



TRAFFIC CRASH REPORT

LOCAL REPORT #*

4 7 - 0 7 1 0 - 4 7

CRASH SEVERITY

1 1 FATAL 3 PDO
2 INJURY 4 UNKNOWNPRIVATE
PROPERTY'X'
IF YES

HIT/SKIP

1 NOT HIT/SKIP
2 SOLVED
3 UNSOLVEDPHOTOS
TAKEN'X'
IF YES

OH-2

X

OH-3

OH-1P

X

OTHER

X

N.C.I.C. #*

O H P 4 7

REPORTING AGENCY*

Ohio State Highway Patrol

UNITS

0 1

UNIT ERROR

0 1 98 = ANIMAL
99 = UNKNOWN

DATE OF CRASH*

0 6 0 3 2 0 1 2

TIME OF CRASH

0 0 1 1

DAY OF WEEK

S U N

CITY*

VILLAGE*

TWP*

X

NAME (OF CITY, VILLAGE OR TOWNSHIP)*

Columbia

COUNTY*

4 7

LATITUDE

41:16:30.30

LONGITUDE

81:53:07.04

CRASH OCCURRED ON

PREFIX CRASH LOCATION

Boston Road

TYPE LOC

1

TYPE LOCATION POINT USED

1 NAMED STREET 3 NUMBERED ROUTE
2 NUMBERED STREET

LOCAL INFORMATION

AT / REFERENCE

DIST REFERENCE

.7 M

OR

PREFIX

E

REFERENCE

Boone Road

REF POINT

02

REFERENCE POINT USED

01 STATE LINE
02 INTERSECTION 2 STREETS
03 COUNTY LINE

04 HOUSE NUMBER 08 PLACE NAME W/O REFERENCE

05 TOWNSHIP BOUNDARY 09 DRIVEWAY

06 MILE POST 10 STREET OR ROUTE W/O

07 CORPORATION LIMIT REFERENCE

Motorist/Non-Motorist

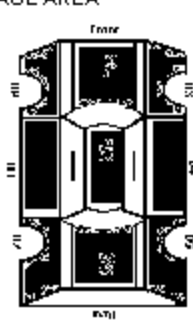
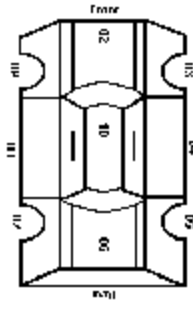
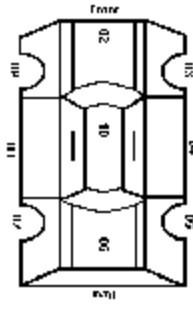
A	UNIT #	# OF OCC.	NAME (LAST, FIRST, MIDDLE)
	0 1	0 5	Chaya, Jeffrey Paul
ADDRESS (STREET, CITY, STATE, ZIP CODE)			
1556 Congressional Avenue, Brunswick, Ohio 44212			
SOCIAL SECURITY NUMBER		DATE OF BIRTH	AGE
		0 2 2 3 1 9 9 4	1 8
SEX		HOME PHONE #	WORK PHONE #
M		(330)273-0840	
DL STATE	DL #	LP STATE	LP #
OH	TS968071	OH	CVC9208
INJURED TAKEN BY		TRANSPORTED BY	INJURED TAKEN TO
2		Great Lakes Transport	Elyria EMH
OWNER NAME (IF SAME, WRITE "SAME")		ADDRESS (STREET, CITY, STATE, ZIP CODE)	
Chaya, Paula A.		1556 Congressional Avenue, Brunswick, Ohio 44212	
YEAR	MAKE	MODEL	COLOR
2 0 0 1	CHEV	Cavalier	GLD
INSURANCE COMPANY		TOWING SERVICE	OWNER PHONE #
State Farm		J&C Service	(330)273-0840
OFFENSE CHARGED		OFFENSE DESCRIPTION	CITATION #
			LOCAL CODE? 'X' IF YES

Occupant

B	UNIT #	# OF OCC.	NAME (LAST, FIRST, MIDDLE)
ADDRESS (STREET, CITY, STATE, ZIP CODE)			
SOCIAL SECURITY NUMBER		DATE OF BIRTH	AGE
SEX		HOME PHONE #	WORK PHONE #
DL STATE	DL #	LP STATE	LP #
INJURED TAKEN BY		TRANSPORTED BY	INJURED TAKEN TO
2		Great Lakes Transport	Elyria EMH
OWNER NAME (IF SAME, WRITE "SAME")		ADDRESS (STREET, CITY, STATE, ZIP CODE)	
YEAR	MAKE	MODEL	COLOR
INSURANCE COMPANY		TOWING SERVICE	OWNER PHONE #
OFFENSE CHARGED		OFFENSE DESCRIPTION	CITATION #
			LOCAL CODE? 'X' IF YES

C	UNIT #	NAME (LAST, FIRST, MIDDLE)	HOME PHONE #	DATE OF BIRTH	AGE	SEX
	0 1	Bartchak, Blake M.	(440)668-2500	0 8 2 7 1 9 9 4	1 7	M
ADDRESS (STREET, CITY, STATE, ZIP CODE)			INJURED TAKEN BY	TRANSPORTED BY	INJURED TAKEN TO	
1542 Troon Avenue, Brunswick, Ohio 44212			2	Great Lakes Transport	Elyria EMH	
D	UNIT #	NAME (LAST, FIRST, MIDDLE)	HOME PHONE #	DATE OF BIRTH	AGE	SEX
	0 1	Poerner, Lexi K.	(330)273-8572	0 8 2 0 1 9 9 5	1 6	F
ADDRESS (STREET, CITY, STATE, ZIP CODE)			INJURED TAKEN BY	TRANSPORTED BY	INJURED TAKEN TO	
305 Marlee Court, Brunswick, Ohio 44212			2	Great Lakes Transport	Elyria EMH	

0 1 A	SEATING POSITION	0 4 A	SAFETY EQUIPMENT	2 A	AIR BAG	1 A	AIR BAG SWITCH	1 A	EJECTION	3 A	TRAPPED	5 A	INJURIES
	01 FRONT - LEFT (MC DRIVER) 02 FRONT - MIDDLE 03 FRONT - RIGHT 04 SECOND - LEFT (MC PASS) 05 SECOND - MIDDLE 06 SECOND - RIGHT 07 THIRD - LEFT (MC PASSENGER/SEATBELT) 08 THIRD - MIDDLE 09 THIRD - RIGHT 10 SLEEPER SECTION OF CAB 11 ENCLOSED CARGO AREA 12 UNCLOSED CARGO AREA 13 TRAILING UNIT 14 EXTERIOR 15 OTHER 16 NON-MOTORIST 17 UNKNOWN		01 NONE USED 02 SHOULDER BELT ONLY 03 LAP BELT ONLY 04 SHOULDER/LAP BELT 05 CHILD SAFETY SEAT 06 MC HELMET USED 07 USE UNKNOWN 08 NONE USED 09 HELMET USED 10 PROTECTIVE PADS 11 REFLECTIVE CLOTHING 12 LIGHTING 13 OTHER 14 UNKNOWN		1 NOT DEPLOYED 2 DEPLOYED-FRONT 3 DEPLOYED-SIDE 4 DEPLOYED BOTH FRONT/SIDE 5 NOT APPLICABLE 6 UNKNOWN		1 NOT PRESENT 2 IN ON POSITION 3 IN OFF POSITION 4 UNKNOWN		1 NOT EJECTED 2 TOTALLY EJECTED 3 PARTIALLY EJECTED 4 NOT APPLICABLE 5 UNKNOWN		1 NOT TRAPPED 2 EXTRACTED BY MECHANICAL MEANS 3 FREED BY NON-MECHANICAL MEANS 4 UNKNOWN		1 NO INJURY 2 POSSIBLE 3 NON-INCAPACITATING 4 INCAPACITATING 5 FATAL INJURY 6 UNKNOWN
0 3 C		0 4 C		2 C		1 C		1 C		3 C		5 C	
0 5 D		0 1 D		5 D		1 D		1 D		3 D		5 D	
SUPPLEMENT 'X' IF YES													

