

**CRASH DATA RESEARCH CENTER**

Calspan Corporation  
Buffalo, NY 14225

**NOT-IN-TRAFFIC SURVEILLANCE**

**CALSPAN ON-SITE BACK OVER INCIDENT INVESTIGATION**

**SCI CASE NO.: CA09043**

**VEHICLE: 2001 JEEP GRAND CHEROKEE**

**LOCATION: NORTH CAROLINA**

**DATE OF INCIDENT: JUNE 2009**

Contract No. DTNH22-07-C-00043

Prepared for:

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National Highway Traffic Safety Administration  
Washington, D.C. 20590

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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 are 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.

**TECHNICAL REPORT STANDARD TITLE PAGE**

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16. Abstract This on-site investigation focused on the circumstances of a fatal back over incident and the rear visibility study of a 2001 Jeep Grand Cherokee. This incident occurred in the driveway of mobile home park as the driver of the Jeep was backing. The Jeep was not equipped with a backing/parking aid. The non-motorist was a 7-year-old male and was the neighbor of the driver. At the time of the incident, the non-motorist was bending at waist crossing the driveway while pushing a toy truck. The driver entered the vehicle that was parked in the driveway next to his residence and began a backing maneuver to exit the driveway and enter an adjacent driveway to turn around. The child was subsequently struck by the rear bumper, knocked to the ground and was run over by the both side tires. The incident was observed by two adults and other children who were playing in the area. The child was transported to a local physician's office where he was pronounced deceased. His body was then transferred to the Medical Examiner's office for autopsy.					
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**NOT-IN-TRAFFIC SURVEILLANCE**  
**CALSPAN ON-SITE BACK OVER INCIDENT INVESTIGATION**  
**SCI CASE NO.: CA09043**  
**VEHICLE: 2001 JEEP GRAND CHEROKEE**  
**LOCATION: NORTH CAROLINA**  
**DATE OF INCIDENT: JUNE 2009**

**BACKGROUND**

This on-site investigation focused on the circumstances of a fatal back over incident and the rear visibility study of a 2001 Jeep Grand Cherokee (**Figure 1**). This incident occurred in the driveway of mobile home park as the driver of the Jeep was backing. The Jeep was not equipped with a backing/parking aid. The non-motorist was a 7-year-old male and was the neighbor of the driver. At the time of the incident, the non-motorist was bending at waist crossing the driveway while pushing a toy truck. The driver entered the vehicle that was



**Figure 1. Case vehicle, 2001 Jeep Grand Cherokee.**

parked in the driveway next to his residence and began a backing maneuver to exit the driveway and enter an adjacent driveway to turn around. The child was subsequently struck by the rear bumper, knocked to the ground and was run over by the both side tires. The incident was observed by two adults and other children who were playing in the area. The child was transported to a local physician's office where he was pronounced deceased. His body was then transferred to the Medical Examiner's office for autopsy.

This incident was identified by the Crash Investigation Division (CID) of the National Highway Traffic Safety Administration (NHTSA) on June 9, 2009. Details of the incident were forwarded to the Calspan Special Crash Investigations (SCI) team on the same day. The SCI team established cooperation with the investigating police agency on June 10, 2009 to facilitate the inspection of the Jeep and the incident site. Approval to conduct the on-site investigation was not obtained until June 30, 2009 as the case was reviewed for possible criminal charges. The inspection of the vehicle, incident site, and driver interview were conducted on July 1, 2009.

## SUMMARY

### *Incident Site*

This incident occurred during the daytime hours of June 2009. At the time of the incident, the weather was not a factor. The incident occurred on the gravel surfaced driveway of a mobile home park. The driveway was located at the end of an east/west access road and was shared by a cluster of mobile homes. The mobile homes were dispersed over a 50 x 50 meter area (165 x 165 feet). The driver's mobile home was located 20 meters (66 feet) east of the access road and was oriented east to west. The non-motorist's mobile home was located 8 meters (26.2 feet) north of the access road and was oriented in a north/south direction. The gravel driveway had a positive two-percent grade leading to the driver's mobile home. The surface of the driveway was rough with dispersed potholes. **Figure 7** is a schematic of the incident site.

