

PRE-MEETING AGENDA

**Casper City Council
City Hall, Council Meeting Room
Tuesday, July 19, 2022, 5:30 p.m.**



Please silence cell phones during the City Council meeting

	Presentation	Beginning Time	Allotted
1.	Casper Mountain Road Speed	5:30	10 min
2.	Agenda Review	5:40	5 min
	Approximate Ending Time		5:45

We are CASPER

Communication Accountability Stewardship Professionalism Efficiency Responsiveness

July 1, 2022

MEMO TO: J. Carter Napier, City Manager *JCN*
FROM: Andrew Beamer, P.E., Public Services Director *AB*
SUBJECT: Casper Mountain Road Speed Study

Meeting Type & Date:

July 19, 2022
Council Pre-Meeting

Action Type:

Information Only

Summary:

With new development occurring off Casper Mountain Road, staff and City Council received calls to lower the speed limit, specifically between Center Street and West 27th Street, from 50-mph to 40-mph. As this is WYDOT's jurisdiction, a request was made to WYDOT to conduct a speed limit study along the corridor.

WYDOT completed their study earlier this year, recommending that the 50-mph speed zone be eliminated and the two 40-mph speed zones be connected. This will create a continuous 40-mph speed zone along Casper Mountain Road between Wyoming Boulevard and T-Bird Drive, before the speed limit is further reduced to 30-mph as traffic continues into Casper.

Financial Considerations:

Negligible – city staff will switch out one 50-mph sign and replace it with a 40-mph sign.

Oversight/Project Responsibility:

Andrew Beamer, P.E., Public Services Director

Attachments:

Casper Mountain Road Speed Zones Map
WYDOT Casper Mountain Road Speed Limit Study

CASPER MOUNTAIN ROAD SPEED ZONES

EXISTING MPH

GREEN = 30 MPH

YELLOW = 40 MPH

RED = 50 MPH

PROPOSED MPH

DASHED YELLOW = 40 MPH

CITY OF CASPER'S JURISDICTION

WYOMING DEPARTMENT OF TRANSPORTATION'S JURISDICTION





Mark Gordon
Governor

WYOMING Department of Transportation

"Providing a safe, high quality, and efficient transportation system"

900 Bryan Stock Trail, Casper, Wyoming 82601



K. Luke Reiner
Director

March 30, 2022

The City of Casper
Carter Napier, City Manger
200 N. David St
Casper, WY 82601

Re: WY 251 (Casper Mtn Rd) Speed Limit

Dear Mr. Napier,

The City of Casper requested that WYDOT look at lowering the 50 MPH speed limit between RM 1.65 and 2.60 on WY 251 (Casper Mtn Rd). WYDOT has completed a speed study recommending a reduction from the existing 50 MPH speed limit between RM 1.65 and 2.60 to a speed limit of 40 MPH, matching the speed limit entering and exiting the 50 MPH speed zone. This recommendation is ready to send to WYDOT's Chief Engineer for review. As this change will affect a portion of WY 251 that is under the jurisdiction of the City of Casper (RM 1.65 to RM 2.01). WYDOT will need a letter from the City of Casper concurring with the proposed speed limit change and a commitment to change the speed limit to 40 MPH on its portion of WY 251.

Alternatively, now might be the time for the City of Casper to extend its jurisdiction on WY 251 from RM 2.01 to WY 258 (Wyoming Blvd (RM 3.02)), a distance of 1.01 miles. This would enable the City of Casper to change the speed limit through its own process. It would also enable the City of Casper to have more control over the development that is occurring along WY 251 in this area.

Ben Hansuld is currently seeking two new accesses to WY 251 in this area. Ben has asked about the process to change the current field access located approximately 450ft north of the Seventh Day Adventist access to a commercial access. CEPI, on behalf of Ben, has begun inquiry into a third city street access "Palmer Dr." for the Nine Iron subdivision. Although lowering the speed limit to 40 MPH will decrease the minimum required access spacing on WY 251, decreased access spacing is not an acceptable reason to lower the speed limit. These two new accesses can meet minimum WYDOT access spacing requirements at 40 MPH, but no new accesses east of WY 251 will meet WYDOT spacing policies between W 27th St and the southern Boy Scouts of America property line.

