

# INDIANA UNIVERSITY

## TRANSPORTATION RESEARCH CENTER

School of Public and Environmental Affairs

501 S. Madison Street-Suite 105

Bloomington, Indiana 47403-2452

(812) 855-3908 Fax: (812) 855-3537

## ON-SITE NOT IN TRAFFIC SURVEILLANCE BACK OVER INVESTIGATION

CASE NUMBER - IN08028

LOCATION - OHIO

VEHICLE - 2000 CHRYSLER CIRRUS LX

CRASH DATE - July 2008

Submitted:

September 19, 2008



Contract Number: DTNH22-07-C-00044

Prepared for:

U.S. Department of Transportation  
National Highway Traffic Safety Administration  
National Center for Statistics and Analysis  
Washington, D.C. 20590-0003

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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.

**Technical Report Documentation Page**

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15. <i>Supplementary Notes</i> On-site not in traffic surveillance back over investigation involving a 2000 Chrysler Cirrus LX and a nonmotorist.					
16. <i>Abstract</i> This report covers an on-site not in traffic surveillance back over investigation involving a 2000 Chrysler Cirrus LX and a nonmotorist. This incident is of special interest because the vehicle was being driven in reverse and the 19-year-old female driver backed over a nonmotorist (21-month-old male unrelated to the driver). This on-site investigation focused on determining and documenting the circumstances of the incident and the rear visibility characteristics of the involved vehicle. The vehicle was parked in the parking lot of an apartment complex. The driver was in the process of backing out of a parking space in a clockwise arc when the nonmotorist ran from a raised grass island within the parking lot into the path of the vehicle. The nonmotorist's trajectory was from the vehicle's back right and the right rear portion of the back bumper struck him. The impact knocked him to the bituminous pavement and he sustained abrasions on his forehead and right chest. Other adults in the area saw the incident occur and yelled at the driver to stop and she immediately stopped the vehicle. The nonmotorist was transported by ambulance to a hospital and was treated for his injuries in the emergency room and released.					
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This incident was brought to the National Highway Traffic Safety Administration's attention on or before July 18, 2008 by an article published by an unknown source. The incident occurred in July, 2008, at 14:10 hours, in Ohio and involved a 2000 Chrysler Cirrus LX (**Figure 1**). This incident is of special interest because the vehicle was being driven in reverse and the 19-year-old female driver backed over a nonmotorist (21-month-old male unrelated to the driver). The incident was investigated by the applicable city police department and an Ohio Traffic Crash Report was completed and a copy was submitted to the state. This contractor inspected the Chrysler and the crash scene, and interviewed the Chrysler's driver on August 5, 2008. This report is based on the police crash report, scene and vehicle inspections, and an interview with the Chrysler's driver.



Figure 1: Back right view of Chrysler Cirrus



Figure 2: Right arrow shows pre-incident position of Chrysler; left arrow shows area of impact

**CRASH CIRCUMSTANCES**

**Crash Environment:** The Chrysler was parked in the parking lot of an apartment complex (**Figure 2**). The grade within the parking stall was negative 7.5% in the direction of backing and became level on the parking lot roadway. A passenger car was parked on the left side of the Chrysler and no vehicle was parked on its right side. The parking lot was connected to the driver's apartment building by a concrete sidewalk and was located 6.3 meters (20.6 feet) from the front door of the building. The struck nonmotorist was located near or within a raised grassy island that was located 8.8 meters (28.9 feet) behind and 2.8 meters (9.1 feet) to the left of the Chrysler. There were also several other children playing and riding bicycles as well as a few adults in and around the parking lot. At the time of the incident, the light condition was daylight, the atmospheric condition was clear, and the parking lot was dry bituminous.



