

Not In Traffic Surveillance Remote Back Over Investigation / Vehicle v. Pedestrian
Dynamic Science, Inc. / Case Number: DS07013
1998 Chevrolet Blazer
Utah
March 2007

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The crash investigation process is an inexact science which requires that physical evidence such as skid marks, vehicular damage measurements, and occupant contact points be coupled with the investigator's expert knowledge and experience of vehicle dynamics and occupant kinematics in order to determine the pre-crash, crash, and post-crash movements of involved vehicles and occupants.

Because each crash is a unique sequence of events, generalized conclusions cannot be made concerning the crashworthiness performance of the involved vehicle(s) or their safety systems.

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16. Abstract This remote investigation focused on the circumstances surrounding a 3-year-old child fatally injured in a Back Over incident. This single vehicle incident occurred in March 2007 at 1127 hours. The case vehicle is a 1998 Chevrolet Blazer sport utility vehicle. The Chevrolet was being driven by a 26-year-old female. The Chevrolet Blazer was initially parked in a private driveway. The driver and four children had exited the residence. The four children were seated in the vehicle prior to the incident. The 3-year-old was seated in the second row middle seat position. The driver exited the vehicle and left the four child occupants in their seats so she could retrieve her cell phone from the residence. While she was gone, the 3-year-old got out of his seat and exited the vehicle also. The driver stated that when she returned, she noticed that the 3-year-old was not in his seat. She assumed the he had unbuckled his seatbelt and had gotten into the back cargo area of the Blazer. She stated that the child often did this to hide from her. As the driver began backing the vehicle, she felt that she had run over something with the right rear tire. She kept backing up until she saw the child lying in the driveway. EMS personnel arrived shortly after the incident. The 3-year-old sustained a large "C" shaped gouge to the left side of his head that exposed his skull. The skull was fractured in this area. There were also multiple contusions and abrasions. He was transported to a local emergency room by ground ambulance. He was treated but died from his injuries at 1222 hours.				
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**Dynamic Science, Inc.
Crash Investigation
Case Number: DS07013**

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BACKGROUND

This remote investigation focused on the circumstances surrounding a 3-year-old child fatally injured in a Back Over incident. This single vehicle incident occurred in March 2007 at 1127 hours. The case vehicle is a 1998 Chevrolet Blazer sport utility vehicle. The Chevrolet was being driven by a 26-year-old female. The Chevrolet was initially parked in a private driveway. The driver and four children had exited the residence. The four children (ages 5, 4, 2, and 3) were seated in the vehicle prior to the incident.



Figure 1. Case vehicle. 1998 Chevrolet Blazer.

The 3-year-old was originally seated in the second row middle seat position restrained by the seat belt. The driver exited the vehicle and left the four child occupants in their seats so she could retrieve her cell phone from the residence. While she was gone, the 3-year-old got out of his seat and exited the vehicle also. The driver stated that when she returned, she noticed that the 3-year-old was not in his seat. She assumed the he had unbuckled his seatbelt and had gotten into the back cargo area of the Blazer. She stated that the child often did this to hide from her.

As the driver began backing the vehicle, she felt that she had run over something—possibly a skateboard—with the right rear tire. She kept backing up until she saw the child lying in the driveway. After seeing the child, she called 911. Operators instructed her to begin CPR. When she got to the child's side he was not breathing and she could not detect a heartbeat. After beginning CPR, she indicated that she began to detect a heartbeat. EMS personnel arrived shortly after the incident and took over CPR activities. The 3-year-old sustained a large “C” shaped gouge to the left side of his head that exposed his skull. The skull was fractured in this area. There were also multiple contusions and abrasions. He was transported to a local emergency room by ground ambulance. He was treated but died from his injuries at 1222 hours, approximately one hour post-incident

This Not In Traffic Surveillance (NITS) investigation was initiated in response to an on-line news article reporting the injury of a 3-year-old child in a Back Over incident. On March 19, 2007 DSI was notified of the news article. The investigating police department was contacted. A police report and on-scene photos were obtained on April 2, 2007. DSI was assigned the case on April 5, 2007. The following information was obtained from the police report, on scene photos the medical examiner's office and the on-line news article. The driver refused to be interviewed. According to the investigating police agency, any incident involving injury or death is reported to the State, so this incident was reported.

SUMMARY

Incident Site

This single vehicle incident occurred in March 2007 at 1127 hours. The incident occurred in the driveway of private residence. The driveway is aligned in an east/west configuration and intersects a north/south roadway. The Chevrolet was initially parked inside a metal car port that was attached to the north side of the residence (see Figure 3). A camper trailer was parked to the right (north) of the case vehicle. At the time of the crash, the weather was clear the concrete driveway was dry. The temperature at the nearest reporting station at 1153 hours was 18 degrees C (50 degrees F).

