

Staying Safe while driving on Winter Roads in Rural Communities

By Al Myatt

Date: November 2023

When road conditions are hazardous, especially in the winter, the safest thing to do is stay home.

If you must venture out, here are a few things you can do to avoid risky situations.

1. Plan for extra time, reduce your speed, expect poor visibility that will generate slower traffic.

- Allow yourself at least 3 times the normal driving time.

- Start your vehicle and let it warm up before leaving your current location.

2. Compile an emergency equipment toolbox with the following:

- Flashlight and extra batteries

- First Aid Kit

- Small Shovel

- Bag of sand or sweeping compound to put under the wheels if you slide off the road. The sand also adds weight to the back of the vehicle for increased traction.

- Towing strap

- Ice Scraper and window spray deicer

- Coats, hats, gloves, and blankets

- Fully charged cell phone

- Battery starting unit

- Can of tire repair sealer/inflator.

- Emergency reflectors

3. Keep your fuel tank full.

- A full tank of fuel reduces moisture condensation and freezing fuel filter/gas lines.

- A full tank of fuel also adds a lot of weight to the vehicle. A gallon of fuel adds approximately 8 pounds to the weight of the vehicle.

-If you slide off the road, or get stuck, given your vehicle is still operational, you will have several hours of heat and lights until an emergency vehicle can assist you.

4. Check your tires to make sure that they meet all the safety requirements.

-Make sure they all have the right tire pressure. In the winter cold temperatures will cause your tires to have reduced tire pressure.

-Tires need to have optimum tread.

-**Note:** I recommend 10 ply winter mud and snow tires.

5. Increase your visibility.

-Clear your vehicle of ice and snow that includes windows, hood, roof, lights, and mirrors, as well as a backup camera if equipped.

-Snow and ice blowing off the vehicle while driving down the highway can endanger other motorists.

-Note: Do not follow large trucks down the highway too closely. The top of their trailers may have ice on them that can blow off and hit your vehicle.

-Clean all snow and ice that may have accumulated in front of your radiator to ensure that your cooling system is working properly.

-Use amber fog lights if your vehicle is equipped. They added light will cut through the poor visibility during “white-out” conditions.

Loma Linda Community Winter Driving Tips and Recommendations:

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Date: 1-20-22, 11-9-22

-Please follow the 25 mph speed limit signs meticulously, the Loma Linda Community has a lot of hills, curves, and turns with no shoulders along the sides of gravel-based county roads.

-The roads can be extremely slippery in the winter even after the snow removal equipment has removed the top layers of snow.

Sidebar: There may be a thin layer of snow on the road after the snow removal operator has completed his work.

The snow removal equipment operator is trying to carefully remove as much snow as possible without removing the gravel and filling up the drainage ditches along the sides of the road.

This region has over 300 sunny days per year. In the winter, depending upon the temperatures and weather conditions most of the time the remaining snow that is on the road will melt off rather quickly.

Note: Shaded areas where there are narrow draws and large trees along the side of the roads will take a lot longer to melt.

-Please do not stop when driving up hill. You may not be able to get your vehicle moving again. This can be a serious hazard for vehicle that are behind you, as well as vehicles coming up the other side of the hill in front of you.

-Please do not drive up the middle of the roads at excessive speeds. The topography and road design makes it hard to detect the following:

- On-coming traffic in a timely manner.
- Wildlife such as turkeys, deer, mountain lions and elk.
- Domestic animals such as dogs, horses, and cattle
- Residents walking their domestic animals—horses and dogs, etc

- Residents jogging
- Residents riding 4 wheelers and snowmobiles
- Contractors loading and unloading their equipment
- Residents coming out of their driveways
- UPS and Fed-X drivers delivering packages
- Emergency Vehicles
- Noxious weed control vehicles and equipment
- Real Estate companies showing prospective residents' property
- Residents cleaning out driveways
- Snow removal equipment
- Road maintenance equipment

Sidebar: When you encounter any type of “**road maintenance or snow removal equipment/slow moving vehicles**”, keep your distance, stop, and wait until the equipment operator acknowledges that you are there and motions for you to proceed.

Note: **As also noted above,** this can be a serious hazard for vehicles that are behind you, as well as vehicles coming up the other side of the hill in front of you.

-When turning corners, please slow down by taking your foot off the gas pedal or using a lower gear prior to arriving at an intersection. Try to keep your foot off the brakes. If you feel that you need to apply your brakes, apply them slowly. This is especially important if you plan to make a turn.

Note: Intersections are often more slippery because people are driving too fast, hit their brakes and slide.

Sidebar: We have noted recently that three drivers have driven off the road on curves and/or corners. One driver almost took out the signs and fire hydrant.

-The angle of the morning and evening sun can also create a major hazard when driving in the mountains for all the reasons noted above.

