NCDOT
North Carolina Department of Transportation

Minimum Uniform Crash Criteria for North Carolina

DMV 349 CRASH REPORT DATA ELEMENT DICTIONARY

Published Nov 14, 2011

By: North Carolina Department of Transportation,
Division of Motor Vehicles

Contents

Motor Vehicle Crash – A motor vehicle crash involves a motor vehicle in transport resulting in an un-stabilized situation, which includes at least one harmful event. An un-stabilized situation is a set of events not under human control, which originates when control is lost and terminates when control is regained or when all persons and property are at rest. 7
I. CRASH LEVEL 7
C1. Crash Case Identifier 7
C2. Local Report Number 7
C3. Crash Date 8
C4. Crash Time 8
C5. Crash County 9
C6. Crash City/Place 10
C7. Locality 10
C8. Relation to Roadway 10
C9. Crash Roadway Location 11
C10. Predominant Development Type 12
C11. First Harmful Event (at Crash Level) 12
C12. Most Harmful Event (at Crash Level) 13
C13. Crash Narrative 14
C14. Crash Diagram 15
C15. Additional Property Damage – Type 16
C16. Additional Property Damage - Owner Name, Address, Phone 16
C17. Estimated Damage to Additional Property 16
C18. Weather Condition 16
C19. Ambient Light 17
C20. Road Surface Condition 17
C21. Contributing Circumstances, Roadway 18
C22. Road Feature 19
C23. Road Surface (Type) 20
C24. Traffic Control Operating 20
C25. Horizontal and Vertical Alignment (Road Character) 20
C26. Road Classification 21
C27. Number of Lanes 21
C28. Road Configuration 21
C29. Access Control 22
C30. RR Crossing ID 22
C31. School Bus-Related 23
C32. Work Zone-Related 23
C33. Source of Information 24
C34. Officer Name 24
C35. Officer Number 25
C36. Patrol Area 25
C37. Date and Time Reported to Law Enforcement Agency 25
C38. Manner of Crash/Collision Impact 25
II. VEHICLE LEVEL 28
V1. Vehicle Unit Number Unique to the Crash 28
V2. Vehicle Registration State and Year 28
V3. Vehicle License Plate Number 29
V4. Vehicle Identification Number (VIN) 29
V5. Vehicle Make 30
V6. Commercial Vehicle 30
V7. Carrier Name 31
V8. Carrier Street Address 31
V9. Carrier Identification Number 31
V10. Vehicle Style (Type) 32
V11. Cargo Body Type 33
V12. Hazardous Materials Involvement (Cargo Only) 33

V13. Weight Rating of Power Unit 34
V14. Trailer Type 35
V15. Overwidth Trailer Permit Number 36
V16. Length of Trailer 1 36
V17. Width of Trailer 1 36
V18. Length of Trailer 2 36
V19. Width of Trailer 2 36
V20. Number of Axles - Trailer 1 36
V21. Number of Axles - Trailer 2 37
V22. Vehicle Defects 37
V23. Vehicle Authorized Speed Limit 37
V24. Estimate of Original Vehicle Speed 38
V25. Estimated Speed at Impact 38
V26. Tire Impressions Before Impact 38
V27. Distance Traveled After Impact 38
V28. Direction of Travel Before Crash 39
V29. Traffic Control Device Type 39
V30. Vehicle Maneuver/Action 40
V31. Point of Impact 40
V32. Sequence of Events for this Vehicle 41
V33. Most Harmful Event for this Vehicle 43
V34. Distance & Direction from Road to Object Struck 45
V35. Post-Crash Fire 45
V36. Underride/Override 45
V37. Damaged Area of Vehicle/Extent of Deformity 46
V38. Estimated Amount of Vehicle Damage 47
V39. Vehicle Drivable 47
V40. Vehicle Towed To/By 47
V41. Insurance Company Name 48
V42. Policy Number 48
III. Person Level 49
Person Level 1: All Persons Involved 49
P1. Person Type 49
P2. Name 49
P3. Address 50
P4. Home/Work Phone Numbers 50
P5. Date of Birth/Approximate Age 51
P6. Gender 51
P7. Ethnicity 51
P8. Injury Status 52
P9. Occupant's/ Non-motorist Vehicle Unit Number Unique to Crash 52
Person Level 2: All Occupants 53
P10. Seating Position 53
P11. Occupant/Non-Motorist Protection System Use 53
P12. Air Bag Deployed 54
P13. Ejection 54
P14. Trapped 55
Person Level 3: All Drivers 56
P15. Driver License State/Province 56
P16. Driver License Number 56
P17. Commercial Driver License (CDL) 56
P18. Contributing Circumstances, Driver. 57
P19. Traffic Violations 58
Person Level 4: All Drivers and Non-Motorists 59
P20. Alcohol/Drug Suspected 59
P21. Test for Alcohol/Other Drugs 59
P22. Test Results 59
P23. Driver Condition 60

P24. Vision Obstruction 61
Person Level 5: Non-motorists 62
P25. Non-motorist Number 62
P26. Non-motorist Action Prior to Crash 62
P29. Non-Motorist Contributing Circumstances 63
P30. Non-Motorist Location at Time of Crash 64
P31. Non-Motorist Safety Equipment 64
P32. Unit Number of Motor Vehicle Striking Non-Motorist 65
P33. EMS Responding to the Crash 65
P34. Injured Taken by EMS to 65
IV. CRASH DERIVED DATA ELEMENTS 67
CD1. Crash Severity 67
CD2. Number of Vehicles 67
CD3. Number of Occupants in Vehicle 68
CD4. Number of Non-motorists 68
CD5. Total Non-Fatal Injuries 68
CD6. Total Fatal Injuries 69
CD7 Alcohol/Drug Involvement 69
CD8. Day of Week 70
V. VEHICLE DERIVED DATA ELEMENTS 71
VD1. Vehicle Model Year 71
VD2. Vehicle Model 71
VD3. Vehicle Body Type 71
V04. Total Trailers Attached to Truck 74
VI. PERSON LINKED DATA ELEMENTS 75
Driver Linked Data Elements 75
PL1. Driver License Class 75
PL2. Driver License Status, CDL 75
PL3. Commercial Motor Vehicle Endorsements 76
PL4. Driver License Status, Non-CDL 76
PL5. Driver License Restrictions 77
VII. Injured Person Linked Data Elements 79
PL6. Injury Area 79
PL7. Injury Description 79
VIII. Roadway Linked Data Elements 81
RL1. Bridge/Structure Identification 81
RL2. Grade 81
RL3. Part of National Highway System 81
RL4. Annual Average Daily Traffic 82
RL5. Shoulder Type/Width 82
RL6. Lane Width 82
RL7. Median Type/Width 82
RL8. Roadway Lighting 83
RL9. Pavement Markings, Longitudinal 83
RL10. Bikeway 84
RL11. Delineator Presence 84
RL12. Clearzone Distance 85
RL13. Sideslope 85
RL14. Roadway Functional Class 85
RL15. Access Control 85
RL16. Railway Crossing ID 86
RL17. Traffic Control Type at Intersection 86
RL18. Mainline Number of Lanes at Intersection 87
RL19. Side-Road Number of Lanes at Intersection 87
RL20. Roadway Curvature 88
APPENDIX A: State and Province Codes 89
Canada (CN) 90
Mexico (MX) 90

Other Jurisdictions (OT) 90
APPENDIX B: Dates and Times 91
APPENDIX C: Names 92
APPENDIX D: Addresses 94
APPENDIX E: Code Reference Cover Sheet 95
APPENDIX F: DMV-349 (Front) 98
DMV-349 (Back) 99
APPENDIX G: Completing the DMV 349 & Supplemental Reports 100
APPENDIX H: Crashes Involving Commercial Motor Vehicles 102
APPENDIX I: Important Definitions 104
Important Definitions (cont.) 105

Minimum Uniform Crash Criteria for North Carolina

Motor Vehicle Crash – A motor vehicle crash involves a motor vehicle in transport resulting in an un-stabilized situation, which includes at least one harmful event. An un-stabilized situation is a set of events not under human control, which originates when control is lost and terminates when control is regained or when all persons and property are at rest.

In North Carolina, the DMV-349 crash report is required for any motor vehicle crash in which any person is killed or injured or in which the total property damage resulting from the crash is $1,000.00 or greater, or which there is property damage of any amount to a vehicle seized.

(*) items should be explained in crash narrative.

I. CRASH LEVEL

The crash level data elements describe the overall characteristics of the crash.

C1. Crash Case Identifier

Definition: The unique number within a given year that identifies a given crash within a state.

Source: Refer to crash ID Number on DMV-349 Form.

Attribute: 9-digit sequential number

Rationale: This number, assigned by the DMV Traffic Records Section, facilitates the linkage of crash file sub-components, such as location and unit information with control information, as well as linkage of the traffic records sub-files back to the crash data file.

C2. Local Report Number

Definition: Optional number assigned by originating police department.

Attributes: According to Crash Reporting Surveyed, thirty percent of respondents indicate that they use 8 characters when assigning case numbers to files. Twenty-one percent and 17% of departments use 7 and 6 characters, respectively. Few respondents assign more than 10 characters to a case number.

Rationale: Used by local law enforcement to index crash reports.

C3. Crash Date

Definition: The date (month, day and year) at which the crash occurred. The time (hour and minute) at which crash occurred.

Source: Refer to crash date on DMV-349 Form.

Attribute: Date

MMDDCCYY

Subfield 1:Month

01 January
02 February
03 March
04 April
05 May
06 June
07 July
08 August
09 September
10 October
11 November
12 December

Subfield 2: Day

DD Day of Month

Subfield 3:Year

CCYY Year

Rationale: Rationale: Important for management/administration, evaluation, and linkage. Changed 2-position code for year to 4-position in preparation for the year 2000.

C4. Crash Time

Definition: The time (hour and minute) at which a crash occurred.

Source: Refer to crash time on DMV-349 Form.

Attribute: Time

Subfield 1: Hour

HH 0-23, representing the time on a 24 hour clock

Subfield 2: Minute

nn Minutes

Rationale: Important for management/administration, evaluation, and linkage.

C5. Crash County

Definition: The code identifying the county in which a crash occurred.

Source: Refer to county block on DMV-349 Form.

Attribute: The full Name of the county is recorded on the DMV-349. The first five positions of the County name are entered into an automated file and converted to a 2-digit code.

00	Alamance	33	Forsyth	66	Onslow
01	Alexander	34	Franklin	67	Orange
02	Alleghany	35	Gaston	68	Pamlico
03	Anson	36	Gates	69	Pasquotank
04	Ashe	37	Graham	70	Pender
05	Avery	38	Granville	71	Perquimans
06	Beaufort	39	Greene	72	Person
07	Bertie	40	Guilford	73	Pitt
08	Bladen	41	Halifax	74	Polk
09	Brunswick	42	Harnett	75	Randolph
10	Buncombe	43	Haywood	76	Richmond
11	Burke	44	Henderson	77	Robertson
12	Cabarrus	45	Hertford	78	Rockingham
13	Caldwell	46	Hoke	79	Rowan
14	Camden	47	Hyde	80	Rutherford
15	Carteret	48	Iredell	81	Sampson
16	Caswell	49	Jackson	82	Scotland
17	Catawba	50	Johnston	83	Stanly
18	Chatham	51	Jones	84	Stokes
19	Cherokee	52	Lee	85	Surry
20	Chowan	53	Lenoir	86	Swain
21	Clay	54	Lincoln	87	Transylvania
22	Cleveland	55	Macon	88	Tyrell
23	Columbus	56	Madison	89	Union
24	Craven	57	Martin	90	Vance
25	Cumberland	58	McDowell	91	Wake
26	Currituck	59	Mecklenburg	92	Warren
27	Dare	60	Mitchell	93	Washington
28	Davidson	61	Montgomery	94	Watauga
29	Davie	62	Moore	95	Wayne
30	Duplin	63	Nash	96	Wilkes
31	Durham	64	New Hanover	97	Wilson

32	Edgecombe	65	Northhampton	98	Yadkin
				99	Yancey

Rationale: Important for analyses of county area programs such as "Safe Communities." Critical for data linkage of the crash file to other state data files (such as EMS, hospital, roadway, etc.). Important for intrastate comparisons.

C6. Crash City/Place

Definition: The code identifying the city/place in which a crash occurred.

Source: Refer to county block on DMV-349 Form.

Attribute: The full Name of the Municipality is recorded on the DMV-349. Up to twenty-two positions of the Name are entered into an automated file. If a municipality is not on the list, the coding changes to a Rural report and only the County code is used.

Rationale: Important for analyses of local area programs such as "Safe Communities." Critical for data linkage of the crash file to other state data files (such as EMS, hospital, roadway, etc.).

C7. Locality

Definition: The general type and level of development in the vicinity of the crash. For example, if the estimated total development is less than 30% or about 1/3 of road frontage on both sides over a substantial distance from the scene of the crash, then enter a "1" for rural development.

Source: Refer to block # 1 left side of DMV-349 Form.

Attributes:
1 Rural (30% developed)
2 Mixed (30% to 70% developed)
3 Urban (>70% developed)

Rationale: Important for analyses of programs by area development (rural vs. urban).

C8. Relation to Roadway

Definition: The location of the First Harmful Event as it relates to its position within or outside the trafficway. This data element also relates to other data elements; including Location, Sequence of Events, Non-Motorist Location, and the

Reference to Roadway subfield for the data element Direction of Travel.

Source: Refer to block 33 on the DMV-349 Form.

Attributes:
1 On Roadway (surface)
Off Roadway
2 Shoulder
3 Median
4 Roadside
5 Outside-Trafficway
6 Unknown

Rationale: Important to provide further information concerning the location of the First harmful Event and to identify highway geometric deficiencies.

C9. Crash Roadway Location

Definition: Exact location on the roadway indicating where the crash occurred. The following is contained on the DMV-349.