Pre-Crash

The case vehicle was being driven by a 26-year-old female. The Chevrolet Blazer was initially parked in a private driveway. The driver and four children had exited the residence. The four children (ages 5, 4, 2, and 3) were seated in the vehicle prior to the incident. The 3-year-old was seated in the second row middle seat position, and was restrained by the seat belt. The children were the nieces and nephews of the driver. She takes care of the children for her sister. The driver had gotten in the vehicle. She then exited the vehicle and left the four child occupants in their seats so she could retrieve her cell phone from the residence. While she was gone, the 3-year-old got out of his seat and exited the vehicle also. The driver stated that when she returned, she noticed that the 3-year-old was not in his seat. She assumed the he had unbuckled his seatbelt and had gotten into the back cargo area of the Blazer. She stated to police that the child often did this to hide from her.



Figure 2. View along vehicle path of travel. Arrow marks blood pool.



Figure 3. Overview of case vehicle's initial location

Crash

As the driver began backing the vehicle, the right portion of the rear bumper contacted and knocked down the child. It appears that the vehicle had traveled 0.6-0.9 m (2-3 ft) before this first impact. The vehicle had only traveled a short distance and, based on an acceleration rate of 4.8 fps^2 , had speed of less than 8 km/h (5 mph). The vehicle continued backing and the right rear tire rolled over the child's back/torso after traveling approximately 0.9 m (3.0 ft). The driver felt that she had run over something at this point—possibly a skateboard—with the right rear tire. The vehicle continued backing and traveled approximately 2.7 m (9.0 ft) before the front right tire engaged the left side of the child's head. There was a 122 cm (48 in) pattern of hair on the driveway leading to the final resting position of the child's head (see Figures 4 and 5). The driver kept backing up an additional 6.1 m (20.0 ft) until she saw the child lying in front of the vehicle in the driveway and stopped the vehicle.

Post-Crash

After seeing the child, the driver called 911. Operators instructed her to begin CPR. When she got to the child's side he was not breathing and she could not detect a heartbeat. After beginning CPR, she indicated that she began to detect a heartbeat. EMS personnel arrived shortly after the incident and took over CPR activities. The 3-year-old sustained a large "C" shaped gouge to the left side of his head that exposed his skull. The skull was fractured in this area. There were also abrasions to the back of the right shoulder, right hip, right lower leg, left forearm, left upper arm, left shoulder, and to the face. There was a contusion/abrasion to the right side of his head that included the ear. There were contusions and abrasions to his back. He was transported to a local emergency room by ground ambulance. He was treated but died from his injuries at 1222 hours, approximately one hour post-incident.



Figure 4. Drag path



Figure 5. Close up of drag path

VEHICLE DATA - 1998 Chevrolet Blazer SUV

The 1998 Chevrolet Blazer was identified by the Vehicle Identification Number (VIN): 1GNDDT13W7W2xxxxxx. The Blazer was a sport utility vehicle that was equipped with a 4.3 liter six-cylinder engine, an automatic transmission, and four-wheel drive.

Position	Measured Pressure	Measured Tread Depth	Restricted	Damage
LF	Unknown	Unknown	No	None
RF	Unknown	Unknown	No	None
LR	Unknown	Unknown	No	None
RR	Unknown	Unknown	No	None



Figure 6. Right rear bumper, 1998 Chevrolet Blazer



Figure 7. Left side, 1998 Chevrolet Blazer

Vehicle Dimensions

Dimensions obtained from Canadian vehicle specifications and an exemplar vehicle. Seated eye height was calculated using a 50th percentile female seated eye height with the known seat height of the exemplar vehicle.

Ground to belt line:	117.0 cm (46.0 in)
Ground to top of trunk/tailgate:	124.0 cm (48.8 in)
Ground to top of rear bumper:	72.0 cm (28.3 in)
Ground to bottom of rear bumper:	50.0 cm (19.7 in)
Driver's seated eye height:	74.7 cm (29.4 in)
Estimated eye position (seated forward facing):	13.0 cm (5.1 in)
Overall vehicle height:	165.0 cm (65.0 in)
Overall vehicle width:	172.0 cm (67.7 in)
Overall vehicle length:	469.0 cm (184.6 in)
Rear overhang:	105.0 cm (41.3 in)
Track width:	142.0 cm (55.9 in)
Longitudinal distance between rear most projection and front door latch pillar:	195.0 cm (76.8 in)

Parking Aids/Sensors

The case vehicle was not equipped with any parking aids or backing up sensor/video technology.

