

Remote Not In Traffic Back Over Investigation
Dynamic Science, Inc. (DSI), Case Number DS07040
2000 Chevrolet Suburban
Nevada
July 2007

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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.

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16. Abstract <p>This Remote Not In Traffic Surveillance (NITS) back over investigation was initiated in response to an online news article describing an 18-month-old child involved in a back over incident. This single vehicle incident occurred in July 2007 at 0926 hours. The subject vehicle was a 2000 Chevrolet Suburban sport utility vehicle. The vehicle was being driven by a 34-year-old female. The involved 18-month-old male was the child of the driver. The incident took place within the confines of a private recreational vehicle park. The weather was clear and calm at the time of the incident. The driver was attempting to relocate her vehicle from the left side of her travel trailer to the right side of the trailer. The driver pulled forward out onto the intersecting roadway. She reported that prior to backing up, she looked in her rear view mirror and saw her son standing in the door of the trailer. She also reported that she did not begin to back up until an uninvolved vehicle had passed behind the vehicle. At this point, she began backing up. It appears that the child left the trailer and began walking in a southwest direction toward the street and the Suburban. The child was in the driver's blind zone prior to being struck and run over by the left rear tire. The incident took place on the roadway, just beyond the vehicle parking area associated with the trailer. Responding medical personnel pronounced the child dead at the scene. The coroner determined that the immediate cause of death was multiple blunt force trauma to the head. According to the state department of motor vehicles, this incident was not reported because it occurred on private property. An informational report was supplied to parties at the state level.</p>					
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**Dynamic Science, Inc.
Crash Investigation
Case Number: DS07040**

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BACKGROUND

This Remote Not In Traffic Surveillance (NITS) back over investigation was initiated in response to an online news article describing an 18-month-old child involved in a back over incident. This single vehicle incident occurred in July 2007 at 0926 hours. The subject vehicle was a 2000 Chevrolet Suburban sport utility vehicle (**Figure 1**). The vehicle was being driven by a 34-year-old female. The involved 18-month-old male was the child of the driver. The incident took place on within the confines of a private recreational vehicle park. The weather was clear and calm at the time of the incident.



Figure 1. Subject vehicle, 2000 Chevrolet Suburban

The driver was attempting to relocate her vehicle from the left side of her travel trailer to the right side of the trailer. The driver pulled out onto the intersecting roadway. She reported that prior to backing up, she looked in her rear view mirror and saw her son standing in the door of the trailer. She also reported that she did not begin to back up until an uninvolved vehicle had passed behind the vehicle. At this point, she began backing up. It appears that the child left the trailer and began walking in a southwest direction toward the street and the Suburban. The child was in the driver's blind zone prior to being struck and run over by the left rear tire.

The child was contacted and run over by the left rear tire. The incident took place on the roadway, just beyond the vehicle parking area associated with the trailer. Responding medical personnel pronounced the child dead at the scene. The coroner determined that the immediate cause of death was multiple blunt force trauma to the head.

DSI was notified of the incident on July 31, 2007. DSI obtained the police report and the on-scene photographs and was assigned the case on October 30, 2007. According to the state department of motor vehicles, this incident was not reported because it occurred on private property. An informational report was supplied to parties at the state level.

The following information was obtained from the police report, the on-scene photographs, and an exemplar vehicle.

SUMMARY

Incident Site

This single vehicle incident occurred in July 2007 at 0926 hours. The incident took place in a private recreational vehicle park. The incident took place within the confines of an intersection of a private driveway/parking area and a private east/west residential roadway (**Figure 2**). The area of the incident was essentially in a cul-de-sac. To the north of the roadway, there were concrete paved recreational vehicle parking pads. The pads ran north/south. The driveways leading into the

pads were angled to the east. The weather was clear and the driveway/roadway was dry at the time of the incident. The temperature at the nearest reporting station was 37 degrees C (98 degrees F).