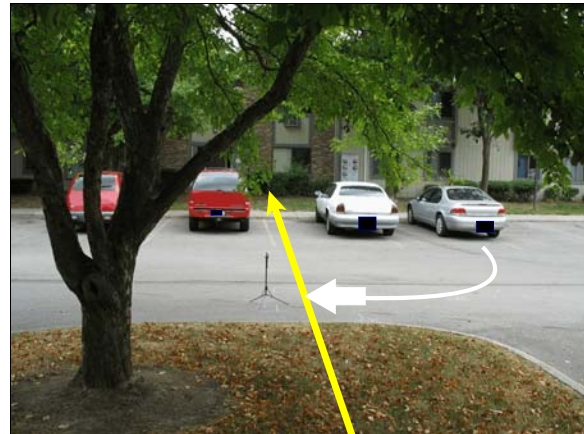
Figure 3: Arrows show path of driver from apartment building to Chrysler

**Pre-Crash:** The driver stated during the interview that she was leaving the apartment building at approximately 14:05 hours to drive to work. She exited the front door of the building and walked

11 meters (36.1 feet) on the sidewalk to the Chrysler (**Figure 3**). She approached the Chrysler from the front left and her entry was not interrupted. She entered the vehicle, put on her safety belt and looked at her right and left side view mirrors as well as her rearview mirror, but she did not remember looking over her right or left shoulder. She saw no one behind the vehicle at this time. After checking the mirrors, she started the vehicle. Meanwhile, the nonmotorist was about to start running east toward the apartment building from the raised island (**Figure 4**). The path of the nonmotorist was 8.8 meters (28.9 feet) behind and 6.4 meters (21 feet) to the left of the vehicle's centerline. The nonmotorist's mother was awaiting him by the same doorway that the driver had just exited. The doorway was located directly east from the parking lot, the raised island, and the nonmotorist.

**Crash:** After the driver shifted into reverse, she backed clockwise out of the parking space, moving her foot on and off the brake, never pressing the accelerator. As she backed, she was looking at the right side view mirror but did not see the nonmotorist running toward the apartment building. It is possible that as the driver backed up and the vehicle's and nonmotorist's trajectories converged, the nonmotorist was continually moving away from the right side view mirror's visibility zone. The driver estimated that she had backed up 2-5 seconds when she heard other adults in the area yelling for her to stop, and she immediately stopped the vehicle. She exited and walked to the rear of the vehicle where the nonmotorist was lying just behind the right rear bumper corner (**Figure 5**). The right portion of the back bumper had struck the nonmotorist and knocked him down, but the driver did not feel the impact. At final rest, he was lying on his right side with his head toward the right side of the vehicle. Based on the information obtained from the driver and the on-site investigation, the vehicle traveled backward 11 meters (36.1 feet) to the point of impact and an additional 0.6 meters (2 feet) to the point of final rest. The impact speed was estimated at 3 km/h (2 mph.).

**Post-Crash:** The nonmotorist's mother ran over to the vehicle and picked up the nonmotorist. She was soon joined by her husband. They checked him for injuries and told the driver he was alright. The driver assumed that the matter was resolved and exchanged information with the nonmotorist's mother before going on to work. The nonmotorist's parents subsequently reported the incident to police. The police report indicated they were notified at 14:16 hours and arrived on scene at 14:22 hours. An ambulance was called and the nonmotorist was transported to a



**Figure 4:** Path of nonmotorist (shown by left arrow) and Chrysler (right arrow); tripod stand shows area of impact



**Figure 5:** Final rest positions of the Chrysler and nonmotorist (arrow)



hospital with minor injuries. A search for the driver ensued and a local news station broadcast an account of the incident. The driver was contacted at work by a friend who told her the incident was on the news and she was wanted by the police. The driver contacted police and filed a statement regarding the incident. No charges were brought against the driver.