Vehicle Sight Distances

The driver's eye height was determined using the anthropometric seated eye height measurements for a 50th percentile male and the seat height the exemplar vehicle. Based on the driver's height and the height of the base of the backlight, a scaled diagram was drawn and line was extended rearward until it intersected the 71 cm (28 in) reference object.

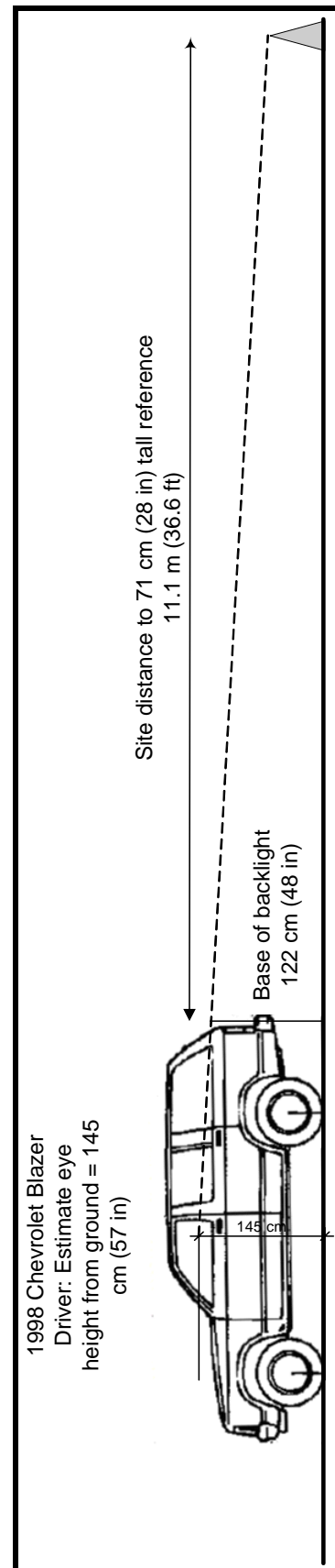


Figure 8. Nominal visibility diagram

VEHICLE DAMAGE

Exterior Damage - 1998 Chevrolet Blazer SUV

Police officers noted that the rear bumper of the Blazer was covered in a light covering of road dust. There was a section of the bumper where the road dust had recently been rubbed off. This section was approximately 30.5 cm (12.0 in) in from the edge of the right side toward the middle of the rear bumper. There was a 7.6-10.2 cm (3.0-4.0 in) section of road dust missing from this section of the bumper.

There were several hairs found on the right front tire which matched the hair color of the injured child. There was also an oily substance found on the tread area that appeared to have come from the child's skin as the tire rolled over him.

There were no indications of contact to the muffler, transfer case, rear leaf spring or the rear axle. There was a 15.2 cm (6.0 in) wide area of the right side frame rail where dust had been rubbed off.



Figure 9. Contact to right rear bumper



Figure 10. Oily substance found on right front tire tread

Interior Damage - 1998 Chevrolet Blazer SUV

From the police photos, there did not appear to be any interior damage.

OCCUPANT DEMOGRAPHICS - 1998 Chevrolet Blazer

	Driver
Age/Sex:	26/Female
Seated Position:	Left front
Seat Type:	Bucket
Height:	Unknown
Weight:	Unknown
Occupation:	Unknown
Pre-existing Medical Condition:	None noted
Alcohol/Drug Involvement:	None
Driving Experience:	Unknown
Body Posture:	Normal, upright
Hand Position:	Unknown
Foot Position:	Unknown
Restraint Usage:	Lap and shoulder belt used, per police report
Air bag:	NA