The driver's view rearward toward the door of the trailer was partially obscured by a power hook-up, a picnic table, and possibly a stroller (**Figure 3**).

Pre Crash

The Chevrolet Suburban was being driven by a 34-year-old female. The involved 18-month-old male was the child of the driver. The driver was attempting to relocate her vehicle from the east side of her travel trailer to the west side of the trailer. The driver pulled out onto the intersecting roadway. She reported that prior to backing up, she looked in her rear view mirror and saw her son standing in the door of the trailer. She also reported that she did not begin to back up until a uninvolved vehicle had passed behind the vehicle. At this point, the driver began backing up. It appears that the child left the trailer and began walking in a southwest direction toward the street and the Suburban.

Crash

As the Suburban continued backing, the child was contacted and run over by the left rear tire (**Figure 4**). The Suburban came to rest on the street just beyond the point of impact.

Post Crash

Responding medical personnel pronounced the child dead at the scene. The coroner determined that the immediate cause of death was multiple blunt force trauma to the head.



Figure 2. View of impact area (north)



Figure 3. Approach to area of impact (northeast)



Figure 4. Arrow marks area of impact (looking north)

Vehicle Data - 2000 Chevrolet Suburban

The 2000 Chevrolet Suburban sport utility vehicle was identified from the police report by the Vehicle Identification Number (VIN): 3GNGK26U3YGxxxxxx (**Figure 5**). The Suburban was a K2500 series full-size utility vehicle that was equipped with a 6.0 liter, eight-cylinder engine, a 4-speed automatic transmission, 4-wheel drive, front/rear disc brakes with ABS, and power steering. The second and third row side windows, as well as the backlight, were tinted. There was a sports logo decal sticker affixed to the left backlight (**Figure 6**). The driver's sight line, with the driver looking over her right shoulder toward the left rear of the vehicle, would have been limited by the sticker. It was determined that the Suburban was configured with Toyo Open Country A/T LT315/75R16 tires on after-market American Racing rims. The tires had an overall diameter of 87.8 cm (34.6 in). LT245/75R16 tires are recommended by Toyo for this vehicle. The LT245/75R16 tires have an overall diameter of 77.5 cm (30.5 in). The Suburban had been modified with a lift¹ kit and a trailer package. The Suburban was also equipped with an after-market luggage rack.



Figure 5. Left side, Chevrolet Suburban



Figure 6. Back left, Chevrolet Suburban

Vehicle Dimensions

Dimensions obtained from Canadian vehicle specifications and an exemplar vehicle. Seated eye height and position were measured with a surrogate driver positioned in the exemplar vehicle seated at the height of a 50th percentile female. The vehicle was equipped with a lift kit and larger tires. Adjustments were made to compensate for the greater vehicle height.

¹DSI contacted an installer of lift kits. It appears that a 6 inch lift kit was installed on this vehicle.

	Stock	With 15.2 cm (6.0 in) lift kit and larger tires 5.0 cm (2.0 in)
Ground to belt line:	128 cm (50.3 in)	148.2 cm (58.3 in)
Ground to top of trunk/tailgate:	129 cm (50.7 in)	149.2 cm (58.7 in)
Ground to top of spare tire:	N/A	N/A
Ground to top of rear bumper:	73.5 cm (28.9 in)	93.7 cm (36.9 in)
Ground to bottom of rear bumper:	53 cm (20.9 in)	73.2 cm (28.8 in)
Ground to sway bar:	N/A	N/A
Ground to axle:	N/A	N/A
Driver's seated eye height:	158 cm (62.2 in) to ground	178.2 cm (70.2 in) to ground
Eye position (seated forward facing):	11 cm (4.3 in) forward of B pillar	N/A
Overall vehicle height:	188 cm (74.0 in)	208.2 cm (81.9 in)
Overall vehicle width:	200 cm (78.7 in)	N/A
Overall vehicle length:	557 cm (219.3 in)	N/A
Rear overhang:	96 cm (37.7 in)	N/A
Track width:	166 cm (65.3 in)	N/A
Longitudinal distance between rear most projection and front door latch pillar:	287 cm (112.9 in)	N/A

Parking Aids/Sensors

The case vehicle was not equipped with any parking aids or backing up sensor/video technology.