Source: Refer to location block on DMV-349 Form.

In or near a Municipality
____ Miles N,S,E,W outside Municipality
On ___ Highway No., Street Name, etc.
At ____ RR Crossing No.
___ Miles, Feet N,S,E,W from Highway No., Street Name, etc.
___ Miles, Feet N,S,E,W toward Highway No., Street Name, etc.

Attributes:
County (2 digits)
Municipality (22 Position code)
On Road (20 position code) containing:
- Highway Class (2 position code)
- Highway Number
- Alternate Direction (1 position)
- Private Property/Non-Traffic Code
- Street Name
- Public Vehicular Area Code

Interchange Ramp (check block)
From Road (20-position code) containing:
- County
- State
- Street Name
- Highway Class, Number, Alternate, etc.

Toward Road (20-position code) containing:
- County
- State
- Street name
- Highway Class, Number, Alternate, etc.

Direction (2 position code) - N,S,E,W, NE, NW, etc.
Distance in Miles (M) or Feet (F) - (3 digit code) followed by M or F
Railroad Crossing Number (7 position code)
Latitude, Longitude & Altitude (X, Y, Z)

Rationale: Important for preventive programs, engineering evaluations, and linkage purposes. As Geographic Information System (GIS), and Global Positioning System (GPS) technologies become more available, they will be used to supplement and enhance the current location methods to identify potentially hazardous locations.

C10. Predominant Development Type

Definition: The predominant type of development in the area in which the crash occurred. Examples are: *Commercial (mainly retail stores), Institutional (schools, hospitals, government buildings, etc.).*

Source: Refer to location block on DMV-349 Form.

Attributes:
1 Farms, woods, pastures
2 Residential
3 Commercial
4 Institutional
5 Industrial

Rationale: Important for analyses of programs by area development (residential vs. commercial, etc.).

C11. First Harmful Event (at Crash Level)

Definition: The injury of damage producing event, which characterizes the crash type and identifies the nature of the first harmful event. This data element focuses on the First Harmful event <u>at the Crash Level</u>, rather than at the Vehicle Level.

Source: Refer to ANSI D16.1 Classification Manual for definitions of specific attributes and block 10 on DMV-349 Form.

Attributes: 00 Unknown

Non-Collision

01 Ran Off Road Right
02 Ran Off Road Left
03 Ran Off Road Straight
04 Jackknife
05 Overturn/rollover
13 Other Non-Collision*

Collision of Motor Vehicle With

14 Pedestrian
15 Pedalcyclist
16 RR Train, Engine
17 Animal
18 Movable Object
19 Fixed Object*

Collision of Two or More Motor Vehicles

20 Parked Motor Vehicle
21 Rear End, Slow or Stop
22 Rear End, Turn
23 Left Turn, Same Roadway
24 Left Turn, Different Roadways
25 Right Turn, Same Roadway
26 Right Turn, Different Roadways
27 Head On
28 Sideswipe, Same Direction
29 Sideswipe, Opposite Direction
30 Angle
31 Backing up
32 Other Collision with Vehicle*

Rationale: Needed for uniformity in reported motor vehicle crash statistics, understanding crash causation, and identifying possible crash avoidance countermeasures. For analytic purposes it may be desirable to collect and use information about subsequent events, some of which may be harmful. See **Sequence of Events** (V32).

C12. Most Harmful Event (at Crash Level)

Definition: Event that produced the greatest property damage or most severe injury in the crash. Refer to ANSI D16.1 for definitions of specific attributes.

Source: Refer to ANSI D16.1 Classification Manual for definitions of specific attributes and block 11 on DMV-349 Form.

Attributes: 00 Unknown

Non-Collision

01 Ran Off Road Right
02 Ran Off Road Left
03 Ran Off Road Straight
04 Jackknife
05 Overturn/rollover
13 Other Non-Collision*

Collision of Motor Vehicle With

14 Pedestrian
15 Pedalcyclist
16 RR Train, Engine
17 Animal
18 Movable Object
19 Fixed Object*

Collision of Two or More Motor Vehicles

20 Parked Motor Vehicle
21 Rear End, Slow or Stop
22 Rear End, Turn
23 Left Turn, Same Roadway
24 Left Turn, Different Roadways
25 Right Turn, Same Roadway
27 Right Turn, Different Roadways
27 Head On
28 Sideswipe, Same Direction
29 Sideswipe, Opposite Direction
30 Angle
31 Backing up
32 Other Collision with Vehicle*

Rationale: Important for use in conjunction with Sequence of Events (V20) to generate complete information about the crash.

C13. Crash Narrative

Definition: Provide a word description of events occurring prior to, during, and after the crash which are not elsewhere on the form. Note all pertinent and unusual aspects of the crash. Statements made in this narrative should be in the opinion of the investigating officer.

Source: Refer to block 85 on the DMV-349 Form.

Attributes: Refer to list of abbreviation codes used to enter this information.

Rationale: The crash narrative or description provides valuable information to traffic researchers, enabling them to design and promote Highway Safety Programs.

C14. Crash Diagram

Definition: A drawing by the investigating officer of the crash site, including roads, features, involved vehicles, marks and other pertinent information of the crash. Any roadway or roadside feature that might possibly have been a contributing factor in the crash should be shown. For example, if a vehicle is struck while exiting a driveway, the name of any business located there or the name of the resident at the private driveway is listed.

Source: Refer to block 84 on the DMV-349 Form.

Attributes: The crash diagram should include:

1. Roads and intersecting roads, widths of roads, shoulders and median strips,
2. Direction of travel for each traffic lane,
3. All roadside features pertinent to the crash (parked cars, trees, buildings, traffic signs and signals, etc.),
4. Path of travel for involved vehicles and pedestrians prior to, at and after the crash,
5. Tire marks and debris, if important in the crash or otherwise needed,
6. Measurements pertinent to the location of the point of impact (tape measurements for distances up to and including 500 feet; odometer measurements for distances over 500 feet) are acceptable.

Rationale: The crash diagram enables the investigating officer to illustrate the special relationships that existed between the vehicles and environment at the time of the crash.

C15. Additional Property Damage – Type

Definition: Any property other than motor vehicles that was damaged in the crash (check block for state property damaged).

Source: Refer to block 86 on the DMV-349 Form.
Attributes: Specific property that was damaged. Examples include signs, buildings, mailboxes, fences, etc.

Rationale: For statistical purposes, and possible action by property owner to recover damages.

C16. Additional Property Damage - Owner Name, Address, Phone

Definition: Name, address, and telephone number of owner of property damaged in the crash, other than motor vehicles.

Source: Refer to block 86 on the DMV-349 Form.

Attributes: Name, address, and telephone number(s).

Rationale: For contacting property owners, who may seek reimbursement as they make repairs.

C17. Estimated Damage to Additional Property

Definition: Estimate of the cost to restore the damaged property to its condition just prior to the crash.

Source: Refer to block 86 on the DMV-349 Form.

Attributes: 9999999. Not stated
nnnnnnn. Actual dollar estimate
9999998.Damage exceeds 9999998

Rationale: Used in calculating the costs of motor vehicle traffic crashes for estimating the cost benefit of highway safety programs and improvements. Used in possible recovery of cost to repair damaged property, such as "State Property". Also used in classifying property damage only (PDO) crashes.

C18. Weather Condition

Definition: The general atmospheric conditions that existed at the time of a crash.

Source: Refer to blocks 4-6 on DMV-349 Form.

Attributes: **Subfield 1** - **First Weather Condition**

1 Clear
2 Cloudy
3 Rain
4 Snow
5 Fog, smog, smoke
6 Sleet, hail (freezing rain or drizzle)
7 Severe crosswinds
8 Blowing sand, dirt, snow
9 Other*

Subfield 2 - **Second Weather Condition**

See Codes in Subfield 1

Subfield 3 - **Weather condition(s) contributed to the crash**

1 Yes
2 No
3 Unknown

Rationale: Important for management/administration and evaluation. Critical for preventive programs and engineering evaluations.

C19. Ambient Light

Definition: The type of light that exists at the time of a motor vehicle crash.

Source: Refer to block 7 on DMV-349 Form.

Attributes:
1 Daylight
2 Dusk
3 Dawn
4 Dark - lighted roadway
5 Dark - roadway not lighted
6 Dark - unknown roadway lighting
7 Other*
8 Unknown

Rationale: Important for management/administration and evaluation. Critical for preventive programs and engineering evaluations.

C20. Road Surface Condition

Definition: The roadway surface condition at the time and place of a crash.

Source: Refer to block 3 on DMV-349 Form.

Attributes: 01 Dry
02 Wet
03 Water (standing, moving)
04 Ice
05 Snow
06 Slush
07 Sand, Mud, Dirt, Gravel
08 Fuel Oil
09 Other*
10 Unknown

Rationale: Important to identify and correct high wet-surface crash locations and provide information for setting coefficient of pavement friction standards. Critical for preventive programs and engineering evaluations.

C21. Contributing Circumstances, Roadway

Definition: Apparent condition of the road, which contributed to the crash.

Source: Refer to blocks 12 – 13 on DMV-349 Form.

Attributes: **Subfield 1** - **First Contributing Circumstance**

00 None (no unusual conditions)
01 Road Surface Condition
02 Debris
03 Rut, Holes, Bumps
04 Work Zone (construction/maintenance/utility)
05 Worn, Travel-Polished Surface
06 Obstruction in Roadway
07 Traffic Control Device Inoperative, Not Visible or Missing
08 Shoulders Low, Soft, or High
09 No Shoulders
10 Non-Highway Work
11 Other*
12 Unknown

Subfield 2 - **Second Contributing Circumstance**

See Codes in **Subfield 1**

Rationale: Important to determine highway maintenance and possible engineering needs.

C22. Road Feature

Definition: A road feature is either an intersection or the connection between a driveway access and a roadway other than a driveway access.

Source: Refer to block 69 on DMV-349 Form.

Attributes:
00 No special feature
01 Bridge
02 Bridge approach
03 Underpass
04 Driveway, public
05 Driveway, private
06 Alley intersection

Intersection of roadways
07 Four-way intersection
08 T -intersection
09 Y -intersection
10 Traffic circle/roundabout
11 Five-point, or more
12 Related to intersection
13 Non-intersection median crossing
14 End or beginning of divided highway

Interchange
15 Off-ramp entry
16 Off-ramp proper
17 Off-ramp terminal on crossroad
18 Merge lane between on and off ramp
19 On-ramp entry
20 On-ramp proper
21 On ramp terminal on crossroad
22 Railroad crossing
23 Tunnel
24 Shared-use paths or trails
25 Other*

Rationale: Important for site-specific safety studies to identify actual or potential safety problem locations. Bridge approach – describes the area within 500 feet of the bridge, which leads up to the bridge. Related to Intersection refers to the influence area, which is caused by the operation of the intersection. The distance to which the influence area extends from the intersection depends on the intersection design, and traffic control as well as the operating characteristics.

C23. Road Surface (Type)

Definition: Actual surface type of the roadway in the area in which the crash occurred. Examples are Grooved Concrete (areas where the concrete surface has been sawed, scratched or molded to form grooves intended to improve traction or to make tire noise), Soil (dirt surfaces not identifiable as sand, gravel, or any paved type).

Source: Refer to block 72 on DMV-349 Form.

Attributes:
1 Concrete
2 Grooved concrete
3 Smooth asphalt
4 Coarse asphalt
5 Gravel
6 Sand
7 Soil
8 Other*

C24. Traffic Control Operating

Definition: Determination of whether traffic control device was operating properly at the time of the crash.

Attributes:
1 Yes
2 No
3 Unknown

C25. Horizontal and Vertical Alignment (Road Character)

Definition: The change in horizontal and vertical direction of a roadway, determined at the point of curvature.

Attributes:
1 Straight, level
2 Straight, hillcrest
3 Straight, grade
4 Straight; bottom (sag)
5 Curve, level
6 Curve, hillcrest
7 Curve, grade
8 Curve, bottom (sag)
9 Other*

Rationale: Curve data is used in searching for and diagnosing high crash locations. Important for determining relationship between horizontal/vertical alignment related crashes to guide future highway design, speed limits, and driver skill training (e.g., motorcycle curve-entering speed).

C26. Road Classification

Definition: The character of service or function of streets or highways. The classification of rural and urban is determined by state and local officials in cooperation with each other and approved by the Federal Highway Administration, U.S. Department of Transportation. Refer to ANSI 016.1 for definitions of specific attributes.

Source: Refer to block 71 on DMV-349 Form.

Attributes:
1 Interstate
2 US Route
3 NC.Route·
4 State Secondary Route
5 Loca I Street
6 Public Vehicular Area
7 Private Road, Property or Driveway
8 Other*

Rationale: Important for comparing crash rates/safety experience of highways of similar design characteristics so as to identify those highways or highway sections that have abnormal rates/experience for future improvements as well as generalized study of the highways in a region or state.

C27. Number of Lanes

Definition: Total number of thru lanes of the "road on" at the point of the crash (if two-way, total for both directions). Do not count turning lanes unless they are continuous between intersections.

Source: Refer to block 75 on DMV-349 Form.

Attributes: Total number of lanes. Enter "0" for parking lots.

Rationale: Used in studying broad categories as well as identifying the environment of a particular crash.

C28. Road Configuration

Definition: A code indicating whether or not a trafficway is divided and whether it serves one-way or two-way traffic. A divided trafficway is one on which roadways for travel in opposite directions are physically separated by more than an easily traversable centerline. Refer to ANSI D16.1 for definitions of specific attributes.

Source: Refer to block 73 on DMV-349 Form.

Attributes: 1 One-way, not divided
2 Two-way, not divided
3 Two-way, divided, unprotected median
4 Two-way, divided, positive median barrier
5 Unknown

Rationale: Used in classifying crashes as well as identifying the environment of a particular crash. Note that data must be in a road inventory file or collected by the reporting officer. It is not readily derived from the other road data such as classification or route. Important to guide future trafficway design and traffic control.