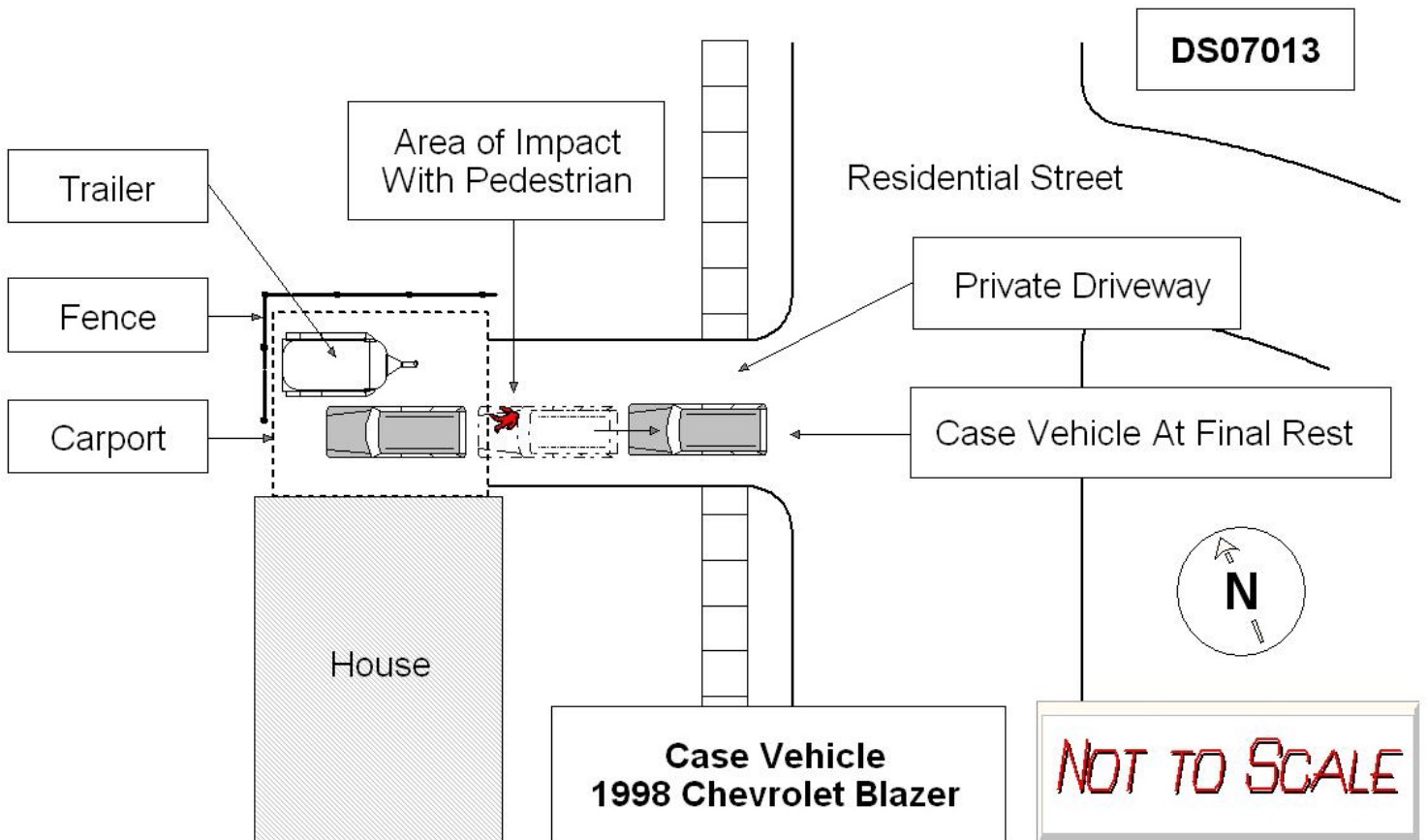
INJURIES - 1998 Chevrolet Blazer

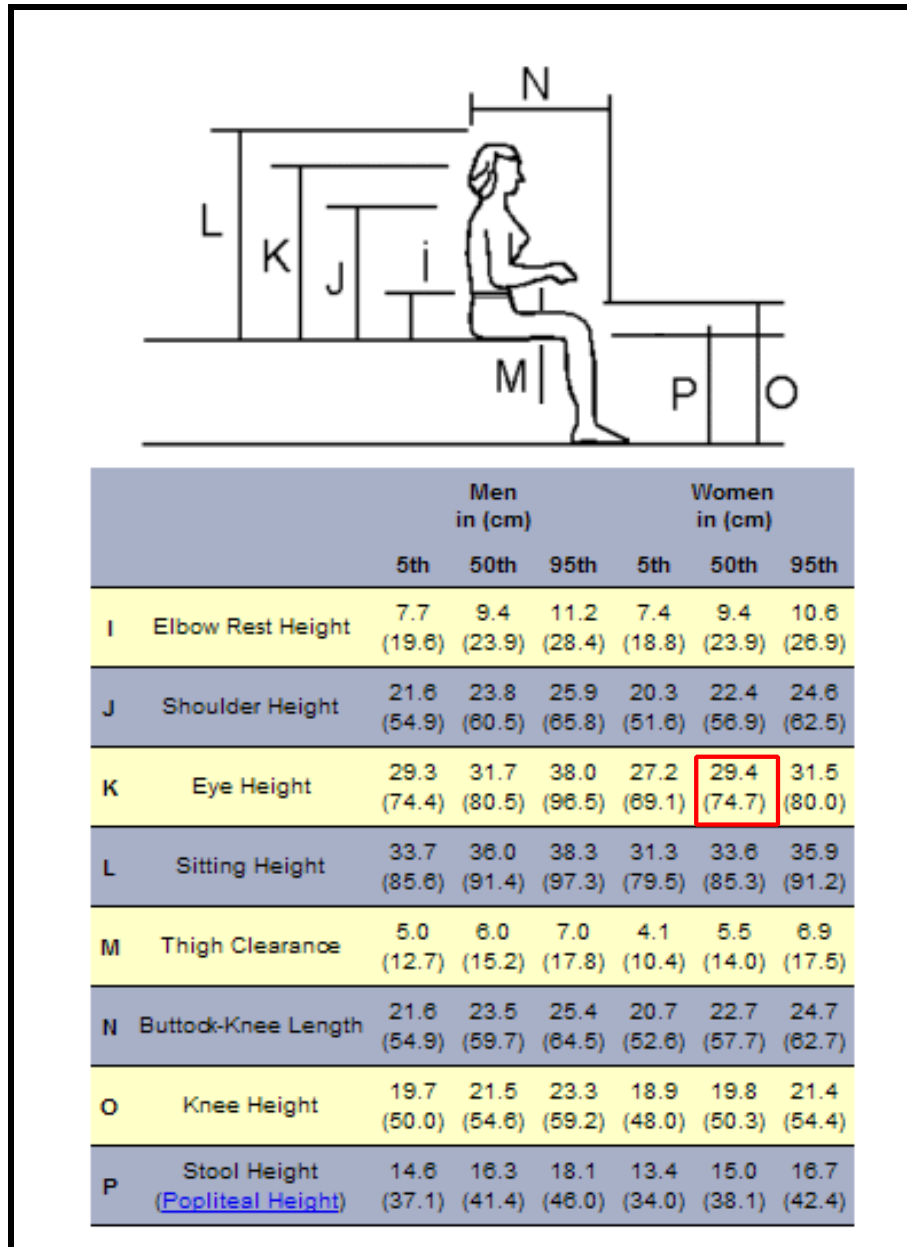
Driver: Not injured.

Pedestrian/Non-Motorist: Injuries obtained from police report and photos from emergency room.

<u>Injury</u>	<u>OIC Code</u>	<u>Injury Mechanism</u>	<u>Confidence Level</u>
Left side skull fracture	150400.2,2	Tire	Certain
Abrasion, right shoulder	790202.1,1	Ground	Probable
Abrasion, right hip	890202.1,1	Ground	Probable
Abrasion, right lower leg	890202.1,1	Ground	Probable
Abrasion, left forearm	790202.1,2	Ground	Probable
Abrasion, left upper arm	790202.1,2	Ground	Probable
Abrasion, face	290202.1,9	Ground	Probable
Contusions/abrasion, back	690202.1,9 690402.1,9	Ground	Probable
Contusion/abrasion right side of head, including the ear	190202.1,1 190402.1,1	Ground	Certain

Attachment 1. Scene Diagram



Attachment 2. Anthropometric Measurements¹

¹http://www.cdc.gov/niosh/pot_anth.html

Attachment 3. Field Data Forms



1. Case Number

IDENTIFICATION

2. Date of Crash ____ / ____ / ____

3. Time of Crash _____

Code reported military time of crash.

NOTE: Midnight = 2400