UNIT NUMBERS 0 1	DAMAGE AREA  	PRE-CRASH ACTIONS 0 1	SEQUENCE OF EVENTS 0 9	POSTED SPEED 5 5	DRUG TEST STATUS 5
NON-MOTORIST LOCATION 	A  B 	MOTORIST 01 MOVEMENTS ESSENTIALLY STRAIGHT AHEAD 02 BACKING 03 CHANGING LANES 04 OVERTAKING/PASSING 05 TURNING RIGHT 06 TURNING LEFT 07 MAKING U-TURN 08 ENTERING TRAFFIC LANE 09 LEAVING TRAFFIC LANE 10 PARKED 11 SLOWING/STOPPED IN TRAFFIC 12 DRIVERLESS 13 OTHER 14 UNKNOWN NON-MOTORIST 15 ENTERING/CROSSING IN SPECIFIED LOCATION 16 WALKING, RUNNING, JOGGING, PLAYING, CYCLING 17 WORKING 18 PUSHING VEHICLE 19 APPROACHING/LEAVING VEHICLE 20 PLAYING/WORKING ON VEHICLE 21 STANDING 22 OTHER 23 UNKNOWN	NON-COLLISION 01 OVERTURN/ROLLOVER 02 FIRE/EXPLOSION 03 IMMERSION 04 JACKKNIFE 05 CARGO/EQUIPMENT LOSS/SHIFT 06 EQUIPMENT FAILURE 07 SEPARATION OF UNITS 08 RAN OFF ROAD RIGHT 09 RAN OFF ROAD LEFT 10 CROSS-MEDIAN/CENTERLINE 11 DOWNHILL RUNAWAY 12 OTHER NON-COLLISION 13 UNKNOWN NON-COLLISION COLLISION W/ PERSON, VEHICLE, OR OBJECT NOT FIXED 14 PEDESTRIAN 15 PEDAL CYCLE 16 RAILWAY VEHICLE 17 ANIMAL - FARM 18 ANIMAL - DEER 19 ANIMAL - OTHER 20 MOTOR VEHICLE IN TRANSPORT 21 PARKED MOTOR VEHICLE 22 WORK ZONE MAINTENANCE EQUIPMENT 23 OTHER MOVABLE OBJECT 24 UNKNOWN MOVABLE OBJECT COLLISION WITH FIXED OBJECT 25 IMPACT ATTENUATOR/CRASH CUSHION 26 BRIDGE OVERHEAD STRUCTURE 27 BRIDGE PIER OR ABUTMENT 28 BRIDGE PARAPET 29 BRIDGE RAIL 30 GUARDRAIL FACE 31 GUARDRAIL END 32 MEDIAN BARRIER 33 HIGHWAY TRAFFIC SIGN POST 34 OVERHEAD SIGN POST 35 LIGHT LUMINARISSUPPORT 36 UTILITY POLE 37 OTHER POST, POLE OR SUPPORT 38 CULVERT 39 CURB 40 DITCH 41 EMBANKMENT 42 FENCE 43 MAILBOX 44 TREE 45 OTHER FIXED OBJECT 46 WORK ZONE MAINTENANCE EQUIPMENT 47 UNKNOWN FIXED OBJECT 48 OTHER 49 UNKNOWN	TRAFFIC CONTROL 1 2	DRUG TEST TYPE 2
TYPE OF UNIT 0 2	MOST DAMAGED AREA 1 0	CONTRIBUTING CIRCUMSTANCES 0 5	DIRECTION FROM TO FROM TO 3 4	DRUG TEST 1&2 RESULT 8 8	TYPE OF INTERSECTION 0 1
MOTORIST 01 SUB-COMPACT 02 COMPACT 03 MID SIZE 04 FULL SIZE 05 MINIVAN 06 SPORT UTILITY VEHICLE 07 PICKUP 08 PANELVAN 09 SINGLE UNIT TRUCK; 2 AXLES, 6 TIRES 10 SINGLE UNIT TRUCK; 3+ AXLES 11 TRUCK/TRAILER 12 TRUCK TRACTOR (EOBTAIL) 13 TRACTOR SEMI-TRAILER 14 TRACTOR DOUBLE SHORT 15 TRACTOR DOUBLE LONG 16 FIFTH WHEEL OR CONVERTER COLLY 17 TRACTOR TRIPLES 18 MOTORCYCLE 19 MOTORIZED BICYCLE 20 SCHOOL BUS 21 CHURCH BUS 22 PUBLIC BUS 23 OTHER BUS 24 POLICE VEHICLE 25 FIRE TRUCK 26 AMBULANCE/RESCUE 27 TAXI 28 MOTOR HOME 29 TRAIN 30 FARM VEHICLE 31 FARM EQUIPMENT 32 SNOWMOBILE 33 CONSTRUCTION EQUIPMENT 34 ALL OTHERS NON-MOTORIST 35 ANIMAL W/ RIDER 36 ANIMAL W/ BUGGY 37 BICYCLE 38 PEDESTRIAN 39 PEDAL CYCLIST 40 SKATER 41 OTHER-NON MOTORIST 42 UNKNOWN	POINT OF IMPACT 0 9	VEHICLE DEFECT CODE ONLY IF '19' SELECTED ABOVE 	CONDITION 8	TYPE OF INTERSECTION 01 NOT AN INTERSECTION 02 FOUR-WAY INTERSECTION 03 T-INTERSECTION 04 Y-INTERSECTION 05 TRAFFIC CIRCLE/ROUNDABOUT 06 FIVE-POINT, OR MORE 07 ON RAMP 08 OFF RAMP 09 CROSSOVER 10 DRIVEWAY ACCESS 11 RAILWAY GRADE CROSSING 12 SHARED-USE PATHS OR TRAILS 13 UNKNOWN	
IN EMERGENCY RESPONSE 	ACTION 3	FIRST HARMFUL EVENT 2	ALCOHOL/DRUG SUSPECTED 6	ALCOHOL TEST STATUS 5	ROAD CONTOUR 2
DAMAGE SCALE 5	STRIKING VEHICLE: OVERRIDE/ UNDERIDE 1	MOST HARMFUL EVENT 3	ALCOHOL TEST TYPE 2	ALCOHOL TEST RESULT 	ROAD CONDITION 0 1
1 NONE 2 NON-FUNCTIONAL DAMAGE 3 FUNCTIONAL DAMAGE 4 DISABLING DAMAGE 5 SEVERE 6 UNKNOWN	1 NO UNDERIDE OR OVERRIDE 2 UNDERIDE, COMPARTMENT INTRUSION 3 UNDERIDE, NO COMPARTMENT INTRUSION 4 UNDERIDE, COMPARTMENT INTRUSION UNKNOWN 5 OVERRIDE, MOTOR VEHICLE IN TRANSPORT 6 OVERRIDE OTHER VEHICLE 7 UNKNOWN	01 TURN SIGNALS 02 HEAD LAMPS 03 TAIL LAMPS 04 BRAKES 05 STEERING 06 TIRE BLOWOUT 07 WORN OR SLICK TIRES 08 TRAILER EQUIPMENT DEFECTIVE 09 MOTOR TROUBLE 10 DISABLED FROM PRIOR CRASH 11 OTHER DEFECTS	OF THE SEQUENCE OF EVENTS - WHICH ONE IS THE FIRST HARMFUL EVENT (1-4) 	1 NONE 2 BLOOD 3 URINE 4 BREATH 5 OTHER	01 DRY 02 WET 03 SNOW 04 ICE 05 SAND, MUD, DIRT, OIL, GRAVEL 06 WATER (STANDING, MOVING) 07 SLUSH 08 DEBRIS** 09 RUT, HOLES, BUMPS, UNEVEN PAVEMENT** 10 OTHER 11 UNKNOWN **SECONDARY ROAD CONDITIONS ONLY
		SPEED DETECTED 		LOCAL REPORT # * 4 7 - 0 7 1 0 - 4 7	

Narrative

Unit #1 was westbound on Boston Road. Unit #1 crossed a set of railroad tracks at an unsafe speed and went airborne. Unit #1 landed the roadway, lost control, drove off the right side of the road, overcorrected back to the left, drove off the left side of the road, struck a ditch, struck a tree, overturned and came to rest in the roadway on its top. One passenger was ejected to the north and came to rest in a ditch.

MANNER OF COLLISION OR IMPACT

1

- 1 NOT COLLISION BETWEEN TWO VEHICLES IN TRANSPORT
- 2 REAR-END
- 3 HEAD-ON
- 4 REAR-TO-REAR
- 5 BACKING
- 6 ANGLE
- 7 SIDESWIPED, SAME DIRECTION
- 8 SIDESWIPED, OPPOSITE DIRECTION
- 9 UNKNOWN

WEATHER

0 1

- 01 CLEAR
- 02 CLOUDY
- 03 FOG, SMOG, SMOKE
- 04 RAIN
- 05 SLEET, HAIL (FREEZING RAIN DRIZZLE)
- 06 SNOW
- 07 SEVERE CROSSWINDS
- 08 BLOWING SAND, SOIL, DIRT, SNOW
- 09 OTHER
- 10 UNKNOWN

LIGHT CONDITIONS

PRIMARY SECONDARY

5

- 1 DAYLIGHT
- 2 DAWN
- 3 DUSK
- 4 DARK - LIGHTED ROADWAY
- 5 DARK - NOT LIGHTED
- 6 DARK - UNKNOWN LIGHTING
- 7 GLARE
- 8 OTHER
- 9 UNKNOWN

