ORDINANCE NO. 2012-4

ROAD SPEED LIMITS

AN ORDINANCE TO ESTABLISH A SPEED LIMIT ON FRONTAGE ROAD, MASONIC HOME ROAD, AND COLLINS DRIVE, LEWIS AND CLARK COUNTY, MONTANA, AND TO PROVIDE PENALTIES FOR A VIOLATION THEREOF

WHEREAS, the Public requested a review of the speed limit on Frontage Road, Masonic Home Road, and Collins Drive, Lewis and Clark County; and

WHEREAS, the Lewis and Clark County Public Works Department requested that Abelin Traffic Services of Helena, Montana, perform a speed study on these roads and determine if the posted speed limit is appropriate for the existing road conditions and travel patterns; and

WHEREAS, Section 61-8-310, MCA allows the Lewis and Clark County Commission to establish speed limits on any public highways as defined in 60-1-103, MCA; and

WHEREAS, Frontage Road, Masonic Home Road, and Collins Drive, in Lewis and Clark County, Montana, are public roads as defined in Section 60-1-103, MCA; and

NOW, THEREFORE, BE IT ORDAINED BY THE COUNTY COMMISSION OF LEWIS AND CLARK COUNTY, STATE OF MONTANA:

SECTION 1. SPEED LIMIT ESTABLISHED

See attached "Exhibit A - Abelin Speed Study."

SECTION 2. SPEED LIMIT SIGNS

Upon receiving notice of the regulatory speed limit established by this Ordinance, and after the passage of at least thirty days from the date this Ordinance is adopted, the Public Works Department shall erect the appropriate signs giving drivers notice of the regulatory speed limit established by this Ordinance.

SECTION 3. PENALTY

Section 1 – The I-15 Frontage Road South of Sierra Road.

Section 2 – The I-15 Frontage Road North of Sierra Road.

NOTE: Sections 1&2 are owned and operated by Montana MDT and would require approval from the MDT Transportation Commission.

Section 3 – The East/West Section of Masonic Home Road. A vehicle traveling more than <u>60</u> <u>55</u> mph on this section of Road is in violation of the law, and the driver is subject to penalties

Section 4 – Collins Drive South of Lincoln Road. A vehicle traveling more than $\underline{60}$ mph on this section of Road is in violation of the law, and the driver is subject to penalties.

Penalty for violation of this Ordinance or any provision thereof shall be enforced according to Title 61, Chapter 8, MCA, or any other applicable state or local law.

SECTION 4. SEVERABILITY

Should any court declare any part of this ordinance unconstitutional or invalid, the ordinance as a whole, or any part thereof, other than the part so declared to be unconstitutional or invalid, shall remain in effect.

SECTION 5. EFFECTIVE DATE

This Ordinance shall take effect thirty days after the date of Second Reading and approval of this Ordinance by the County Commission.

SECTION 6. MODIFICATION

This Ordinance may be modified by formal action by the Board of County Commissioners in the same manner as required in the adoption of the Ordinance.

SECTION 7. DURATION

This Ordinance shall remain in effect until repealed or suspended by other legislative or judicial action.

READ and adopted at first reading this da Lewis and Clark County Commission, State of Montana		, 2012, by the
ATTEST:	A	Chairman
	Andy Hunthausen,	Cnairman
Paulette DeHart, Clerk of the Board		
READ and adopted at second and final reading this	day of	, 2012
ATTEST:	Andy Hunthausen,	Chairman
Paulotto DoHart Clark of the Board	·	

5225 Collins Drive Helena, Montana 59602 Dec 19, 2011

RECEIVED

DEC 21 2011

LEW: MY COUNTY

Mssrs. Mike Murray, Andy Hunthausen, Derek Brown Lewis and Clark County Commissioners 316 North Park Avenue Helena, Montana 59601

Gentlemen,

We respectfully request that you initiate a speed limit of no more than 50 miles per hour on the portion of the Frontage Road north of Helena that includes Masonic Home Road and Collins Drive, south of the Lincoln Road and 60 miles per hour from Cross's Corner to the city limits.

We previously asked you to change the speed limit, but the only change were "deer crossing" signs because we had also reported eight plus deer carcasses on the side of the road.

This past summer and fall, property owners have continued to have fences torn down or damaged and irrigation systems destroyed, all due to vehicles either dodging a deer, missing a curve or sliding off the road due to excessive speed. The current speed limit is 70 mph from Lincoln Road to the city limits!!