Unknown = 9999

AMBIENT CONDITIONS

4. Light Conditions

- Daylight
- Dark
- Dark but lighted
- Dawn
- Dusk
- Unknown

5. Atmospheric Conditions
(Select all that apply)

- Clear-No adverse conditions
- Cloudy
- Rain
- Snow
- Fog, Smog, Smoke
- Sleet, Hail (freezing rain or drizzle)
- Blowing Snow
- Severe Crosswinds
- Blowing Sand, Soil, Dirt
- Other (specify):
- Unknown

6. Temperature

- Below 0 degrees Celsius (Below 32 F)
- 1-10 degrees Celsius (33-50 F)
- >10-24 degrees Celsius (51-75 F)
- Over 24 degrees Celsius (Over 75 F)
- Unknown

SCENE INFORMATION

7. Type of area in which crash occurred
(Select all that apply)

- Single family residential
- Row houses/townhouses
- Multi family housing
- Commercial
- Industrial
- Rural
- Unknown

8. Driver exterior sightline obstructions
(Select all that apply)

- None
- Other vehicles
- Building
- Trees
- Shrubby
- Other (specify) _____
- Utility poles
- Signs
- Glare
- Unknown
- No driver present

9. Crash location

- Driveway
- Parking Lot
- Sidewalk
- Alley
- Intersection of driveway and sidewalk
- Road / street
- Roadside / shoulder
- Other (specify) _____
- Unknown

