

# Senior Drivers and Highway Design



## ▶ The issue...

### **Canada's Seniors**

One in four Canadian drivers will be a senior citizen in the next decade and the population of senior drivers is growing each day.

Senior drivers have a proven elevated crash risk due to age-related declines in information processing, decision-making, mobility, vision, and their useful field of view. In addition, due to physical frailty, older drivers are less likely to survive collisions than their younger counterparts. As Canada's leading road safety advocate, this is a concern for The Canadian Automobile Association (CAA).

### **Road Safety**

There are many proactive measures that can be taken to minimize the risk to senior drivers. Research indicates that improvements to intersections, signage, and road delineation can help reduce the collisions involving seniors.

As one of Canada's leading road safety advocates representing over 5.3 million members, CAA wants to ensure that Canada's roads are as safe as possible for seniors. This requires changes to road infrastructure to prepare for the growing number of seniors on our roads.

### **Senior Drivers and Highway Design**

This new research paper, commissioned by CAA and prepared by Human Factors North reviewed key literature on the issue of senior drivers. The conclusion demonstrates that specific infrastructure changes can be made to Canadian roads to make them safer for seniors and all drivers.

The remainder of this brochure highlights some of the major findings found in the report.

## ▶ Key findings...

### *As drivers age, their crash risk per kilometre driven increases*

- » Senior drivers have the second highest crash risk amongst all drivers. Only young drivers aged 15-24 crash more often than seniors.
- » Senior drivers crash more due to a variety of reasons, some of which include: visual impairment, dementia, age-related declines in reflexes, slower reaction times, and more limited mobility.
- » When senior drivers crash, they are less likely to survive a crash due to physical frailty. An injury crash for a 20-year-old could be a fatal crash for an 80-year-old.
- » The older the driver, the higher the crash-risk potential.

### *There is **strong** agreement among experts on the causes and remedies for senior driver collisions*

- » Senior drivers have reduced visual capabilities and need more time to make decisions as their ability to detect people or vehicles entering their field of view is diminished.
- » The information to address this problem is available – we know what engineering changes work and what can be done to reduce crashes involving seniors.
- » Improvements and upgrades to infrastructure help to make our roads safer for seniors while also making them safer for all drivers.
- » Improvements and upgrades are needed for intersections, signage, and road delineation.

# ***Upgrades and improvements to intersections, signage, and road delineation can help reduce collisions involving senior drivers***

## **CAA Recommends:**

### **Intersection improvements**

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- » Improve sight distance at intersections by clearing unnecessary obstructions and by ensuring that opposing turning lanes are aligned so that turning drivers can see approaching through traffic.
- » Better use of clearly-marked, designated turning lanes.
- » Increase use of protected green arrow turn signals as senior drivers have greater difficulty judging the distance and speed of oncoming traffic while making turns. With these green arrow signals, the guesswork is removed.
- » Brighter and larger red traffic lights.
- » Replace intersections with roundabouts as they have been proven to greatly reduce injury crashes.

### **Signage improvements**

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- » Use of bigger signs.
- » More legible and consistently located street and road name signs.
- » Better signage with improved legibility, visibility, consistency, comprehensible symbols, and standard locations.
- » Better sign and reflective surface maintenance.
- » Advance sign notification for pending required tasks (e.g. exit in 2 kilometres).

### **Delineation improvements**

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- » Clearly delineated turning lanes at intersections.
- » Clear and bright yellow centrelines.
- » Well-maintained lane markings.

### **Other improvements**

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- » Longer acceleration lanes on highways.
- » High illumination street lighting from light poles that are placed a consistent 80 metres apart.



► **Want the full report?**  
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If you are interested in obtaining a copy of Senior Drivers and Highway Design, please go to:

**[www.caa.ca/publicaffairs](http://www.caa.ca/publicaffairs)** and click on the link CAA has provided to the report.

If you have feedback or comments on this initiative, please feel free to share your thoughts with CAA by calling **613-247-0117** ext. **2014** or by e-mailing CAA at: **[info@national.caa.ca](mailto:info@national.caa.ca)**.



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