

Appendix A.

Combined Operations and Safety Analysis Tables

IHSDM

IHSDM is a tool interface that allows users to enter geometric and traffic data to create a model. This tool was created by FHWA's Safety R&D Program and is meant to evaluate existing and proposed alternatives. The prediction is based on the HSM, in particular Part C (Chapters 10, 11, 12) along with various supplemental NCHRP projects to round out location types. HSM is built upon the use of SPFs (Safety Performance Functions) in conjunction with CMF (crash modification factors). Each location type has an associated SPF that predicts the crash frequency for that specific type. Depending on the local conditions, such as lane width, there are CMFs to adjust the baseline crash frequency prediction. Some key factors considered by the HSM:

- Roadway Classification
- Horizontal Alignment
- Vertical Alignment
- Annual Average Daily Traffic (AADT)
- Posted Speed
- Roadway Lighting
- Roadway Cross Section
- Lane Types, Widths, Slopes
- Median Type and Width
- Intersection Control Type
- Left-Turn Phasing Type

IHSDM was used to evaluate:

- Roundabout (1-lane and 2-lane)
- Signalized
- AWSC
- TWSC
- Offset-T (signalized and TWSC)

For the Offset-T intersection, IHSDM used 2 T-intersections along with the segment length between the two intersections to determine the final crash frequency. This is the full footprint of the intersection type as there will be increased volumes along the intermediate segment.

SPICE

The SPICE spreadsheet is provided by FHWA and NCHRP to aid in the safety analysis of alternatives for a specific intersection. The SPICE tool relies on the HSM as well as supplemental NCHRP reports for location types. The SPICE tool uses SPFs and CMFs depending on SPF availability. Users select a list of possible intersections to consider, as well as adding in CMFs for intersection types that are not listed in the SPICE tool. The SPICE tool takes inputs

of AADTs and intersection layout. The output is a predicted crash frequency per year. The intersection alternatives evaluated in the SPICE tool were:

- Roundabout (1-lane)
- AWSC
- Median U-Turn (MUT)
- Restricted Crossing U-Turn (RCUT)
- Continuous Green
- Jughandle
- Signalized
- TWSC
- Displaced Left-Turn
- Offset-T

For the Offset-T intersection, a custom CMF had to be created. The crash frequency totals from ISHDM for a signalized intersection were compared to the Offset-T outputs. The ratio was calculated to obtain a CMF to use in the SPICE tool.

NCHRP 17-98

The final tool used was the NCHRP 17-98 report and SSI (Safe Systems Intersections). This tool utilizes conflict point evaluations rather than whole intersections. This tool also provides a score from 0-100 and not a crash prediction. A score of 100 denotes the safest score possible. The score is comprised of several factors:

- Exposure - This is essentially the AADT for the conflicting movements.
- Probability for fatal and severe injury - This includes speed and the angle of the collision
- Complexity - This captures the complexity of the movement, such as the number of through lanes the movement passes through.

This tool does not analyze pedestrian risk factors. The intersection analyzed from the SSI method were:

- Roundabouts (1-lane & 2-lane)
- AWSC
- MUT
- RCUT
- Bowtie
- Continuous Green
- Jughandle
- Signalized
- TWSC
- Full and Partial Displaced Left-Turn

Table 1. Combined LOS and SPICE Results, Existing Conditions

		EB	NB	SB	WB	Intersection	Safety	SPICE Results	
2023	AM	10.5 / B	-	-	12.1 / B	4.6 / -		Total	FI
	PM	13.7 / B	-	-	14.2 / B	5.1 / -		5.02	2.17
2045	AM	12.7 / B	-	-	16.9 / C	5.6 / -			
	PM	28.6 / D	-	-	28. 7 / D	8.5 / -			

*Existing condition is two-way stop control, which does not report intersection or free movement LOS

Table 2. Combined LOS and SPICE Results, All-Way Stop Control

		EB	NB	SB	WB	Intersection	Safety	SPICE Results	
2023	AM	9.2 / A	10 / A	9.4 / A	8.7 / A	9.5 / A		Total	FI
	PM	9.9 / A	10.1 / B	10.4 / B	9 / A	10.1 / B		2.61	1.13
2045	AM	11.1 / B	13.7 / B	11.9 / B	10.1 / B	12.4 / B			
	PM	12.7 / B	14 / B	15.6 / C	10.6 / B	14.1 / B			

Table 3. Combined LOS and SPICE Results, Signalized

		EB	NB	SB	WB	Intersection	Safety	SPICE Results	
2023	AM	6.6 / A	4.1 / A	3.9 / A	8.2 / B	5.0 / A		Total	FI
	PM	7.7 / A	4.2 / A	4.2 / A	8.4 / B	5.1 / A		5.11	1.74
2045	AM	6.3 / A	4.7 / A	4.2 / A	7.8 / B	5.2 / A			
	PM	7.9 / A	5.5 / A	5.6 / A	8.1 / B	6.1 / A			

Table 4. Combined LOS and SPICE Results, Roundabout

		EB	NB	SB	WB	Intersection	Safety	SPICE Results	
2023	AM	5.7 / A	8.4 / A	7.9 / A	8.3 / A	7.9 / A		Total	FI
	PM	6.5 / A	9.0 / A	8.7 / A	8.4 / A	8.5 / A		1.46	0.28
2045	AM	6.1 / A	8.6 / A	8.3 / A	9.4 / A	8.3 / A			
	PM	7.7 / A	9.5 / A	9.3 / A	9.3 / A	9.2 / A			

Table 5. Combined LOS and SPICE Results, Offset-T with Two-Way Stop Control

		EB	NB	SB	WB	North Intersection	South Intersection	Safety	SPICE Results	
2023	AM	10.2 / B	-	-	10.6 / B	2.6 / -	2.1 / -		Total	FI
	PM	10.7 / B	-	-	10.5 / B	3.2 / -	2.4 / -		5.34	2.21
2045	AM	11.1 / B	-	-	12.8 / B	2.9 / -	2.5 / -			
	PM	13.6 / B	-	-	12.7 / B	3.7 / -	2.8 / -			

*IHSDM CMF Results

Table 6. Combined LOS and SPICE Results, Offset-T Signalized

South Intersection							Safety	SPICE Results	
		EB	NB	SB	WB	Intersection		Total	FI
2023	AM	-	3.2 / A	4.2 / A	8.8 / A	4.5 / A		4.40	1.60
	PM	-	3.0 / A	2.6 / A	9.3 / A	3.6 / A			
2045	AM	-	4.5 / A	5.0 / A	8.6 / A	5.3 / A			
	PM	-	3.5 / A	2.4 / A	8.9 / A	3.5 / A			
North Intersection									
		EB	NB	SB	WB	Intersection			
2023	AM	8.3 / A	1.9 / A	3.1 / A	-	3.1 / A			
	PM	8.0 / A	3.4 / A	3.8 / A	-	4.4 / A			
2045	AM	8.0 / A	2.4 / A	3.9 / A	-	3.5 / A			
	PM	8.0 / A	5.1 / A	4.9 / A	-	5.5 / A			

*IHSDM CMF Results

IHSDM Results

IHSDM provides results in the form of crash frequency per year. The table below depicts the results of the IHSDM analysis. There is a total crash frequency column (“Total”) and a fatal and injury crash frequency column (“FI”). The final column is a ranking with 1 being the lowest crash frequency. The top predictive intersections are a 1-lane roundabout, AWSC, and an Offset-T.

Table 7. IHSDM Results

Intersection Type	Total	FI	IHSDM Rank
1-Lane Roundabout	1.72	0.32	1
All-Way Stop	1.79	0.49	2
Offset-T (3SG)	4.396	1.6044	3
Traffic Signal	5.36	1.82	4
Minor Road Stop	5.81	2.5	5
1-Lane/2-Lane Roundabout	6.62	0.81	6
2-Lane Roundabout	7.13	0.84	7

SPICE Results

The spice tool results are in the table below. The total crash frequency and the SPICE rank (1 being the best performing) are listed. The top performing intersections are the 1-lane roundabout, AWSC, and unsignalized RCUT.

Table 8. SPICE Results

Intersection Type	Total	SPICE Rank
1-Lane Roundabout	1.46	1
All-Way Stop	2.61	2
Unsignalized RCUT	3.27	3
Jughandle	3.78	4
Offset-T (3SG)	4.19	5
MUT	4.34	6
Signalized RCUT	4.34	6
FDLT	4.50	8
CGT	4.90	9
Minor Road Stop	5.02	10
Traffic Signal	5.11	11

NCHRP 17-98 Results

The SSI score has a scale of 0-100 with 100 being the best possible score. The top performing intersections are a 1-lane roundabout, a 1-lane/2-lane roundabout, and a 2-lane roundabout.

Table 9. NCHRP 17-98 Results

Intersection Type	SSI	SSI Rank
1-Lane Roundabout	99.95	1
All-Way Stop	99.43	2
Signalized RCUT	98.35	3
Unsignalized RCUT	98.03	4
MUT	97.96	5
FDLT	97.40	6
PDLT	97.13	7
Bowtie	96.71	8
Jughandle	95.51	9
CGT	95.36	10
Traffic Signal	94.73	11
Minor Road Stop	93.68	12

Final Compilation

While each methodology included various intersection types, not all intersection types were evaluated in each methodology. A final list of comparison was created to evaluate desired intersection alternatives, as well as intersection alternatives that were analyzed across all three methodologies. A final numerical ranking was assigned due to the conflicting outputs of crash frequency and an 0-100 scale.

The table below contains the final cross rankings. Each methodology has a 1-lane roundabout as the top performer, along with an AWSC as the second-best performer. Each has a separate third ranking ranging from a signalized RCUT, and unsignalized RCUT, and a signalized Offset-T intersection.

Table 10. Combined Results

Intersection Type	SSI Rank	SPICE Rank	IHSDM Rank
1-Lane Roundabout	1	1	1
All-Way Stop	2	2	2
1-Lane/2-Lane Roundabout	-	-	6
Unsignalized RCUT	4	3	-
2-Lane Roundabout	-	-	7
Offset-T (3SG)	-	5	3
Signalized RCUT	3	6	-
MUT	5	6	-
Jughandle	7	4	-
FDLT	6	8	-
CGT	8	9	-
Traffic Signal	9	11	4
Minor Road Stop	10	10	5

Appendix B.

Cost Estimates

Note: All cost estimates are preliminary and provided in 2025 dollars, so they are subject to inflation.

Interim Condition

ITEM NO.	ITEM	UNIT	ESTIMATED QUANTITIES	ESTIMATED UNIT COST	TOTAL COST
			ROADWAY		
			CODE 05		
106.05200	CONTRACTOR TESTING	LS	LUMP SUM	\$ 2,500.00	\$ 2,500.00
109.04000	FORCE ACCOUNT WORK	\$S	10000	\$ 1.00	\$ 10,000.00
109.08000	MOBILIZATION	LS	LUMP SUM	\$ 7,500.00	\$ 7,500.00
202.03305	MILLING PLANT MIX	SY	570	\$ 5.00	\$ 2,850.00
202.03400	REMOVAL OF SURFACING	SY	1670	\$ 9.00	\$ 15,030.00
209.01000	WATER	MG	4	\$ 3.00	\$ 12.00
216.03100	SEEDING (PLS)	LB	6	\$ 40.00	\$ 240.00
216.03120	FERTILIZER TYPE I	LB	10	\$ 10.00	\$ 100.00
216.03900	DRY MULCH	TON	1	\$ 415.00	\$ 415.00
301.01085	CRUSHED BASE	CY	100	\$ 40.00	\$ 4,000.00
406.03005	PLANT MIX (COMMERCIAL)	TON	130	\$ 180.00	\$ 23,400.00
407.01000	TACK COAT	TON	1	\$ 1,000.00	\$ 1,000.00
702.30000*	REGULATORY SIGNS	EA	5	\$ 1,000.00	\$ 5,000.00
702.30600	RESET SIGNS	LS	LUMP SUM	\$ 500.00	\$ 500.00
702.50700	RESET DELINEATORS	EA	4	\$ 60.00	\$ 240.00
703.03100	FLAGGING	HR	100	\$ 45.00	\$ 4,500.00
703.03110	TEMPORARY TRAFFIC CONTROL	LS	LUMP SUM	\$ 5,000.00	\$ 5,000.00
SUBTOTAL				\$	82,287.00
CONTINGENCY (30%)				\$	24,686.10
TOTAL				\$	106,973.10

All-Way Stop Control Alternative

ITEM NO.	ITEM	UNIT	ESTIMATED QUANTITIES	ESTIMATED UNIT COST	TOTAL COST
			ROADWAY CODE 03		
106.05200	CONTRACTOR TESTING	LS	LUMP SUM	\$ 60,000.00	\$ 60,000.00
109.04000	FORCE ACCOUNT WORK	\$\$	10000	\$ 1.00	\$ 10,000.00
109.08000	MOBILIZATION	LS	LUMP SUM	\$ 200,000.00	\$ 200,000.00
199.00005	ADJUSTING UTILITIES	\$\$	1	\$ 70,000.00	\$ 70,000.00
202.03120	REMOVAL OF SIGNS	LS	LUMP SUM	\$ 5,000.00	\$ 5,000.00
202.03170	REMOVAL OF GUARDRAIL	FT	900	\$ 5.00	\$ 4,500.00
202.03205	REMOVAL OF FENCE	FT	7790	\$ 5.00	\$ 38,950.00
202.03305	MILLING PLANT MIX	SY	26000	\$ 5.00	\$ 130,000.00
202.03445	REMOVAL OF CURB AND GUTTER	FT	560	\$ 20.00	\$ 11,200.00
209.01000	WATER	MG	170	\$ 3.00	\$ 510.00
216.03100	SEEDING (PLS)	LB	30	\$ 40.00	\$ 1,200.00
216.03120	FERTILIZER TYPE I	LB	40	\$ 10.00	\$ 400.00
216.03900	DRY MULCH	TON	3	\$ 415.00	\$ 1,245.00
301.01085	CRUSHED BASE	CY	4580	\$ 40.00	\$ 183,200.00
401.02055	HOT PLANT MIX APPROACHES	TON	950	\$ 250.00	\$ 237,500.00
401.03321	ASPHALT BINDER (PG 58-28)	TON	78	\$ 600.00	\$ 46,800.00
406.03005	PLANT MIX (COMMERCIAL)	TON	4310	\$ 180.00	\$ 775,800.00
606.01020	MGS GUARDRAIL	FT	910	\$ 35.00	\$ 31,850.00
606.02050	MGS TERMINAL TYPE I	EA	4	\$ 3,500.00	\$ 14,000.00
607.20600	FENCE TYPE F (WOOD POSTS)	FT	8000	\$ 5.00	\$ 40,000.00
607.80100	BRACE PANELS	EA	6	\$ 315.00	\$ 1,890.00
607.90100	END PANELS	EA	44	\$ 385.00	\$ 16,940.00
608.10200	SIDEWALK (CONC)	SY	800	\$ 120.00	\$ 96,000.00
609.10200	CURB AND GUTTER TYPE A	FT	1,200	\$ 60.00	\$ 72,000.00
701.70000	FLASHING BEACON SYSTEM	LS	LUMP SUM	\$ 15,000.00	\$ 15,000.00
702.30000*	REGULATORY SIGNS	LS	LUMP SUM	\$ 16,000.00	\$ 16,000.00
702.30100	SIGN POSTS, WOOD 4 X 4 in	FT	6	\$ 30.00	\$ 180.00
702.30600	RESET SIGNS	LS	LUMP SUM	\$ 5,000.00	\$ 5,000.00
702.50100	DELINEATORS, TYPE I	EA	51	\$ 90.00	\$ 4,590.00
702.50200	DELINEATORS, TYPE II	EA	30	\$ 90.00	\$ 2,700.00
703.03100	FLAGGING	HR	1000	\$ 45.00	\$ 45,000.00
703.03110	TEMPORARY TRAFFIC CONTROL	LS	LUMP SUM	\$ 10,000.00	\$ 10,000.00
703.1000*	PERMANENT STRIPING	LS	LUMP SUM	\$ 100,000.00	\$ 100,000.00

SUBTOTAL \$ 2,147,455.00

CONTINGENCY (30%) \$ 644,236.50

TOTAL \$ 2,791,691.50

Roundabout Alternative

ITEM NO.	ITEM	UNIT	ESTIMATED QUANTITIES	ESTIMATED UNIT COST	TOTAL COST
			ROADWAY		
			CODE 03		
106.05200	CONTRACTOR TESTING	LS	LUMP SUM	\$ 60,000.00	\$ 60,000.00
109.04000	FORCE ACCOUNT WORK	\$\$	10000	\$ 1.00	\$ 10,000.00
109.08000	MOBILIZATION	LS	LUMP SUM	\$ 200,000.00	\$ 200,000.00
199.00005	ADJUSTING UTILITIES	\$\$	1	\$ 70,000.00	\$ 70,000.00
202.03120	REMOVAL OF SIGNS	LS	LUMP SUM	\$ 5,000.00	\$ 5,000.00
202.03170	REMOVAL OF GUARDRAIL	FT	270	\$ 5.00	\$ 1,350.00
202.03205	REMOVAL OF FENCE	FT	3620	\$ 5.00	\$ 18,100.00
202.03305	MILLING PLANT MIX	SY	15000	\$ 5.00	\$ 75,000.00
202.03445	REMOVAL OF CURB AND GUTTER	FT	560	\$ 20.00	\$ 11,200.00
209.01000	WATER	MG	97	\$ 3.00	\$ 291.00
216.03100	SEEDING (PLS)	LB	30	\$ 40.00	\$ 1,200.00
216.03120	FERTILIZER TYPE I	LB	40	\$ 10.00	\$ 400.00
216.03900	DRY MULCH	TON	3	\$ 415.00	\$ 1,245.00
301.01085	CRUSHED BASE	CY	2600	\$ 40.00	\$ 104,000.00
401.02055	HOT PLANT MIX APPROACHES	TON	450	\$ 200.00	\$ 90,000.00
401.03321	ASPHALT BINDER (PG 58-28)	TON	53	\$ 600.00	\$ 31,800.00
406.03005	PLANT MIX (COMMERCIAL)	TON	1480	\$ 180.00	\$ 266,400.00
407.01000	TACK COAT	TON	6	\$ 910.00	\$ 5,460.00
414.01035	CONCRETE PVMT (8 in)	SY	6420	\$ 140.00	\$ 898,800.00
606.01020	MGS GUARDRAIL	FT	280	\$ 35.00	\$ 9,800.00
606.02050	MGS TERMINAL TYPE I	EA	2	\$ 3,500.00	\$ 7,000.00
607.20600	FENCE TYPE F (WOOD POSTS)	FT	4000	\$ 5.00	\$ 20,000.00
607.80100	BRACE PANELS	EA	7	\$ 315.00	\$ 2,205.00
607.90100	END PANELS	EA	31	\$ 385.00	\$ 11,935.00
608.10200	SIDEWALK (CONC)	SY	800	\$ 120.00	\$ 96,000.00
609.10200	CURB AND GUTTER TYPE A	FT	1,600	\$ 60.00	\$ 96,000.00
701.70000	FLASHING BEACON SYSTEM	LS	LUMP SUM	\$ 15,000.00	\$ 15,000.00
702.30000*	REGULATORY SIGNS	LS	LUMP SUM	\$ 12,000.00	\$ 12,000.00
702.30100	SIGN POSTS, WOOD 4 X 4 in	FT	6	\$ 30.00	\$ 180.00
702.30600	RESET SIGNS	LS	LUMP SUM	\$ 5,000.00	\$ 5,000.00
702.50100	DELINEATORS, TYPE I	EA	46	\$ 90.00	\$ 4,140.00
702.50200	DELINEATORS, TYPE II	EA	14	\$ 90.00	\$ 1,260.00
703.03100	FLAGGING	HR	1000	\$ 45.00	\$ 45,000.00
703.03110	TEMPORARY TRAFFIC CONTROL	LS	LUMP SUM	\$ 10,000.00	\$ 10,000.00
703.10000*	PERMANENT STRIPING	LS	LUMP SUM	\$ 100,000.00	\$ 100,000.00
TOTAL				\$	2,285,766.00
CONTINGENCY (30%)				\$	685,729.80
TOTAL				\$	2,971,495.80

Appendix C.

Traffic Signal Warrant Analysis

TRAFFIC SIGNAL WARRANTS INPUT SHEET

CALC by _____ CALC DATE 03/27/25

Sheridan | 4 | Sheridan | _____
CITY DIST CO M.P.

CHK by _____ COUNT DATE 04/11/24

North-South Street Big Horn Ave / US-87 Posted Approach Speed 55 mph Lanes: 1
 Is street part of the street or highway system that serves as the principal roadway network for through traffic flow? Yes
 Does street include rural or suburban highways outside, entering, or traversing a city? Yes
 Does street appear as a major route on an official street plan? Yes
 Distance to nearest signal: North 10000 ft South 10000 ft
 Will a signal at this location provide the necessary degree of platooning and progression between the adjacent signals? No

East-West Street WY-335 / Coffeen Posted Approach Speed 55 mph Lanes: 1
 Is street part of the street or highway system that serves as the principal roadway network for through traffic flow? Yes
 Does street include rural or suburban highways outside, entering, or traversing a city? Yes
 Does street appear as a major route on an official street plan? Yes
 Distance to nearest signal: East 10000 ft West 10000 ft
 Will a signal at this location provide the necessary degree of platooning and progression between the adjacent signals? No

Is there an engineering study that has 5-year projected volumes at this intersection that meet one or more of Warrants 1, 2, or 3 during an average weekday? No

Do traffic volumes on a Saturday or Sunday meet or exceed 1000 veh/hr for at least 5 hours? No

Is there a designated school crossing across the uncontrolled roadway at this intersection? No

Is there a railroad grade crossing within 140 feet of the intersection on a STOP controlled approach? No

Volume Input Table

	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND			
	Lt	Thru	Rt	Peds	Lt	Thru	Rt	Peds	Lt	Thru	Rt	Peds	Lt	Thru	Rt	Peds
6:00-7:00 am																
7:00-8:00 am	9	24	2		5	8	102		97	212	5		24	135	4	
8:00-9:00 am	9	16	2		8	5	16		62	174	4		29	141	2	
9:00-10:00 am																
10:00-11:00 am																
11:00-12:00 n																
12:00-1:00 pm																
1:00-2:00 pm																
2:00-3:00 pm																
3:00-4:00 pm	9	13	1		4	18	32		59	139	11		59	192	1	
4:00-5:00 pm	11	19	2		6	27	53		104	195	11		66	185	1	
5:00-6:00 pm	5	16	0		9	21	71		80	156	6		55	238	4	
6:00-7:00 pm																

DELAY INPUT TABLE

AVERAGE STOPPED TIME BY APPROACH

	NB SB	
	NB	SB
6:00-7:00 am		
7:00-8:00 am	11	14
8:00-9:00 am		
9:00-10:00 am		
10:00-11:00 am		
11:00-12:00 n		
12:00-1:00 pm		
1:00-2:00 pm		
2:00-3:00 pm		
3:00-4:00 pm		
4:00-5:00 pm	13.3	14.3
5:00-6:00 pm		
6:00-7:00 pm		

WYOMING DEPARTMENT OF TRANSPORTATION TRAFFIC SIGNAL WARRANTS

Calc by _____ Calc Date 03/27/25

Sheridan | 4 | Sheridan
CITY DIST CO

Chk by _____ Count Date 04/11/24Major Street WY-335 / Coffeen Posted Approach Speed 55 mph Lanes: 1Minor Street Big Horn Ave / US-87 Posted Approach Speed 55 mph Lanes: 1

Critical speed of major street traffic > 40 mph ----- ☒ OR
 In built up area of isolated community of <= 10,000 pop. with no existing signals ----- ☐

WARRANT 1 - Eight-Hour Vehicular Volume

Condition A - Minimum Vehicular Volume

WARRANT SATISFIED YES ☐ NO ☒

	APPROACH LANES	WARRANT VOLUME	7 AM	8 AM	3 PM	4 PM	5 PM	N/A	N/A	N/A
Both Approaches Major Street	1	350	477	412	461	562	539	N/A	N/A	N/A
Highest Approach Minor Street	1	105	115	29	54	86	101	N/A	N/A	N/A
Warrant Volume Met?			Yes	No	No	No	No	No	No	No

Condition B - Interruption of Continuous Traffic

WARRANT SATISFIED YES ☐ NO ☒

	APPROACH LANES	WARRANT VOLUME	7 AM	8 AM	3 PM	4 PM	5 PM	N/A	N/A	N/A
Both Approaches Major Street	1	525	477	412	461	562	539	N/A	N/A	N/A
Highest Approach Minor Street	1	53	115	29	54	86	101	N/A	N/A	N/A
Warrant Volume Met?			No	No	No	Yes	Yes	No	No	No

Combination of Conditions "A" and "B"

BOTH SATISFIED YES ☐ NO ☒

Condition "A"

A" SATISFIED YES ☐ NO ☒

	APPROACH LANES	WARRANT VOLUME	7 AM	8 AM	3 PM	4 PM	5 PM	N/A	N/A	N/A
Both Approaches Major Street	1	280	477	412	461	562	539	N/A	N/A	N/A
Highest Approach Minor Street	1	84	115	29	54	86	101	N/A	N/A	N/A
Warrant Volume Met?			Yes	No	No	Yes	Yes	No	No	No

Condition "B"

B" SATISFIED YES ☐ NO ☒

	APPROACH LANES	WARRANT VOLUME	7 AM	8 AM	3 PM	4 PM	5 PM	N/A	N/A	N/A
Both Approaches Major Street	1	420	477	412	461	562	539	N/A	N/A	N/A
Highest Approach Minor Street	1	42	115	29	54	86	101	N/A	N/A	N/A
Warrant Volume Met?			Yes	No	Yes	Yes	Yes	No	No	No

WYOMING DEPARTMENT OF TRANSPORTATION TRAFFIC SIGNAL WARRANTS

WARRANT 2 - Four-Hour Vehicular Volume

SATISFIED* YES ☐ NO ☒

Approach Lanes		7 AM	8 AM	3 PM	4 PM	5 PM	N/A	N/A	N/A
A - Two or more	A Both Approaches - Major Street	477	412	461	562	539	N/A	N/A	N/A
B - One	B Highest Approach - Minor Street	115	29	54	86	101	N/A	N/A	N/A
Does plotted point fall above curve on Figure 4C-2?		No	No	No	No	Close	N/A	N/A	N/A

*Refer to MUTCD Figure 4C-2 to determine if this warrant is satisfied

WARRANT 3 - Peak Hour

Condition "A" (for the same 1 hour of an average day)

SATISFIED* YES ☐ NO ☒

1. The total STOPPED delay experienced on one minor street approach controlled by a STOP sign equals or exceeds: 4 veh/hrs for a 1-lane approach; or 5 veh/hrs for a 2-lane approach,						FULFILLED			
Ave Delay/Veh	14.3	Ave Delay/Veh	14	Ave Delay/Veh	N/A	AND	Yes	<input type="checkbox"/>	No <input checked="" type="checkbox"/>
2. The volume on the same minor street approach equals or exceeds 100 vph for one moving lane of traffic or 150 vph for two moving lanes. (Actual volume 86, Hour Beginning 4 PM)						AND	Yes	<input type="checkbox"/>	No <input checked="" type="checkbox"/>
3. The total entering volume serviced during the hour equals or exceeds 650 vph for intersections with three approaches or 800 vph for intersections with four or more approaches. (Actual volume 680)							Yes	<input type="checkbox"/>	No <input checked="" type="checkbox"/>

Condition "B"

SATISFIED* YES ☐ NO ☒

Approach Lanes		7 AM	8 AM	3 PM	4 PM	5 PM	N/A	N/A	N/A
A - Two or more	A Both Approaches - Major Street	477	412	461	562	539	N/A	N/A	N/A
B - One	B Highest Approach - Minor Street	115	29	54	86	101	N/A	N/A	N/A
Does plotted point fall above curve on Figure 4C-4?		No	No	No	No	No	N/A	N/A	N/A

*Refer to MUTCD Figure 4C-4 to determine if this warrant is satisfied

WARRANT 4 - Pedestrian Volume

Posted speed of major street traffic > 35 mph? ☒ Yes

4-HOUR WARRANT SATISFIED YES ☐ NO ☒

1-HOUR WARRANT SATISFIED YES ☐ NO ☒

	7 AM	8 AM	3 PM	4 PM	5 PM	N/A	N/A	N/A
Vehicular Volume, Major Street - Total Both Approaches*	477	412	461	562	539	N/A	N/A	N/A
Total Pedestrians Crossing Major Street	0	0	0	0	0	N/A	N/A	N/A
Does plotted point fall above curve on Figure 4C-6?	No	No	No	No	No	N/A	N/A	N/A
Does plotted point fall above curve on Figure 4C-8?	No	No	No	No	No	N/A	N/A	N/A

* Where there is a divided street having a median of sufficient width for pedestrians to wait, the requirement applies separately to each direction of vehicular traffic.

NOTE: This warrant shall not be applied at locations where the distance to the nearest traffic control signal along the major street is less than 300 ft., unless the proposed traffic control signal will not restrict the progressive movement of traffic.

WARRANT 5 - School Crossing

Not Applicable ☒

See School Crossing Warrant Sheet ☐

*Pedestrian volume were not collected

WYOMING DEPARTMENT OF TRANSPORTATION TRAFFIC SIGNAL WARRANTS

WARRANT 6 - Coordinated Signal System

SATISFIED YES ☐ NO ☒

MINIMUM REQUIREMENT	DISTANCE TO NEAREST SIGNAL	FULFILLED
Greater than 1000 ft	N 10000 ft S 10000 ft E 10000 ft W 10000 ft	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
A. ON A ONE-WAY STREET OR A STREET THAT HAS TRAFFIC PREDOMINANTLY IN ONE DIRECTION, THE ADJACENT TRAFFIC CONTROL SIGNALS ARE SO FAR APART THAT THEY DO NOT PROVIDE THE NECESSARY DEGREE OF VEHICULAR PLATOONING;		OR Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
B. ON A TWO-WAY STREET, ADJACENT TRAFFIC CONTROL SIGNALS DO NOT PROVIDE THE NECESSARY DEGREE OF VEHICULAR PLATOONING AND THE PROPOSED AND ADJACENT TRAFFIC CONTROL SIGNALS WILL COLLECTIVELY PROVIDE A PROGRESSIVE OPERATION.		
		Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>

WARRANT 7 - Crash Experience

SATISFIED YES ☐ NO ☒

A. ADEQUATE TRIAL OF ALTERNATIVES WITH SATISFACTORY OBSERVANCE AND ENFORCEMENT HAS FAILED TO REDUCE THE CRASH FREQUENCY;		AND		FULFILLED	
				Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
B. MINIMUM REQUIREMENT		NUMBER OF CRASHES			
5 OR MORE CRASHES IN 12 MONTHS				AND	
				Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
C. ONE WARRANT		WARRANT 1A - MINIMUM VEHICULAR VOLUME		Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
SATISFIED AT		WARRANT 1B - INTERRUPTION OF CONTINUOUS TRAFFIC		Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
80%		WARRANT 4 - PEDESTRIAN VOLUME		Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	

WARRANT 8 - Roadway Network

SATISFIED YES ☐ NO ☒

MINIMUM REQUIREMENT			FULFILLED
Total entering volume equals 1000 vehicles or more per/hr			
A. DURING TYPICAL WEEKDAY PEAK HOUR 680 VEH/HOUR HAS 5-YEAR PROJECTED VOLUMES, BASED ON AN ENGINEERING STUDY, THAT MEET ONE OR MORE OF WARRANTS 1, 2, AND 3 DURING AN AVERAGE WEEKDAY;		AND OR	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
B. DURING EACH OF ANY 5 HRS OF A SATURDAY OR SUNDAY EXCEED 1,000 VEH/HOUR			Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
CHARACTERISTICS OF MAJOR ROUTES	MAJOR	MINOR	
A. IT IS PART OF THE STREET OR HIGHWAY SYSTEM THAT SERVES AS THE PRINCIPAL ROADWAY NETWORK FOR THROUGH TRAFFIC FLOW;	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
OR			
B. IT INCLUDES RURAL OR SUBURBAN HIGHWAYS OUTSIDE, ENTERING, OR TRAVERSING A CITY	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
OR			
C. IT APPEARS AS A MAJOR ROUTE ON AN OFFICIAL PLAN, SUCH AS A MAJOR STREET PLAN IN AN URBAN AREA TRAFFIC AND TRANSPORTATION STUDY.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
ANY MAJOR ROUTE CHARACTERISTICS MET FOR BOTH STREETS Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>			

WARRANT 9 - Intersection Near a Grade Crossing

Not Applicable ☒

See Intersection Near a Grade Crossing Warrant Sheet ☐

Volumes Used for This Signal Warrant Study

	Major Street Totals (Both Approaches)	Minor Street Totals (Highest Approach)	Pedestrians Across Major Street
6:00-7:00 am			
7:00-8:00 am	477	115	0
8:00-9:00 am	412	29	0
9:00-10:00 am			
10:00-11:00 am			
11:00-12:00 n			
12:00-1:00 pm			
1:00-2:00 pm			
2:00-3:00 pm			
3:00-4:00 pm	461	54	0
4:00-5:00 pm	562	86	0
5:00-6:00 pm	539	101	0
6:00-7:00 pm			

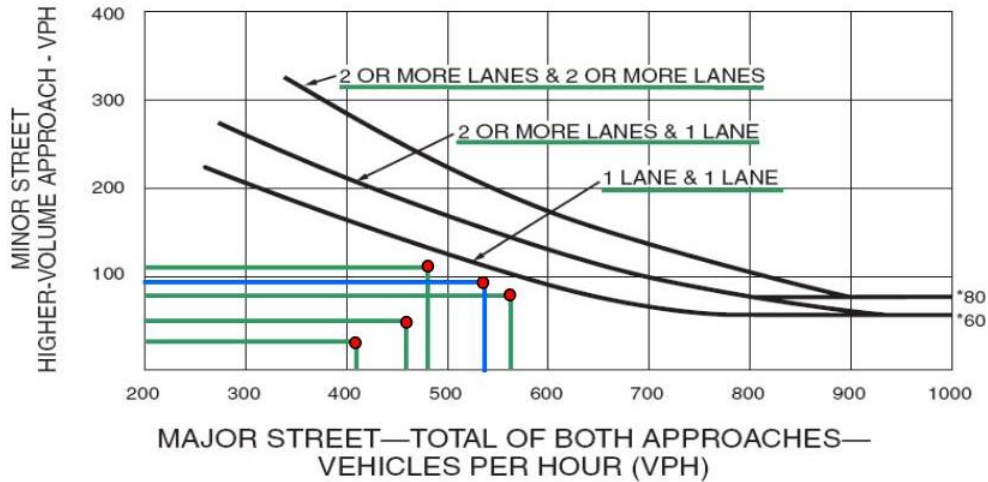
AVERAGE STOPPED TIME BY APPROACH FOR MINOR STREET

	NB	SB
6:00-7:00 am		
7:00-8:00 am	11	14
8:00-9:00 am		
9:00-10:00 am		
10:00-11:00 am		
11:00-12:00 n		
12:00-1:00 pm		
1:00-2:00 pm		
2:00-3:00 pm		
3:00-4:00 pm		
4:00-5:00 pm	13.3	14.3
5:00-6:00 pm		
6:00-7:00 pm		

*Pedestrian volume were not collected

Figure 4C-2. Warrant 2, Four-Hour Vehicular Volume (70% Factor)

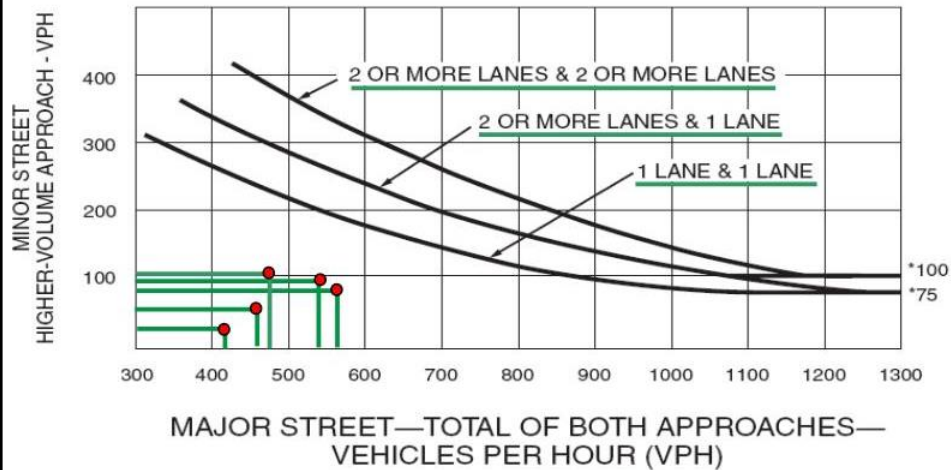
(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 70 km/h OR ABOVE 40 mph ON MAJOR STREET)



*Note: 80 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 60 vph applies as the lower threshold volume for a minor-street approach with one lane.

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 70 km/h OR ABOVE 40 mph ON MAJOR STREET)



*Note: 100 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold volume for a minor-street approach with one lane.

Appendix D.

Public Involvement Summaries

Public Meeting #1

Overview

An online, self-guided meeting was used to collect preliminary comments from the public and stakeholders. This online meeting was located at www.US87IntersectionStudy.com. The online meeting included a comment period from April 1 through April 30, 2024.

Promotions

The online meeting was promoted through a variety of means in order to reach many members of the public.

Newspaper Advertisement and Media Release

The online meeting was promoted in the Sheridan Press on April 4 and April 24, 2024.