10. Non motorist sightline obstructions
(Select all that apply)

- None
- Other vehicles
- Building
- Trees
- Shrubby
- Utility poles
- Signs
- Glare
- Other (specify) _____
- Unknown

11. Grade at parked position +/- _____ %

12. Estimated distance from parked position to impact

_____ m

13. Estimated speed at impact +/- _____ kmph

14. Grade at impact +/- _____ %

15. Estimated distance from impact to vehicle final rest

_____ m

Unknown = 999 Reference Items 11,12, 13, 14, 15



1. Case Number _____

VEHICLE IDENTIFICATION

2. VIN _____

3. Model Year _____

4. Vehicle Make (specify): _____

5. Vehicle Model (specify): _____

GLAZING

Location	Presence (check)	Status (select)	Clarity (select)	Tint (check)	Glazing Obstructions (specify if present)
Windshield		Fixed / Closed / Open / Partially Open / Unknown	Clear / Hazy / Very Dirty / Unknown		
LF		Fixed / Closed / Open / Partially Open / Unknown	Clear / Hazy / Very Dirty / Unknown		
RF		Fixed / Closed / Open / Partially Open / Unknown	Clear / Hazy / Very Dirty / Unknown		
2 nd Left		Fixed / Closed / Open / Partially Open / Unknown	Clear / Hazy / Very Dirty / Unknown		
2 nd Right		Fixed / Closed / Open / Partially Open / Unknown	Clear / Hazy / Very Dirty / Unknown		
3 rd Left		Fixed / Closed / Open / Partially Open / Unknown	Clear / Hazy / Very Dirty / Unknown		
3 rd Right		Fixed / Closed / Open / Partially Open / Unknown	Clear / Hazy / Very Dirty / Unknown		
Backlight		Fixed / Closed / Open / Partially Open / Unknown	Clear / Hazy / Very Dirty / Unknown		
Left Backlight		Fixed / Closed / Open / Partially Open / Unknown	Clear / Hazy / Very Dirty / Unknown		
Right Backlight		Fixed / Closed / Open / Partially Open / Unknown	Clear / Hazy / Very Dirty / Unknown		
Roof		Fixed / Closed / Open / Partially Open / Unknown	Clear / Hazy / Very Dirty / Unknown		
Other (specify)		Fixed / Closed / Open / Partially Open / Unknown	Clear / Hazy / Very Dirty / Unknown		

TIRE DATA

6. Vehicle Manufacturer Recommended Tire Size _____

7. LF Tire Size _____

9. RF Tire Size _____

8. LR Tire Size _____

10. RR Tire Size _____

Seats / Head Restraint Data

Seat Position	Seat Type (Select from below)	Head Restraint (Check if available)	Head Restraint Adjustment (select)	NOTES:
Front Left			Full Down / Mid / Full Up	
Front Middle			Full Down / Mid / Full Up	
Front Right			Full Down / Mid / Full Up	
2 nd Left			Full Down / Mid / Full Up	
2 nd Middle			Full Down / Mid / Full Up	
2 nd Right			Full Down / Mid / Full Up	
3 rd Left			Full Down / Mid / Full Up	
3 rd Middle			Full Down / Mid / Full Up	
3 rd Right			Full Down / Mid / Full Up	

Seat Type codes:

- | | |
|---|--------------------------------------|
| 0 = No seat or seat folded down | 8 = Pedestal (i.e. column supported) |
| 1 = Bucket | 9 = Box mounted (i.e. van type) |
| 2 = Bucket w/ folding back | 10= Other seat type (specify) |
| 3 = Bench | 99= Unknown seat type |
| 4 = Bench with folding back cushions | |
| 5 = Bench w/ folding back | |
| 6 = Split bench w/ separate back cushions | |
| 7 = Split bench w/ separate folding back | |

VEHICLE MEASUREMENTS

Clearance Heights	Measurements (all from ground, and in centimeters)	NOTES
Beltline		
Top of trunk/tailgate		
Bottom of bumper		
Trailer hitch (if applicable)		
Undercarriage		
Sway bar		
Axle		
Differential		
Other (specify):		
Sensor Height (if equipped)		
Camera Height (if equipped)		



1. Case Number

PARKING AID PRESENCE

2. Type of backing/parking aid present

- OEM camera
- OEM ultrasonic/radar sensor
- OEM combination camera-ultrasonic/radar sensor
- OEM Fresnel lens
- OEM interior mirrors
- Aftermarket camera
- Aftermarket ultrasonic/radar sensor
- Aftermarket combination camera-ultrasonic radar sensor
- Aftermarket Fresnel lens
- Aftermarket interior mirrors
- Other (specify): _____

