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

CASE NUMBER - IN-07-009
LOCATION - TEXAS
VEHICLE - 1997 FORD TAURUS
CRASH DATE - February 2007

Submitted:

April 18, 2007
Revised: October 2, 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-07-009	2. *Government Accession No.*	3. *Recipient's Catalog No.*	
4. *Title and Subtitle* On-Site Not-In-Traffic Surveillance Back Over Investigation Vehicle - 1997 Ford Taurus Location - Texas		5. *Report Date:* April 18, 2007 6. *Performing Organization Code*	
7. *Author(s)* Special Crash Investigations Team #2		8. *Performing Organization Report No.*	
9. *Performing Organization Name and Address* Transportation Research Center Indiana University 222 West Second Street Bloomington, Indiana 47403-1501		10. *Work Unit No. (TRAIS)* 11. *Contract or Grant No.* DTNH22-07-C-00044	
12. *Sponsoring Agency Name and Address* U.S. Department of Transportation (NPO-122) National Highway Traffic Safety Administration National Center for Statistics and Analysis Washington, D.C. 20590-0003		13. *Type of Report and Period Covered* Technical Report Crash Date: February 2007 14. *Sponsoring Agency Code*	
15. *Supplementary Notes* On-site not-in-traffic surveillance back over investigation involving a 1997 Ford Taurus and a pedestrian.			
16. *Abstract* This report covers an on-site not-in-traffic surveillance back over investigation involving a 1997 Ford Taurus (case vehicle), which backed into a pedestrian in a parking lot. The Ford was parked in a designated parking space directly across a parking lot access roadway from a bank. The Ford's driver had just left the bank, entered the Ford and was preparing to back up. Meanwhile, a 2005 Dodge pickup truck pulled up to the curb in front of the bank directly behind the Ford. The front right passenger exited the Dodge and walked along the passenger side of the vehicle to retrieve his briefcase from the truck bed. The Ford's driver backed out of his parking space, did not look behind him or check his mirrors as he backed and backed into the pedestrian pinning him against the passenger side of the pickup truck. The pedestrian sustained minor injuries and was transported by ambulance to a hospital and was treated and released. A visibility study indicated that the Ford's driver could have seen the Dodge, and most likely the pedestrian, had he looked out of the Ford's backlight or checked his mirrors as he backed up.			
17. *Key Words* Back Over Pedestrian Motor Vehicle Traffic Crash Injury Severity		18. *Distribution Statement* General Public	
19 *Security Classif. (of this report)* Unclassified	20. *Security Classif. (of this page)* Unclassified	21. *No. of Pages* 15	22. *Price* $6,400

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TABLE OF CONTENTS

IN-07-009

BACKGROUND

IN-07-009

This incident was brought to NHTSA's attention on or before March 6, 2007 by NASS CDS/GES sampling activities. This incident involved a 1997 Ford Taurus (case vehicle) and a pedestrian. The incident occurred in February 2007, at 11:30 a.m., in Texas and was investigated by the applicable city police department. The police completed a standard "Texas Peace Officer's Accident Report" and submitted a copy of the report to the state. This incident is of special interest because the Ford's driver backed the Ford into a pedestrian [38-year-old male] who sustained police-reported "B" (non-incapacitating-evident) injuries as a result of the impact. This contractor inspected the scene and the Ford, and interviewed the Ford's driver on March 21, 2007. An interview was conducted with the pedestrian on March 30, 2007. This report is based on the police crash report, inspections of the scene and the Ford, and interviews with the Ford's driver and the pedestrian.

SUMMARY

The Ford was parked heading west in a designated parking space directly across a parking lot access roadway from a bank. The Ford's driver had just left the bank, entered the Ford and was preparing to back up. Meanwhile, a southbound 2005 Dodge pickup truck pulled up to the curb in front of the bank directly behind the Ford. The front right passenger exited the Dodge and walked along the passenger side of the vehicle to retrieve his briefcase from the truck bed. The Ford's driver backed out of his parking space, did not look behind him or check his mirrors as he backed and backed into the pedestrian pinning him against the passenger side of the Dodge's truck bed. The pedestrian sustained minor injuries and was transported by ambulance to a hospital and was treated and released. A visibility study indicated that the Ford's driver could have seen the Dodge, and most likely the pedestrian, had he looked out of the Ford's backlight or checked his mirrors as he backed up.

