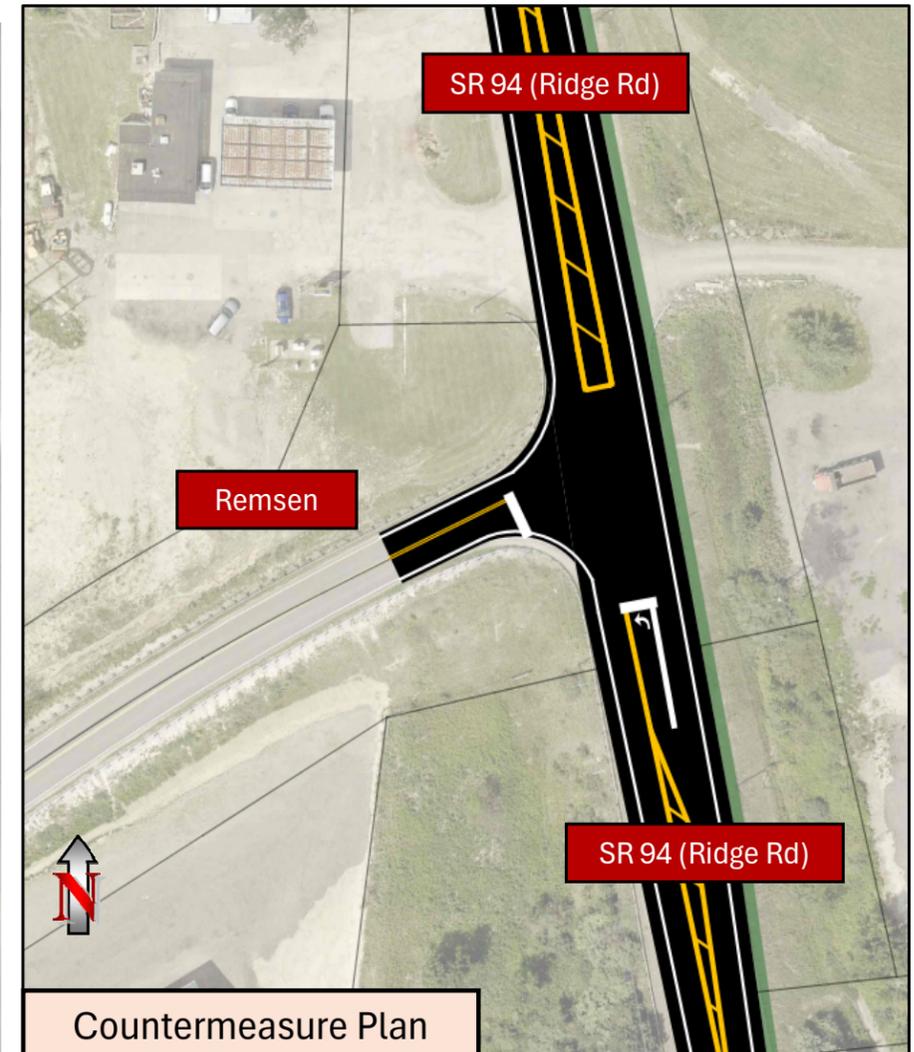
	Annual Expected Crash Frequency	Annual Crash Modification	Safety Benefit	B/C Ratio
Existing Conditions	2.175	-	-	-
Proposed Conditions	1.218	-0.957	\$645,407	0.93

ICE Tool: Operational Results

	2050 Levels of Service (LOS)		Operational Benefit	B/C Ratio
	AM Peak Hour	PM Peak Hour		
Existing Conditions	F*	F*	-	-
Proposed Conditions	F*	F*	\$19,249,267	27.82



Crash Diagram (2020-2024)



Countermeasure Plan

Intersection #250
Medium-Term Alternative

Sheet 6 of 7

*Unsignalized intersections use the slowest impeded movement (left turn, eastbound Remsen Rd to northbound SR 94)

