

# Frequently Asked Questions

## OR 99W: Orrs Corner & Clow Corner Roads

### Why are we not installing a traffic signal at the Clow Corner Road intersection?

We perform a careful and thorough evaluation of all options before determining the most appropriate traffic control at an intersection. The primary reason for not installing a traffic signal in this rural location is because it would be unexpected for drivers which could lead to a significant increase in high-speed rear-end crashes. While a roundabout may also be somewhat unexpected, the approaches to roundabouts are designed specifically to lower the speed of approaching vehicles. Crashes in a roundabout would result in only minor damage and injury while crashes at an unexpected traffic signal are usually much more serious. We will also include signs to alert drivers that a roundabout is ahead.

Installing a traffic signal requires that several national and state criteria or requirements be met. We have collected and analyzed data multiple times at this location. In addition to the primary reason to not install a signal in a rural location, our analysis shows that although there are peak periods of congestion, there is not enough traffic using this intersection throughout the day to meet the requirements for us to install traffic signals.

We've heard from several people suggesting that we install a traffic signal and lower the speed limit. Unfortunately, installing a traffic signal and lowering the speed limit in this rural location are not effective solutions. In rural settings, lowering the speed limit with only signs has been proven to have limited compliance if there is not regular enforcement on site. A lower speed limit at this location could cause drivers to get frustrated and ignore the lower speed limit. This could result in an increased risk for serious crashes, when some of the drivers are following the slower speed limit and some are traveling at much faster speeds.

### Will this roundabout work for farm equipment and large semi trucks?

This roundabout is going to be large enough to accommodate any vehicle that we know has used this highway in the last several years, including vehicles that are 220 feet long! Our design is similar in size to the OR 47 and Verboort Road roundabout, but this one has additional features that will allow for even larger trucks and farm equipment. The OR 99W and Clow Corner Road roundabout will have a bypass lane through the center to allow large oversized vehicles to go through the intersection with a permit, rather than to the side like at the OR 47 at Verboort Road roundabout.

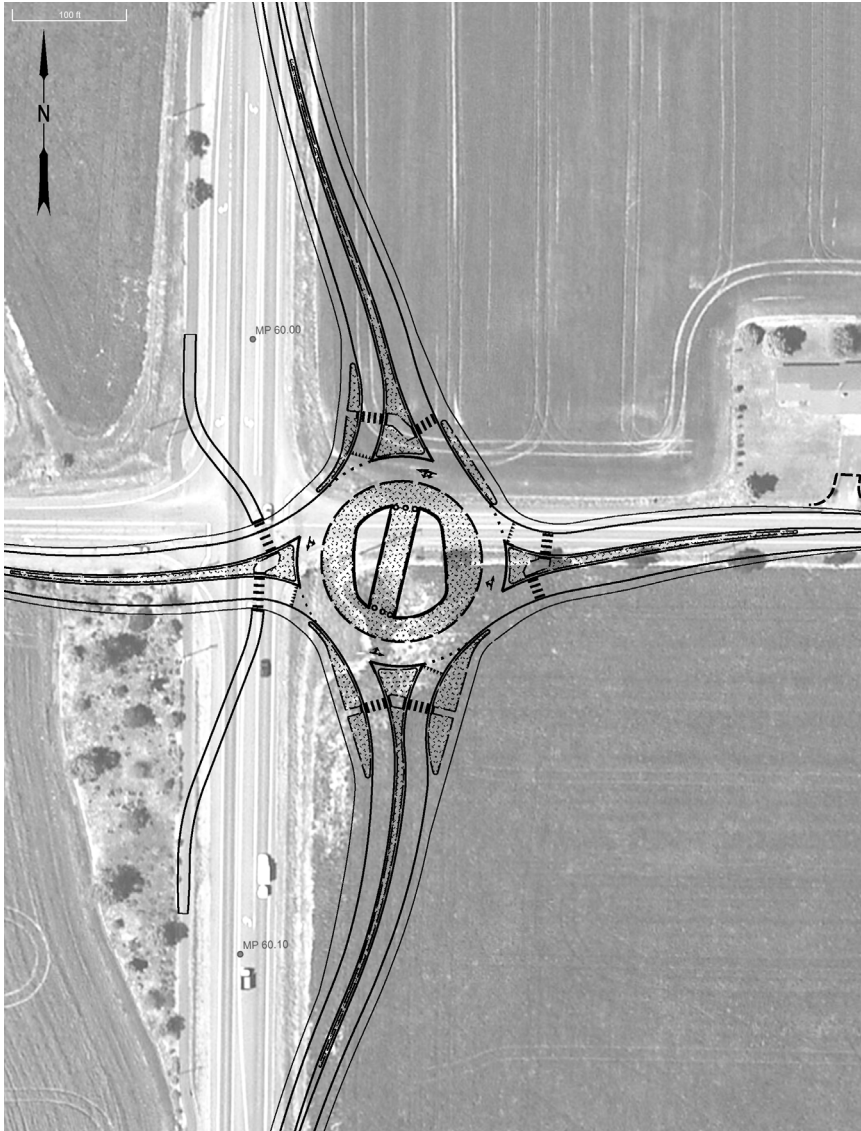
### The activated warning system that we already installed helped make the area safer, why are we doing more?