Moving forward with land development in the area, WYDOT minimum spacing requirements at 40 MPH will dictate the new commercial access be centered on the southern property line, applied for as a joint access to be used by both properties, meaning the application is cosigned by both property owners. Granting of the joint commercial access will require the removal of the

existing field access just north of the Seventh Day Adventist access. Palmer Dr will need to be located half way between W 29th St and the new joint commercial access. As the eventual owner of Palmer Dr, the City of Casper will make the application for the Palmer Dr access to WY 251. A traffic impact study will be required for both accesses and impacts to WY 251 addressed. Barring any unforeseen issues, WYDOT will grant the two accesses Ben is seeking at the approximate locations described. This does not address what happens to Nicklaus Dr shown in the Nine Irons subdivision plat, but options connecting Nicklaus Dr to WY 251 are limited that meet WYDOT policies.

Thank you for your time and consideration in this matter. Please let WYDOT know how you would like to proceed by either providing a letter of concurrence to and plans to participate in the implementation of the 40 MPH speed limit change or a desire to move forward with a change in jurisdiction of WY 251 north of WY 258 (Wyoming Blvd).

Respectfully,

A handwritten signature in blue ink, appearing to read 'Mark Ayen', with a long horizontal flourish extending to the right.

Mark Ayen, PE
District Engineer
WYDOT, Casper

cc: Andrew Beamer, City of Casper, Public Works Director.

**WY 251
Casper Mountain Rd.**

Speed Limit Study

2022

Prepared By: Chad Aagard, P.E.

Wyoming Department of Transportation

Casper, WY

Affix PE Stamp Below:

Traffic Engineer

WY 251 Speed Study

Introduction

On WY 251, the speed limit rises from 40 MPH to 50 MPH at RM 1.65± and then reduces from 50 MPH back to 40 MPH at RM 2.60±. The City of Casper requests WYDOT look at connecting the two 40 MPH speed zones by removing the 50 MPH speed limit zone located between RM 1.65 and 2.60 on WY 251. The ongoing housing development, which currently accesses WY 251 at RM 2.04± and 2.20± via S 27th St and S 29th St, is changing the character of WY 251. This housing developer is looking for an access to WY 251 for Palmer Dr at 2.33± and questions related changing a field access to a commercial access at RM 2.44± have been asked.

Corridor Description

The City of Casper has jurisdiction of WY 251 (S. Wolcott St) from its beginning at the intersection of S. Wolcott St (WY 251) and E 1st St (US 20/26 Business (RM 1.63)) to RM 2.01 (the southern property line of Casper College and Casper Municipal Golf Course). The Speed limit and land use vary throughout:

- The speed limit is 20 MPH in the Downtown portion.
- The speed limit is 30 MPH in the residential portion.
- The speed limit is 40 MPH between the middle and southern Casper College access (RM 1.36 - 1.63). Land use is the College Campus who has three accesses and an internal road system and the municipal golf course.
- The speed limit is 50 MPH from south of the southern Casper College access at RM 1.63 to RM 2.61. The City of Casper's jurisdiction of WY 251 ends in the middle of this speed zone at RM 2.01. Land use on the portion of WY 251 belonging to the City of Casper is rural in nature with undeveloped land owned by Casper College to the west and the municipal golf course to the east. There are minor accesses for maintenance type operations.

WYDOT has jurisdiction of WY 251 (Casper Mtn Rd) from RM 2.01 to RM 8.91, where the route divides onto Natrona County Rd 504 and 505. The WYDOT portion of WY 251 (Casper Mtn Rd) consist of a 12ft north and southbound travel lanes with 1ft shoulders. A 12ft center left hand turn lane with 4ft shoulders have been added for W 27th St, W 29th St, and Wyoming Blvd (WY 258). "The Nine Iron Subdivision" developer built these improvements for W 27th and W 29th Streets. WY 251 (Casper Mtn Rd) and WY 258 (Wyoming Blvd) intersection improvements were part of a WYDOT project.