Vehicle Sight Distances

A visibility study was conducted on an exemplar vehicle in order to determine the nominal blind zone behind the Suburban as well as the nominal blind zone of both side view mirrors and the rearview mirror. The visibility would have differed to some degree for the subject vehicle which was higher than the exemplar vehicle. The standard 71 cm (28.0 in) high target was used for the

observations. The exemplar vehicle was placed on a level surface for the visibility study. A surrogate driver positioned in the exemplar vehicle seated at the height of a 50th percentile female.

The initial set of measurements were made with the surrogate driver looking over the right shoulder out of the backlight. The target was moved rearward from the back bumper along the Suburban's centerline until it came into the driver's view. The target had to be moved 7.07 m (23.2 ft) before the top of the target came into the driver's view (**Figure 7**). This target distance was later adjusted to compensate for the increased vehicle height due to the lift kit and larger tires (**Figure 8**).

A second set of measurements were made with the surrogate driver looking through the rear view mirror. The target was again moved rearward along the center line until it came into the driver view. The target was moved 9.17 m (30.1 ft) rearward from the rear bumper. This target distance was later adjusted to compensate for the increased vehicle height due to the lift kit and larger tires.

With the driver looking over the shoulder, the driver's vision become blocked by the headrest and the B pillar at a point 2.71 m (8.9 ft) to the right of the centerline. The blind zone ends 4.47 m (14.7 in) to the right of the centerline.

A third set of measurements were made with the driver looking through the left and right side view mirrors. The target was placed at the center line 9.17 m (30.0 ft) rearward of the vehicle's back bumper. The target was moved laterally until it became visible to the driver. For the right, the target became visible 80.0 cm (31.4 in) from the center line. For the left, the target became visible 71 cm (27.9 in) from the center line. This resulted in a blind zone which measured 1.51 m (4.95 ft) in width at a distance of 9.17 m (30.0 ft) rearward of the vehicle's back bumper.

Based on the driver's view over her shoulder, the 86 cm (34 in) tall child would have been in the driver's blind zone for a distance of 6.3 m (20.7 ft).

