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

CASE NUMBER - IN-07-031

LOCATION - TEXAS

VEHICLE - 2003 FORD FOCUS SE

INCIDENT DATE - August 2007

Submitted:

October 29, 2007

Revised November 26, 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**

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15. <i>Supplementary Notes</i> On-site not in traffic surveillance back over investigation involving a 2003 Ford Focus SE and a pedestrian.					
16. <i>Abstract</i> This report covers an on-site not in traffic surveillance back over investigation involving a 2003 Ford Focus SE and a pedestrian. This incident is of special interest because the Ford's driver backed over a pedestrian (3-year-old, male) who sustained a police reported "B" (non-incapacitating-evident) injury. The Ford was parked in a parking space in a large church/school parking lot. The driver had just entered the vehicle after putting her daughter in a child safety seat in the back right seat position. The driver stated she looked at both side view mirrors and the rearview mirror, then turned and looked over her right shoulder out of the backlight as she backed up. Meanwhile, the pedestrian, who was with his sister in the parking lot, had gotten away from his sister and was behind and near the back of the Ford. The driver stated she did not see the pedestrian prior to the incident. The driver indicated that as she backed up, she heard or felt two "bumps" but thought it was her daughter getting restless in the back seat. The driver did not realize an impact had taken place. She then stopped the Ford, shifted the transmission into "Drive" and proceeded forward while turning left to exit the parking lot. The driver then stopped the Ford when she heard some adults in the area yelling at her to stop. The Ford's driver got out of her vehicle and saw the pedestrian laying face down on the parking lot behind her parking space. The pedestrian was transported by ambulance to a hospital and was held overnight for observation. His injuries are not known. The available information and the visibility study indicated that the pedestrian was most likely within the blind zone behind the Ford when the driver began to back up.					
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This incident was brought to NHTSA's attention on or before August 4, 2007 by an on-line article from a Texas newspaper. This incident involved a 2003 Ford Focus SE and a pedestrian. The incident occurred in August, 2007, at 7:09 p.m., in Texas and was investigated by the applicable city police department. A standard "Texas Peace Officer's Crash Report" was completed but not sent to any state agency because property damage was less than \$1,000. This incident is of special interest because the Ford's driver backed over a pedestrian (3-year-old, male) who sustained a police reported "B" (non-incapacitating-evident) injury. This contractor obtained a copy of the police crash report on September 11, 2007, and made contact with the Ford's driver on September 17, 2007. Cooperation was finalized on September 21, 2007. This contractor inspected the scene and Ford, and interviewed the Ford's driver on September 24, 2007. An exemplar Ford Focus was inspected on October 25, 2007. This report is based on the police crash report, scene and Ford inspections, an interview with the Ford's driver, and an inspection of an exemplar Ford Focus.

## SUMMARY

The Ford was parked in a parking space in a large church/school parking lot. The driver had just entered the vehicle after putting her daughter in a child safety seat in the back right seat position. The driver stated she looked at both side view mirrors and the rearview mirror, then turned and looked over her right shoulder out of the backlight as she backed up. Meanwhile, the pedestrian (3-year-old, male), who was with his sister (unknown age) in the parking lot, had gotten away from his sister and was behind and near the back of the Ford. The driver stated she did not see the pedestrian prior to the incident. The driver indicated that as she backed up, she heard or felt two "bumps" but thought it was her daughter getting restless in the back seat. The driver did not realize an impact had taken place. She then stopped the Ford, shifted the transmission into "Drive" and proceeded forward while turning left to exit the parking lot. The driver then stopped the Ford when she heard some adults in the area yelling at her to stop. The Ford's driver got out of her vehicle and saw the pedestrian laying face down on the parking lot behind her parking space. The pedestrian was transported by ambulance to a hospital and was held overnight for observation. His injuries are not known. The available information and the visibility study indicated that the pedestrian was most likely within the blind zone behind the Ford when the driver began to back up.