### *Vehicle Data*

The involved vehicle in this back over investigation was a 2001 Jeep Grand Cherokee sport utility vehicle. The Jeep was identified by Vehicle Identification Number (VIN): 1J4GW58N91C (production number deleted). The Jeep was powered by a 4.7-liter, V-8 engine linked to a four-speed automatic transmission. The four-wheel drive Jeep was equipped with radial tires, size P235/65R17 mounted on OEM alloy wheels. It is unknown if the four-wheel drive system was engaged. The Jeep was not equipped with a backing/parking aid.

The window glazing was AS1 for the laminated windshield, AS2 for the front doors, and AS3 OEM deep tint for the rear doors, rear side windows, backlight, and sun roof. The driver stated that all windows were closed during the incident. The clarity of the glass was clear and there were no obstructions to the side or rear glazing at the time of the incident.

The interior of the Jeep was configured with front bucket seats and a second row bench seat with separate back cushions. The outboard seats were equipped with adjustable head restraints that were in the full-down position.

The vertical clearance heights of the rear components of the Jeep were measured from the level gravel surface and are listed in the following table:

<b>Component</b>	<b>Clearance Height</b>
Beltline	119 cm (46.8 in)
Bottom of backlight	120 cm (47.2 in)
Base of wiper blade motor	121 cm (47.5 in)
Top of wiper blade motor	127 cm (50 in)
Top of backlight	160 cm (63 in)
Top of tailgate	165 cm (64.9 in)
Bottom of bumper	46 cm (18.1 in)
Top of bumper	70 cm (27.6 in)
Trailer hitch	40 cm (15.7 in)

<b>Component</b>	<b>Clearance Height</b>
Forward edge of spare tire well	27 cm (10.6 in)
Rear edge of spare tire well	36 cm (14.2 in)
Tail pipe	36 cm (14.2 in)
Muffler	26 cm (10.2 in)
Differential	22 cm (8.7 in)
Axle	32 cm (12.6 in)
Sway bar	28 cm (11 in)
Sway bar mount	30 cm (11.8 in)
Lower shock mount	25 cm (9.8 in)
Transfer case shield	25 cm (9.8 in)

### ***Driver Data***

The driver of the Jeep was a 42-year-old male with a stated height of 180 cm (71 in) and a weight of 81 kg (178 lb). The driver did not have any vision deficiencies. He stated during the interview that as he entered the vehicle, all windows were closed. He also noted that he used his mirrors when backing. The driver was familiar with backing in and out of the driveway from his residence.

### ***Non-Motorist Data***

The non-motorist was a 7-year-old male. His demographics were estimated by the Medical Examiner to be 122 cm (48 in) and 45 kg (100 lbs). At the time of the incident, he was wearing an unknown-color T-shirt, khaki-color shorts, and blue rubber shoes. The child had no known sight or hearing impairments. The non-motorist's injuries included a large abrasion to the left side of his face extending onto the forehead, multiple abrasions to his back, a right knee abrasion, and massive internal crushing injuries. The Medical Examiner noted two different tire tread patterns on the non-motorist's body.

### ***Incident Sequence***

#### ***Pre-Incident***

Prior to the incident, the driver of the Jeep exited his residence and proceeded to the southeast roadside where he dropped off a trash receptacle. The driver stated that he noted other children near the vicinity of the southeast roadside as he walked in a northeast direction toward the rear right of the vehicle. He walked to the left side of the Jeep, entered through the front left door and started the vehicle. The driver placed the transmission selector in reverse and began backing the vehicle in a westerly direction (**Figure 2**). The



**Figure 2. Pre-incident trajectory of the Jeep.**

driver stated during the SCI interview that he used the mirrors while backing with his primary attention focused in the left side mirror. As the vehicle neared the adjacent mobile home (west), the driver applied a left steering input in order to enter the driveway in a clockwise arc. His intention was to enter the adjacent driveway so he could turn the vehicle and proceed in a forward trajectory out of the mobile home park. During the backing maneuver, the 7-year-old non-motorist exited the adjacent mobile home from the west door and proceeded toward the driveway while bending at the waist and pushing a toy truck. The investigating police officer noted miniature tire tread marks from the toy truck in the area of the incident. The driver was unaware of the non-motorist on the driveway as he backed the Jeep. The driver stated that there were no exterior sightline obstructions.

