

Warning Signs That Give The Wrong Warning

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We can post the largest warning signs and provide the brightest illumination, however, they are of no use when used improperly. The following is a real-life example where a collision almost occurred because City of London workers failed to understand the confusion they were causing by their actions.

Figure 1 shows Culver Drive in the north-eastern area of the City of London, Ontario. Culver Drive is not unusual in that it snakes through a typical subdivision via some tight curves.

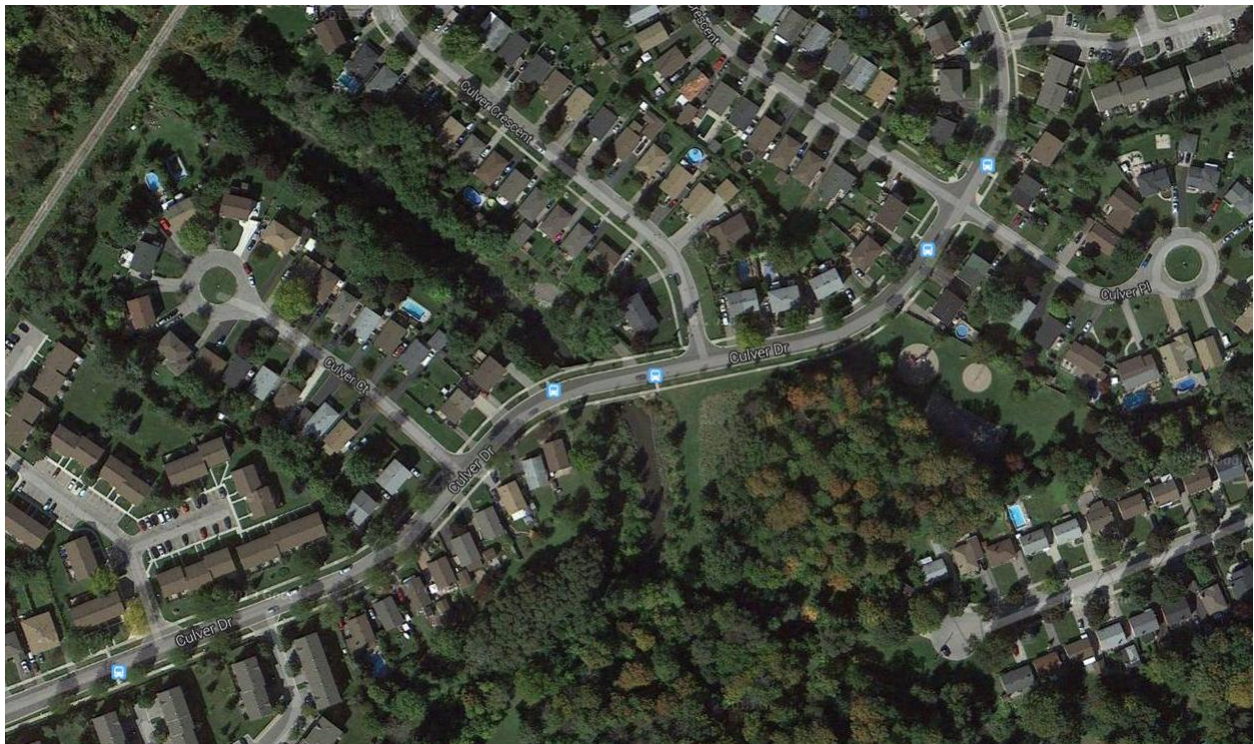


Figure 1: Overhead view of Culver Drive in London, Ontario.

Historically such curves exist due to the designers' belief that this will slow the speed of traffic through these residential areas. Yet, these curves can also increase the potential for collisions.

The present scenario that we will be examining is the very short straight section of Culver Drive located between two fairly sharp curves, as shown in Figure 2.