### CASE VEHICLE

The 2000 Chrysler Cirrus LX (**Figure 6**) was a front wheel drive, 4-door, sedan (VIN: 1C3EJ46X0YN-----) equipped with a 2.4L, 4-cylinder engine and automatic transmission. All side windows and the backlight were equipped with AS-2 non-tinted glazing. At the time of the incident the left front window was partially open and the other side windows were closed. The manufacturer's recommended tire size was P195/70R14 and the vehicle was equipped with P195/65R15 size tires. The vehicle's specified wheelbase was 274 centimeters (108 inches), the specified rear overhang was 105 centimeters (41.3 inches), and the specified overall length was 475 centimeters (187 inches). The distance from the ground to the bottom of the back bumper (**Figure 7**) was 29 centimeters (11.4 inches) and the distance from the ground to the beltline was 88 centimeters (34.6 inches).



**Figure 5:** Front left view of the Chrysler Cirrus LX



**Figure 7:** Chrysler's back bumper

### CASE VEHICLE DAMAGE

There was no damage and no evidence of nonmotorist contact to the Chrysler's back bumper rear tires or rear undercarriage. Based on the driver's description of the incident and the Collision Deformation Classification (CDC) guidelines for pedestrian impacts, a CDC of **06-BRLN-1** was assigned to describe the nonmotorist's contact to the back bumper.

### CASE VEHICLE DRIVER

The Chrysler's driver was a 19-year-old, female, 160 centimeters (63 inches) tall and weighed 64 kilograms (140 pounds). The driver had driven the vehicle for two years and drove it in and out of the parking lot on a daily basis. She was not wearing eyeglasses or contact lenses at the time of the incident.

A visibility study was conducted at the incident scene in order to determine the nominal blind zone behind the vehicle as well as the nominal blind zone of both side view mirrors and the rearview mirror. The standard 71 centimeters (28 inches) high target was used for the observations. The Chrysler's driver assisted the Special Crash Investigations (SCI) investigator in making the visibility observations. The driver's eye height above the ground was measured as 110 centimeters (43.3 inches) as she sat in the driver's seat. The driver's seat track was adjusted between the middle and forward most positions, which was her normal seat track position. This placed her head 260 centimeters (102 inches) forward of the back bumper.

The assessments for each side view mirror were made by moving the target along the side of the vehicle until the driver could see it. The driver honked the horn when the target first came into view and the location was marked and measured. It was determined through this process that the visibility zone began 0.1 meters (0.3 feet) forward of the back bumper for the left side view mirror and 0.9 meters (3 feet) forward of the back bumper for the right side view mirror. The target was then placed at the bumper corner and moved laterally away from the side of the vehicle until it went out of the respective side view mirror's field of view. The width of the left side view mirror visibility zone at the back bumper was 0.5 meters (1.6 feet) and 0.8 meters (2.6 feet) for the right side view mirror. The rearview mirror blind zone and the blind zone behind the vehicle as the driver looked out of the backlight were determined in a similar manner. The target was moved rearward along the vehicle's centerline until the driver could see it. The target was then moved to the left and right until it went out of the driver's view. Each location was located relative to the vehicle's centerline. The depth of the blind zone behind the vehicle was 7 meters (23 feet) for the rearview mirror and 10.2 meters (33.5 feet) when the driver was looking through the backlight. The results of the visibility study indicated that the nonmotorist was within the blind zone to the back left of the vehicle when the driver checked the side view and rearview mirrors prior to backing up. The blind zone measurements are depicted on the Nominal Visibility Diagram on page 7 of this report.

#### **NONMOTORIST**

The nonmotorist was a 21-month-old male, 64 centimeters (25 inches) tall and weighed 10 kilograms (23 pounds). He was wearing blue jean shorts and no shirt. It is not known if he was wearing shoes. The nonmotorist was transported by ambulance to a hospital and was treated in the emergency room and released.