C29. Access Control

Definition: The degree that access to abutting land is fully, partially, or not controlled by a public authority. Full access control provides access only at interchanges (interstate, etc). Partial access control provides no private access. No access control permits private access (driveway, etc.)

Source: Refer to block 74 on DMV-349 Form.

Attributes: 1 No Access Control - permits private access (driveway, etc.)

2 Full Access Control - provides access only at interchanges (interstate, etc.)

3 Partial Access Control - provides no private access

Rationale: Access control is highly correlated with crash rates. Road inventory files or police reported data on access control is used in identifying High hazard locations. Important to guide future highway design and traffic control.

C30. RR Crossing ID

Definition: A unique number assigned to a railroad crossing by a state highway agency in cooperation with the Federal Railroad Administration for identification purposes (US DOT/AAR number).

Source: Refer to **C9 Crash Roadway Location** and the location block on DMV-349 Form.

Attributes: State specific number assigned by a state in cooperation with the American Association of Railroads.

Rationale: The data is used in high crash locations as well as high risk corridors. The RR Crossing ID is important for determining the need for additional controls and evaluating the efficiency of various types of controls.

C31. School Bus-Related

Definition: Indicates if a school bus is related to the crash. The "school bus", with or without a pupil on board, must be directly involved as a contact vehicle or indirectly involved as a non-contact vehicle. A "school bus" is a yellow vehicle, with the name "school bus" on the front and rear and lettering on both sides identifying the school, school district served, or company operating the bus.

Source: Refer to block 67 - 68 on DMV-349 Form.

Attributes:
1 Yes, school bus directly involved (contact vehicle)
2 Yes, school bus indirectly involved (non-contact vehicle)
3 No
4 Unknown

Rationale: Important in determining where and how school children are at the greatest risk of injury when being transported by school bus and the extent to which school bus operations affect overall traffic safety.

C32. Work Zone-Related

Definition: A crash, which occurs in or near a construction, maintenance or utility work zone.

Source: Refer to block 78-81 on DMV-349 Form.

Attributes: **Subfield 1: Did crash occur in or near—**
1 Construction work area
2 Maintenance work area
3 Utility work area
4 Intermittent/moving work – e.g., patching pothole
5 No

Subfield 2: Work activity at the time of the crash
1 On-going
2 No apparent activity

Subfield 3: Work area marked with warning signs, cones, etc.

1 Yes
2 No

Subfield 4: Location of crash

1 Before work area (after first warning sign and before lane shift/closure)
2 In work area approach taper (where lane closed or shifted)
3 Adjacent to actual work area

Rationale: Important for assessing the impact of various types of on-highway work activity on traffic safety and evaluating Traffic Control Plans used at work zones and to make adjustments to the traffic control plans to enhance safety to workers and traveling public.

C33. Source of Information

Definition: Identity of the source providing the information on the crash report.

Source: Refer to officer name, officer number and department on DMV-349 Form.

Attributes: Police Reporting Agency (Department) identifier (The following values would be derived from the Agency identifier)

1 Municipal Police
2 Sheriff
3 Rural or County Police
4 Highway Patrol
5 Other Traffic Investigating Agency

Rationale: This data element is important for quality control and identification purposes. The Police Reporting Agency identifier is to track the reporting of Safetynet crashes for quality control and training purposes.

C34. Officer Name

Definition: Name of officer preparing the crash report.

Source: Refer to officer name, officer number and department on DMV-349 Form.

Attributes: Actual name.

Rationale: Important in following up, when completing a report or with specific questions regarding a particular crash investigation.

C35. Officer Number

Definition: Number of officer preparing the crash report.

Source: Refer to officer name, officer number and department on DMV-349 Form.

Attributes: Law enforcement badge number assigned to officer.

Rationale: Linked to previous data element. Provides specific code for each officer.

C36. Patrol Area

Definition: Area of Enforcement.

Source: Refer to DMV-349 Form.

Attributes: Assigned at the local level.

Rationale: Reserved for local law enforcement use.

C37. Date and Time Reported to Law Enforcement Agency

Definition: The date (year, month, and day) and time (00:00-23:59) at which the law enforcement agency was notified about the crash.

Source: Refer to date and time block on DMV-349 Form.

Attributes:

- YYYYMMDDHHMM
- See Appendix B for coding instructions. Midnight is defined as 00:00 to represent the beginning of a new day.
- Unknown

Rationale: Useful as a surrogate for time of the crash.

C38. Manner of Crash/Collision Impact

Definition: The events in sequence for this vehicle.

Source: Refer to ANSI D16.1 for definitions of specific attributes and refer to blocks 52 - 56 and block 48 on DMV-349 Form.

Attributes:

Subfield 1 – First Event

00	Unknown
	Non-Collision
01	Ran off road right
02	Ran off road left
03	Ran off road straight ahead
04	Jackknife
05	Overturn/rollover
06	Crossed centerline/median
07	Downhill runaway
08	Cargo/equipment loss or shift
09	Fire/explosion
10	Immersion
11	Equipment fair (blown tire, brake failure, etc.)
12	Separation of units
13	Other non-collision*
	Collision of Motor Vehicle With
14	Pedestrian
15	Pedalcyclist
16	Railway vehicle (e.g., train, engine)
17	Animal
18	Movable object
	Collision of Two or More Motor Vehicles
20	Parked motor vehicle
21	Rear end, slow or stop
22	Rear end, turn
23	Left turn, same roadway
24	Left turn, different roadways
25	Right turn, same roadway
26	Right turn, different roadways
27	Head on
28	Sideswipe, same direction
29	Sideswipe, opposite direction
30	Angle
31	Backing up
32	Other collision with vehicle*
	Collision with fixed object
33	Tree
34	Utility Pole (with or without light)
35	Luminaire Pole (non-breakaway)
36	Luminaire Pole (breakaway)
37	Official Highway Sign (non-breakaway)

38 Official Highway Sign (breakaway)
39 Overhead Sign Support
40 Commercial Sign
41 Guardrail End on Shoulder
42 Guardrail Face on Shoulder
43 Guardrail End in Median
44 Guardrail Face in Median
45 Shoulder Barrier End (non-guardrail)
46 Shoulder Barrier Face (non-guardrail)
47 Median Barrier End (non-guardrail)
48 Median Barrier Face (non-guardrail)
49 Bridge Rail End
50 Bridge Rail Face
51 Overhead Part of Underpass
52 Pier on Shoulder of Underpass
53 Pier in Median of Underpass
54 Abutment (supporting wall) of Underpass
55 Traffic island Curb or Median
56 Catch Basin or Culvert on Shoulder
57 Catch Basin or Culvert in Median
58 Ditch
59 Embankment
60 Mailbox
61 Fence or Fence Post
62 Construction Barrier
63 Crash Cushion
64 Other Fixed Object*

Subfield 2 - **Second Event**
See Codes in Subfield 1

Subfield 3 - **Third Event**
See Codes in Subfield 1

Subfield 4 - **Fourth Event**
See Codes in Subfield 1

Rationale: Important for evaluation of occupant injuries and structural defects. This data element can be used in conjunction with Motor Vehicle Maneuver /Action (V18) to describe the crash.

II. VEHICLE LEVEL

The motor vehicle data elements describe the characteristics, events, and consequences of the motor vehicle involved in the crash.

Vehicle Data Elements Collected on the DMV-349

V1. Vehicle Unit Number Unique to the Crash

Definition: Motor vehicle unit type and number assigned to uniquely identify each motor vehicle involved in the crash. This number is not assigned to pedestrians or bicyclists. (See **Non-Motorist Number (P21.)**

Source: Refer to Unit block on DMV-349 Form.

Attributes: **Subfield 1:**

- Type
  - Motor Vehicle in Transport
  - Parked Motor Vehicle
  - Working Vehicle/Equipment

Subfield 2:

- Number
- Sequential number (alphanumeric and numeric characters)

Rationale: Uniquely identifies each motor vehicle unit involved in the crash. Permits occupants to be assigned to the appropriate motor vehicle.

V2. Vehicle Registration State and Year

Definition: The state, commonwealth, territory, Indian nation, U.S. Government, foreign country, etc., issuing the registration plate and the year of registration as indicated on the registration plate displayed on the vehicle.

Source: Refer to owner block on DMV-349 Form.

Attributes: Alphanumeric identifier assigned by the State, foreign country, US. government, Indian Nation, etc., and CCYY for the year.

Subfield 1 - State

State – 2 position abbreviation of state issuing license plate.

If State is unknown, use **"OS"**
If no plate is available, leave blank

Subfield 2 - Year

Year - 4-digit year license plate issued. Must be current, prior or next year, otherwise contains zeroes

Rationale: This element is critical in providing linkage between the crash and vehicle registration files to access the vehicle identification number.

V3. Vehicle License Plate Number

Definition: The alphanumeric identifier or other characters, exactly as displayed, on the registration plate or tag affixed to the vehicle. For combination trucks, vehicle plate number is obtained from the power unit or tractor.

Source: Refer to owner block on DMV-349 Form.

Attributes: Alphanumeric identifier assigned by the State, foreign country, U.S. government, or Indian Nation. Up to 8 positions (characters). This data element does not include Temporary Plates or Permits. Refer to ANSI D16.1 for definitions of specific attributes.

Rationale: This element is critical in providing linkage between the crash and vehicle registration files to assess the vehicle identification number.

V4. Vehicle Identification Number (VIN)

Definition: A unique combination of alphanumeric characters assigned to a specific vehicle and formulated by the manufacturer. When the technology is available, this number can also be obtained by using a bar code reader while the vehicle is at the scene.

Source: Refer to owner block on DMV-349 Form.

Attributes: A manufacturer assigned number permanently affixed to the vehicle. When an officer makes a match of the Registration Master File, using a program such as VIN assist, and verifies the number in the field using a check digit, the VIN can be obtained by the officer. The following fields are contained in the (17) character VIN for vehicles from 1981 to the present:

Character	Description
1st	Country of Origin
2nd	Manufacturer
3rd	Vehicle Type
4th_8th	The following five categories are covered by the 4th through 8th characters of the VIN (not necessarily in this order)
-	Line, e.g., Buick "Road master"
-	Series
-	Body Type
-	Engine Type
-	Restraint System
9th	Check Digit
10th	Model Year
11th	Assembly Plant
12th_17th	Production Sequence Number

Rationale: Important for evaluation of specific vehicle design characteristics and occupant protection systems.

V5. Vehicle Make

Definition: The distinctive (coded) name applied to a group of vehicles by a manufacturer.

Source: Refer to owner block on DMV-349 Form.

Attributes: Assigned by vehicle manufacturer

Rationale: Important for use in identifying vehicle make, for evaluation, research and crash comparison purposes.

V6. Commercial Vehicle

Definition: Indication as to whether a commercial vehicle was involved in the crash. A commercial motor vehicle (CMV) is defined as a motor vehicle or combination of motor vehicles used in commerce to transport passengers or property if the motor vehicle:

a. Has a gross combination weight rating of 10,001 or more pounds inclusive of a towed unit, or
b. Is designed to transport 16 or more passengers including the driver, or
c. Is of any size and is used in the transportation of materials found to be hazardous for the purposes of the Hazardous Materials Transportation Act and which require the motor vehicle to be placarded

under the Hazardous Materials Regulations. (49 CFR Part 172, Subpart F)

Attributes: Check block provided in the Unit 1, Unit 2 area, etc. of the crash report.

V7. Carrier Name

Definition: The name of an individual, partnership or corporation responsible for the transportation of persons or property.

Attributes: **Subfield 1:** Carrier Name
See Appendix C

Subfield 2: Carrier Name Source
Truck, shipping papers, driver or trip manifest (bus) or logbook
Other*

Rationale: The Federal Highway Administration's Office of Motor Carriers has the authority to fine and sanction truck and bus companies that are judged to be unsafe. A key to identifying such carriers is to collect crash data by the name of the company. Carrier crash data allows the OMC to focus enforcement efforts on truck and bus companies that have the largest number of crashes.

V8. Carrier Street Address

Definition: The street address of the carrier.

Attributes: See Appendix D

Rationale: Since the Office of Motor Carriers has the authority to visit carriers to conduct review of compliance with FMCSRs, the street address of the carrier is important. The street address is also a way of cross-checking the correct identity of the carrier.

V9. Carrier Identification Number

Definition: A unique number, found on the power unit, and assigned by the U.S. Department of Transportation, Interstate Commerce Commission, or by the state to a motor carrier.

Attributes: **Subfield 1:** Identification Number

Subfield 2: Issuing Authority

U.S. Department of Transportation Number (US DOT)
Interstate Commerce Commission Number (ICC MC)
International Fuel Tax Agreement Number (IFTA)
Fuel Tax Account# is comprised of:

- State Exemption Number (Intrastate Passenger Carrier, and Carrier of Household Goods)
- FEI (Federal Employee Identification) Number
- Fleet Number

Mexico
Canada

Subfield 3: Source of Number

Shipping papers (truck) or trip manifest (bus) or logbook
Other*

Rationale: Important for management/administration, evaluation, and linkage.

V10. Vehicle Style (Type)

Definition: Indicates the general configuration of vehicle. Refer to ANSI D16.1 for definitions of specific attributes.

Source: Refer to block 41 on DMV-349 Form.