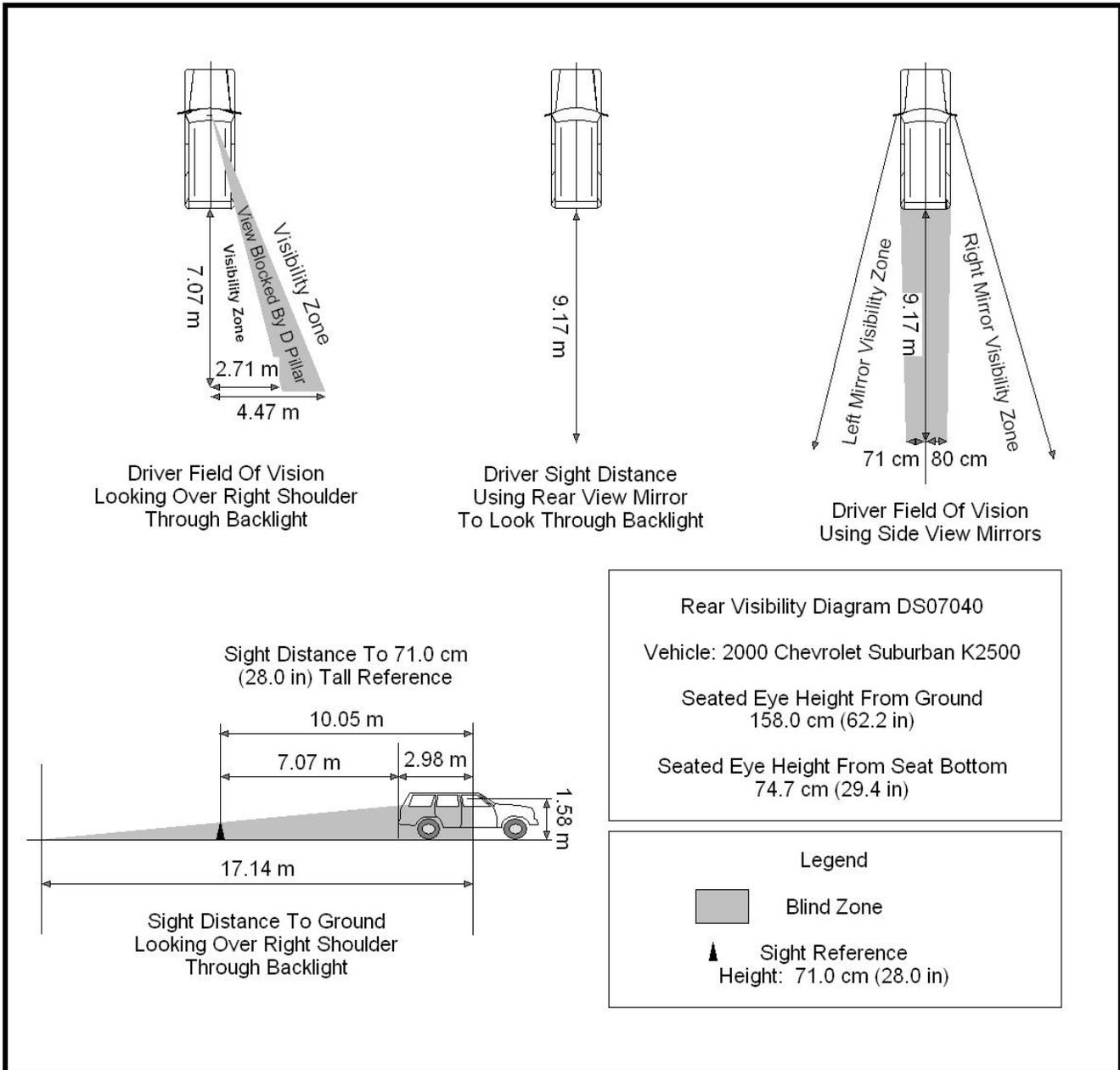


Figure 7. Nominal visibility diagram (stock vehicle)