## CRASH CIRCUMSTANCES

**Crash Environment:** The case vehicle was parked in a church/school parking lot (**Figure 1**). The parking spaces were oriented north-south. Each parking space was approximately 2.7 meters (~9 feet) in width. The Ford Focus was parked in a parking space facing south toward the school directly in front of the southeast corner of the school building and a sidewalk (**Figure 1**). A

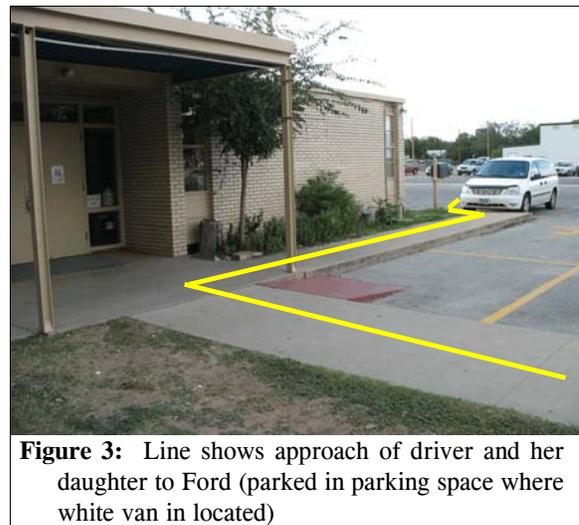


**Figure 1:** Overview of incident scene, red arrow shows location where Ford was parked, green arrow shows school gymnasium

second row of parking spaces was located approximately 10.7 meters (~35 feet) directly behind the Ford. A designated no parking area was located between the two rows of parking spaces. Based on the police incident schematic, there were three vehicles parked to the passenger's side of the Ford. The parking spaces on the driver's side of the Ford were located approximately 6.6 meters (~22 feet) south of the Ford (i.e., there was an open parking area adjacent to the Ford's driver's side, **Figure 2**). The Ford's driver (30-year-old, female) was in the school gymnasium to pick up her 4-year-old daughter from a school activity and return home. The gymnasium was located to the southeast of the school building and the Ford (**Figure 1** above). The walking distance along the sidewalk from the gymnasium to the Ford was approximately 58 meters (~190 feet). At the time of the incident, the light condition was daylight, the atmospheric condition was clear, and the parking lot pavement was dry, level bituminous with an estimated coefficient of friction (based on reference material) of 0.80. The site of the incident was located in a residential/commercial area. The Ford's driver accompanied the SCI investigator to the scene of the incident and pointed out the parked position of the Ford and the final rest position of the pedestrian. See the Scene Diagram at the end of this report.



**Figure 2:** Line shows path of driver and her daughter along sidewalk from gymnasium toward Ford's right rear door, Ford is parked in same location as at time of incident



**Figure 3:** Line shows approach of driver and her daughter to Ford (parked in parking space where white van is located)

**Pre-Crash:** The Ford's driver and her daughter exited the gymnasium together and followed the sidewalk's zig-zag path the approximate 58 meters (~190 feet) to the Ford, (**Figure 2**). Their approach to the Ford was directly from the front (**Figure 3**). They first went to the Ford's passenger side rear door, where the driver secured her daughter in a child safety seat in the back right seat position. The driver then walked from the passenger side rear door around the front of the Ford and entered the driver's door. Once in the vehicle, the driver stated she adjusted the radio, attended to her daughter and put on her own safety belt. The driver stated she looked at both side view mirrors and the rearview mirror, then turned and looked over her right shoulder prior to starting her backing maneuver. The driver estimated the elapsed time between entering the Ford and beginning the backing maneuver was one minute. The available information indicated that as the driver was preparing to back up, the pedestrian was somewhere behind the Ford. However, it could not be determined if the pedestrian had approached the Ford directly from the back of the vehicle or from the driver side or passenger side. The driver stated it was her understanding that the pedestrian was with his sister and had gotten away from her just prior

to the incident. The driver stated she did not see the pedestrian prior to the incident. The driver indicated her intention was to back the vehicle slightly counterclockwise, enough so that she could then proceed forward and to the left of the corner of the sidewalk, making a 180 degree left turn to exit the parking lot.