Attributes:
01 Passenger Car
02 Pickup
03 Light Truck (mini-van, panel)
04 Sport Utility
05 Van
06 Commercial Bus
07 School Bus
08 Activity Bus
09 Other Bus*
10 Single unit truck (2 axle, 6-tire)
11 Single-unit truck (3-or-more axles)
12 Truck/Trailer
13 Truck Tractor (bobtail)
14 Tractor/Semi-trailer
15 Tractor/Doubles
16 Unknown heavy truck
17 Taxicab
18 Farm Equipment
19 Farm Tractor
20 Motorcycle
21 Moped
22 Motor/Scooter or Motor Bike

23 Pedalcycle
24 Pedestrian
25 Motor home/Recreational Vehicle
26 Other*
27 All-Terrain Vehicle (ATV)
28 Firetruck
29 EMS Vehicle, Ambulance, Rescue Squad
30 Military
31 Police
32 Unknown

Rationale: This data element provides information about the general configuration of the vehicle which is important to evaluate the types of vehicles that have the most crashes and the effectiveness of various safety counter-measures. It should be collected for all crashes, not just those involving trucks.

V11. Cargo Body Type

Definition: Coded for commercial motor vehicles (CMV), see V6.

Attributes:
01 Bus (seats for 16 or more people, including driver)
02 Bus (seats for less than 16 people, including driver)
03 Van/enclosed box
04 Grain/Chips/Gravel truck
05 Pole truck
06 Cargo tank
07 Flatbed
08 Dump
09 Concrete mixer
10 Auto transporter
11 Garbage/refuse
12 Log truck
13 Other*
14 Intermodal Cargo Container

Rationale: This data element provides more information about the vehicle, including all major cargo body types. The information it provides can be important in helping OMC make decisions on regulatory strategies for different types of vehicles.

V12. Hazardous Materials Involvement (Cargo Only)

Definition: Indication that a motor vehicle had a hazardous materials placard as required by federal regulations.

Source: Refer to back of the DMV-349 Form.

Attributes: **Subfield 1:** Was this vehicle carrying hazardous materials?

1 Yes
2 No

Subfield 2: Did this vehicle have a hazardous materials placard?

1 Yes
2 No

Subfield 3: If yes, record from the hazardous materials placard,

- 4-digit placard number or name taken from the middle of the diamond or from the rectangular box; and
- 1-digit placard number from bottom of diamond.

Subfield 4: Hazardous Materials, Cargo Released from the Cargo Compartment

1 Yes - Hazardous materials released
2 No - Hazardous materials not released

Rationale: Getting good data on crashes involving trucks carrying hazardous materials (HM) is important to the OMC as a result, OMC imposes tighter regulations on carriers that operate vehicles that transport HM, pulls over sample HM carrying vehicles for roadside inspections, and conducts compliance reviews on a higher percent of HM carriers. This data element asks the reporting officer to observe:

(1) Whether or not the vehicle is carrying hazardous materials,
(2) Whether or not the vehicle has a hazardous material placard,
(3) Record what is on the placard, and
(4) Indicate if the hazardous materials spilled out of the cargo compartment. By recording this information, the FHWA will obtain good information about the types of hazardous materials involved in a crash and the crash scenes which were potential hazards because HM material escaped its packaging.

V13. Weight Rating of Power Unit

Definition: A gross vehicle weight rating (GVWR) is a value specified by the manufacturer for a single-unit truck, truck tractor or

trailer, or the sum of such values for the units, which make up a truck combination.

Source: Refer to block 20 on DMV-349 Form.

Attributes: Weight Rating of Power Unit of the Truck

- <10,000 pounds
- 10,001-26,000
- >26,000

Rationale: Two break points used for FHWA regulation of motor carriers and their vehicles. This variable cannot be derived since some trucks are from out-of-state.

V14. Trailer Type

Definition: Actual description of the type of trailer. A semi-trailer is one where a significant portion of its weight is supported by the towing vehicle.

Source: Refer to block 82 on DMV-349 Form.

Attributes:

00 No trailer

Non-semi-trailers
01 Boat
02 Camper
03 Utility
04 Horse
05 House trailer (mobile home)
06 Towed vehicle
07 Other non-semi*

Semi-trailers
08 Tanker
09 Enclosed van
10 Flatbed or platform
11 Other semi-trailer*
12 Double trailer

Rationale: Semi-trailers should have the length, width, and number of axles. Dual trailers should have the length, width and number of axles for each separate trailer. The maximum length and width for semi-trailers are:

- Length: Single unit 48 feet, Dual trailer 28 feet (each trailer)

- Width: Designated routes 102 inches, Otherwise 96 inches

V15. Overwidth Trailer Permit Number

Definition: Actual permit number allowing a 12', 14', or 16' mobile home to be transported on a roadway.

Attributes: Actual permit number

Rationale: Provide the identification of crashes involving overwidth mobile homes, identify the specifics involved in these crashes and allow tracking of the individual permit numbers.

V16. Length of Trailer 1

Definition: Actual length of trailer number 1 (in feet).

Attributes: nn Length in feet of trailer
99 If double trailer and length is not stated

V17. Width of Trailer 1

Definition: Actual width of trailer number 1 (in inches).

Attributes: nnn Width in inches of trailer
999 Not stated

V18. Length of Trailer 2

Definition: Actual length of trailer number 2 (in feet).

Attributes: nnn Length in feet of trailer
999 If double trailer and length is not stated

V19. Width of Trailer 2

Definition: Actual width of trailer number 2 (in inches).

Attributes: nnn Width in inches of trailer
999 Not stated

V20. Number of Axles - Trailer 1

Definition: Number of axles for trailer number 1. If the trailer is a semi-trailer, only the axles under the first trailer are recorded.

Attributes: n Number of axles
9 Not stated

V21. Number of Axles - Trailer 2

Definition: The number of axles for trailer number 2.

Attributes: n Number of axles
9 Not stated

V22. Vehicle Defects

Definition: Mechanical defects of the vehicle involved in the crash.

Source: Refer to block 59 on DMV-349 Form.

Attributes: **Subfield 1** - First Defect
0 None detected
1 Brakes
2 Headlights
3 Rear lights
4 Steering
5 Tires
6 Other defects*
7 Unknown

Subfield 2: - Second Defect
See Codes in Subfield 1

Rationale: Provides defect information for a vehicle involved in a crash and possible related factors, which may have contributed to the crash.

V23. Vehicle Authorized Speed Limit

Definition: Authorized speed limit for the vehicle at the time of the crash. The Authorized Value may be indicated by the posted speed limit, blinking sign at construction zones, restricted speed for permitted vehicles, etc.

Source: Refer to block 60 on DMV-349 Form.

Attributes: Authorized Value

Rationale: Important for evaluation purposes in spite of the fact that the speed of the vehicle at the time of the crash may differ significantly from the authorized speed limit.

V24. Estimate of Original Vehicle Speed

Definition: Estimated speed in miles per hour for each vehicle involved - may exceed 100 mph. Estimates reflect the speed of each vehicle at the moment the driver initially perceived an existing hazard.

Source: Refer to block 61 on DMV-349 Form.

Attributes: 999 Not stated
nnn Estimate of original vehicle speed

Rationale: For help in determining the circumstances of the crash.

V25. Estimated Speed at Impact

Definition: Estimated speed in miles per hour for each vehicle involved in the crash. Estimates reflect the speed of each vehicle at the moment of impact.

Attributes: 999 Not stated
nnn Estimate of vehicle speed at impact
98 Speed is at least 98 miles per hour

Rationale: For help in determining the circumstances of the crash.

V26. Tire Impressions Before Impact

Definition: Length (in feet) of the tire impressions (skid marks, tire print, yaw) for each vehicle involved in the crash, prior to impact.

Source: Refer to block 63 on DMV-349 Form.

Attributes: 999 Not stated
nnn Length in feet of tire impressions

Rationale: For help in determining the circumstances of the crash.

V27. Distance Traveled After Impact

Definition: Distance (in feet) each vehicle or pedestrian traveled after impact as a result of the force of the crash.

Source: Refer to block 64 on DMV-349 Form.

Attributes: 999 Not stated
nnn Distance in feet traveled after impact

Rationale: For help in determining the circumstances of the crash.

V28. Direction of Travel Before Crash

Definition: The direction or a vehicle's normal, general travel on the roadway before the crash. Notice that this is not a compass direction but a direction consistent with the designated direction of the road. For example, for a state designated north-south highway, the direction must be either northbound or southbound even though a vehicle may have been traveling due east as a result of a short segment of the highway having an east-west orientation.

Source: Refer to block 84 on DMV-349 Form.

Attributes: **Subfield 1:** Direction
01 North
02 North East
03 North West
04 South
05 South East
06 South West
07 East
08 West
09 Not on Roadway
10 Unknown

Subfield 2: Reference to Roadway
1 Vehicle on "On Road"
2 Vehicle on "From/Reference Road"
3 Vehicle on neither of the above

Rationale: Important to indicate direction the vehicle was traveling before the crash for evaluation purposes.

V29. Traffic Control Device Type

Definition: The type of traffic control, if any, at crash location.

Source: Refer to block 76 on DMV-349 Form.

Attributes: 00 No Control Present
01 Stop Sign
02 Yield Sign
03 Stop and Go Signal
04 Flashing signal with Stop Sign
05 Flashing Signal without Stop Sign
06 RR Gate and Flasher

07 RR Flasher
08 RR Crossbucks Only
09 Human Control
10 Warning Sign
11 School Zone Signs
12 Flashing Stop and Go Signal
13 Double Yellow Line, No Passing Zone
14 Other*

Rationale: This element needs to be collected at the scene because the presence of specific devices is better verified at the time of the crash. Important for ascertaining the relationship between the use of various traffic control devices (TCDs) and crashes and identifying the need for upgraded TCDs at specific crash locations.

V30. Vehicle Maneuver/Action

Definition: What the vehicle was doing prior to the crash.

Source: Refer to block 49 on DMV-349 Form.

Attributes:
01 Stopped in Travel Lane
02 Parked Out of Travel Lanes
03 Parked in Travel Lanes
04 Going Straight Ahead
05 Changing Lanes or Merging
06 Passing
07 Making Right Turn
08 Making Left Turn
09 Making U Turn
10 Backing
11 Slowing or Stopping
12 Starting in Roadway
13 Parking
14 Leaving Parked Position
15 Avoiding Object in Road
16 Other*

Rationale: Important for evaluation purposes, particularly when combined with Direction of Travel.

V31. Point of Impact

Definition: The portion of the vehicle that impacted first in a crash.

Source: Refer to block 48 on DMV-349 Form.

Attributes: Up to four 2 position codes describing the Location of Initial Contact
0 Pedestrians
0 Non-Contact Vehicle
1-26 Vehicle (Passenger Cars/Small Trucks)
1-40 Vehicle (Tractor-Trailers)
27-30 Motorcycles, Bicycles, Mopeds, and All Terrain Vehicles (ATV)

Rationale: Important for use in evaluating injury severity in relation to vehicle impact and crash severity.

V32. Sequence of Events for this Vehicle

Definition: The events in sequence for this vehicle. Refer to ANSI D16.1 for definitions of specific attributes.

Source: Refer to block 52-56 on DMV-349 Form.

Attributes: **Subfield 1** - First Event

00 Unknown

Non-Collision

01 Ran off road right
02 Ran off road left
03 Ran off road straight ahead
04 Jackknife
05 Overturn/rollover
06 Crossed centerline/median
07 Downhill runaway
08 Cargo/equipment loss or shift
09 Fire/explosion
10 Immersion
11 Equipment failure (blown tire, brake failure, etc.)
12 Separation of units
15 Other non-collision*

Collision of Motor Vehicle With
14 Pedestrian
15 Pedalcyclist
16 Railway vehicle (e.g., train, engine)
17 Animal
18 Movable object

Collision of Two or More Motor Vehicles
20 Parked motor vehicle
21 Rear end, slow or stop

22 Rear end, turn
23 Left turn, same roadway
24 Left turn, different roadways
25 Right turn, same roadway
26 Right turn, different roadways
27 Head on
28 Sideswipe, same direction
29 Sideswipe, opposite direction
30 Angle
31 Backing up
32 Other collision with vehicle*

Collision with fixed object
33 Tree
34 Utility Pole (with or without light)
35 Luminaire Pole (non-breakaway)
36 Luminaire Pole (breakaway)
37 Official Highway Sign (non-breakaway)
38 Official Highway Sign (breakaway)
39 Overhead Sign Support
40 Commercial Sign
41 Guardrail End-on Shoulder
42 Guardrail Face on Shoulder
43 Guardrail End in Median
44 Guardrail Face in Median
45 Shoulder Barrier End (non-guardrail)
46 Shoulder Barrier Face (non-guardrail)
47 Median Barrier End (non-guardrail)
48 Median Barrier Face (non-guardrail)
49 Bridge Rail End
50 Bridge Rail Face
51 Overhead Part of Underpass
52 Pier on Shoulder of Underpass
53 Pier in Median of Underpass
54 Abutment (supporting wall) of Underpass
55 Traffic island Curb or Median
56 Catch Basin or Culvert on Shoulder
57 Catch Basin or Culvert in Median
58 Ditch
59 Embankment
60 Mailbox
61 Fence or Fence Post
62 Construction Barrier
63 Crash Cushion
64 Other Fixed Object*
Subfield 2 - Second Event
See Codes in Subfield 1

Subfield 3 - Third Event
See Codes in Subfield 1
Subfield 4 - Fourth Event
See Codes in Subfield 1

Rationale: Important for use in conjunction with most harmful event to generate complete information about a vehicle involved in the crash.

V33. Most Harmful Event for this Vehicle

Definition: The most harmful event in terms of property damage and injury caused by this vehicle. Refer to ANSI D16.1 for definitions of specific attributes.

Source: Refer to block 52 - 56 on DMV-349 Form.