### ***Incident***

The Jeep traveled approximately 10-12 meters (33-39 feet) during this backing maneuver and struck the child with the rear bumper, knocking him to the ground. The driver was unaware of the incident and continued backing. The left side tires subsequently ran over the child's lower torso. The Jeep traveled approximately 1.2 meters (4 feet) where the driver stopped the vehicle and observed the child on the driveway. **Figure 3** is an on-scene view of the final rest position of the Jeep.



**Figure 3. Police image of the Jeep at final rest.**

### ***Post-Incident***

The driver exited the Jeep from the front left door and approached the 7-year-old on the ground forward of the vehicle. The 9-1-1 emergency response number was called and police and ambulance assistance was requested. Ambulance personnel arrived on-scene and transported the child to a physician's office. The child was pronounced deceased upon arrival. His body was transferred to the Medical Examiner's for autopsy.

### ***Vehicle Contact Damage/Evidence***

There was no contact evidence noted by the investigating police officer; however, a large abrasion was noted on the rear left bumper corner. This was determined to be previous damage. At the time of the SCI inspection, the rear and undercarriage components were free of contact evidence.

### ***Rear Visibility***

During the on-site investigation, a rear visibility study was conducted with the driver positioned in the Jeep. The Jeep was parked on the level section of the access road. Seated within the left front seat in a driving posture, the driver's eye height measured 140 cm (55.5 in) above the ground. At the time of the SCI inspection, the seat track was



adjusted to a rear third track position and the head restraint was located in the full-down position. The second row head restraints were in the full-down position.

The driver stated that he was looking in the rearview mirrors with the left mirror being the primary focus while backing. The driver noted that while looking through the center rearview mirror he had to look over the rear wiper motor that was mounted at the base of the backlight.

The rear visibility was measured using an 8 cm (3 in) diameter reflective red marker that was positioned in a stand and set 71 cm (28 in) above the ground. The driver was asked to locate the reflective marker looking into the rearview mirror as it cleared the backlight at the centerline.