**Crash:** The Ford's driver began backing up counterclockwise while looking over her right shoulder out of the backlight. She stated that as she backed, she applied some braking with her right foot and just let the Ford slowly idle backward. The driver indicated that as she backed up, she heard or felt two "bumps" but thought it was her daughter getting restless in the back seat. The driver estimated that she had backed up between 2 and 5 seconds before the "bumps" occurred. The driver did not realize an impact had taken place. She then stopped the Ford, shifted the transmission into "Drive" and proceeded forward while turning left. The driver then stopped the Ford approximately 16 meters (~53 feet) east of her parking space when she heard some adults in the area yelling at her to stop. Based on the driver's indicated position of the pedestrian at final rest and the parked location of the Ford, the distance that the Ford traveled backward from its parked position to impact was estimated to be approximately 1 meter (~3 feet). The driver could not provide an estimate of her speed when the impact occurred (i.e., when she heard the bumps). However, based on her description of how she backed up, this contractor estimated that the Ford's impact speed was approximately 2 km.p.h. (~1 m.p.h.).

**Post-Crash:** The Ford's driver got out of her vehicle and saw the pedestrian laying face down on the parking lot behind her parking space with his legs toward the west (**Figure 4**). The pedestrian was transported by ambulance to a hospital and was held overnight for observation. The pedestrian's injuries are not known. There was no specific injury information contained in the police crash report, and this contractor was unable to contact the pedestrian's parents.

#### CASE VEHICLE

The 2003 Ford Focus SE was a front wheel drive, four-door sedan (VIN: 1FAFP34353W-----) equipped with a 2.0L, I-4 engine and automatic transmission. It's back bumper was covered with a plastic bumper fascia with energy absorbing material between the bumper fascia and bumper bar. The Ford was not equipped with any after market equipment and was not equipped with a back up/ parking aid. None of the Ford's windows were tinted. The Ford's specified wheelbase was 262 centimeters (103.1 inches), the specified rear overhang was 95 centimeters (37.4 inches), and the specified overall length was 427 centimeters (168.1 inches). The measured distance from the ground to the bottom of the back bumper was 30 centimeters (11.8 inches). The measured distance from the ground to the top of the trunk was 111 centimeters (43.7 inches). The height of the beltline was measured as 96 centimeters (37.8 inches).



**Figure 4:** Arrow shows figure representing Ford driver's reported final rest position of pedestrian, dots on Ford's back bumper show area of pedestrian contact, scale in tenths of meter

The vehicle inspection revealed three small nicks in the Ford's back bumper fascia (**Figure 5**). According to the driver, they were not there before the incident. Also in the same area, the driver stated that the dust was wiped off of the bumper fascia following the incident. The beginning of the contacted area began 51 centimeters (20.1 inches) left of the back right bumper corner. The area of contact was 31 centimeters (12.2 inches) wide. Based on the vehicle inspection and the description of the damage, a Collision Deformation Classification was determined to be: **06-BCLN-1 (180 degrees)**. The case vehicle was driven from the scene.

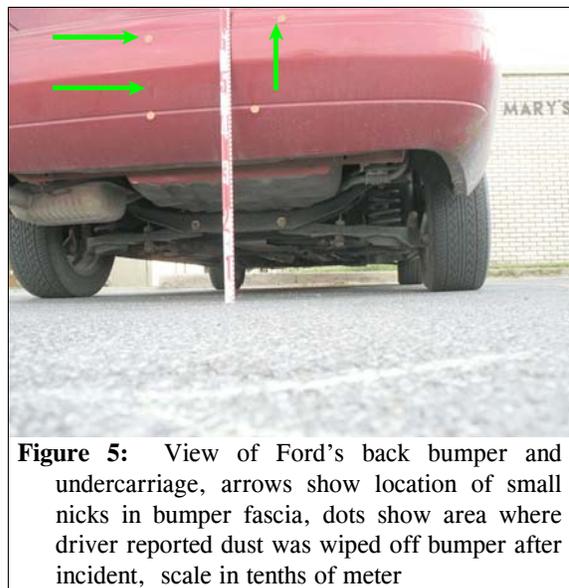
### CASE VEHICLE DRIVER

The Ford's driver was a 30-year-old, White (Hispanic) female. She was 160 centimeters (63 inches) tall and weighed 68 kilograms (150 pounds). She indicated she bought the Ford used approximately 18 months prior to the incident and drove it daily. The driver indicated that she drove in the parking lot weekly. The driver was not required to wear corrective lenses while driving, and was not wearing sunglasses at the time of the incident.