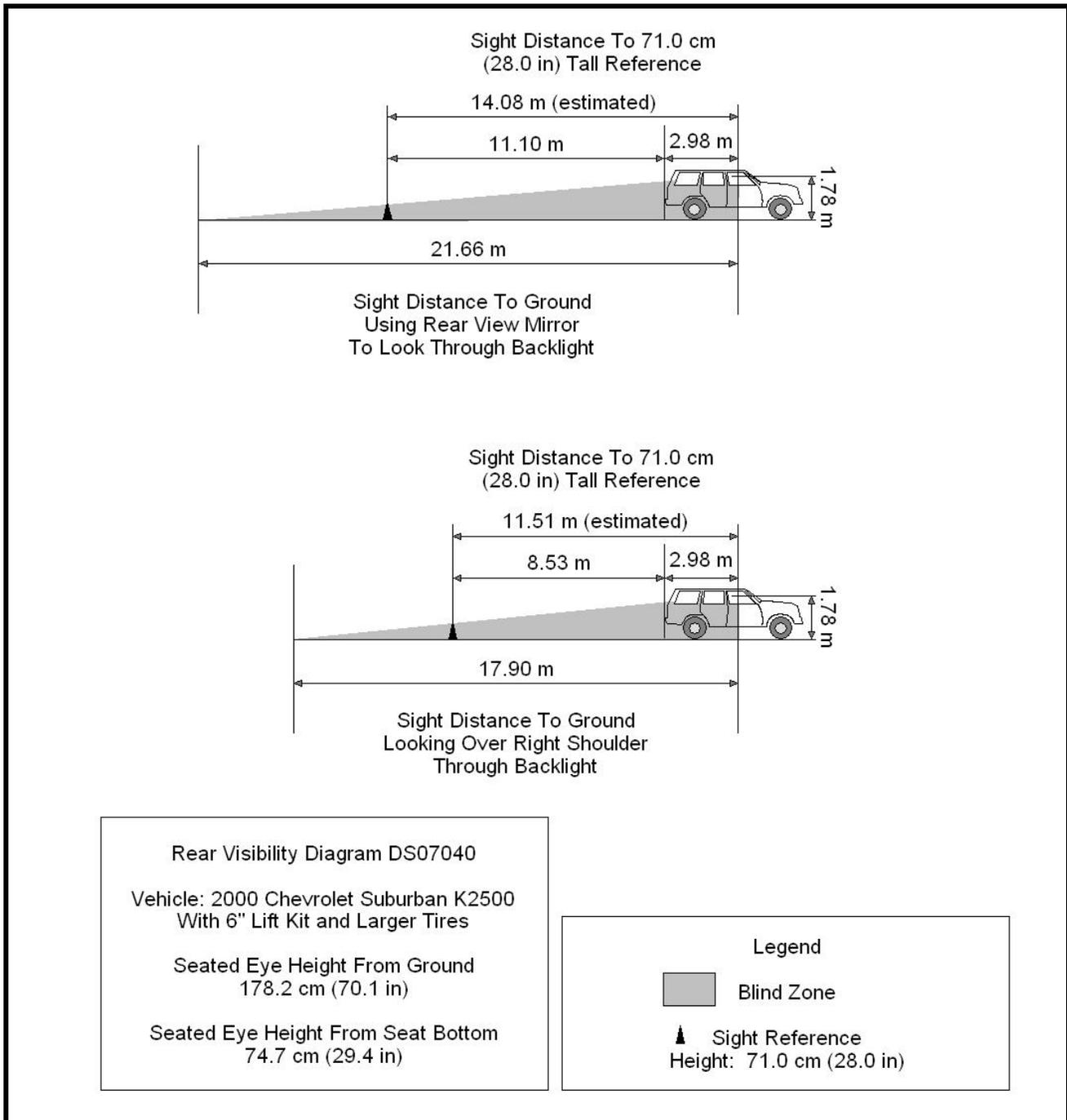


Figure 8. Nominal visibility diagram (with lift kit and larger tires)

Vehicle Damage**Exterior Damage - 2000 Chevrolet Suburban Sport Utility Vehicle**

There was no exterior damage to the vehicle.

Interior Damage -2000 Chevrolet Suburban Sport Utility Vehicle

There was no interior damage.

Driver Demographics

Age/Sex:	34/Female
Height:	Unknown
Weight:	Unknown
Seat track position:	Unknown
Manual restraint use:	Lap and shoulder belt used
Usage source:	Police report
Type of medical treatment:	None

Non-Motorist Demographics

Age/Sex:	18-month/Male
Height:	86 cm (34 in)
Weight:	13 kg (29 lbs)
Type of medical treatment:	Pronounced dead by investigators at 1128 hours