PID 117028, MED IR71 IR271 STUDY

ECAT Analysis for Intersections #240 & 250 - Alternative B-2a
SR 94 (Ridge Rd), Remsen Rd, IR-271 SB Ramps

Medina County
October 2025

Crash Statistics

Annual Crashes			
Year	#250	#240	Total
2020	1	5	6
2021	0	2	2
2022	2	4	6
2023	1	1	2
2024	0	1	1
Total	4	13	17

- 17 total crashes were used for the analysis
- All 17 crashes are shown in ADR's existing crash diagram to the right (made in April of 2025)
- 2 minor injury crashes, 2 possible injury crashes, 13 PDO

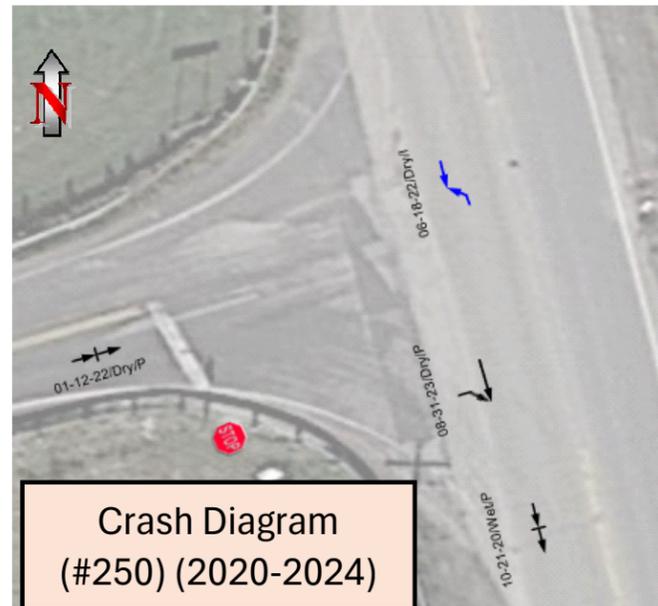
ECAT Tool: Safety Results

	Annual Predicted Crash Frequency	Annual Crash Modification	Safety Benefit	B/C Ratio Peanut
Existing Conditions	4.976	-	-	-
Proposed Conditions	2.288	-2.688	\$2,558,624	0.55