CRASH CIRCUMSTANCES

Crash Environment: The Ford was parked in a bank parking lot (**Figure 1**). The bank was located on the east side of the parking lot access roadway, which traversed north and south in front of the bank. The Ford was parked in a designated parking space heading west directly across the roadway from the bank entrance. A car was parked in the parking space on each side of the Ford. All the designated parking spaces were oriented east-west. Parking was prohibited along the curb in front of the bank. The grade of the parking lot along the path of travel of the Ford was measured as 2% negative. The width of the parking lot access roadway was 7.2 meters (23.6 feet). At the time of the crash, the light condition was daylight, the atmospheric condition was clear, and the roadway pavement was dry concrete.

Figure 1: View east through Ford's parking space toward entrance to bank

The site of the crash was urban commercial. See the Crash Diagram at end of this report.

Pre-Crash: The Ford's driver [82-year-old, male] was in the bank conducting business. He stated that he exited the bank, walked west across the roadway (**Figure 1** above), approached the Ford from the passenger side rear and entered the Ford through the left front door. The driver stated he looked in his side view and rear view mirrors after he entered the Ford. The driver indicated he saw no vehicle's behind him. He indicated he did not look in the mirrors again. The driver estimated the elapsed time between entering the Ford and beginning to back up was in a range of 11 and 30 seconds. As the Ford's driver was preparing to back up, a red 2005 Dodge Ram pickup truck, which was traveling south in the access roadway (**Figure 2**), pulled up to the curb in front of the bank, stopped and the front right passenger exited the vehicle. The passenger stated that he walked to the rear passenger side of the truck to retrieve his briefcase from the truck bed. He was standing beside the rear passenger side of the Dodge facing northeast toward the truck bed when the incident occurred.

Figure 2: View north in parking lot access roadway, red arrow shows area where Dodge pulled up to curb and stopped, blue arrow shows location where Ford was parked

Figure 3: Overview of Ford

Crash: As the Dodge's front right passenger was walking toward the rear passenger side of the Dodge, the Ford's driver began to back out of the parking space. As the Ford's driver backed up, he turned the steering wheel to the right to angle the Ford's back end to the northeast. This put the Ford on a converging trajectory with the pedestrian, who was facing away from the Ford at this time. The Ford driver's intent was to back out of the parking space far enough so he could then turn the steering wheel back to the left and proceed south out of the parking lot. The available information indicated that the Ford's driver did not look behind him or check his side view or rear view mirrors as he was backing up. The Ford's driver indicated that neither the Dodge or the pedestrian were behind him when he entered his vehicle and checked his side view and rear view mirrors. The Ford traveled backward approximately 5 meters (16.4 feet) from its parked position, and the back bumper (**Figure 3**) impacted the pedestrian's legs as he was retrieving his briefcase from the Dodge's truck bed. The impact pinned the pedestrian's legs against the passenger side truck bed. The Ford's driver estimated that the elapsed time from starting his back up maneuver to impact was approximately 5 seconds. The driver stated he realized he had struck something when he felt a "cushy" feeling and stopped. The pedestrian sustained only minor injury. The Ford's driver estimated the impact speed at approximately 3 km.p.h (2 m.p.h.). The circumstances indicated that the Ford's driver

was most likely completing his backing maneuver and was slowing the vehicle to stop in order to change gears and proceed forward when the incident occurred.

Post-Crash: The Ford's driver pulled his vehicle forward away from the pedestrian. The police crash report indicated that the pedestrian sustained a "B" (non-incapacitating-evident) injury and was transported by ambulance to a hospital.

CASE VEHICLE

The 1997 Ford Taurus was a front wheel drive, four-door sedan (VIN: 1FALP52U0VA------) equipped with a 3.0L, V6 engine and automatic transmission. The Ford's back bumper was covered with a plastic bumper fascia with energy absorbing material between the bumper fascia and bumper bar. The distance from the ground to the bottom of the back bumper was 43 centimeters (16.9 inches). The Ford was equipped with no after-market equipment and was not equipped with any back up/parking aid. The Ford's wheelbase was 276 centimeters (108.7 inches). The rear overhang was 121 centimeters (47.6 inches) and the overall length was 502 centimeters (197.6 inches).

CASE VEHICLE DAMAGE

There was no evidence of pedestrian contact to the Ford's back bumper. However, based on the police crash report and the Ford driver's interview, a Collision Deformation Classification was estimated to be: **06-BLLU-1**. The Ford was driven from the scene. Due to the sequence of events in conducting this investigation and the time available for working with the elderly driver, this contractor was only able to acquire a few photographs of the case vehicle and was not able to obtain any interior sight line photographs.