SCHOOL BUS RELATED

1

- 1 NO
- 2 YES, DIRECTLY INVOLVED
- 3 YES, INDIRECTLY INVOLVED
- 4 UNKNOWN

WORK ZONE RELATED

1

- 1 NO
- 2 YES
- 3 UNKNOWN

TYPE OF WORK ZONE

1

- 1 LANE CLOSURE
- 2 LANE SHIFT/CROSSOVER
- 3 WORK ON SHOULDER OR MEDIAN
- 4 INTERMITTENT/MOVING WORK
- 5 OTHER

LOCATION OF CRASH IN WORK ZONE

1

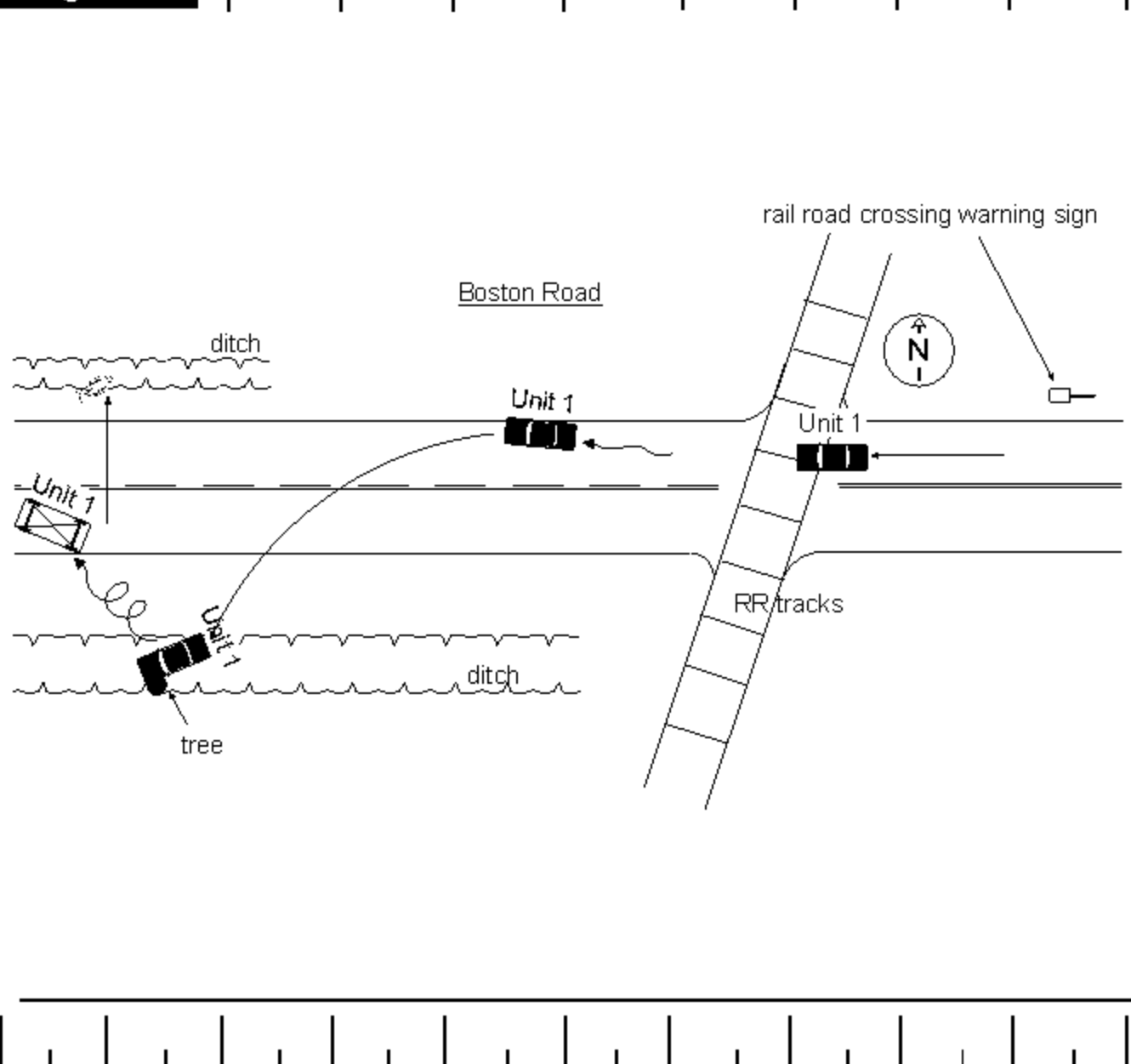
- 1 BEFORE FIRST WORK ZONE WARNING SIGN
- 2 ADVANCE WARNING AREA
- 3 TRANSITION AREA
- 4 ACTIVITY AREA

WORKERS PRESENT

1

- 1 NO
- 2 YES
- 3 UNKNOWN

Diagram



Truck/Bus

UNIT #

1 1

THE CRASH INVOLVED ONE OR MORE OF THE FOLLOWING:

- A TRUCK (MOTOR VEHICLE) WITH A GVWR MORE THAN 10,000 POUNDS; OR
- A TRUCK (MOTOR VEHICLE) WITH A HAZARDOUS MATERIALS PLACARD; OR
- A BUS DESIGNED FOR AT LEAST 8 PERSONS, INCLUDING DRIVER.

AND

THE CRASH RESULTED IN ONE OR MORE OF THE FOLLOWING:

- A FATALITY; OR
- AN INJURY REQUIRING TRANSPORTATION FOR IMMEDIATE MEDICAL TREATMENT; OR
- AT LEAST ONE VEHICLE WAS TOWED DUE TO DISABLING DAMAGE OR REQUIRED INTERVENING ASSISTANCE BEFORE PROCEEDING UNDER ITS OWN POWER.

COMPANY (FROM SHIPPING PAPERS)

COMPANY PHONE

ADDRESS (STREET, CITY, ST, ZIP CODE)

US DOT

ICC MC

PUCO

TRAILER LP ST.

TRAILER LP YEAR

TRAILER LP #

PLACARD #

DIA.

CARGO BODY TYPE

1 1

- 01 NOT APPLICABLE
- 02 BUS (9-15 INCLUDING DRIVER)
- 03 VAN/ENCLOSED BOX
- 04 GRAIN/CHIPS/GRAVEL

- 05 POLE
- 06 CARGO TANK
- 07 FLATBED
- 08 DUMP

- 09 CONCRETE MIXER
- 10 AUTO TRANSPORTER
- 11 GARBAGE/REFUSE
- 12 OTHER
- 13 UNKNOWN

WEIGHT (GVWR)

- 1 LESS THAN 10,000
- 2 10,001 - 25,000
- 3 MORE THAN 25,000

CDL CLASS

- 1 CLASS A
- 2 CLASS B
- 3 CLASS C
- 4 CLASS M
- 5 CLASS D

HAZARDOUS MATERIALS PLACARD

- 1 NO
- 2 YES
- 3 UNKNOWN

HAZARDOUS MATERIALS RELEASED

- 1 NO
- 2 YES
- 3 NOT APPLICABLE
- 4 UNKNOWN

Police Action

DATE CRASH REPORTED

0 6 0 3 2 0 1 2

TIME REC CALL

0 0 1 1

DISPATCH

0 0 1 1

ARRIVED

0 0 1 7

CLEARED

0 3 5 1

OTHER

7 2 0

TOTAL MINUTES

0 9 4 0

OFFICER'S NAME *

Dylag, David

BADGE # *

0 0 4 4

CHECKED BY

RNCROSS

DATE REPORT FILED *

0 6 1 7 2 0 1 2

REPORT TAKEN BY

1

- 1 POLICE AGENCY
- 2 MOTORIST

REPORT TAKEN AT

1

- 1 SCENE
- 2 STATION
- 3 OTHER

SUPPLEMENT *
"X" IF YES

LOCAL REPORT # *

4 7 - 0 7 1 0 - 4 7

TRAFFIC CRASH REPORT- OCCUPANT ADDENDUM

OH- 1-P (Rev. 11/89)

LOCAL REPORT # *

4 7 - 0 7 1 0 - 4 7

N.C.I.C. # *

O H P 4 7

REPORTING AGENCY *

Ohio State Highway Patrol

DATE OF CRASH *

0 6 0 3 2 0 1 2

E	UNIT #	NAME (LAST, FIRST, MIDDLE)	HOME PHONE #	DATE OF BIRTH	AGE	SEX
	0 1	Fox, Kevin J.	(330)220-5880	0 4 2 8 1 9 9 4	1 8	M
ADDRESS (STREET, CITY, STATE, ZIP CODE)			INJURED TAKEN BY 1 NONE 4 OTHER 2 EMS 5 UNKNOWN 3 POLICE	TRANSPORTED BY	INJURED TAKEN TO	
520 Bristol Lane, Brunswick, Ohio 44212				2	Metro Life-Flight	Cleveland Metro

F	UNIT #	NAME (LAST, FIRST, MIDDLE)	HOME PHONE #	DATE OF BIRTH	AGE	SEX
	0 1	Romito, Julia M.	(440)725-2673	0 5 2 6 1 9 9 5	1 7	F
ADDRESS (STREET, CITY, STATE, ZIP CODE)			INJURED TAKEN BY 1 NONE 4 OTHER 2 EMS 5 UNKNOWN 3 POLICE	TRANSPORTED BY	INJURED TAKEN TO	
3033 Junior Parkway, Brunswick, Ohio 44212				2	Valley City EMS	Southwest General

G	UNIT #	NAME (LAST, FIRST, MIDDLE)	HOME PHONE #	DATE OF BIRTH	AGE	SEX
ADDRESS (STREET, CITY, STATE, ZIP CODE)			INJURED TAKEN BY 1 NONE 4 OTHER 2 EMS 5 UNKNOWN 3 POLICE	TRANSPORTED BY	INJURED TAKEN TO	

H	UNIT #	NAME (LAST, FIRST, MIDDLE)	HOME PHONE #	DATE OF BIRTH	AGE	SEX
ADDRESS (STREET, CITY, STATE, ZIP CODE)			INJURED TAKEN BY 1 NONE 4 OTHER 2 EMS 5 UNKNOWN 3 POLICE	TRANSPORTED BY	INJURED TAKEN TO	

I	UNIT #	NAME (LAST, FIRST, MIDDLE)	HOME PHONE #	DATE OF BIRTH	AGE	SEX
ADDRESS (STREET, CITY, STATE, ZIP CODE)			INJURED TAKEN BY 1 NONE 4 OTHER 2 EMS 5 UNKNOWN 3 POLICE	TRANSPORTED BY	INJURED TAKEN TO	

J	UNIT #	NAME (LAST, FIRST, MIDDLE)	HOME PHONE #	DATE OF BIRTH	AGE	SEX
ADDRESS (STREET, CITY, STATE, ZIP CODE)			INJURED TAKEN BY 1 NONE 4 OTHER 2 EMS 5 UNKNOWN 3 POLICE	TRANSPORTED BY	INJURED TAKEN TO	

K	UNIT #	NAME (LAST, FIRST, MIDDLE)	HOME PHONE #	DATE OF BIRTH	AGE	SEX
ADDRESS (STREET, CITY, STATE, ZIP CODE)			INJURED TAKEN BY 1 NONE 4 OTHER 2 EMS 5 UNKNOWN 3 POLICE	TRANSPORTED BY	INJURED TAKEN TO	