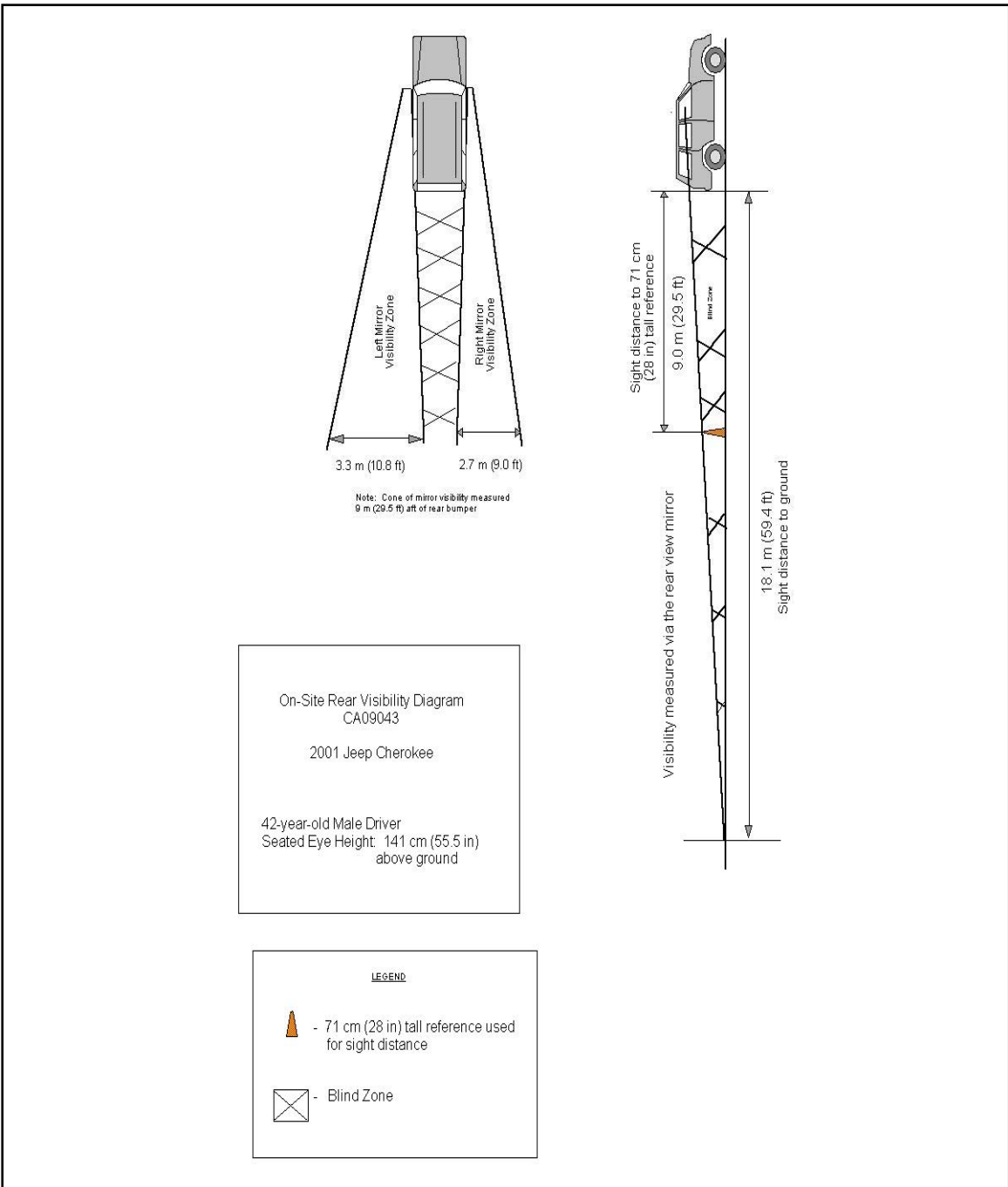
The driver detected the reflective marker in the rear view mirror 9 m (29.5 feet) aft of the rear bumper. The driver continued a straight line of sight that intersected the ground at a point that was 18.1 m (59.4 feet) aft of the rear bumper. Lateral cones of visibility were established at 9 meters (29.5 feet) aft of the rear bumper with the driver looking into the rearview mirrors. The left cone began 0.7 meters (2.3 feet) left of the centerline and extended 4 meters (13 feet) to the left. The right cone consisted of the target detected at 0.6 meters (1.9 feet) right of the centerline and extended 2.5 meters (8.2 feet) to the right. Based on the visibility study and the bent over position of the non-motorist, the driver should have been able to detect the non-motorist in the left rearview mirror as he emerged from behind the mobile home. Given the height of the beltline, the non-motorist would not have been visible through the backlight. **Figures 4 and 5** depict the rear visibility study.