CAMERA INFORMATION

Specify field of view measurements on diagram

3. System make/model

4. Video monitor type

- None present
- LCD (color)
- CRT (black & white)
- Unknown

5. Video display size _____ cm
(Diagonal)

6. Camera location

- None present
- Bumper
- License plate
- Tailgate/Hatch/Trunk
- Other (specify): _____

7. Video image quality under scene lighting conditions

- None present
- Good
- Average
- Poor (specify): _____
- Unknown

8. Was the camera functioning properly

- None present
- Yes
- No, poor image quality due to glare
- No, poor image quality due to atmospheric conditions
- No, camera turned off
- No, camera inoperable
- Unknown

ULTRASONIC/RADAR SENSOR

Specify object detection range on diagram

9. System make/model

10. Auditory warning illumination

- No sensor present
- Yes
- No
- Unknown

11. Number of sensors _____

12. Sensor locations
(Select all that apply)

- No sensor present
- Left bumper
- Center bumper
- Right bumper
- License plate area
- Tailgate/Hatch/Trunk

13. Was warning system functioning properly

- No sensor present
- Yes, system alerted driver
- No, system did not alert driver
- No, system turned off
- No, system inoperable
- Unknown

14. Did driver react to warning

- No sensor present
- Yes
- No
- Unknown

15. Did driver report common false warnings

- No sensor present
- Yes
- No
- Unknown



DRIVER FORM

1. Case Number

DRIVER PROFILE

2. Driver's Age

99 = Unknown

3. Driver's Sex

- Male
- Female
- Unknown

4. Driver's Height

999 = Unknown

_____ cm

5. Driver's Weight

999 = Unknown

_____ kg

6. Driver eyewear worn

(Select all that apply)

- None
- Eyeglasses
- Sunglasses
- Contacts
- Unknown

7. Driver vision deficiency condition

(Select all that apply)

- None
- Near sighted
- Far sighted
- Astigmatism
- Other (specify): _____
- Unknown

8. Non motorist's relationship to driver

- No relationship
- Child
- Grandchild
- Sibling
- Neighbor
- Friend
- Other (specify): _____
- Unknown

DRIVER ACTIONS

9. Driver approach to vehicle for entry

- From left front
- From left
- From left rear
- From right rear
- From right front
- Circled vehicle
- Return trip (backing into driveway/lot)
- Other (specify): _____
- N/A
- Unknown

10. Driver entry interruption

(Select all that apply)

- Direct trip from building to vehicle
- Loaded items into vehicle
- Spoke with family
- Spoke with neighbors
- Spoke with contacted nonmotorist
- Return trip (backing into driveway/lot)
- Other (specify): _____
- N/A
- Unknown

11. Purpose of backing

- Leaving parking space in parking lot
- Backing onto roadway from driveway
- Entering parking space in parking lot
- Backing into driveway from roadway
- Other (specify): _____
- N/A
- Unknown

12. Where was driver going

Description:

13. Driver in a hurry

- Yes N/A
- No Unknown
- Unknown

14. How did driver check behind (rear area of vehicle) after vehicle entry

(Select all that apply)

- Did not look
- Checked mirrors
- Turned right and looked back
- Turned left and looked back
- Viewed Camera
- Listened for auditory/visual warning from system
- Other (specify): _____
- N/A Unknown