0 4 SEATING POSITION 01 FRONT - LEFT (MC DRIVER) 02 FRONT - MIDDLE 03 FRONT - RIGHT 0 6 04 SECOND - LEFT (MC PASS) 05 SECOND - MIDDLE 06 SECOND - RIGHT 07 THIRD - LEFT (MC PASSENGER/SIDE CAR) G 08 THIRD - MIDDLE 09 THIRD - RIGHT H 10 SLEEPER SECTION OF CAB 11 ENCLOSED CARGO AREA 12 UNENCLOSED CARGO AREA I 13 TRAILING UNIT 14 EXTERIOR J 15 OTHER K 16 NON-MOTORIST 17 UNKNOWN	0 1 SAFETY EQUIPMENT <u>MOTORIST</u> 01 NONE USED 0 4 02 SHOULDER BELT ONLY 03 LAP BELT ONLY 04 SHOULDER/LAP BELT G 05 CHILD SAFETY SEAT 06 MC HELMET USED H 07 USE UNKNOWN <u>NON-MOTORIST</u> 08 NONE USED 09 HELMET USED I 10 PROTECTIVE PADS 11 REFLECTIVE CLOTHING J 12 LIGHTING 13 OTHER K 14 UNKNOWN	5 AIR BAG 1 NOT-DEPLOYED 5 2 DEPLOYED-FRONT 3 DEPLOYED-SIDE 4 DEPLOYED BOTH G 5 NOT APPLICABLE 6 UNKNOWN H I J K	1 AIR BAG SWITCH 1 NOT PRESENT 1 2 IN ON POSITION 3 IN OFF POSITION G 4 UNKNOWN H I J K	2 EJECTION 1 NOT EJECTED 1 2 TOTALLY EJECTED 3 PARTIALLY EJECTED G 4 NOT APPLICABLE 5 UNKNOWN H I J K	1 TRAPPED 1 NOT TRAPPED 3 2 EXTRICATED BY MECHANICAL MEANS 3 FREED BY NON-MECHANICAL MEANS G 4 UNKNOWN H I J K	5 INJURIES 1 NO INJURY 4 2 POSSIBLE 3 NON- INCAPACITATING G 4 INCAPACITATING 5 FATAL INJURY 6 UNKNOWN H I J K
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BLANK FOR
WITNESS

SUPPLEMENT
"X" IF YES

OHIO TRAFFIC ACCIDENT - DIAGRAM/NARRATIVE CONTINUATION

OH-2 (REV. 1/82)

LOCAL REPORT NUMBER 47-0710-47	REPORTING AGENCY Ohio State Highway Patrol	DATE OF ACCIDENT 06/03/2012
IN COUNTY OF Lorain	ACCIDENT LOCATION Boston Road	

Unit #1 2001 Chevrolet Cavalier 2-dr (gold)

OH: CVC9208

VIN: 1G1JC124217206455

Damage: Severe contact damage to left front fender, hood, trunk, left side door, left rear fender, top, glass, left wheels, left rear bumper, left tail-light. Induced damage to front bumper, right front fender, right door, right rear fender, rear bumper. Driver's front and front seat passenger's front airbags deployed. Right door bent by pry-bar of fire department to remove passengers on right side.

Responding Units:

Ohio State Highway Patrol

Elyria Post 47 Units:

Tpr. D.L. Dylag #44

Tpr. A.C. Marcurm #1526

Tpr. C.M. Jackson #1418

Tpr. L.S. Deshuk #1771

Medina Post 52 Units:

Sgt. J. Bittinger #877

Tpr. V. Pickering #987

Tpr. D.J. Jones #1858

Columbia Township Fire/EMS

Strongsville Fire Department

Valley City Fire/EMS

Life Care EMS

Metro Life Flight

Measurements:

*All measurements are south of baseline with the exception of measurements "N" and "P" which are north.

*RP = Inter Rail Utility Pole

*Baseline = north, white fog line

*Original field sketch by Tpr. C. Jackson with measurement assistance from Tpr. A. Marcum and Tpr. L. Deshuk. Transposed to computer by Tpr. D. Dylag.

PT	From RP	From BL	Description
A	37_1	0_0	east rail of railroad
B	43_0	0_0	west rail of railroad
C	128_5	6_4	start of gouges
D	129_3	4_3	start of gouges
E	132_6	3_6	end of gouges
F	132_6	3_6	end of gouges
G	140_2	6_6	start of scrape
H	143_9	6_8	end of scrape
I	148_5	6_1	start of transmission fluid
J	169_7	4_11	plot mark transmission fluid
K	197_6	3_10	plot mark transmission fluid
L	205_7	4_7	left side tire mark
M	236_6	2_6	plot mark for left tire mark
N	236_6	2_0	start right side tire mark
O	265_4	1_11	plot mark for left tire mark (starts curve)
P	265_4	2_10	plot mark for right tire mark
Q	302_9	3_8	plot mark for left tire mark
R	302_9	0_7	right side enters road
S	323_5	2_5	end right tire mark
T	323_5	6_5	plot mark for left tire mark
U	340_4	9_10	left tire mark (straight)
V	370_1	19_6	left tire mark off

OFFICERS SIGNATURE

BADGE NO.

0044

OHIO TRAFFIC ACCIDENT - DIAGRAM/NARRATIVE CONTINUATION

OH-2 (REV. 1/82)

LOCAL REPORT NUMBER	47-0710-47	REPORTING AGENCY	Ohio State Highway Patrol	DATE OF ACCIDENT	06/03/2012
IN COUNTY OF	Lorain	ACCIDENT LOCATION	Boston Road		

road

W	390_3	19_3	right tire off road
X	400_3	28_8	contact with south edge of ditch
Y	403_3	21_8	end right tire mark
Z	409_10	28_2	tree struck
AA	421_0	29_8	front bumper strike to south edge of ditch
BB	441_4	12_11	LR tire
CC	443_5	17_2	RR tire
DD	449_2	8_3	LF tire
EE	451_8	12_10	RF tire
FF	462_1	6_1	body (head's location) of ejected passenger

***Additional hand-drawn OH-2 submitted with a diagram of the advanced rail road crossing warning sign east of the crash scene.

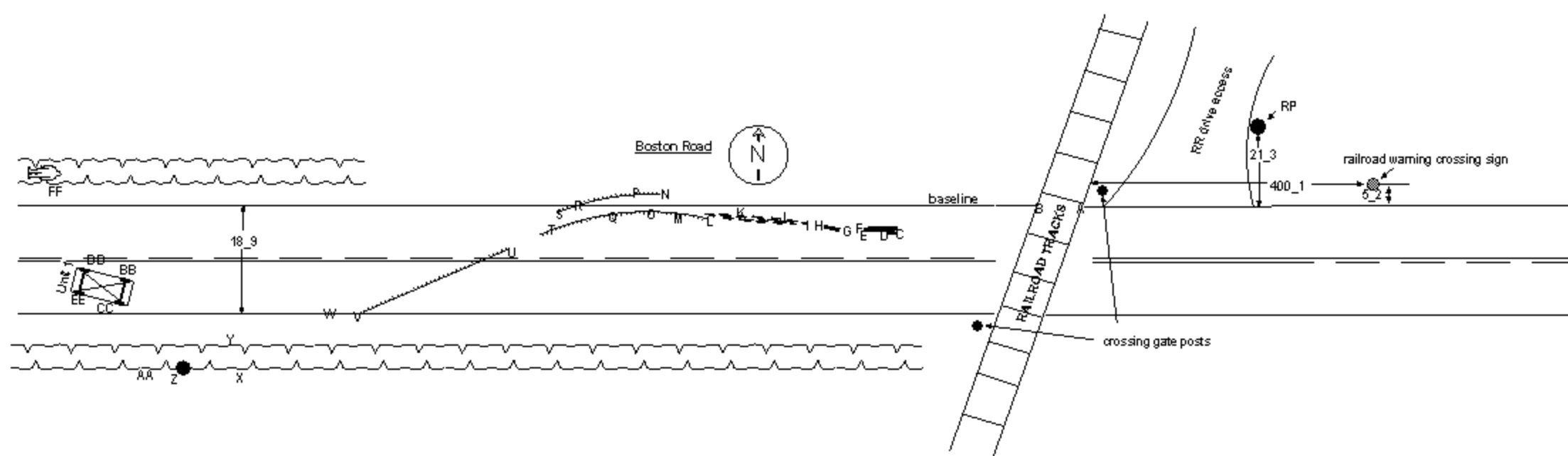
Weather:
 Intellicast.com weather report for Medina, Ohio as of 2356 hrs. on 06/02/12:
 Air temperature: 54 degrees F
 Wind Chill: 54 F
 Dew Point :47
 Humidity: 77%
 Air Pressure: 29.82"
 Ceiling: unlimited
 Visibility: 10 miles
 Wind: 7mph
 Direction: 230 degrees (SW)
 Gusts: N/A
 Sunrise: 5:57
 Sunset: 20:55

OFFICERS SIGNATURE	BADGE NO. 0044
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OHIO TRAFFIC ACCIDENT - DIAGRAM/NARRATIVE CONTINUATION

OH-2 (REV. 1/82)

LOCAL REPORT NUMBER	47-0710-47	REPORTING AGENCY	Ohio State Highway Patrol	DATE OF ACCIDENT	06/03/2012
IN COUNTY OF	Lorain	ACCIDENT LOCATION	Boston Road		



OFFICERS SIGNATURE

BADGE NO.