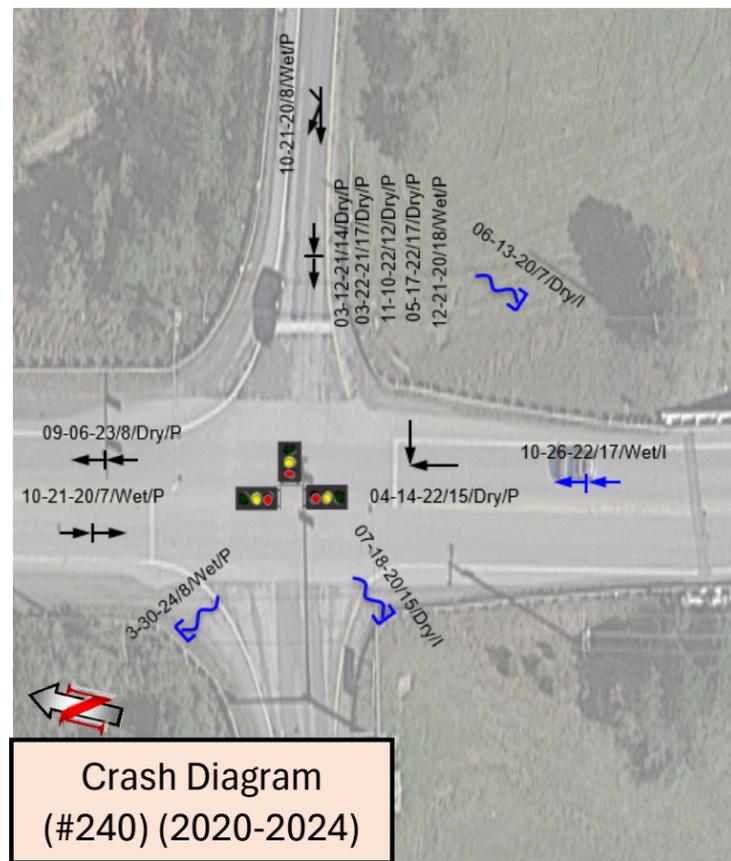
ICE Tool: Operational Results

	2050 Levels of Service (LOS)		Operational Benefit	B/C Ratio Peanut
	AM Peak Hour	PM Peak Hour		
Existing (#240)	E	F	-	-
Existing (#250)	F*	F*	-	-
Proposed Conditions	A	A	\$90,978,887.00	19.49

*Unsignalized intersections use the slowest impeded movement (left turn, eastbound Remsen Rd to northbound SR 94)



Crash Diagram (#250) (2020-2024)



Crash Diagram (#240) (2020-2024)

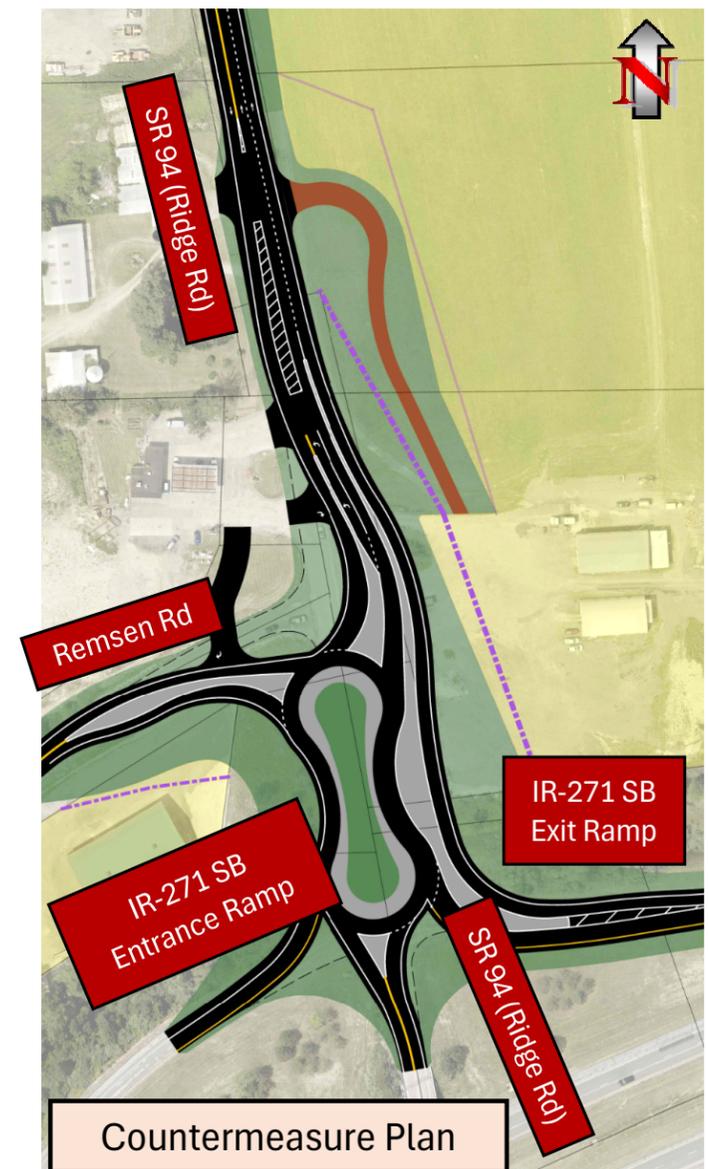
Intersections #250 & #240 Alternative B-2a

Sheet 7 of 7

Appendix A

Countermeasure Description

- Total cost estimate: \$4,668,000
- Combine intersections #240 & #250 into a 5-leg peanut roundabout
- Add a continuous bypass lane for southbound I-271 to northbound SR 94 (Ridge Rd) traffic



Countermeasure Plan