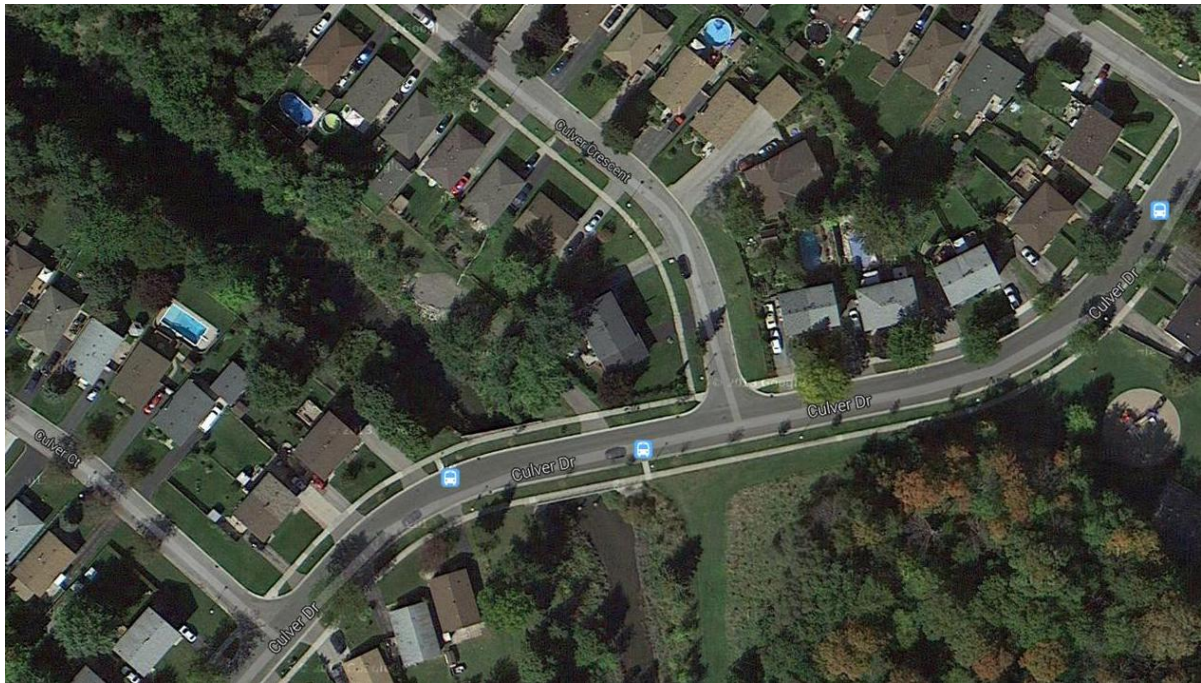


Figure 2: View of a short, straight section of Culver Drive accompanied by sharp curves to its east and west.



Figure 3: View looking west along Culver Drive from the curve just east of the short, straight road segment.

Figure 3 shows a view looking west from the curve just east of the short, straight, road segment, on a mid-week day in August, 2014. It may not be apparent however, if one looks very closely along the road in the distance, there appears to be something visible between the tree branches. In Figure 4 we zoom in on that area and we can see that there are two workers on the road, with some traffic cones and a large truck.



Figure 4: View, looking west, zoomed in on a work site with workers and a large truck.

However, from this viewing location around the sharp curve there is very little prior warning to indicate their presence.

Similarly, when we travel to the west side of the straight section of road and look eastward, we see the view that is shown in Figure 5. Again we see that the presence of the truck and workers is blocked by the trees around the curve. In Figure 6 we zoom in on their location.

If we progress further eastward into the curve we begin to see the full rear of the truck, as shown in Figure 7, and now we see the standard TC-12 warning sign that is required to be placed on the back of a work truck whenever there is "Very Short Duration" (VSD) work being carried out on a road. That warning sign is a flashing arrow pointing to the

left, supposedly to inform drivers that they should pass the truck by travelling around it to the left. But does that make any sense?



Figure 5: View, from the west side of the straight road segment showing that the truck and workers are blocked from view.



Figure 6: View, from west of the straight road segment, zoomed in on the partially obscured truck stopped in the middle of the road.



Figure 7: View of rear of truck with a TC-12 warning sign, with a arrow signally that approaching traffic should pass the truck on the left.

We ask the reader to take a good look at the position of the stopped truck on the road in Figure 7. Clearly this truck is not in the eastbound lane, it is primarily in the westbound lane. There is no possibility for approaching vehicles to pass the truck by travelling to the left of it.

More so, when we approach the truck from the east we see the view shown in Figure 8. Clearly the truck is blocking the westbound lane. But there is no signage whatsoever to inform drivers of this fact. Meanwhile the workers are working in front of the truck and would have no protection if a westbound vehicle collided with them.

The limited visibility created by the sharp curves and very short segment of straight road means that drivers using the eastbound lane to pass the truck would have a very short time and distance to see each other.

The following are a couple of examples of potential collisions that were frames taken from our videos. In Figures 9 through 16 we see a conflict between a westbound passenger car that, initially, has to come to halt to allow an eastbound van to pass by the stopped truck. As the westbound car then accelerates into the eastbound lane an eastbound London Transit bus comes into view and a collision is closely averted. The potential collision was likely avoided because the London Transit bus was already intending to stop at a bus stop that happened to be located just before the stopped truck. This allowed the westbound car to pass by the slowing bus without incident. However this was more likely a case of lucky circumstance that could easily have been a major collision if the bus was actually intending to drive straight ahead.