The speed limit and land use varies throughout:

- The speed limit of 50 MPH continues from RM 1.63 to RM 2.61 (S Center St access). Current land use consist three commercial accesses (Churches), two field accesses and two recent city street accesses (27th St and 29th St). East of WY 251 (Casper Mtn Rd), development in the Nine Iron subdivision as part of 27th and 29th street is ongoing, with the subdivision looking to extend south with an application for a new city street access (Palmer Dr) and new commercial access replacing one of the field accesses. When this development is finished, access density will be at the maximum allowed by WYDOT access spacing for 40 MPH speed limit to the ease. Western development is not likely given the adverse terrain.
- The speed limit is 40 MPH from RM 2.61 – 3.71 (South of W 59th St). WY 258 (Wyoming Blvd) intersects with WY 251 at RM 3.02. Land use between RM 2.61 and 3.02 (S. Center St to Wyoming Blvd) is residential subdivision accessing WY 251 via two city streets (S Center St and S David St) to the west and there are two office buildings and a church with commercial accesses on the east of WY 251. Land use between RM 3.02 and RM 3.71 (Wyoming Blvd to W 59th St/speed limit change) is residential subdivision accessing WY 251 via city streets (W 50th St, W

53rd St, Goodstein Dr, and W 59th Street. Land to the east of WY 251 south of Goodstein Dr is undeveloped.

- The speed limit is 55 MPH from 3.71 to the end of state maintenance at RM 8.91. Land use is rural, undeveloped land with occasional private residential access running from the foot to the summit of Casper Mountain. Step grades and switch back curves with advisory speed limits much lower than the actual speed limit for much of the remaining corridor.

Traffic Volumes

SOURCE	LOCATION	2020 ADDT	
		ALL VEH	TRUCKS
WYDOT PLANNING	RM 2.05 – 3.03	4787	80
DATA COLLECTED BY JAMAR RADAR.	RM 2.5	4059	
	RM 2.01	4090	

Crash Analysis

Four wildlife related crashes appear in the five-year crash history for the speed study area (January 1, 2016 through December 21, 2020). WYDOT's Highway Safety Segment Report gives the speed study area a safety index rating of two or average.

Highway Safety Segment Crash History Report

Developed for Wyoming
Department of Transportation



Start Year: 2016 End Year: 2020

DATE	STATE NO.	MILEPOST	INJURY	FATALITY	MANNER	LIGHT	FHE	LOCATION	SEVERITY
14 September 2020	202009635	2.25	0	0	null	Darkness	Deer	On Roadway	PDC
10 October 2019	201912290	2.26	0	0	null	Daylight	Antelope	On Roadway	PDC
28 July 2020	202007597	2.31	0	0	null	Dawn	Antelope	On Roadway	PDC
30 September 2018	201911676	2.5	0	0	null	Dusk	Antelope	On Roadway	PDC

Speed Data Analysis

District 2 staff performed free flow spot speed studies at the locations and dates given in the table below. WYDOT collected speed data using a Jamar radar speed recorder for all traffic traveling in the corridor at the specified locations over approximately 24-hour period. The individual spot speed studies are included as an attachment to this document. The table below is a summary of the data collected.

Location	Date	Northbound Direction			Southbound Direction		
		85 th Percentile	50 th Percentile	Pace	85 th Percentile	50 th Percentile	Pace
RM 2.50	Mar. 16 th 2022	47	36	40-49	51	43	44-53
RM 2.01		36	21	15-24	37	23	16-25

Analysis of the traffic data using USLIMITS2 results varied based on location. USLIMITS2 recommended speed limit is 45 MPH at RM 2.50 and 35 MPH at RM 2.01. USLIMITS2 is rounding down to the even 5 MPH from the 85th percentile due to the difference between the 85th and 50th percentile being greater than 10 miles per hour.

The speed data collected at 2.01 is near W 27th St, which will be typical of the entire 50 MPH speed zone within WYDOT's jurisdiction once the accesses currently under review are built. Making the results at RM 2.01 the more typical results for this section. Given that the existing speed limit is 40 MPH on either end of the speed study area and the soon to come additional land development in the area, I recommended that this 50 MPH speed zone be eliminated and the two 40 MPH speed zones be connected, making the speed limit 40 MPH from RM 1.36 to RM 3.71.

Final Recommendations

I recommend the following:

- The City of Casper remove the 50 MPH speed limit sign on WY 251 at RM 1.65 and the City of review any additional signing that maybe required on related to the speed between RM 1.65 and 2.01.
- WYDOT remove the 40 MPH and 50 MPH speed limit signs on either side of RM 2.60 and the 40 MPH speed limit sign be reinstalled in the northbound lane 280ft north of the WY 258 (Wyoming Blvd).gn