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

CASE NUMBER - IN-07-010
LOCATION - IOWA
VEHICLE - 2001 CHRYSLER TOWN & COUNTRY
INCIDENT DATE - March 2007

Submitted:

May 15, 2007
Revised: October 5, 2007

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

1. *Report No.* IN-07-010	2. *Government Accession No.*	3. *Recipient's Catalog No.*	
4. *Title and Subtitle* On-Site Not-In-Traffic Surveillance Back Over Investigation Vehicle - 2001 Chrysler Town & Country Location - Iowa		5. *Report Date:* May 15, 2007 6. *Performing Organization Code*	
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15. *Supplementary Notes* On-site not-in-traffic surveillance back over investigation involving a 2001 Chrysler Town & Country and a pedestrian.			
16. *Abstract* This report covers an on-site not-in-traffic surveillance back over investigation involving a 2001 Chrysler Town & Country (case vehicle) and a pedestrian. This incident is of special interest because the Chrysler's driver backed over the pedestrian (the 16-month-old male son of the driver), who sustained critical injuries, resulting in his death. The Chrysler's driver was backing into his driveway after retrieving the mail and did not see the pedestrian as he ran down the driveway from the garage. The pedestrian was near the back of the vehicle and fell down as the vehicle was backing into the driveway and the right rear tire passed over the pedestrian's head causing fatal injuries.			
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BACKGROUND

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This incident was brought to NHTSA's attention on or before March 13, 2007 by a story in a Nebraska newspaper. This incident involved a 2001 Chrysler Town & Country LX minivan (case vehicle) and a pedestrian. The incident occurred in March 2007 at 6:12 p.m., in Iowa and was investigated by the applicable city police department. The police completed a standard Iowa "Investigating Officers Report of Motor Vehicle Accident" and submitted a copy of the report to the state. This incident is of special interest because the Chrysler's driver backed over a pedestrian (the 16-month-old male son of the driver), who sustained critical injuries, resulting in his death. This contractor inspected the scene and the Chrysler, and interviewed the Chrysler's driver on April 11, 2007. This contractor conducted a second interview with the driver on October 4, 2007. This report is based on the police crash report, interviews with the Chrysler's driver, scene and vehicle inspections, and this contractor's evaluation of the evidence.

SUMMARY

The Chrysler's driver was backing up toward his driveway while looking over his right shoulder out of the backlight after retrieving the mail from his mailbox and was intending to back into his driveway. The pedestrian, who was in the garage, saw the vehicle coming and ran straight down the driveway toward the vehicle. The driver's view of the pedestrian was most likely obstructed by the left "D"-pillar and/or the second and third row left head restraints as he was backing toward the driveway while looking over his right shoulder and did not see the pedestrian running down the driveway. In addition, the driver stated that the sun was somewhat in his eyes as he was backing. As the driver turned left and backed into the driveway, the pedestrian was approaching the end of the driveway and was behind and well within the Chrysler's rear blind zone and was not seen by the driver. The pedestrian fell down directly in the path of the right rear wheel and the tire passed over his head causing fatal injuries.

CRASH CIRCUMSTANCES

Crash Environment: The trafficway on which the Chrysler was initially traveling was a two-lane, undivided, city street, traversing in a east-west direction. The driver's residence was on the north side of the street. The Chrysler was backing on the roadway and subsequently into the driveway of the residence. The roadway had no designated travel lanes or pavement markings and was 7.8 meters (25.6 feet) in width. The roadway grade was 0.5% positive in the direction the vehicle was backing. The driveway was 6.1 meters (20 feet) in width and had a positive 10.9% grade in the direction the vehicle was backing. At the time of the incident, the sun was starting to set, the atmospheric condition was clear, and the roadway pavement was dry bituminous. The driveway pavement was dry concrete. There was no other traffic present, and the site of the incident was residential. See the Crash Diagram at end of this report.