Green Meadow Drive is definitely a better highway, i.e. much wider, straight and well lighted in places. The speed limit there is 60 mph in the daytime! We feel a serious accident and/or resulting fatality is only a matter of time on Collins Drive/Masonic Home Road.

Thanks for your consideration.

Jeff Stefanik Family

2110 Masonic Home Rd

Joe Scanlon Collins Drive

Steve Bayless Family

5225 Collins Drive

Dave Smith

Collins Drive

		d.	£s.



March 23, 2012

services

Eric Griffin Lewis & Clark County 3402 Cooney Drive Helena, MT59601

RE: Frontage Road, Masonic Home Road, Collins Drive Speed Study

Dear Eric,

Per your request Abelin Traffic Services (ATS) has reviewed the existing speed limits on the I-15 Frontage Road north of Custer Avenue, Masonic Home Road, and Collins Drive south of Lincoln Road. The posted speed limit on these roads is currently 70 MPH. Lewis & Clark County requested that ATS perform a speed study on these roads and determine if the posted speed limit is appropriate for the existing road conditions and travel patterns.

Existing Conditions

The study roadways begin near the Custer Avenue Interchange in Helena. From there the Frontage Road parallels I-15 for a distance of 4.5 miles to the north. The Frontage Road then takes a hard turn to the east and becomes Masonic Home Road and continues for 1.5 miles. The road then swings to the north again and becomes Collins Drive for one mile before intersecting with Lincoln Road. See Figure 1 for a map of the study roadways.

For the purposes of this study ATS broke the road into four different sections. These sections include the Frontage Road south of Sierra Road (Section 1), the Frontage Road north of Sierra Road (Section 2), the east/west section of Masonic Home Road (Section 3), and Collins Drive south of Lincoln Road (Section 4). It should be noted that the two sections of the Frontage Road adjacent to I-15 (Sections 1 & 2) are owned and operated by the Montana DOT. These sections were included in this study for comparison with the two County owned sections (Sections 3 & 4). MDT will consider speed limit changes on their roadways, but any changes would require approval from the MDT Transportation Commission.

All of these roads are mostly flat and straight with a rural roadside environment characterized by open farm fields and rural residential homes. Visibility on the roads is very good and much of the road (90%) has no passing restrictions. The clear zones have few obstructions. All sections have a 70 MPH posted speed limit with a 65 MPH night speed limit and a truck speed limit of 60 MPH (55 MPH night).

= Traffic Counter Location

Figure 1 - Vicinity Map

Road Sections

Section 1 - Frontage Road South of Sierra Road

Section 1 includes the portion of the Frontage Road from the City of Helena boundary north to Sierra Road. This section has the highest traffic volume of the four sections with an ADT volume of 1,950 Vehicles Per Day (VPD). The road has a paved width of 26 feet on 80 feet of right-of-way with 12-foot driving lanes. The road surface is in good to excellent condition. The intersection of the Frontage Road and Sierra Road is controlled by a four-way STOP.

Section 2 - Frontage Road North of Sierra Road

North of Sierra Road the Frontage road has the same cross-section and design with 12 foot driving lines on 26 feet of pavement on 80 feet of ROW. The road surface is in good to excellent condition. Traffic volumes on this section decrease to 750 VPD. Section 2 ends where the road takes a sharp turn to the east. This turn is marked with a several warning signs in both directions. The curve can be driven comfortably at speeds below 20 MPH.

Section 3- Masonic Home Road

Section 3 is the start of the L&C County owned portion of this road. Section 3 (Masonic Home Road) has a paved width of 24 feet on 100 feet of ROW with no shoulder striping. The road surface is in fair to good condition. This section carries 700 VPD and passes next to the Masonic Home. Near the end of the section the road begins to veer to the north onto section 4. This curve is well engineered and can be taken comfortably at a speed of 70 MPH.

Section 4 - Collins Drive South of Lincoln Road

Section 4 (Collins Drive) has the same cross-section and design as section 3. The road continues north for one mile and ends at a STOP controlled intersection with Lincoln Road. Collins Drive does extend north of Lincoln Road but is unpaved and is not part of this study.

Crash Data

Abelin Traffic Services obtained crash data for the study roadways from the L&C County vehicle crash database. This data indicated that 27 vehicle crashes have occurred along these roadways in the past five years. Of these 27 crashes, 15 occurred on the Frontage Road south of Se rra Road (Section 1), five crashes occurred on the tangent portions of Sections 2-4, and seven crashes occurred at the sharp curve between the Frontage Road and Masonic Home Road. Nine Crashes resulted in injuries and three of the crashes involved more than one vehicle. Of the three multi-vehicle crashes, all occurred between Munger Road and Karmen Road on Section 1. Most of the crashes (67%) occurred in darkened conditions and only six occurred on wet or snowy roads.