INJURIES - 2000 Chevrolet Suburban

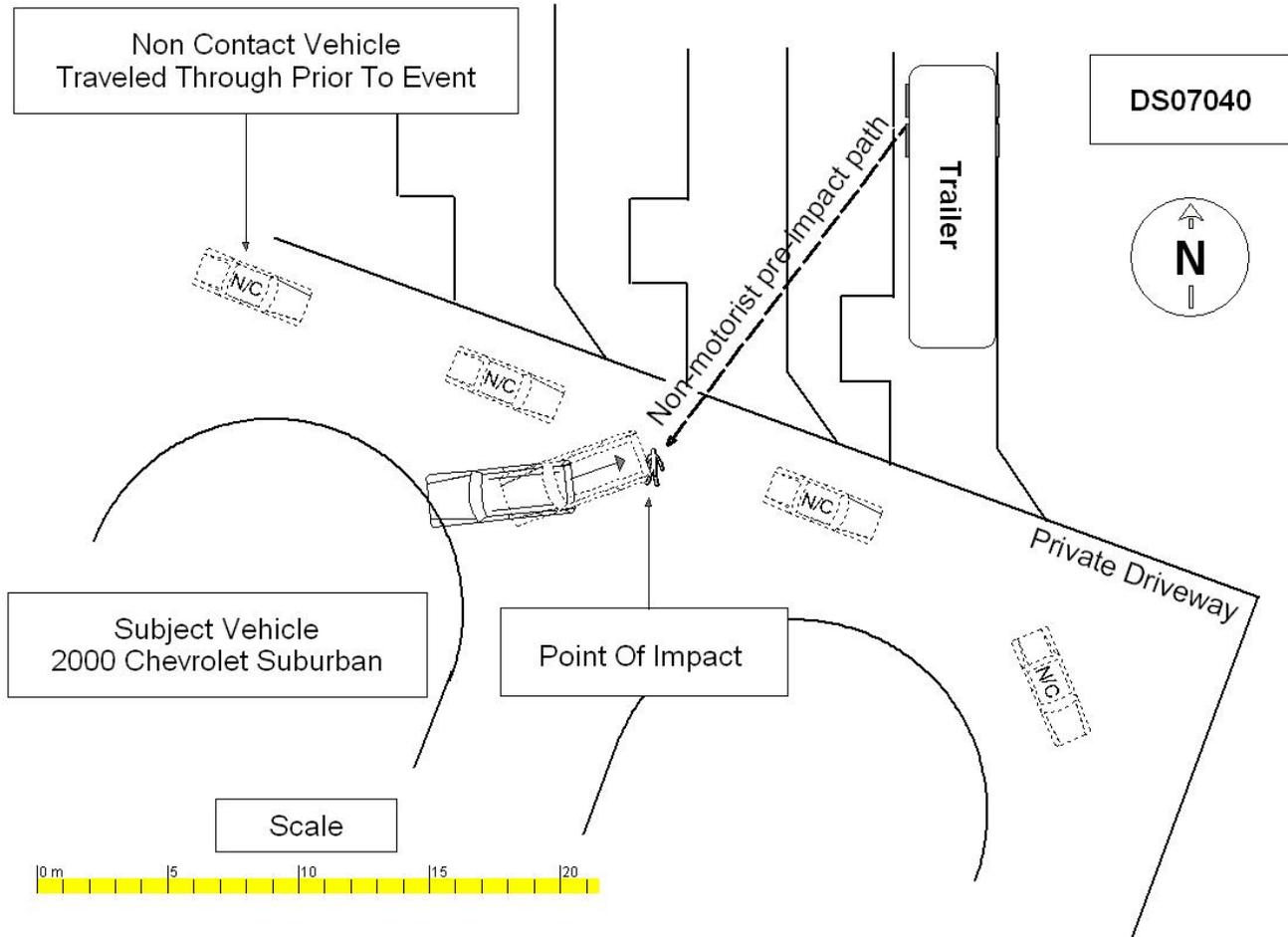
Driver: Not injured.