Attributes: 00 Unknown

Non-Collision
01 Ran off road right
02 Ran off road left
03 Ran off road straight ahead
04 Jackknife
05 Overturn/rollover
06 Crossed centerline/median
07 Downhill runaway
08 Cargo/equipment loss or shift
09 Fire/explosion
10 Immersion
11 Equipment failure (blown tire, brake failure, etc.)
12 Separation of units
13 Other non-collision*

Collision of Motor Vehicle With
14 Pedestrian
15 Pedalcyclist
16 Railway vehicle (e.g., train, engine)
17 Animal
18 Movable object

Collision of Two or More Motor Vehicles
20 Parked motor vehicle
21 Rear end, slow or stop
22 Rear end, turn
23 Left turn, same roadway
24 Left turn, different roadways
25 Right turn, same roadway

26 Right turn, different roadways
27 Head on
28 Sideswipe, same direction
29 Sideswipe, opposite direction
31 Angle
31 Backing up
32 Other collision with vehicle

Collision with fixed object
33 Tree
34 Utility Pole (with or without light)
35 Luminaire Pole (non-breakaway)
36 Luminaire Pole (breakaway)
37 Official Highway Sign (non-breakaway)
38 Official Highway Sign (breakaway)
39 Overhead Sign Support
40 Commercial Sign
41 Guardrail End on Shoulder
42 Guardrail Face on Shoulder
43 Guardrail End in Median
44 Guardrail Face in Median
45 Shoulder Barrier End (non- guardrail)
46 Shoulder Barrier Face (non-guardrail)
47 Median Barrier End (non-guardrail)
48 Median Barrier Face (non-guardrail)
49 Bridge Rail End
50 Bridge Rail Face
51 Overhead Part of Underpass
52 Pier on Shoulder of Underpass
53 Pier in Median of Underpass
54 Abutment (supporting wall) of Underpass
55 Traffic island Curb or Median
56 Catch Basin or Culvert on Shoulder
57 Catch Basin or Culvert in Median
58 Ditch
59 Embankment
60 Mailbox
61 Fence or Fence Post
62 Construction Barrier
63 Crash Cushion
64 Other Fixed Object*

Rationale: Important for use in conjunction with the sequence of events to generate complete information about the crash.

V34. Distance & Direction from Road to Object Struck

Definition: For crashes in which an object was struck, a code describing the distance and direction from the edge of the roadway to the object in question. The edge of the roadway is where the roadway meets the shoulder.

Source: Refer to block 57 on DMV-349 Form.

Attributes:
0 None or not applicable
1 In road
2 Right of road, 0-10 ft.
3 Right of road, 11-30 ft.
4 Right of road, over 30 ft.
5 Left of road, 0-10 ft.
6 Left of road, 11-30 ft.
7 Left of road, over 30 ft.
8 Straight-ahead,0-10 ft.
9 Straight-ahead, 11-30 ft.
10 Straight ahead, over 30 ft.

Rationale: For help in determining the circumstances of the crash.

V35. Post-Crash Fire

Definition: Indication as to whether there was fire after the crash involving this vehicle.

Source: Refer to block 66 on DMV-349 Form.

Attributes:
0 Not stated
1 Yes
2 No

Rationale: Provides another measure of the circumstances as well as the severity of the crash.

V36. Underride/Override

Definition: An underride refers to a vehicle sliding under another vehicle during a crash. An override refers to a vehicle riding up over another vehicle. Both can occur with a parked vehicle.

Source: Refer to block 58 on DMV-349 Form.

Attributes:
1 Underride
2 Override
3 Neither Underride or Override

4 Unknown

Rationale: This information is needed to identify the magnitude of crashes in which an underride or override occurs to support NHTSA rulemaking activities.

V37. Damaged Area of Vehicle/Extent of Deformity

Definition: Based on the Traffic Accident Damage (TAD) Ratings, a 4-position field is used to record the location and severity of damage on the vehicle from the crash. Each part of the damaged vehicle is described in the first 3 positions and the severity of the damage is denoted in the last position. Three 4~position fields may be recorded per vehicle.

Source: Refer to block 43 on DMV-349 Form.

Attributes: **Subfield 1** - Damaged Areas

FC Front Center
FD Front Distributed
FL Front Left Corner
FR Front Right Corner
BC Hear Center
BD Rear Distributed
BL Rear Left Corner
BR Rear Right Corner
LP Left Side (door)
RP Right Side (door)
LFQ Left Side Front Quarter
RFQ Right Side Front Quarter
LBO Left Side Rear Quarter
RBQ Right Side Rear Quarter
LD Left Side Distributed
RD Right Side Distributed
L&T Left Side & Top (rollover)
R& T Right Side & Top (rollover)
TOP Top
UND Underneath

Subfield 2 - Extent of Deformity

The Severity of Damage is based on a Scale of "0" being no damage and "7" being the most severe damage.

Rationale: Important for evaluation in particular in conjunction with speed and vehicle crash severity.

V38. Estimated Amount of Vehicle Damage

Definition: Dollar estimate of the cost to restore the vehicle to its condition just prior to the crash or the value of the vehicle before the crash, whichever is less. A vehicle that is (being towed by another is part of the towing vehicle and its damage should be included.

Source: Refer to block 44 on DMV-349 Form.

Attributes: 9999999. Not stated

nnnnnnn. Actual dollar estimate (for a "totaled" vehicle, a dollar estimate of the retail value of the vehicle prior to the crash)

9999998. Damage exceeds 9999998

Rationale: Used in classifying property damage only (PDO) crashes, and in calculating the costs of motor vehicle traffic crashes for purposes of estimating the cost benefit of highway safety programs and improvements.

V39. Vehicle Drivable

Definition: Vehicle is disabled by damage severe enough to prevent driving it. Determination as to whether or not vehicle is in a drivable condition to permit it to be driven from the scene of the crash.

Source: Refer to block 42 on DMV-349 Form.

Attributes: 1 Yes
2 No
3 Unknown

Rationale: Determining whether the vehicle sustained disabling damage from a crash so the it could not be safely driven from the scene is key to consistent collection of crash data.

V40. Vehicle Towed To/By

Definition: Description of where the vehicle was moved following the crash.

Source: Refer to front of DMV-349 Form.

Attributes: Actual name of garage, lot or other Location

Rationale: Important for management of crash consequences for later reference by persons involved in the crash as well as further need for investigation.

V41. Insurance Company Name

Definition: Name of the insurance company for the vehicle involved in the crash.

Source: Refer to owners block on DMV-349 Form.

Attributes: Actual name of company.

Rationale: Tracking of financial responsibility.

V42. Policy Number

Definition: Insurance policy number for the vehicle involved in the crash.

Source: Refer to owners block on DMV-349 Form.

Attributes: Actual policy number.

III. Person Level

The person data elements describe the characteristics, actions, and consequences to the person involved on the crash.

Person Level 1: All Persons Involved

P1. Person Type

Definition: Type of person involved in a crash. Refer to ANSI D16.1 Classification Manual for definitions of specific attributes.

Source: Refer to block 22 on DMV-349 Form.

Attributes:
1 Driver
2 Passenger

Non-motorist
3 Pedestrian
4 Pedacyclist (bicycle, tricycle, Unicycle, pedalcycle)
5 Roller skater, roller blader
6 Other*
7 Unknown

Rationale: Need to know person type for classification purposes to evaluate specific countermeasure designed for specific people.

P2. Name

Definition: The full name of the person.

Source: Refer to Unit block on DMV-349 Form.

Attributes:
1 Complete First, Middle and Last Name, or
2 'Hit and Run' if Hit and Run and no Driver's Name is shown, or
3 The Owner's Name if parked vehicle and no Driver. May be Individual Name or Company Name.

Rationale: This data element should be collected to corroborate the driver license number and to facilitate linkage when names are available in the health and insurance files. When possible, obtain this information from the driver license (via a bar code or "smart" license or via on-line linkage if the technology exists at the state level).

P3. Address

Definition: Current address of person, including street address or rural road number. **Post office box numbers** are not acceptable for the street address. The street address is recorded if (1) No North Carolina driver's license is shown, or (2) Address is Different than shown on North Carolina driver's license. Check box provided to indicate whether this is the same address as indicated on the driver's license. A mailing address is generated if the record exists on the Driver's License Master File. The address is filled in by the system if the address is the same as shown on the North Carolina's driver's license.

Source: Refer to Unit block on DMV-349 Form.

Attributes: **Subfield 1 - Street Address**
26 position -street address
15 position - limit for out of state addresses

Subfield 2 - City of Residence
Current city of residence of person. A five position "city code" is provided on all North Carolina addresses when the city is validated by the system.
22 position - city of residence
12 position - limit for out-of-state cities

Subfield 3 - State of Residence
Current state of residence of person.
2 position abbreviation
DC coded for "other country"

Subfield 4 - Residence Zip Code
Current zip code of residence of person. The zip code is optional for out-of-state addresses.

nnnnn Zip code

Rationale: Need for any follow-up contact of the persons(s) involved in the crash.

P4. Home/Work Phone Numbers

Definition: Telephone number(s) of the person, including area code.

Source: Refer to Unit block on DMV-349 Form.

Attributes: Telephone numbers recorded in hard copy form only.

Rationale: For follow-up contacts to persons involved in a crash, for additional information.

P5. Date of Birth/Approximate Age

Definition: The month, day, and year of birth of person involved in a crash. If not available, record the approximate age.

Source: Refer to Unit block on DMV-349 Form.

Attributes: Date of Birth MMDDCCYY
Approximate Age

Rationale: Uses of accurate reporting of age include assessing effectiveness of occupant protection systems for specific age groups, and identifying the need for safety programs directed toward them. This element is also critical in providing linkage between the crash, EMS, and hospital records.

P6. Gender

Definition: The sex of person involved in a crash.

Source: Refer to block 26 on DMV-349 Form.

Attributes: M Male
F Female

Rationale: Necessary to evaluate the effect of gender on occupant protection systems and vehicle design characteristics.

P7. Ethnicity

Definition: The ethnic affiliation of person involved in a crash.

Source: Refer to block 25 on DMV-349 Form.

Attributes: W White
B Black
N Native American
H Hispanic
A Asian
O Other*
U Unknown

P8. Injury Status

Definition: The most severe injury to a person involved in a crash. Refer to ANSI D16.1Classification Manual for definitions of specific attributes.

Source: Refer to block 32 on DMV-349 Form.

Attributes:
1 Killed (Comparable with Fatal Injury)
2 A Type Injury (incapacitating Injury)
3 B Type Injury (Evident Injury)
4 C Type Injury (Possible Injury)
5 No Injury
6 Unknown

Rationale: Necessary for injury outcome analysis and evaluation. This element is also critical in providing linkage between the crash, EMS, and hospital records.

P9. Occupant's/ Non-motorist Vehicle Unit Number Unique to Crash

Definition: The number assigned to the vehicle in which the person was an occupant, or to identify the vehicle that struck the non-motorist in the crash.

Source: Refer to block 21 on DMV-349 Form.

Attributes: Number to indicate in which vehicle the occupant was located, or to indicate vehicle that struck the non-motorist.

Rationale: Important to link occupants back to vehicles in which they were involved. Necessary to evaluate the effect vehicle type and specific make/model have on occupant protection effectiveness and injury status. For the non-motorist, important for tracking when multiple vehicles are involved in the crash.

Person Level 2: All Occupants

P10. Seating Position

Definition: The location for this occupant in, on, or outside of the motor vehicle prior to the impact of a crash.

Source: Refer to block 23 on DMV-349 Form.

Attributes:
(Occupant Seating Position)
01 Front seat - Left side (motorcycle driver)
02 Front seat - Middle
03 Front seat - Right side
04 Second seat - Left side (motorcycle passenger)
05 Second seat - Middle
06 Second seat - Right side
07 Third row - Left side (motorcycle passenger)
08 Third row - Middle
09 Third row - Right side
10 Sleeper section of cab (truck)
11 Passenger in other enclosed passenger or cargo area, e.g. non-trailing unit, bus, etc. (refer to separate attachment - records up to 20 rows/60 seats)
12 Passenger in unenclosed, passenger or cargo area (non-trailing unit, i.e., pickup, etc.)
13 Trailing unit
14 Riding on vehicle exterior (non-trailing unit)
15 Unknown

Rationale: Without known seating position for each person in the vehicle, it is not possible to fully evaluate the effect of occupant protection programs.

P11. Occupant/Non-Motorist Protection System Use

Definition: The safety protection in use by occupant or non-motorist at the time of the crash.

Source: Refer to block 27 on DMV-349 Form.

Attributes:
0 None used
1 Lap belt only used
2 Shoulder and lap belt used
3 Shoulder belt only
4 Child restraint
5 Helmet (motorcyclist or non-motorist)
Codes 6-8 Non-Motorist only
6 Protective pads

7 Reflective clothing
8 Lighting
9 Other*
10 Unable to determine

Rationale: Proper classification of the use of available safety devices/protection systems would be used to evaluate the effectiveness of such equipment.

P12. Air Bag Deployed

Definition: Deployment status of an air bag, relative to each specific occupant.

Source: Refer to blocks 28 and 29 on DMV-349 Form.

Attributes: **Subfield 1** - **Deployment**
0 No Air Bag(s)
1 Not Deployed
2 Deployed – front
3 Deployed – side
4 Deployed – both front/side
5 Deployment unknown

Subfield 2 – Switch Status
1 No ON-OFF switch
2 Switch in ON position
3 Switch in OFF position
4 Unknown if ON-OFF switch present
5 Unknown position in vehicle

Rationale: Necessary to evaluate the effectiveness of air bags and other occupant protection equipment, especially at a time when air bags are rapidly increasing in the vehicle population and when consumers are allowed to have the air bag disconnected under certain conditions.

P13. Ejection

Definition: The location of each occupant's body as being completely or partially thrown from the vehicle as a result of a crash.

Source: Refer to blocks 30 and 31 on DMV-349 Form.

Attributes: 1 Not ejected
2 Totally ejected
3 Partially ejected
4 Unknown

Rationale: Occupant protection systems prevent or mitigate ejections to different extent. Crash injury outcome may depend on information from this element.