The crash rate on Section 1 is approximately 4 crashes per million vehicle miles traveled, which is above the state average for secondary highways. The crash rate at the sharp curve between the Frontage

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Road and Masonic Home Road is also fairly high at 5 crashes per million vehicle entering. The crash rates on the other sections are near the state average of 1.4 crashes per million vehicle miles traveled. It may be desirable for MDT and L&C County to do detailed reviews of crashes along the Frontage Road south of Sierra Road and at the sharp curve between the Frontage Road and Masonic Home road to determine if additional crash mitigation measures could be employed on these two areas to decrease the crash rates.

Speed Data

Vehicle speed data was collected on the four sections of roadway March 13-16 2012. The weather condition during the traffic study was cool and cloudy, but the roads had very good driving conditions throughout the data collection period. The data was collected continuously using Diamond Unicorn Limited traffic counterstorecord the individual speed data from every vehicle using the road. The results of the data collection are shown in Table 1.

TABLE 1 - Vehicle Speed Data

	Section 1	Section 2	Section 3	Section 4
Average Speed (MPH)	62.4	63.8	55.6	55.1
85% Percentile Speed (MPH)	70.1	72.8	66.6	65.3
10 MPH Pace Speeds	60-70 MPH	60-70 MPH	50-60 MPH	50-60 MPH
Percent in Pace	48.9%	46.2%	38.4%	43.3%
Percent Below Speed Limit (70 MPH)	85%	76%	93%	95%

The speed data indicates that the posted speed limits on the Frontage Road in Sections 1 & 2 (MDT Sections) is appropriate. The most commonly used road operations characteristic for posting a speed limit is the 85th percentile speed (the speed at which 85% of road uses are driving at or below). The 85th percentile speeds on sections 1 & 2 are 70 MPH and 73 MPH respectively. The 10 MPH pace speeds on these two sections (the 10 MPH range in which the most road users are driving) is 60-70 MPH and almost 50% of traffic is traveling within the pace. This is consistent with the posted 70 MPH speed limit. In general it is desirable to have the majority of traffic on a roadway traveling within or around the 10 MPH pace. This decreases the variability in vehicle speeds and decreases vehicle conflicts.

On sections 3 & 4 the road use characteristics change. The 85 th Percentile speeds drop to 65 MPH and the pace drops to 50-60 MPH with only 40% of vehicles are driving within the pace. It is also noteworthy that in Sections 3 & 4,95% of traffic is traveling below the posted speed limit. The results of this study indicate a much higher variability in vehicle speeds in Sections 3 & 4 and a tendency for vehicles to travel below the posted speed limit. It would be desirable to lower the posted speed limits on Masonic Home Road and Collins Drive (Sections 3 & 4) to more closely match the current vehicle use patterns.

Recommendations

It is recommended that the posted speed limits on Masonic Home Road and Collins Drive be lowered from 70 MPH to 60 MPH. This change should bring the posted speed limit more in line with the observed vehicle speeds on these roads and should make the overall vehicle speeds profiles more consistent. At this time we do not recommend any changes to the speed limit on the Frontage Road.

If you have any questions about these results please feel free to call me at 406-459-1443

20mh

Sincerely,

Bob Abelin, P.E. Abelin Traffic Services, Inc.

REVISED

Recommendations

It is recommended that the posted speed limits on Masonic Home Road and Collins Drive be lowered from 70 MPH to 55 MPH. This change should bring the posted speed limit more in line with the observed vehicle speeds on these roads and should make the overall vehicle speeds profiles more consistent. At this time we do not recommend any changes to the speed limit on the Frontage Road.

If you have any questions about these results please feel free to call me at 406-459-1443

Sincerely,

Bob Abelin, P.E.

Abelin Traffic Services, Inc.