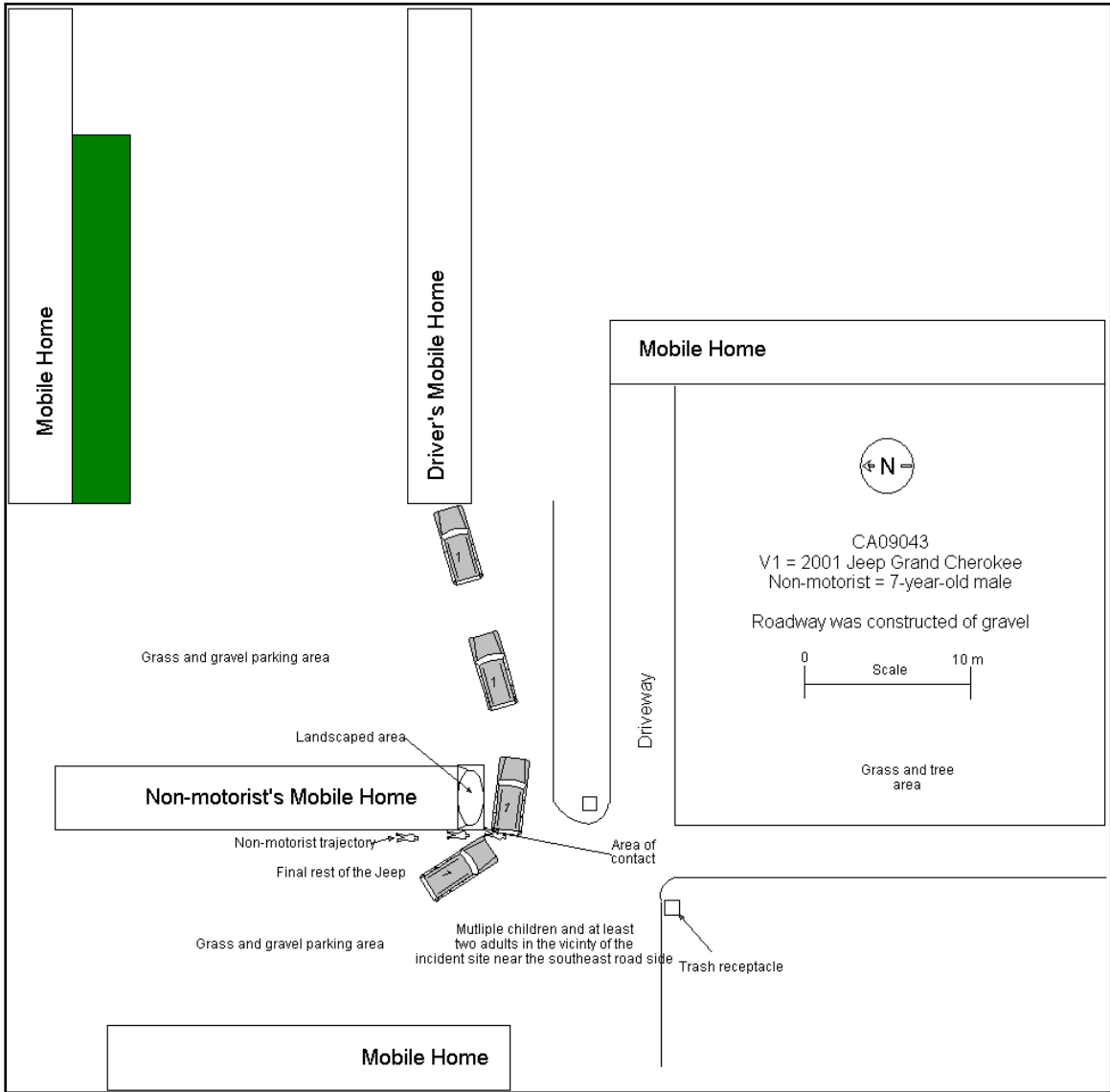
**Figure 4.** Targets positioned at the rear of the Jeep.



**Figure 5.** Targets located using rearview mirror.



**Figure 6. Rear Visibility Diagram**



**Figure 7. Incident Schematic**



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



# VEHICLE FORM

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	Clear / Hazy / Very Dirty		
RF		Fixed / Closed / Open / Partially Open	Clear / Hazy / Very Dirty		
2 <sup>nd</sup> Left		Fixed / Closed / Open / Partially Open	Clear / Hazy / Very Dirty		
2 <sup>nd</sup> Right		Fixed / Closed / Open / Partially Open	Clear / Hazy / Very Dirty		
3 <sup>rd</sup> Left		Fixed / Closed / Open / Partially Open	Clear / Hazy / Very Dirty		
3 <sup>rd</sup> Right		Fixed / Closed / Open / Partially Open	Clear / Hazy / Very Dirty		
Backlight		Fixed / Closed / Open / Partially Open	Clear / Hazy / Very Dirty		
Left Backlight		Fixed / Closed / Open / Partially Open	Clear / Hazy / Very Dirty		
Right Backlight		Fixed / Closed / Open / Partially Open	Clear / Hazy / Very Dirty		
Roof		Fixed / Closed / Open / Partially Open	Clear / Hazy / Very Dirty		
Other (specify)		Fixed / Closed / Open / Partially Open	Clear / Hazy / Very Dirty		

## 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 <sup>nd</sup> Left			Full Down / Mid / Full Up	
2 <sup>nd</sup> Middle			Full Down / Mid / Full Up	
2 <sup>nd</sup> Right			Full Down / Mid / Full Up	
3 <sup>rd</sup> Left			Full Down / Mid / Full Up	
3 <sup>rd</sup> Middle			Full Down / Mid / Full Up	
3 <sup>rd</sup> 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><b>Colors</b></u>		<u><b>Fabrics</b></u>		<u><b>Textures</b></u>		<u><b>Weights</b></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)						

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