### CASE VEHICLE VISIBILITY STUDY

A visibility study was conducted during the inspection of the Ford Focus in order to determine the nominal blind zone behind the Ford 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 Ford's driver accompanied the SCI investigator to the scene of the incident with the Ford and assisted the SCI investigator in making the visibility observations. The Ford was placed in the same parked location as at the time of the incident, which was level. The driver's eye height above the ground was determined as she sat in the driver seat with the seat adjusted to the approximate middle track position, which was her normal seat track position. The driver's eye height was measured as 113 centimeters (44.5 inches). Please refer to the Nominal Visibility Diagram at the end of this report when reading the following description.

The initial set of observations was made with the driver looking over her right shoulder out of the backlight as she did at the time of the incident. The target was moved rearward from the back bumper along the Ford's approximate centerline until it came into the driver's view. The target had to be moved rearward from the back bumper 13.1 meters (43.0 feet) before the top of target came into the driver's view (**Figures 6 and 7** below). The target was then moved 7.2 meters (23.6 feet) to the right of the approximate centerline where it became obstructed by the right C-pillar. When moved an additional 4.3 meters (14.1 feet) further to the right, the target

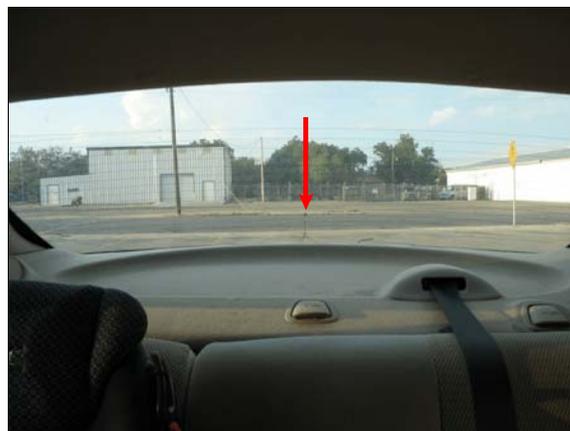


**Figure 5:** View of Ford's back bumper and undercarriage, arrows show location of small nicks in bumper fascia, dots show area where driver reported dust was wiped off bumper after incident, scale in tenths of meter

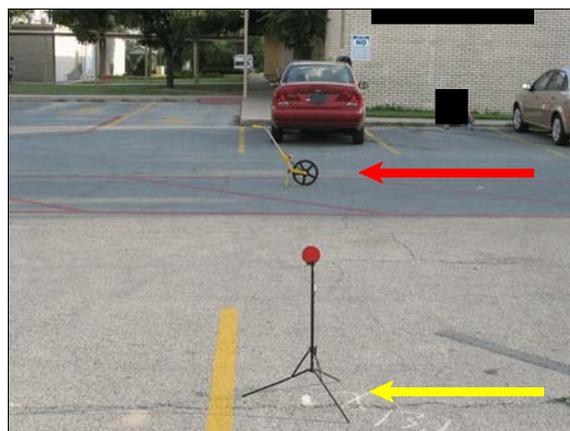
again became visible to the driver through the right rear window. When the target was moved 3.4 meters (11.2 feet) to the left of the approximate centerline, it became obstructed by the driver's head restraint.

The Ford's driver was then asked to view behind the vehicle through the rearview mirror, which she indicated she had adjusted the day before this contractor's on-site investigation. The adjusted position was normal for her and was approximately the same adjustment at the time of the incident. The target was moved rearward from the back bumper as the driver viewed through the rearview mirror. The target did not become visible to the driver until it was moved rearward 5.2 meters (17.1 feet, **Figures 7 and 8**). The target was then moved 2.1 meters (6.9 feet) to the right from the approximate centerline where it became obstructed by the right "C"-pillar. The target did not become visible again when moved further to the right because it went out of the rearview mirror's field of view. The target was returned to the initial location at the approximate centerline and moved left 1.6 meters (5.2 feet) where it became obstructed by the driver's head restraint and was not visible again when moved further to the left.