Pre-Crash: The Chrysler was initially traveling eastbound (**Figure 1** below). The driver pulled over to the north side of the roadway to his mailbox, just beyond his residence, stopped parallel to the road edge and reached through the open left front window and retrieved the mail. Meanwhile, the driver's daughter and the victim were playing in the garage. The driver's wife was in their residence and their other son was playing in the yard. According to the driver, after

removing the mail from the mailbox, he set the mail on the front right seat and checked his rear view and side view mirrors. The driver then looked over his left shoulder out the left side windows and began to back up. He then turned his head to the right and looked over his right shoulder through the backlight as the Chrysler was backing. The driver stated that the sun was somewhat in his eyes as he backed. His intention was to back up and into his driveway, which was approximately 20.6 meters (67.5 feet) away. As the Chrysler approached the driveway, the pedestrian ran out of the garage and down the driveway (**Figure 2**) approximately straight toward the Chrysler to greet the driver. According to the driver, his daughter (age unknown) told him that the pedestrian got near the end of the driveway and tried to reach out with both hands for the back bumper as the vehicle entered the driveway, but was not able to grab it. According to the witness, the pedestrian fell forward and ended up directly behind the Chrysler's right rear wheel.

Figure 1: View east, arrows show mailbox the Chrysler backed from to driveway where impact occurred

Figure 2: Pedestrian ran from garage to area of impact (arrow)

Crash: The pedestrian was reportedly on his stomach while the driver continued to back the Chrysler into the driveway. The driver stated that as he backed into the driveway, he saw his daughter waving her arms and applied the brakes. As he was braking, the Chrysler's right rear wheel rolled onto the pedestrian's head. Based on the available information, the Chrysler traveled approximately 30 centimeters (11.8 inches) from the tire's initial impact with the pedestrian to final rest. The driver estimated the time between the start of the backing maneuver at the mailbox to impact was 6-10 seconds. The distance backed from the Chrysler's parked position at the mailbox to impact was approximately 23 meters (75.4 feet). The driver indicated he did not know and could not estimate his approximate speed at the time of impact. Based on the short distance the Chrysler traveled from impact to final rest, the driver's description of braking prior to impact as well as the driver's backing turning maneuver into the driveway, this contractor estimated that the speed at impact was approximately 3 km.p.h. (2 m.p.h.).

Post-Crash: The driver immediately stopped the Chrysler and got out. He discovered that the Chrysler's right rear wheel was on top of the pedestrian's head. The driver stated he moved the Chrysler and removed the pedestrian from under the right rear wheel. The pedestrian was transported by ambulance to the hospital and was pronounced dead.

The 2001 Chrysler Town & Country LX was a front wheel drive, four-door minivan (VIN: 2C4GP44321R------) equipped with a six-cylinder engine and automatic transmission. The Chrysler was equipped with no after-market equipment, and was not equipped with any backup/parking aid. The Chrysler's wheelbase was measured as 303 centimeters (119.3 inches). The specification rear overhang was 111 centimeters (43.7 inches) and the specification overall length was 510 centimeters (200.8 inches). The distance from the ground to the bottom of the back bumper was measured as 53 centimeters (20.9 inches). The Chrysler was equipped with tinted side windows in the second and third seat rows as well as the backlight.

CASE VEHICLE DAMAGE

There was no evidence of pedestrian contact to the Chrysler's back bumper or right rear tire. However, based on the available information, a wheel Collision Deformation Classification (CDC) was assigned to document the reported contact to the right rear tire. The CDC was assigned as: **06-BRWN-3**.

CASE VEHICLE DRIVER

The Chrysler's driver was a 32-year-old male. He was 193 centimeters (76 inches) tall and weighed 132 kilograms (290 pounds). He indicated he drives the Chrysler daily and that he drives on the roadway where the incident occurred daily as well. He was wearing prescription sunglasses at the time of the incident.