Figure 8: View, looking west, showing the work truck has blocked the westbound lane and there are no warning signs anywhere to warn drivers of its presence.



Figure 9: View of eastbound van and westbound car that must use the eastbound lane to pass the stopped work truck. Note that the van driver will ignore the warning sign indicating that he should pass the truck by steering around it to the left.



Figure 10: View of eastbound van passing the stopped truck while the westbound car stops and waits.



Figure 11: View of eastbound van passing the stopped truck while the westbound car stops and waits.



Figure 12: View of eastbound London Transit bus approaching just as the westbound car accelerates into eastbound lane to pass the stopped truck.



Figure 13: Transit bus driver applies braking as westbound car veers into the bus's lane.



Figure 14: Bus driver applied right turn signal as an indication that the bus is stopping at the bus stop.



Figure 15: View of westbound car passing the bus which is stopping at a bus stop.



Figure 16: View of interesting passenger (or perhaps an English driver?) of westbound car, while bus has come to a halt at the bus stop. A collision is fortuitously avoided.

The second incident is taken from a video camera on the east side of the straight road segment, looking westward.

In Figure 17 we observe a westbound red car entering the view as it travels around the right curve while the City of London truck is stopped ahead and blocking the westbound lane. Note that there are no warning signs placed either on the road, on the roadside or on the stopped truck to notify the oncoming driver of the situation. It would be expected that the driver of the red car would steer into the opposing, eastbound lane to pass the stopped truck. However, if we look closely we can see that there is an eastbound car that is just entering into the view from behind the truck.

In Figure 18 we can see that the driver of the westbound red car is in a position to begin to see the eastbound car which has just emerged from behind the stopped truck. However the time to detect, identify and determine a course of action takes a finite time and therefore the driver of the red car has not yet initiated any braking.

If the driver of the red car was travelling at a reasonable speed then a collision could be avoided if moderate to hard braking was applied. However, that is not always the case. What if the driver of the red car was actually speeding? The possibility is that hard braking might not prevent a collision and therefore the driver might attempt to steer hard to the right and attempt to travel to the right of the stopped truck. In such a scenario the driver of the red car may be unsuccessful and the car would collide into the front end of the parked truck. However, we can see that there are two workers standing in front of that parked truck and there is a reasonable likelihood that the red car could strike one or both of the workers and perhaps even pin them between the car and truck. Such a scenario could easily prove to be fatal.

There is an additional possibility that the driver of the eastbound car could attempt to steer to the left to avoid the red car entering into the eastbound lane. Such a reaction could cause a scenario similar to what is shown in Figures 19 and 20.



Figure 17: View, showing a westbound red car whose driver is not in a position to see that an eastbound car is approaching from behind the City of London truck which is stopped and blocking the westbound lane.



Figure 18: At the location shown in this figure the driver of the red car should begin to detect the presence of the eastbound car yet a reaction of braking or steering would begin no earlier than 0.50 seconds later but more likely 1.0 to 1.5 seconds later.



Figure 19: If the driver of the cream-coloured eastbound car attempted to avoid the red car by steering hard to the left then a collision scenario such as the one shown in this figure could occur.



Figure 20: Here the cream-coloured vehicle might be rotating counter-clockwise, out-of-control, and at a slower speed than the red car such that both vehicles could be propelled westward into the front end of the stopped truck, possibly striking the workers.

If the red car was travelling quickly and the cream-coloured car was travelling slowly then both vehicles could be propelled into the front end of the stopped truck. Once

again, we could see the potential for serious or even fatal injuries to one or both of the workers who are standing, unprotected, in front of the truck.

It has been the custom for police investigations in Ontario to report events such as these with a bias toward driver error. If the driver in the red car was speeding and injured or killed one or two of the city employees the police report that the accident was "related to speed" and nothing further is revealed. Such is also the case for drivers who are impaired by alcohol or, more recently, drivers who drive distracted. Similarly the official news media simply report only what the police tell them; that "speeding was a factor", or "alcohol was a factor", or that "distracted driving was a factor". Yet the fact that the city employees could also have contributed to the collision is never revealed to the public. The fact that a City of London truck would be blocking a lane without any prior warning, or that a warning sign was flashing an arrow in the wrong direction are facts that neither the police nor the official news media reveal to the public.

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