

CRASH information for litigation – what's **NEEDED**

By Dr George Rechnitzer, Shane Richardson and Assoc Prof Raphael Grzebieta

he information typically relevant to a collision relates to the basics as obtained from a police collision report. That is, the type of collision, the vehicles involved, the vehicle occupants (or other road-users), crash location, and dates and times. Beyond this, a number of other key elements are needed, depending on the liability being considered.

- 1. Police reports as well as at-scene photographs (and video footage) of the vehicles involved and of the crash scene are vital. In serious or fatal collisions, all police photographs should be obtained (typically police will be selective and provide only a limited number of photographs in their hand-up brief). Other sources should also be explored, such as media newsprint and television. It is essential that very good-quality, goodresolution color photographs are provided to the experts, as these provide essential but sometimes quite subtle clues. It is astounding how often poor-quality black-andwhite photocopies are provided which, while saving a few dollars or some time, potentially jeopardise the case!
- Electronic versions of the police scene survey diagrams should be requested and obtained if available.
- Other sources, such as insurance documents, road design plans (at the time of the crash), council survey plans, aerial photographs, speed limit and roadside signs at the time of the crash and the relevant WorkCover Authority should be explored if appropriate.
- Witness and police statements can provide vital information relating to pre- and post-impact. It is preferable for the experts to receive copies of the actual statements, although they are often given only summarised or interpreted versions. Although legal reasons often dictate what information is provided and in what form, this could nonetheless make it difficult for the expert to interpret the incident, with some consequent risk should the matter proceed to court.
- Summary medical reports detailing injuries (not only the plaintiff's but preferably also any other vehicle occupants') should be obtained. The nature of injuries can clearly suggest likely injury mechanism and collision scenarios.
- Basic information, such as vehicle and occupant details, should be gathered. Vehicle details include model type and manufacture, vehicle registration and age.

7. A map showing the crash location should also be constructed.

Armed with the information outlined above, the expert is in a good position to understand the circumstances of the collision (location, vehicle positions, etc), and also to put together some preliminary physical parameters relating to the collision.

Typically, a site inspection and detailed site survey (using a surveying instrument) is required, enabling a scale plan to be drawn and vehicle positions pre-, post- and at impact to be better located. Such scale plans bring a high degree of reliability to the physical site parameters, which could otherwise be disputed in court. The site inspection is a vital step for the expert in assessing the physical environment at the crash scene and the factors relevant to the analysis.

In addition, any vehicles involved need to be examined and surveyed if they are available. The damage profile of the vehicle(s) can be used to estimate collision and pre impact vehicle(s) motion.

This information enables a collision reconstruction to be made. Such reconstructions depend on the question posed by the client, and the level of analysis required for the particular case. In many cases 'hand calculations are quite sufficient', whereas in more complex cases computer analysis and modelling may be appropriate.

Generally speaking, the more information available to the expert, and the less 'pre-digested' it is, the better. Both site visits and vehicle inspections are essential, where at all possible. Although this may sound obvious, sometimes pressures to reduce the cost of an expert's investigation and report may lead to short cuts (for example, no site visit or survey), but the simple way to assess any short cut is to ask what would happen if an opposing expert did this. They would become quite vulnerable in cross-examination, let alone being limited in the confidence with which their analysis can be supported.

The authors are all specialists in accident investigation, reconstruction, failure analysis and safety solutions, based with DVExperts International Pty Ltd. **PHONE** (03) 9897 3486 **ADDRESS** Suite 10A, 10-12 Prospect St, Box Hill, Victoria 3128 EMAIL dve@dvexperts.net **WEBSITE** www.dvexperts.net