CASE VEHICLE VISIBILITY STUDY

A visibility study was conducted during the Chrysler inspection in order to determine the nominal blind zone behind the Chrysler as well as the right "D"pillar blind zone. In addition, the approximate field of view through the side view and rear view mirrors was assessed. The assessments for the blind zone behind the Chrysler were made with the driver looking over his right shoulder as he did at the time of the incident (**Figure 3**). The Chrysler driver's eye height was 149 centimeters (58.7 inches) above the ground as he sat in the driver's seat. The driver had his seat adjusted to the full rear track position, which was the normal position for this driver. A target 71 centimeters (28 inches) in height was then positioned at the back of the Chrysler left of the center high-mounted stop lamp and moved rearward until the target came into the driver's view (**Figure 4** below). It was necessary to move the target rearward from the back of the vehicle 4.7 meters (15.4 feet) before the driver could see it. The target was then moved to the right and was

Figure 3: Driver's view out of backlight, note view obstructions by center high mounted stop lamp, head restraints and "D"-pillars

immediately obstructed by the center high-mounted stop lamp. The target was then moved to the right from the Chrysler's approximate centerline 2.2 meters (7.2 feet) before the driver's view of the target was obstructed by the third row right head restraint (**Figure 3** above). The target was not visible to the driver again until it was moved to the right an additional 1.7 meters (5.6 feet) where it came back into the driver's view on the right side of the right "D"-pillar. When the target was moved 30 centimeters (12 inches) to the left from the Chrysler's center line, it became obstructed by the third row left head restraint (**Figure 3** above). The depth of the blind zone behind the center high-mounted stop lamp and the third row head restraints was in excess of 4.7 meters; however, the approximate depth of these areas was not assessed. See the nominal visibility diagram at the end of this report for a depiction of the blind zone behind the Chrysler.

Figure 4: Arrow shows location where target first came into driver's view while looking out backlight

Figure 5: Photo of rear view mirror showing view out of backlight, note view obstructions by head restraints and right "D"-pillar

The driver was then asked to look behind the Chrysler through the rear view mirror. The target was positioned to the left of the center high-mounted stop lamp and moved rearward approximately 4.7 meters from the back of the Chrysler before coming into the driver's view. The target was then moved to the right and was immediately obstructed by the center high-mounted stop lamp. As the target was moved further to the right, it was obstructed by the second row right head restraint, the third row right head restraint, and finally the right "D"-pillar (**Figure 5**), never coming back into view again. When moved laterally to the left 70 centimeters (27.5 inches) from the Chrysler's center line, the target became visible before being obstructed by the third row left head restraint and did not come back into view. See the nominal visibility diagram at the end of this report for a depiction of the rear view mirror visibility zone. The side mirror visibility zones were also assessed and are included in the nominal visibility diagram.

The driver stated in his interview that before backing the Chrysler, he looked out of his left front window, which was open, toward his residence and driveway (i.e., northwest). He then began to back the Chrysler, and while backing, then turned to his right to look out the backlight. Meanwhile, the pedestrian was running down the driveway and was not seen by the driver. The driver's view of the pedestrian was most likely obstructed by the left "D"-pillar and/or the second and third row left head restraints. In addition, the driver stated that the sun was somewhat in his eyes as he was backing. As the Chrysler's driver turned left and backed into the driveway, the pedestrian was approaching the end of the driveway and was behind and well within the Chrysler's rear blind zone and was not seen by the driver.

The pedestrian [16-month-old, White (non-Hispanic) male; 86 centimeters and 14 kilograms (34 inches, 30 pounds)] was reportedly wearing an orange tee-shirt, blue jeans, and white sneakers. He was transported from the scene by ambulance to a hospital and pronounced dead a short time thereafter due to unknown head injuries.

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Case Vehicle Nominal Visibilty Diagram
Case Vehicle = 2001 Chrysler Town & Country Minivan

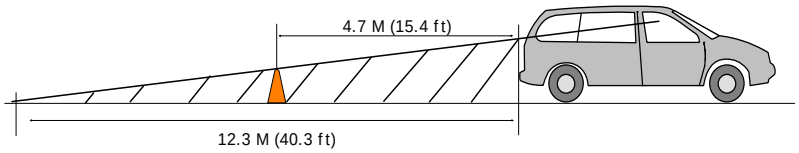
Chrysler Driver's Eye Height From Ground = 149 cm (58.7 in)