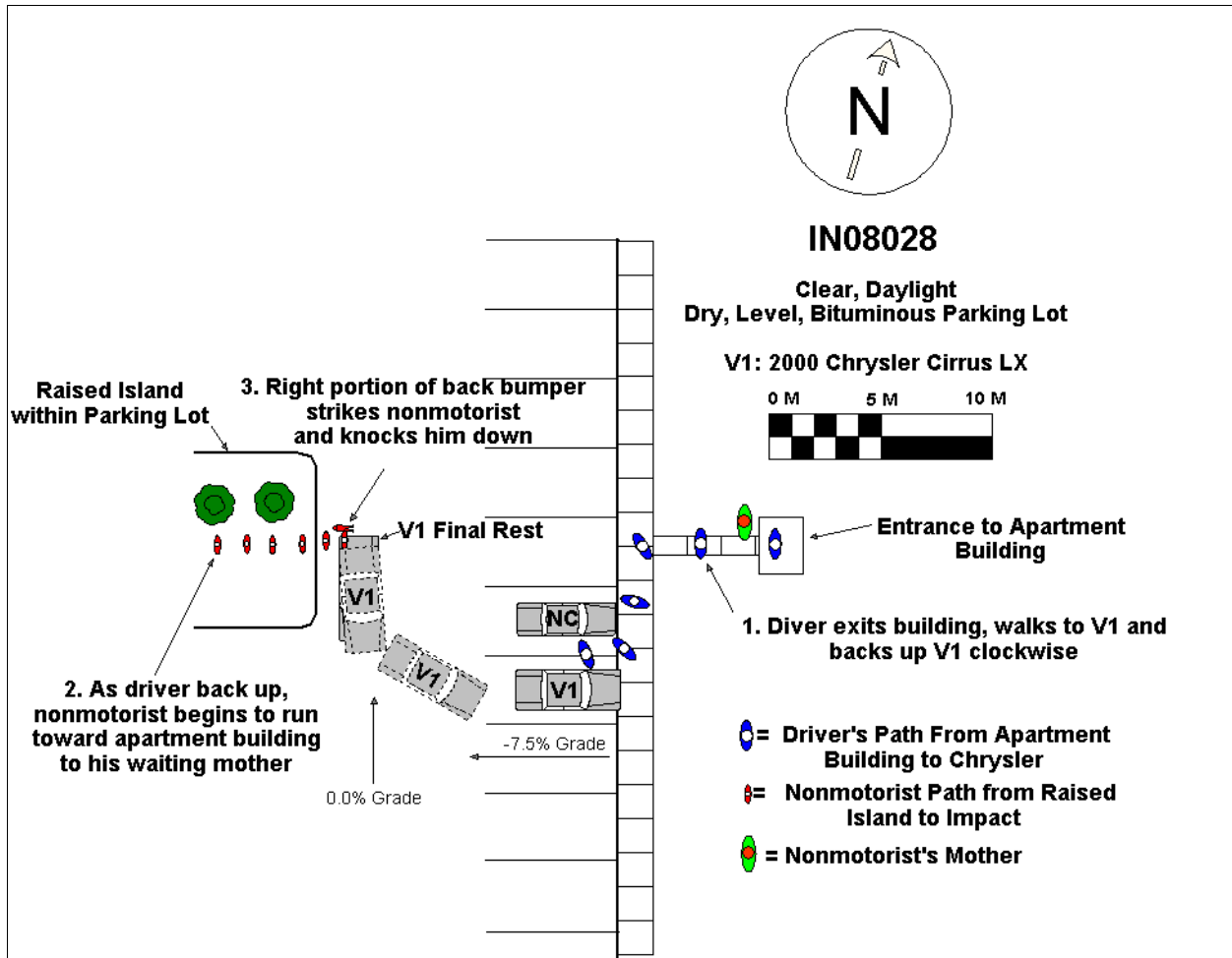


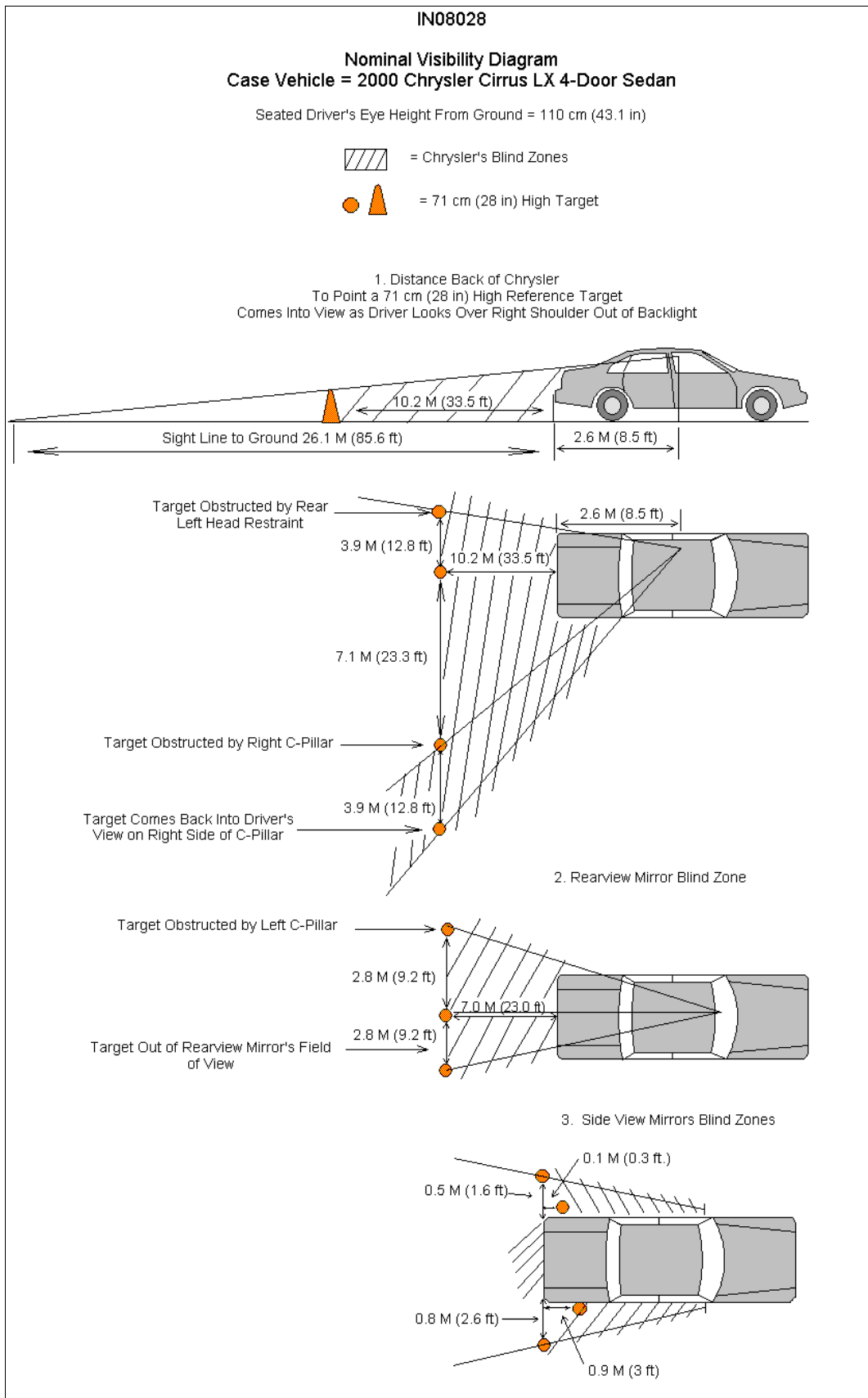
**NONMOTORIST INJURIES**

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The nonmotorist sustained minor injuries due to contact with the ground. The injuries as reported by the Chrysler's driver are shown in the table below.

Injury Number	Injury Description (including Aspect)	NASS Injury Code & AIS 90	Injury Source	Source Confidence	Source of Injury Data
1	Abrasion forehead, not further specified	minor 290202.1,7	Ground	Certain	Interviewee (driver)
2	Abrasion right chest, not further specified	minor 490202.1,1	Ground	Probable	Interviewee (driver)







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 \_\_\_\_\_ cm  
999 = Unknown

5. Driver's Weight \_\_\_\_\_ kg  
999 = Unknown

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): _____				