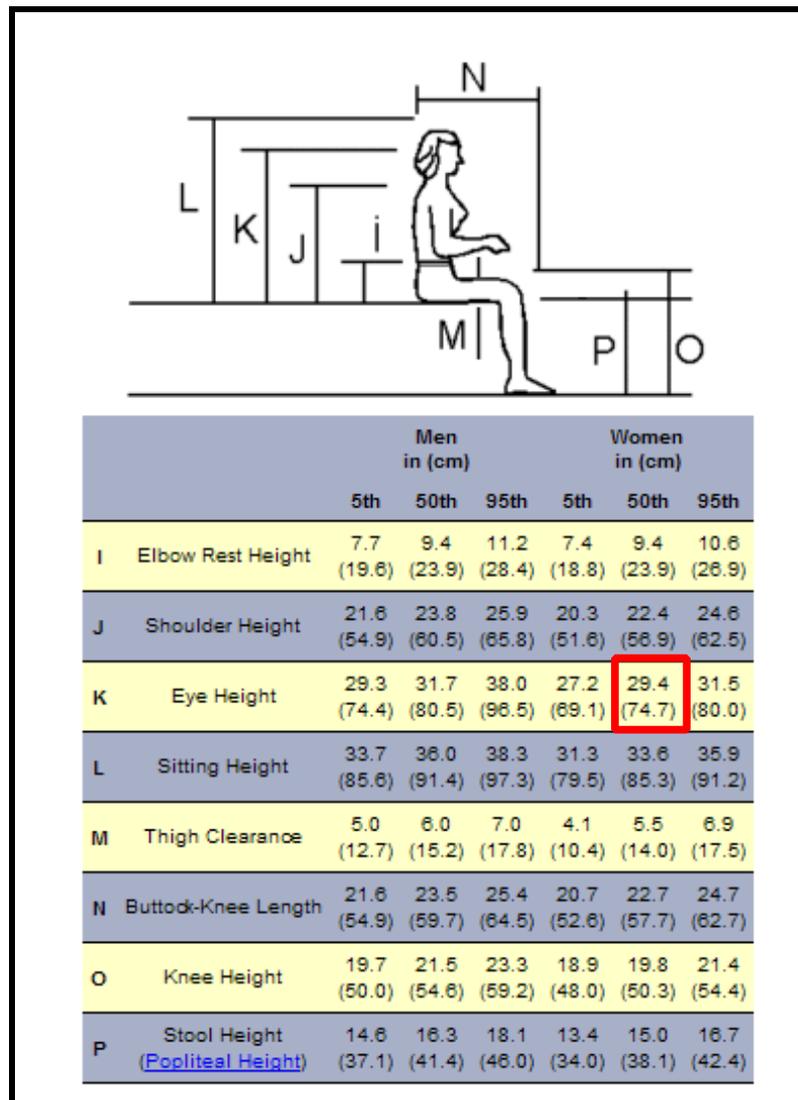
Non-motorist: Injuries obtained from police report, coroner's office fax, and police photo.

<u>Injury</u>	<u>AIS Code</u>	<u>Injury Mechanism</u>	<u>Confidence Level</u>
Blunt force trauma to head	115099.7,0	Tire	Certain
Abrasion, right ear	290202.1,1	Ground	Certain

Abrasion, right temple	190202.1,1	Ground	Certain
Abrasion, right cheek	290202.1,1	Ground	Certain
Abrasion, chest	490202.1,0	Ground	Probable
Abrasion, right upper and lower arm	790202.1,1	Tire	Probable

Attachment 1. Scene Diagram



Attachment 2. Anthropometric Measurements²

²http://www.cdc.gov/niosh/pot_anth.html

Attachment 3. Data Forms



1. Case Number

IDENTIFICATION

2. Date of Crash ____ / ____ / ____

3. Time of Crash _____

Code reported military time of crash.