= Chrysler Blind Zones

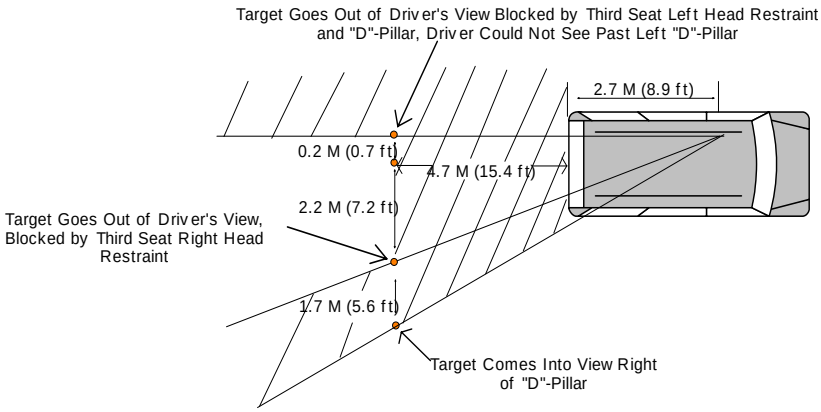
= Side View and Rear View Mirror Visibility Zone

= 71 cm (28 in) High Target

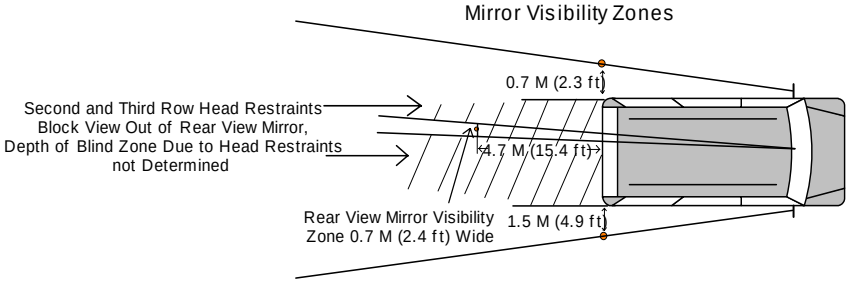
1. Distance Back of Chrysler
To Point a 71 cm (28 in) High Reference Target
Comes Into Driver's View as He Looks Over Right Shoulder
to Left of Center High Mounted Stop Lamp



