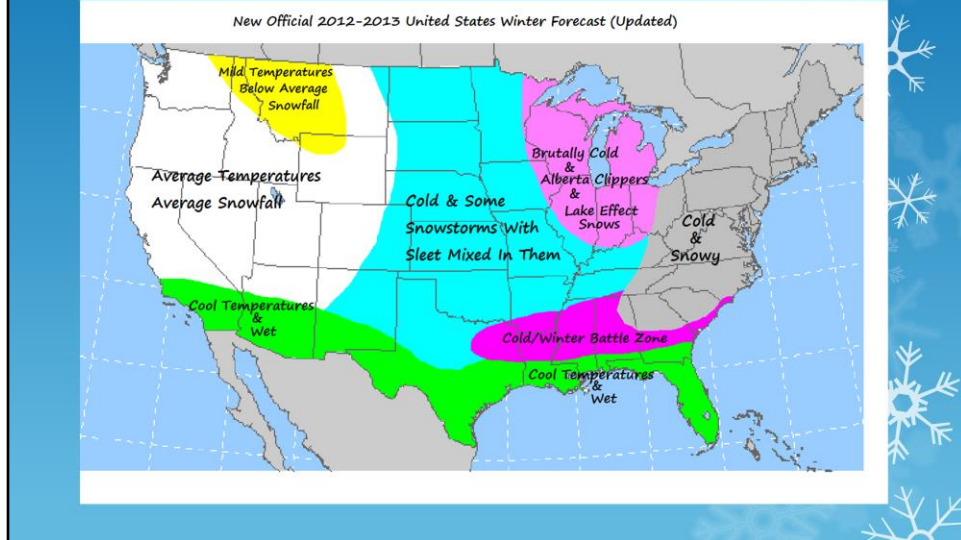
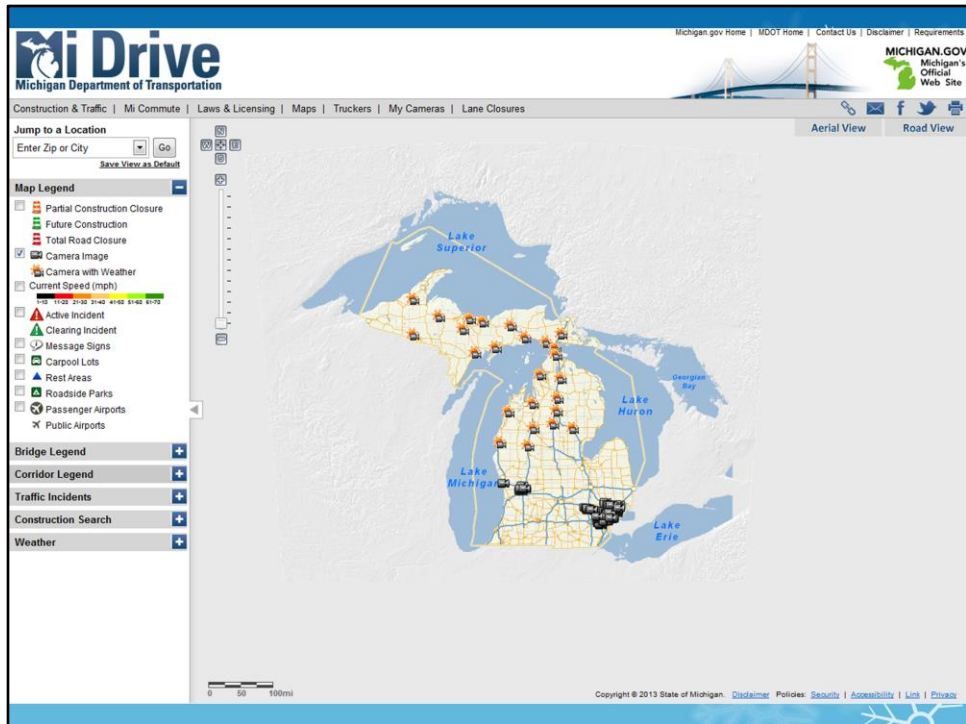


Up to date pavement temperature will allow you to make better decisions on application rates. If you are not integrating pavement temperature into decision making this is one easy step to make your operations more efficient.

Long and short term weather forecasting



A variety of weather information will be more accurate than depending on one source of information. We should look at short term and long term weather predictions.



MDOT has information on a variety of state road locations. The ones with the camera icon also show a real time image of the road and its conditions.

You can access this by googling: MI Drive and selecting this site. It is easier than typing in the URL.



Google: MI Drive



For this system to work there is tower along side the road that receives and transmits information. In some sites there are pavement sensors embedded in the road. The information from the pavement sensors is not available to the general public. At some sites there are cameras on the tower that show a real time image of the road.