0044

OHIO TRAFFIC CRASH WITNESS STATEMENT

OH-3 REV 1/82

LOCAL REPORT NUMBER	47-0710-47	REPORTING AGENCY	Ohio State Highway Patrol	DATE OF CRASH	06/03/2012
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FOR LOCAL USE ONLY - DO NOT SUBMIT TO THE STATE EXCEPT FOR FATAL CRASHES

I, Chaya, Jeffrey Paul HEREBY MAKE THIS VOLUNTARY STATEMENT TO
(PRINTED)

Dylag, David AT Boston Road
(OFFICER'S NAME) (LOCATION)

ADDRESS OF WITNESS	1556 Congressional Avenue, Brunswick, Ohio 44212	PHONE	(330)273-0840
SIGNATURE OF WITNESS	OFFICER'S SIGNATURE		

OHIO TRAFFIC CRASH WITNESS STATEMENT

OH-3 REV 1/82

LOCAL REPORT NUMBER	47-0710-47	REPORTING AGENCY	Ohio State Highway Patrol	DATE OF CRASH	06/03/2012
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FOR LOCAL USE ONLY - DO NOT SUBMIT TO THE STATE EXCEPT FOR FATAL CRASHES

I, Bartchak, Blake M. HEREBY MAKE THIS VOLUNTARY STATEMENT TO
(PRINTED)

Dylag, David AT Boston Road
(OFFICER'S NAME) (LOCATION)

ADDRESS
OF
WITNESS 1542 Troon Avenue, Brunswick, Ohio 44212

PHONE
(440)668-2500

SIGNATURE
OF
WITNESS

OFFICER'S SIGNATURE

OHIO TRAFFIC CRASH WITNESS STATEMENT

OH-3 REV 1/82

LOCAL REPORT NUMBER	47-0710-47	REPORTING AGENCY	Ohio State Highway Patrol	DATE OF CRASH	06/03/2012
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FOR LOCAL USE ONLY - DO NOT SUBMIT TO THE STATE EXCEPT FOR FATAL CRASHES

I, Poerner, Lexi K. HEREBY MAKE THIS VOLUNTARY STATEMENT TO
(PRINTED)

Dylag, David AT Boston Road
(OFFICER'S NAME) (LOCATION)

ADDRESS OF WITNESS	305 Marlee Court, Brunswick, Ohio 44212	PHONE	(330)273-8572
SIGNATURE OF WITNESS	OFFICER'S SIGNATURE		

OHIO TRAFFIC CRASH WITNESS STATEMENT

OH-3 REV 1/82

LOCAL REPORT NUMBER	47-0710-47	REPORTING AGENCY	Ohio State Highway Patrol	DATE OF CRASH	06/03/2012
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FOR LOCAL USE ONLY - DO NOT SUBMIT TO THE STATE EXCEPT FOR FATAL CRASHES

I, Fox, Kevin J. HEREBY MAKE THIS VOLUNTARY STATEMENT TO
(PRINTED)

Dylag, David AT Boston Road
(OFFICER'S NAME) (LOCATION)

ADDRESS OF WITNESS	520 Bristol Lane, Brunswick, Ohio 44212	PHONE	(330)220-5880
SIGNATURE OF WITNESS	OFFICER'S SIGNATURE		

OHIO TRAFFIC CRASH WITNESS STATEMENT

OH-3 REV 1/82

LOCAL REPORT NUMBER	47-0710-47	REPORTING AGENCY	Ohio State Highway Patrol	DATE OF CRASH	06/03/2012
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FOR LOCAL USE ONLY - DO NOT SUBMIT TO THE STATE EXCEPT FOR FATAL CRASHES

I, Romito, Julia M. HEREBY MAKE THIS VOLUNTARY STATEMENT TO
(PRINTED)

Dylag, David AT Boston Road
(OFFICER'S NAME) (LOCATION)

ADDRESS
OF
WITNESS 3033 Junior Parkway, Brunswick, Ohio 44212

PHONE
(440)725-2673

SIGNATURE
OF
WITNESS

OFFICER'S SIGNATURE



47-0710-47



20120603



Ohio State Highway Patrol

Reconstruction Report

2012-186-47

*Crash Report #47-0710-47
Boston Rd. 7/10th miles east of Boone Rd.
Columbia Township / Lorain County*

CRASH INFORMATION

Crash Number: 47-0710-47

Crash Date: June 3, 2012

Investigating

Officer: Tpr. D. Dylag / OSP P-47

Driver – Unit 1: Jeffrey P. Chaya

Location: Boston Rd. / Columbia Township / Lorain County

RECONSTRUCTION INFORMATION

Case Number: 12-186-47

Reconstructing

Officer: Sgt. J. Thorne/ OSP Massillon DHQ

Start Date: 6/4/12

Reconstruction Aids:

Crash Report #47-0710-47
Photographs of Scene/Vehicles
Trimble S3 Electronic Total Station
Crash Zone ver. 9.2 software
Bosch CDR kit and CDR software ver. 5.0

Reconstructive Efforts Requested:

- 1) Forensic mapping of scene
- 2) Scene/Damage analysis
- 3) Speed calculation
- 4) Event data recorder imaging

SYNOPSIS OF CRASH

Crash #47-0710-47 occurred on June 3, 2012 at approximately 0011 hours. The crash took place on Boston Rd., approximately .7 miles east of the intersection of Boone Rd. in Columbia Township, Lorain County. The crash involved a 2001 Chevrolet Cavalier traveling west on Boston Rd. The Chevrolet went airborne over a graded railroad crossing and traveled off of the right side of the roadway. The vehicle then overcorrected, traveled off of the left side of the roadway where it traversed a steep ditch and struck a tree while in the process of overturning. After striking the tree, the vehicle landed on its top in the middle of Boston Rd. The driver, Jeffrey Chaya, and passengers, Blake Bartchak and Lexi Poerner sustained fatal injuries and were found deceased on scene. The left rear passenger, Kevin Fox, was totally ejected from the vehicle and found in a ditch to the north. Kevin Fox also sustained fatal injuries.

ROADWAY

Boston Rd., in the area of the crash, is a two lane township roadway that generally travels east and west. The immediate section of roadway runs from Marks Rd. to the east, to a T-intersection with Boone Rd. to the west. The roadway is constructed of asphalt and appeared to be in fair condition. There were visible cracks in the roadway, but none that appeared to negatively affect travel in either direction.

A railway crossing bisects Boston Rd. from the northeast to the southwest slightly before the impact area. The crossing is marked by an automated gate on each side consisting of a "crossbuck" sign, dual flashing lights, and automatic gate. There is a yellow "railroad crossing ahead" sign to the east of the crash scene for westbound traffic approaching the crossing from Marks Rd. There is also a sign for eastbound traffic approaching the crossing. The crossing itself sits upon a slightly elevated hill, so both directions of traffic experience an uphill grade before traversing the crossing. Both directions then also experience a downhill grade immediately after traversing the crossing.

To the east of the railway crossing, Boston Rd. is bordered on the north and south by a large, open field. To the west of the crossing, the roadway is bordered by private residences. To the south, there is a large drainage ditch before a small area of trees. The area can be classified as rural, and the speed limit on the roadway is 55 miles per hour. The roadway was reported as dry on the crash report. The roadway was dry when I returned to the scene on June 4, 2012.

VEHICLE/ DRIVER

Unit #1: Jeffrey P. Chaya
1556 Congressional Ave.
Brunswick, OH. 44212

2001 Chevrolet Cavalier
Color: Gold
Registration: CVC9208 (OH)
VIN: 1G1JC124217206455

Passengers: Blake M. Bartchak
1542 Troon Ave.
Brunswick, OH. 44212

Lexi K. Poerner
305 Marlee Ct.
Brunswick, OH. 44212

Kevin J. Fox
520 Bristol Lane
Brunswick, OH. 44212

Julia M. Romito
3033 Junior Parkway
Brunswick, OH. 44212

CRASH RECONSTRUCTION

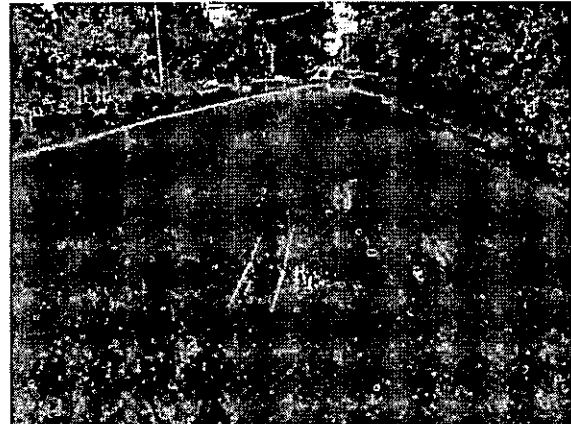
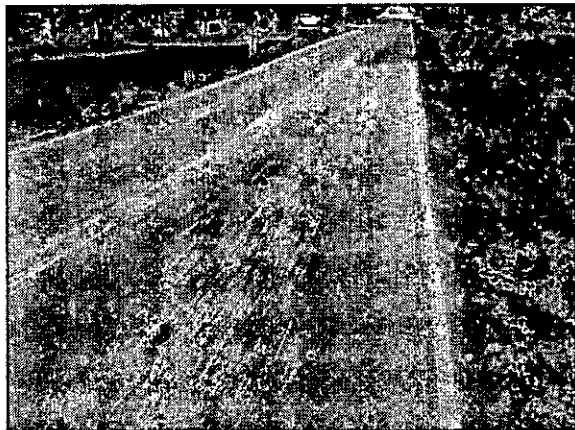
Forensic Mapping

Crash #47-0710-47 was mapped using a Trimble S3 electronic total station by Sgt. J.C. Thorne on June 4th, 2012. I was notified of the crash by Tpr. A. Topp and asked to respond to assist in crash reconstruction. The scene had been marked with spray paint by responding troopers, but the vast majority of roadway evidence remained plainly visible on scene when I arrived. I took daylight photographs of the crash scene before beginning forensic mapping. The measurements obtained using the total station were imported into Crash Zone ver. 9.2 and used to create a detailed scale diagram of the crash scene. This map was used to obtain all relevant distances, grades, and measurements for this reconstruction.