April 4 - https://www.thesheridanpress.com/news/local/wydot-launches-public-input-for-big-horn-y-intersection-study/article_25187d26-f129-11ee-b0a0-0f817db8c2f6.html

April 24 - https://www.thesheridanpress.com/news/local/time-running-out-to-participate-in-big-horn-y-intersection-study/article_aaecc47c-00e5-11ef-a550-8bf5f6a6852b.html

Radio

WYDOT participated in a radio interview to promote the online meeting. The radio interview took place during the Daily Pulse talk show on KROE (930 AM and 103.9 FM) on April 15 at 9:30 a.m.

Social Media

Facebook was utilized to promote the online meeting through WYDOT District 4 - Northeast Wyoming's page. A total of three posts were made on April 1, April 16, and April 30, 2024.



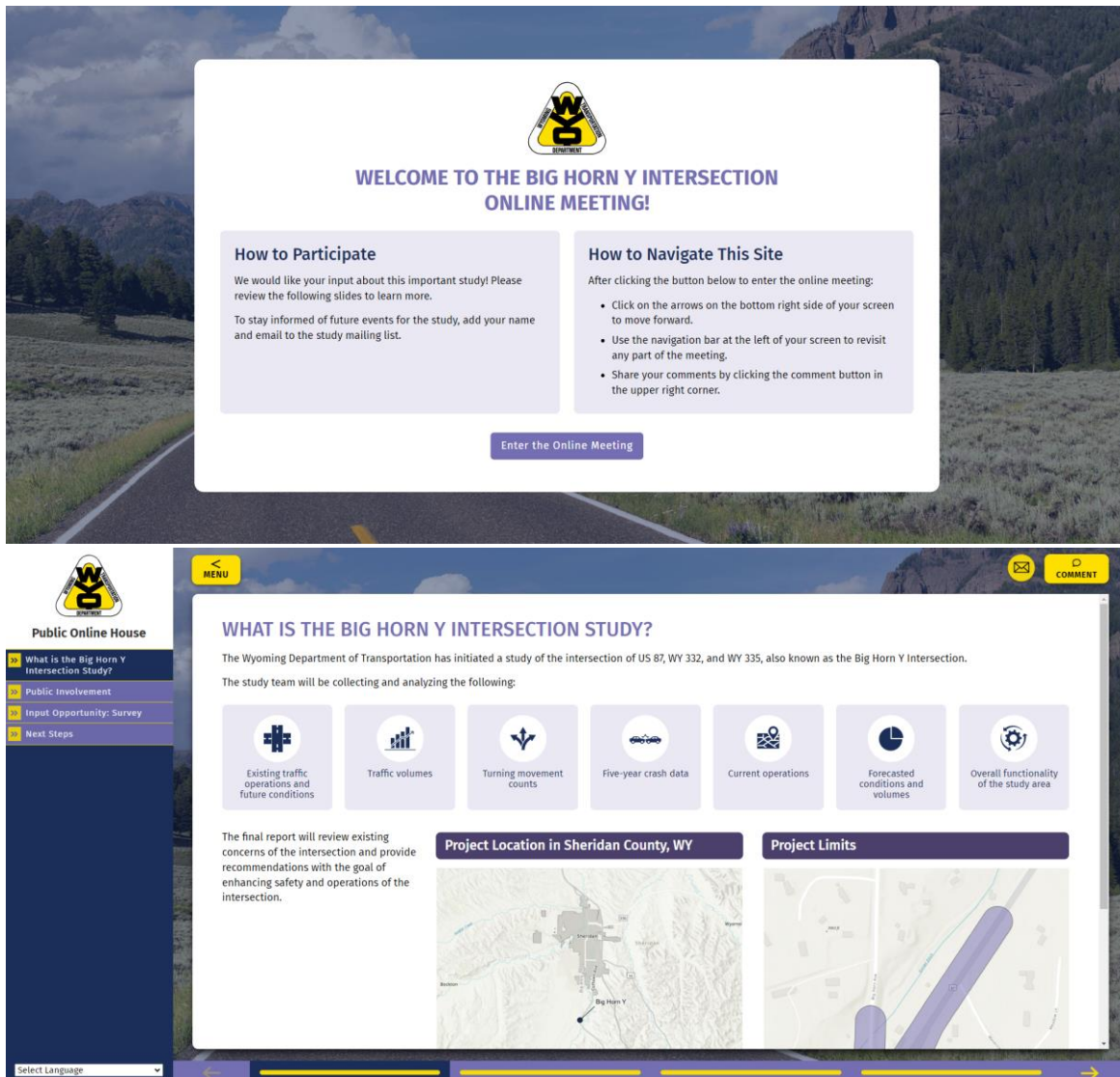
QR Code Poster

A poster with a QR code leading directly to the online meeting was placed at establishments nearby to the intersection. Poster locations include:

- Big Horn Y gas station
- Big Horn Post Office
- Last Chance Bar
- Big Horn Mercantile Pizza
- Starbucks

Online Meeting Content

The online meeting was an interactive, self-guided website that allowed users to click through information and answer a series of questions.



PUBLIC INVOLVEMENT

The study team invites you to participate in this project by providing your input. Public comments are crucial to the study process because they may provide information that may not be available in existing data sets. We appreciate anytime or effort you can contribute to this study!

Survey Questions

The following page includes survey questions, all of which are anonymous. Be sure to click the "submit" button to ensure your answers are recorded.

If you prefer to submit a written statement or have additional materials to provide, please use the Comment Form button, located at the top right hand of the screen.



NEXT STEPS

Thank you for your input.

The study team will use this information as they continue through the project process.

Throughout the next year, the study team will be conducting data collection and analysis. Once a draft report is ready, the study team will host a second online, self-guided meeting and an in-person public meeting.



[Click to enlarge](#)

If you would like to be notified of future public involvement opportunities related to this study, please provide your email address below:

Contact Information

Contact the Study Team
connect@US87IntersectionStudy.com

Stay Connected

WYDOT Big Horn Y Intersection Study

Online Meeting Website Analytics

Big Horn Y Online Meeting Web Analytics

Mar 29, 2024 - Apr 30, 2024

Total users

575

New users

575

Engaged sessions

294

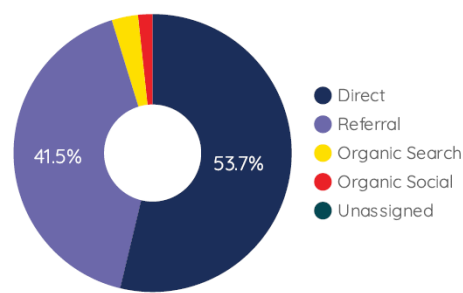
Views

711

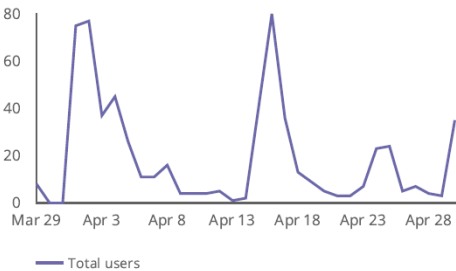
Average Session Duration

00:00:41

Sessions by Acquisition Type



Users per Day



Referrals & Social Media Sources

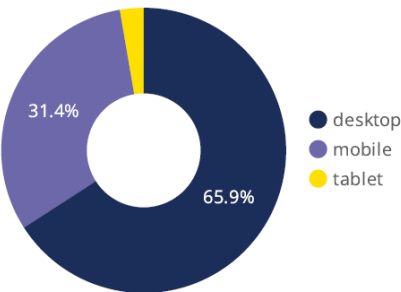
Session source		Engaged sessions
1.	sheridanmedia.com	98
2.	dot.state.wy.us	7
3.	lm.facebook.com	3
4.	sheridanwyoming.com	2
5.	thesherdanpress.com	2
6.	app.constantcontact.c...	1
7.	l.facebook.com	1

1 - 10 / 10

Sessions by Regional Cities (WY)

City	Engaged se...	Total users
1. Sheridan	101	173
2. Cheyenne	32	43
3. Story	10	16
4. Buffalo	5	7
5. Laramie	3	4

Sessions by Device Type



For a comprehensive glossary on Google Analytics definitions, [refer to this guide](#).

HDR traffic filtered from results.

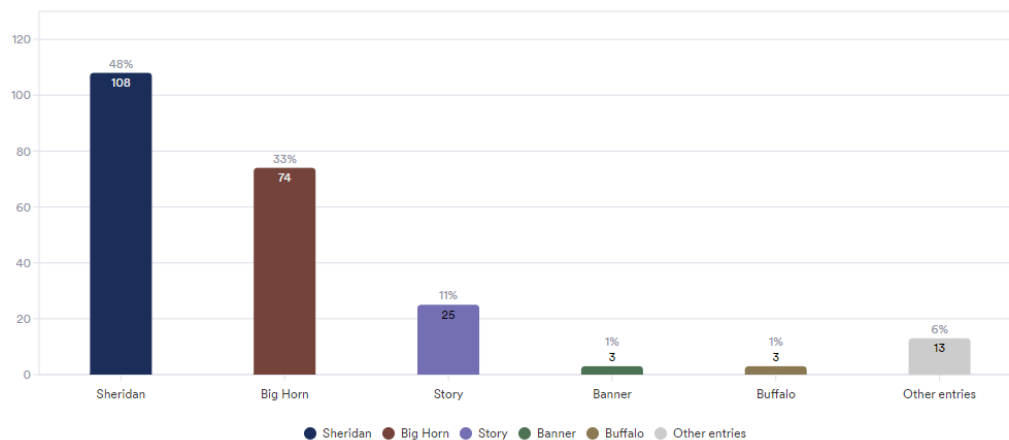
Survey Themes

In total, 230 surveys were completed as part of the online meeting. The table below details common comment themes.

Comment Theme	# of Comments
Pro-roundabout	23
Anti-roundabout	4
Speeds	120
Issues with cars yielding/entering/merging into traffic	155
High traffic/long wait times/difficulty crossing/using roadway	59
Wildlife	5
Bike/pedestrian usage	16
Safety	115
Pro-stoplight	17
Anti-stoplight	3
Pro-four-way-stop	5
Anti-four-way-stop	1

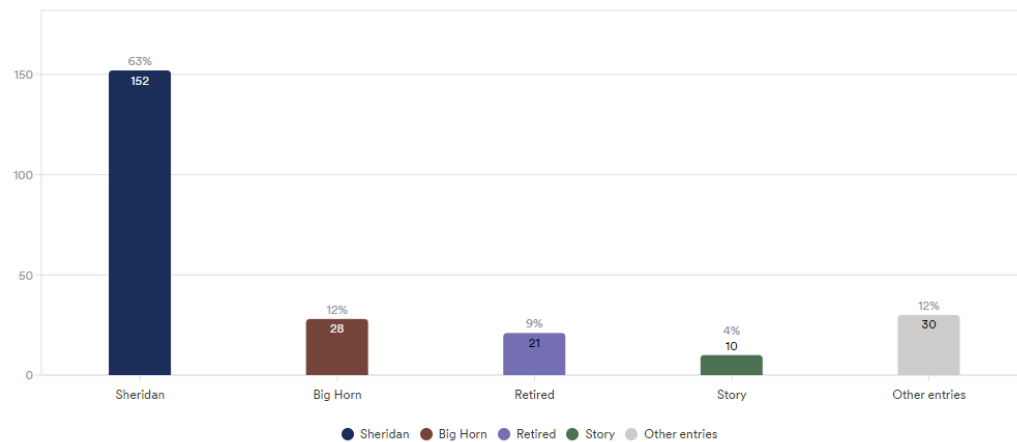
Online Meeting Survey Questions and Answers

Where do you live?



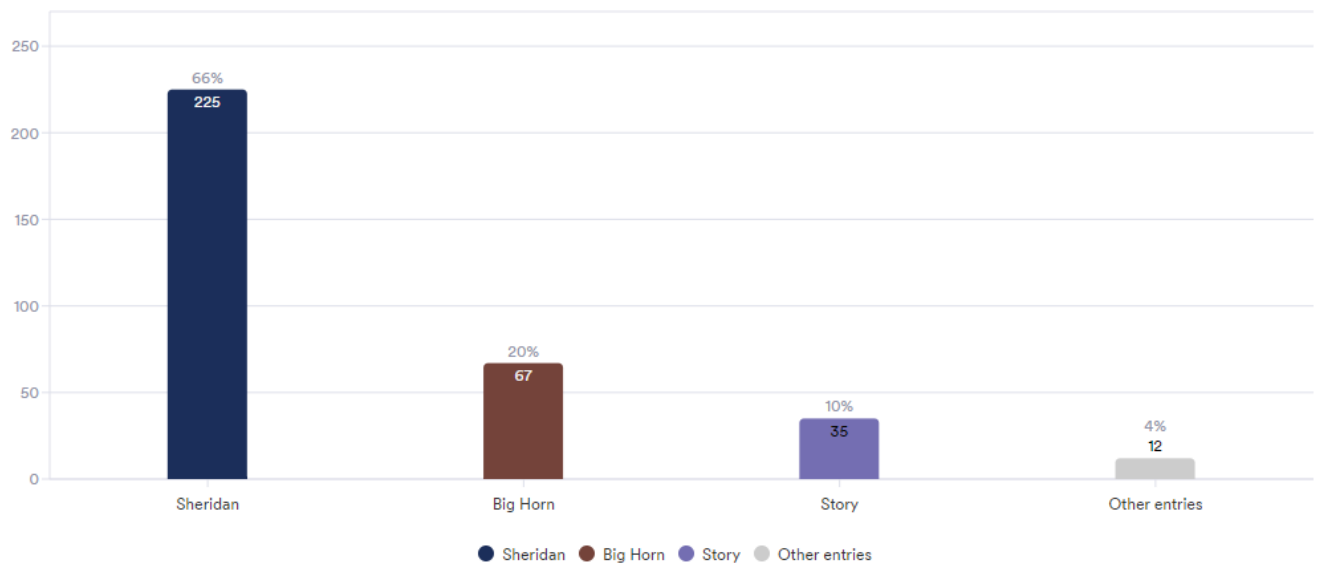
Other entries:		
Between Sheridan and Big Horn	Beaver Creek Road	7 Keahey Ln
1 mile south of the Y	Cross Creek Court	Swaim Rd
3 miles south of Sheridan off US 87	intersection (Across the street from the Gas Station)	Between Sheridan and the intersection
Rural subdivision on Hwy 87 south of the Y.	Just east of the Bighorn Y junction	In between the Y & Big Horn in Knode Ranch
At the Bighorn Y	Powder Horn	Ranchester
Cross Creek Estates	South of Sheridan near the Y	

Where do you work?



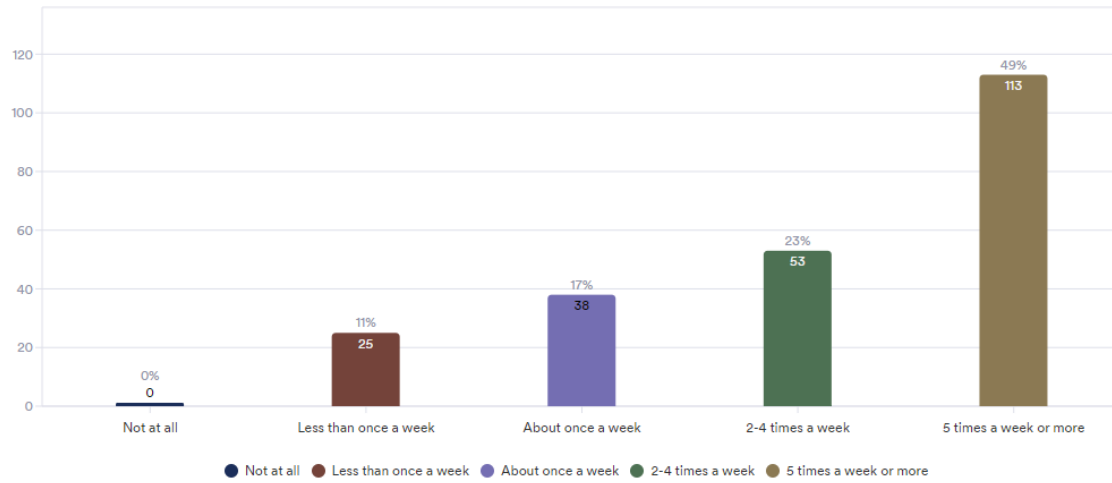
Other entries:		
Banner	Sheridan County	Montana
From home	Powder River	Johnson County

Where do you shop, engage in leisure activities, and/or attend medical appointments?

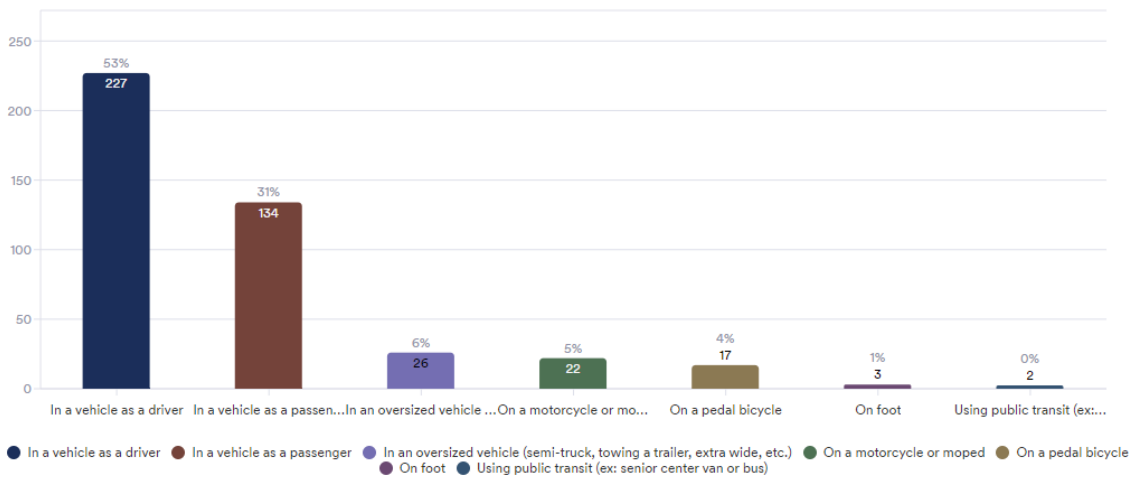


Other entries:		
Forest	Bighorn National Forest	Casper
Buffalo	Banner	Sheridan County
Billings	Outside Sheridan County	Wyarno
Gillette		

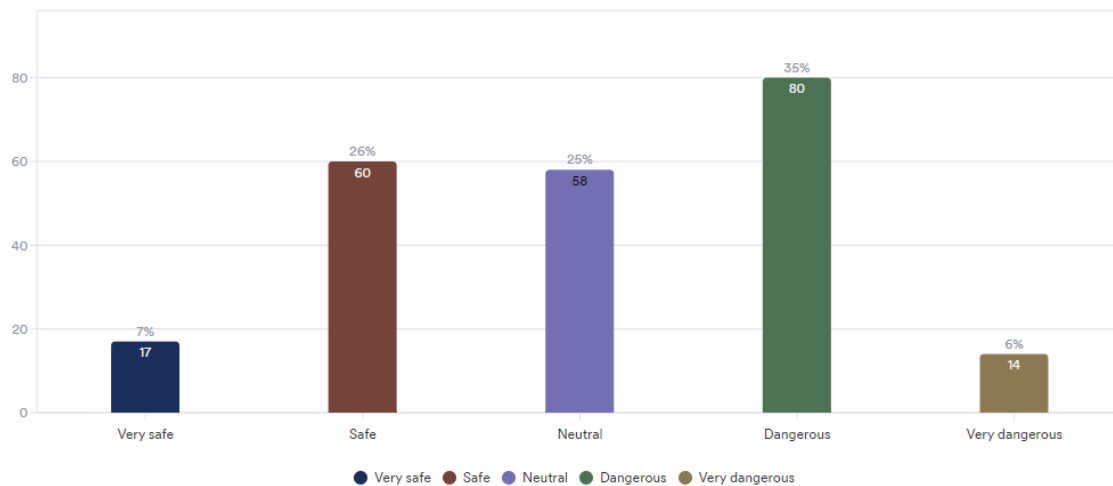
How often do you travel through the intersection?



How do you travel through the intersection? Select as many as apply.



How safe do you feel traveling through this intersection?



If you have observed any safety issues at the intersection, please describe below.

If you have observed any safety issues at the intersection, please describe below.		
Ice Build up is always very bad at the Turn just after intersection heading to story.	Shrubs at gas station block view when trying to turn off of Big Horn Ave or from gas station.	Every time I drive through that intersection there is all kinds of safety issues.
Vehicles going to and from Big Horn can make it very difficult for vehicles trying to cross the highway because there are so many of them at busy times of the day. There aren't very many safe breaks in the traffic to turn or cross. A slower speed limit though here, combined with a traffic light would definitely help make it safer.	Think that left turns from the business at the north end of the parking area at business is very dangerous. Also being an older person having 2 lanes of traffic is confusing and hard to see. Also everyone goes over the speed limit and so it needs to have people slow down. Do not think there should be a yield anywhere in a separate lane. Have people stop.	As you exit Big Horn Ave (WY 332) and enter the "Y", the intersection veers sharply right towards WY335. Thus at the stop sign, one is forced to severely crane your neck to ascertain if oncoming traffic is speeding your way. I've had two near catastrophic accidents in the past 9 months.
When pulling a trailer, there is not enough of an on-ramp to get a straight view from behind you to get out in the traffic	Cars rushing through stop signs on both sides. Icy roads leading to inability to stop. Poor turning lanes causing traffic backup. Speeding.	I have been in an accident at this intersection because a vehicle did not stop. While driving through it now I drive very carefully and slowly.
people coming from Story will NOT YIELD!	Accidents, close calls, failures to yield	cars fail to yield
Driving north on 87 and merging onto 335 is difficult due to the angle necessary to look south for traffic you need to yield to.	Traffic does not slow down coming from the south that are to yield to Big Horn traffic. I have seen many near missed.	Turning traffic onto side highways, speed of traffic coming from the Story intersection
Other drivers' behavior either coming into the roadway without yielding (those driving north from sorry road) and those who make the right and pull out in front of 55 mph heading south. It's a shame that a light will probably have to go in. And, I believe that will cause more trouble than it's worth. I'm sure it's worse at different times of day because OF BH schools traffic. It seems worse since the change from yield to a stop sign when heading south (behind the gas station) ... I know that was years ago, but I don't think that "fix" really worked.	Traffic traveling north on 87 not yielding when merging. Traffic traveling north on 87 use the merging route to access the gas station. Traffic in both directions using the full length of the turning lane regardless of other drivers using turning lane. Traffic from the gas station and from 332 pulling out in front of moving traffic. Vehicles turning right in to the gas station or 332 are passed by traffic in the turning lane. Limited lines of sight when exiting gas station. Traffic will exit the gas station over the curb.	YES! When driving in from Story, the Junction is super dangerous. It is really hard to see the traffic that we are merging with due to the angle of the merge. Plus, with the gas station there, vehicles are slowing down to turn in there but you can't gauge their speed very well because of the layout of the whole system. There is no traffic control. And there needs to be before someone gets killed.

When traveling on 87 from Story Wy and merging on to 87 to Sheridan, people often get confused and take a left to the intersection of 335 332 and 87. At this point as opposed to continuing along to 332 or make the left 335 to Big Horn they take and go right on 87 toward Sheridan. This has resulted in numerous times I've almost been in a automobile accident, as they try to speed past the merging traffic from Story. There should be no right turn at that stop sign at the intersection of 335 332 and 87, you should have to make a left to Big Horn, Powderhorn or continue across to 332 to Sheridan or the entrance to the Y gas station at Big Horn. The second point I would like to make is with regards to traffic coming on to 87 from the Y gas station making a left from the gas station and heading toward Sheridan. There should be a sign upon exiting the gas station indicating no left turn. The traffic should have to exit out the back entrance of the Y gas station on to 332 then make a left turn coming to the intersection of 332, 335 and then make a left on three thirty 335 to merge into 87 to Sheridan. The third point I wish to address is traffic heading down 87 toward Big Horn Powderhorn and Story. As you prepare to make a left to continue on 87 toward Story the merging lane needs to be longer to allow for safe merging. The road markings now indicates that the merging only begins once you reach the Y gas station. This is extremely hazardous with traffic traveling at the speed of 55 miles an hour it need to start for merging at a longer distance for traffic safety. The speed on either side of the Y gas station and coming for Story should be reduced to 45 miles an hour. As we all know to well 90% of the people traveling at this intersection are already 10 to 15 mph beyond the posted speed limit let's try and slow everyone down.

Yes! When young people are out with bikes or walking people in cars zoo past them at high speeds and very close to them. There is absolutely nowhere safe for a person to cross this road area safely on foot or bike. People in cars are going 60 + miles an hour all through the day and night. I have also seen several "near misses" as cars pull out in front of cars that are moving through the intersection at high speeds.

When I come from the S and want to proceed N on Big Horn Avenue, I must turn left and stop at a stop sign. If there are cars behind me that want to continue S and go to Sheridan on Coffeen they have to slow down while I brake and turn left. Some are impatient. It seems that it would be safer to have two lanes from the S, one that turns left and one that continues around the curve to the N.

I was a passenger in a vehicle involved in an accident at this intersection. A truck went through the stop sign at the end of Big Horn Ave and we hit him going 55 MPH. I feel the speed limit through the intersection is too high. Additionally, it is very difficult to enter the highway from the Big Horn Y Store. It's difficult to see and the traffic is coming from too many different areas.

I live in BH and travel into Sheridan by continuing onto Coffeen or by turning left onto Girls' School Road. Additionally, I frequent the gas station by turning in off Girls School Rd if I'm coming from the south. My sister also lives off HW87, towards Story. I find the turn (taking a right) at the Y when coming from the south to be sharp and not a level grade. Also, there is not much time to turn because traffic from behind is traveling at 55 mph. Additionally, when coming from the north, traffic can get backed up between traffic turning R into the gas station or L on to HW87. The addition of the lit stop sign on Girls' School Rd/Big Horn Ave. is nice but does not seem to improved or hindered traffic. Maybe a R turn lane could be added? The traffic lane can flow into 3 directions from this stop sign point. Overall, I don't see a huge need to make significant changes at this point. Nonetheless, improvements can by made. Additionally, as you likely know, deer are thick through this area so by adding lanes, safely for all might be improved. Lastly, having a walking path through the area would be amazing, especially with Little Goose Park and Powder Horn nearby. Although, I'm not sure adding lights would be helpful to any traveling party.

Tryin to cross especially at high traffic time is extremely hard.

No, at times it's a busy intersection, but it moves

Drivers coming in from Story (or south) do NOT yield, they barely

Either you wait for a long period of time or you have to dart to cross or make a left had turn coming from any direction	quickly. Cars merging from Story always seem to travel below the 55 mph speed limit into town, leading to some cars passing where allowed.	slow down. It is very difficult to look left over you shoulder and see if any traffic is coming from Big Horn so many of them just plow on thru.
I have witnessed several severe accidents, one involving a school bus, and know of other accidents second hand since that intersection was re-designed. Speed is a factor in the severity of the accidents but not the sole cause.	Individuals from Story do not yield. Individuals entering the turning lane in front of the Y store to turn left towards Story, enter it way to quickly and slow traffic trying to enter the lane from Big Horn to go into the Y store.	People turning in front of you or crossing when you are going 55 mph. People turning into the gas station and pulling out where there is a blind spot on the south end. People merging from the story way not knowing what yield means.
speed limit too high	The merge lane	High speed
Multiple near misses from people turning from the Y gas station as well as crossing Hwy335	Dangerous merger from story. No stopping from Bighorn Avenue. To high of speeds and merging traffic from Bighorn Y.	Some drivers fail to stop at the stop signs. Mergers onto Hwy 87 without paying attention to oncoming traffic
Cars trying to cross the highway have difficulty at peak traffic times and have limited visibility	Multiple wrecks, congested intersection & confusing to those that are new to the area	It is confusing & often the cars that should yield do not.
I have observed multiple vehicle collisions and "close calls" as well as traffic not adhering to the posted stop signs and speed limits. The blind spots created by the landscaping at the gas station limits visibility.	People coming and going from every direction. Not to mention people pulling in/out of the Y gas station. It's a very confusing and busy intersection and you really have to be focused on what you are doing.	The speed limit is too high for the intersection. In addition the yield sign from Story is ineffective and drivers never yield. People turning out of the gas station at the Y also don't honor the speed limit and that area is dangerous for anyone driving on the road.
people blowing through the intersection and visibility coming from story	Heavy traffic, a lot of growth in the last few years.	Multiple near misses from people turning from the Y gas station as well as crossing Hwy335
I have witnessed and been involved in countless near accidents. This intersection is terrifying.	The vehicles that merge from Story going north sometimes forget that the main road has right of way. It isn't very often.	People texting and not paying attention to people turning into the store at the Y, or trying to race the merging traffic
The only thing I noticed was turning right toward Big Horn after coming down the hill. No vehicles behind me and none coming from Sheridan or waiting at the stop sign across the road. After turning, I looked in the rearview mirror while getting to the speed limit and there was a car RIGHT behind me. So close	No signal lights, speeding, pulling out from the c-store into traffic, unsafe passing, doing a hope and go to cross s/n or n/s. This really needs a 4 way stop light. Heavy bike traffic, lots of young people walking to the c-store, not to mention the farming equipment...not just us. Bushes and signs on the	It is very difficult for traffic coming from Story to cross the intersection to proceed to Sheridan on Big Horn Avenue and vice versa. The oncoming traffic is also traveling so fast that it makes the intersection very dangerous. There should definitely be reduced speeds and a stop light at this

that I couldn't see the front bumper. At that point I was nearly to the speed limit. Not sure if the vehicle was speeding or if it's an issue with the speed limit itself.	north side of 335 requires pulling out into the intersection to see if any traffic from Big Horn direction.	intersection to make it safer. The staff inside the Big Horn Y gas station are always commenting, "Did you see that? Wow! That was a close one!" They witness so many potential accidents.
Too Many drivers do not know how to use a turning lane. the most dangerous is drivers coming from Big Horn turning left into the gas station. 55 MPH IS WAY TOO FAST AND THE CAUSE OF MOST ISSUES. SLOW THE TRAFFIC DOWN.	Vehicles entering N/B through the Yield sign sometimes travel at higher than a safe speed. There is some sight line constraint for N/B through traffic from the Yield approach, as well as some conflict with vehicles entering the highway from the gas station to go north.	Traffic merging onto northbound 87 at this intersection do not yield to traffic already traveling northbound on WY 335. This can be an unsafe merge point. I do not see any issues with the turn from 335 to Big Horn Avenue.
People trying to merge from story too quickly	Too much traffic coming from all directions, people disregarding stop signs	People pulling out in front of traffic and not following yield sign
Poor use of yield sign and high speeds when coming down from Story to the intersection. This can be highly congested at times. The approach in and out of the Y Gas station is also not ideal, causing some congestion and hindering the flow of traffic as well.	Heading into Sheridan from Story, merging is an issue with no merge lane. A further merge lane would make that feel safer with traffic from bighorn and the gas station and the higher deer population in that area	I live off of Maverick Lane. Weekly I have issues with vehicles merging onto Coffeen in an unsafe manner. High speeds, no yielding to right of way traffic. Also it is very difficult to see these vehicles coming around the bend before I pull out onto Coffeen.
Speed limit not enforced	Vehicles constantly pull out in front of you.	People driving very fast towards Bighorn
Merging to the north coming from Story and pulling out of the gas station ends up with a near miss a lot of the time.	People coming from Story do not merge properly. It is difficult to cross or enter 87 during peak use times.	Speed of vehicles going to fast. Also people coming out of the gas station to quickly
Even though it's not a 4-way stop - - drivers act like it is. Indecision and uncertainty swirl about in the mind, causing a lapse in cognitive decision-making - - which in turn, brings about close calls with another vehicle.	Cars will cross that intersection without gauging how fast the traffic on Coffeen is coming and there's often either slamming on brakes from the Coffeen traffic or a super-speed up from the cross-traffic to get across.	I have seen a few accidents that have happened in that intersection. Sometimes it can be very hard to cross within a reasonable timeframe. Also, when folks are turning into the Big Horn Y it can be a little sketchy.
The yield sign on the right side across from the store (when headed toward Sheridan) that allows one lane to merge is a nightmare. People don't yield. They speed up and try to merge without having to yield. I have seen several near-miss accidents and many people slamming in breaks in the lane of travel to avoid "merging" traffic. Also, people taking a left turn out of the store (headed toward Sheridan) take risks and pull in front of oncoming cars. I have seen many more issues headed toward		

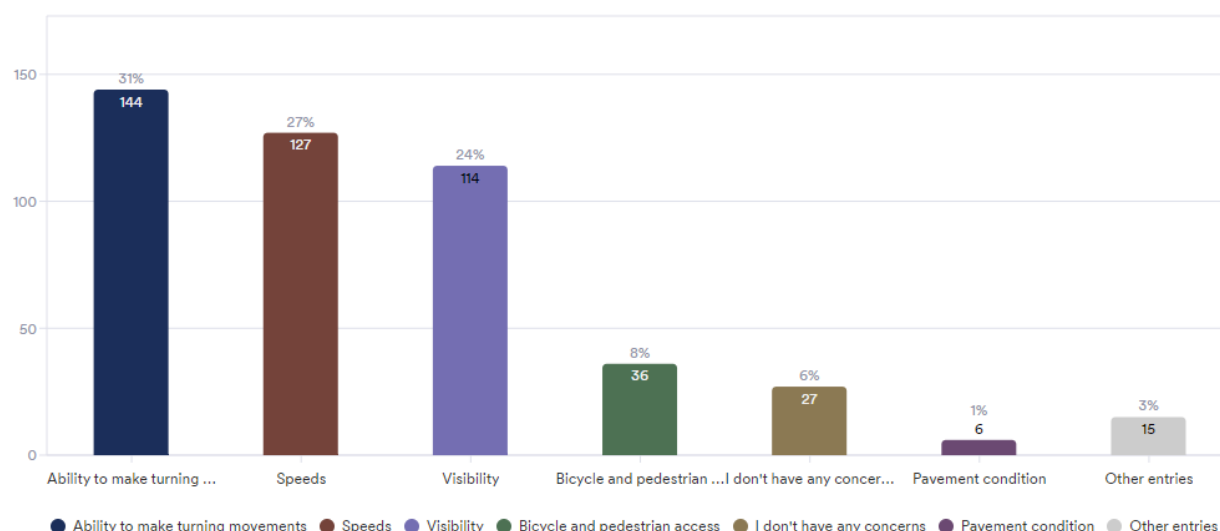
Sheridan than headed toward Big Horn for some reason. As for the speed, I feel 55 is too fast. During winter, this route is routinely iced over, and there are many young drivers headed to school tailgating people and speeding.		
Traffic entering Coffeen Avenue from Highway 87 Very seldom yields. Also the traffic at this intersection is very heavy during lunchtime and vehicles are constantly pulling out of the gas station without any regard to traffic on the road.	People trying to cross the highway while in a vehicle, on a bike, or on foot, often have trouble crossing when the person on the opposite side is attempting to turn against traffic and merge onto the highway.	When pulling out of Maverick road onto 87 headed to Sheridan the vehicles coming from highway 87 thru the Y seem to be flying and come upon you quick. Maybe it's because you can't see them well when looking because of the bend in the road
Powder Horn people are the worst drivers out in that area. God forbid they are late for Tee Time.	Many cars do not yield going north from the Story direction. It is a race to see who gets to the single lane first.	I only travel through this intersection on Sundays and never have an issue. I travel south from Sheridan and turn right up Big Horn Avenue.
People in a hurry trying to cross from 332 to 87. People not looking as they merge coming from Story. Too many people coming in and out of the gas station in many different approaches. Traffic is the worst in the morning and evening.	The intersection would be substantially safer if the posted speed limit was around 35 m.p.h. through the intersection. At peak traffic times, vehicle speed currently through the intersection has a higher hazard.	everyone at the intersection look somewhat panicked, as they attempt to look both ways....especially those coming from Story trying to merge/turn onto US 87 heading north.
People driving well below posted speed limit often creates a bottleneck n doesn't allow story traffic to merge properly. The lack of turn lanes from Sheridan to big horn is troublesome. Put in multiple left n right hand turn lanes into driveways, county roads and subdivisions would greatly improve traffic flow and overall safety. Add a two lane roundabout at BH Y - Problems solved.	1- Drivers using the Y from story. Do not slow down or obey the yield sign. Drivers using Maverick RD turning right onto the 87 cannot see when another vehicle merges off the story Y onto the 87. Then of course they ""Run up on your rear"" as if you've pulled out in front of their vehicle. 2- Speed should be addressed with the uptick in traffic at the gas station. Horns honking at other drivers because they've been cutoff has been on the rise in the past to years.	It is difficult to see traffic coming and up and down coffeen (coming from sheridan to bighorn and from bighorn to sheridan) A traffic circle would be a great addition to this high congestion area with out causing a realignment. Also the short merge lane coming from story heading to sheridan makes it hard to guage traffic speed. this could also get eliminated with a traffic circle.
Cars moving too slowly when pulling into traffic on the highway, especially when turning out of the gas station.	Vehicles attempting to merge onto Coffeen travel way to fast. Often times they don't yield to coffeen traffic	people blow the stop signs coming off Girl school road and or try to beat gaps in traffic and cut people off forcing others to slam on brakes

Speed differential on the merge lane with people turning into Maverick Road.	The turning lanes are dangerous. The speed limit is too high for this section	Sometimes merging onto Coffeen from US 87 can be tricky.
An instance of when it is dangerous is when cars (north & south) are in the turn lanes and you cannot see around them. I find this when I am heading north trying to turn left onto Big Horn Ave - when I'm practically face to face with a car in the opposite turn lane, I cannot see around them.	Vehicles pulling out of the Big Horn Y gas station in front of vehicles traveling 55 and they pull out leisurely with no regards to traffic coming. Multiple blind spots exiting the gas station. The same thing happens coming off of Girls school road from the west or North at stop sign.	
Cars coming from Story do not obey the yield sign. The use it as a merge lane.	Traffic coming from Story does not yield	Speeding thru intersection; traffic merging from Story failing to yield.
It is only busy in the mornings. If speeds were slower, it would be fine.	Drivers coming from Banner can't see oncoming traffic from Big Horn easily.	Northbound drivers from Hwy 87 not merging /yielding to Northbound drivers on Hwy 335.
Low speed traffic coming out of the gas station pulling out right in front of 55mph traffic on Hwy 87, especially north bound traffic on Hwy87.	The entrance to the Big Horn Junction need to be adjusted to be on Big Horn Road, the turning lanes need to be longer. The biggest issue is the access to the business.	Cars turning in front of you and causing you to slow down which is fine when the roads are nice but not ok if the roads are slippery.
Congestion at the gas station, <u>limited view from cars going across bighorn ave to story</u> , merging cars from story not yielding	No observed safety issues at this time but if the plan is to make it a 4 lane road, i would definitely want to see a traffic light.	People driving at highway speeds on Coffeen Avenue with no apparent recognition of the intersection.
Failure to yield	Cars merging not giving the right of way. Line of sight when coming off of Big Horn Ave.	Needs better pedestrian pathways. Bicycle riders use it too
Vehicles pull out from both the convenient store and the highway stop signs without judging distance. I frequently have to slow way down from the speed limit to not hit them.	Vehicles pulling out of the gas station going and heading into Sheridan can be a concern at times when I'm merging on to 87 sometimes.	Should be a turn lane for those coming from the south making the turn onto the highway to Big Horn or Big Horn Ave.
The traffic has increased as Powder Horn and other housing developments have grown. Also, with all the new developments off Big Horn Avenue, it's going to increase more. It's very difficult to get across it these days.	I know 4 people that have been killed on the damn road to big horn. Too many idiots pulling in front of Semi trucks. No where to pass. Idiots riding bicycles. This road is a disaster and we all know it.	Traffic is often exceeding speed limits, which makes it difficult to judge what one should do. Approaching the intersection from BigHorn Ave, the traffic on the right, or Southside are in my blind side, and hard to see.
Tough to merge going north	Visibility and speed of traffic	Too many intersection and access's in a confined area.
The most dangerous aspect is the traffic going in and out of	Yes, I have observed multiple accidents. We are through that	Traffic is Traveling at high rates of speed. Traffic pattern is

the gas station/store just north of the intersection. There are just too many traffic variables occurring in one intersection area. Secondly, the four-way intersection is deceptive with the south road toward Story coming in at an angle which makes it hard to predict traffic entering the intersection. This is especially true when traveling north from Story and merging onto Coffeen toward Sheridan.	intersection daily and sometimes multiple times a day. There is too much traffic going in different directions, at widely varying speeds, and multiple entry points. To watch for cross traffic along with all the traffic that enters and exits the gas station at different points leaves a lot of opportunity for accidents and collisions.	heavy during rush hours. Multiple directional turns happen at that intersection. Traffic lines up at stop signs. Plus cars entering traffic from the Big Horn Y gas station. There needs to be a stop light in this intersection safely directing traffic!
I've seen several wrecks involving construction/mechanical trucks/vans coming off Big Horn Ave & colliding with vehicles on Coffeen. I feel a light is needed @ that intersection.	Cars do not yield coming from Story\Banner. Cars slow down to look as they pass the gas station causing congestion in the area and a slow down of traffic.	Traffic from Story usually does not yield going through the yield sign always trying to beat the Big Horn oncoming traffic I have had to almost stop to yield from speeding traffic heading north bound!
Merging traffic concerns at the intersection of 87/335. Visibility concerns pulling out of the Big Horn Y store.	When making a right turn off Girl school road to 335, visibility to the left is obstructed by objects in front of the convenience and gas station making it risky to maintain entrance to traffic from 335 from Sheridan.	Cars are always pulling out in front of traffic. Cars heading north from Story are traveling too fast 40-55 mph through the yield sign.
Merging lane when coming from Story to Sheridan should be longer. Turning lane when traveling from Sheridan to Story should be for South bound traffic only (Access to the gas station for North bound should use the entrance off of Big Horn Ave.)	Only those coming in from south 87 going straight across have a odd merge/non merge to a stop sign, yet those continuing in to town down have to slow down one bit. only to merge. it creates an odd conundrum of using your blinker or not, when you technically aren't turning.	vehicles leaving the business located at the Y turning into traffic at the same time heavy traffic coming and going on the 3 hwy's. the speed limit is too high for such a busy area at certain times of the day or slick roads.
It's tough to turn left from WY 332 onto 87 towards Sheridan. There is poor visibility, people don't utilize turn signals effectively, and the traffic flows are high enough that it frequently takes quite a while to have a reasonably safe opening in traffic. A roundabout would solve this intersection	Drivers coming down the small hill on Big Horn Ave to stop at the intersection still have speed, and barely stop to roll onto the highway. With that, they struggle to get speed up to that of the Highway. Also, those coming from Story and use the yield lane to merge have a short yield lane before they are in front of a car already heading to	Failure to yield right-of-way by vehicles merging from 87 onto south-bound Coffeen. Failure of vehicles to stop at Big Horn Ave. stop signs, or pull out too closely in front of Coffeen/SH335 traffic. Poor visibility to the south from Big Horn Ave due to sign base and landscaping of the Big Horn Y store.