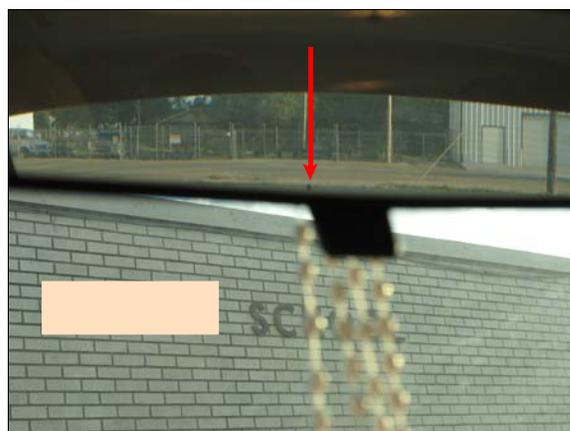
The target was then placed at the back left bumper corner as the driver viewed through the left side view mirror. The driver indicated that she does not adjust her side view mirrors often and could not recall the last time she had adjusted either of the side view mirrors. The driver indicated she could not see the target at the back left bumper corner. It was necessary to move the target rearward from the back bumper 0.7 meter (2.3 feet) before the driver could see it in the



**Figure 6:** View out of Ford's backlight from driver's seat, arrow shows location of target where driver said she could first see it as she looked over her right shoulder



**Figure 7:** Points at which targets became visible to driver looking over shoulder (yellow arrow) and through rearview mirror (red arrow, target location indicated by measuring wheel), Ford parked in same location as at time of incident



**Figure 8:** Close view through Ford's rearview mirror from driver's seat, arrow shows target in location where Ford's driver said she could first see it

mirror (**Figure 9**<sup>1</sup>). The target was then moved left 0.7 meter (2.3 feet) where it went out of the mirror's field of view and the driver could no longer see it. The target was then positioned at the back right bumper corner and the same process was repeated for the right side view mirror. It was necessary to move the target rearward from the back bumper 0.4 meter (1.3 feet) before the driver could see it in the right side view mirror (**Figure 10**<sup>1</sup>). The target was then moved to the right 0.8 meter (2.6 feet) where it went out of the right side view mirror's field of view and the driver could no longer see it.

The driver stated in her interview that before backing, she checked both side view mirrors and her rearview mirror before looking over her right shoulder out of the backlight to back up. She indicated that she did not see the pedestrian at any time prior to or while backing up. While it is not known if the pedestrian approached the vehicle directly from the back or from the back left or right side, the available information indicated that the pedestrian was most likely within the blind zone behind the Ford when the driver began to back up.

## PEDESTRIAN

The pedestrian was a 3-year-old (race and ethnic origin unknown) male. He was 86 centimeters (34 inches) tall and weighed 14 kilograms (30 pounds). According to the Ford's driver, he was wearing shorts and a tank top of unknown colors and unknown color shoes. He was transported by ambulance to a hospital and was reportedly admitted and held overnight for observation of his injuries. The police crash report indicated that the pedestrian sustained a "B" (non-incapacitating-evident) injury. The pedestrian's specific injuries are not known. There was no specific injury information contained in the police crash report, and this contractor was unable to contact the pedestrian's parents.