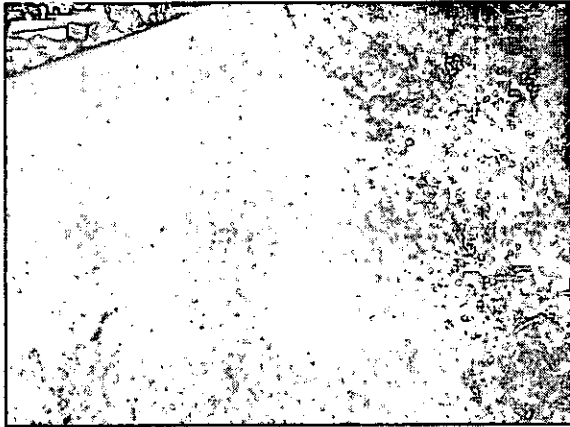
Scene Analysis

When I arrived on the scene, I approached from the east heading west. The responding troopers had painted marks on the roadway to the east of the railroad tracks indicating their field sketch reference point. Continuing west, I noticed two more paint markings on the railway tracks themselves. Examining the field sketch completed by the troopers, I ascertained these were the measurements they used as points "A" and "B" on their field sketch denoting the railroad tracks. This was the only evidence I noted on the ascending portion of the railway grade crossing. The solitary tire scuffs found at the scene I determined were extraneous to the present investigation, as they appeared to be acceleration marks.

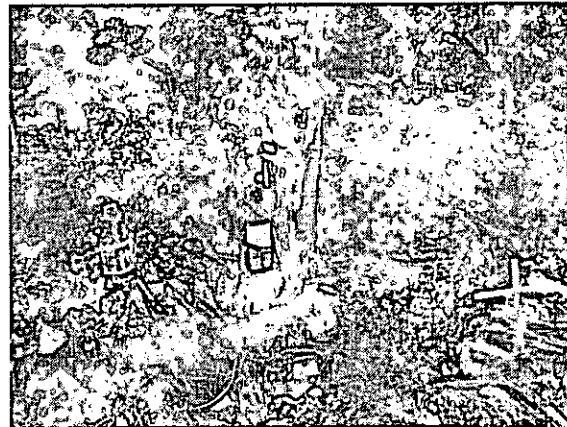
On the descending side of the crossing, I noted a large area of roadway gouges. These gouges varied in age from new to very old, but all were contained in a fairly consistent group. Approximately 15 ft. west of the large group of gouge marks was a second group of gouge marks responding troopers had circled with paint. These gouge marks were very fresh and had visible tire scuffs present within them. There was also fluid spatter visible in the gouge marks that connected to a fluid trail heading west. The gouges are pictured in the photographs below:



Continuing west from the painted gouges, I followed a trail of fluid until reaching a set of tire marks. The right side tire marks traveled through the grassy roadside, while the left mark left a black scuff on the roadway. The left mark followed a consistent path with the fluid trail. The right mark entered the roadway slightly to the east of a mailbox, leaving a light black mark on the roadway. Midway through the two marks, a third mark became visible. None of these marks appeared to be striated, but all were light and did not appear to be from a braking tire. The fluid mark began to track to the south of the left mark. The marks are depicted in the photographs below:



A solitary tire scuff is between the three tire scuffs noted above and the ditch to the south side of the roadway. The next evidence is a large tree struck by the vehicle, evidenced by portions of its outer bark being scraped away.



The remaining evidence consisted of painted marks by the responding troopers denoting divots and off road marks leading up the final resting position of all four tires of the vehicle in the middle of Boston Rd. There was also a puddle of dried blood in the ditch to the north, evidencing the resting position of the ejected passenger, Kevin Fox.

Based upon the roadway evidence I examined at the crash scene, it was immediately apparent to me the vehicle in question had become airborne over the railway crossing. The crossing was graded upward into a natural ramp. The gouges on the pavement were caused by undercarriage components of the Chevrolet as it landed and its suspension compressed downward. A portion of the undercarriage became torn, allowing fluid to spatter and flow from the bottom of the vehicle, betraying its post impact movement. The fluid led to the tire tracks traveling off of the right side of the roadway. At this point, the vehicle began to rotate counterclockwise, as evidenced by the presence of the third tire mark and the fluid trail tracking to the south of the left side mark. The vehicle entered the ditch leading with its right side and began to overturn. In the process of the overturn, the vehicle struck the tree with its roof as its right side began to point downward. The orientation of the vehicle at impact with the tree is evidenced by the imprint in the roof of the vehicle as found at J&C Service tow yard.



After impacting the tree, the vehicle likely rotated violently counterclockwise, ejecting Kevin Fox from the right rear of the vehicle and depositing him in the northern ditch. The vehicle then came to rest on its top on Boston Rd.

The presence of a multitude of roadway gouge marks in this area is telling. The section of road where this crash took place appears to be a well-known location for residents of the area to "jump" their vehicles. This was evidenced by statements of residents and local elected officials to news media sources regarding the frequency of incidents they have observed or participated in on this same piece of roadway. The veracity of these statements has not been independently validated, but evidences the belief that this roadway section was well known for its characteristics and properties. Fresh acceleration marks present on the eastern edge of the railway crossing also indicates area residents target this specific point to "jump" vehicles.

Damage Inspection

Referenced above, the greatest source of contact damage resulted from the Chevrolet's impact with the tree. The entirety of the roof was collapsed either from the tree impact itself or from the vehicle's subsequent landing on its top. The orientation of the vehicle at the time of impact was evident from the imprint the tree left on the vehicle's roof. The vehicle was in

the process of overturning, with its right side pointing in a downward direction, when the Cavalier struck the tree.

The front seat occupants, Jeffrey Chaya and Blake Bartchak were both wearing seat belts at the time of the crash. The driver's side seat belt had been cut by emergency crews, but remained in a locked position with marked loading present in the belt itself. The right front belt had also been cut by fire crews, and was found in a stretched, locked position. No slack was present in the restraint.

The left rear seat belt was found in its upright position. It displayed no evidence of use when examined and could not be moved easily from its resting position. The right rear seat belt was found cut by emergency crews. It was in a stretched and locked position, indicating it was in use at the time of the crash.

Speed Calculation

The speed of the Chevrolet was determined using an airborne equation. As I mapped the scene, I observed numerous vehicles traversing the grade crossing. I noted areas where their suspensions began to unload and documented this area on the total station diagram to use as a potential "take-off" area. I mapped a continuous elevation line from the level surface to the east of the grade crossing through to the landing area of the Cavalier. I used this elevation line to create a roadway profile used for determining elevations and slopes. Using the diagram, I ascertained that from take-off to landing the Chevrolet cavalier traveled a horizontal distance of **89.98 ft.** while falling a vertical distance of **5.27 ft.** The slope of the take-off ramp (roadway crossing) was measured using plotted points at **.079**.

The following equation is used to determine the speed of a vehicle that vaults from a non-level surface.

$$S = \frac{2.73d\sqrt{1+m^2}}{\sqrt{h+dm}}$$

Where:

S = speed of vehicle (MPH)

d = horizontal distance traveled

h = vertical distance fallen

m = slope of take-off ramp

$$S = \frac{(2.73)(89.98)\sqrt{1+.079^2}}{\sqrt{5.27 + (89.98)(.079)}}$$

$$S = \frac{245.645\sqrt{1.006}}{\sqrt{5.27 + 7.108}}$$

$$S = \frac{245.645(1.002)}{\sqrt{12.378}}$$

$$S = \frac{246.136}{3.518}$$

$$S = 69.964$$

Based upon the vault calculation, the Chevrolet Cavalier was traveling at **69 miles per hour** when it became airborne over the railway crossing.

Event Data Recorder

Using Bosch CDR software, I ascertained the 2001 Chevrolet Cavalier contained an event data recorder (EDR) available for data imaging. Lt. T. Hughes of the Elyria Post obtained consent to imaging the event data recorder from next of kin for Jeffrey Chaya. On June 4th, 2012, I went to J&C Service to locate the EDR and image whatever data had been recorded within.

I located the EDR underneath the right front seat of the vehicle. With the aid of employees of J&C, the front portion of the roof was cut and the right front seat was removed to facilitate seizure of the EDR. Once removed, I applied power to the EDR and imaged the data contained within.

The EDR had recorded both a "Deployment" and "Deployment-Level" event. Based upon my analysis of the crash scene, I determined the first event to have been triggered by the front of the Chevrolet impacting the roadway at "touch down." The speed¹ at "touch down" appeared to have been 59 miles per hour. The take-off speed was reported at time -2 at 65 miles per hour. In the three seconds before touchdown, the vehicle accelerates slightly from 64 to 66 miles per hour before take-off at 65 miles per hour.

The second event likely takes place when the Chevrolet impacts the tree. There were two seconds of overlap between the two events, leaving three seconds of "post landing" data. Speed is reported at 61, 59, and 66 before triggering the Deployment-Level Event.

I ascertained that the tire size on the vehicle (P195 70 R15) matched the manufacturer's specifications. The seat belt switch status for the driver was reported as "ON." The brake switch status was recorded for 8 seconds prior to event trigger. In the 8 seconds before an event took place, the brake switch is consistently reported as "OFF."

I sent my analysis to Tpr. C. Jester of the Lisbon post for review. A copy of the EDR printout accompanies this report.

¹ Vehicle speed indicated by the EDR is the actual wheel speed, as reported by the powertrain control module (PCM) and may be affected by many factors (see *Page 1 of 7 – CDR Report*).

CONCLUSION

Based on analysis of the evidence obtained at the scene of crash #47-0710-47, the following conclusions can be made:

1. The 2001 Chevrolet Cavalier driven by Jeffrey Chaya was traveling westbound on Boston Rd. when it became airborne over a railroad crossing. The vehicle landed and lost control, eventually overturning in a ditch and striking a tree. Four of the five occupants were killed as a result of the crash.
2. Evidence obtained at the scene indicated many vehicles have performed similar actions to what took place in this crash. This was corroborated by repeated statements from residents and officials interviewed by local media indicating the railway grade crossing in question was well known to residents of the area as an area to “jump” vehicles. A large area of roadway gouges was mapped as part of the investigation. The roadway gouges related to this crash began more than 15ft. to the west of the cluster of unrelated gouges. The greater airborne distance traveled by the Chevrolet Cavalier indicates a higher speed than those vehicles that had “jumped” and landed before. The crossing was marked and possessed warning signs from both directions.
3. The Chevrolet Cavalier was traveling at a calculated speed of 69 miles per hour at the time it went airborne over the railway crossing. The calculated speed is verified by the vehicle’s event data recorder, which indicated it had been traveling at 65 miles per hour at the time of take-off. The speed limit on Boston Rd. is 55 miles per hour.
4. Evidence at the scene indicated no evidence of evasive braking on the part of Mr. Chaya either before vaulting the grade crossing, or after touching down. This evidence analysis was corroborated by the EDR.