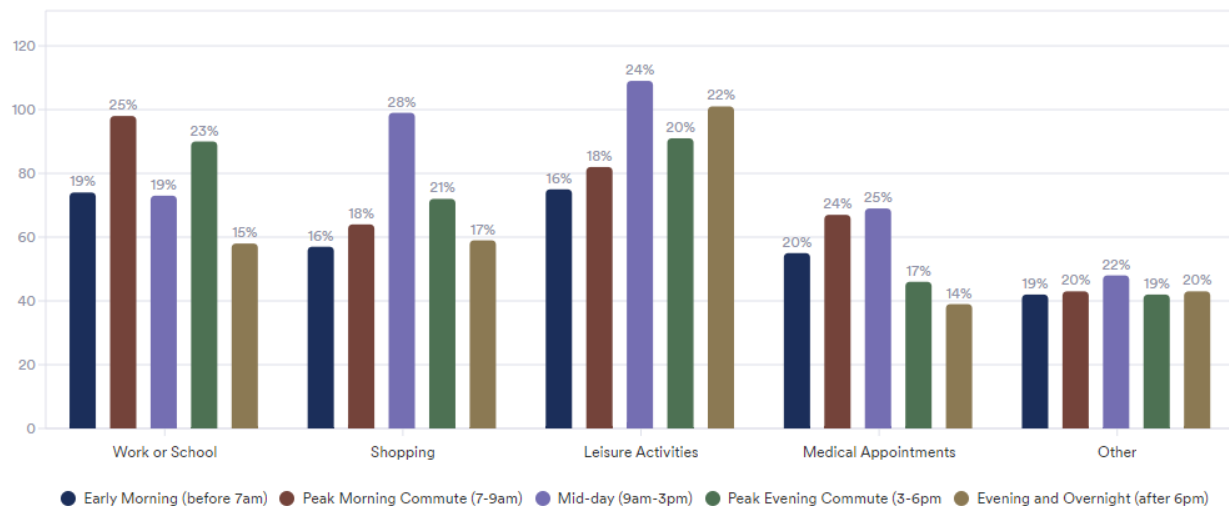
and I would love to see one installed here.	Sheridan. Not much room for those who aren't paying attention just to get onto the roadway.	
We try to be mindful of the merging traffic coming from Story and Big Horn depending on the direction we are heading. Drivers do not always pay attention and yield when needed.	Difficulty in crossing Hwy 335 from either Hwy 332 or 87 due to traffic speeds and volume on Hwy 335.	People going north using the free right-hand lane from US 87 don't yield. It is quite a head-turn to visually yield so people tend to try and use the mirror with limited effectiveness.
People pulling out in front of other cars	Merging northbound is always iffy no matter which route you are on.	Turn lane paint markings are consistently poor to see
Multiple near miss car crashes due to lack of visibility of on coming traffic	People will pull out in front of oncoming traffic from big horn avenue	Most of the safety issues that I have observed were other vehicles failing to use turn signals.
mixed modal traffic creates dangerous situations. I've witnessed a near miss with a bicyclist, a tractor towing an implement, a passenger car, a motorcycle, and a truck with a belly dump all at the same location going in opposite directions. The tractor trying to give the cyclist room, the motorcycle trying to squeeze past the tractor while the truck and belly dump where on coming and then a passenger car stopping to make a left turn, but waiting for the belly dump to pass.	I have observed several crashes shortly after and numerous near misses at the intersection. Traffic seems to be increasing over the years. I have also observed drivers cutting the corner into oncoming traffic and/or cutting off drivers attempting to turn. The design indicated should include an overpass which would assist in the above or the possibility of a round-about.	If you are coming on US 87 from the southerly direction, say from Story, Banner or Buffalo, it's very unsafe and difficult to merge with traffic coming from 3 sources; from Bighorn, from Bighorn Avenue and from the Bighorn Y gas station. As you merge, it's very difficult to see traffic that's coming from Bighorn, behind you, and also from the gas station to your left. If you've stopped to give way to oncoming vehicles (coming from your rear), it's difficult to get back up to speed to join the traffic flow.
multiple entrances and exits from gas station can confuse drivers approaching intersection. Merging traffic from Story don't yield well. Traffic from the gas station and Big Horn Ave. congest an already awkward intersection. Too abrupt of a turn to come from Story to either Big Horn or Big Horn Ave. Unfamiliar drivers often overshoot the sharp left turn. Traffic pulling onto highway headed south often travels significantly slower than approaching traffic already at speed coming from the north.		

What are your top concerns about this intersection? Select up to three.



Other entries:		
Failure to yield	Turning lane seems really short for the speed.	people not paying attention and pulling out in front of other vehicles
Traffic going into and out of gas station at the intersection	Adding 4 lanes to Woodland Park will not help this situation at all.	Drivers failing to yield right-of-way when entering Coffeen/SH335
Too many approaches in one place	failure to yield by merging vehicles	North bound Traffic is unpredictable
Difficult (time consuming) to cross the intersection during busy mornings and 5pm rush. Short distance available to merge into traffic from Story to Sheridan.	Just need to stop the flow of traffic from Story. Speeds are fine if they obey the laws. When they took the stop sign out of the Big Horn side they just needed to put it on the Story side.	When turning out of the Big Horn Y Store on the south end, it is difficult to see southbound traffic on 87.
Number of vehicles present. It makes people anxious and make dumb, rash decisions just to cross the intersection		

**Where are you headed when you pass through this intersection and at what time of day?
Please use the drop-down menu to indicate how often you use the intersection for that
purpose at that time of day.**



When you are using this intersection, what challenges and opportunities do you observe and/or experience?		
Deer, people losing patience waiting for a chance to turn into traffic while waiting at a stop sign	I'm usually crossing Coffeen and find it difficult to find appropriate openings in traffic	When merging with trailer visibility is difficult
Left turn from 87 onto south/west bound 335 often congested	Speeds, stop signs inefficient, need for a better traffic integration system specially during winter.	Fast traffic, vehicles thinking they are more important and obviously in a hurry.
There is no sidewalk or bike path in the area at all. People get frustrated waiting and pull out in front of speeding cars. There is no light to help people navigate the area.s	Driving north on 87 and merging onto 335 is difficult due to the angle necessary to look south for traffic you need to yield to.	Difficulty entering highway from convenient store. Difficulty seeing on-coming traffic when turning right to go south on 87 from Girls School Road.
The most concerning is difficulty seeing traffic coming from Bighorn.	Merging safely	Visibility is the main one. Making the turn from the south side of the gas station.
As I stated above, drivers coming in from Story don't yield. They rarely look to see who is coming from Big Horn. I have been in situations several times where if I had not slowed down the "yielding" driver would have hit	Drivers' frequent lack of concentration about the various other things happening around them.... Turn signal usage; yield sign observation; turning into the gas station heading south; people pulling out In Front of 55 mph.	When traveling from Story to Sheridan, it is difficult to merge due to the sharp enter and being able to look over my shoulder at the posted speed. I liked how it was 30 years ago when one side had to STOP. When traveling to

me. I always blow my horn, but they just don't look.		Story, there are times it is difficult to make the turn.
Being able to see while turning from big horn avenue onto the highway.	Heavy traffic times create a long wait, and this causes people to take unsafe risks into traffic.	Visibility entering & exiting the merge traffic lane
the merge lane from 87 onto 87/335 is way too short. Traffic from 335 can be quite aggressive and they do not give any consideration to traffic merging into their lane. In fact, the speed up then slow down so merging traffic has a very dangerous time flowing onto the merged highway. Is there a posted sign on HWY 335 that traffic will be merging so traffic needs to maintain speed as best as possible? Ha. Just kidding. A longer merge lane, I think, would help lessen the aggressions from continuing traffic. A good example would be Brundage's merge into Big Horn Ave's 4 or so miles further down the road.		
It is difficult to see traffic coming from BH when merging from Story. It is difficult to see when leaving the store parking lot. Sometimes it's hard to tell how fast people are driving.	Difficult (time consuming) to cross the intersection during busy mornings and 5pm rush. Short distance available to merge into traffic from Story to Sheridan.	Crossing or turning and on an occasion merging. Even Turing out of the Big Horn Y gas station or turning into it is a challenge.
traffic too heavy/fast for turning or merging.	traffic traveling fast. improper turn lane usage	Making turning movements.
Challenges crossing the highway or merging into it going from Story to Sheridan.	Left hand turns from Story toward Big Horn. Crossing the intersection from Sheridan to Story.	Just waiting for traffic to clear
Difficulty turning onto the highway. People merging often don't know they need to yield to traffic already on the hwy also.	People taking rushed and dangerous turns and crossings. Slower drivers being bullied by aggressive drivers.	The fact that the two streets intersect at a 45 degree angle and not 90 degrees causes a lot of issue when checking for oncoming traffic
There is quite a bit of traffic, especially with people accessing the business, The Big Horn Y. Also with turning onto Big Horn Avenue or turning toward Story. I haven't seen any accidents, but I'm not out there often.	People turning in front of you or crossing when you are going 55 mph. People turning into the gas station and pulling out where there is a blind spot on the south end. People merging from the story way not knowing what yield means.	Congestion, people trying to get on the road from the gas station & Big Horn Ave, too many vehicles driving too & from Big Horn/Story at peak hours (for work or school) & everyone drives fast. Wide intersection for the stop signs
During peak times, north bound 87 merging on to 335 hesitate and/or stop because view of 335 north bound traffic is blocked by vehicles (especially tall vehicles) and limit sight distance for safe merge.	I have observed multiple vehicle collisions and "close calls" as well as traffic not adhering to the posted stop signs and speed limits. The blind spots created by the landscaping at the gas station limits visibility.	Heading north, there's a turn lane immediately in front of the gas station that has south bound vehicles heading into the same lane. There's a potential for head-on collisions. Disable that first turn in and require northbound vehicles to use the 2nd turn-in. That would help.
People slowing down to come in/out of the gas station. People	People getting desperate due to amount of traffic, and making	Hard to see traffic coming when exiting gas station. Traffic exits

merging in going north, not paying attention. People coming down the steep hill in the winter and it's slick, sliding into the road.	bad decisions leading to accidents and close calls. Particularly people to and from Big Horn on Coffeen flying through the intersection	gas station and 332 as if speed limit is 30mph. Merging traffic traveling north will often aggressively pass outside of the lines on the right to avoid yielding.
Other people not paying attention	Speeding cars. Not yielding. Traffic congestion.	Difficulty making left hand turns due to heavy traffic.
There are challenges presented from cars/ trucks exiting the gas station and merging into on-coming traffic.	Completing a turn in snowy conditions, entering the highway after a stop at the intersection due to high speed traffic.	Dangerous merger from story. No stopping from Bighorn Avenue. Too high of speeds and merging traffic from Bighorn Y.
Gas station patrons pull out into traffic. Multiple cars turning onto HWY 335	Dangerous intersection for both south bound and north bound commuters.	The turning lane to go up the hill seems really short for the speed. Needs longer slow down area.
Already mentioned above.	Driver distractions	Merging traffic and turns from/to Story
When merging off HWY 87 going north its hard to see drivers coming from Big Horn and drivers are turning North out of the gas station and drivers turning coming off of Maverick lane. Lots going on. 55 MPH IS WAY TOO FAST AND THE CAUSE OF MOST ISSUES. SLOW THE TRAFFIC DOWN.	There is increased congestion before and after school/work times making it very difficult to make a left-hand turn onto the HWY as well, as turning off the HWY onto Big Horn Avenue. Challenges safely entering and exiting the Y gas station near this intersection as well	As I stated above, something needs to be put in place to simplify decision-making. The only way to make that happen if by use of traffic signals at all conjoining points. It's not fool proof, but with proper signage in advance, this should help alleviate most of the safety issues.
Left turns from story to bighorn in afternoon are tough. Long waits at stop sign. Story traffic not following yield sign.	Sometimes traffic is heavier and it's hard to turn left or right into the highway off bighorn ave or from story	Speed is too fast to address people taking risks. If I slow down to a comfortable rate for me, I'm tailgated. If I go 55, I'm risking a wreck and the inability to anticipate others' actions.
cars and trucks not using blinkers unsure what their intentions are.	Pulling out from gas station. Gauging traffic at all merge/stop sign locations.	Yielding coming from 87 to merge onto going into Sheridan
High speeds and numerous vehicles in intersection merging and turning. Just hoping people know where they are going and signaling accurately. It is especially treacherous when roads are icy or poor visibility due to fog, snow, or rain. Also dangerous when drivers unfamiliar with flow and don't navigate improper turning lanes.	Traveling north on 335 to 87 sometimes have merge issues with people traveling north on 87 failing to yield. Traffic crossing or entering from 87 or 332 onto 335/87 will pull out and not yield to oncoming traffic. Vehicles pulling onto 87/335 from the Big Horn Y Store sometimes causes panic stops to oncoming traffic.	Traffic entering Coffeen Avenue from Highway 87 Very seldom yields. Also, the traffic at this intersection is very heavy during lunchtime and vehicles are constantly pulling out of the gas station without any regard to traffic on the road. I have at least one vehicle each time I travel through this intersection pull out in front of me where I need to slow down very fast.

Large construction trucks travel through in early rush hour traffic.		
speeding from other vehicles. Not stopping, just doing a touch and go. To much traffic for this and as building and more people move in area will only get worse.	Extreme turning radius. Significant speed differential Visibility due to sun / glare. Too many vehicles in conflicting directions	either people drive like they are on the interstate and racing to get in front of others or they are driving so slow they are impeding traffic.
People don't merge correctly	Speed limit nor enforced	Visibility. Speed is too fast at intersection.
People just driving very fast.	Visibility is a big concern.	People don't yield from Story.
People not yielding or paying attention to the speed limit as they enter the highway. In addition a lot of people are speeding as well and passing others that are going the marked speed limit.	I am concerned other drivers will pull out in front of Mr or not see me as I am driving to Sheridan from Big Horn at the Y intersection	Sometimes traveling northbound from Hwy 87 to Big Horn Ave (Hwy 332) can be a challenge crossing 87/335
Long wait times.	Many <u>cars do not yield</u> when joining at the Yield Sign going north	Trying to cross the intersection during an increased flow of traffic can be quite difficult.
People's general poor driving skills. Too slow or too fast. Lack of using turn signals. Poor turn lanes off 335 from story and into BHY gas station	Occasional confusion regarding the southbound turning lane to Story Highway which is also the turning lane in to the gas station.	lots of crashes from people cutting each other off and or near misses from people blowing the stop signs
Lack of attention from other drivers. Aggressive drivers or say it road rage incidents.	It can be a challenge to merge onto Coffeen coming off US 87.	Yielding is dangerous. Speeding to fast in this area
Hard to cross the intersection from Story up to Girl School Road because of how much traffic there is during morning peak times. Sometimes it is hard to see or the traffic from the Big Horn Y gas station can pop up out of nowhere.	It's very hard to see the cars coming from Big Horn when attempting to pull into traffic from Story direction. This is compounded by cars pulling out from the convenience store. The angle is all wrong and the cars are going way to fast for me.	I have not seen or experienced any challenges, but traffic seems fairly light at the times when I use this intersection to recreate on the face of the big horns (Red Grade) or utilizing the interstate via Meade Creek.
I keep a close eye on the merging traffic from Story to town, on the vehicles turning into or leaving the Bighorn Y. Leaving town, pretty much the same, except vehicles heading south that travel below the speed limit the whole way invariably turn left to Story! The vehicles waiting to turn right from Bighorn ave. towards Bighorn often don't wait for traffic gaps, causing a	I frequently turn north from Big Horn Ave. onto Coffeen Ave. Traffic is often unpredictable in this area as you have people continuing through to Big Horn, stopping for gas at the Big Horn Y, turning to go to Story, etc. This results in an unpredictable and volatile traffic pattern that is difficult to anticipate - even when motorists do their best to signal. I believe there is	When coming from Sheridan to make a right hand turn onto Big Horn Avenue at the Big Horn Y intersection, I am always concerned about cars coming up too fast behind me and the risk of being rear-ended. I always turn on my blinker well in advance to give others plenty of warning. The speed zone of the intersection is way too fast in my opinion. I also am concerned

slowdown of vehicles traveling at 55mph! Please do not reduce the speed limit, educate the risk takers!	abundant opportunity to create consistent predictable traffic speeds while preserving the flow of traffic via the use of a well-designed traffic circle or similar approach.	about traffic coming out of the gas station in front of me. I try to be cognizant and stay alert in case someone pulls out in front of me.
I suppose the only concern I have is when slowing down to make my right turn up Big Horn Avenue the traffic behind me is travelling at 55 mph and if someone is in the left turn lane, my right turn seems to be an 'inconvenience,' slowing down the through traffic. When reversing my travel, I don't have an issue - it requires patience waiting for traffic to clear.	It is difficult to see traffic coming and up and down coffeen (coming from sheridan to bighorn and from bighorn to sheridan) A traffic circle would be a great addition to this high congestion area with out causing a realignment. Also the short merge lane coming from story heading to sheridan makes it hard to guage traffic speed. this could also get eliminated with a traffic circle.	Difficulty turning left onto Big Horn Ave when facing a car in the opposite turn lane as you cannot see around them. Also I find it difficult turning right off of Big Horn Ave as you really need to extend beyond the stop sign limit to see oncoming traffic - depending on cars coming/going in/out of the Big Horn Y store/gas station.
when entering intersection from the south, being able to see traffic from West and judge their speed.	We enter Coffeen from. Maverick and see vehicles driving way to fast coming from the Y junction trying to merge onto Coffeen	Sometimes it is hard to cross from Hwy 87 to Bighorn Avenue due to the volume of traffic headed to/from Big Horn.
Cycling across the intersection is hard	traffic turning into Bighorn Y	Card not stopping or coming to a complete stop.
Can be difficult to see traffic coming from Big Horn when merging from Story side.	Traffic converging several points at once. Sometimes at limit speed or above.	Difficult to pace traffic as well as people from the store pulling out going north...
visabatlly	No problems	No real challenges.
Not many. People are just impatient. There is never more than a couple cars waiting to turn.	Too many turning options with too much traffic traveling at high speeds.	Difficulty seeing traffic headed to sheridan while merging from 87.
With heavy traffic turning can be difficult, visibility seems a little limited turning right coming off the girls school road turning either way at times	The entry and exit from Story toward Sheridan is difficult and made more so by traffic entering and exiting the gas station near the Y	During peak hours it is hard to turn south off of 87 towards Bighorn. I've waited more than 10 minutes to make that turn.
Drivers lack of knowledge regarding right of way.	Lots of traffic and long waits to cross.	It just seems like an awkward intersection when people are driving highway speeds.
Merging lane when coming from Story to Sheridan should be longer Turning lane when traveling from Sheridan to Story should be for South bound traffic only (Access to the gas station	It's a very busy intersection. Having the station & convenience store add to it especially @ lunch time. A lot of workers eat lunch there. But the biggest problem is all of the traffic involved with construction. It's becoming more	Merging traffic concerns at the intersection of 87/335. Drivers do not always pay attention to the traffic that is merging into their lane coming from Story or from Big Horn. Visibility concerns

for North bound should use the entrance off of Big Horn Ave.)	& more dangerous without a light.	pulling out of the Big Horn Y store.
multiple entrances and exits from gas station can confuse drivers approaching intersection. Merging traffic from Story don't yield well. Traffic from the gas station and Big Horn Ave. congest an already awkward intersection. Too abrupt of a turn to come from Story to either Big Horn or Big Horn Ave. Unfamiliar drivers often overshoot the sharp left turn. Traffic pulling onto highway headed south often travels significantly slower than approaching traffic already at speed coming from the north	I don't believe the speed limit needs to be adjusted this could be a good location for a round about. People need to learn to drive their depth perception is terrible. Pulling out in front of a car at 55 mph is ridiculous. Also people coming from the south crossing over a double yellow line to turn left into the gas station is crazy driving school and rules of the road should be followed. Turning left at intersection to girls school road and then right into the gas station works great.	When stopped at the stop sign on Big Horn Ave. The view from the left is near impossible to see without having the nose of your vehicle sticking out in traffic. This is due to the sign that the Big Horn Y store has along with shrubbery. When traveling south from Big Horn heading into Sheridan on Coffeen Ave if I encounter someone merging more times than not the car merging feeling they have the right of way when they don't. Which then causes me to either have to hit my brakes or go over the speed limit to avoid getting hit.
Coming off 87 from Story. Crossing 335 to Big Horn Ave. Idiots from the powder horn. Bicyclists should be ticketed for impeding traffic when they ride during peak hours. In no way should bicycling be a priority on this road. Thats what bike paths are for. You cannot mix heavy duty traffic with people on bikes on a narrow 2 lane highway. We already killed one person doing this in the past 10 years.	Having the turning lane is great. But confusing, if someone is using it to turn to go to Story it is sometimes difficult to use the turning lane to go to the gas station. Traffic coming in from Story that is speeding. Little LE enforcement.	People tend to slow to 45 in this area naturally because of vehicles accessing and coming out of the gas station there. The challenge is getting out of the gas station on to Coffeen Ave. It can be challenging especially if you are headed North to Sheridan or trying to get in the turn lane to Story. But overall there is not a ton of traffic for long periods of time
While I have not experienced any issues at this intersection myself, I imagine bicycles or pedestrians would have trouble navigating that area during peak times. Not sure if the bicycle/pedestrian volume would warrant a study on putting in a cross walk (would cyclists actually use the crosswalk?). Another thought would be a study on variable speed limits near that intersection to slow traffic during peak times and inclement weather conditions. I would not like to see a stop sign or traffic light in that intersection as that would have a significant negative impact to the flow of traffic I would think.		
vehicles driving at a high rate of speed, and failing to yield to oncoming traffic Failing to properly merge	Visibility when merging onto 87 coming from my house, looking left when I am getting up to 55mph to head into town.	A roundabout is needed that would be safe and all traffic would be slowed down yet travel would not stop
Speed. MPH Should be slowed throughout the area.	Safely turning or entering traffic. Reduce speed and improve safety.	The volume of traffic Vehicles pulling out in traffic dangerously"
Excessive speed of other vehicles. <u>Visibility</u> of other	merging into coffeen ave. from story you have to watch for	1. Turning left toward Story when driving south. 2. Turning

vehicles. Ability to turn safely . Drivers are often rude, using their vehicles as weapons.	traffic from big horn, traffic from the Big Horn Y, as well as from maveric drive.	left onto Big Horn Ave when driving north.
Visibility.	long wait times going across 87	Crossing Hwy 335.
Many drivers run stop signs or pull out leaving little time/distance for the traffic with right-of-way to react.	Drivers not yielding and speeds seem excessive through the intersection given the commercial business driveways.	It would be much better with a roundabout as it would slow all traffic down to a similar speed and also make it easier to cross the main flows of traffic.
Issues with visibility of traffic traveling towards big horn while at the stop sign at the bottom of the hill	People going exceedingly over the speed limit. Difficulty crossing from side road to road leading to Story.	Vision of traffic coming from big horn when attempting to turn north from big horn avenue. Also oncoming traffic is a challenge in that same scenario.
Increased homes is causing a significant uptick in traffic coming onto and off the main roadway. Sight coming onto 87 from either side highway is very limited due to the gas station.		If traffic lights are considered as a solution, speeds will probably need to be reduced well before vehicles potentially need to stop.
Speed from all directions, difficulty merging and maintaining a merge with minimal lane to safely merge. I have to come to a complete stop with traffic, but nearly get rear ended by those expecting a yield merge situation, but not enough room to do so.	Posted speed limit through intersection is too high for amount and flow of traffic. There are two active intersections attempting to utilize St. Hwy 335. Lower speeds will help merging the two intersections traffic into Hwy 335.	during peak commute times there are minimal opportunities to cross the main road if traveling North or South. If towing or have heavy vehicle, pulling out when traffic is going 55+ mph creates a dangerous situation, especially when turning towards Big Horn.
Visibility while in merge lane		People pulling out in front of you

The project team has identified a number of priorities when it comes to improving this intersection. Please rank the following priorities from 1 (most important) to 4 (least important).

Weighted Results:

1. Safety
2. Turning Movements
3. Traffic Congestion
4. Pedestrian/Bicycle Access

Is there anything else you would like the project team to know about this intersection?		
Lots for wildlife (deer) interfere with the area as well	Would a yield lane help coming off of Big Horn Ave eastbound to 335 southbound? Or a roundabout?	Another speed limit you're going to decrease and ruin. Congrats
What ever you decide to do, please DO NOT put in a roundabout!! It will created a lot more problems than it will	This is NOT a small town anymore. We need an area for our kids and other community members to move around the	PLEASE put in a round-about. I know it is unheard of around here but it would be a terrific location for one. PLEASE.

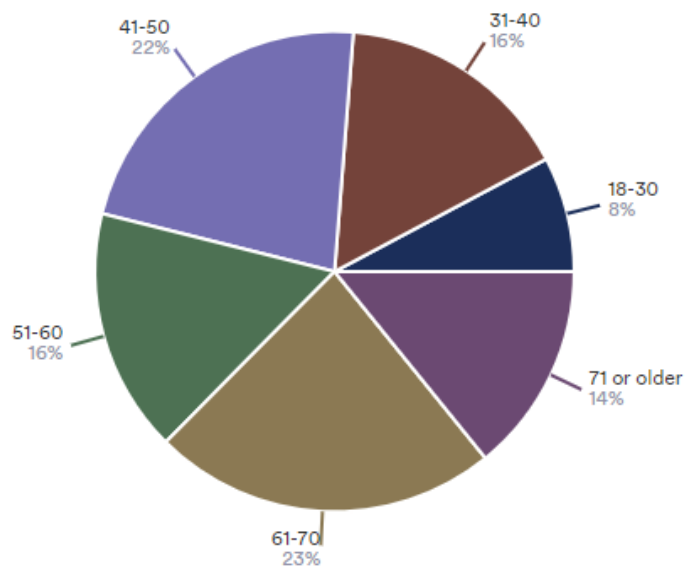
solve! This would be a nightmare.	area without a car. It is a deathtrap for people on foot or bike.	
It will be a shame to have to put in a light, but that prob what is going to have to happen and then you will have all the people who live in Sheridan but go to BH late for school trying to beat the light. Having driven the route for 25+ years, the changes in population have brought on so many of these problems. I hope your team will consider something like a variable speed zone timed for peak traffic times.	Not at this time. Other than traveling from HWY87 to the intersection, there really is not much room for traffic to turn left onto HWY335. I personally have not witnessed an issue but with increased traffic use and an increase in recreational trailered traffic, I always anticipate there being a problem. Thanks for providing the survey.	If Coffeen, from the college to the Big Horn Y becomes 4 lanes, which I hope it doesn't, this will be a super cluster of chaos. We need one central turn lane, one traffic lane in each direction, and right turn lanes into each of the side streets, with room for those banks of mail boxes. AND A BIKE LANE on both sides. We do NOT need 4 lanes for cars. Thank you!
It just seems to be a poorly designed intersection because people won't slow down and merge. Bike riders have an even harder time because there isn't a bike lane for them. The shoulder is often dirty and has a terrible lip that can catch your wheel.	This intersection is a perfect location for a Rotary intersection. Speed would be reduced and turning movements would improve. The problem is, many people from Wyoming find it difficult to yield to cars in the Rotary.	I would like you to address the intersection of Big Horn Ave and Brundage Lane. We NEED a light or something there. The traffic coming from Big Horn makes it very difficult to turn on to either of these roads during peak work hours and also on the weekends. Big Horn Ave is also very hard to cross on foot.
This is an ideal situation for a round-about like those used extensively on the west side of Billings.	it is only by the grace of god and pure dumb luck that accidents dont happen on a daily basis	This is a perfect opportunity to put in a roundabout. It would calm traffic and keep vehicles moving.
I think we need traffic lights at this intersection.	Please don't put in a round about	A longer merging lane on 335 may help with the ability to merge.
Remove the Juniper at the middle entrance/exit to the Bighorn Y. It's a hazard to clearly seeing oncoming traffic when turning right out of the parking lot	There needs to be four way stop signs at intersection of 87 & 335, also a speed limit approaching and passing by the Big Horn Y station/store. Suggested speed limit could be 45 to 30 approaching stop signs.	Time of day and where I am going should have no bearing on the issues that exist with the intersection and are none of your business. Same with the demographics
Hopefully WYDOT is also looking at a long long term plan to widen the highway between Sheridan and Big Horn to help deal with the ever growing amount of traffic.	I lived in Big Horn years ago and the intersection is much better now than it was then. There was a stop sign coming from Big Horn. I was rear-ended once at that stop sign so I think not having one is safer.	A roundabout would work really great. They have been a game changer in North Dakota with high traffic, along with heavy truck traffic. Easy to use, good traffic flow.