CASE VEHICLE DRIVER

The Ford's driver was an 82-year-old male. The driver's height was 173 centimeters (68 inches) and his weight was 64 kilograms (142 pounds). The Ford's driver indicated he had driven the Ford more than 10 times in the last three months. He also indicated that he drives in the parking lot where the crash occurred several times a month.

CASE VEHICLE VISIBILITY STUDY

A visibility study was conducted during the inspection of the Ford in order to determine the nominal blind zone behind and to the rear passenger side of the Ford as well as the nominal visibility zone of both side view mirrors and the rear view mirror. In addition, the nominal blind zone due to the right "C"pillar was also determined. A standard 71 centimeters (28 inches) tall target was used for all the visibility observations. The Ford's driver agreed to assist the SCI investigator in making the visibility observations. The Ford's driver sat in the driver's seat and had the seat track adjusted to the approximate middle position, which was his "normal" seat location. The driver's eye height was then measured and determined to be 110 centimeters (42.5 inches) above the ground. With the driver looking over his right shoulder and out the backlight,

the target was moved rearward from the back of the Ford along the approximate centerline until the target came into the driver's view. The target had to be moved rearward from the Ford's back bumper 5.5 meters (18 feet) before the top of the target began to come into the driver's view. The target was then moved to the right from the approximate centerline to determine the lateral extent of the blind zone behind and to the right rear side of the Ford. The target had to be moved 5.3 meters (17.4 feet) right of the Ford's centerline before it went out of the driver's view due to the right "C"-pillar. The target was then moved left of the centerline 1.9 meters (6.2 feet) before it went out of the driver's view. The size of the nominal "C" pillar blind zone as well as the nominal field of view of the rear view mirror and side view mirrors were also determined. See the nominal visibility diagram at the end of this report for a depiction of all the visibility measurements. The visibility study indicated that the Ford's driver could have seen the Dodge, and most likely the pedestrian, had he looked out of the Ford's backlight or checked his mirrors as he backed up.

PEDESTRIAN

The pedestrian [38-year-old, male; 188 centimeters and 104 kilograms (74 inches, 230 pounds)] was reportedly wearing a heavy jacket, blue sweat pants, and gym shoes. The pedestrian sustained a police reported "B" injury and was transported by ambulance to a hospital and was treated and released for minor injuries to his lower legs.

IN-07-009

Nominal Visibilty Diagram
Case Vehicle = 1997 Ford Taurus 4-Door Sedan

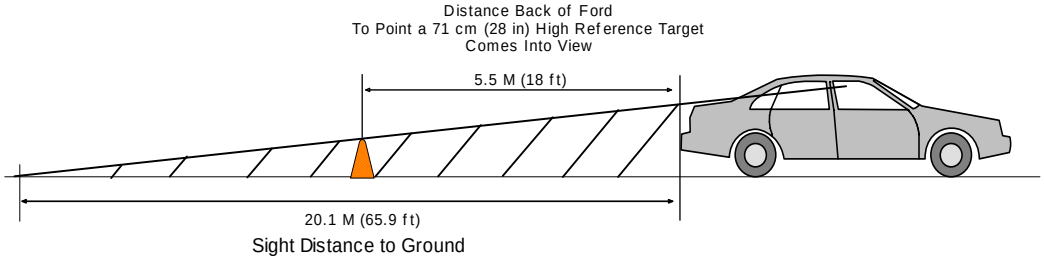
Driver's Eye Height From Ground = 110 cm (43.3 in)