IMPORTANT NOTICE: Robert Bosch LLC and the manufacturers whose vehicles are accessible using the CDR System urge end users to use the latest production release of the Crash Data Retrieval system software when viewing, printing or exporting any retrieved data from within the CDR program. Using the latest version of the CDR software is the best way to ensure that retrieved data has been translated using the most current information provided by the manufacturers of the vehicles supported by this product.

CDR File Information

User Entered VIN	1G1JC124217206455
User	Sgt. J. Thome
Case Number	47-0710-47
EDR Data Imaging Date	06/04/2012
Crash Date	06/03/2012
Filename	1G1JC124217206455_ACM 47-0710-47 CAVALIER.CDRX
Saved on	Monday, June 4 2012 at 14:09:34
Collected with CDR version	Crash Data Retrieval Tool 5.0.2
Reported with CDR version	Crash Data Retrieval Tool 5.0.2
EDR Device Type	Airbag Control Module
Event(s) recovered	Deployment Deployment Level

Comments

Tire size: P195 70/R15

Benchtop download of ACM. Module removed from crashed vehicle and found in good condition.

Download pursuant to consent from next of kin.

Data Limitations

Recorded Crash Events:

There are two types of Recorded Crash Events. The first is the Non-Deployment Event. A Non-Deployment Event records data but does not deploy the air bag(s). It contains Pre-Crash and Crash data. The SDM can store up to one Non-Deployment Event. This event may be overwritten by another Non-Deployment Event. This event will be cleared by the SDM, after approximately 250 ignition cycle. This event can be overwritten by a second Deployment Event, referred to as a Deployment Level Event, if the Non-Deployment Event is not locked. The data in the Non-Deployment Event file will be locked, if the Non-Deployment Event occurred within five seconds before a Deployment Event. A locked Non Deployment Event cannot be overwritten or cleared by the SDM. The second type of SDM recorded crash event is the Deployment Event. It also contains Pre-Crash and Crash data. The SDM can store up to two different Deployment Events, if they occur within five seconds of one another. If a Deployment Level Event occurs within five seconds after the Deployment Event, the Deployment Level Event will overwrite any non-locked Non-Deployment Event. Deployment Events cannot be overwritten or cleared by the SDM. Once the SDM has deployed an air bag, the SDM must be replaced.

Data:

-SDM Adjusted Algorithm Longitudinal Velocity Change:

Once the crash data is downloaded, the CDR tool mathematically adjusts the recorded algorithm longitudinal velocity data to generate an adjusted algorithm longitudinal velocity change that may more closely approximate the longitudinal velocity change the sensing system experienced during the recorded portion of the event. The adjustment takes place within the downloading tool and does not affect the crash data stored in the SDM, which is displayed in hexadecimal format. The SDM Adjusted Algorithm Longitudinal Velocity Change may not closely approximate what the sensing system experienced in all types of events. For example, if a crash is preceded by other common events, such as rough road, struck objects, or off-road travel, the SDM Adjusted Algorithm Longitudinal Velocity Change may be less than and sometimes significantly less than the actual longitudinal velocity change the sensing system experienced. For Deployment Events, the SDM will record 100 milliseconds of data after Deployment criteria is met and up to 50 milliseconds before Deployment criteria is met. Velocity Change data is displayed in SAE sign convention.

-SDM Recorded Vehicle Speed accuracy can be affected by various factors, including but not limited to the following:

- Significant changes in the tire's rolling radius
- Final drive axle ratio changes
- Wheel lockup and wheel slip

-Brake Switch Circuit Status indicates the open/closed state of the brake switch circuit.

-Pre-Crash data is recorded asynchronously.

-Some of the Pre-Crash data may be recorded after Algorithm Enable (AE). If this occurs, it may affect the reported pre-crash data values, but does not affect other data such as SDM Adjusted Algorithm Longitudinal Velocity Change.

-Pre-Crash Electronic Data Validity Check Status indicates "Data Invalid" if:

- The SDM receives a message with an "invalid" flag from the module sending the pre-crash data
- No data is received from the module sending the pre-crash data
- No module present to send the pre-crash data

-Engine Speed is reported at two times the actual value in the following vehicles, if the vehicle is equipped with a 6.6L Duramax

1G1JC124217206455

diesel engine (RPO LB7, LBZ, LLY, or LMM):

- 2001-2006 Chevrolet Silverado
- 2007 Chevrolet Silverado Classic
- 2001-2006 GMC Sierra
- 2007 GMC Sierra Classic
- 2006-2007 Chevrolet Express
- 2006-2007 GMC Savana
- 2003-2009 Chevrolet Kodiak
- 2003-2009 GMC Topkick

-Driver's Belt Switch Circuit Status indicates the status of the driver's seat belt switch circuit. If the vehicle's electrical system is compromised during a crash, the state of the Driver's Belt Switch Circuit may be reported other than the actual state.

-Passenger Front Air Bag Suppression Switch Circuit Status indicates the status of the suppression switch circuit.

-The Time Between Events is displayed in seconds. If the time between the two events is greater than five seconds, "N/A" is displayed in place of the time.

-If power to the SDM is lost during a crash event, all or part of the crash record may not be recorded.

-If the vehicle is a 2000 - 2002 Chevrolet Cavalier Z24 or a Pontiac Sunfire GT, with a manual transmission (RPO MM5) and a 2.4L engine (RPO LD9), the Brake Switch Circuit Status data will be reported in the opposite state than what actually occurred, e.g. an actual brake switch status of "ON" will be reported as "OFF".

-All data should be examined in conjunction with other available physical evidence from the vehicle and scene.

Data Source:

All SDM recorded data is measured, calculated, and stored internally, except for the following:

-Vehicle Speed, Engine Speed, and Percent Throttle data are transmitted by the Powertrain Control Module (PCM), via the vehicle's communication network, to the SDM.

-Brake Switch Circuit Status data is transmitted by either the ABS module or the PCM, via the vehicle's communication network, to the SDM.

-The SDM may obtain Belt Switch Circuit Status data a number of different ways, depending on the vehicle architecture. Some switches are wired directly to the SDM, while others may obtain the data from various vehicle control modules, via the vehicle's communication network.

-The Passenger Front Air Bag Suppression Switch Circuit is wired directly to the SDM.

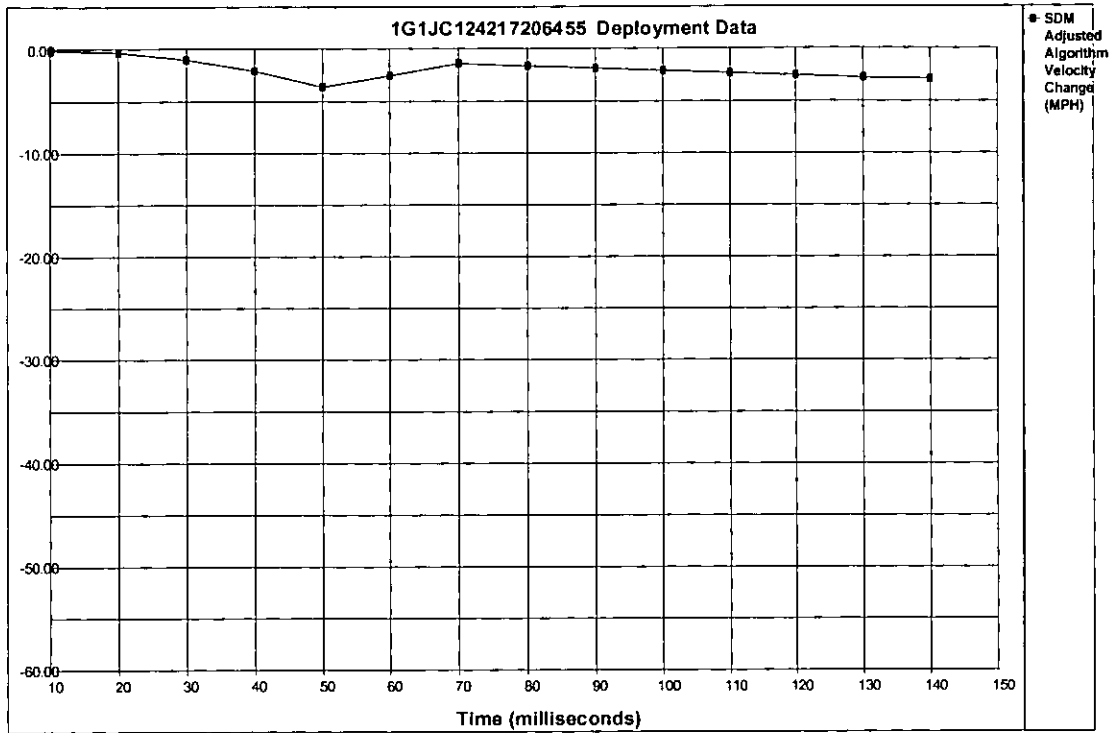
01023_SDMG-99JXZ01-07_r003

System Status At Deployment

SIR Warning Lamp Status	OFF
Driver's Belt Switch Circuit Status	BUCKLED
Passenger SIR Suppression Switch Circuit Status (if equipped)	Air Bag Not Suppressed
Ignition Cycles At Deployment	11847
Time Between Non-Deployment And Deployment Events (sec)	N/A

Seconds Before AE	Vehicle Speed (MPH)	Engine Speed (RPM)	Percent Throttle
-5	64	2624	38
-4	65	2304	49
-3	66	2304	44
-2	65	2240	0
-1	59	2176	0