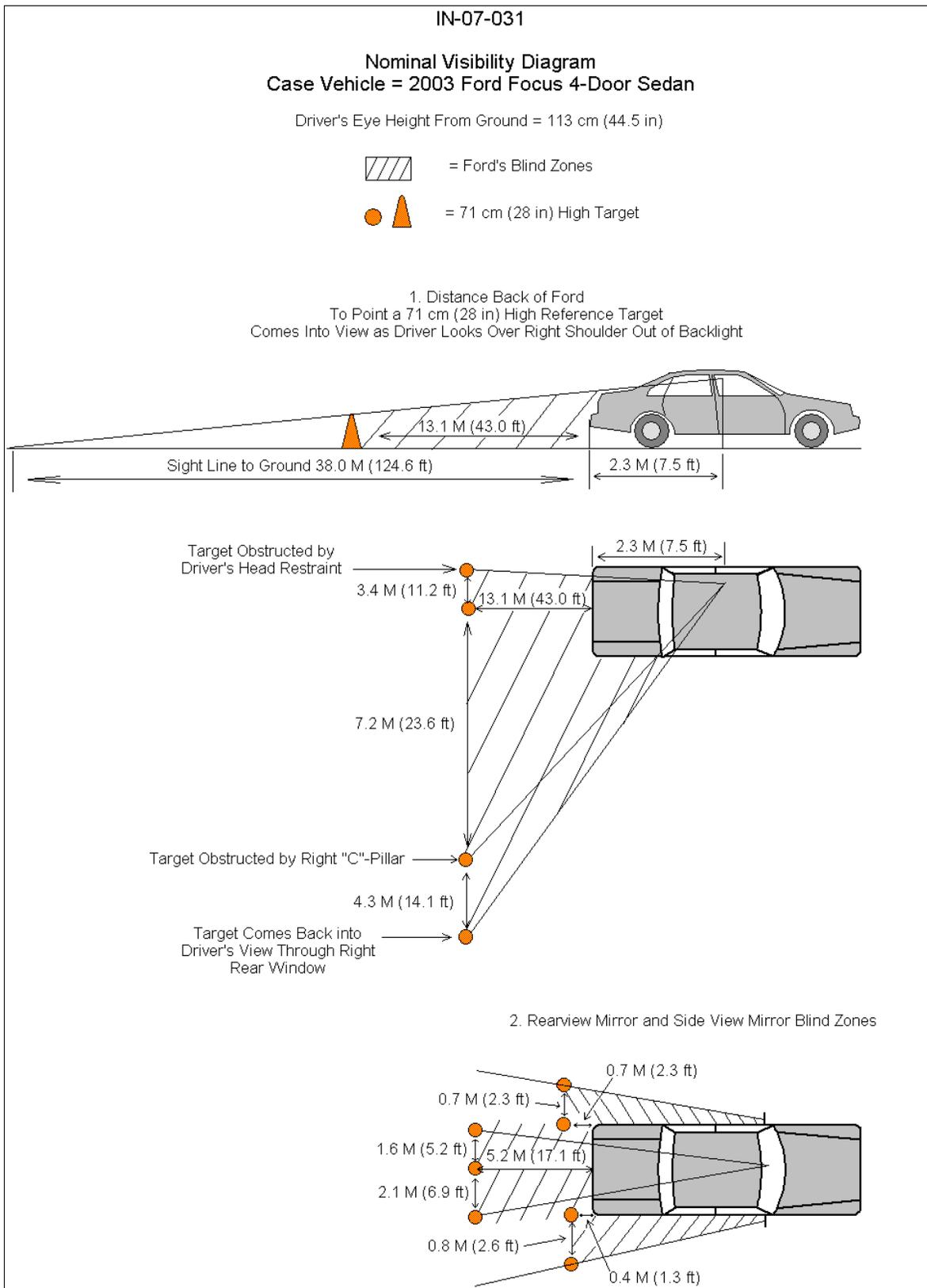


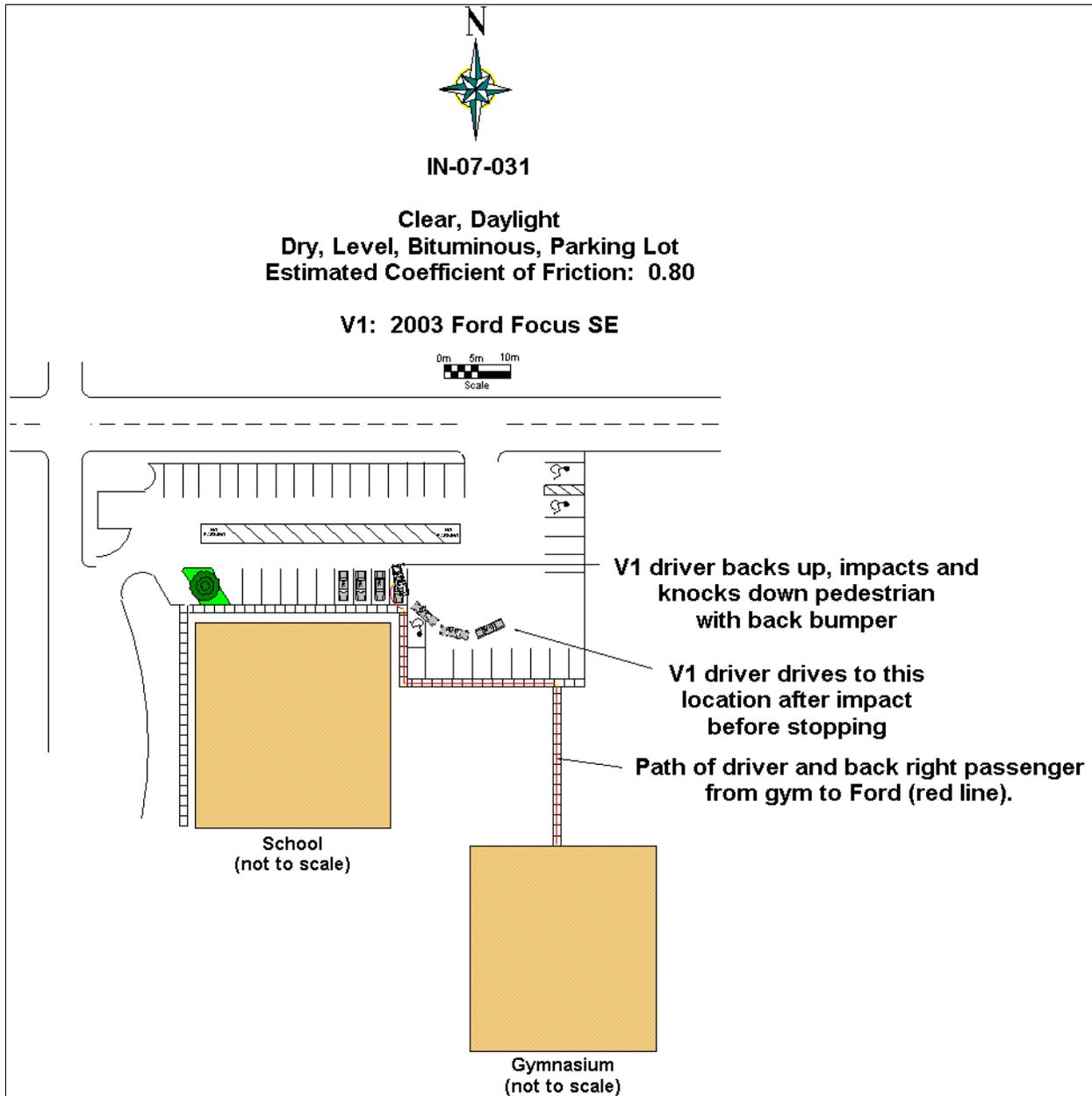
**Figure 9:** Close view from driver's seat of exemplar Ford Focus through left side view mirror, arrow shows target in location where driver said she could first see it



**Figure 10:** Close view from driver's seat of exemplar Ford Focus through right side view mirror; arrow shows target in location where driver said she could first see it

<sup>1</sup> The measurements reported pertaining to the target were taken on the case vehicle. The photographs through the side view mirrors were taken on an exemplar Ford Focus.







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 <sup>nd</sup> Left		Fixed / Closed / Open / Partially Open / Unknown	Clear / Hazy / Very Dirty / Unknown		
2 <sup>nd</sup> Right		Fixed / Closed / Open / Partially Open / Unknown	Clear / Hazy / Very Dirty / Unknown		
3 <sup>rd</sup> Left		Fixed / Closed / Open / Partially Open / Unknown	Clear / Hazy / Very Dirty / Unknown		
3 <sup>rd</sup> 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 <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): _____				