NOTE: Midnight = 2400
Unknown = 9999

AMBIENT CONDITIONS

4. Light Conditions

- Daylight
- Dark
- Dark but lighted
- Dawn
- Dusk
- Unknown

5. Atmospheric Conditions
(Select all that apply)

- Clear-No adverse conditions
- Cloudy
- Rain
- Snow
- Fog, Smog, Smoke
- Sleet, Hail (freezing rain or drizzle)
- Blowing Snow
- Severe Crosswinds
- Blowing Sand, Soil, Dirt
- Other (specify):
- Unknown

6. Temperature

- Below 0 degrees Celsius (Below 32 F)
- 1-10 degrees Celsius (33-50 F)
- >10-24 degrees Celsius (51-75 F)
- Over 24 degrees Celsius (Over 75 F)
- Unknown

SCENE INFORMATION

7. Type of area in which crash occurred
(Select all that apply)

- Single family residential
- Row houses/townhouses
- Multi family housing
- Commercial
- Industrial
- Rural
- Unknown

8. Driver exterior sightline obstructions
(Select all that apply)

- None
- Other vehicles
- Building
- Trees
- Shrubby
- Other (specify) _____
- Utility poles
- Signs
- Glare
- Unknown
- No driver present

9. Crash location

- Driveway
- Parking Lot
- Sidewalk
- Alley
- Intersection of driveway and sidewalk
- Road / street
- Roadside / shoulder
- Other (specify) _____
- Unknown

10. Non motorist sightline obstructions
(Select all that apply)

- None
- Other vehicles
- Building
- Trees
- Shrubby
- Utility poles
- Signs
- Glare
- Other (specify) _____
- Unknown

11. Grade at parked position _____ +/- %

12. Estimated distance from parked position to impact

_____ m

13. Estimated speed at impact _____ +/- kmph

14. Grade at impact _____ +/- %

15. Estimated distance from impact to vehicle final rest

_____ m

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



VEHICLE FORM

1. Case Number _____

VEHICLE IDENTIFICATION

2. VIN _____

3. Model Year _____

4. Vehicle Make (specify): _____

5. Vehicle Model (specify): _____

GLAZING

Location	Presence (check)	Status (select)	Clarity (select)	Tint (check)	Glazing Obstructions (specify if present)
Windshield		Fixed / Closed / Open / Partially Open / Unknown	Clear / Hazy / Very Dirty / Unknown		
LF		Fixed / Closed / Open / Partially Open	Clear / Hazy / Very Dirty		
RF		Fixed / Closed / Open / Partially Open	Clear / Hazy / Very Dirty		
2 nd Left		Fixed / Closed / Open / Partially Open	Clear / Hazy / Very Dirty		
2 nd Right		Fixed / Closed / Open / Partially Open	Clear / Hazy / Very Dirty		
3 rd Left		Fixed / Closed / Open / Partially Open	Clear / Hazy / Very Dirty		
3 rd Right		Fixed / Closed / Open / Partially Open	Clear / Hazy / Very Dirty		
Backlight		Fixed / Closed / Open / Partially Open	Clear / Hazy / Very Dirty		
Left Backlight		Fixed / Closed / Open / Partially Open	Clear / Hazy / Very Dirty		
Right Backlight		Fixed / Closed / Open / Partially Open	Clear / Hazy / Very Dirty		
Roof		Fixed / Closed / Open / Partially Open	Clear / Hazy / Very Dirty		
Other (specify)		Fixed / Closed / Open / Partially Open	Clear / Hazy / Very Dirty		

TIRE DATA

6. Vehicle Manufacturer Recommended Tire Size _____

7. LF Tire Size _____

9. RF Tire Size _____

8. LR Tire Size _____

10. RR Tire Size _____

Seats / Head Restraint Data

Seat Position	Seat Type (Select from below)	Head Restraint (Check if available)	Head Restraint Adjustment (select)	NOTES:
Front Left			Full Down / Mid / Full Up	
Front Middle			Full Down / Mid / Full Up	
Front Right			Full Down / Mid / Full Up	
2 nd Left			Full Down / Mid / Full Up	
2 nd Middle			Full Down / Mid / Full Up	
2 nd Right			Full Down / Mid / Full Up	
3 rd Left			Full Down / Mid / Full Up	
3 rd Middle			Full Down / Mid / Full Up	
3 rd 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>Colors</u>		<u>Fabrics</u>		<u>Textures</u>		<u>Weights</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)						

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