Speed is a main issue with this intersection. This should be lowered to at least 45MPH and should be done so immediately and not wait for the re-construction of the road. It would only require three 45MPH signs and posts as the 55MPH signs are already on each side of the intersection. In the last 30 years the traffic in this intersection has increased tremendously and will keep increasing as time goes on making this intersection more dangerous unless something is done.	The recent growth in south Sheridan and Big Horn makes the traffic very heavy on the highway (Coffeen avenue). The entire highway from Sheridan needs widened to include an additional lane each way and a turning lane. The turning lane is especially important as it is very scary trying to make a left turn during heavy traffic... it creates a traffic blockage. There are many cars coming up fast behind, often using the shoulder to get around.	The worst and most dangerous part is the left turn off US 87. When you have a truck with a horse trailer, or any other large size equipment making a left turn on 335, or even just trying to cross 335 to get to Big Horn Ave, oncoming traffic both directions, and traffic not slowing down on 87 headed into Sheridan, you have a problem. Watch that all the time. Pretty soon you have traffic backed up as far as Little Goose bridge.
Please do something before someone gets killed.	55 MPH IS WAY TOO FAST AND THE CAUSE OF MOST ISSUES. SLOW THE TRAFFIC DOWN.	I'm not sure what the best option for that many directions of traffic meeting in one location
This is important. Don't take too long and thank you!	Speed limit not enforced	Reduce speed please
This is one of the problem spots in the area that discourage more people from riding their bike along the highway.	Please please please address the speed and yield sign issue. It's a butt-clencher daily...with my babies in the car.	A roundabout is not the solution. I feel it would be hard for trucks to deal with and would be hard to get to the Y Store and Upper Road.
I would suggest as first option story traffic not merge but go to stop sign. Also reduced speed to 45 mph from Little Goode bridge through intersection. Second option make intersection a round about like is done in Billings, MT or going into Jackson WY.	However the redesign is made please make sure that there is plenty of room for semi-trucks to turn and have plenty of room to maneuver the Y. I live across from the Y and there are many semi trucks that use the Y everyday.	It would be nice to not have to slow down for this intersection. I would like for traffic to move through at appropriate highway speeds and not be treated like an intersection in town, if that is possible while maintaining safety and accessibility.
This project needs to have a four way stop or lights in order to fix the safety issues.	Install accel lane from girls school rd to bighorn rd with a merge lane and yield rather than stop.	55 mph speed limit through the intersection is too high. 45 mph probably more appropriate.
This is a very dangerous intersection.	It might be a GREAT place for a Roundabout.	Speed limit should be reduced approaching this intersection.
I think this should be a four way stop or an access lane for traffic from the south similar to those on the interstate	It's all about the ability to bend my head around to look toward Big Horn when I'm going to Sheridan...wrong angles. A traffic light would help.	I do not encounter any problems. I think you are resting an issue that does not exist 98 percent of the time.
Factor in the business traffic merging, turning in and out of	There is not much traffic in this area. Mostly at 7 am or at 8 am is	I believe the highway needs to be 5 lanes from coffee. Ave to the

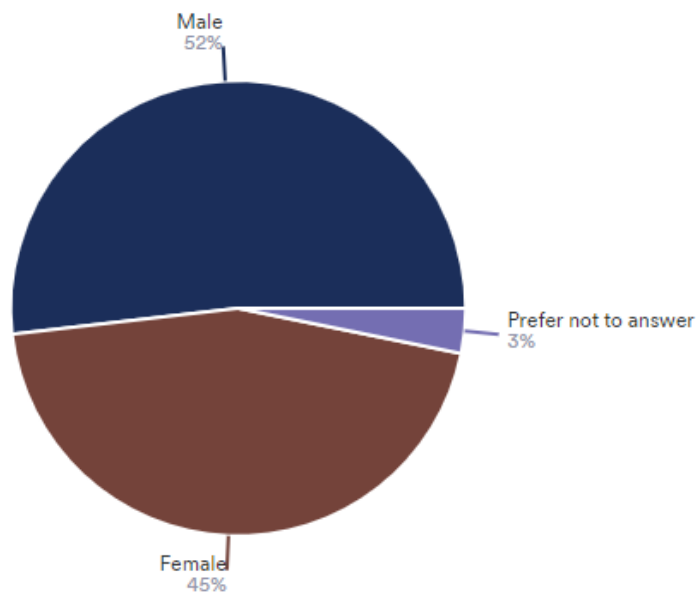
the gas station especially with the merging from Story going to Sheridan.	when there are a lot of people turning out from neighborhoods or turning off the highway.	intersection and the speed limit should be lowered to 45 until after the intersection.
Please put a light or 4 eat stop on here.	There needs to be a stop light here.	There will need to be turn lanes and merge lanes should be well marked.
It just seems odd, like you have to know exactly where you need to drive before you even get to the intersection. I notice this the most when I am driving from Story to Sheridan. I have learned from experience where I need to drive, but I often wonder what tourists are seeing as they approach this intersection.	No hopefully this time around of reworking it will be safer without decreasing the speed limit. I think a turn lane would be beneficial but then there are people that don't understand what a turn lane is either. 5 lanes so people can get around the few seniors that think the speed limit is 20 mph which going to slow is also a safety issue.	The Highway Patrol and Sheriff's office should be giving out tickets for impeding traffic. Bike, old people whatever. Do you know how many times I have had someone pull directly out in front of me busy they "don't want to get stuck behind a semi." And they then proceed to do 35 mph on this road. OR they turn 2 driveways down. Our community is filled with morons that cannot drive!
A lot of intersections in a short span. Not aware of many accidents though. Probably more deer collisions then accidents.	I can't say it clearly enough, there are too many entrances and exits at multiple points and varying speeds in this area! It's a lot for drivers to watch for and drivers tend to underestimate the safety risk.	87 is the main Highway and should have the right-of-way. All roads into the intersection should have two lanes. Speed is the main problem especially those coming into the intersection from Big Horn.
It definitely is a strange approach @ Stop sign on Big Horn Ave. I've seen 2 accidents where someone drove off the road, but having a slower speed is an improvement.	Maybe this is a good place for a roundabout. People will whine and some will whine forever but that's just their natural state.	Minimal space to merge to keep traffic flowing, and balancing slow speeds from a stop to highway speeds in a short time and little room.
prime candidate for a round about and a turn lane into the gas station from the north.	it would be much safer with a roundabout [Traffic circle].	Its dangerous to us, we avoid peak hours as much as possible.
Sheridan is growing and traffic is increasing along all stretches that come together at this intersection. It's not going to get any safer by doing nothing. The roadway between the college and the intersection is planned for widening, etc. It's obvious that the additional traffic flow is inevitable. The less people have to think, the better. There are too many distractions nowadays. By eliminating at least one, that's a good start.	I have rarely crossed that intersection during peak times, however I have never had any issues with visibility or difficulty getting across/merging to/from any direction. Seems the longest I have waited to get across HWY 335 is maybe 30 seconds, shortest is straight away after I stop. I have come down 335/coffeen to 87 towards Story, 335 towards Big Horn, 87 towards Big Horn, 87 towards Story (and the reverse for all of those as well).	I believe 90% of the issues could be addressed virtually cost-free by placing a couple law enforcement officers at the intersection 24/7 for a month. Tickets for running stop signs and failing to yield, as well as driving the wrong way in the turn lanes, or pulling out and causing vehicles to have to slow down abruptly would add up to tens of thousands of dollars and the worst offenders- who drive

		dangerously there daily- would soon find an alternate route.
I feel there is a need for a intersection regulated with lights or have a roundabout	Would be best used as a turn around	Merging traffic from Hwy 332 to Hwy 335 without have to stop only yielding for oncoming traffic. And NO roundabouts!!!!!!!!!!
I feel that a roundabout should seriously be considered for this intersection as it would slow down the traffic, facilitate all turning movements and overall improve the safety.		

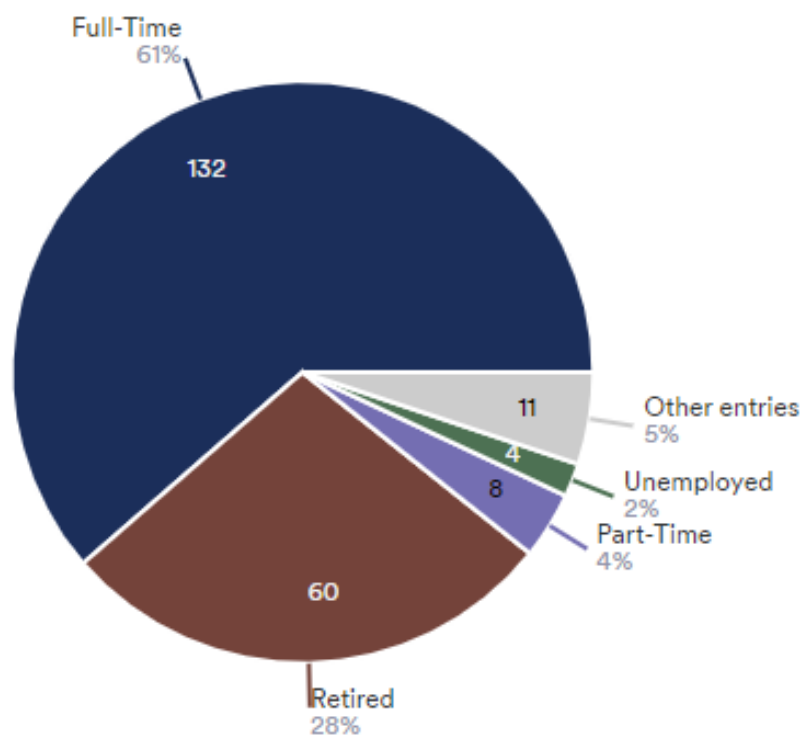
What is your age?



What is your gender?



What is your employment status?



Are you a recipient of any government aid programs (SNAP, unemployment, etc.)?



Public Meeting #2

Overview

An in-person and online, self-guided meeting was hosted to invite the public and stakeholders to comment on draft alternatives. The in-person meeting was originally scheduled for Thursday, Oct. 17, 2024, but was postponed due to ongoing wildfires in the project area. The in-person meeting took place on Wednesday, Dec. 11, 2024, in the commons area of Big Horn High School (333 U.S. Highway 335, Big Horn). The online meeting was available at www.US87IntersectionStudy.com from Wednesday, Dec. 11, 2024, through Saturday, Jan. 11, 2025. The comment period ended with the closure of the online meeting.

Promotions

The online meeting was promoted through a variety of means in order to reach many members of the public.

Newspaper Advertisement and Media Release

The in-person and online meeting were both promoted in the Sheridan Press on Dec. 10, 2024, and Sheridan Media on Dec. 16, 2024.

[WYDOT hosting Big Horn Y meeting | Local News | thesheridanpress.com](#)

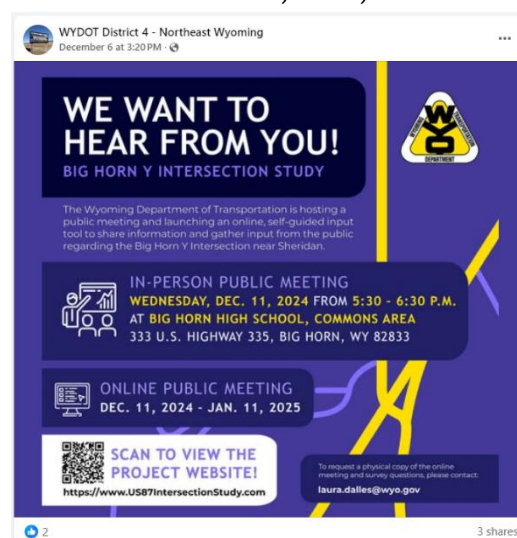
[WYDOT seeking public input on Bighorn Y intersection alternatives](#)

Radio

WYDOT participated in a radio interview to promote the online meeting. The radio interview took place during the Daily Pulse talk show on KROE (930 AM and 103.9 FM).

Social Media

Facebook was utilized to promote the online meeting through WYDOT District 4 - Northeast Wyoming's page. A total of two posts were made on Dec. 6, 2024, and Dec. 10, 2024.



QR Code Poster

A poster with a QR code leading directly to the online meeting was placed at establishments nearby to the intersection. Poster locations include:

- Big Horn Y gas station
- Big Horn Post Office
- Last Chance Bar
- Big Horn Mercantile Pizza
- Starbucks

In-Person Meeting Content

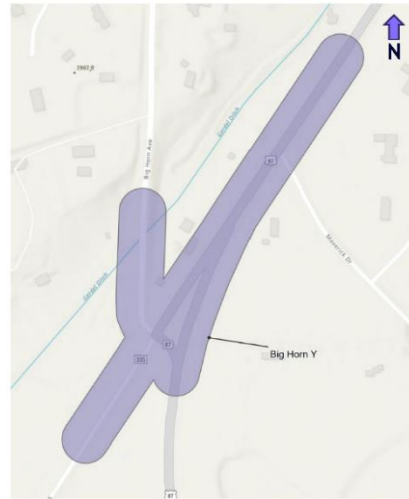
The in-person meeting included a presentation, handout, printed survey, and boards. The online meeting was an interactive, self-guided website that allowed users to click through information and answer a series of questions.

Presentation:





Intersection Location



2



Meeting Goals

- Share the results of public feedback from our first public meeting
- Present intersection alternatives and key findings from planning analyses
- Collect public comments prior to final recommendations

3



Overall Concerns

- Speeding and different speeds of vehicles
- Near-miss crashes
- Cars failing to yield and merging ineffectively
- High traffic volumes, especially during peak times
- Long wait times to cross and enter the highway
- Difficulty crossing the highway for bicycles and pedestrians
- Inability to see oncoming traffic

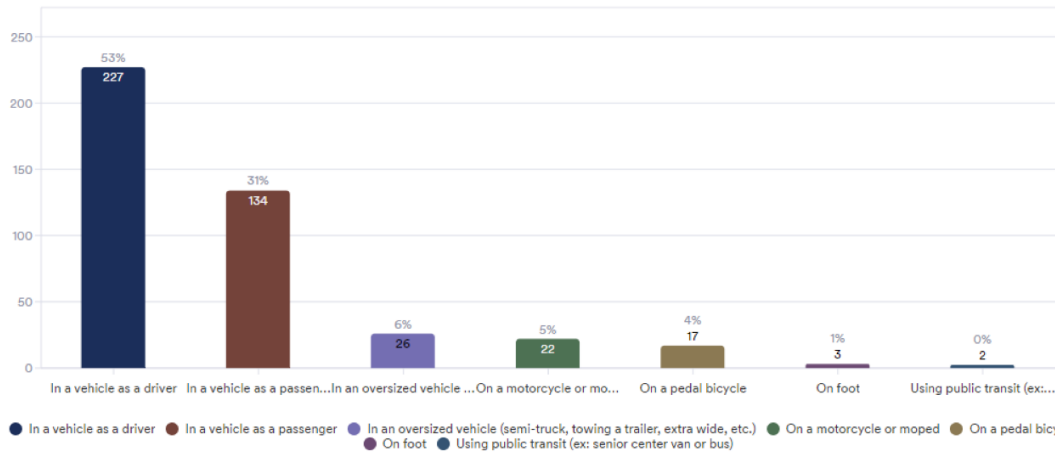
4

SURVEY RESULTS

Online Meeting #1



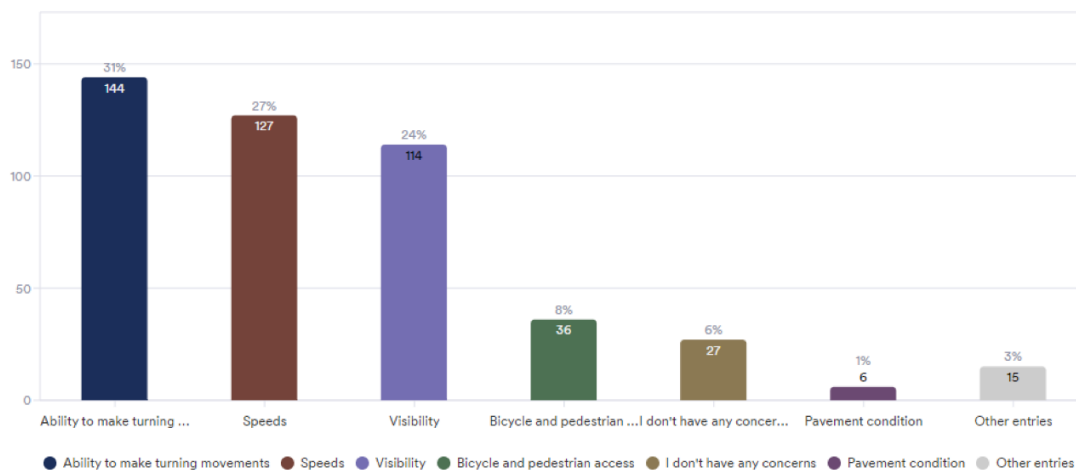
How do you travel through the intersection?



6



What are your top concerns about this intersection?



7



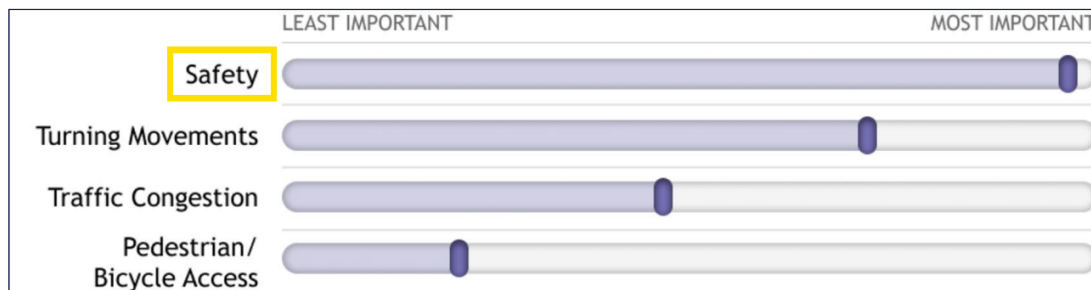
Comment Themes

Lots of wildlife in the area	Going north from the gas station is challenging
Cycling across the intersection is hard	Difficult to see oncoming vehicles
Difficult to turn left and cross the intersection	It seems like traffic is coming at you from all directions
Make sure there is room for trucks to turn	Excessive speeding

8



Intersection Improvement Priorities



9



Study Considerations



10



Alternatives Selection Criteria

- Ability to enhance safety with lower predicted crashes
- Driver expectancy
- Future operations and delay
- Decreasing the speed differences between vehicles
- Environmental impacts
- Right-of way requirements
- Ability to address current intersection concerns

The alternatives presented today are currently in DRAFT form and are subject to change.

No alternative has been selected, and following this study, a design project will precede any planned construction.

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ALTERNATIVES

At this time, no alternative has been selected. A design project will precede any construction project.



Alternative 1: No-Build

ANALYSIS RESULTS	
—	Predicted Crash Rates*
↑	Future Delay Rates
✗	Property Impacts
✓	Truck and Freight Mobility
✗	Addresses Speeding Concerns
✗	Bicycle and Pedestrian Friendly

*Predicted crash rates higher than roundabout (Alt. 2) and all-way stop intersection (Alt. 3) and similar to a signalized intersection (not carried forward as an alternative).

LEGEND	
—	Baseline for Comparison
↑	Undesirable Increase
↓	Desirable Decrease
✗	Not Present
✓	Present



Alternative 2: Single-Lane Roundabout

ANALYSIS RESULTS

- ↓ Predicted Crash Rates*
- ↓ Future Delay Rates**
- ✓ Property Impacts
- ✓ Truck and Freight Mobility
- ✓ Addresses Speeding Concerns
- ✓ Bicycle and Pedestrian Friendly

*Lowest predicted crash rate of all alternatives.

**Lowest future delay rate of all alternatives.

LEGEND

- Baseline for Comparison
- ↑ Undesirable Increase
- ↓ Desirable Decrease
- ✗ Not Present
- ✓ Present

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Alternative 3: All-Way Stop Signs

ANALYSIS RESULTS

- ↓ Predicted Crash Rates*
- ↓ Future Delay Rates**
- ✓ Property Impacts
- ✓ Truck and Freight Mobility
- ✓ Addresses Speeding Concerns
- ✓ Bicycle and Pedestrian Friendly

*Predicted crash rate slightly higher than roundabout (Alt. 2) but lower than existing conditions (Alt. 1).

**Future delay rate higher than roundabout (Alt. 2) and slower than existing conditions (Alt. 1).

LEGEND

- Baseline for Comparison
- ↑ Undesirable Increase
- ↓ Desirable Decrease
- ✗ Not Present
- ✓ Present

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What About a Signal?

ANALYSIS RESULTS	
↑	Predicted Crash Rates*
↓	Future Delay Rates**
✓	Property Impacts
✓	Truck and Freight Mobility
✓	Addresses Speeding Concerns
✓	Bicycle and Pedestrian Friendly

LEGEND	
—	Baseline for Comparison
↑	Undesirable Increase
↓	Desirable Decrease
✗	Not Present
✓	Present

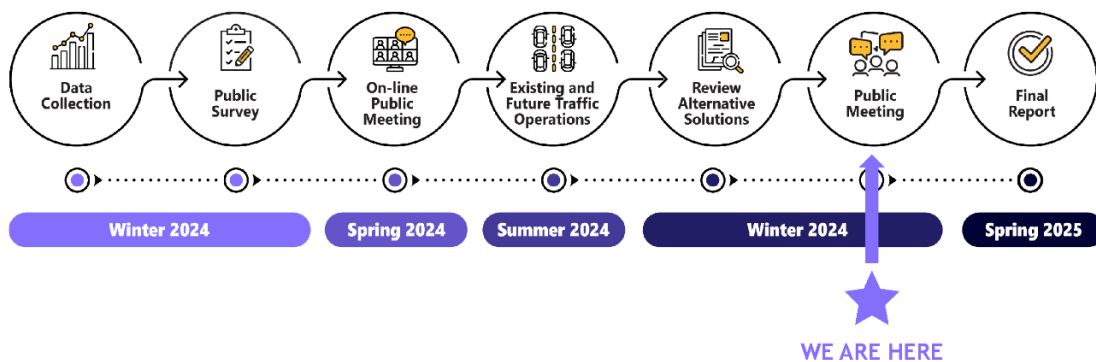
*Predicted crash rate is similar to existing conditions (Alt. 1) and higher than all other alternatives.

**Future delay rate similar to existing conditions (Alt. 1) but higher than all other alternatives.

18



Next Steps



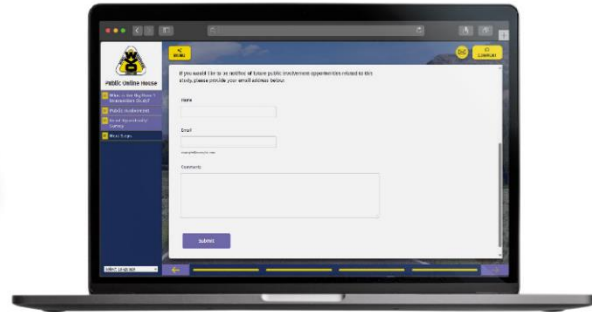
19



Please Provide Your Input



Comment Cards



Project Website:

www.US87IntersectionStudy.com

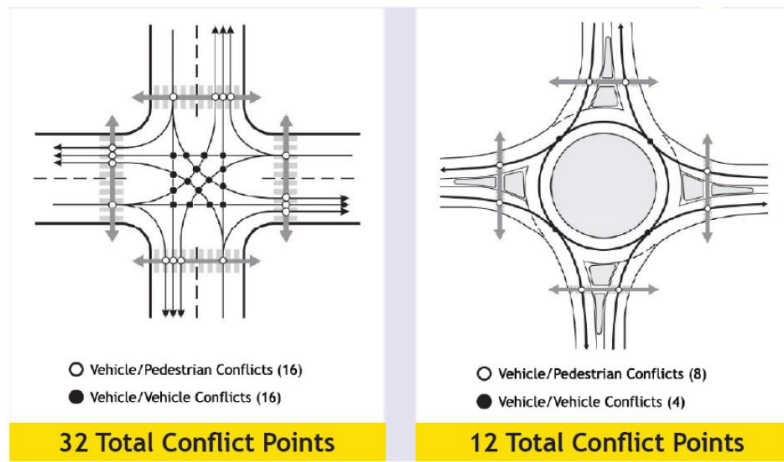
COMMENTS ACCEPTED THROUGH JAN. 11, 2025

THANK YOU!

Questions?



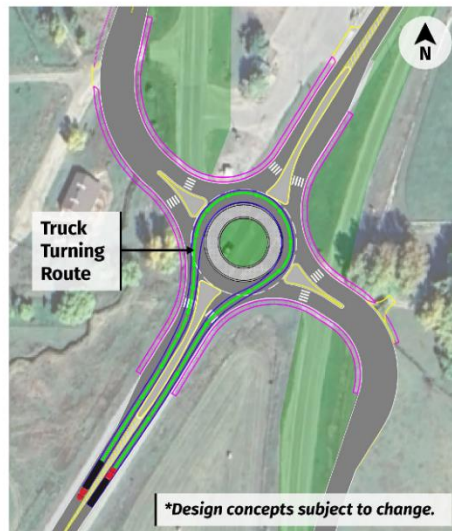
Why a roundabout versus a signal?



22



Can a roundabout accommodate trucks and trailers?



23

Handout:

Proposed Alternatives

BIG HORN Y INTERSECTION STUDY

The alternatives have been developed based on current conditions, forecasted traffic volumes, safety, driver delay, and public input. As part of the study, many different intersection designs were considered and evaluated. Based on the results of this analysis, the top three alternatives are now available for public comment.

<https://www.us87intersectionstudy.com>

Selection Criteria and Considerations:

- Ability to enhance safety with lower predicted crashes
- Right-of-way requirements
- Driver expectancy
- Environmental impacts
- Future operations and delay
- Ability to address current intersection concerns

The following alternatives are currently in **DRAFT FORM AND ARE SUBJECT TO CHANGE**. No alternative has yet been selected. Following this study, a design project will finalize the alignment and precede any planned construction.

? FAQ

<https://www.us87intersectionstudy.com>

Why a roundabout versus a signal?

The roundabout alternative results in less driver delay than a traffic signal and less potential crashes. Conflict points refer to areas where vehicle/pedestrian and vehicle/vehicle crashes may occur due to paths of travel crossing. Additionally, crashes that occur in roundabouts are typically less severe than those that occur at a traffic signal. Roundabouts have significantly fewer conflict points, as shown below.

32 Total Conflict Points (Signalized Intersection)

12 Total Conflict Points (Roundabout)

Source: <https://www.fhwa.dot.gov/infocentral/roundabout/faq/FAQ0607-00675.pdf>

Can a roundabout accommodate trucks and trailers?

Yes, trucks and trailers can travel through roundabouts.

Were other alternatives considered? Why are they not included?

WYDOT studied a full range of traditional and innovative intersection solutions. They were ranked based on their safety, traffic operations, and driver expectancy. Those that did not rank highly in these categories were eliminated from further study.

Will access to the Big Horn Y gas station change?

Access to the Big Horn Y Gas Station will be maintained, and specific access modifications would be determined during the design phase.

Boards:

BIG HORN Y INTERSECTION STUDY

WELCOME

MEETING GOALS



This is the second and final meeting for the US Highway 87 Intersection Study. This unique intersection, also known as the Big Horn Y, is located near Sheridan and presents challenges for commuters, trucks, bicycles, and pedestrians alike.

THE GOALS OF THIS MEETING INCLUDE:



Share results of what we heard from the public during the first public meeting



Present intersection alternatives and key findings from planning analyses



Collect public comments prior to final recommendations

BIG HORN Y INTERSECTION STUDY

WHAT WE'VE HEARD SO FAR



The initial public involvement effort included an online-only public meeting in April 2024. Stakeholders and the public were asked a series of questions about intersection use and operations. Over 200 residents and frequent users of the intersection provided input about challenges and opportunities, and an overwhelming percentage submitted comments related to safety.

A MAJORITY OF SURVEY RESPONDENTS RESPONDED THAT THEY WERE CONCERNED WITH:



Speeding and difference between speeds of vehicles



Near-miss crashes



Cars failing to yield and merging ineffectively



High traffic volumes, especially during peak times



Long wait times to cross and enter the highway

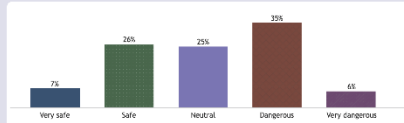


Difficulty crossing the highway for bicycles and pedestrians

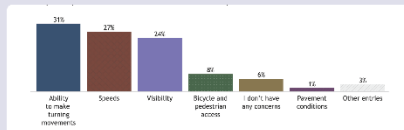


Inability to see oncoming traffic

HOW SAFE DO YOU FEEL TRAVELING THROUGH THIS INTERSECTION?



WHAT ARE YOUR TOP CONCERNS ABOUT THIS INTERSECTION? Select up to three.



THE PUBLIC PROVIDED RANKED PRIORITIES FOR INTERSECTION IMPROVEMENTS. Priorities from 1 (most important) to 4 (least important) are shown below:



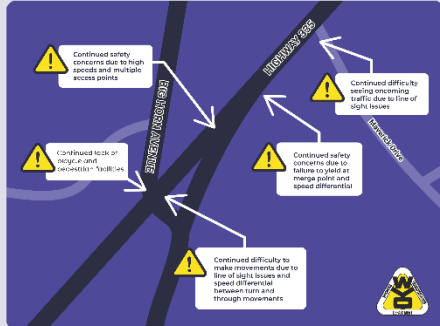
BIG HORN Y INTERSECTION STUDY

ALTERNATIVE #1: NO-BUILD

EXISTING INTERSECTION CONDITIONS



If no changes are made to the intersection, operations and safety of the intersection will continue to decline. This alternative results in longer delay for drivers in the future (2045) and does not address any of the safety concerns noted during the first public input process. The current delay for drivers at the two-way stop is approximately 10-15 seconds per vehicle. If no action is taken, that delay will double in the future (2045) and will be approximately 30 seconds per vehicle.



LEGEND

- Baseline for Comparison
- Undesirable Increase
- Desirable Decrease
- Not Present
- Present

ALTERNATIVE RESULTS

- Predicted Crash Rates*
- Future Delay Rates
- Property Impacts
- Truck and Freight Mobility
- Addresses Speeding Concerns
- Bicycle and Pedestrian Friendly

BIG HORN Y INTERSECTION STUDY

ALTERNATIVE #2: SINGLE-LANE ROUNDABOUT



According to the Federal Highway Administration (FHWA), roundabouts are a proven safety countermeasure that can reduce the number of crashes by decreasing conflict points, lowering speeds, and accommodating pedestrian and bicycle movements. The roundabout option lowers the delay for drivers at the intersection both today and in the future (2045) to less than 10 seconds per vehicle.



BENEFITS

- The potential for serious injury and fatal crashes are reduced by 90%, and head-on crashes are eliminated.
- Slower approach speeds for traffic.
- Allows for bike and pedestrian crossing.
- Curved approaches guide traffic in a counterclockwise flow, so oncoming traffic is only from one direction.
- Trucks and trailers can be accommodated.
- Driver delay is the lowest with this alternative.
- Does not require on-going maintenance like a traffic signal would.

ALTERNATIVE RESULTS

- Predicted Crash Rates* (Compared to No-Build)
- Future Delay Rates** (Compared to No-Build)
- Property Impacts
- Truck and Freight Mobility
- Addresses Speeding Concerns
- Bicycle and Pedestrian Friendly

*Lowest predicted crash rate of all alternatives.

**Lowest future delay rate of all alternatives.

LEGEND

- Baseline for Comparison
- Undesirable Increase
- Desirable Decrease
- Not Present
- Present

CONSIDERATIONS

- Roundabouts may be unfamiliar to new users, but single-lane roundabouts are easily learned.
- Right-of-way acquisition is required, however, all intersection improvement alternatives that realign the intersection will require some additional space.

BIG HORN Y INTERSECTION STUDY

ALTERNATIVE #3: ALL-WAY STOP CONTROLLED



All-way stop controlled intersections are suited for low to moderate traffic volume intersections serving motorized and non-motorized trips. In stopping all vehicles, safety of crossings is prioritized over the speed at which vehicles are allowed to travel. Slower speeds going through an all-way stop intersection reduces the likelihood of fatalities and severe injury crashes.



BENEFITS

- Provides bike and pedestrian crossing.
- Reduces the speed of vehicles traveling through the intersection.
- Eliminates yielding and merge issues at existing merge point.
- Does not require on-going maintenance of a traffic signal.
- Reduces crashes by 48% compared to a two-way stop controlled intersection.

CONSIDERATIONS

- Visibility for side-mounted stop signs on multi-lane facilities needs to be addressed; however, additional mitigation measures can be added to increase visibility such as advanced rumble strips, advanced signing, and LED stop signs.
- Individual vehicle delay may be greater.

ALTERNATIVE RESULTS

- Predicted Crash Rates* (Compared to No-Build)
- Future Delay Rates** (Compared to No-Build)
- Property Impacts
- Truck and Freight Mobility
- Addresses Speeding Concerns
- Bicycle and Pedestrian Friendly

*Predicted crash rates slightly higher than roundabout (Alt. 2) but lower than existing conditions (Alt. 1)

**Future delay rate higher than roundabout (Alt. 2) and lower than existing conditions (Alt. 1)

LEGEND

- Baseline for Comparison
- Undesirable Increase
- Desirable Decrease
- Not Present
- Present

BIG HORN Y INTERSECTION STUDY

ALTERNATIVE #4: TRAFFIC SIGNAL



THIS ALTERNATIVE IS NOT BEING CARRIED FORWARD AS THE TRAFFIC VOLUMES ARE NOT HIGH ENOUGH TO MEET SIGNAL WARRANTS.

According to the FHWA, traffic signals can help keep traffic moving smoothly. Traffic signals can help conflicting traffic streams share the same intersection, which can increase the number of vehicles an intersection can handle. While there are benefits for this alternative, the traffic volumes at this intersection are lower than the traffic signal warrants recommended by the MUTCD (Manual on Uniform Traffic Control Devices).

BENEFITS

- Provides information to drivers with overhead traffic signals to direct traffic and provide for turn movements at the intersection.
- Provides bicycle and pedestrian crossing

CONSIDERATIONS

- The intersection does not meet signal warrants.
- Traffic signals have more conflict points than other alternatives, resulting in a higher predicted crash rate.
- Less delay for drivers than the no-build, but more than the roundabout.
- Increased delays for east and west movements.

ALTERNATIVE RESULTS

- Predicted Crash Rates* (Compared to No-Build)
- Future Delay Rates** (Compared to No-Build)
- Property Impacts
- Truck and Freight Mobility
- Addresses Speeding Concerns
- Bicycle and Pedestrian Friendly

*Predicted crash rate is similar to existing conditions (Alt. 1) and higher than all other alternatives.

**Future delay rate similar to existing conditions (Alt. 1) but higher than all other alternatives.

LEGEND

- Baseline for Comparison
- Undesirable Increase
- Desirable Decrease
- Not Present
- Present



BIG HORN Y INTERSECTION STUDY

NEXT STEPS

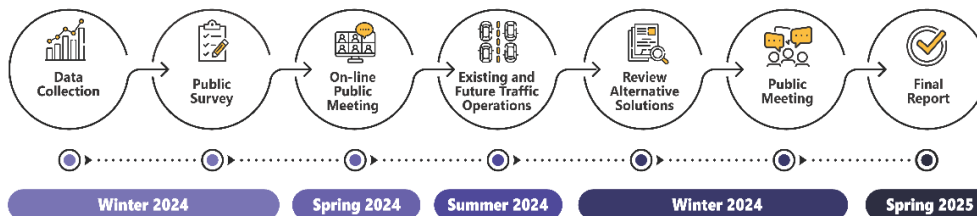


Input collected through this online meeting and at the in-person public meeting will be analyzed and taken into consideration as the study team develops a final report.



SCAN TO VIEW THE PROJECT WEBSITE!

<https://www.US87IntersectionStudy.com>



BIG HORN Y INTERSECTION STUDY

Printed Survey:

SURVEY

BIG HORN Y INTERSECTION STUDY



What are your thoughts and opinions on the Single-Lane Roundabout alternative (Alt. 2)? (i.e., Do you prefer this alternative over the All-Way Stop-Controlled alternative? What do you like/dislike about this option?, etc.)

What are your thoughts and opinions on the All-Way Stop-Controlled intersection alternative (Alt. 3)? (i.e., Do you prefer this alternative over the Single-Lane Roundabout? What do you like/dislike about this option?, etc.)

Do you have any thoughts you'd like to share with the project team?

DEMOGRAPHICS

Why are we asking these questions?

It is important that public involvement opportunities are available to all people, and this information helps us assess our progress. These questions are optional and anonymous.

What is your age?

- ☐ Under 18
- ☐ 18-30
- ☐ 31-40
- ☐ 41-50
- ☐ 51-60
- ☐ 61-70
- ☐ 71 or older

What is your gender?

- ☐ Male
- ☐ Female
- ☐ Prefer not to answer


What is your employment status?

- ☐ Student
- ☐ Full-time
- ☐ Part-time
- ☐ Unemployed
- ☐ Retired
- ☐ Other

Are you a recipient of any government aid programs (SNAP, unemployment, etc.)?

- ☐ Yes
- ☐ No
- ☐ I'm not sure



Online Meeting Content



Public Open House

- What is the Big Horn Y Intersection Study?
- Meeting Goals
- What We've Heard So Far
- Alternatives
- Alternatives FAQ
- Survey
- Next Steps

Translate This Site
Select Language




COMMENT


WHAT IS THE BIG HORN Y INTERSECTION STUDY?

The Wyoming Department of Transportation has initiated a study of the intersection of US 87, WY 332, and WY 335, also known as the Big Horn Y Intersection.


The study team has been collecting and analyzing the following:




Existing roadway conditions




Traffic volumes




Turning movement counts




Traffic operations




Five-year crash data



Current operations




Forecasted conditions and volumes




Overall functionality of the study area


The final report will review the existing conditions of the intersection and provide recommendations with the goal of enhancing safety and operations of the intersection.

Project Location in Sheridan County, WY



Project Limits







Public Open House

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COMMENT

MEETING GOALS

This is the second and final meeting for the US Highway 87 Intersection Study. This unique intersection, also known as the Big Horn Y, is located near Sheridan and presents challenges for commuters, trucks, bicycles, and pedestrians alike.

The goals of this meeting include:

- Share results of what we heard from the public during the first public meeting
- Present intersection alternatives and key findings from planning analyses
- Collect public comments prior to final recommendations



<https://us87intersectionstudy.com/#content/slide2>



Public Open House

What is the Big Horn Y Intersection Study?

Meeting Goals

What We've Heard So Far

Alternatives

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COMMENT

WHAT WE'VE HEARD SO FAR

The initial public involvement effort included an online-only public meeting in April 2024. Stakeholders and the public were asked a series of questions about intersection use and operations. Over 200 residents and frequent users of the intersection provided input about challenges and opportunities, and an overwhelming percentage submitted comments related to safety.

Overall Concerns

A majority of survey respondents responded that they were concerned with:

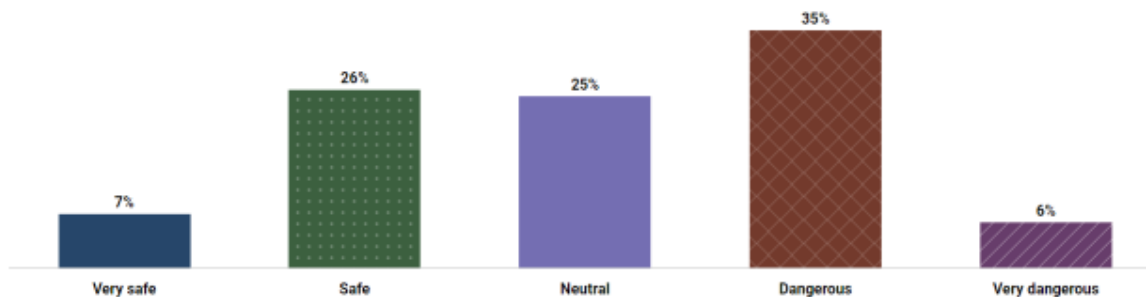
- Speeding and the difference between speeds of vehicles
- Near-miss crashes
- Cars failing to yield and merging ineffectively
- High traffic volumes, especially during peak times
- Long wait times to cross and enter the highway
- Difficulty crossing the highway for bicycles and pedestrians
- Inability to see oncoming traffic



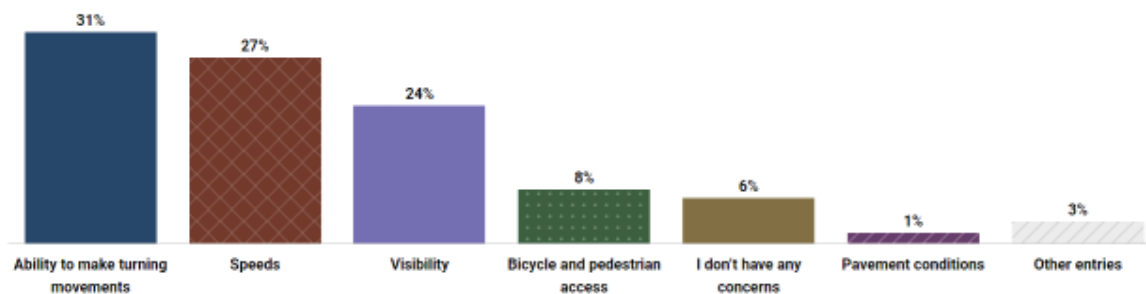
<https://usd8intersectionstudy.com/#content/slide1>

Safety Concerns

How safe do you feel traveling through this intersection?