P14. Trapped

Definition: Persons who are restrained in the vehicle by damaged vehicle components.

Source: Refer to blocks 30 and 31 on DMV-349 Form.

Attributes: 1 Yes
2 No
3 Unknown

Rationale: This element would be used to evaluate vehicle integrity and the impact of the need for means to extricate vehicle occupants and the medical outcome for victims who are entrapped.

Person Level 3: All Drivers

P15. Driver License State/Province

Definition: A code identifying the state or province issuing a driver license to an individual. Includes the states of the United States (including the District of Columbia and outlying areas), Indian Nation, U.S. Government, Canadian provinces, and Mexican states (including the Distrito Federal), as well as other jurisdictions.

Source: Refer to driver block on DMV-349 Form.

Attributes: Not Licensed
State code (See Appendix A)
Indian Nation
U.S. Government
Canadian Province
Mexican State
International License (other than Mexico, Canada)
Unknown

Rationale: Necessary to evaluate the effectiveness of various licensing laws. This element is also critical in providing linkage from the crash file to driver license file.

P16. Driver License Number

Definition: A unique number assigned by the authorizing agent issuing a driver license to an individual. Indication as to whether driver license is a CDL license or not.

Source: Refer to driver block and online access to State Automated Driver License System.

Attributes: Specific code assigned by the respective State, foreign country, U.S. government, Indian Nation, etc. ANSI D16.1 Standard allows 25 positions for OLN.

Rationale: This element is critical in providing linkage between the crash and driver license files at the state level. The DLN provides a single unique index or key useful within a jurisdiction to locate a driver.

P17. Commercial Driver License (CDL)

Definition: Indication as to whether driver license is a CDL license or not.

Source: Refer to Unit block on DMV-349 Form.

Attributes: Check block under space for driver license number.

P18. Contributing Circumstances, Driver.

Definition: The actions of the driver, which may have contributed to the crash.

Source: Refer to blocks 14 – 19 on DMV-349 Form.

Attributes: **Subfield 1** First Contributing Circumstance

0 No contributing circumstances indicated
1 Disregarded yield sign
2 Disregarded stop sign
3 Disregarded other traffic signs
4 Disregarded traffic signals
5 Disregarded road markings
6 Exceeded authorized speed limit
7 Exceeded safe speed for conditions
8 Failure to reduce speed
9 Improper turn
10 Right turn on red
11 Crossed centerline/going wrong way
12 Improper lane change
13 Use of improper lane
14 Overcorrected/oversteered
15 Passed stopped school bus
16 Passed on hill
17 Passed on curve
18 Other improper passing
19 Failed to yield right of way
20 Inattention
21 Improper backing
22 Improper parking
23 Driver distracted
24 Improper or no signal
25 Followed too closely
26 Operated vehicle in erratic, reckless, careless, negligent or aggressive manner
27 Swerved or avoided due to wind, slippery surface, vehicle, object, non-motorist in roadway, etc.
28 Visibility obstructed
29 Operated defective equipment
30 Alcohol use
31 Drug Use
32 Other*
33 Unable to determine

34 Unknown
35 Driver distracted by electronic communication device (cell phone, texting, etc.)
36 Driver distracted by other electronic device (navigation device, DVD player, etc.)
37 Driver distracted by other inside the vehicle
38 Driver distracted by external distraction (outside vehicle)

Subfield 2 - Second Contributing Circumstance
See Codes in Subfield 1

Subfield3 - Third Contributing Circumstance
See Codes in Subfield 1

Rationale: Important for evaluating the effect that dangerous driver behavior has on the crash.

P19. Traffic Violations

Definition: Person charged with a traffic violation.

Subfield 1 - Name of Person

Subfield 2 - Charge(s)

Source: Refer to “Traffic Violations” block on DMV-349 Form.

Rationale: For use at the local level. Citation numbers are optional, also for local use only.

Vehicle Seizure (DWI)

Check box for crashes involving alcohol or other drugs in sufficient amount to constitute a DWI and the vehicle is "seized."

Source: Refer to block 40 on DMV-349 Form.

Person Level 4: All Drivers and Non-Motorists

P20. Alcohol/Drug Suspected

Definition: Investigating police officer's assessment of whether alcohol or other drugs were used by the vehicle driver or non-motorist.

Source: Refer to block 37 on DMV-349 Form.

Attributes:
0 No
1 Yes - alcohol, impairment suspected
2 Yes - alcohol, no impairment detected
3 Yes - other drugs, impairment suspected
4 Yes - other drugs, no impairment detected
5 Yes - alcohol and other drugs, impairment suspected
6 Yes - alcohol and other drugs, no impairment detected
7 Unknown

Rationale: Alcohol and other drug related crashes remain a serious traffic safety problem. Identifying crashes in which alcohol or other drugs may have been involved will help evaluate the effectiveness of programs to decrease the incidence of drunk driving or to identify problem areas and so enforcement programs can be targeted to these areas.

P21. Test for Alcohol/Other Drugs

Definition: Whether or not a test was given, including the type, or whether a test was refused.

Source: Refer to block 38 on DMV-349 Form.

Attributes: **Test Status**
0 No test
1 Alcohol test
2 Test for drugs other than alcohol
3 Test for alcohol and other drugs
4 Test refused
5 Unknown

P22. Test Results

Definition: Indication of the degree of presence of alcohol or other drugs through testing.

Source: Refer to block 39 on DMV-349 Form.

Attributes: 0 No test

1 No alcohol or other drugs
2 Alcohol (percent BAC)
3 Other drugs reported
4 Contaminated sample/unusable
5 Pending
6 Unknown

Rationale: Alcohol remains the most prevalent drug involved in motor vehicle crashes. Capturing the test result whenever a driver or non-motorist is tested will provide a more accurate assessment of the extent of involvement. Drugs other than alcohol are increasingly involved in traffic crashes. Identifying drug related crashes will help develop and evaluate programs directed at reducing their involvement. Whenever evidence of other drug use is available, it should be captured.

P23. Driver Condition

Definition: The condition of the driver and/or non-motorist at the time of the crash.

Source: Refer to block 35 on DMV-349 Form.

Attributes: 01 Apparently normal
02 Illness
03 Fatigue
04 Fell asleep, fainted, loss of consciousness
05 Impairment due to medications/drugs/alcohol
06 Medical condition
07 Other physical impairment
08 Restriction not complied with
09 Emotional (e.g., depression, angry, disturbed)
10 Other*
11 Unknown

Rationale: Important for evaluating the effect that driver fatigue, medications, alcohol, drugs, or other conditions have on the crash. Information about the condition of the non-motorist is needed to develop engineering, educational, and enforcement countermeasures to reduce crashes involving non-motorists.

P24. Vision Obstruction

Definition: Description of what prevented the driver or non-motorist from seeing whether or not such movement(s) could be made in a safe manner.

Source: Refer to block 34 and 85 on DMV-349 Form.

Attributes:
00 None
01 Vehicle window(s) obscured
02 Trees, crops, brush, etc.
03 Building(s)
04 Embankment
05 Sign(s)
06 Hillcrest
07 Parked vehicle(s)
08 Vehicle(s) in traffic/moving
09 Blinded, headlights
10 Blinded, sunlight
11 Blinded, other lights
12 Other*
13 Unknown

Rationale: For help in determining the circumstances of the crash.

Person Level 5: Non-motorists

P25. Non-motorist Number

Definition: The unique number assigned to the non-motorist involved in a crash.

Source: Refer to block 22 on DMV-349 Form.

Attributes: Sequential number uniquely identifying the non-motorist involved in a crash.

Rationale: Important for management/administration and evaluation. Needed to determine the number and type of non-motorists involved in crash. Needed to track non-motorists preceding crash action and sustained injury.

P26. Non-motorist Action Prior to Crash

Definition: The actions of the non-motorist prior to the crash.

Source: Refer to block 50 on DMV-349 Form.

Attributes:

01 Entering of crossing specified location
02 Walking, riding, running/jogging **with** traffic
03 Walking, riding, running/jogging **against** traffic
04 Working
05 Pushing vehicle
06 Approaching or leaving vehicle
07 Playing
08 Standing
09 Other*

Rationale: Needed to develop engineering, educational, and enforcement countermeasures to reduce non-motorist crashes and to evaluate effect of existing countermeasures.

P27. Non-Motorists Actions at Time of Crash

Definition: Actions that the non-motorist was undertaking at the time of the crash.

Source: Refer to blocks 50 and 85 on DMV-349 Form.

Attributes:

01 Entering of crossing specified location
02 Walking, riding, running/jogging **with** traffic

03 Walking, riding, running/jogging **against** traffic
04 Working
05 Pushing vehicle
06 Approaching or leaving vehicle
07 Playing
08 Standing
09 Other*

Rationale: Important for evaluating the effect that dangerous or risky non-motorist behavior has on motor vehicle crashes.

P28. Non-Motorist Condition at Time of Crash

Definition: Any relevant condition of the non-motorist that is directly related to the crash

Source: Refer to blocks 35 and 85 on DMV-349 Form.

Attributes:

1 Apparently normal
2 Illness
3 Fatigue
4 Fell asleep, fainted, loss of consciousness
5 Impairment due to medications/drugs/alcohol
6 Medical condition
7 Other physical impairment
8 Restriction not complied with
9 Other*
10 Unknown

Rationale: Important for evaluating the effect that non-motorist fatigue, medications/alcohol/drugs, or other conditions have on the crash.

P29. Non-Motorist Contributing Circumstances

Definition: The actions of the non-motorist that may have contributed to the crash.

Source: Refer to blocks 8 - 9 on DMV-349 Form.

Attributes:

00 None
01 Coming from behind parked vehicle
02 Darting
03 Lying and/or illegally in roadway
04 Failure to yield right of way
05 Not visible (dark clothing, etc.)
06 Inattentive (talking, eating, etc.)

07 Failure to obey traffic signs, signals
08 Wrong side of road
09 Other*
10 Unknown

Rationale: Important for evaluating the effect that dangerous risky non-motorist behavior has on motor vehicle crashes.

P30. Non-Motorist Location at Time of Crash

Definition: The non-motorist's location with respect to the roadway prior to impact.

Source: Refer to block 51 on DMV-349 Form.

Attributes:

01 Marked crosswalk at intersection
02 At intersection but no crosswalk
03 Non-intersection crosswalk
04 Driveway access crosswalk
05 In roadway
06 Not in roadway
07 Median (but not on shoulder)
08 Island
09 Shoulder
10 Sidewalk
11 Within 10 feet of roadway (not on shoulder, median, sidewalk, or Island)
12 Beyond 10 feet of roadway (within trafficway)
13 Outside trafficway
14 Shared-use path or trails

Rationale: Non-motorist location information is used in developing engineering, educational, and enforcement countermeasures for both motorists and non-motorists to reduce non-motorist crashes. Needed to determine "fault" of crash. Needed to evaluate effect of existing, if any, countermeasures that have been applied.

P31. Non-Motorist Safety Equipment

Definition: The safety protection in use by occupant or the non-motorist at the time of the crash.

Source: Refer to block 27 on DMV-349 Form.

Attributes:

0 None used

1 Lap belt only
2 Shoulder and lap belt
3 Shoulder belt only
4 Child restraint
5 Helmet (motorcyclist or non-motorist)

Codes 6-8 Non-Motorist only

6 Protective pads
7 Reflective clothing
8 Lighting
9 Other*
10 Unable to determine

Rationale: Proper classification of the use of available safety devices/protection systems would be used to evaluate the effectiveness of such equipment.

P32. Unit Number of Motor Vehicle Striking Non-Motorist

Definition: Number assigned to identify the motor vehicle that struck the non-motorist in the crash.

Source: Refer to blocks 84 and location block on DMV-349 Form.

Attribute: Unit number of motor vehicle that was the first motor vehicle to strike the non-motorist.

Rationale: Used for tracking. Important when multiple motor vehicles are involved in the crash.

P33. EMS Responding to the Crash

Definition: Actual name of emergency medical service (EMS) that responded to the crash.

Source: Refer to blocks 46 and 47 on DMV-349 Form.

Attributes: Actual name of EMS. When recorded on the DMV-349, the EMS name should be preceded by the unique letter designation (from column 1) in the Person Level section of the form, for the injured person being transported.

Rationale: For help in tracking the injury control/emergency response treatment provided for person(s) injured in the crash.

P34. Injured Taken by EMS to

Definition: Destination of injured person(s) if they were taken to a hospital, clinic, doctor's office, or other place of emergency medical aid.

Source: Refer to blocks 46 and 47 on DMV-349 Form.

Attributes: Name of treatment facility and city or town. When recorded on the DMV-349, the destination should be preceded by the unique letter designation (from column 1) in the Person Level section of the form, for the injured person being transported.

Rationale: Important for follow-up and to be able to trace victim from the scene to the particular place of emergency medical aid.

IV. CRASH DERIVED DATA ELEMENTS

Derived data elements[3] are not collected by the police using the DMV-349. Instead they are obtained by recoding information contained in existing data elements that have already been collected and computerized. The data element source is listed for each of the derived data elements.

CD1. Crash Severity

Definition: The severity of a crash based on the most severe injury to any person involved in the crash.

Source: Derived from Injury Status (P8) for each person involved in the crash.

Attributes:
1 Property Damage Only (no injury)
2 Non-fatal Injury
3 Fatal Injury
4 Unknown

Rationale: Provides the user a classification of the severity of the crash without having to search through the person level records. This simplifies the use of the crash data file for producing reports by crash severity.

CD2. Number of Motor Vehicles

Definition: The total number of motor vehicles (e.g., automobiles, single-unit trucks, truck combinations, and other motor vehicle types that are in motion or on a roadway) involved in a crash.

Source: Derived by counting the number of vehicles involved in a crash as indicated in Vehicle Unit Number Unique to Crash (V1).