Although the activated warning system has increased driver awareness and caution at the intersection, the intersection remains a priority for improvements in our region. The activated warning

system is intended to serve as an interim solution until a roundabout, which is a permanent solution, can be constructed.

## How will a roundabout work on a highway? Will speed be reduced?

A highway roundabout is different and much larger than the ones found in more residential neighborhoods.



Here is an image of our highway roundabout design compared to the C Street and Osprey Lane roundabout in Independence. The C Street and Osprey Lane roundabout is about half the size of our design for the OR 99W and Clow Corner Road intersection.

While we won't reduce the posted speed at the roundabout, there will be signs advising drivers they are approaching a roundabout and the physical design of the road encourages drivers to slow significantly as they approach the circular roadway. Also, traffic will naturally slow down as drivers are yielding to those who are already in

the roundabout. The circulating speed in a roundabout is typically about 25 mph, but drivers are quickly able to return to the highway speed after exiting. Traffic moving within the circular portion of the roundabout has the right-of-way while traffic on the approaches are required to yield to the circulating traffic. If there is no one approaching within the circulating road, then a vehicle can proceed. This means vehicles may not have to come to a complete stop at the intersection. Roundabouts also remove the potential for more severe crashes such as angle (T-bone) crashes and reduce the severity since vehicles are moving slower through the area. Even with drivers slowing down, the roundabout still has the best operational performance and lowest overall delays to travelers out of all of the options we considered, including a traffic signal.

## How will the bypass lane through the center of the roundabout for large trucks work?

The bypass lane that goes through the center of the roundabout will have a barrier that can be moved when an oversized vehicle that is unable to use the normal travel lane needs to go through the intersection. These oversized vehicles require a special permit from us, and when the permit is issued we work with the driver to set up a time for our crew to move the barrier to let them through the bypass lane before replacing the barrier. The barrier will block everyday vehicles from using the center lane. Our analysis has shown that almost all vehicles, including farm equipment, are able to use the roundabout without using the center lane bypass. Based on our large load permitting records for this corridor, we believe it will be rare that the center lane will need to be used.

## Why have we designed the roundabout in the position we have it?

The roundabout is positioned off to the side of the existing OR 99W and Clow Corner Road intersection for a variety of reasons:

- Construction safety. By having the roundabout to the east of the existing intersection, we will be able to keep OR 99W open while we build as much of the roundabout as possible before changing the flow of traffic. This helps keep traffic out of the work zone, which is safer for both the travelling public and the construction crew.
- Environmental benefits. Having the roundabout offset from the existing intersection avoids sensitive environmental areas that are west of the intersection.

## Why are we not installing an overpass instead?

While an interchange, or bridge overpass, is a great safety measure because it separates the major traffic movements, they can cost three or four times as much as a roundabout. Like installing a traffic signal, installing an interchange requires that several criteria be met including traffic volume. This location doesn't have enough traffic to justify the additional cost of an interchange. Interchanges also take up significantly more land which contributes to more environmental effects.