What are your top concerns about this intersection? Select up to three.



Intersection Improvement Priorities

The public provided ranked priorities for intersection improvements. Priorities from 1 (most important) to 4 (least important) are shown in the graphic to the right.

This survey tells us that the community's top concern is for the overall safety of the intersection.



[Click to enlarge](#)



Public Open House

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HOW ALTERNATIVES WERE DEVELOPED

The alternatives have been developed based on current conditions, forecasted traffic volumes, safety, driver delay, and public input. As part of the study, many different intersection designs were considered and evaluated. Based on the results of this analysis, the top three alternatives are now available for public comment.

Selection Criteria and Considerations

- Ability to enhance safety with lower predicted crashes
- Driver expectancy
- Future operations and delay
- Decreasing the speed differences between vehicles
- Environmental impacts
- Right-of-way requirements
- Ability to address current intersection concerns

The following alternatives are currently in DRAFT FORM and are subject to change. No alternative has yet been selected. Following this study, a design project will finalize the alignment and precede any planned construction.

How to Read the Alternative Results

Using data and industry best practices, each alternative was scored





COMMENT

Alternative #1 — No Build

If no changes are made to the intersection, operations and safety of the intersection will continue to decline. This alternative results in longer delay for drivers in the future (2045) and does not address any of the safety concerns noted during the first public input process. The current delay for drivers at the two-way stop is approximately 10-15 seconds per vehicle. If no action is taken, that delay will double in the future (2045) and will be approximately 30 seconds per vehicle.

Alternative Results

- Predicted Crash Rates*
- ↑ Future Delay Rates
- ✗ Property Impacts
- ✓ Truck and Freight Mobility
- ✗ Addresses Speeding Concerns
- ✗ Bicycle and Pedestrian Friendly

* Predicted crash rate higher than roundabout and all-way stop intersections (Alternative 2 and 3) and lower than a signalized intersection (not carried forward)

Legend

- Baseline for Comparison
- ↑ Undesirable Increase
- ↓ Desirable Decrease
- ✗ Not Present
- ✓ Present

Alternative #2 — Single-Lane Roundabout

According to the Federal Highway Administration (FHWA), roundabouts are a proven safety countermeasure that can reduce the number of crashes by decreasing conflict points, lowering speeds, and accommodating pedestrian and bicycle movements. The roundabout option lowers the delay for drivers at the intersection both today and in the future (2045) to less than 10 seconds per vehicle.



Benefits:

- The potential for serious injury and fatal crashes are reduced by 90% and head-on crashes are eliminated.
- Slower approach speeds for traffic.
- Allows for bike and pedestrian crossing.
- Curved approaches guide traffic so oncoming traffic only comes from one direction.
- Trucks and trailers can be accommodated.
- Driver delay is the lowest with this alternative.
- Does not require on-going maintenance like a traffic signal would.

Considerations:

- Roundabouts may be unfamiliar to new users, but single-lane roundabouts are easily learned.
- Right-of-way acquisition is required, however, all intersection improvements alternatives that realign the intersection will require some additional space.

Alternative Results

- ↓ Predicted Crash Rates*
- ↓ Future Delay Rates**
- ✓ Property Impacts
- ✓ Truck and Freight Mobility
- ✓ Addresses Speeding Concerns
- ✓ Bicycle and Pedestrian Friendly

*Lowest predicted crash rate of all alternatives.

**Lowest future delay rate of all alternatives.

Legend

- Baseline for Comparison
- ↑ Undesirable Increase
- ↓ Desirable Decrease
- ✗ Not Present
- ✓ Present

Alternative #3 — All-Way Stop Controlled

All-way stop controlled intersections are suited for low to moderate traffic volume intersections serving motorized and non-motorist trips. In stopping all vehicles, safety of crossings is prioritized over the speed at which vehicles are allowed to travel. Slower speeds going through an all-way stop control intersection reduces the likelihood of fatalities and severe injury crashes.



Benefits:

- Provides bike and pedestrian crossing.
- Reduces the speed of vehicles traveling through the intersection.
- Eliminates yielding and merge issues at existing merge point.
- Does not require on-going maintenance of a traffic signal.
- Reduces crashes by 48% compared to a two-way stop controlled intersection.

Considerations:

- Visibility for side-mounted stop signs on multilane facilities needs to be addressed; however, additional mitigation measures can be added to increase visibility such as advanced rumble strips, advanced signing, and LED stop signs.
- Individual vehicle delay may be greater.

Alternative Results

- ↓ Predicted Crash Rates*
- ↓ Future Delay Rates**
- ✓ Property Impacts
- ✓ Truck and Freight Mobility
- ✓ Addresses Speeding Concerns
- ✓ Bicycle and Pedestrian Friendly

*Predicted crash rates slightly higher than roundabout (Alternative 2) but lower than existing conditions (Alternative 1).

**Future delay rate higher than roundabout (Alternative 2) and lower than existing conditions (Alternative 1).

Legend

- Baseline for Comparison
- ↑ Undesirable Increase
- ↓ Desirable Decrease
- ✗ Not Present
- ✓ Present

Alternative #4 – Traffic Signal

This alternative is not being carried forward as the traffic volumes are not high enough to meet signal warrants.

According to the FHWA, traffic signals can help keep traffic moving smoothly. Traffic signals can help conflicting traffic streams share the same intersection, which can increase the number of vehicles an intersection can handle. While there are benefits for this alternative, the traffic volumes at this intersection are lower than the traffic signal warrants recommended by the MUTCD (Manual on Uniform Traffic Control Devices).

Benefits:

- Provides information to drivers with overhead traffic signals to direct traffic and provide for turn movements at the intersection.
- Provides bicycle and pedestrian crossing.

Considerations:

- The intersection does not meet signal warrants.
- Traffic signals have more conflict points than other alternatives, resulting in a higher predicted crash rate.
- Less delay for drivers than no-build, but more than roundabout and all-way stop.
- Increased delays for east and west movements.

Alternative Results

- ↑ Predicted Crash Rates*
- ↓ Future Delay Rates**
- ✓ Property Impacts
- ✓ Truck and Freight Mobility
- ✓ Addresses Speeding Concerns
- ✓ Bicycle and Pedestrian Friendly

**Predicted crash rate is similar to existing conditions (Alternative 1) and higher than all other alternatives.*

***Future delay rate similar to existing conditions (Alternative 1) but higher than all other alternatives.*

Legend

- Baseline for Comparison
- ↑ Undesirable Increase
- ↓ Desirable Decrease
- ✗ Not Present
- ✓ Present



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ALTERNATIVES FAQ

Why a roundabout versus a signal?

Were other alternatives considered? Why are they not included?

Can a roundabout accommodate trucks and trailers?

Will access to the Big Horn Y gas station change?



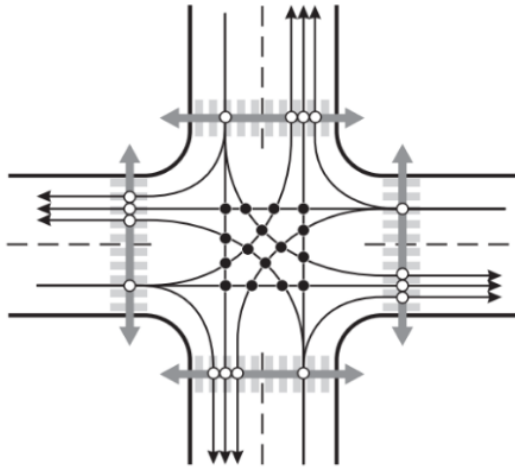
COMMENT

Why a roundabout versus a signal?

The roundabout alternative results in less driver delay than a traffic signal and less potential crashes. Conflict points refer to areas where vehicle/pedestrian and vehicle/vehicle crashes may occur due to paths of travel crossing. Additionally, crashes that occur in roundabouts are typically less severe than those that occur at a traffic signal. Roundabouts have significantly fewer conflict points, as shown below.

Four-Way Intersections

Four-way intersections have a high number of conflict points, as shown below.



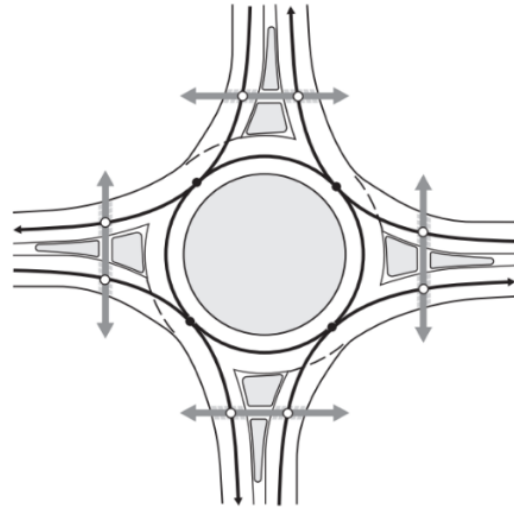
○ Vehicle/Pedestrian Conflicts (16)

● Vehicle/Vehicle Conflicts (16)

32 Total Conflicts

Roundabouts

Roundabouts have significantly fewer conflict points, as shown below.



○ Vehicle/Pedestrian Conflicts (8)

● Vehicle/Vehicle Conflicts (4)

12 Total Conflicts

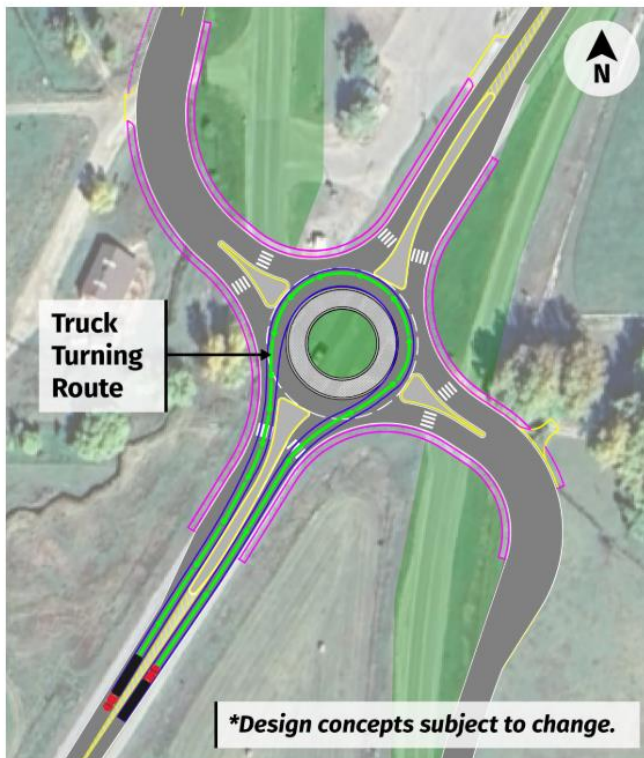
Source: <https://www.fhwa.dot.gov/publications/research/safety/00067/000675.pdf>

Were other alternatives considered? Why are they not included?

WYDOT studied a full range of traditional and innovative intersection solutions. They were ranked based on their safety, traffic operations, and driver expectancy. Those that did not rank highly in these categories were eliminated from further study.

Can a roundabout accommodate trucks and trailers?

Yes, trucks and trailers can travel through roundabouts.



Will access to the Big Horn Y gas station change?

Access to the Big Horn Y Gas Station will be maintained, and specific access modifications would be determined during the design phase.





Public Open House

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<https://us87intersectionstudy.com/#content/aided>



COMMENT

SURVEY

Thank you for taking the time to review the information in this meeting.

Survey Questionnaire

Alternatives

What are your thoughts and opinions on the Single-Lane Roundabout alternative (Alt. 2)? (i.e., Do you prefer this alternative over the All-Way Controlled alternative? What do you like/dislike about this option?, etc.)

What are your thoughts and opinions on the All-Way Stop-Controlled intersection alternative (Alt. 3)? (i.e., Do you prefer this alternative over the Single-Lane Roundabout? What do you like/dislike about this option?, etc.)

Do you have any thoughts you'd like to share with the project team?



Demographics

Why are we asking these questions?

It is important that public involvement opportunities are available to all people, and this information helps us assess our progress. These questions are optional and anonymous.

What is your age?

- ☐ Under 18
- ☐ 18-30
- ☐ 31-40
- ☐ 41-50
- ☐ 51-60
- ☐ 61-70
- ☐ 71 or older


What is your gender?

- ☐ Male
- ☐ Female
- ☐ Prefer not to answer

What is your employment status?

- ☐ Student
- ☐ Full-Time
- ☐ Part-Time
- ☐ Unemployed
- ☐ Retired
- ☐ Other

Are you a recipient of any government aid programs (SNAP, unemployment, etc.)?

Please Select 

Submit



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COMMENT

NEXT STEPS

Thank you for your input.

The study team has been collecting and analyzing the following:

Input collected through this online meeting and at the in-person public meeting on January 11, 2024 will be analyzed and taken into consideration as the study team develops a final report. Comments will be accepted until January 11, 2025.



Click to enlarge

If you would like to be notified of future public involvement opportunities related to this study, please provide your contact information below:

Stay Connected

Name:

Email:

example@example.com

Comments

Contact Information

Contact the Study Team

connect@BHSIntersectionStudy.com

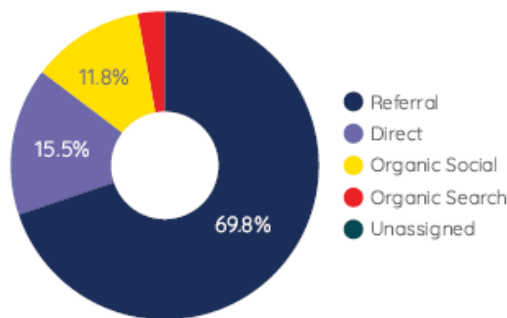
Online Meeting Website Analytics

Big Horn Y Online Meeting
Web Analytics

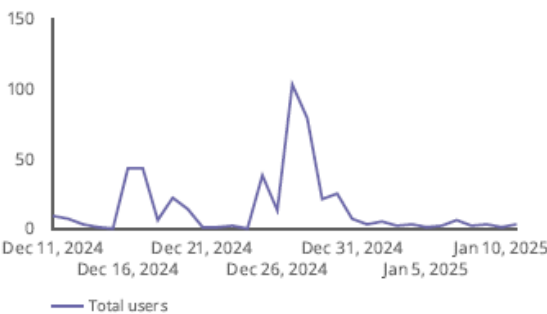
Dec 11, 2024 - Jan 11, 2025

Total users	New users	Engaged sessions	Views	Average Session Duration
426	412	245	570	00:01:42

Sessions by Acquisition Type



Users per Day



Referrals & Social Media Sources

Session source	Engaged sessions
1. sheridanmedia.com	163
2. lm.facebook.com	14
3. m.facebook.com	7
4. l.facebook.com	6
5. dot.state.wy.us	2
6. facebook.com	2
7. statics.teams.cdn.offic...	1

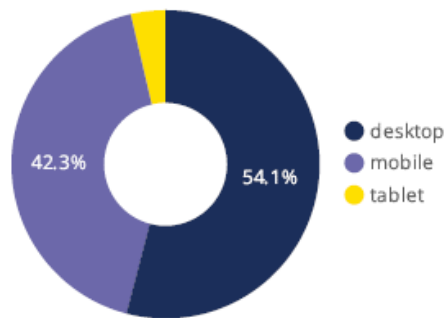
Sessions by Regional Cities (WY)

City	Engaged se...	Total users
1. Sheridan	107	170
2. Cheyenne	10	16
3. Story	8	22
4. Buffalo	3	10
5. Arapahoe	1	1

1 - 7 / 7

1 - 5 / 18

Sessions by Device Type



For a comprehensive glossary on Google Analytics definitions, [refer to this guide](#).

HDR traffic filtered from results.

Survey Themes

In total, 92 surveys were completed as part of the online meeting. The table below details common comment themes.

Comment Theme	# of Comments
Pro-Roundabout	53
Anti-Roundabout	31
Concerns about Land-Use/Need for More Lanes - Roundabout	5
Financial Concerns - Roundabout	6
Safety Improved - Roundabout	10
Confusion/Driver Adaptation Concerns - Roundabout	11
Improved Efficiency/Decreased Wait Times - Roundabout	18
Pro-All-Way-Stop	17
Anti-All-Way-Stop	50
Financial/Land-Use Concerns - All Way Stop	2
Increased Risk of Traffic Violations /Crashes - All Way Stop	9
Confusion- All Way Stop	3
High Traffic/Long Wait Times/Difficulty Using Roadway- All-Way-Stop	26
Visibility - General	4
Safety - General	7
Speed - General	25
Bike/Pedestrian Usage - General	4

Survey Questions and Answers

What are your thoughts and opinions on the Single-Lane Roundabout alternative (Alt. 2)? (i.e., Do you prefer this alternative over the All-Way Controlled alternative? What do you like/dislike about this option?, etc.)		
Best option	Waste of tax dollars	Love it
People don't know how to correctly navigate a 4 way stop in town this will be no different.	this is a waste of tax dollars and should not be a consideration in this rural locale.	Harder to navigate for some as the roundabouts and their exits can be confusing.
I prefer the roundabout as it would keep traffic moving but slow it down. It may take some reasonable time for drivers to adapt to a new situation but it can be done.	The single lane roundabout is a great option. Combined with a speed limit it will effectively slow down traffic. By far the best choice of the offered options.	Alt. 2 would create further issues and both all-Way and Alt. 2 would not be beneficial in addressing the issues, but create further issues.
Best alternative	Absolutely not. Expensive, ineffective, and unnecessary.	People don't understand roundabouts and could increase frustration

I favor this option over Alt 3 because traffic continues to flow. Other four-ways stops in Sheridan really back-up (e.g. Thurmond and Loucks). Roundabouts that have been installed in Northern Colorado work nicely (N. County Rd 19 and Owl Canyon Rd).	I live in Story and go through this intersection often. The merge from 87 is dangerous and because of the angle, difficult to see on coming traffic while in the process of merging. I would not mind a roundabout however because many people are not familiar with them, they are opposed.	I am in favor of a single-Lane Roundabout (Alt 2) traffic will continue to flow smoothly once people get use to the idea. I feel this is a better option than a 4 way stop because people tend to wave others threw these stops instead of going. It interrupts the flow of traffic.
This appears to be the best option of those listed	I am against the roundabout!	do the roundabout; looks like a no-brainer
I don't feel a roundabout is the best choice/alternative	NMO ROUNDABOUT. THEY ARE VERY CONFUSING	I prefer the roundabout over the all way stop alternative.
Makes the most sense, slows traffic but keeps it moving!	This is the best alternative.	I like this alternative...first choice
As a longterm resident of the big horn area, I believe a round about to be the best option. I have seen 335 go from a dirt road to a busy high speed thorough fare, as my children reach driving age I want a safer intersection for them and the others on the road. Teens and 55+ is a bad combination. Teens and icy roads with a stop sign or traffic signal seems worse.	I like roundabouts as a rule, they keep traffic flowing smoothly and reduce wait times significantly. However I am concerned about the amount of land required to add a roundabout to a location, and I would hope and strongly recommend that this option only be pursued with the full approval and appropriate compensation of all affected landowners.	Prefer this alternative over others. Powder Horn and Big Horn folks may become agitated since they wouldn't have a straight shot any longer. (Too bad!) Will need to actually pay attention at what's happening as they traverse the intersection. Can this be designed to accommodate a future double-lane design?
I absolutely despise roundabouts!! The people that do not obey the rules now will still not with that waste of money and time.	I think this is the best option. It will keep traffic flowing better than all way stops. I really like the roundabout option as I will feel much safer going through the Y.	I do not care for roundabouts. I believe in the end, this will cause more confusion and delay. Currently 10-15 second wait time is not a problem.
I like roundabouts	noway	Roundabout is a good idea
I believe a roundabout is the best alternative to what is currently in place there	This is my preferred option, they seem to work well where I've used them	I do not care for this, although it could help those traveling east/west
I would rather see nothing done than a roundabout.	Single lane for trucks with trailers is dumb	NO NO NO . Unsafe, hard to know what to do
I prefer the roundabout concept. It also saves fuel.	Prefer Roundabout. Easy to use, slows traffic, keeps traffic moving	I think the roundabout is the best way as the flow of traffic will not stop
prefer the roundabout	I don't like roundabouts	No
I have used single lane roundabouts in other places.	I like the roundabout option best. It has the best options for	I prefer the Single-Lane Roundabout - it will make the

They are intuitive to use, speed traffic flow and reduce crashes. Win-win-win.	safety and time restrictions. I do not like the traffic signal option, as it makes no attempt at controlling people who ignore the light.	intersection safer during busy periods but not disrupt traffic during slow periods
I would like to see the numbers on putting the road back to the original design and installing the stop sign back on the highway from Big Horn. If that is not comparable safety wise then the roundabout is probably the best option unfortunately.	The Roundabout is my preferred choice, for a very simple reason. Stopping traffic flow is not efficient. The roundabouts are in heavy use in high traffic areas in Billings Mt. They work, traffic moves, stopping at a All-Way stop just to stop is not logical.	Of all of the options, I believe that this one is the best. People in Sheridan aren't used to this type of traffic control, however once they become accustomed to it, they will become more favorable. Many also have some limited exposure, with West Billings, so adoption may come faster.
I like the roundabout option. I think they work well in Billings and are safer than all way stops.	Yes please. Eases flow of traffic! 87 is the highway and never should have been changed to begin with	I think this would be fine - so long as pickups with 40' trailers can maneuver safely
A roundabout would add confusion and more accidents	Roundabouts are significantly better than the other controlled alternatives.	This does not seem like an environment where a roundabout would be the best solution.
Would prefer this alternative.	roundabout best	No
nor a good option. Alt #2. Gov fasting	Terrible idea. Completely dislike.	I do not like the roundabout option
Roundabout - less maintenance and efficient	NO - WE DO NOT NEED TO SPEND THAT KIND OF MONEY	I do not support the Roundabout option over a 4-way stop.
This looks to be far and away the best alternative. No stopping and waiting.	The Roundabout option is completely misguided and not fitting for the situation.	I prefer this over Alternative 3. Roundabouts are an efficient means to maintain traffic flow.
I would not be in favor of a single lane roundabout. They are confusing to anyone, particularly tourists or people not used to using them.	This is the best alternative. T-bone and head on accidents are eliminated and there is less indecision about what the other vehicle is going to do.	I prefer this option to control traffic. Having used them in several other cities i find it to be the most logical option for this intersection.
Keep it the way it is.	round about is the answer	I prefer a Roundabout.
Preferred choice	Roundabout preferred over all-way	I like the roundabout alternative the best.
It keeps people moving, and that is good. It is the best option. Does not use up too much more private property.	Roundabouts work very well, the ones I've experienced. Also, if there is a crash they are less severe - not head on crash.	Single-Lane Roundabout is probably the best solution. Smooth and will address conflict issues.
I do not support a single lane roundabout. I think it will be difficult for people hauling large campers, horse trailers and for semi tractor	roundabouts are the most effective to keep traffic flowing but they need reduced speed to ensure safety because speeders will create	

trailers to navigate. I would support an All-Way controlled alternative.	problems for people turning when they fail to yield right of way.
The single-lane roundabout alternative is almost certainly the best option. It decreases wait times at intersections when there is little traffic when compared to the all-way controlled alternative, while also increasing safety for drivers/pedestrians coming to the intersection from all directions. The roundabout also offers less confusion to drivers over a four-way stop as there is only one direction of traffic flow to check before proceeding into the roundabout.	

What are your thoughts and opinions on the All-Way Stop-Controlled intersection alternative (Alt. 3)? (i.e., Do you prefer this alternative over the Single-Lane Roundabout? What do you like/dislike about this option?, etc.)		
All-way stop would be good but it would slow traffic down substantially. Although that would help lesson encounters with wildlife.	The 4 way stop option will just create more congestion & traffic jams for cars entering & exiting the Big Horn Y	This is a better choice than the roundabout. However, in the presented design the access of 332 is taking more land than necessary--cost.
If they can't merge from 87 to Coffeen then they won't be able to handle a roundabout.	All way stop would drastically slow traffic flow. Not good for now or the future.	I think this is a good option but I think traffic will flow better if roundabout is utilized.
worst option	no	No
I think this would frustrate many folks	More common and easier to understand and navigate.	all-way stop is inferior to roundabout; drop it
If the choice is between this and a roundabout, then this. But this is inefficient and also unnecessary	No, I prefer Alt. 2. Traffic can really back up at four-way stops as people try to figure out whos turn it is.	I prefer this method the most. There would need to be a change in speed limit on the road.
YES. I THINK IT IS THE BEST ANSWER NEXT TO STOPLIGHTS	I completely feel that Alternative #3 is the best choice.	I dislike this and it would create a disturbance in the flow of traffic.
Much better option, have to also have slower speed limits, no matter the option.	Dont like this idea..one person runs the stop sign and you have a high speed T-bone.	I do not think a 4 way stop would benefit anyone and create further traffic congestion
As a user of the road, it appears that there is unbalanced traffic and therefore the traffic conditions do not meet warrants for an all way stop controlled intersection per the MUTCD.	I prefer the two stop signs. I would especially like the removal of the merge lane! in my opinion it is extremely dangerous!	I feel like this would lead to more backed up traffic. Especially with the Gas station entrances so close to the intersection.
noway	Don't like this	Second best choice
I would rather see nothing done than a four way stop.	This option without a light is ridiculous	do not prefer the all way stop option
Don't like all stop sometimes little traffic on side roads and full stop puts side roads as same priority as main highway	I do not believe this is a reasonable solution for a busy highway such at HWY 87. This will not alleviate the issue of	All-Way Stop-Controlled would be safer than current intersection but too disruptive during slower periods

	visibility from the Big Horn Y or Maverick Lane.	
Too much traffic there for a four way stop.	I don't like alt 3 either. Leave the Y the way it is.	No, impedes travel times for commuters.
Roundabouts are easier to negotiate than 4 way stops.	Second choice well behind the roundabout.	All way stops are too easy to miss and will cause backups.
I think people will run the stop sign and that's more dangerous than the roundabout.	Dont' like. Roundabout is better as it keeps traffic moving	terrible idea to have a stop as i believe it will cause rear end crashes
No	This is a recipe for disaster.	Hate the all way stop!
Prefer	not preferred.	not best.
I do not prefer this alternative as it leads to certain wait times for drivers coming from all directions even in the event of no traffic, and poses more confusion to drivers in high traffic situations than a single direction of travel roundabout would.	Absolutely NO! this will only increase the worst of the current problem which is people entering from east with their need to be in front of north-bound traffic. they seem to think that "merge" sign means stomp on the throttle.	Probably the most inefficient alternative offered. The goal in making changes to traffic patterns is not to see how many times we stop them, but rather to make the most productive changes to keep traffic MOVING.
Dislike due to the stopping and starting aspect, more room for driver miscommunication and accident	I don't like that proposal, as there is no provision for controlling someone who ignores the light.	There is nothing that I like about the roundabout. I am thinking about the majority of the population. It would not work
Would not prefer this. Having to slow down from 55mph to a stop is not desirable.	I would be in favor of an all way stop over the roundabout. They work and slow up traffic.	Not preferred, roundabout moves traffic quicker once the community gets comfortable with them.
Better, but no stop signs on highway 335	An all way stop is likely better than the roundabout.	I would prefer the all way stop option
I support a traffic light, but since you proposed an option that wasn't viable to begin with, then lets shoot for the 4-way stop please.	An all way stop is a better option than the round about. Why don't you decrease the speed limit to 30 on 87 & 335 and keep the current stop signs	I do not prefer this option. Do not think a full stop is necessary at this location and the round about will smooth traffic flow better.
Do not prefer this alternative. Would seem to back up traffic during busier times. Lots of starting/stopping and rear end collisions.	All way stop is the best way to slow down traffic but traffic enforcement will be important on all options because we have all seen the 60 and 70 mph drivers	This is a nuisance especially at low travel times, and stop signs in remote areas of Wyoming are sometimes ignored as there is no enforcement. The structure of the roundabout forces enforcement.
Keep it the way it is.	No	Roundabout
I think the All-Way Stop-Controlled alternative is the best solution and would be the	This would be terrible for several reasons. People already have a hard time with a simple	Good luck! Anything will be better than the dangerous situation we have now. I've

easiest to navigate. At some point a traffic signal will be required at this location at the population continues to grow. When it is time for a traffic signal to be installed, the intersection will already be configured to easily put in a traffic signal. Let's try to be forward looking in this project and prepare for the future.	4-way stop, adding in all those turn lanes is going to turn this in to a nightmare at peak times. And are there going to be flashing lights that let you know there is a stop to further disrupt the rural darkness? This will create new problems. And it requires too much adjacent private property.	seen the public outcry and resistance in other places when roundabouts are put in. It takes a while but people get used to them in time and shut up. They are used extensively in Europe and make sense to me, slowing traffic but keeping it moving, no worries about power outages and maintenance of traffic lights.
NO - NOT WHEN THE PROBLEM IS ONLY CERTAIN TIMES OF DAY	No, people in this county don't know how 4-way stops work.	I think would slow traffic more than needed
All-way stop would be very unnecessary when travels are low.	I prefer the single lane roundabout. Drivers tend to run stop signs or ignore the rules.	I don't like this option nearly as well.
Would slow traffic too much	i do not like this idea	Roundabout is better.

Do you have any thoughts you'd like to share with the project team?		
a 45 mph speed limit should be enforced immediately nearing & through the intersection.	Roundabouts are poor traffic control choices in rural areas."	North end of the single merge lane.....simply installing a stop sign would help immensely.
Go back to the design board. Leave it as it is for now. DROP THE OVER EMPNASIS ON PEDESTRIAN AND BIKE TRAFFIC. They are nonissues in this locale.	Thank you for reading my input and considering the All Way-Stop Controlled Stop signs. If you have any questions feel free to contact me .	A roundabout will cause a bit of initial grumbling from some folks I suspect. Over time everyone will get used to it and I think it will save lives.
In summary: anything that would slow down traffic and make the intersection safer. Such a big increase of traffic since the last 15-20 years. Current sitaution at this intersction is very outdated and dangerous.	"This intersection should be a significantly lower priority than the Big Horn Ave/Brundage Lane intersection. At the minimum, that should be a 4-way stop. Ultimately, it needs a stoplight. But not a roundabout.	However, I feel the best choice would be a 4 Way Stop Sign at the area at the Big Horn Y. That would hopefully force people to slow down/stop and alleviate some of the issue of speeding and vehicles not slowing down or yielding at that merge lane.
I do not like either alternative. What we need is for people to obey the laws that are in place if that means placing an officer or two at that intersection for a while then do so. Don't pull out unless you have adequate room and learn to merge. And the gas station needs to deal with their sign. The base is too close to	Something needs to be done. Traffic flows anywhere from 40-60 mph. People come flying onto the highway from story. The big horn y gas station has access that is not safe. Their entrance needs to be changed to allow people to properly slow down and have a turning lane. Coming down from Big	"As a long time resident of Big Horn (since 1992), I feel that the choice of Alternative #3 would be the best solution. I've observed a lot of vehicles through the years that are coming from Hwy 87/ Story that fail to slow down and/or yield as they're coming from that direction and heading to

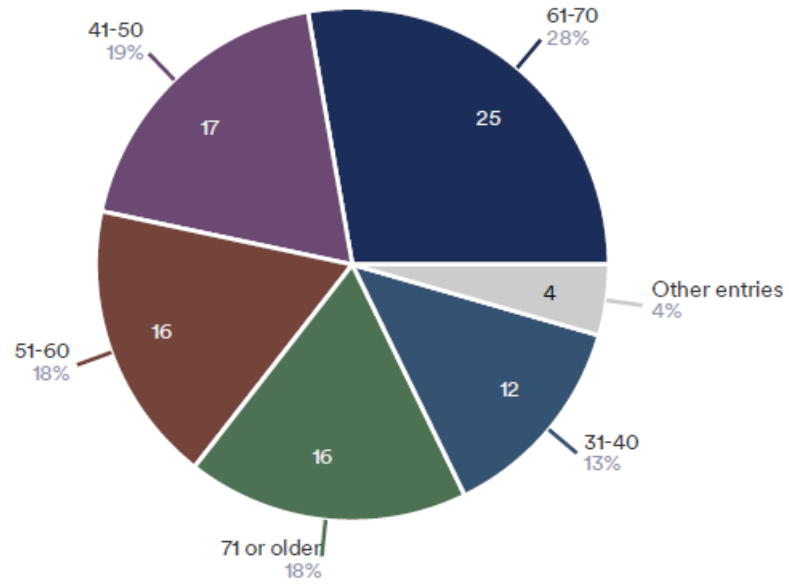
the road and is huge. You cannot safely see past it. I feel this also contributes to people just going when they come to a stop at the intersection.	Horn Ave, turning towards Big Horn, has a blind turn with limited view. This area is very scary driving especially knowing my kids drive that intersection multiple times each day.	Sheridan onto Coffeen Avenue. Coming from Big Horn the speed limit is 55 mph (I'm not sure what the speed limit is on Hwy 87) and it is crucial to watch for the traffic coming from Hwy 87/Story direction.
With all the new homes built in Big Horn the sheer number of vehicles traveling Hwy 335 has increased dramatically. I live just down the street from this intersection and there are times when the traffic is so heavy I have to wait several minutes to pull out of my driveway. If you change to either alternative route during peak times you will have traffic backed up so far that it will impede on us that live on these roads. Traveling Coffeen Ave to 335 and reversed I have experienced several occasions where I have passed a string of a dozen or more vehicles traveling together going the opposite way. Approaching that intersection with either alternative will result in a lower speed limit which in return will cause traffic to back up even more so.		
Bike ramps would be my recommendation."	"thanks for your work so far	the bighorn y is so dangerous
Go with the roundabout	let's put in the roundabout asap, save lives and injuries"	I like this format for collecting feedback.
I do not see either of these solutions alleviating the issues of visibility which are most notable at the Big Horn Y station and from Maverick Lane. The highway intersection is not the issue. These 2 approaches are the problems.	Either leave the intersection the way it is or add a roundabout. A 4 way stop would not work well in my opinion. People in this town do not know how to drive. Even though they are trying to be polite, they confuse everyone else at the intersection. Thank you for your time.	I do not like this, as traffic will likely get backed up during peak hours. A good example of this is the corner of Loucks and Brooks or Dow and Brooks. This alternative is better than doing nothing, however.
"Please consider adding a bike entrances and exits to sidewalks before roundabout. This would make the sidewalks multiple use for more than just the crossings. This would allow bikers to get into a safe zone quicker and not have to bike all the way down into the intersection to reach the crosswalk ramps.	I don't mind the intersection as is. I have never had an issue with approaching the intersection from every direction and I personally don't think it's a problem. The people who don't know how to drive properly are the problem, and unfortunately one encounters them at every intersection in town. You can't limit the idiots unfortunately.	Would it be possible to move the bike crossing to the west on girls school road? perhaps 100' west of the intersection. I would also like to see speed reduction on 287 approaching the yield intersection immediately.
Not enough traffic for a light system? I guess we will never see lights on the interstate off ramps by Maverick also. Wow	Appreciate the study and opportunity to comment. Use the intersection every day!	make it was in 1985. stop at junction or take big horn ave. no need to widen coffeen ave.
"Roundabouts work, go to the west end of Billings Mt. Very	the road to Big Horn as the secondary. That is what	Don't be afraid to put a roundabout in, the good people

high traffic numbers and traffic keeps moving.	worked for years with very little problem that we know of.	of Sheridan County will figure it out."
It should have never been changed just because money wanted it.	What are the impacts during construction? Will traffic be re-routed and if so how and where?	I think you are wise to proceed slowly with a new idea and wait for the buy in from the public
A modified traffic light approach could be the "R Intersection" such as is used in other states. I have seen them in Bexar County Texas on a very busy road and they seem to work well.	Roundabouts are a proven remedy. If possible, give facts about accident reductions on other similar constructed roundabouts.	The roundabout should be put in ! Its the best of the options. Although putting it back to how it used to be is best! Why should hwy 87 be interrupted at all!
Our oldest grandson is 19 years old and I remember years ago when he was about 3 years old and was in his car seat in the back seat passenger side in my Yukon and we were heading to Sheridan from Big Horn. There was a vehicle coming from Hwy 87 and entering that merge lane. They did not slow down or yield to my vehicle coming from Big Horn. I had to lay on the horn and they finally slowed down a little. Obviously, it really scared me with my precious grandson in the back seat.	I would like to see the traffic data, especially the crash data and how many injury accidents have occurred and how this intersection compares to the statewide average for accidents with injuries. Without seeing the traffic report, my preference is to do nothing. The single lane roundabout is probably the only viable solution if an improvement is warranted. I do wonder if the funds for this project could be utilized at another location that has more accidents or even fatalities.	I just heavily favor the roundabout proposal over the traffic light or stop sign ideas. I experienced roundabouts in Florida before I moved here in 2005, and they are great for allowing continuous flow. Billings is experiencing them now on Shiloh road west of town. And it is easier than the light controlled intersections everywhere else. There is a valid reason for Europe, primarily Great Britain to be leading the way in roundabouts.
Either a roundabout or a 4 way stop would be idiotic. This is the best you could come up with? How about simply reducing the speed limit prior to the Y in all 4 directions. I travel this way every day. I hardly ever see bikes nor pedestrians. I always reduce my speed when approaching the Y as 55 is too fast there. Speed should drop down to 45 in all directions prior to the Y. The most fearful I am of the intersection (I come from Knode Ranch) is the idiots merging on to North bound 335 from 87. These people hit incredibly high speeds while merging and don't really merge. They force their way in to 335 and quite a few times immediately turn into the Gas Station. Forcing the North bound 335 traffic to stop for them. Perhaps a county sheriff there in the morning could curb some of this and establish new behaviors? Or perhaps extend the merge lane so it is well beyond the gas station? I would also remove some of the obstacles the Gas station has along 335 so people coming off Big Horn Road (332) going South can better see the 335 Southbound traffic coming at them and be able to make better choices. Don't fix what isn't broken, simply enhance what exists. Reduce the speed in both directions on 335 and the merge lane, then extend the merge lane or consider removing the merge lane altogether and have 87 traffic stop as well. But keep 335 moving because there is more and more traffic on it as Powder Horn and Big Horn continue to build.		
I don't believe the existing layout is a problem big enough	Also need to slow down traffic in this area and having people	"The road needs to be returned to the original with Hiway 87 as the main highway and