Attributes: Total Number of Vehicles

Rationale: Provides the user a count of the number of vehicles involved in the crash without having to count the number of vehicle records. This simplifies the use of the crash data file for producing reports in which the number of involved vehicles is needed.

[3]Source – Guideline of Minimum Uniform Crash Criteria (MUCC) sponsored by the National Highway Traffic Safety Administration. Federal Highway Administration and the National Association of Governor's Highway Safety Representatives.

CD3. Number of Occupants in Vehicle

Definition: The total number of occupants in this vehicle involved in the crash including persons in or on the vehicle at the time of the crash.

Source: Derived by counting the number of drivers and passengers involved in the crash in block 22 on DMV-349 Form as indicated in **Person Type (P1).**

Attributes: - Total number of occupants including the driver.
- Unknown

Rationale: Important for use in evaluating total involved in crash and injury/severity.

CD4. Number of Non-motorists

Definition: The total number of non-motorists (pedestrian, pedalcyclists, etc.) involved in a crash.

Source: Derived by counting the number of non-motorists involved in the crash in block 22 on DMV-349 Form as indicated in **Person Type (P1)**.

Attributes: Number of Non-Motorists

Rationale: Provides the user with a count of the number of non-motorists involved in the crash without having to count the number of non-motorist records. This simplifies the use of the crash data file for producing reports in which the number of non-motorists is needed or in identifying crashes involving non-motorists.

CD5. Total Non-Fatal Injuries

Definition: The total number of persons injured, excluding fatalities within 30 days, in the crash.

Source: Derived by counting the number of persons injured in the crash from Injury Status in (P8). Refer to block 32 on DMV-349 Form.

Attributes: Total Number of Injured Persons.

Rationale: Provides the user with a count of the number of persons injured in the crash without having to search through the person level records. This Simplifies the use of the crash

data file for producing reports in which the number of injured persons is needed.

CD6. Total Fatal Injuries

Definition: The total number of fatalities (motorists and non-motorists) which resulted from injuries sustained as the result of a specific road vehicle crash. In reporting fatality statistics, a 30-day counting rule is generally used for highway safety statistics. These rules provide that only those deaths, which occur within 30 days of a crash will be counted for statistical purposes.

Source: Derived by counting the number of persons fatally injured in the crash from Injury Status (P8). Refer to block 32 on DMV-349 Form.

Attributes: Total Number of Persons Killed within12 months after the crash.

Rationale: Provides the user with a count of the number of persons fatally injured in the crash without having to search through the person level records. This simplifies the use of the crash data file for producing reports in which the number of fatalities is needed or in identifying crashes involving a fatality.

CD7 Alcohol/Drug Involvement

Definition: Investigating police officer's assessment of whether alcohol or drug use was suspected or demonstrated to be present by test for any vehicle driver or non-motorist in the crash.

Source: Derived from the Driver and Non-motorist, Alcohol, Drug Data Elements (P20-P22). Refer to blocks 37-39 on DMV-349 Form.

Attributes:
0 Neither alcohol nor other drugs
1 Yes alcohol, impairment suspected
2 Yes alcohol, no impairment detected
3 Yes other drugs, impairment suspected
4 Yes other drugs, no impairment detected
5 Yes alcohol and other drugs, impairment suspected
6 Yes alcohol and other drugs, no impairment detected
7 Unknown

Rationale: Provides the user with the ability to easily identify alcohol/drug related crashes without having to search through the person level records. This simplifies the use of

the crash data file for producing reports in which the number of alcohol/drug involved crashes is needed or in identifying crashes involving alcohol or drugs.

CD8. Day of Week

Definition: The day of the week on which a crash occurred.

Source: Derived from the Crash Date (C3).

Attributes:
1 Monday
2 Tuesday
3 Wednesday
4 Thursday
5 Friday
6 Saturday
7 Sunday

Rationale: Crash occurrences are often a function of day of week. This element provides this Classification for the user without having to translate the date.

V. VEHICLE DERIVED DATA ELEMENTS

VD1. Vehicle Model Year

Definition: The year, which is assigned to a vehicle by the manufacturer.

Source: Derived from the 10th position of the Vehicle identification number (V4) for 1981 to the present. Prior to 1981, the position for the model year varied by manufacturer. This information can also be obtained separately from the Vehicle Registration File.

Attributes: Assigned by vehicle manufacturer.

Rationale: Important for use in identifying vehicle model year for evaluation, research and crash comparison purposes.

VD2. Vehicle Model

Definition: The manufacturer assigned code denoting a family of vehicles (within a make) which has a degree of similarity in construction, such as body, chassis, etc.

Source: Derived (usually) from positions 4, 5, 6, and 7 of Vehicle Identification Number (V4) for 1981 to the present. Prior to 1981, the position for the model varied by manufacturer. This information can also be obtained separately from the Vehicle Registration File.

Attributes: Assigned by vehicle manufacturer.

Rationale: Important for use in identifying vehicle model, for evaluation, research and crash comparison purposes.

VD3. Vehicle Body Type

Definition: Code used in the Vehicle Identification Number to indicate the general configuration or shape or a vehicle distinguished by characteristics such as number of doors, seats, windows, roof line, hardtop or convertible.

Source: Derived from the Vehicle Identification Number (V4).

Attributes: **Passenger Vehicles**

AM	Ambulance
CB	Cab & Chassis (Luv)
CP	Coupe

CV	Convertible
HB	Hatchback*
HR	Hearse
HT	Hardtop*
LB	Liftback
LM	Limousine
NB	Notchback
PK	Pickup**
PN	Panel**
RO	Roadster
SB	Sport Hatchback
SC	Sport Coupe
SO	Sedan*
SV	Sport Van
SW	Station Wagon
UT	Utility**
WW	Wide Wheel Wagon
2D	Sedan, 2-door
2F	Formal Hardtop, 2-door
2H	(81-03) Hatchback, 2-door
2L	Liftback, 3-door
2P	Pillard Hardtop, 2-door
2T	Hardtop, 2-door
2W	Wagon, 2-door
3D	Runabout, 3-door
4D	Sedan, 4-door
4H	(81-03) Hatchback, 4-door
4L	Liftback, 5-door
4P	Pillard Hardtop, 4-door
4T	Hardtop, 4-door
4W	Wagon, 4-door
5D	Sedan, 5-door

Trucks

AC	Auto Carrier
AR	Armored Truck
BU	Bus
CS	Chassis and cab
CC	Conventional Cab
CG	Cargo Van
CH	Crew Chassis
CL	Club Chassis
CM	Concrete or Transit Mixer
CR	Crane
CS	Super Cab/Chassis Pickup
CU	Custom Pickup
CV	Convertible (Jeep Commando, Suzuki. Samurai, Dodge Dakota)

CW	Crew Pickup
CY	Cargo Cutaway
DP	Dump
OS	Tractor Truck (diesel)
EC	Extended Cargo Van
ES	Extended Sport Van
EV	Extended Van
EW	Extended Window Van
FB	Flat-bed or platform
FC	Forward Control
FE	Farm Equipment
FT	Fire Truck
FTR	Farm Tractor
GG	Garbage or Refuse
GL	Gliders
GN	Grain
HO	Hopper
IC	Incomplete Chassis
IE	Incomplete Extended Van
LG	Logger
LL	Suburban and Carry All
MH	Motorized Home
MP	Multi-purpose
MV	Maxi Van
MY	Motorized Cutaway
PC	Club Cab Pickup
PO	Parcel Delivery
PK	Pickup
PM	Pickup with Camper mounted on bed
PN	Panel
PS	Super Cab Pickup
RD	Roadster (Jeep, Jeep Commando)

Motorcycles

AT	All Terrain
EN	Enduro
MK	Mini-bike
MN	Mini Moto Cross
MP	Moped
MR	Mini Road/Trail
MS	Motor Scooter
MX	Moto Cross
MY	Mini Cycle
RC	Racer
RS	Road/Street
RT	Road/Trail
T	Dirt
TL	Trail/Dirt

TR Trail

* Use when more detail is unknown.

**To code trucks commonly registered as passengers.

Rationale: Important for use in identifying the specific type of vehicle involved in a crash for evaluation and comparison purposes.

V04. Total Trailers Attached to Truck

Definition: Total number of trailers attached to a large truck.

Attributes: Derived by counting the number of trailers attached to a truck as indicated by Trailer Type and/or trailer length/Width (V14-V19) data elements.

Rationale: This information is important to evaluate safety issues relative to truck, doubles, triples, etc.

VI. PERSON LINKED DATA ELEMENTS

Driver Linked Data Elements

PL1. Driver License Class

Definition: The type of commercial or noncommercial vehicle that a licensed driver has been examined on and approve to operate.

Attributes: **Class A vehicles** - any combination of vehicles with a GVWR of 26,001 or more pounds, provided the GVWR of the vehicle(s) being towed is in excess of 10,000 pounds (holders of a Class A license may with the appropriate endorsement operate all class B & C vehicles).
Class B vehicles - any single vehicle with a GVWR of 26,001 or more pounds, or any such vehicle towing a vehicle not in excess of 10,000 pounds (holders of a Class B license may, with the appropriate endorsement, operate all class C vehicles).
Class C vehicles - any single vehicle less than 26,001 pounds GVWR, or any such vehicle towing a vehicle not in excess of 10,000 pounds GVWR.
Class M vehicles - motorcycles, mopeds, motor-driven cycles. Never held a license or state can no longer provide this information.

Rationale: Used to identify those drivers who were not complying with the limitations of their operator's license.

PL2. Driver License Status, CDL

Definition: The current status of an individual's federally-approved commercial driver license (CDL).

Attributes: E Eligible
L Licensed
N Not Eligible
R Reported Deceased

Rationale: Used to identify those truck and bus drivers--operating vehicles in interstate commerce and vehicles carrying hazardous materials in intrastate commerce--who were not complying with the limitations of their operator’s license and who were involved in crashes.
Federal law mandates the commercial driver's license. The OMC has jurisdiction over this federal program, and the identification of drivers not having valid CDLs and those

having crashes is vital data for the OMC's drivers license program.

PL3. Commercial Motor Vehicle Endorsements

Definition: Issued to drivers after successfully completing a specialized test that qualifies them to operate a specific type of commercial motor vehicle.

Source: Obtained by linking **Driver License Number and Class (P16)** for in-state drivers to the driver license number in the driver history data system. Law Enforcement Officers' have mainframe access to endorsement information.

Attributes:

- T-Double/Triple Trailer
  (Applies to Class A)
- P-Passenger Vehicle
  (Applies to transportation of 16 or more passengers including the driver)
- N-Tank Vehicle
  (Required on any A, B, C classified license for vehicles transporting, as its primary cargo, any liquid or gaseous material within a tank attached to the vehicle)
- H-Required To Be Placarded For Hazardous Materials
  (Required on all Class A, B, C licenses for any vehicle transporting hazardous materials requiring placarding as defined by USDOT regulations)
- X-Combined Tank/HAZ-MAT
  (Qualifies a driver for both the Tank endorsement and the Hazardous Material endorsement)
- Other
  (Used to represent state-specific endorsements that are not generally covered by the endorsements above)

Rationale: Important to evaluate issues related to licensing policies for drivers of commercial motor vehicles.

PL4. Driver License Status, Non-CDL

Definition: The current status of an individual's driver license other than a federally approved commercial driver license (CDL).

Attributes: E Eligible
L Licensed
N Not Eligible
R Reported Deceased

Rationale: Used to identify drivers who were not complying with the limitations of their operator's license and who were involved in crashes.

PL5. Driver License Restrictions

Definition: Restrictions assigned to an individual's driver license by the license examiner. This data element is generated by the system; however, officers will continue to record restriction information from the driver's license onto the DMV-349.

Source: Refer to block 36 on DMV-349 Form.

Attributes: Actual restriction(s) as shown on the driver license.

Driver Restrictions 1

L	NO AIR BRAKES
S	SCHOOL BUS
0	NONE
1	SCHOOL BUS
2	45 MPH/NO INTERSTATE
3	DAYLIGHT DRIVING ONLY
4	NC INTRASTATE ONLY-CDL
5	WRECKER ONLY
6	MOBILE HOME TRANSPORT ONLY
7	OUTSIDE MIRRORS
8	NO TRACTOR TRAILER
9	OTHER AS SHOWN
10	ACCOMPANIED BY CLASS DRIVER
11	FLEET VEHICLES ONLY
12	DRIVE 6AM-8PM
13	AUTO TRANSMISSION
14	PASSENGER CLASS B & C ONLY
15	PASSENGER CLASS C ONLY
16	GRAD LIC LEVEL 1 RESTRICTION
17	GRAD LIC LEVEL 2 RESTRICTION
18	NO PASSENGER
19	BLOOD/ALCOHOL CONC. .04
20	BAC .04/IGNITION INTERLOCK
21	BLOOD/ALCOHOL CONC. .00
22	BAC .00/IGNITION INTERLOCK
23	IGNITION INTERLOCK ONLY

Subfield 2
See attributes in Driver Restrictions 1

Subfield 3
See attributes in Driver Restrictions 1

Rationale: Used to identify drivers with limitations on their operator's license who were involved in a crash.

VII. Injured Person Linked Data Elements

PL6. Injury Area

Definition: The primary or most obvious area of the person's body injured during the crash.

Source: Obtained by linking current identifiers for the person, such as **Date of Birth (P5), Sex (P6), Transported to Medical Facility By (P33),** and crash location information including **Crash City/Place (C6), Crash Location (C7), Date and Time Crash Reported to Law Enforcement Agency (C3-C4),** etc., to pre-hospital EMS, emergency department, and/or hospital discharge data files. Refer to block 85 on DMV-349 Form.

Attributes: Types of areas are indicated by a matrix or narrative in the EMS records or as an injury or billing code (ICD-9-CM, etc.) in the emergency department, hospital or insurance records. The following list represents the major areas of the body subject to injury.