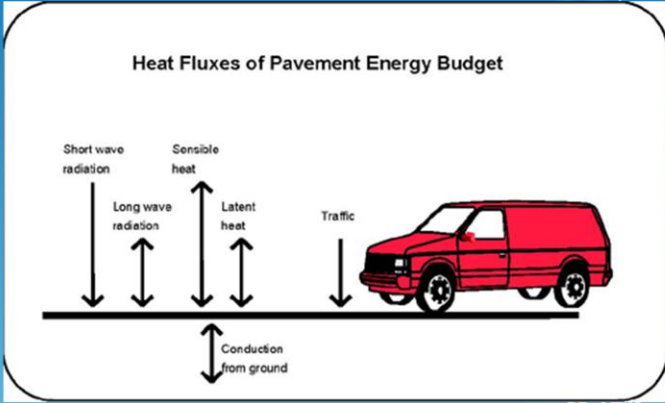

M-35 @ M-553



Air Temperature: 78° F
Maximum Daily Temperature: 82° F
Minimum Daily Temperature: 62° F
Relative Humidity: 65.1%
Average Wind Speed: NE 9 MPH
Maximum Gust Speed: NE 16 MPH
Barometric Pressure: 28.64"
Precipitation: No Precipitation
Precipitation over the last 24 hours:
0.04"
Dew Point: 65° F
Visibility: 10 miles

Example of the information available to the general public from one of the MI Drive sites.

The temperature from the TV news, MI Drive or our thermometers is air temperature



We need pavement temperatures & they cannot be predicted from air temperature alone

Diagram from www.fhwa.dot.gov

Shows the many factors that influence pavement temperatures.

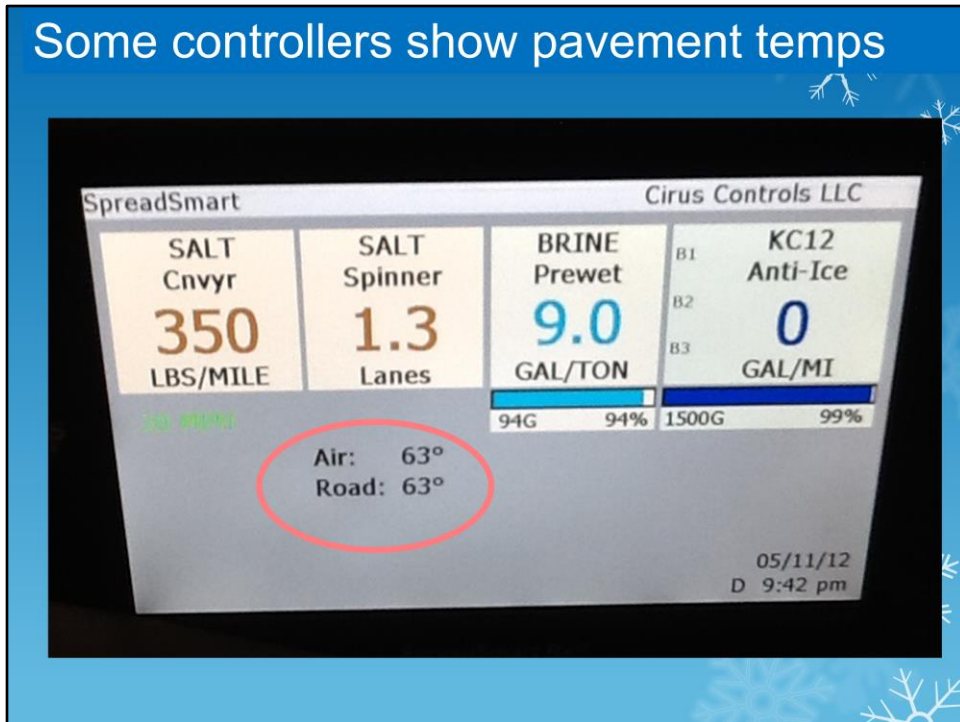
Can use external mounted systems that has read out in the cab



Provides continuous information
Doesn't get misplaced

You can add pavement temperature sensors at any time to your truck. Here is a mirror mounted system with inside the cab pavement and air temperature readouts.

Some controllers show pavement temps



This is an example of a spreader controller that has the air and pavement temperature display built into the unit.



Hand held temperature sensors

Purchase at auto parts stores

Inexpensive

Make sure you get one that can measure cold temperatures

For less than \$100 you can go to most automotive stores and pick up a hand held temperature sensor. Make sure to get one that has the cold temperature range. They are used in many industries for example to measure freezer temperatures of your refrigerator or the cylinder temperature of your car.

The bonus is you can buy one today...very easy to do. However the draw back is they are easily lost, have to stick your arm out of the window and are not a source of continuous pavement temperature.

Pavement temperatures guide application rates



Warmer needs less!

Like heat guides cooking time



In many areas of our life we base decisions on one variable:
We bake a cake for a shorter period of time in a hot oven
We sit in the sun for a shorter period of time on a warm day
This should be familiar to you and not surprising that we also can apply less salt to warmer pavement surfaces.

Pavement surface temps will not be the same throughout your route. The bridge temp will be different than the road with soil beneath it. Shaded areas will be cooler than sunny areas. The type of pavement, color of pavement and subsoils all influence the pavement temperature.

We should not guess at pavement temperature we should monitor it.