2. Blind Zone Behind Chrysler, Driver Looking Over Right Shoulder Left of Center
High Mounted Stop Lamp



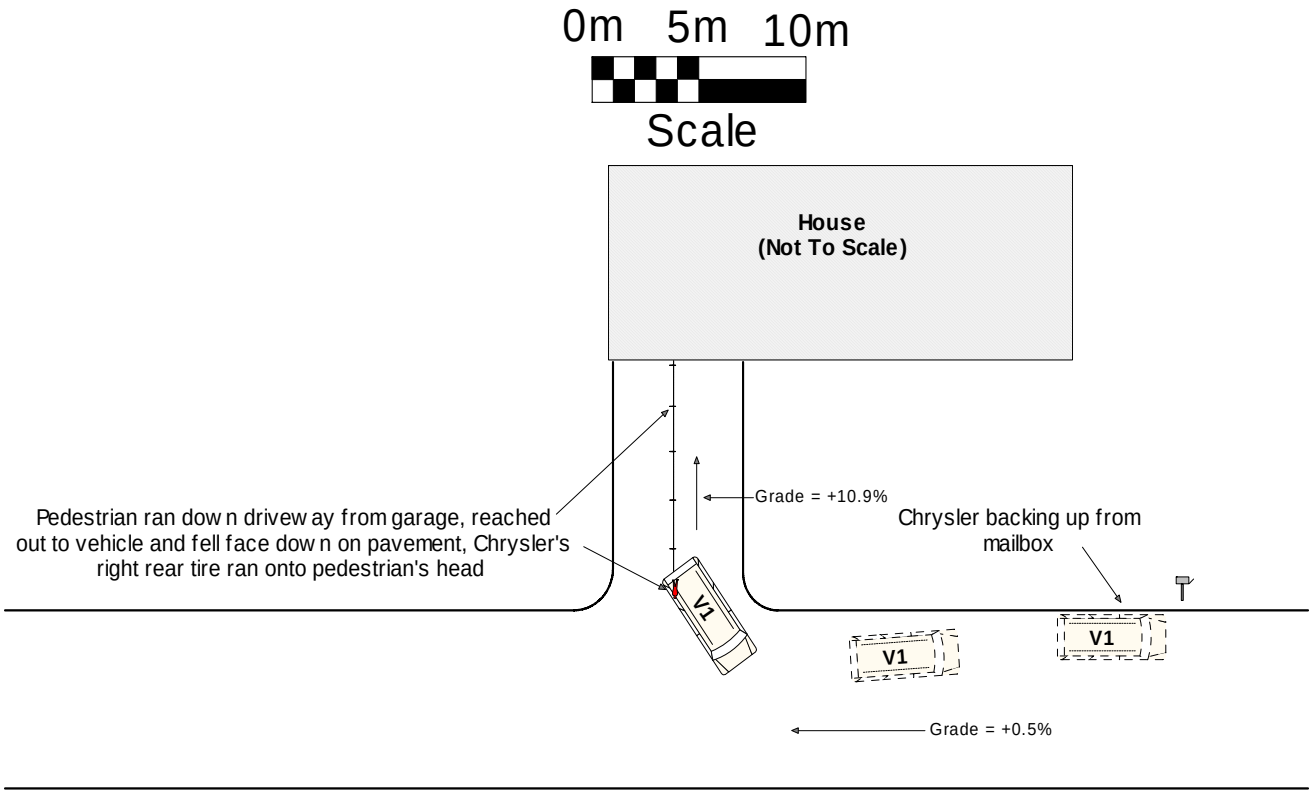
3. Side View Mirror and Rear View
Mirror Visibility Zones



IN-07-010

Daylight, Clear
Dry, Level, Bituminous Roadway

V1= 2001 Chrysler Town & Country



Not Applicable ☐

Reset Values

Print Forms

U.S. Department of Transportation
National Highway Traffic Safety Administration

SCENE FORM

Special Crash Investigations
Not In Traffic Surveillance

1. Case Number

I N 0 7 0 1 0

IDENTIFICATION

2. Date of Crash 0 3 / X X / 0 7

3. Time of Crash 1 8 1 2

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
- ( ) Shrubbery
- ( ) 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
- ( ) Shrubbery
- ( ) Utility poles
- ( ) Signs
- ( ) Glare
- ( ) Other (specify) _____
- ( ) Unknown

11. Grade at parked position + / - 0 0 %

12. Estimated distance from parked position to impact

0 2 3 . 0 m

13. Estimated speed at impact 0 0 3 kmph

14. Grade at impact + / - 1 1 %

15. Estimated distance from impact to vehicle final rest

0 0 0 . 3 m

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

Not Applicable ☐

Reset Values

U.S. Department of Transportation
National Highway Traffic Safety Administration

VEHICLE FORM

Special Crash Investigations
Not In Traffic Surveillance

1. Case Number I N 0 7 0 1 0

VEHICLE IDENTIFICATION

2. VIN 2 C 4 G P 4 4 3 2 1 R X X X X X X

3. Model Year 2 0 0 1

4. Vehicle Make (specify): Chrysler

5. Vehicle Model (specify): Town & Country

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	☐	
2nd Left	☑	☑ Fixed / ☐ Closed / ☐ Open / ☐ Partially Open / ☐ Unknown	☑ Clear / ☐ Hazy / ☐ Very Dirty / ☐ Unknown	☑	
2nd Right	☑	☑ Fixed / ☐ Closed / ☐ Open / ☐ Partially Open / ☐ Unknown	☑ Clear / ☐ Hazy / ☐ Very Dirty / ☐ Unknown	☑	
3rd Left	☑	☐ Fixed / ☑ Closed / ☐ Open / ☐ Partially Open / ☐ Unknown	☑ Clear / ☐ Hazy / ☐ Very Dirty / ☐ Unknown	☑	
3rd 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 P215/70R15