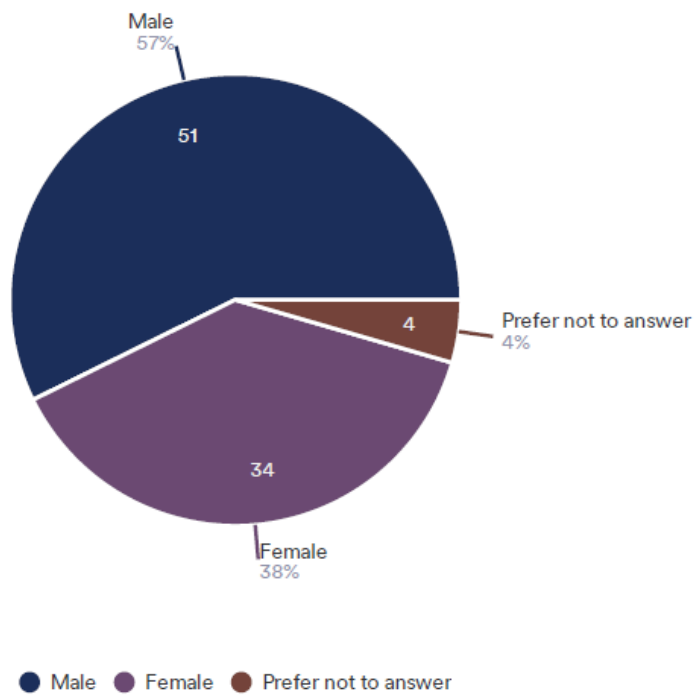
to warrant the significant expense of changing it.	come to a complete stop would accomplish this.	
I drive this intersection multiple times a day commuting from Big Horn. The problem is people can't drive. They don't know how to merge, they think the speed limit is 45 heading south to this intersection. The people turning on to 87 going to Story slow down in front of the Y before merging to the turn lane causing a slowing and possible fender benders. I have also had someone turn right in front of me heading to Story. I think the roundabout is the best way to go, but the real problem is dumb drivers and I imagine there will be many struggles initially. I wish we could turn all the 4 way stops in Sheridan to roundabouts because nobody pays attention and then there's always waving or delayed reaction. My biggest concern with this project is how this will affect Bonnie Wallace and the Y. She is a staple to Big Horn and I hope you consider consulting with her about the traffic flow and needs of her business. Thank you!!!		
I would like the statistics on how many accidents have occurred at the Y?	the yield decreases the most dangerous intersection in the county.	Put it back to the way it was. Northbound traffic on 335 yields to traffic from story.
Alt 1-No Build is my preference.	Again, a roundabout would be a disaster"	My opinion is Alternative #1, no build. This is not an issue.
We need to have more roundabouts and this is a good place to start. Folks will come around to it eventually. We need to have a proactive traffic management approach to deal with the increasing number of tourists and transplants that drive twice the speed limit because the place they came from just makes more lanes and bigger intersections and it doesn't solve the actual problem.		
I drive a lot in California which has added roundabouts to nearly every intersection feasible, and the traffic flow is immensely improved.	options 2 and 3 would both be an improvement but enforcement of traffic regulations is needed desperately	I am glad to see a roundabout is being considered. They work well in intersections with similar traffic rates, even high rates, in other cities.
It seems like the best solution would be to decrease the speed limit to 30 and leave the 2 stop signs like they are. The total reconstruction of this intersection to benefit the inconvenience of a few seems like a waste of funds. The "dangers" are completely overexaggerated.	SLOW DOWN THE TRAFFIC NO NEED TO BE 55 MPH ESPECIALLY WHEN 1/2 MILE TOWARDS TOWN ITS 45 WHY SPEED IT UP GOING INTO A DANGEROUS INTERSECTION? CHANGING SPEED LIMIT SIGNS IS THE MOST COST EFFECTIVE AND WOULD REDUCE THE HAZARDS.	As the intersection is currently, drivers have to swivel their heads at an impossible angle to check for southbound traffic from Big Horn. The large curve could be straightened a bit. It's especially risky in winter.
My hometown has the first roundabout installed in my home state due to a unique 5-way intersection, and it allows traffic to flow smoothly even when cars are approaching from multiple directions at once. I think that there is a slight learning curve for those new to roundabouts, but after a few times driving through one, they become second nature and easy to navigate. The locals in my hometown appreciate not having to wait at stop signs or traffic signals, and the roundabout eliminates much of the confusion that used to be present at the 5-way intersection.		
There is not a north/south visibility issue. Completely removing the single merging lane (would be a huge improvement)and possibly moving the stop sign slightly	Another more beneficial alternative would be reducing the speed from US 87 from 55 mph to 45 mph. This would allow traffic from US 87 to	I've been driving through this intersection daily for 24 years and knowing the local traffic and drivers I would bet money that a roundabout would cause as many "close calls" as we have

<p>south so it is off-set from Big Horn Avenue may help. Lowering the speed limit at the initial intersection may help also. Forcing traffic from the east to stop is the better thought.</p>	<p>reduce their speed and merge safely onto US 335.</p>	<p>now. A traffic light is inevitable in the long term with current population growth rates, but if "current" traffic volume can't justify a 4-way light, let's opt for the best alternative: A FOUR WAY STOP. Thank you!</p>
<p>Get rid of all of the out-of-staters that have moved to Sheridan and ruined the area and A LOT of the local problems will be solved</p>	<p>Did you obtain any data that a stop signs would work? The speed limit to Big Horn is too fast, and dangerous, especially with all the deer in the area."</p>	<p>Please let WYDOT know a stoplight at Brundage and Bighorn would be greatly appreciated.</p>
<p>There are 2 Yield signs on that area that merges onto Coffeen Ave. When a vehicle gets to that 2nd Yield sign and is about to merge, it's very difficult to crank your head enough to look and see what traffic is coming from Big Horn. My husband and I drove onto Hwy 87 and then took the merge lane to get onto Cofffeen Ave the other day to see how it felt to try to look again at the traffic coming from Big Horn. If that merge lane was straighter so a person wouldn't have to crank their head so much it might help.</p>		
<p>Roundabouts can be so confusing, especially for older drivers as Wyoming does not have these everywhere. There would be confusion over who gets to move and who doesn't. You must keep in mind we in Wyoming are an aging population, and to say, well don't let them drive anymore if they can't follow directions. What about a Stop sign on the road coming from Story and to Story. That would stop one direction and cause them to make sure the way is open to proceed. It doesn't have to be complex.</p>	<p>Main issue for me -vehicles traveling north (towards Sheridan) from Bighorn and Story that want to turn left into the gas station need to have a merge lane or something that allows them to get out of way of vehicles traveling behind them. Definitely would help traffic flow going towards Sheridan. Or come up with a different alternative of accessing the gas station. The gas station access is the biggest problem at the intersection as for traffic flow.</p>	<p>Yes. 1) Please spread the acquisition of land evenly so no one landowner is overly impacted. 2) Also suggest lowering the overall speed limit from Woodland Park all the way to Big Horn on Highway 87 to the Y and from the Y along 335 to 45 MPH. So dangerous for many of us to cross or access the road. This is especially a concern during rush hours. 3) Can the county impose a ban on "jake brakes," near this intersection? It is noxious to the nearby homeowners. Thanks.</p>

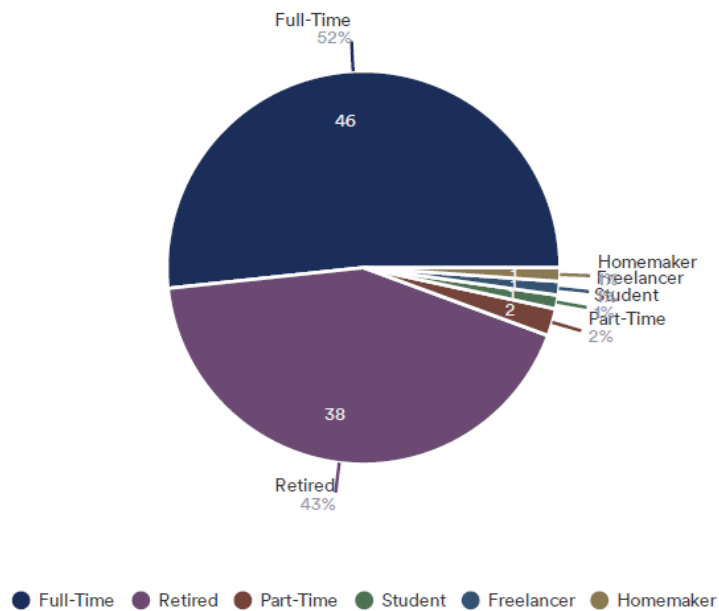
What is your age?



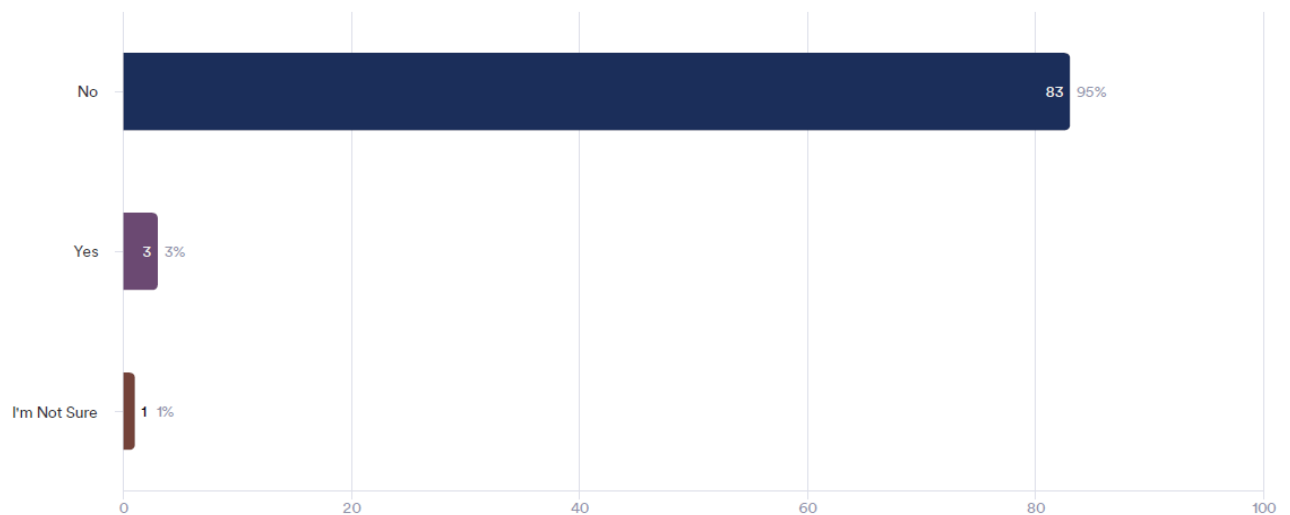
What is your gender?



What is your employment status?



Are you a recipient of any government aid programs (SNAP, unemployment, etc.)?



Appendix E.

Speed Study Forms

SPEED STUDY

Wyoming Department of Transportation

CITY: Sheridan

SPEED LIMIT: 55 MPH

OBSERVER: 0

#####

COUNTY: Sheridan

DIRECTION: SB/NB Comb.

START TIME: 1:54 PM

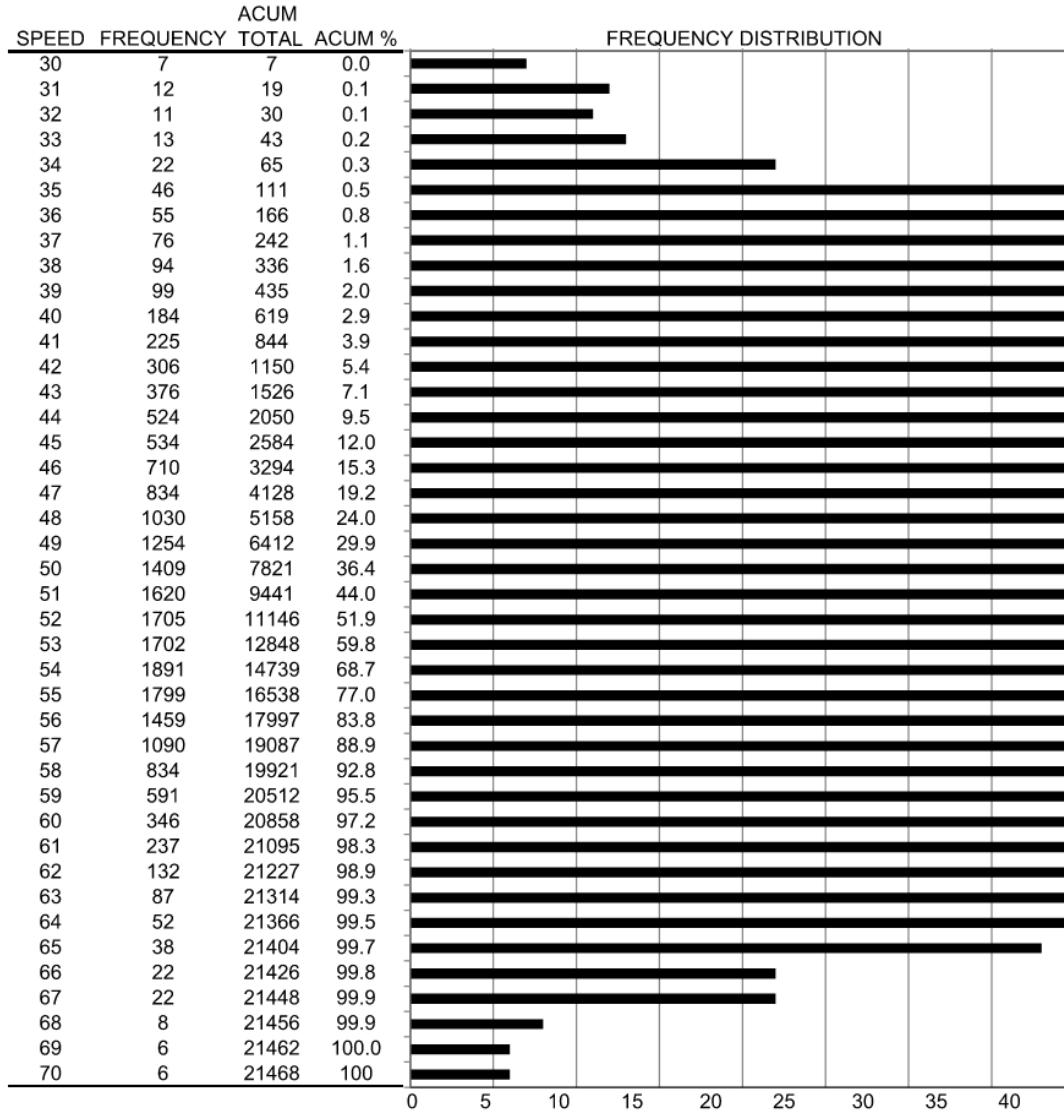
END TIME: 1:46 PM

ROUTE: WY 335

LOCATION: SW of Big Horn Y

WEATHER:

COMMENTS:



AVERAGE SPEED = 51.7

50th PERCENTILE = 52

67th PERCENTILE = 54

85th PERCENTILE = 57

95th PERCENTILE = 59

PACE SPEED = 48 to 57

VEHICLES IN PACE = 14959

% IN PACE = 70

% BELOW PACE = 19

% ABOVE PACE = 11

STANDARD DEVIATION = 5.23

% EXCEEDING POSTED LIMIT = 23

RECOMMENDED SPEED LIMIT = 55

SPEED STUDY

Wyoming Department of Transportation

CITY: Sheridan

SPEED LIMIT: 55 MPH

OBSERVER:

DATE: 3/11/24 - 3/15/24

COUNTY: Sheridan

DIRECTION: Southbound

START TIME: 1:54 PM

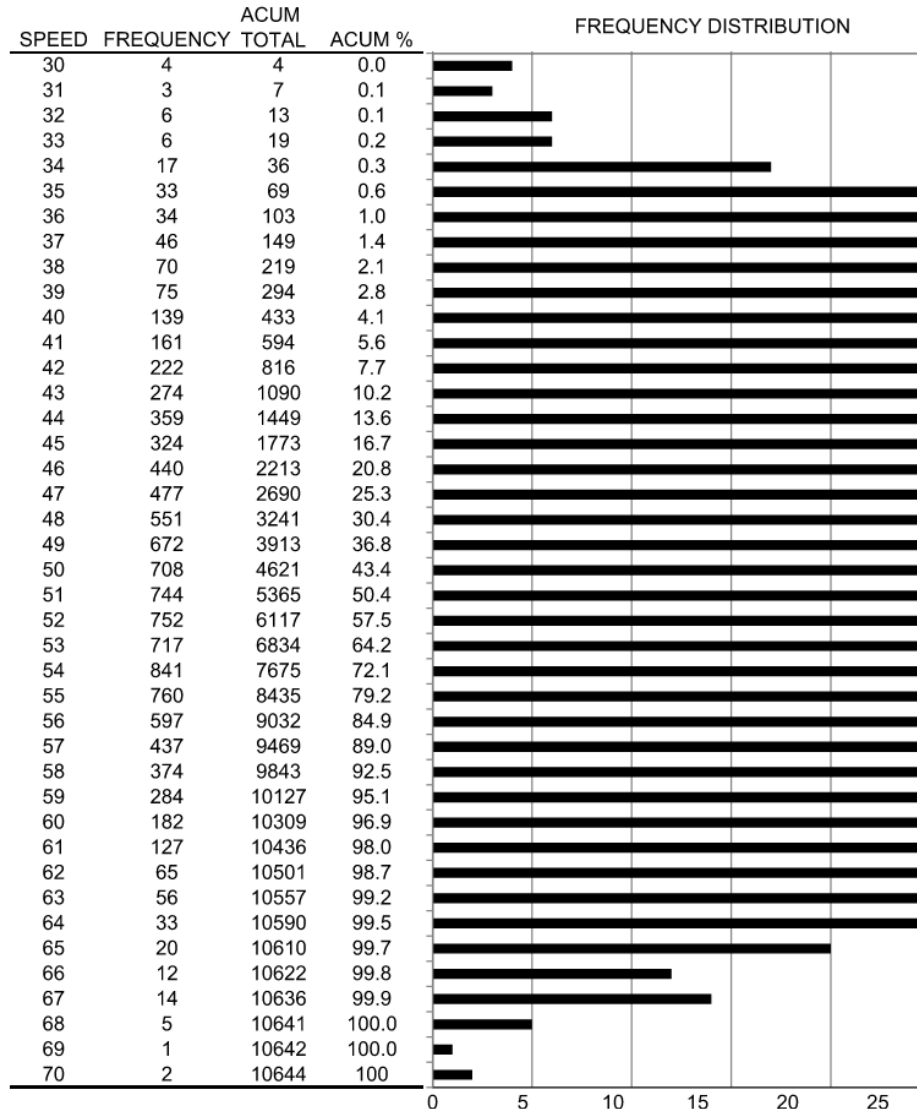
END TIME: 1:46 PM

ROUTE: WY 335

LOCATION: SW of Big Horn Y

WEATHER:

COMMENTS:



AVERAGE SPEED = 51.0

50th PERCENTILE = 51

67th PERCENTILE = 54

85th PERCENTILE = 57

95th PERCENTILE = 59

PACE SPEED = 47 to 56

VEHICLES IN PACE = 6819

% IN PACE = 64

% BELOW PACE = 21

% ABOVE PACE = 15

STANDARD DEVIATION = 5.62

% EXCEEDING POSTED LIMIT = 21

RECOMMENDED SPEED LIMIT = 55

SPEED STUDY

Wyoming Department of Transportation

CITY: Sheridan

SPEED LIMIT: 55 MPH

OBSERVER:

DATE: 3/11/24 - 3/15/24

COUNTY: Sheridan

DIRECTION: Northbound

START TIME: 1:54 PM

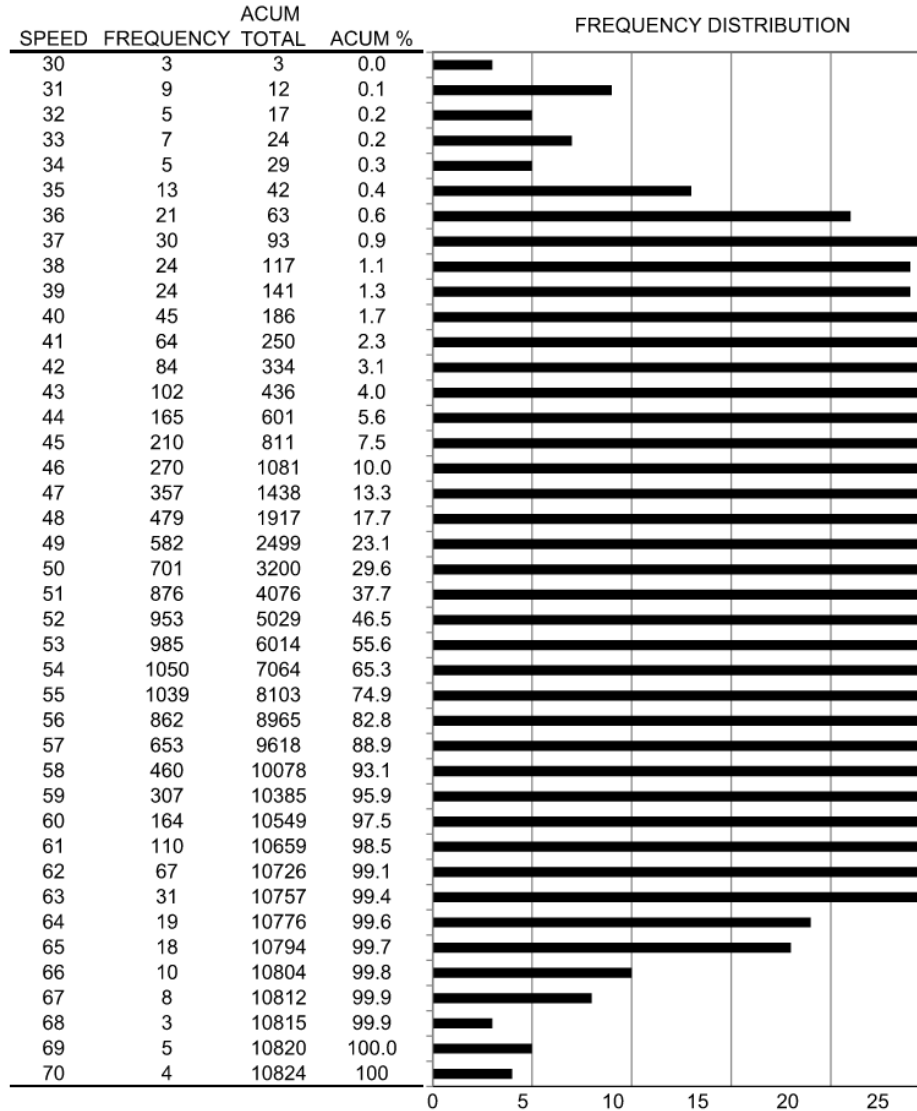
END TIME: 1:46 PM

ROUTE: WY 335

LOCATION: SW of Big Horn Y

WEATHER:

COMMENTS:



AVERAGE SPEED = 52.4

50th PERCENTILE = 53

67th PERCENTILE = 55

85th PERCENTILE = 57

95th PERCENTILE = 59

PACE SPEED = 48 to 57

VEHICLES IN PACE = 8180

% IN PACE = 76

% BELOW PACE = 13

% ABOVE PACE = 11

STANDARD DEVIATION = 4.71

% EXCEEDING POSTED LIMIT = 25

RECOMMENDED SPEED LIMIT = 55

CITY	Sheridan
COUNTY	Sheridan
ROUTE	WY 335
LOCATION	SW of Big Horn Y
POSTED SPEED LIMIT	55
LOWEST SPEED RECORDED	30
HIGHEST SPEED RECORDED	70

COMMENTS

DIRECTION 1	Southbound
OBSERVER	
DATE	3/11/24 - 3/15/24
START TIME	1:54 PM
END TIME	1:46 PM
WEATHER	

DIRECTION 2	Northbound
OBSERVER	
DATE	3/11/24 - 3/15/24
START TIME	1:54 PM
END TIME	1:46 PM
WEATHER	

NUMBER OF OBSERVATIONS AT SPEED PER
DIRECTION

SPEED	Southbound	Northbound
30	4	3
31	3	9
32	6	5
33	6	7
34	17	5
35	33	13
36	34	21
37	46	30
38	70	24
39	75	24
40	139	45
41	161	64
42	222	84
43	274	102
44	359	165
45	324	210
46	440	270
47	477	357
48	551	479
49	672	582
50	708	701
51	744	876
52	752	953
53	717	985
54	841	1050
55	760	1039
56	597	862
57	437	653
58	374	460
59	284	307
60	182	164
61	127	110
62	65	67
63	56	31
64	33	19
65	20	18
66	12	10
67	14	8
68	5	3
69	1	5
70	2	4

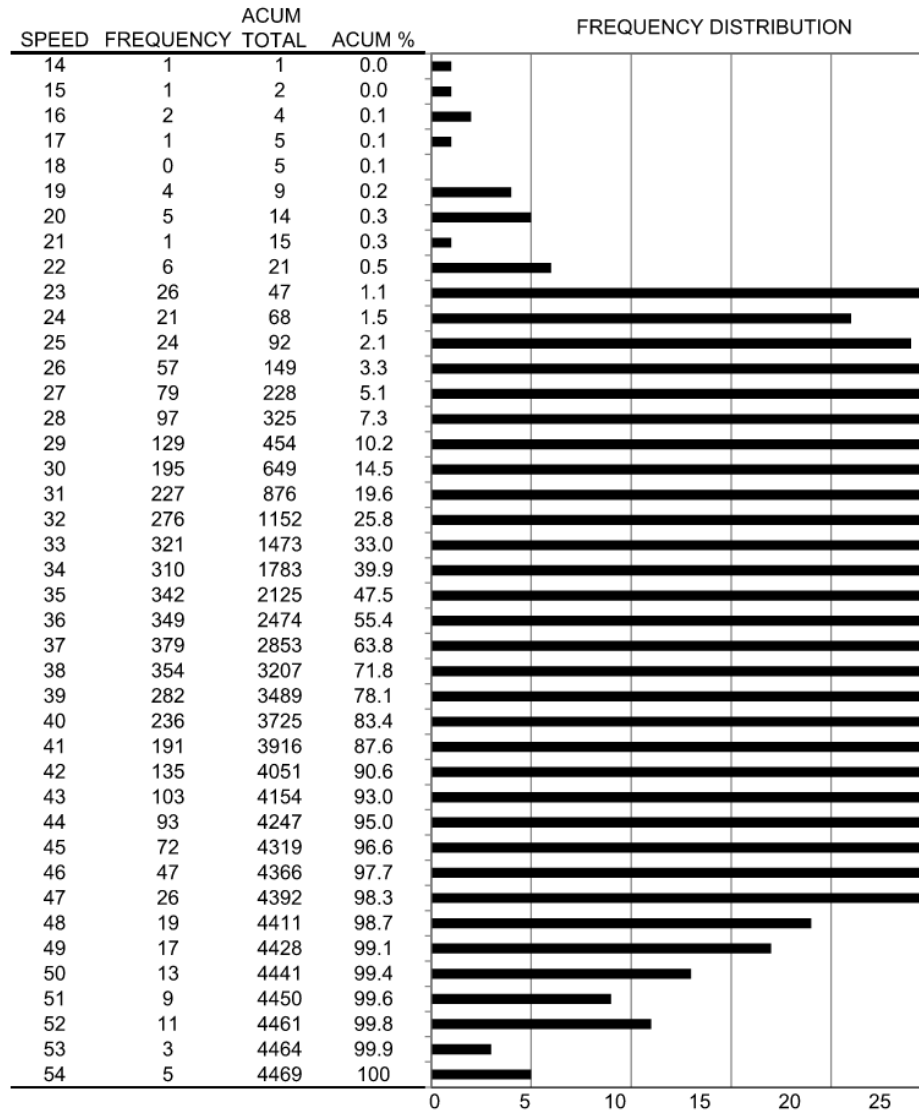
SPEED STUDY

Wyoming Department of Transportation

CITY: Sheridan
 SPEED LIMIT: 30 MPH
 OBSERVER:
 DATE: 3/11/24 - 3/15/24

COUNTY: Sheridan
 DIRECTION: Northbound
 START TIME: 1:54 PM
 END TIME: 1:46 PM

ROUTE: WY 332
 LOCATION: North of Big Horn Y
 WEATHER:
 COMMENTS:



AVERAGE SPEED = 35.8
 50th PERCENTILE = 36
 67th PERCENTILE = 38
 85th PERCENTILE = 41
 95th PERCENTILE = 44

PACE SPEED = 31 to 40
 VEHICLES IN PACE = 3076
 % IN PACE = 69
 % BELOW PACE = 15
 % ABOVE PACE = 17

STANDARD DEVIATION = 5.19
 % EXCEEDING POSTED LIMIT = 85
 RECOMMENDED SPEED LIMIT = 40
POSTED SPEED IS TOO LOW

SPEED STUDY

Wyoming Department of Transportation

CITY: Sheridan

COUNTY: Sheridan

ROUTE: WY 332

SPEED LIMIT: 30 MPH

DIRECTION: Southbound

LOCATION: North of Big Horn Y

OBSERVER:

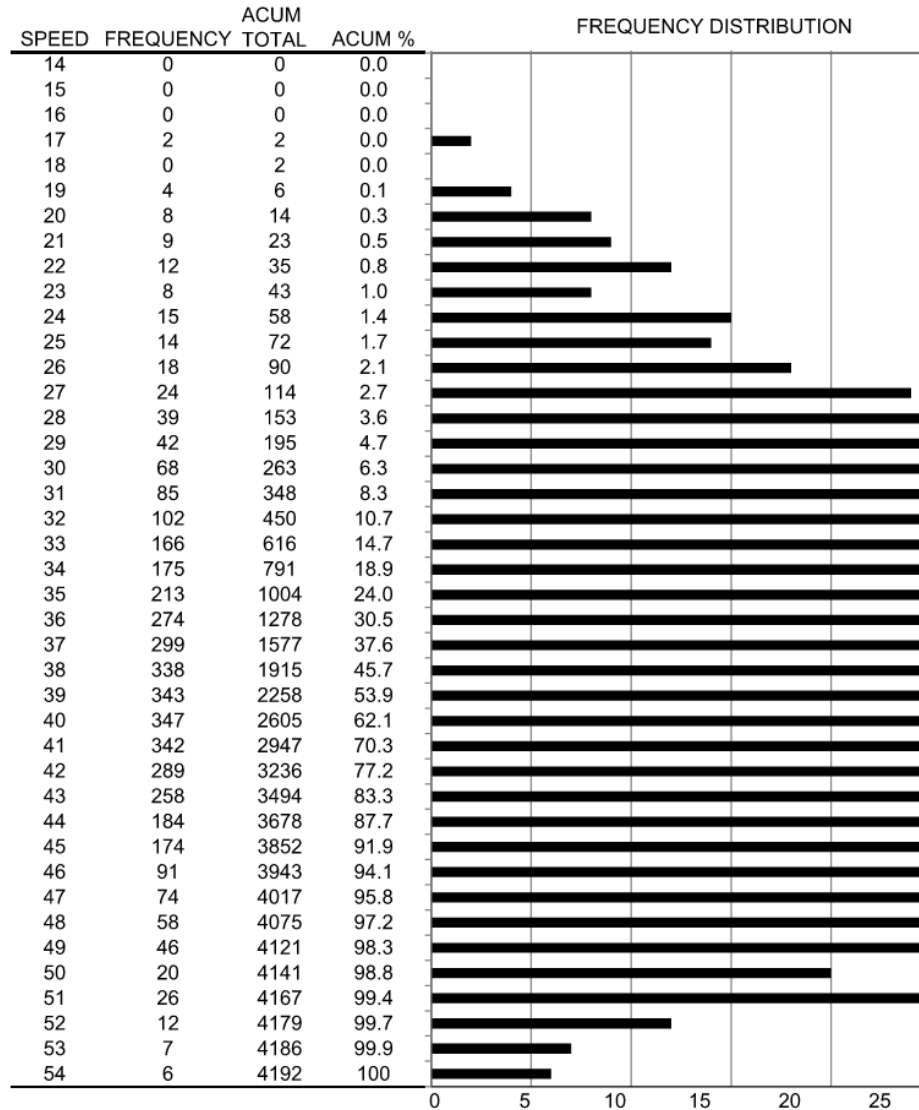
START TIME: 1:54 PM

WEATHER:

DATE: 3/11/24 - 3/15/24

END TIME: 1:46 PM

COMMENTS:



AVERAGE SPEED = 38.7

50th PERCENTILE = 39

67th PERCENTILE = 41

85th PERCENTILE = 44

95th PERCENTILE = 47

PACE SPEED = 35 to 44

VEHICLES IN PACE = 2887

% IN PACE = 69

% BELOW PACE = 19

% ABOVE PACE = 12

STANDARD DEVIATION = 5.30

% EXCEEDING POSTED LIMIT = 94

RECOMMENDED SPEED LIMIT = 45

POSTED SPEED IS TOO LOW

SPEED STUDY

Wyoming Department of Transportation

CITY: Sheridan

SPEED LIMIT: 30 MPH

OBSERVER: 0

#####

COUNTY: Sheridan

DIRECTION: NB/SB Comb.