A few general thoughts & recommendations on utilizing 4WD vehicles while driving on winter roads:

General thoughts: 4WD vehicles may not always be the ideal means for navigating rural mountain winter roads safely. Nothing is 0 or 100 percent.

There are too many variables to build into the equation—a few factors to be aware of:

- Tire Pressure
- Tread Wear
- Tire rating and type of tread
- Operator driving skills and knowledge in winter rural mt. driving.
- Significant variability on road conditions.
- Significant variability on weather conditions
- Significant variability on topography in the mountains.

General thoughts about vehicle drivetrains:

-Front Wheel Drive – provides power to the front wheels

-Rear Wheel Drive – provides power to the back wheels

-Four Wheel Drive – provides power directly to all four wheels and can be turned on and off depending on the need

-All Wheel Drive – provides power to all four wheels, determining where the power is needed

A link for more Information: [4 Different Types of Drivetrains \(Which is Best?\) \(boards.com\)](https://www.boards.com/4-Different-Types-of-Drivetrains-Which-is-Best/)

The Pros and Cons of the Different Drivetrains

When purchasing a vehicle, either new or used, there is a lot that you need to consider. A car can be a big investment and you want to make sure that you are making the right choice. One thing to keep in mind when considering what your next vehicle should be is the kind of drivetrain that it has. There are four different types of drivetrains, although two are very closely related to one another. Here is a list along with pros and cons for each:

Front Wheel Drive (FWD)

A front wheel drive vehicle is relaying the power from the [engine](#) to the front wheels. With FWD, the front wheels are pulling the car to create movement and the rear wheels are simply following. The rear wheels don't receive any power from the engine.

PRO – A FWD car or truck typically gets better fuel economy and emits less carbon dioxide. It also performs better than a RWD vehicle in the snow because all of the weight of the engine is located over the driving wheels

CON– Since it is “nose heavy”, handling can be difficult.

Rear Wheel Drive (RWD)

A rear wheel drive vehicle is relaying power from the engine to the rear wheels. Like a bicycle, the rear wheels are responsible for pushing the car forward.

PRO– The weight of the drivetrain on a RWD vehicle is spread more evenly so it has better balance than a FWD vehicle.

CON– A RWD vehicle is more prone to loss of traction on slick roads and does not perform well in poor weather conditions like rain or snow.

Four Wheel Drive (4WD)/ All-Wheel Drive (AWD)

A part time 4WD system lets the driver select if the power from the engine is relayed to only two wheels or to all four wheels. A full time 4WD system permanently engages all four wheels and is essentially the same as an AWD system. The term AWD can be used for vehicles that have more than four wheels in which all of the wheels are powered.

PRO– AWD vehicles have the best traction in any kind of driving condition.

CON– An AWD vehicle is much heavier than a FWD or RWD vehicle, which hurts acceleration and uses more fuel. AWD is the most expensive drivetrain option.

A few general thoughts & recommendations on the design, utilization, care, and maintenance of driveways:

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Date: 1-20-22, 11-9-22

-The optimum driveway specifications:

-A driveway should normally have a minimum slope of **one percent** to be able to provide for enough drainage of stormwater runoff during rainfall events. A driveway should usually have a maximum slope of 15% for safety reasons. The actual slopes used for the design of a proposed driveway will depend on the topography, slopes, aspects, and drainage, etc. **Note:** I prefer a slope of 4 to 7 percent if it is achievable.

-The standard driveway width for residential homes ranges **from 9 feet to 24 feet**. The width of your driveway will vary based on whether you want a single car drive or double car drive. Ideally, the width may vary to accommodate parking for added vehicles and trailers as well as a turn-around for emergency vehicles

Note: I prefer a minimum driveway width of approximately 16 ft.

Note: I also recommend a driveway with an oval.

Note: These added features may change the construction cost of your driveway.

-With approximately 30 ft of clear, well-groomed landscape and well-spaced trees with crowns approximately 10-12 ft. apart, as well as managed grown cover on each side of the driveway to accommodate a fire break and visibility when entering the main road as well as snow removal.

-Winter Safety: The proper driveway landscape can be critical in the winter for the following reasons:

-Safe resident vehicle ingress and egress.

-Safe RV and trailer ingress, egress, and storage.

-Safely taking trash receptacles down to the main road & returning to the garage.

-Safe entry to the main road. Steep driveways that are icy result in unsafe acts from passing traffic when trying to safely enter the main road.

- Safe entry for delivery, maintenance, and repair vehicles.
- Safe entry by emergency vehicles.
- Additional vehicle parking for visits by friends and family.
- Safe snow removal using a tractor or snowblower factoring in snow storage and driveway creep.
- Safe entry and exit from your garage.

Sidebar: The above thoughts and ideas may take time to implement. I encourage landowners and residents to develop a **written site plan** on your property that can be implemented as resources become available.