Seconds Before AE	Brake Switch Circuit State
-8	OFF
-7	OFF
-6	OFF
-5	OFF
-4	OFF
-3	OFF
-2	OFF
-1	OFF



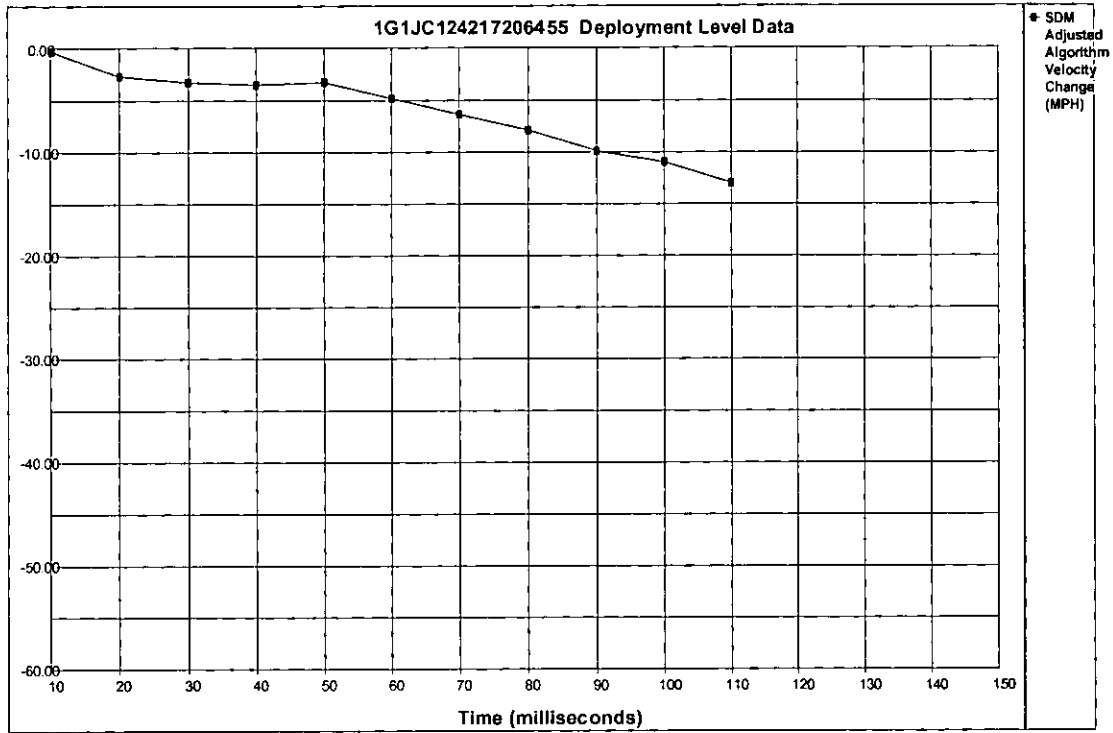
Time (milliseconds)	10	20	30	40	50	60	70	80	90	100	110	120	130	140	150
Adjusted Algorithm Velocity Change	-0.04	-0.26	-0.92	-2.02	-3.56	-2.46	-1.36	-1.58	-1.80	-2.02	-2.24	-2.46	-2.68	-2.90	N/A

System Status At Deployment Level

SIR Warning Lamp Status	OFF
Driver's Belt Switch Circuit Status	BUCKLED
Passenger SIR Suppression Switch Circuit Status (if equipped)	Air Bag Not Suppressed
Ignition Cycles At Deployment Level	11847
Time Between Deployment And Deployment Level Events (sec)	0.0

Seconds Before AE	Vehicle Speed (MPH)	Engine Speed (RPM)	Percent Throttle
-5	65	2240	0
-4	59	2176	0
-3	61	2304	16
-2	58	2240	13
-1	66	4352	100

Seconds Before AE	Brake Switch Circuit State
-8	OFF
-7	OFF
-6	OFF
-5	OFF
-4	OFF
-3	OFF
-2	OFF
-1	OFF



Time (milliseconds)	10	20	30	40	50	60	70	80	90	100	110	120	130	140	150
Adjusted Algorithm Velocity Change	-0.20	-2.61	-3.27	-3.49	-3.27	-4.81	-6.34	-7.88	-9.86	-10.95	-12.93	N/A	N/A	N/A	N/A

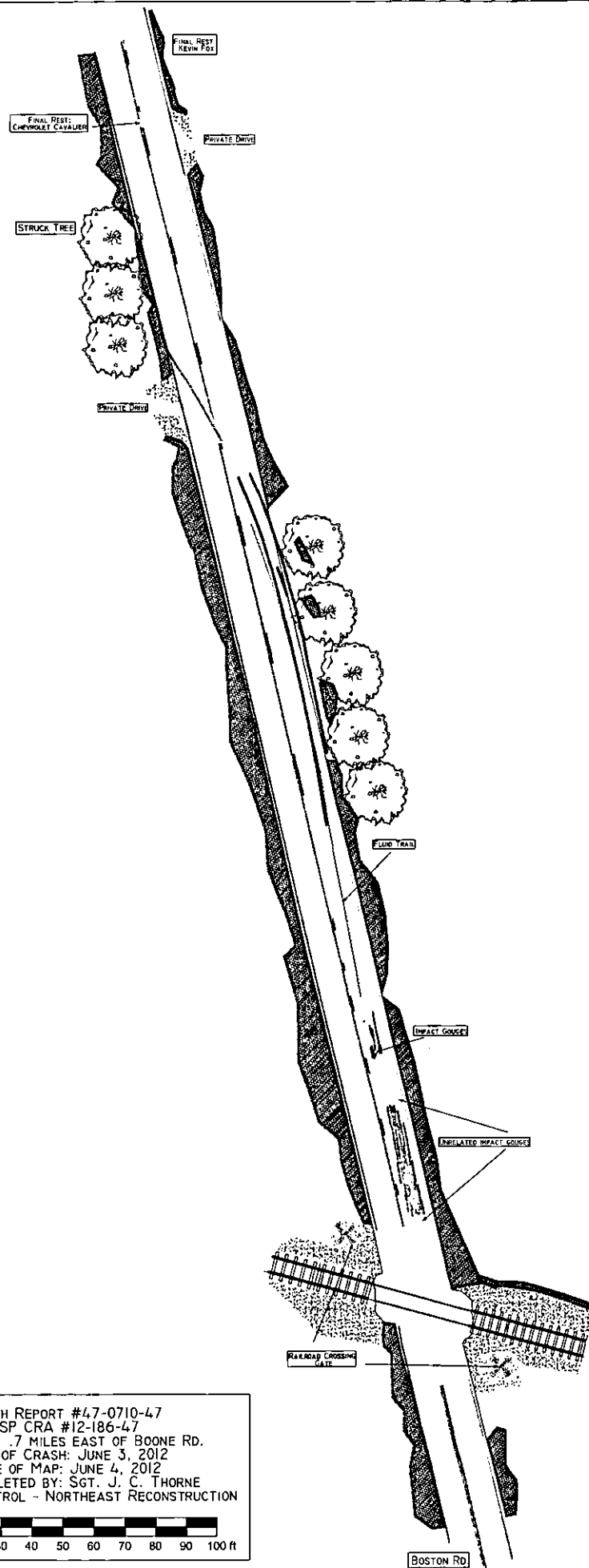
Hexadecimal Data

Data that the vehicle manufacturer has specified for data retrieval is shown in the hexadecimal data section of the CDR report. The hexadecimal data section of the CDR report may contain data that is not translated by the CDR program. The control module contains additional data that is not retrievable by the CDR system.

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$02 95 6B
$03 41 53 30 32 37 37
$04 4B 38 43 45 44 31
$05 00
$06 22 63 22 46
$11 86 86 87 FD 8D 01
$14 03 84 AB 80
$18 85 83 87 C7 FF 00
$1C FA 32 4A FA FA FA
$1D FA FA 32 4A FA FA
$1E FA FA
$1F FF 02 00 00 00
$20 83 00 00 FF 80 FE
$21 DD BF FF FF FF FF
$22 FF FF FF FF FF FF
$23 7C 46 03 00 03 00
$24 05 06 06 05 08 0B
$25 0E 12 14 18 FF FF
$26 FF FF 0B 6A 5E 62
$27 5F 68 00 00 00 FF
$28 21 28 00 00 00 44
$29 23 24 22 23 00 FA
$2A 37 80 FE 2E 47 FF
$2B FF FF FF 00 00 10
$2C 00 32 09 03
$30 80 00 00 FF 3F F8
$31 FF BF FF FF FF FF
$32 FF FF FF FF FF FF
$33 7C 20 03 03 00 00
$34 01 03 06 03 00 00
$35 00 00 00 00 00 00
$36 FF 0E 21 00 CD 5F
$37 68 6A 68 67 00 00
$38 00 00 00 6F 7C 61
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$3A 00 FA 37 80 00 00
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$43 FF
```

Disclaimer of Liability

The users of the CDR product and reviewers of the CDR reports and exported data shall ensure that data and information supplied is applicable to the vehicle, vehicle's system(s) and the vehicle ECU. Robert Bosch LLC and all its directors, officers, employees and members shall not be liable for damages arising out of or related to incorrect, incomplete or misinterpreted software and/or data. Robert Bosch LLC expressly excludes all liability for incidental, consequential, special or punitive damages arising from or related to the CDR data, CDR software or use thereof.



CRASH REPORT #47-0710-47
OSP CRA #12-186-47
BOSTON RD. .7 MILES EAST OF BOONE RD.
DATE OF CRASH: JUNE 3, 2012
DATE OF MAP: JUNE 4, 2012
MAP COMPLETED BY: SGT. J. C. THORNE
OHIO STATE PATROL - NORTHEAST RECONSTRUCTION