START TIME: 1:54 PM

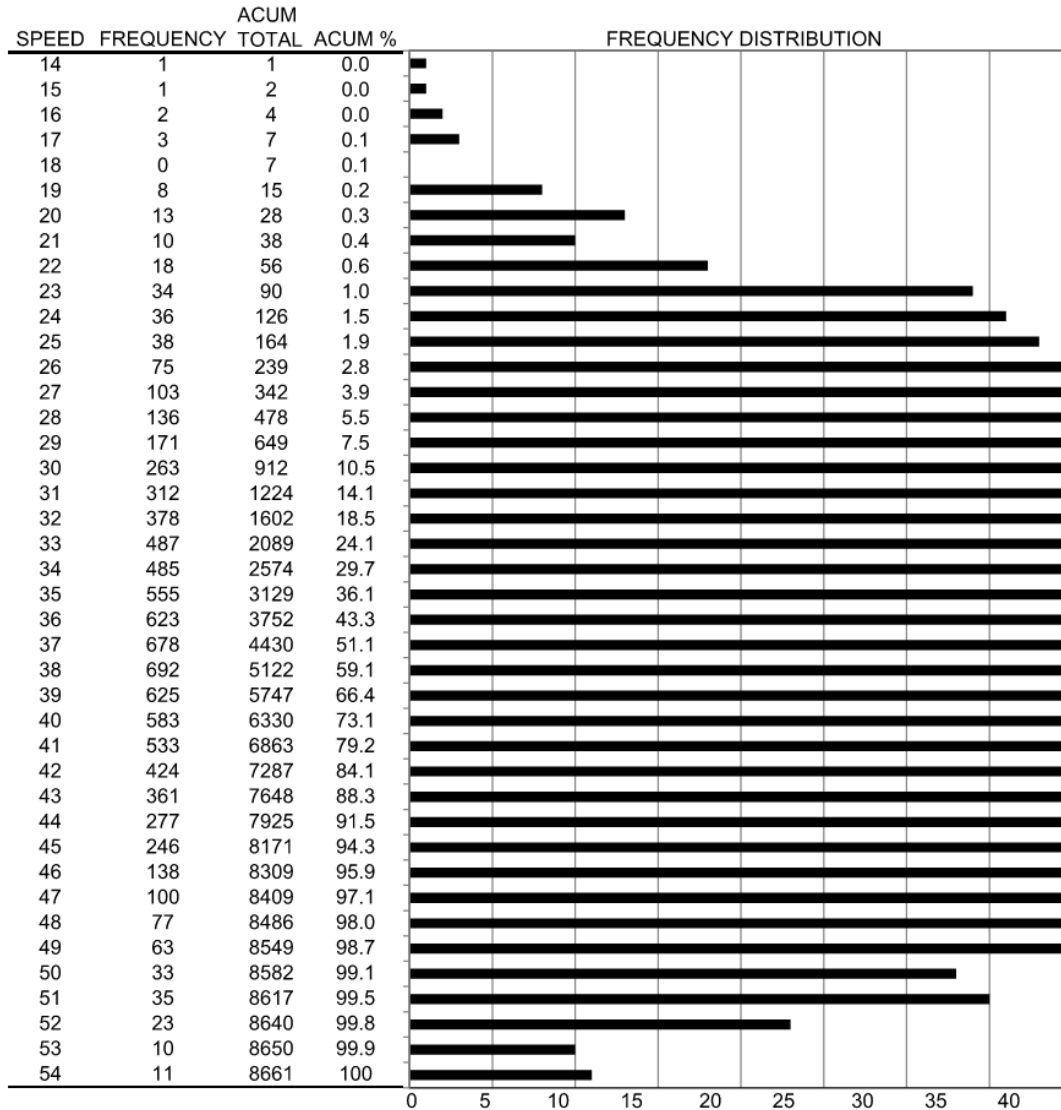
END TIME: 1:46 PM

ROUTE: WY 332

LOCATION: North of Big Horn Y

WEATHER:

COMMENTS:



AVERAGE SPEED = 37.2

50th PERCENTILE = 37

67th PERCENTILE = 40

85th PERCENTILE = 43

95th PERCENTILE = 46

PACE SPEED = 33 to 42

VEHICLES IN PACE = 5685

% IN PACE = 66

% BELOW PACE = 18

% ABOVE PACE = 16

STANDARD DEVIATION = 5.44

% EXCEEDING POSTED LIMIT = 89

RECOMMENDED SPEED LIMIT = 45

POSTED SPEED IS TOO LOW

CITY	Sheridan	
COUNTY	Sheridan	
ROUTE	WY 332	
LOCATION	North of Big Horn Y	
POSTED SPEED LIMIT	30	
LOWEST SPEED RECORDED	14	
HIGHEST SPEED RECORDED	65	
COMMENTS		
DIRECTION 1	Northbound	DIRECTION 2 Southbound
OBSERVER		OBSERVER
DATE	3/11/24 - 3/15/24	DATE 3/11/24 - 3/15/24
START TIME	1:54 PM	START TIME 1:54 PM
END TIME	1:46 PM	END TIME 1:46 PM
WEATHER		WEATHER

NUMBER OF OBSERVATIONS AT SPEED PER
DIRECTION

SPEED	Northbound	Southbound
14	1	0
15	1	0
16	2	0
17	1	2
18	0	0
19	4	4
20	5	8
21	1	9
22	6	12
23	26	8
24	21	15
25	24	14
26	57	18
27	79	24
28	97	39
29	129	42
30	195	68
31	227	85
32	276	102
33	321	166
34	310	175
35	342	213
36	349	274
37	379	299
38	354	338
39	282	343
40	236	347
41	191	342
42	135	289
43	103	258
44	93	184
45	72	174
46	47	91
47	26	74
48	19	58
49	17	46
50	13	20
51	9	26
52	11	12
53	3	7
54	5	6

SPEED STUDY

Wyoming Department of Transportation

CITY: Sheridan

SPEED LIMIT: 55 MPH

OBSERVER:

DATE: 3/11/24 - 3/15/24

COUNTY: Sheridan

DIRECTION: Northbound

START TIME: 1:54 PM

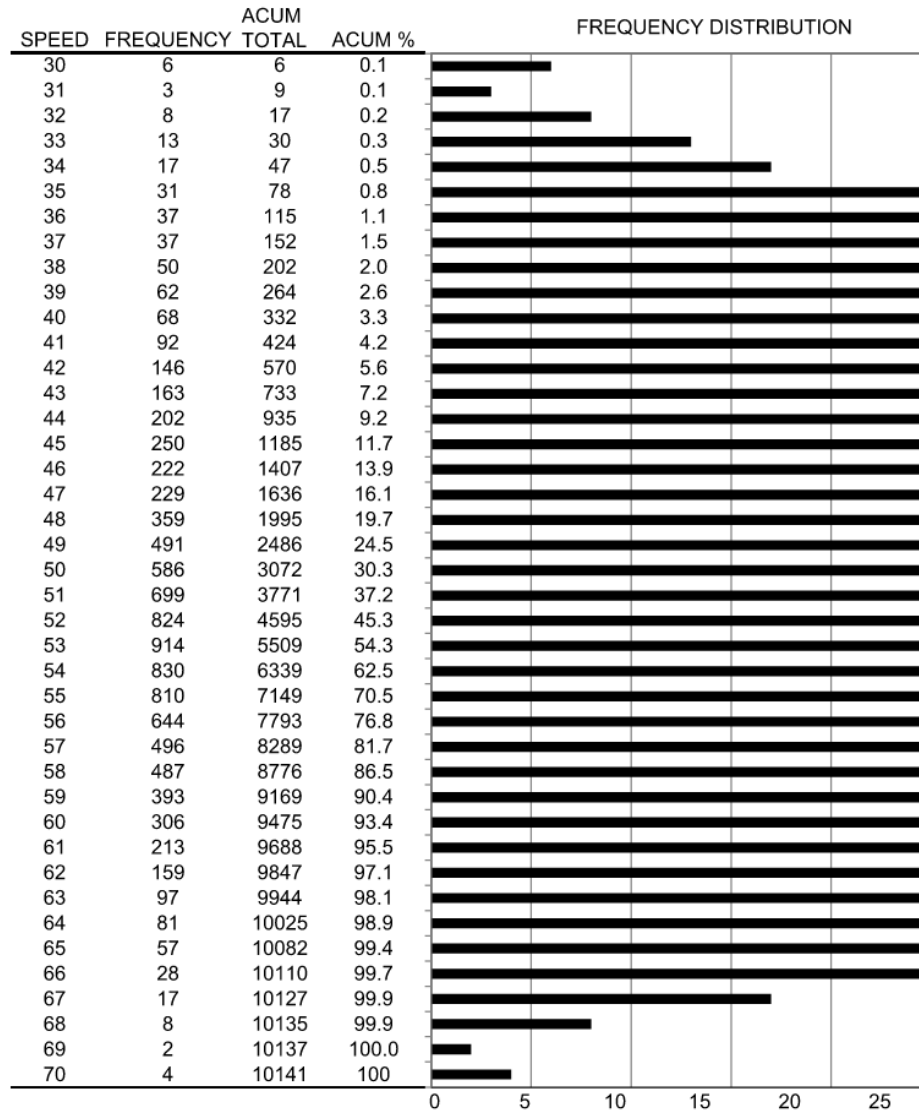
END TIME: 1:46 PM

ROUTE: US 87

LOCATION: US 87 South of Big Horn Y

WEATHER:

COMMENTS:



AVERAGE SPEED = 52.6

50th PERCENTILE = 53

67th PERCENTILE = 55

85th PERCENTILE = 58

95th PERCENTILE = 61

PACE SPEED = 49 to 58

VEHICLES IN PACE = 6781

% IN PACE = 67

% BELOW PACE = 20

% ABOVE PACE = 13

STANDARD DEVIATION = 5.72

% EXCEEDING POSTED LIMIT = 30

RECOMMENDED SPEED LIMIT = 60

SPEED STUDY

Wyoming Department of Transportation

CITY: Sheridan

COUNTY: Sheridan

ROUTE: US 87

SPEED LIMIT: 55 MPH

DIRECTION: Southbound

LOCATION: US 87 South of Big Horn Y

OBSERVER:

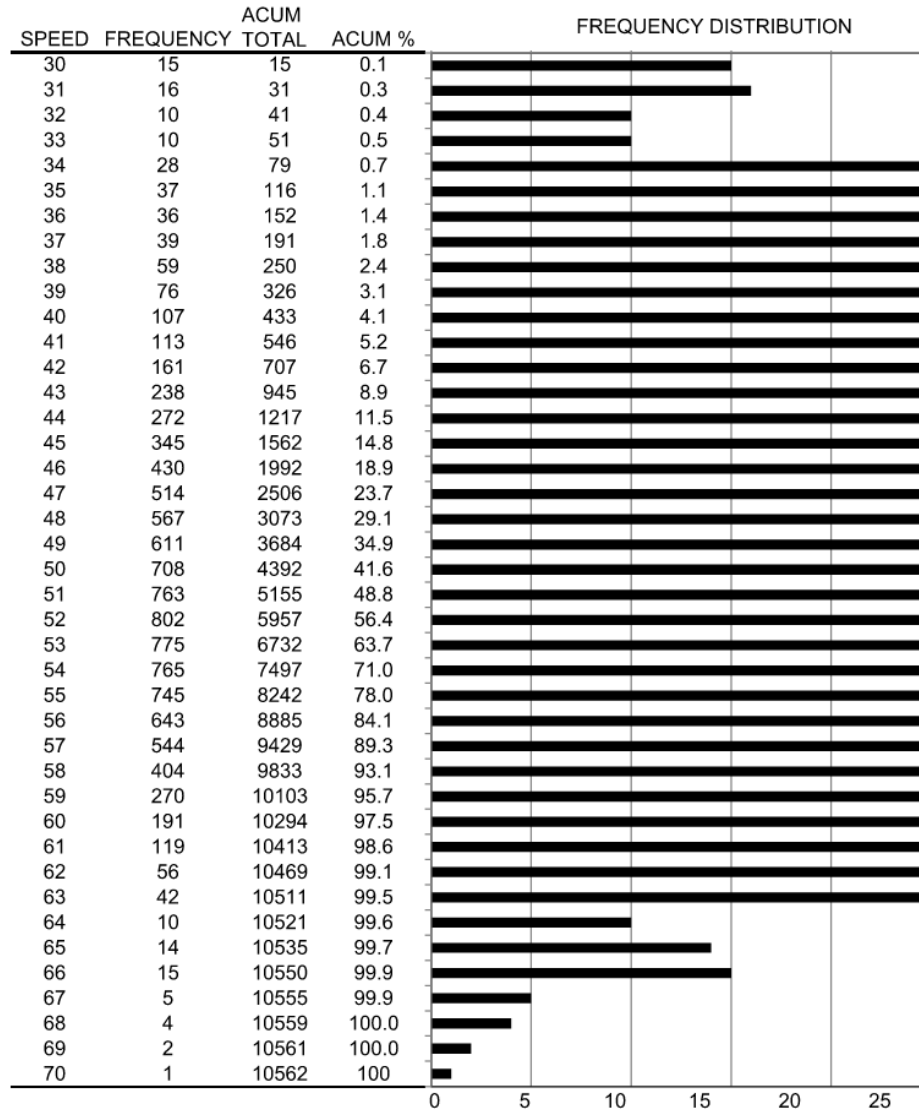
START TIME: 1:54 PM

WEATHER:

DATE: 3/11/24 - 3/15/24

END TIME: 1:46 PM

COMMENTS:



AVERAGE SPEED = 51.1

50th PERCENTILE = 52

67th PERCENTILE = 54

85th PERCENTILE = 57

95th PERCENTILE = 59

PACE SPEED = 48 to 57

VEHICLES IN PACE = 6923

% IN PACE = 66

% BELOW PACE = 24

% ABOVE PACE = 11

STANDARD DEVIATION = 5.56

% EXCEEDING POSTED LIMIT = 22

RECOMMENDED SPEED LIMIT = 55

SPEED STUDY

Wyoming Department of Transportation

CITY: Sheridan

SPEED LIMIT: 55 MPH

OBSERVER: 0

#####

COUNTY: Sheridan

DIRECTION: NB/SB Comb.

START TIME: 1:54 PM

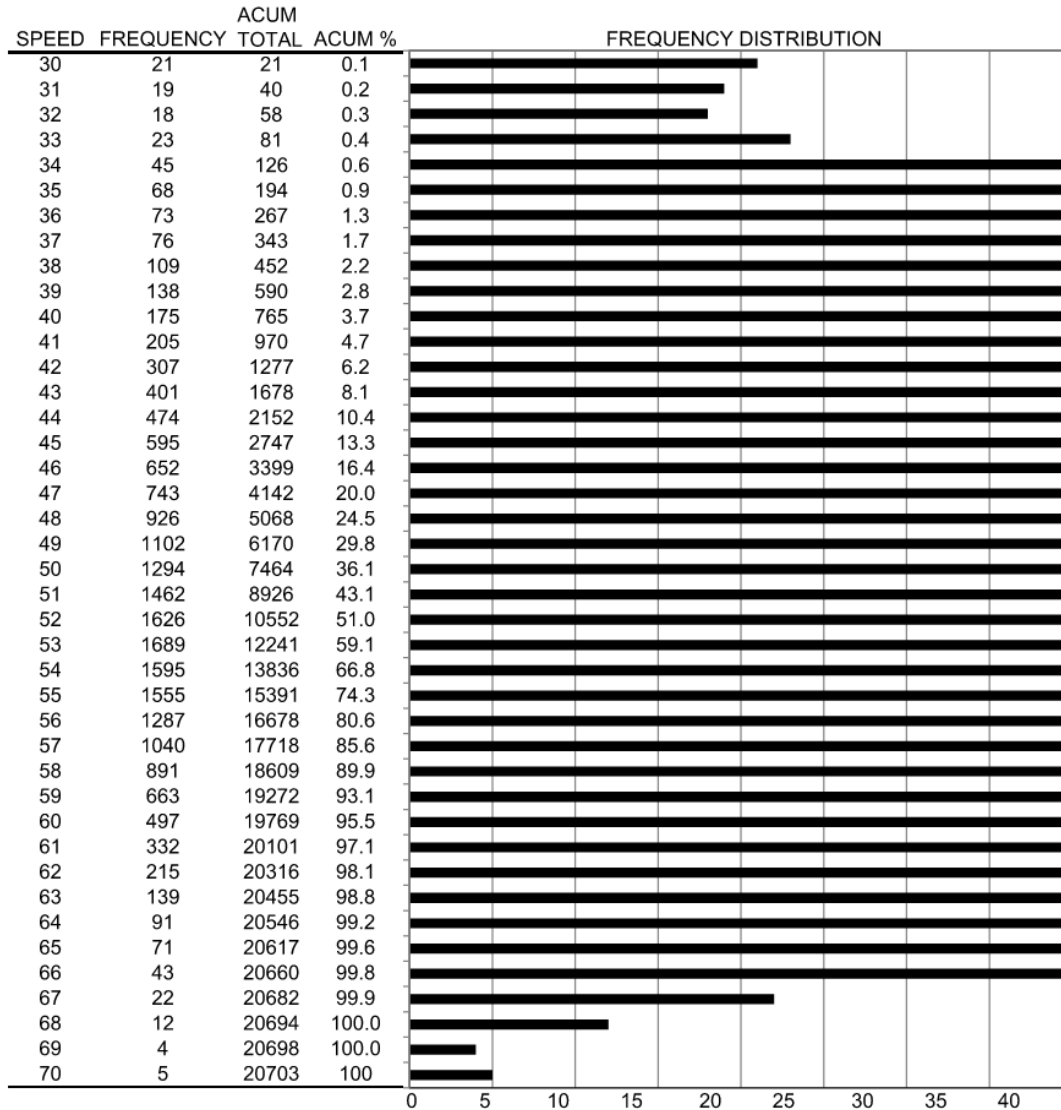
END TIME: 1:46 PM

ROUTE: US 87

LOCATION: US 87 South of Big Horn Y

WEATHER:

COMMENTS:



AVERAGE SPEED = 51.8

50th PERCENTILE = 52

67th PERCENTILE = 55

85th PERCENTILE = 57

95th PERCENTILE = 60

PACE SPEED = 48 to 57

VEHICLES IN PACE = 13576

% IN PACE = 66

% BELOW PACE = 20

% ABOVE PACE = 14

STANDARD DEVIATION = 5.68

% EXCEEDING POSTED LIMIT = 26

RECOMMENDED SPEED LIMIT = 55

CITY	Sheridan	
COUNTY	Sheridan	
ROUTE	US 87	
LOCATION	JS 87 South of Big Horn Y	
POSTED SPEED LIMIT	55	
LOWEST SPEED RECORDED	30	
HIGHEST SPEED RECORDED	70	
COMMENTS		
DIRECTION 1	Northbound	DIRECTION 2 Southbound
OBSERVER		OBSERVER
DATE	3/11/24 - 3/15/24	DATE 3/11/24 - 3/15/24
START TIME	1:54 PM	START TIME 1:54 PM
END TIME	1:46 PM	END TIME 1:46 PM
WEATHER		WEATHER

NUMBER OF OBSERVATIONS AT SPEED PER
DIRECTION

SPEED	Northbound	Southbound
30	6	15
31	3	16
32	8	10
33	13	10
34	17	28
35	31	37
36	37	36
37	37	39
38	50	59
39	62	76
40	68	107
41	92	113
42	146	161
43	163	238
44	202	272
45	250	345
46	222	430
47	229	514
48	359	567
49	491	611
50	586	708
51	699	763
52	824	802
53	914	775
54	830	765
55	810	745
56	644	643
57	496	544
58	487	404
59	393	270
60	306	191
61	213	119
62	159	56
63	97	42
64	81	10
65	57	14
66	28	15
67	17	5
68	8	4
69	2	2
70	4	1

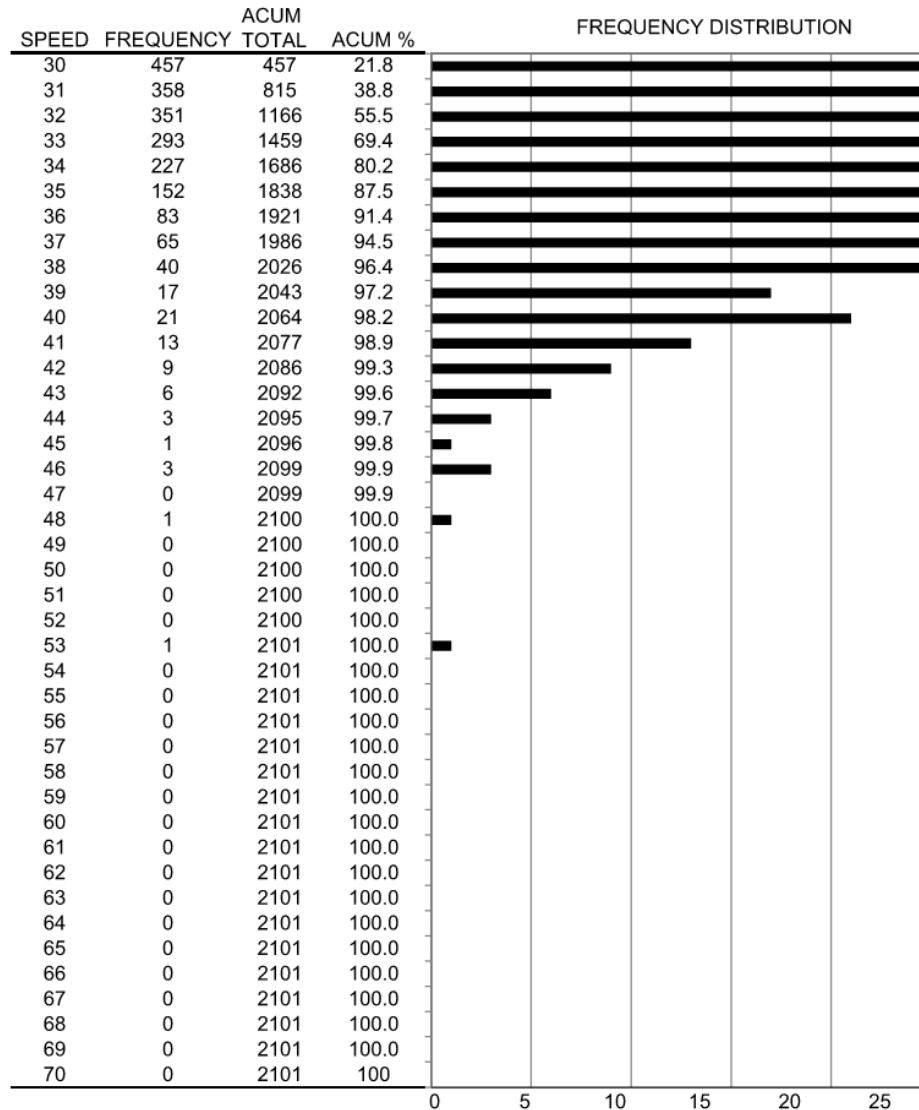
SPEED STUDY

Wyoming Department of Transportation

CITY: Sheridan
SPEED LIMIT: 55 MPH
OBSERVER:
DATE: 3/11/24 - 3/15/24

COUNTY: Sheridan
DIRECTION: Southbound
START TIME: 1:54 PM
END TIME: 1:46 PM

ROUTE: US 87
LOCATION: US 87 South of Big Horn Y
WEATHER:
COMMENTS:



AVERAGE SPEED = 32.7
50th PERCENTILE = 32
67th PERCENTILE = 33
85th PERCENTILE = 35
95th PERCENTILE = 38

PACE SPEED = 30 to 39
VEHICLES IN PACE = 2043
% IN PACE = 97
% BELOW PACE = 0
% ABOVE PACE = 3

STANDARD DEVIATION = 2.65
% EXCEEDING POSTED LIMIT = 0
RECOMMENDED SPEED LIMIT = 35

SPEED STUDY

Wyoming Department of Transportation

CITY: Sheridan

COUNTY: Sheridan

ROUTE: US 87

SPEED LIMIT: 55 MPH

DIRECTION: Northbound

LOCATION: US 87 South of Big Horn Y

OBSERVER:

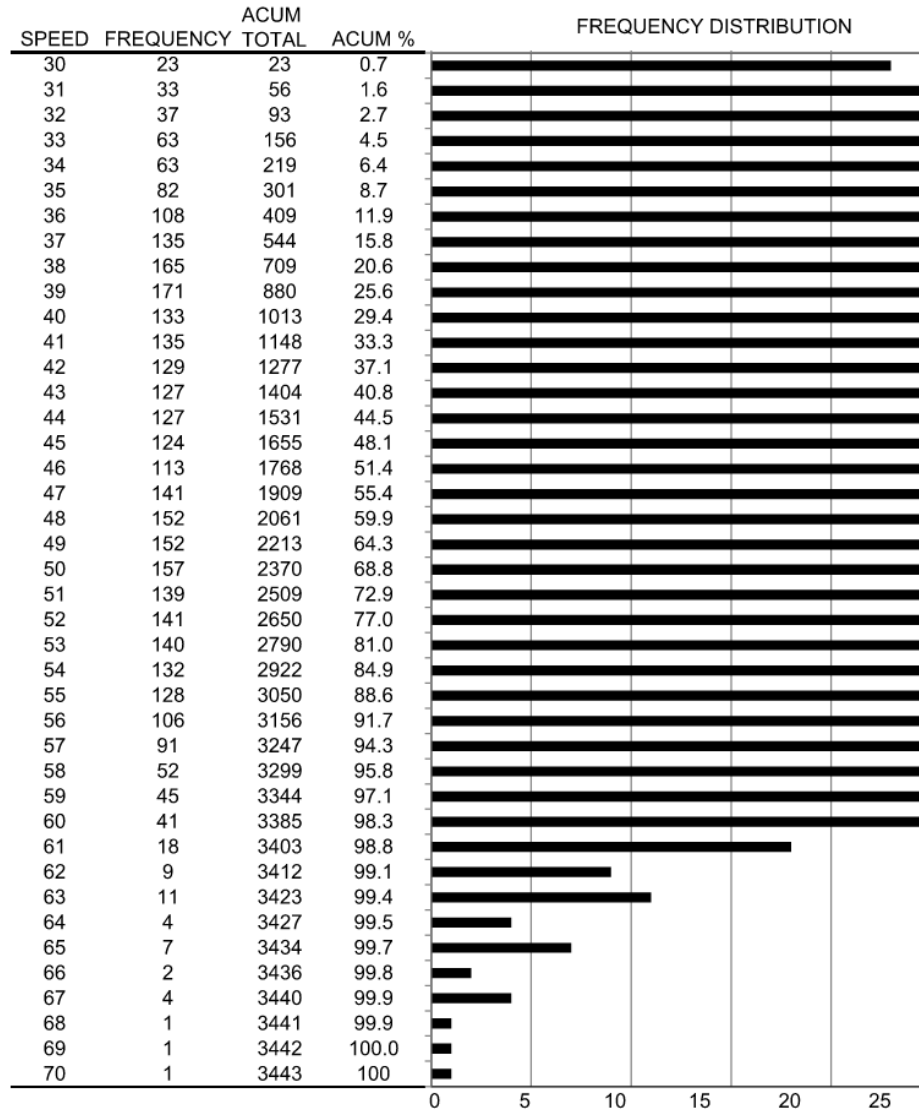
START TIME: 1:54 PM

WEATHER:

DATE: 3/11/24 - 3/15/24

END TIME: 1:46 PM

COMMENTS:



AVERAGE SPEED = 45.9

50th PERCENTILE = 46

67th PERCENTILE = 50

85th PERCENTILE = 55

95th PERCENTILE = 58

PACE SPEED = 46 to 55

VEHICLES IN PACE = 1395

% IN PACE = 41

% BELOW PACE = 48

% ABOVE PACE = 11

STANDARD DEVIATION = 7.70

% EXCEEDING POSTED LIMIT = 11

RECOMMENDED SPEED LIMIT = 55

SPEED STUDY

Wyoming Department of Transportation

CITY: Sheridan

SPEED LIMIT: 55 MPH

OBSERVER: 0

#####

COUNTY: Sheridan

DIRECTION: SB/NB Comb.

START TIME: 1:54 PM

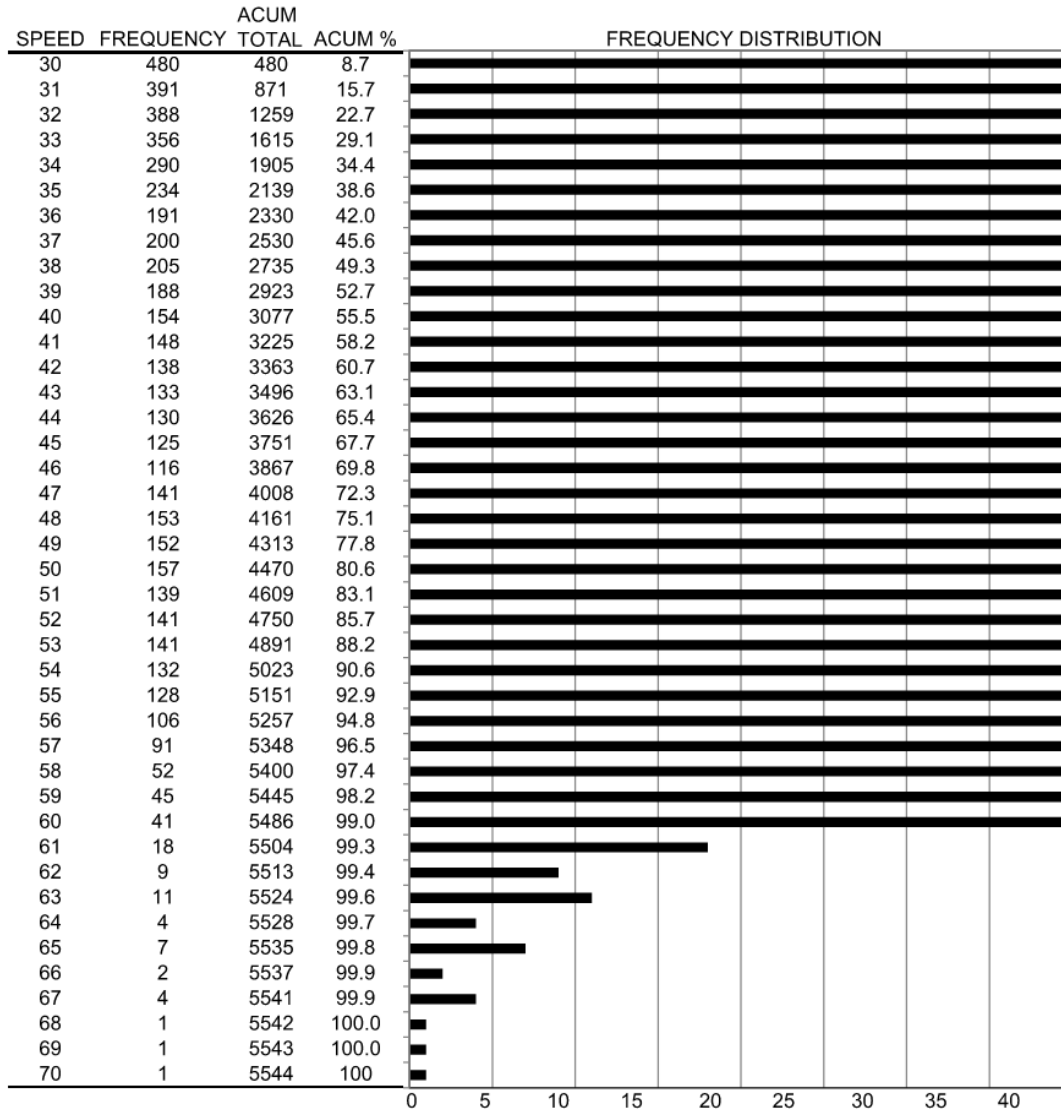
END TIME: 1:46 PM

ROUTE: US 87

LOCATION: US 87 South of Big Horn Y

WEATHER:

COMMENTS:



AVERAGE SPEED = 40.9

50th PERCENTILE = 39

67th PERCENTILE = 45

85th PERCENTILE = 52

95th PERCENTILE = 57

PACE SPEED = 30 to 39

VEHICLES IN PACE = 2923

% IN PACE = 53

% BELOW PACE = 0

% ABOVE PACE = 47

STANDARD DEVIATION = 8.97

% EXCEEDING POSTED LIMIT = 7

RECOMMENDED SPEED LIMIT = 50

CITY Sheridan
COUNTY Sheridan
ROUTE US 87
LOCATION JS 87 South of Big Horn Y
POSTED SPEED LIMIT 55
LOWEST SPEED RECORDED 30
HIGHEST SPEED RECORDED 70
COMMENTS _____
DIRECTION 1 Southbound
OBSERVER _____
DATE 3/11/24 - 3/15/24
START TIME 1:54 PM
END TIME 1:46 PM
WEATHER _____

DIRECTION 2 Northbound
OBSERVER _____
DATE 3/11/24 - 3/15/24
START TIME 1:54 PM
END TIME 1:46 PM
WEATHER _____

NUMBER OF OBSERVATIONS AT SPEED PER
DIRECTION

SPEED	Southbound	Northbound
30	457	23
31	358	33
32	351	37
33	293	63
34	227	63
35	152	82
36	83	108
37	65	135
38	40	165
39	17	171
40	21	133
41	13	135
42	9	129
43	6	127
44	3	127
45	1	124
46	3	113
47	0	141
48	1	152
49	0	152
50	0	157
51	0	139
52	0	141
53	1	140
54	0	132
55	0	128
56	0	106
57	0	91
58	0	52
59	0	45
60	0	41
61	0	18
62	0	9
63	0	11
64	0	4
65	0	7
66	0	2
67	0	4
68	0	1
69	0	1
70	0	1

USLIMITS2 Speed Zoning Report

Project Overview

Project Name: Bighorn Y Traffic Study

Analyst: Hannah Nicholas

Date: 2025-01-10

Basic Project Information

Route Name: US87
From: Bighorn Y intersection
To: RM28.87
State: Wyoming
County: Sheridan County
City: Sheridan city
Route Type: Road Section in Undeveloped Area
Route Status: Existing

Crash Data Information

Crash Data Years: 0
Crash AADT: N/A
Total Number of Crashes: N/A
Total Number of Injury Crashes: N/A

Traffic Information

85th Percentile Speed: 57 mph
50th Percentile Speed: 52 mph
AADT: 5292 veh/day

Roadway Information

Section Length: 0.55 mile(s)
Statutory Speed Limit: 70 mph
Existing Speed Limit: 55 mph
Adverse Alignment: Yes
Divided/Undivided: Undivided
Number of Lanes: 2
Roadside Hazard Rating: 2
Transition Zone: No

Recommended Speed Limit:



Note: Sections with adverse alignments may need specific 'advisory speed warnings' which may be different from the general speed limit for the section. See [Procedures for Setting Advisory Speeds on Curves](#), Publication No. FHWA-SA-11-22, June 2011, for more guidance.

Note: Crash data were not entered for this project. A comprehensive crash study is a critical component of any traffic engineering study. We suggest that you repeat this process when crash data become available.

Disclaimer: The U.S. Government assumes no liability for the use of the information contained in this report. This report does not constitute a standard, specification, or regulation.

USLIMITS2 Speed Zoning Report

Project Overview

Project Name: Bighorn Y Traffic Study

Analyst: Hannah Nicholas

Date: 2025-01-10

Basic Project Information

Route Name: US87
From: RM 29.21
To: Bighorn Y intersection
State: Wyoming
County: Sheridan County
City: Sheridan city
Route Type: Road Section in Undeveloped Area
Route Status: Existing

Crash Data Information

Crash Data Years: 0
Crash AADT: N/A
Total Number of Crashes: N/A
Total Number of Injury Crashes: N/A

Traffic Information

85th Percentile Speed: 52 mph
50th Percentile Speed: 39 mph
AADT: 1736 veh/day

Roadway Information

Section Length: 0.55 mile(s)
Statutory Speed Limit: 70 mph
Existing Speed Limit: 55 mph
Adverse Alignment: Yes
Divided/Undivided: Undivided
Number of Lanes: 2
Roadside Hazard Rating: 2
Transition Zone: No

Recommended Speed Limit:



Note: Sections with adverse alignments may need specific 'advisory speed warnings' which may be different from the general speed limit for the section. See [Procedures for Setting Advisory Speeds on Curves](#), Publication No. FHWA-SA-11-22, June 2011, for more guidance.

Note: Crash data were not entered for this project. A comprehensive crash study is a critical component of any traffic engineering study. We suggest that you repeat this process when crash data become available.

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USLIMITS2 Speed Zoning Report

Project Overview

Project Name: Bighorn Y Traffic Study

Analyst: Hannah Nicholas

Date: 2025-01-10

Basic Project Information

Route Name: WY332
From: Bighorn Y intersection
To: RM 5.30
State: Wyoming
County: Sheridan County
City: Sheridan city
Route Type: Road Section in Undeveloped Area
Route Status: Existing

Crash Data Information

Crash Data Years: 0
Crash AADT: N/A
Total Number of Crashes: N/A
Total Number of Injury Crashes: N/A

Traffic Information

85th Percentile Speed: 43 mph
50th Percentile Speed: 37 mph
AADT: 2188 veh/day

Roadway Information

Section Length: 0.30 mile(s)
Statutory Speed Limit: 70 mph
Existing Speed Limit: 30 mph
Adverse Alignment: Yes
Divided/Undivided: Undivided
Number of Lanes: 2
Roadside Hazard Rating: 5
Transition Zone: No

Recommended Speed Limit:



Note: Sections with adverse alignments may need specific 'advisory speed warnings' which may be different from the general speed limit for the section. See [Procedures for Setting Advisory Speeds on Curves](#), Publication No. FHWA-SA-11-22, June 2011, for more guidance.

Note: Crash data were not entered for this project. A comprehensive crash study is a critical component of any traffic engineering study. We suggest that you repeat this process when crash data become available.

Note: A speed zone of 0.30 miles is generally too short for the recommended speed limit. Consider lengthening the speed zone (if that is possible) or using the speed limits from adjacent sections (if they are appropriate for this section). If the speed and other data you provided are representative of conditions for this short section, then the speed limit noted above may be considered. If the data were taken in an area with adverse horizontal and vertical alignment or unique geometric and/or traffic control features, then the above noted speed limit may not be appropriate because this expert system is not designed to recommend speed limits for sharp horizontal curves or in other special traffic situations.

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USLIMITS2 Speed Zoning Report

Project Overview

Project Name: Bighorn Y Traffic Study

Analyst: Hannah Nicholas

Date: 2025-01-10

Basic Project Information

Route Name: WY335
From: RM 0.18
To: Bighorn Y intersection
State: Wyoming
County: Sheridan County
City: Sheridan city
Route Type: Road Section in Undeveloped Area
Route Status: Existing

Crash Data Information

Crash Data Years: 0
Crash AADT: N/A
Total Number of Crashes: N/A
Total Number of Injury Crashes: N/A

Traffic Information

85th Percentile Speed: 57 mph
50th Percentile Speed: 52 mph
AADT: 5575 veh/day

Roadway Information

Section Length: 0.55 mile(s)
Statutory Speed Limit: 70 mph
Existing Speed Limit: 55 mph
Adverse Alignment: Yes
Divided/Undivided: Undivided
Number of Lanes: 2
Roadside Hazard Rating: 2
Transition Zone: No

Recommended Speed Limit:



Note: Sections with adverse alignments may need specific 'advisory speed warnings' which may be different from the general speed limit for the section. See [Procedures for Setting Advisory Speeds on Curves](#), Publication No. FHWA-SA-11-22, June 2011, for more guidance.

Note: Crash data were not entered for this project. A comprehensive crash study is a critical component of any traffic engineering study. We suggest that you repeat this process when crash data become available.

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Appendix F.

Environmental Review

Environmental Review - Big Horn Y Intersection Traffic Study

October 1, 2024

Project Details

Project Name: Big Horn Y Intersection

Client: WYDOT

Project Description: The Big Horn Y Intersection Project (the project) is the intersection of Big Horn Ave (WY-332), Coffeen Avenue, WY-335, and US-87 and is located approximately five miles south of Sheridan, Wyoming. Intersection and realignment alternatives through improvements to safety and operations are being considered to address public concerns. Current issues with the intersection include near-miss crashes, failure to yield and yield effectively, speeding, high traffic volumes during peak times, long wait times to enter the highway, difficulty in crossing for pedestrians and cyclists, and difficulty in seeing oncoming traffic. Several alternatives were proposed with the goals of slowing approaches into the intersection, reducing crashes and the potential for serious crashes, allowing for bicyclist and pedestrian crossing, reducing driver delay, and accommodating trucks and trailers.