= Blind Zone Behind and to Rear Passenger Side of Ford

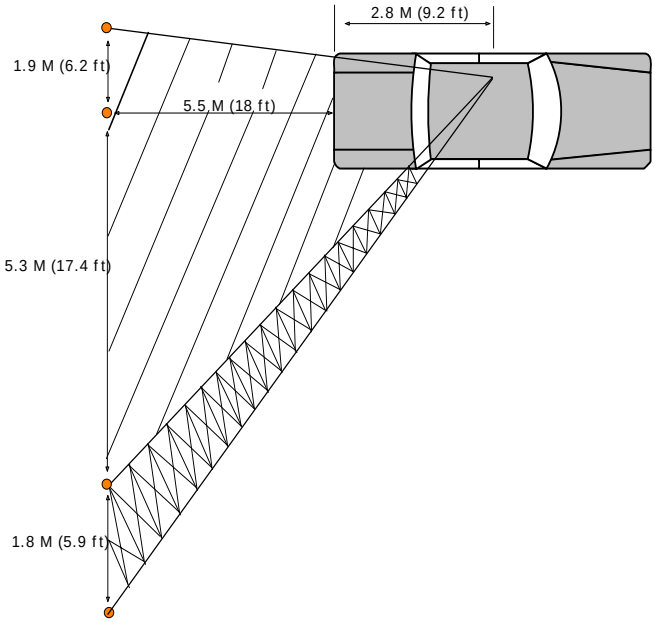
= C-Pillar Bind Zone

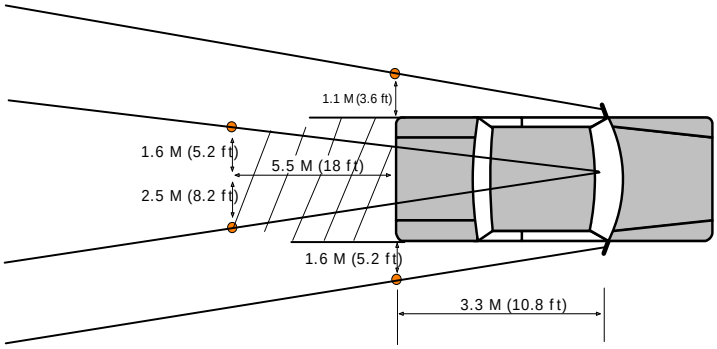
= Side View and Rear View Mirror Visibility Zone