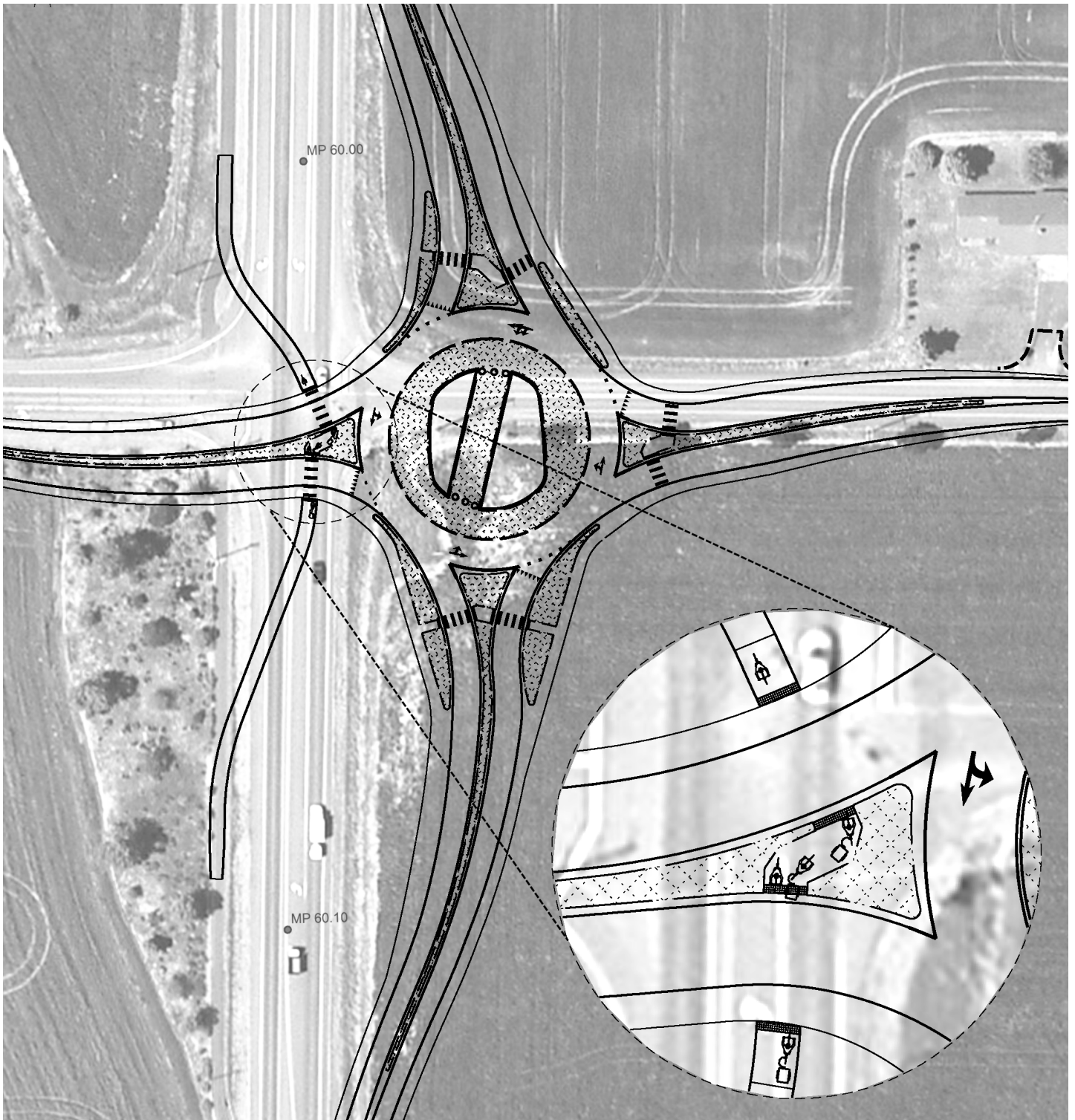
## Why is this project being prioritized over something to improve the OR 51 and OR 22 corridor?

We have an ongoing project to address safety at the OR 51 and OR 22 intersection and along OR 22 in the vicinity. The OR 51 and OR 22 corridor project is significantly larger in scale and more expensive. We are still working on possible interchange designs to improve safety and reduce congestion while we are trying to find the funding to be able to construct the project. The proposed work is funded from different sources, meaning that they allow for different types of work. The funding for the Clow Corner and Orrs Corner Roads project can be done sooner with available safety funds, while the OR 22 and OR 51 corridor is still in the concept or planning stage.

You can learn more about our OR 22 and OR 51 intersection safety project by visiting the [project webpage](#) and you can sign up to receive [project alerts](#) to stay connected.

## How will bicyclists and pedestrians navigate through the roundabout?

The roundabout will have pedestrian areas and crossings on all corners of the intersection. It will also connect to the multiuse path on the west side of the roundabout. Bicyclists can choose to travel through the circular roadway within the roundabout or use the pedestrian crossings.



## Why are we changing the OR 99W and Orrs Corner Road intersection?

As we shared at the online open house, through discussions with Polk County we planned on installing a median on OR 99W at the Orrs Corner Road intersection to significantly reduce crashes that typically occur at this location by eliminating left turn movements to and from Orrs Corner. We received some concerns from our online open house and from Polk County about limiting the left turns, so now we are planning on constructing a dedicated left turn lane on OR 99W instead. A dedicated left turn lane will still provide a significant crash reduction but without the left turn restrictions.



## Will installing a roundabout cause more crashes?

While there will likely be a short period of time needed for drivers to get used to the changes, our data has shown that crashes within roundabouts often result in only minor injuries or property damage. Most of these crashes are while entering and exiting the roundabout, while crashes with the existing layout can result in serious injuries or fatalities because of the crossing and turning movements at higher travel speeds. Roundabouts have been shown to reduce severe crashes by 78 to 82% in national studies.

Roundabouts are one of the safest options and are being used more often across the nation over the past few decades. After we built the OR 126 roundabout at Tom McCall Road west of Prineville, we made a short [video](#) to help people become more familiar with how to drive through a roundabout. Below is an image with more information on how to use a roundabout.