7. LF Tire Size P215/70R15

8. LR Tire Size P215/70R15

9. RF Tire Size P215/70R15

10. RR Tire Size P215/70R15

Seats / Head Restraint Data

Seat Position	Seat Type (Select from below)	Head Restraint (Check if available)	Head Restraint Adjustment (select)
Front Left	1	☑	☐ ☐ ☐ Full Down / Mid / Full Up
Front Middle	0	☐	☐ ☐ ☐ Full Down / Mid / Full Up
Front Right	1	☑	☑ ☐ ☐ Full Down / Mid / Full Up
2nd Left	5	☑	☑ ☐ ☐ Full Down / Mid / Full Up
2nd Middle	5	☐	☐ ☐ ☐ Full Down / Mid / Full Up
2nd Right	5	☑	☑ ☐ ☐ Full Down / Mid / Full Up
3rd Left	5	☑	☑ ☐ ☐ Full Down / Mid / Full Up
3rd Middle	5	☐	☐ ☐ ☐ Full Down / Mid / Full Up
3rd Right	5	☐	☑ ☐ ☐ Full Down / Mid / Full Up

NOTES:

Unknown front left head restraint adjustment

Seat Type codes:

0 = No seat or seat folded down
1 = Bucket
2 = Bucket w/ folding back
3 = Bench
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
8 = Pedestal (i.e. column supported)
9 = Box mounted (i.e. van type)
10= Other seat type (specify)
99= Unknown seat type

VEHICLE MEASUREMENTS

Clearance Heights		Measurements (all from ground, and in centimeters	NOTES
Beltline		109	
Top of trunk/tailgate		N/A	
Bottom of bumper		53	
Trailer hitch (if applicable)		N/A	
Undercarriage			
	Sway bar	N/A	
	Axle	17	
	Differential	N/A	
	Other (specify): _____	N/A	
Sensor Height (if equipped)		N/A	
Camera Height (if equipped)		N/A	

Not Applicable ☑

Reset Values

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National Highway Traffic Safety Administration

Back Up / Parking Aid Form

Special Crash Investigations
Not In Traffic Surveillance

1. Case Number

I N 0 7 0 1 0

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

No Driver Present ☐

Reset Values

U.S. Department of Transportation
National Highway Traffic Safety Administration

DRIVER FORM

Special Crash Investigations
Not In Traffic Surveillance

1. Case Number

I N 0 7 0 1 0

DRIVER PROFILE

2. Driver's Age 3 2
   99 = Unknown

3. Driver's Sex
   - ◉ Male
   - ○ Female
   - ○ Unknown

4. Driver's Height 1 9 3 cm
   999 = Unknown

5. Driver's Weight 1 3 2 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:

Driver had just returned home and retrieved mail from mailbox and was backing into driveway

13. Driver in a hurry
    - ○ Yes
    - ◉ No
    - ○ N/A
    - ○ 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
    - ○ 11-30 Seconds
    - ○ 31-60 Seconds
    - ○ Over 60 Seconds
    - ◉ N/A
    - ○ 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

Not Applicable ☐

U.S. Department of Transportation
National Highway Traffic Safety Administration

Non Motorist Form

Reset Values

Special Crash Investigations
Not In Traffic Surveillance

1. Case Number
I N 0 7 0 1 0

NON-MOTORIST PROFILE

2. Non-motorist's Age — 1 6 ◉ Months ○ Years
99 = Unknown

3. Non-motorist's Sex
◉ Male
○ Female
○ Unknown

4. Non-motorist's Height — 0 8 6 cm
999 = Unknown

5. Non-motorist's Weight — 0 1 4 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) On ground
○ 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:

Colors		***Fabrics***	***Textures***	***Weights***
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
HEADWEAR	Hat				
	Helmet				
	Hood				
	Other (specify): _____				
UPPER BODY	Short Sleeve	Orange	Natural	Soft	Light
	Long Sleeve				
	Light Jacket				
	Heavy Jacket				
	Other (Specify): _____				
LOWER BODY	Shorts				
	Pants	Dark blue	Natural	Soft	Medium
	Shoes	White	Blend	Soft	Light
	Other (specify): _____				