A study area was developed for the purposes of an environmental overview and includes a 300-foot buffer from the road centerline and the potential extents of project alternatives (Figure 1).

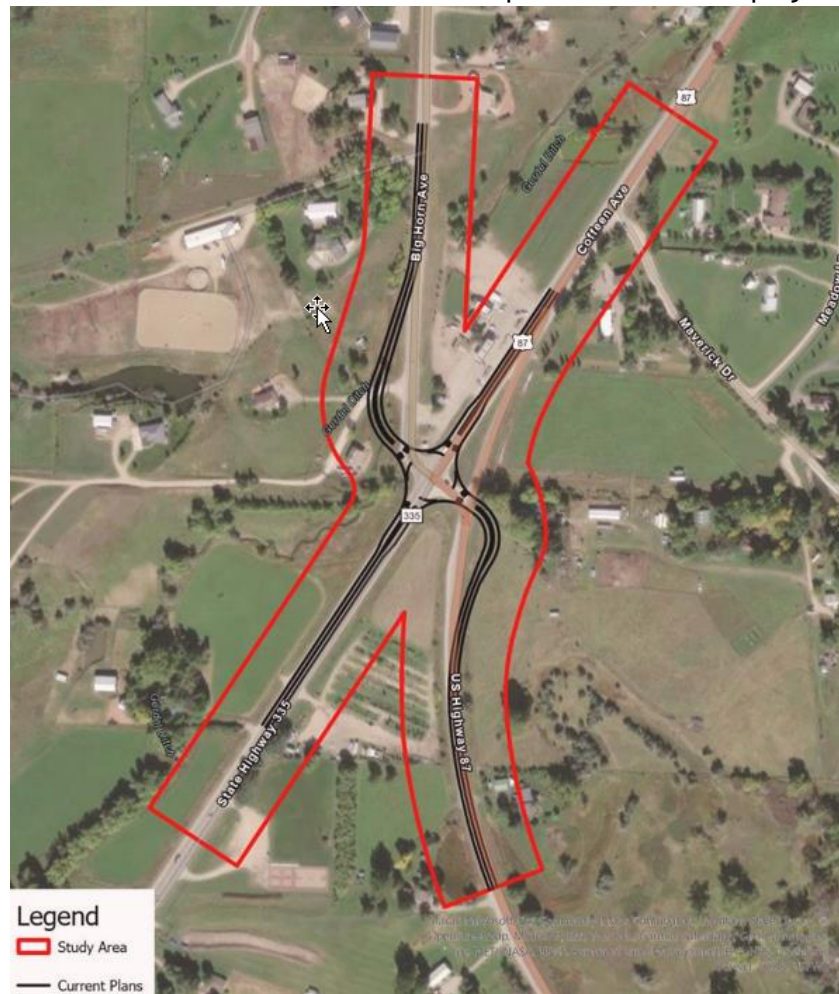


Figure 1. Study Area for Bighorn Y Intersection Project Environmental Overview

Environmental Summary

Determination of Potential Impacts: There is the potential for impacts to the Gerdel Ditch as it is a likely jurisdictional water in the planned path of Big Horn Ave. Portions of this ditch also meet criteria for listing under the National Register of Historic Places (NRHP), and a Class III survey is recommended. The project is within the range of Ute ladies'-tresses, so survey may be necessary to determine if there may be impacts to the threatened species. The FAA Notice Criteria Tool indicated that the study area is within an airport and requires a permit. The closest airport indicated on aerial mapping is approximately two miles away.

Funding: WYDOT

Potential Permits/Approvals: Section 404 permit, 401 water quality certification, Wyoming State Historic Preservation Office (SHPO) concurrence, and Federal Aviation Administration (FAA) approval may be required. Section 7 consultation may be required if impacts to the Ute ladies'-tresses are anticipated.

Federal Agencies: U.S. Army Corps of Engineers (USACE), U.S. Fish and Wildlife Service (USFWS), FAA, SHPO

Wetlands

National Wetlands Inventory (NWI): According to NWI data, there are three wetlands and two streams, the perennial Gerdel Ditch (R5UBFx) and an unnamed intermittent stream (R4SBC) within the study area. The Gerdel Ditch sits in the proposed limits of Big Horn Avenue's realignment. The unnamed intermittent stream is a tributary of the nearby McCormick Creek, which is classified as a fish passage by Wyoming Game and Fish indicating it is a crucial stream corridor. The entire study area is within an aquatic restoration habitat priorities area per data from the Wyoming Game and Fish Department. The goal of this classification is to communicate to the public and other entities areas that need to be protected to maintain healthy populations, areas where habitat issues are likely to be successfully addressed, and to show migration corridors and fish passages that need to be protected.

Soils: Hydric soil is present in two portions of the study area. Soil unit 306 takes up most of the northeast leg of the project and has a rating of 92% hydric. Soil unit 162 in the end of the southeast corner of the study area has a 7% hydric rating (Web Soil Survey) (Attachment 1). Soil units 199 and 217 have land classified as farmland of statewide importance if irrigated. All other soil units in the study area are classified as not prime farmland (CA soil resource).

Onsite delineation required (yes/no): Yes, streams and wetlands are present according to NWI, and Web Soil Survey indicates that hydric soils are present in a significant part of the project area.

Photos:

Critical or Impaired Waters

Wyoming Pollutant Discharge Elimination System (WYPDES) (Non-Tribal): There are no impaired stream segments within the study area. Three streams with impairment status lie within 0.5 mile of the project and have a surface connection to the streams that pass through the project (**Error! Reference source not found.**). Impaired streams include Little Goose Creek (5-Impaired), McCormick Creek (4A - Impaired, total maximum daily load [TMDL] completed), and Kruse Creek (4A - Impaired, TMDL Completed). ([Wyoming's Assessed Waters, Surface Water Monitoring Locations, and TMDLs](https://wdeq.maps.arcgis.com/apps/webappviewer/index.html?id=525b2fdaff494fba0625c49c20263f1) (<https://wdeq.maps.arcgis.com/apps/webappviewer/index.html?id=525b2fdaff494fba0625c49c20263f1>)).

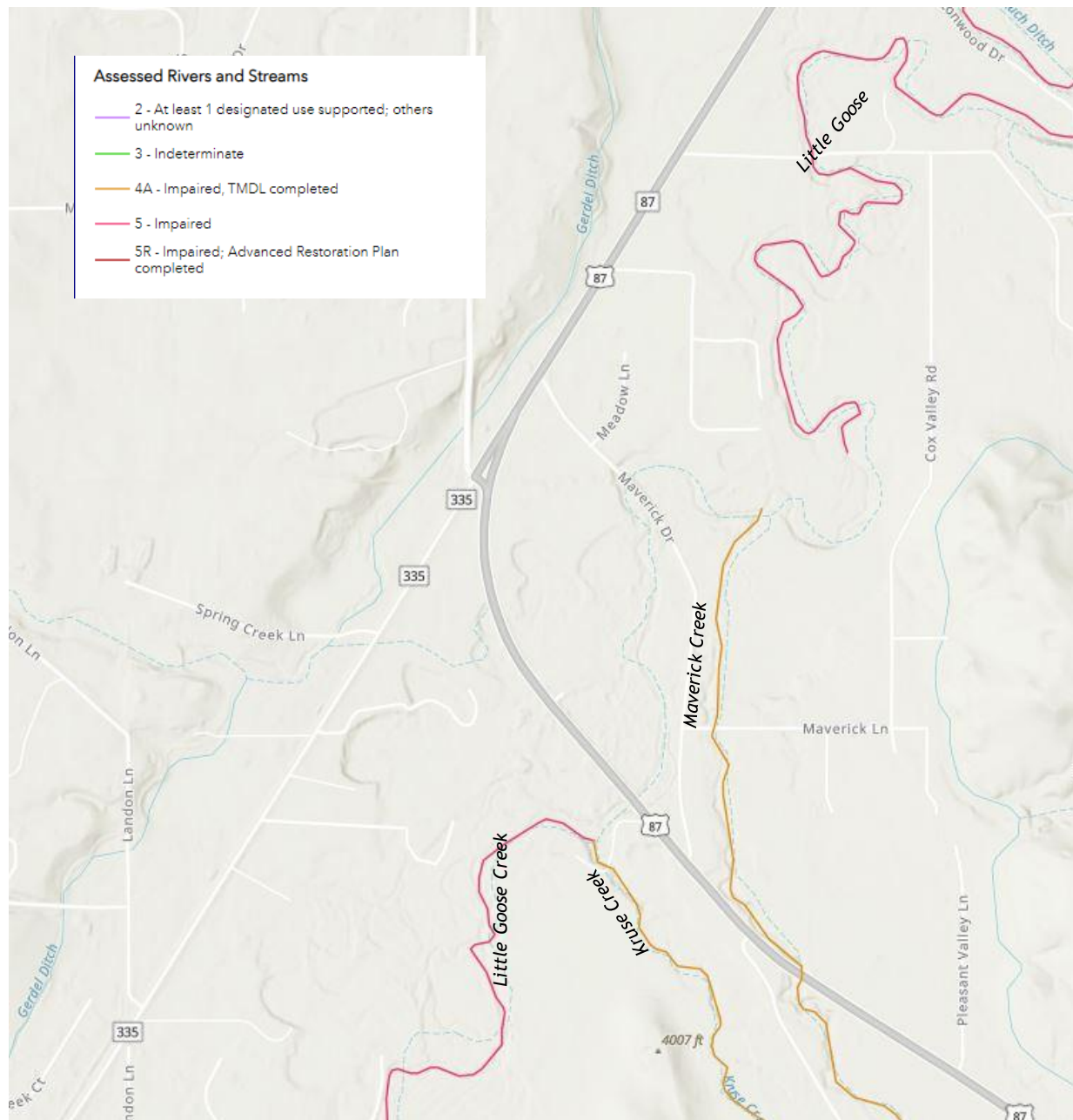


Figure 2. Impaired Streams near the Study Area

National Pollutant Discharge Elimination System (NPDES) (Tribal): The project is not located on any tribal lands.

Temporary Turbidity Increase: Wyoming water quality rules and regulations require a temporary turbidity permit in instances of construction in waters designated as fisheries or drinking water supplies ([CWA Section 401 - Turbidity - Wetland - Wyoming Department of Environmental Quality](#)). Gerdel Ditch and the unnamed tributary have no designated uses ([Wyoming's Assessed Waters, Surface Water Monitoring Locations, and TMDLs](#)). According to the National Resource and Energy Explorer (NREX), no crucial stream corridors or sport fish designated streams are in the study area. Little Goose Creek, about 0.3 mile from the project, has a sport fish designation.

USACE Permit

Type: A Section 404 Permit, Nationwide Permit 14, may be necessary for this project because waters of the U.S. may be crossed by the modification of Big Horn Avenue. The project may require stream relocation or channelization as the proposed route of Big Horn Avenue, as planned, would encounter the Gerdel Ditch. Options for minimization of impacts to these streams should be evaluated during later design phases.

PCN Requirement: A Pre-construction Notification (PCN) will be required if the project results in a wetland loss of greater than 0.1 acre or stream loss of greater than 0.03 acre.

401 Water Quality Certification: A 401 certification would be obtained through the 404 authorization since the project would likely fall under a nationwide permit and no impaired waters would be impacted ([401 Water Quality Certification - Wyoming Department of Environmental Quality](#)). If impaired waters are later determined to be impacted, an individual 401 Water Quality Certification will be required.

ESA/Sage-grouse/Migration Corridors

IPaC Listed Species: Monarch Butterfly (*Danaus plexippus*), status - Proposed Threatened. Ute ladies'-tresses (*Spiranthes diluvialis*), status - Threatened. Suckley's cuckoo bumble bee - Proposed Endangered.

Critical Habitat: No critical habitat was identified using USFWS Information for Planning and Consultation (IPaC) data or other publicly available data (**Attachment 2**).

Migration Corridor (EO 2020-1): The project is not within any migration corridors ([Migration Corridors in Wyoming \(arcgis.com\)](#)).

Greater Sage-grouse (EO 2019-4): The project is not within the Greater Sage-grouse core area and no occupied leks are documented within two miles of the study area.

Species of Concern: According to NREX, the project is within Ute ladies'-tresses range. One bald eagle nest has been recorded within two miles of the study area.

Cultural and Historic Resources

Cultural: HDR conducted a file search from the Wyoming State Historic Preservation Office (SHPO) on September 11, 2024. The file search identified seven previous cultural resource investigations within 0.5 mile of the Area of Potential Effect (APE). Four of these surveys intersect the APE. The previous surveys identified seven sites within 0.5 mile of the APE, consisting mostly of irrigation ditches. Two previously identified sites (two segments of the Gerdel Ditch) are within the APE. One segment is officially eligible for inclusion in the National Register of Historic Places (NRHP), and second segment has not been evaluated for NRHP eligibility. The Gerdel Ditch was built in 1880 and is one of the earliest irrigation ditches in the area.

Tribal: There are no tribal lands within the study area (NREX).

Other Concerns: The 1880 General Land Office plat for T55N R84W shows that an unrecorded stage road passes through the APE, roughly following the alignment of County Road 335. It is unlikely evidence of the historical road remains in the APE due to modern road construction and other development.

Approximately 80% of the study area has not previously been surveyed for cultural resources, and two of the surveys covering portions of the APE are over 10 years old and may not meet current SHPO survey standards. Although there has been some development within the APE, areas with the potential for intact cultural deposits remain. A Class III cultural survey is recommended to be conducted for the undisturbed portions of the APE to identify historical properties that may be impacted by the project.

Adjacent Property

Federal Lands: The study area is not within or adjacent to federal lands. The closest federally owned land is the Big Horn National Forest, about nine miles southwest of the study area (FS Lands GIS Layer).

State Lands: The study area is not within or adjacent to state lands. The closest state-owned lands are 2.5 miles north of the study area—the Wyoming Girl School (State ownership GIS layer).

Federal Levees

Concerns: No federal levees are within or adjacent to the study area (National Levee Database).

FEMA Floodplain

Concerns: FEMA floodplain data shows portions of the study area are within the 100-year (pink) and 500-year (orange) floodplains (**Attachment 3**).

Jurisdictional Waters

Topo/National Hydrography Dataset (NHD): According to NHD data, the Gerdel Ditch and an unnamed tributary of Little Goose Creek are two likely jurisdictional waters that pass through the study area (**Attachment 4**). A topographical map of the area from the national map viewer is included as **Attachment 5**.

Navigable: According to the Navigable Waters Protection Rule Fact Sheet, the two streams (Gerdel Ditch and an unimpaired segment of Little Goose Creek) passing through the study area meet the definition of a tributary being perennial and intermittent streams that contribute surface flow to traditional navigable waters in a typical year

(https://19january2021snapshot.epa.gov/sites/static/files/2020-01/documents/nwpr_fact_sheet_-_overview.pdf).

Hazardous Materials

Site Conditions: No active or inactive hazardous waste sites are recorded within the study area (NREX).

FAA

Airfields: The FAA Notice Criteria Tool was run for 4-foot road height and 14-foot lamp post height. Lamp post results say that construction is near an airport and to file a notice with FAA. The closest airport indicated on aerial mapping is the Sheridan County Airport about two miles north of the study area.

Construction Equipment: The FAA Notice Criteria Tool was run for mobile construction equipment, and tool did not indicate that filing a notice was necessary.

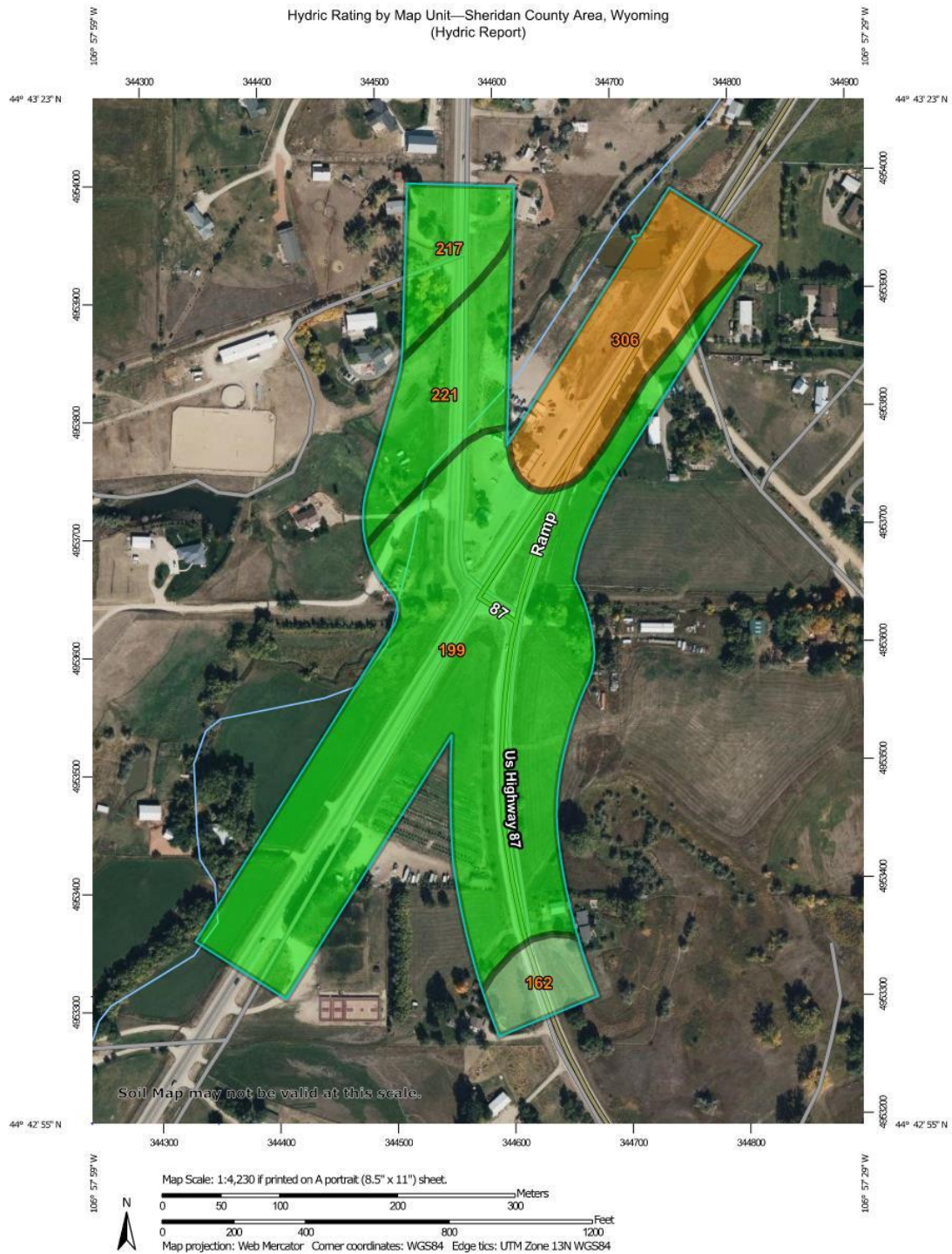
Other

Tree Clearing: Approximately 1.2 acres of the study area contain trees. The rerouting of Big Horn Avenue and US 87 into the roundabout would likely result in some tree removal. Raptor nest surveys should be conducted during the active nesting season, preferably March through May.

Buildings: Several building footprints are within the study area (NREX) (**Attachment 6**). No buildings will be removed.

Bridges: No bridges are present in the study area.

Attachment 1



Natural Resources
Conservation Service


Web Soil Survey
National Cooperative Soil Survey

9/11/2024
Page 1 of 5

MAP LEGEND






MAP INFORMATION

Area of Interest (AOI)







 Area of Interest (AOI)

Soils




Soil Rating Polygons

-  Hydric (100%)
-  Hydric (66 to 99%)
-  Hydric (33 to 65%)
-  Hydric (1 to 32%)
-  Not Hydric (0%)
-  Not rated or not available




Soil Rating Lines

-  Hydric (100%)
-  Hydric (66 to 99%)
-  Hydric (33 to 65%)
-  Hydric (1 to 32%)
-  Not Hydric (0%)
-  Not rated or not available

Soil Rating Points

-  Hydric (100%)
-  Hydric (66 to 99%)
-  Hydric (33 to 65%)
-  Hydric (1 to 32%)
-  Not Hydric (0%)
-  Not rated or not available

Transportation

-  Rails
-  Interstate Highways
-  US Routes
-  Major Roads
-  Local Roads

Background

-  Aerial Photography

The soil surveys that comprise your AOI were mapped at 1:24,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Sheridan County Area, Wyoming
Survey Area Data: Version 24, Sep 6, 2023

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Sep 21, 2021—Sep 27, 2021

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Hydric Rating by Map Unit

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
162	Havertel silt loam, 0 to 3 percent slopes	7	1.3	4.1%
199	Nuncho variant clay loam, 0 to 6 percent slopes	0	20.6	62.8%
217	Platsher clay loam, 0 to 3 percent slopes	0	2.2	6.9%
221	Platsher-Wolfvar complex, 6 to 9 percent slopes	0	3.6	11.1%
306	Worhenton clay loam, 0 to 3 percent slopes	92	5.0	15.3%
Totals for Area of Interest			32.7	100.0%

Attachment 2



United States Department of the Interior

FISH AND WILDLIFE SERVICE
Wyoming Ecological Services Field Office
334 Parsley Boulevard
Cheyenne, WY 82007-4178
Phone: (307) 772-2374 Fax: (307) 772-2358
Email Address: wyominges@fws.gov



In Reply Refer To:
Project Code: 2024-0140577
Project Name: Big Horn Y - WYDOT

09/06/2024 14:03:18 UTC

Subject: List of threatened and endangered species that may occur in your proposed project location or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed, and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through IPaC by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2)).

(c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at: <https://www.fws.gov/sites/default/files/documents/endangered-species-consultation-handbook.pdf>

Migratory Birds: In addition to responsibilities to protect threatened and endangered species under the Endangered Species Act (ESA), there are additional responsibilities under the Migratory Bird Treaty Act (MBTA) and the Bald and Golden Eagle Protection Act (BGEPA) to protect native birds from project-related impacts. Any activity, intentional or unintentional, resulting in take of migratory birds, including eagles, is prohibited unless otherwise permitted by the U.S. Fish and Wildlife Service (50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)). For more information regarding these Acts, see [Migratory Bird Permit | What We Do | U.S. Fish & Wildlife Service \(fws.gov\)](https://www.fws.gov/partner/council-conservation-migratory-birds).

The MBTA has no provision for allowing take of migratory birds that may be unintentionally killed or injured by otherwise lawful activities. It is the responsibility of the project proponent to comply with these Acts by identifying potential impacts to migratory birds and eagles within applicable NEPA documents (when there is a federal nexus) or a Bird/Eagle Conservation Plan (when there is no federal nexus). Proponents should implement conservation measures to avoid or minimize the production of project-related stressors or minimize the exposure of birds and their resources to the project-related stressors. For more information on avian stressors and recommended conservation measures, see <https://www.fws.gov/library/collections/threats-birds>.

In addition to MBTA and BGEPA, Executive Order 13186: *Responsibilities of Federal Agencies to Protect Migratory Birds*, obligates all Federal agencies that engage in or authorize activities that might affect migratory birds, to minimize those effects and encourage conservation measures that will improve bird populations. Executive Order 13186 provides for the protection of both migratory birds and migratory bird habitat. For information regarding the implementation of Executive Order 13186, please visit <https://www.fws.gov/partner/council-conservation-migratory-birds>.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Code in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment(s):

- Official Species List

OFFICIAL SPECIES LIST

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

Wyoming Ecological Services Field Office

334 Parsley Boulevard
Cheyenne, WY 82007-4178
(307) 772-2374

PROJECT SUMMARY

Project Code: 2024-0140577
Project Name: Big Horn Y - WYDOT
Project Type: Road/Hwy - Maintenance/Modification
Project Description: The Big Horn Y is the intersection of WY-335, WY-332, and US Highway 87. The project would replace the current intersection with a roundabout to improve the flow of traffic through the intersection.

Project Location:

The approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@44.7192143,-106.96224859084515,14z>



Counties: Sheridan County, Wyoming

ENDANGERED SPECIES ACT SPECIES

There is a total of 2 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries¹, as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

-
1. [NOAA Fisheries](#), also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

INSECTS

NAME	STATUS
Monarch Butterfly <i>Danaus plexippus</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9743	Candidate

FLOWERING PLANTS

NAME	STATUS
Ute Ladies'-tresses <i>Spiranthes diluvialis</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/2159	Threatened

CRITICAL HABITATS

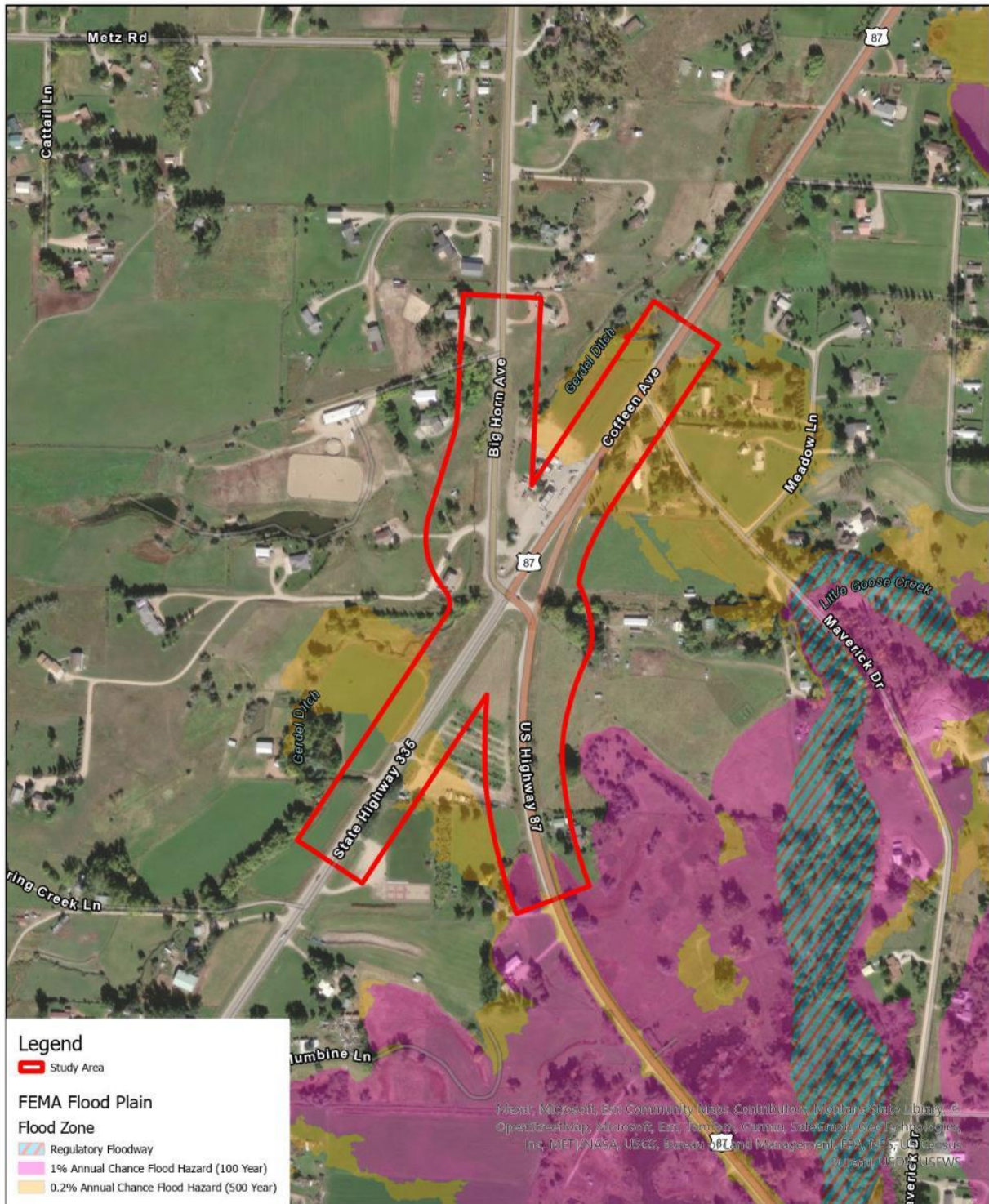
THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

YOU ARE STILL REQUIRED TO DETERMINE IF YOUR PROJECT(S) MAY HAVE EFFECTS ON ALL ABOVE LISTED SPECIES.

IPAC USER CONTACT INFORMATION

Agency: Private Entity
Name: Rowan Krump
Address: 7350 Stockman St.
Address Line 2: Suite A
City: Cheyenne
State: WY
Zip: 82009
Email: rowan.krump@hdrinc.com
Phone: 3077579009

Attachment 3



0 700 US Feet

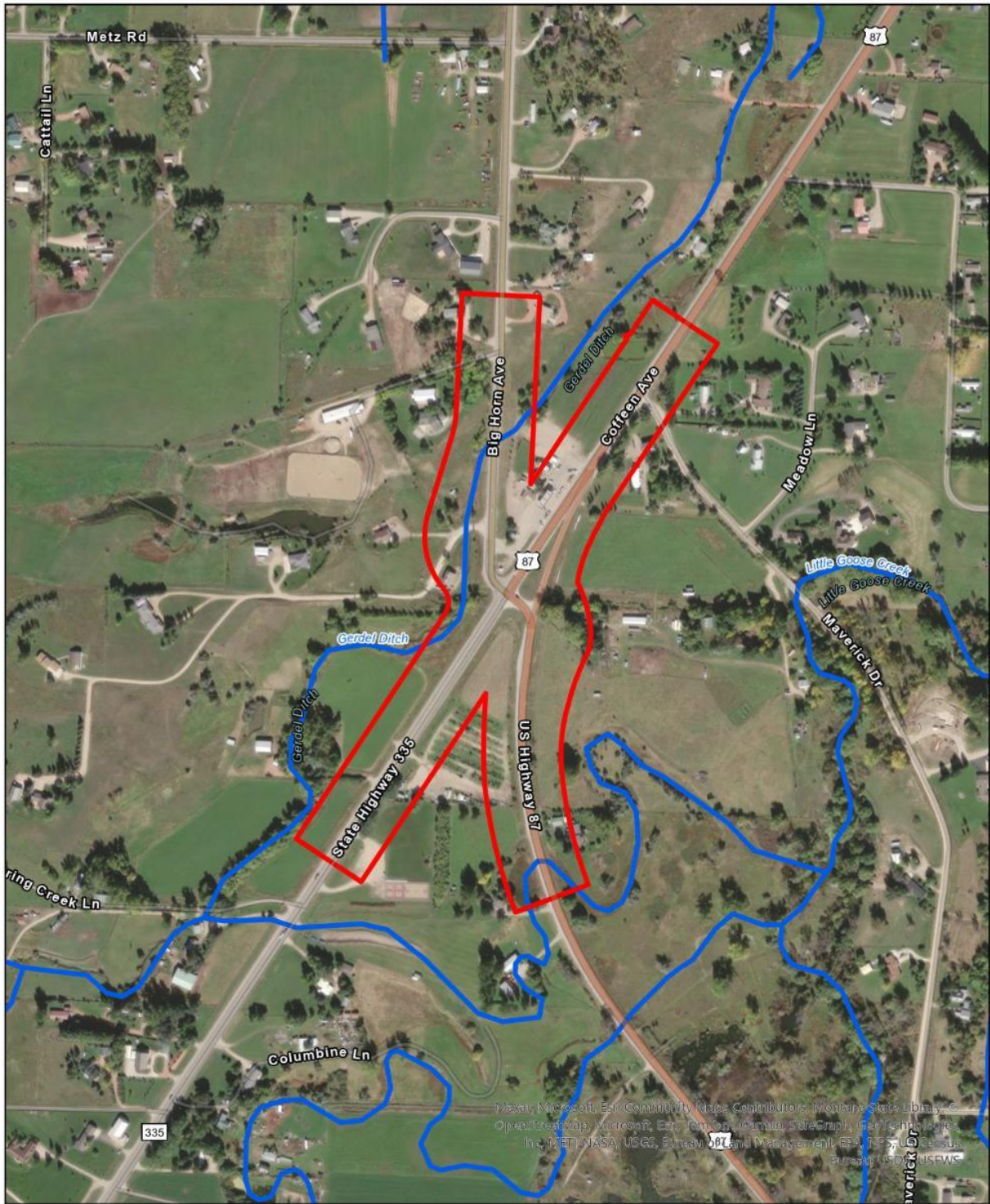


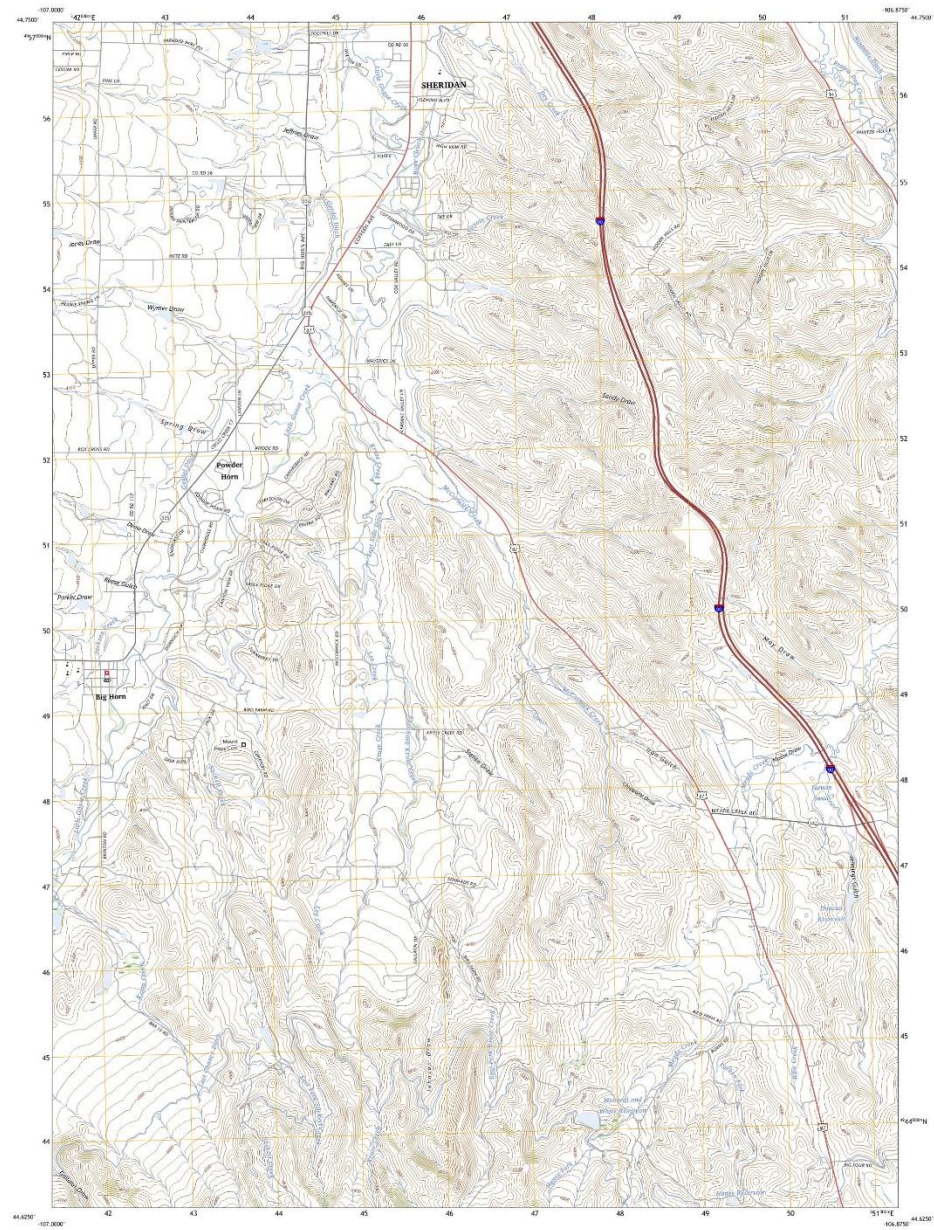
FLOOD ZONE MAP

SEPTEMBER 2024

BIG HORN COUNTY
SHERIDAN COUNTY, WYOMING

Attachment 4





Produced by the United States Geological Survey

North American Datum of 1983 (NAD83)
World Geodetic System of 1984 (WGS84) Projection and
1,000-meter grid intervals. For more details, Zone 18E
This map is not a legal document. Boundaries may be
generalized for this map scale. Private lands within government
reservations may not be shown. Obtain permission before
entering private lands.

Recovery	.....	2007, July 2007	January 2018
Results	.....	U.S. Census Bureau	2006, 2012
Issues	.....	.....	2007, 2009
Hydrography	.....	National Hydrography Dataset	2000, 2013
Counties	.....	National Elevation Dataset	2010
Boundaries	.....	Multiple sources; see metadata file	2010, 2012
Public Land Survey System	.....	.....	2010
Wetlands	.....	FWS National Wetlands Inventory	1982 - 1991



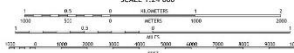
UTM GRID AND 2013 MAGNETIC NORTH
DECLINATION AT CENTER OF SHEET

11.5. 1998-10-10
12.5. 1998-10-10

OE

Doc Type: Configuration

SCALE 1:24 000



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CONTOUR INTERVAL, 20 FEET
NORTH AMERICAN VERTICAL DATUM OF 1988

This map was produced to conform with the National Geographic Program US Topo Product Standard.



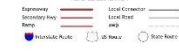
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3	4	5
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6	7	8
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QUINCY QUARANTZ

ROAD CLASSIFICATION:



BIG HORN WY

2023

BIG HORN WY

2023



Attachment 6