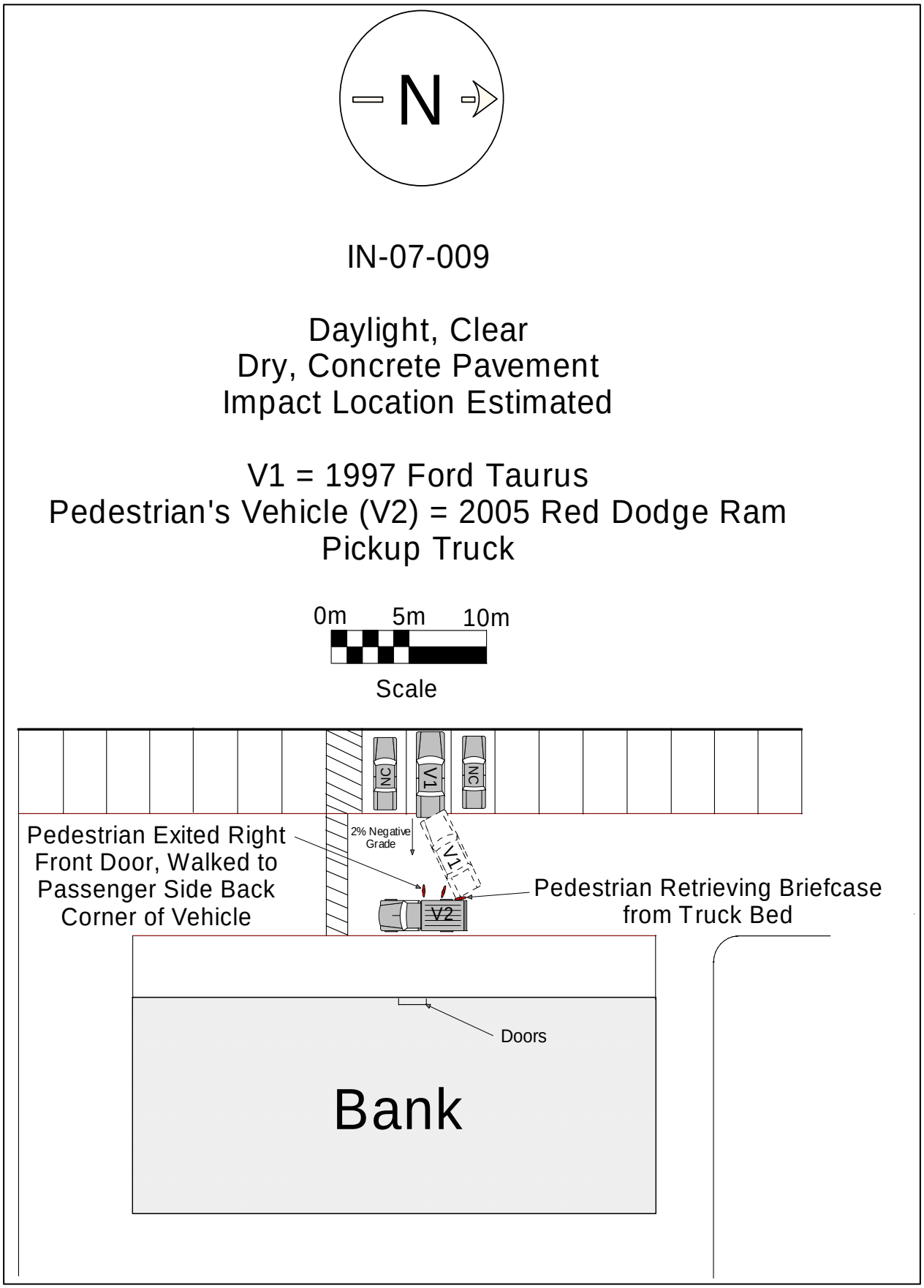
= 71 cm (28 in) High Target



Sight Distance to Ground






N
IN-07-009
Daylight, Clear
Dry, Concrete Pavement
Impact Location Estimated
V1 = 1997 Ford Taurus
Pedestrian's Vehicle (V2) = 2005 Red Dodge Ram
Pickup Truck
0m
5m
10m
Scale
NC
V1
NC
2% Negative Grade
V1
Pedestrian Exited Right Front Door, Walked to Passenger Side Back Corner of Vehicle
Pedestrian Retrieving Briefcase from Truck Bed
V2
Doors
Bank

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 0 9

IDENTIFICATION

2. Date of Crash 0 2 / x x / 0 7

3. Time of Crash 1 1 3 0

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 2 %

12. Estimated distance from parked position to impact

0 0 5 . 0 m

13. Estimated speed at impact 0 0 3 kmph

14. Grade at impact + / (-) 0 2 %

15. Estimated distance from impact to vehicle final rest

0 0 0 . 0 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 0 9

VEHICLE IDENTIFICATION

2. VIN 1 F A L P 5 2 U 0 V A x x x x x x

3. Model Year 1 9 9 7

4. Vehicle Make (specify): Ford

5. Vehicle Model (specify): Taurus

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 P205/65R15

7. LF Tire Size P205/65R15

8. LR Tire Size P205/65R15

9. RF Tire Size P205/65R15

10. RR Tire Size P205/65R15

Seats / Head Restraint Data

Seat Position	Seat Type (Select from below)	Head Restraint (Check if available)	Head Restraint Adjustment (select)	NOTES:
Front Left	6	☑	☑ Full Down / ☐ Mid / ☐ Full Up	
Front Middle	6	☐	☐ Full Down / ☐ Mid / ☐ Full Up	
Front Right	6	☑	☑ 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		☐	☐ Full Down / ☐ Mid / ☐ Full Up	
3rd Middle		☐	☐ Full Down / ☐ Mid / ☐ Full Up	
3rd Right		☐	☐ Full Down / ☐ Mid / ☐ Full Up	

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		94	Ground to bumper under license plate was 36cm.
Top of trunk/tailgate		90	
Bottom of bumper		43	
Trailer hitch (if applicable)		N/A	
Undercarriage			
	Sway bar	N/A	
	Axle	21	
	Differential	N/A	
	Other (specify): Muffler	22	
Sensor Height (if equipped)		N/A	
Camera Height (if equipped)		N/A	

Not Applicable ✔

Reset Values

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Back Up / Parking Aid Form

Special Crash Investigations
Not In Traffic Surveillance

1. Case Number

I N 0 7 0 0 9

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 0 9

DRIVER PROFILE

2. Driver's Age 8 2
99 = Unknown

3. Driver's Sex
- (•) Male
- ( ) Female
- ( ) Unknown

4. Driver's Height 1 7 3 cm
999 = Unknown

5. Driver's Weight 0 6 4 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:

Leaving to run more errands

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 0 9

NON-MOTORIST PROFILE

2. Non-motorist's Age
99 = Unknown
3 8 ○ Months ◉ Years

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

4. Non-motorist's Height
999 = Unknown
1 8 8 cm

5. Non-motorist's Weight
999 = Unknown
1 0 4 kg

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) Own vehicle
○ 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				
	Long Sleeve				
	Light Jacket				
	Heavy Jacket	Unknown	Unknown	Unknown	Unknown
	Other (Specify): _____				
LOWER BODY	Shorts				
	Pants	Dark blue	Natural	Soft	Medium
	Shoes				
	Other (specify): _____				