

Auto/Bicycle Fatality

Assignment

You asked Texas Claims & Consulting Company to review the material provided, conduct any field or office investigation reasonably required and then be prepared to render an accident reconstruction expert opinion as to how the auto/bicycle accident occurred.

Material Provided for Review

- The police report
- Accident photographs taken on the day of the accident

Field Activity

- Scale diagram of the accident site
- Specific photographs
- Overall site analysis

Office Activity

- A review of the accident report
- A review of each accident photo taken at the time of the accident
- A review of the photographs we obtained
- A review overall characteristics of the vehicle involved
- A review of the type of bicycle involved
- A review and analysis of bicycle speeds
- A mathematical analysis and applicable problems
- A scale diagram of the accident site
- Printed several scale diagrams
- Applied the mathematical results to the scale diagram
- Completed our expert report

Findings and Calculations

- The distance from the stop sign to the point of impact was 26 feet for the children riding the bicycles.
- The speed limit is 30 MPH for both Streets.
- The Ford Pickup was traveling eastbound on 28th Street approaching the intersection of McGinnis Street.
- McGinnis Street dead-ends in to 28th Street.

- The pavement drag factor was 0.70 based on the pavement and weather condition.
- The Ford Pickup's deceleration rate was -22.54 f/s^2
- Normal reaction time under these conditions is considered to be 1.5 seconds.
- The bicycle speed is calculated at 7 fps from the stop sign to the point of impact. Actual bicycle speed could range from 4 fps to 7 fps. Using the maximum speed of 7 fps gives the driver the benefit of doubt.
- The bicycle's time from the stop sign to the point of impact was a minimum 3.7 seconds at 7 fps.
- If the Mr. Smith had been traveling 30 MPH, he was no closer than 162 feet from the point of impact as the bicycle passed the stop sign.
- The total distance to stop at 30 MPH for the driver of the Ford pickup, including reaction time, is calculated to be 109 feet. The corresponding time to stop is 3.45 seconds.
- Mr. Smith's visibility of the stop sign and the bikes was at least 285 feet.
- Mr. Smith had sufficient time and distance to stop prior to impact.
- The six year-old would be considered "under age of reason", and therefore not negligent.

Opinions

- Mr. Smith had sufficient time and distance to avoid the collision, but did not.
- It is my expert opinion that Mr. Smith's negligence for ***improper forward lookout*** is the proximate cause for this accident.
- Mr. Smith's most likely cause of improper forward lookout would be his delayed reaction time caused by such factors as ...
 - a. driver inattention,
 - b. distraction inside or outside the vehicle,
 - c. fatigue, and/or
 - d. effects of alcohol or other depressants
- The evidence reviewed does not support any mechanical malfunction as cause of the accident.
- Our field investigation indicated there were no roadway defects or obstructions that may have contributed to the accident.

Respectfully submitted,
Texas Claims & Consulting Co.

Ted Marules, Sr.
Accident Reconstruction Expert