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Station: FRONT1

Date From: 11:00 - 03/13/2012 To: 09:59 - 03/16/2012

Special Speed Study Summary: FRONT1

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Percent:	0%	0%	0%	0%	0%	0%	1%	2%	7%	22%	48%	75%	94%	99%	100%	100%	100%	100%	
Cum. Percent:	0%	0%	0%	0%	0%	0%		470	3	10	17	18	12	31000					65
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	1 00-	1101					10	40	109	326	889	1287	1	4912	3216		8	-	5284
Grand Total #3:		0%	0%	0%	0%	0%	0%	1%	2%	6%	17%	24%	27%	17%	4%	1%	0%		
Percent:	0% 0%	0%	0%	0%	0%	0%	0%	1%	3%	9%	26%	50%	78%	95%	99%	100%	100%	100%	
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Station: FRONT:

Data From; 11:00 - 03/13/2012 To: 09:59 - 03/16/2013

Special Speed Study Summary: FRONT2

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Percent:	0%	0%	0%	0%	0%	0%	0%	1%	3%	7%	16%	24%	24%	17%	5%	2%	0%	0%		
Cum. Percent:	0%	0%	0%	0%	1%	1%	1%	2%	4%	12%	28%	51%	76%	92%	98%	99%	100%	100%		
Average:	0	0	0	0	0	0	0	0	0	1	3	4	4	3	1	0	0	0	16	
ADT = 422	Av	erage	Speed	: 64.2	mph	5	0% Sp	eed:6	4.7 mp	h		Speed			/A7 89		eed:	72.9 mpl	h	
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Cum. Percent :	0%	0%	1%	1%	1%	1%	2%	3%	7%	18%	33%	55%	77%	92%	97%	100%	100%	100%		
Average:	0	0	0	0	0	0	0	0	1	1	2	3	3	2	1	0	Ð	0	13	
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Cum. Percent:	0%	0%	1%	1%	1%	1%	1%	2%	6%	14%	30%	53%	76%	92%	97%	100%	100%	100%		
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ADT = 735	Av	erage	Speed	: 63.8	mph	5)% Sp	eed:6	4.4 mp	h		Speed ph Pac					eed:	72.8 mp	h	

Centurion Special Speed Study Report

Printed: 03/26/12 Page 10

Data From: 11:00 - 03/13/2012 To: 09:59 - 03/16/2012

Station: FRONT3

Special Speed Study Summary: FRONT3

	#1	#2 10.1 - 1	#3 [5.1 - 2	#4 20 1 = 3	#5 25.1 - 3	#6 10.1 - 3	#7 35.1 - 4	#8 40.1 - •	#9 45.1	#10 50:1 - :	#11 55 1	#12 60 1 -	#13 65.1 -	#14 70.1 -	#15 75.1 -	#16 80.1 -	#17 85.1 -	#18 90.1 -	
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Cum. Percent:	0%	0%	0%	0%	1%	5%	7%	11%	22%	38%	61%	81%	92%	98%	100%	100%	100%	100%	
Average:	0	0	0	0	0	0	0	1	2	2	3	3	2	1	0	0	0	0	14
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Cum. Percent :	0%	0%	0%	1%	2%	5%	10%	18%	33%	53%	71%	84%	94%	98%	99%	100%	100%	100%	
Average:	0	0	0	0	0	0	1	1	2	2	2	1	1	0	0	0	0.	0	10
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Comb. Total :	20	33			23	58	65	100	227	322	372	310	198	85		8	0	0	1807
Percent:	0%	0%	0%	0%	1%	3%	4%	6%	13%	18%	21%	17%	11%	5%	2%	0%	0%	0%	
Cum. Percent :	0%	0%	0%	0%	2%	5%	9%	14%	27%	44%	65%	82%	93%	98%	100%	100%	100%	100%	
Average :	0	0	0	0	0	1	1	1	3	5	5	4	3	1	0	0	0	0	24
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Station: FRONT4

Data From: 10:00 - 03/13/2012 To: 09:59 - 03/16/2013

Special Speed Study Summary: FRONT4

	#1 1 - 1	#2 0.1	#3 15.1 - 2	#4 20.1 - ;	#5 25.1 - 3	#6 80.1 - 3	#7 35.1	#8 40.1	#9 45.1 -	#10 50.1 -	#11 55.1 - :	#12 60.1 - 1	#13 65.1 -	#14 70.1 -	#15 75.1 -	#16 80.1 -	#17 85.1 -	#18 90.1 -	
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Cum. Percent :	0%	0%	1%	2%	4%	5%	9%	17%	31%	53%	75%	88%	96%	99%	100%	100%	100%	100%	
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Percent:	0%	0%	1%	1%	1%	1%	2%	7%	14%	20%	23%	15%	10%	4%	1%	0%	0%	0%	- 4
Cum. Percent:	0%	0%	1%	2%	3%	4%	6%	13%	27%	47%	70%	85%	95%	98%	100%	100%	100%	100%	
Average:	1 0	0	0	. 0	0	0	0	1	3	4	5	3	2	1	0	0	0	0	19
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