15. Estimated time between vehicle entry and start of backing

- 0-10 Seconds Over 60 Seconds
- 11-30 Seconds N/A
- 31-60 Seconds Unknown

16. What direction was the driver looking during backing maneuver
(Select all that apply)
- Straight ahead
 - Right
 - Left
 - Rearward
 - At object inside the car
 - At mirrors
 - Other (specify): _____
 - N/A
 - Unknown
17. Was the driver distracted during back up maneuver
(Select all that apply)
- No non-driving activities
 - External**
 - Looking at other vehicles
 - Looking at other non motorist
 - Looking at intended turn destination
 - External focus, not specified
 - Other external focus (specify): _____
 - Internal**
 - Looking at other occupant
 - Talking to passenger
 - Dialing phone
 - Talking on phone
 - Listening to radio/cd/portable playback device
 - Adjusting radio/cd player
 - Adjusting climate controls
 - Using a device/controls integral to vehicle (specify): _____
 - Reading/adjusting navigation system
 - Eating or drinking
 - Smoking related
 - Retrieving fallen object (specify): _____
 - Internal focus, not specified
 - Focused on other internal object (specify): _____
 - N/A
 - Unknown
18. Driver avoidance actions prior to impact
(Select all that apply)
- None
 - Braking
 - Steering left
 - Steering right
 - Accelerating
 - Other (specify): _____
 - N/A
 - Unknown
19. Did driver see struck non motorist prior to impact
(Select all that apply)
- No, never saw non motorist
 - Saw non motorist prior to entering vehicle
 - Saw non motorist after entering vehicle
 - Other (specify): _____
 - N/A
 - Unknown
20. Est time between start of backing and impact
- <2 or = 1 second
 - 2-5 seconds
 - 6-10 seconds
 - > 10 seconds
 - N/A
 - Unknown
21. Driver interior sightline obstructions
(Select all that apply)
- Pillar
 - Headrest
 - Cargo
 - Other occupant
 - Other (specify) _____
 - Unknown
 - None
22. Recent experience driving this vehicle
- More than 10 times the last three months
 - 6-10 times the last three months
 - 2-5 times the last three months
 - Less than 2 times the last three months
 - First time driving this vehicle
 - N/A
 - Unknown
23. Frequency of driving in this parking lot/driveway
- Daily
 - Weekly
 - Several times a month
 - Monthly
 - Rarely
 - First time in lot/driveway
 - N/A
 - Unknown
24. Driver Impairment
(Select all that apply)
- No drugs or alcohol present
 - Alcohol present (specify BAC): _____
 - Drugs present (specify): _____
 - Unknown
25. Source of alcohol/drug results
- Police reported
 - Medical record
 - Other (specify) _____
 - Not Tested
 - Unknown if tested



Non Motorist Form

1. Case Number

NON-MOTORIST PROFILE

2. Non-motorist's Age _____ Months
_____ Years
99 = Unknown

3. Non-motorist's Sex
 Male
 Female
 Unknown

4. Non-motorist's Height _____ cm
999 = Unknown

5. Non-motorist's Weight _____ kg
999 = Unknown

6. Medical outcome
 Not injured
 ER only
 Hospitalized 1-4 days
 Hospitalized 5 days or more
 Treatment later
 Fatal
 Unknown

7. Source of most severe injury
 Bumper
 Tire
 Undercarriage
 Other Specify: _____
 Ground
 N/A
 Unknown

8. Non-motorist impairment
(Select all that apply)
 No drugs or alcohol present
 Positive for alcohol (specify BAC): _____
 Positive for drugs (specify): _____
 Unknown

9. Source of alcohol/drug results
 Police reported
 Medical Report
 Other (specify) _____
 Not Tested
 Unknown if tested

NON-MOTORIST ACTIONS

10. Non-motorist attitude
 Standing
 Bending at waist
 Sitting
 Crouching
 Kneeling
 On skates/skateboard
 On bike/scooter
 Other (specify) _____
 Unknown

11. Non-motorist motion
 Not moving
 Walking slowly
 Walking rapidly
 Running or jogging
 Skipping/Hopping/Jumping
 Falling/Stumbling/Rising
 On skates/skateboard
 On bike/scooter
 Other (specify): _____
 Unknown

12. Non-motorist approach relative to rear of vehicle
 Stationary
 From left
 From right
 From behind
 Other (specify): _____
 Unknown

13. Non-motorist first avoidance action
 No avoidance actions
 Stopped
 Accelerated pace
 Ran away (along vehicle path)
 Jumped
 Turned away from vehicle
 Turned toward vehicle and braced
 Dove or fell away from vehicle
 Other (specify): _____
 Unknown

14. Non-motorist primary focus of attention
 Striking vehicle
 Play object
 Person
 Surrounding traffic
 Animal
 Handheld electronic (phone, MP3 player, etc.)
 Other Object (specify) _____
 Unknown

15. Were any other Non-motorists present?
(Select all that apply)
 Alone
 One adult present
 One other child present
 Multiple adults present
 Multiple children present
 Unknown

NON MOTORIST CLOTHING

NOTES:

- Specify Color, Fabric and Texture/Weight for outermost layer only
- Indicate "NONE" if applicable
- Available codes:

	<u>Colors</u>		<u>Fabrics</u>		<u>Textures</u>		<u>Weights</u>
Black	Charcoal gray		Natural		Soft		Heavy
Lt gray/silver	Brown		Synthetic		Slick		Medium
Gold/tan	Purple		Blend		Coarse		Light
Dark blue	Light blue						
Dark green	Light green						
Maroon	Red						
Orange	Yellow						
White	Other (specify)						

	Clothing	Color	Fabric	Texture	Weight
H E A D W E A R	Hat				
	Helmet				
	Hood				
	Other (specify): _____				
U P P E R B O D Y	Short Sleeve				
	Long Sleeve				
	Light Jacket				
	Heavy Jacket				
	Other (Specify): _____				
L O W E R B O D Y	Shorts				
	Pants				
	Shoes				
	Other (specify): _____				