1 Head/Brain
2 Face
3 Neck
4 Spine
5 Back
6 Chest
7 Upper extremities
8 Abdomen
9 Lower extremities
10 Other*
11 Injured, area unknown

Rationale: This type of information will help to distinguish between multiple injured in the same crash.

PL7. Injury Description

Definition: Type of injury inflicted to primary Injury Area (PL6).

Attributes:

1 Visible bleeding
2 Visible broken bone
3 Visible burn
4 Complaint of pain

5 Apparently unconscious
6 Other visible or expressed injury
7 Injury type not otherwise specified and not visible
8 Unknown

Rationale: This type of information will help to distinguish between multiple injured in the same crash.

VIII. Roadway Linked Data Elements

Linking the crash to the roadway inventory and hardware data files when these data files exist in the state generates linked roadway data elements. The data elements used for linkage include **Crash Roadway Location (C9)** or mile marker, node, etc., depending upon the type of roadway inventory system implemented by the state. North Carolina will continue its efforts to record selected roadway data elements on the DMV-349, with the understanding that when data becomes available for all of the Roadway data elements for all roadways in the state, it will be obtainable by linkage and will no longer be a responsibility for the officer to collect in the field.

RL1. Bridge/Structure Identification

Definition: A unique code assigned to a bridge, underpass, overpass, or tunnel.

Attributes: Number as described in the Recording and Coding guide for the Structure Inventory and Appraisal of the Nation's Bridges, December 1988, Federal Highway Administration item 8. HPMS/90, item 77.

Rationale: Identifying the bridge can link to the specific geometric data describing the bridge for problem identification analysis. Important for determining the relationship between structure characteristics and crashes.

RL2. Grade

Definition: The inclination of a roadway, expressed in the rate of rise or fall in feet/meters per 100 feet/meters of horizontal distance.

Attributes: **Subfield 1:** Direction of slope
Up or down

Subfield 2: Percent of slope
Nearest percent of slope

Rationale: Grade is used in diagnosing possible causes and countermeasures for a high crash site.

RL3. Part of National Highway System

Definition: Designation as part of the national highway system.

Attributes: 1 Yes
2 No
3 Unknown

Rationale: Important to monitor highway safety on national highway system.

RL4. Annual Average Daily Traffic

Definition: The average number of vehicles passing a point on a trafficway in a day, for all days of the year, during a specified calendar year.

Attributes: **Subfield 1:** Calendar year

Subfield 2: Vehicles per day (AADT)

Rationale: Important to normalize crash data to account for the exposure.

RL5. Shoulder Type/Width

Definition: Width of lane or shoulder where crash occurred.

Attributes: **Subfield 1:** Shoulder Type

Subfield 2: Width

Rationale: Important to monitor the association of shoulder type/width and the frequency of crashes.

RL6. Lane Width

Definition: Width of lane where crash occurred.

Attributes: Number of Feet

Rationale: Important to monitor the association of shoulder/lane width and the frequency of crashes.

RL7. Median Type/Width

Definition: A median is an area of a trafficway between parallel roads separating travel in opposite directions.

Attributes: **Subfield 1:** Median Type

Subfield 2: Width
Less than four feet
Four feet or greater
Unknown

Rationale: Important to monitor the unmet need for medians to protect motorists from oncoming traffic.

RL8. Roadway Lighting

Definition: The type of illumination at a point on the roadway.

Attributes: No lighting
Spot Illumination
Continuous lighting

Rationale: Lighting is recognized as having a benefit to safe highway operations. The presence of lighting is an important element in the analysis of a spot location, a section of highway, or a network analysis. Important for determining the effects of highway illumination on nighttime crashes to guide future installations.

RL9. Pavement Markings, Longitudinal

Definition: The longitudinal markings (paint, plastic, or other) used on the roadway surface to guide or control the path followed by drivers.

Attributes: **Subfield 1** - Function and Color

Centerline, skip-dash, yellow
Centerline, solid, yellow
Centerline, solid double, yellow
No passing barrier, right or left, yellow
Lane line, skip-dash, white
Lane line, solid, white
Edge line, left, yellow
Edge line, right, white
Left turn lane lines, combination of solid and skip-dash, yellow
Turn arrow symbols, right, through, left, or combination of two
Unknown

Subfield 2 - Material

Paint
Thermoplastic
Raised Markers
Permanent inlay
Tape
Other
Unknown

Rationale: Knowledge of the existence of pavement markings is necessary to the analysis of crash data. Important for determining the affects of various types of longitudinal markings on various types of crashes to guide future applications.

RL10. Bikeway

Definition: Any road, path or way which in some manner is specifically designated as being open to bicycle travel, regardless of whether such facilities are designated for the exclusive use of bicycles or are to be shared with other transportation modes (Refer to ANSI D16.1 for definitions of specific attributes).

Attributes: No Bikeway
Bicycle Route (signed)
Bicycle Lane (striped) - right only
Bicycle Lane (striped) - both sides
Bicycle Lane (striped) - left only
Separate Bicycle Path/Trail
Unknown

Rationale: Needed to determine usage of bicycle facilities. Needed to determine location of bicycle crashes in relation to bicycle facility. Information is used to design facilities to more safely accommodate both bicycles and motor vehicles. Important for ascertaining the relative safety performance of various types/classes of bike paths to guide future design/operation decisions.

RL11. Delineator Presence

Definition: The presence or absence of a series of reflecting devices mounted at regular intervals along the side of the road to indicate the alignment of the roadway.

Attributes: None
Delineators, right
Delineators, left
Delineators, both sides
Unknown

Rationale: Important for determining the effectiveness of delineation on nighttime and run off-the-road crashes and guide future installations.

RL12. Clearzone Distance

Definition: The total roadside border area, starting at the edge of the traveled way, available for safe use by errant vehicles. This area may consist of a shoulder, a recoverable slope, a non-recoverable slope, and/or a clear run-out area. The desired width is dependent on the traffic volumes and speeds, and roadside geometry. A clear run-out area is the area at the toe of a non-recoverable slope available for safe use by an errant vehicle.

RL13. Sideslope

Definition: The part of the highway that tapers the traveled way with the existing terrain. The relative steepness of the terrain is expressed as a ratio or percentage. Slopes may be categorized as positive (backslope) or negative (foreslope) and as parallel or cross slopes in relation to the direction of traffic, A side slope typically seen on the interstates is a negative parallel slope that has a drainage facility in the median.

RL14. Roadway Functional Class

Definition: The character of service or function of streets or highways. The classification of rural and urban is determined by the state and local officials in cooperation with each other and approved by the Federal Highway Administration, U.S. Department of Transportation.

Source: Obtained by linking **Crash Location (C9)** to the Roadway Inventory data. Refer to block 71 on DMV-349 Form.

Attributes:
1 Interstate
2 US Route
3 NC Route
4 State Secondary Route
5 Local Street
6 Public Vehicular Area
7 Private Road, Driveway

RL15. Access Control

Definition: The degree that access to abutting land is fully, partially or not controlled by a public authority. Full access control provides no private access. No access control permits private access (driveway, etc).

Source: Obtained by linking **Crash Location (C9)** to the Roadway Inventory data. Refer to block 74 on DMV-349 Form.

Attributes:

- Full Access Control
- Partial Access Control
- No Access Control

Rationale: Highly correlated with crash rates and, therefore, useful in identifying high hazard locations. Important to guide future highway design and traffic control.

RL16. Railway Crossing ID

Definitions: A unique US DOT/AAR number assigned for identification purposes to a railroad crossing by a state highway agency in cooperation with the Federal Railroad Administration.

Source: Obtained by linking **Crash Location (C9)** to state or Federal Railway Administration data. Refer to location block on DMV-349 Form.

Attributes: State specific number assigned by a state in cooperation with the American Association of Railroads.

Rationale: The data are used in high crash locations as well as high-risk corridors. Important for determining the need for additional controls and evaluating the efficacy of various types of controls.

RL17. Traffic Control Type at Intersection

Definition: The type of traffic control, if any, at crash location.

Source: Refer to block 76 on DMV-349 Form.

Attributes:

00	No Control Present
01	Stop Sign
02	Yield Sign
03	Stop and Go Signal
04	Flashing Signal with Stop Sign
05	Flashing Signal without Stop Sign
06	RR Gate and Flasher
07	RR Flasher
08	RR Crossbucks Only
09	Human Control
10	Warning Sign
11	School Zone Signs

12 Flashing Stop and Go Signal
13 Double Yellow Line, No Passing Zone
14 Other*

Rationale: This element needs to be collected at the scene because the presence of specific devices is better verified at the time of the crash. Important for ascertaining the relationship between the use of various TCDs and crashes and identifying the need for upgraded TCDs at specific crash locations.

RL18. Mainline Number of Lanes at Intersection

Definition: Number of "thru" lanes on the mainline approaches of an intersection, including all lanes with "thru" movement ("thru" and left-turn, or "thru and right-turn) but not exclusive turn lanes.

Source: Obtained by linking **Crash Location (C5)** to the Roadway Inventory data. Refer to blocks 84 and 75 on DMV-349 Form.

Attributes:

- One Lane
- Two Lanes
- Three Lanes
- Four to Six Lanes
- Seven or More Lanes
- Unknown

Rationale: Important to describe the intersection.

RL19. Side-Road Number of Lanes at Intersection

Definition: Number of "thru" lanes on the side-road approaches at intersection including all lanes with "thru" movement ("thru" and left-turn, or "thru" and right-turn) but not exclusive turn lanes.

Source: Obtained by linking **Crash Location (C5)** to the Roadway Inventory data. Refer to blocks 75 and 84 on DMV-349 Form.

Attributes:

- One Lane
- Two Lanes
- Three Lanes
- Four to Six Lanes
- Seven or More Lanes

- Unknown

Rationale: Important to describe the intersection.

RL20. Roadway Curvature

Definition: The measurement of the curvature in the roadway expressed in terms of its radius, length, and super elevation.

Source: Obtained by linking **Crash Location (C5)** to the Roadway Inventory data. See **Roadway Alignment and Grade (V16).** Refer to block 70 on DMV-349 Form.

Attributes:

1 Straight, level
2 Straight, hillcrest
3 Straight, grade
4 Straight, bottom (sag)
5 Curve, level
6 Curve, hillcrest
7 Curve, grade
8 Curve, bottom (sag)
9 Other*

Rationale: Curve data is used in searching for and diagnosing high crash locations. Important for determining relationship between horizontal alignment-related crashes to guide future highway design, speed limits, and driver skill training (motorcycle curve entering speed, etc).

APPENDIX A: State and Province Codes

United States (US)

AL	01	Alabama	MT	30	Montana
AK	02	Alaska	NE	31	Nebraska
AZ	04	Arizona	NV	32	Nevada
AR	05	Arkansas	NH	33	New Hampshire
CA	06	California	NJ	34	New Jersey
CO	08	Colorado	NM	35	New Mexico
CT	09	Connecticut	NY	36	New York
DE	10	Delaware	NC	37	North Carolina
DC	11	District of Columbia	ND	38	North Dakota
FL	12	Florida	OH	39	Ohio
GA	13	Georgia	OK	40	Oklahoma
HI	15	Hawaii	OR	41	Oregon
ID	16	Idaho	PA	42	Pennsylvania
IL	17	Illinois	RI	44	Rhode Island
IN	18	Indiana	SC	45	South Carolina
IA	19	Iowa	SD	46	South Dakota
KS	20	Kansas	TN	47	Tennessee
KY	21	Kentucky	TX	48	Texas
LA	22	Louisiana	UT	49	Utah
ME	23	Maine	VT	50	Vermont
MD	24	Maryland	VA	51	Virginia
MA	25	Massachusetts	WA	53	Washington
MI	26	Michigan	WV	54	West Virginia
MN	27	Minnesota	WI	55	Wisconsin
MS	28	Mississippi	WY	56	Wyoming
MO	29	Missouri	DS	57	US Dept. of State

AS	60	American Somoa
PZ	61	Panama Canal Zone
FM	64	Federated States of Micronesia
GU	66	Guam
MP	69	Northern Mariana Islands
PW	70	Palau
PR	72	Puerto Rico
UM	74	U.S. Minor Outlying Islands
MH	75	Marshall Islands
VI	78	Virgin Islands of the U.S.
WK	79	Wake Island

Canada (CN)

AB	01	Alberta	NS	07	Nova Scotia
BC	02	British Columbia	ON	08	Ontario
MB	03	Manitoba	PE	09	Prince Edward Island
NB	04	New Brunswick	PQ	10	Quebec
NF	05	Newfoundland	SN	11	Saskatchewan
NT	06	Northwest Territory	YT	12	Yukon Territory

Mexico (MX)

AG	01	Aguascalientes	MR	17	Morelos
BA	02	Baja California Norte	NA	18	Nayarit
BJ	03	Baja California Sur	NL	19	Nuevo Leon
CM	04	Campeche	OA	20	Oaxaca
CI	05	Chiapas	PB	21	Puebla
CH	06	Chicuahua	QU	22	Queretero de Arteaga
CU	07	Coahuila de Zaragoza	QR	23	Quintana Roo
CL	08	Colima	SL	24	San Luis Potosi
DF	09	Distrito Federal	SI	25	Sinaloa
DO	10	Durango	SO	26	Sonora
GT	11	Guanajuato	TB	27	Tobasco
GR	12	Guerrero	TA	28	Tamaulipas
HL	13	Hidalgo	TL	29	Tlaxcala
JL	14	Jalisco	VC	30	Veracruz-Llava
MX	15	Mexico	YU	31	Yucatan
MC	16	Michoacan de Ocampo	ZA	32	Zacatecas

Other Jurisdictions (OT)

OT	99	Jurisdictions other than states or provinces of the United States, Canada, and Mexico

Note: Code with country and state or province. Where there is no chance of ambiguity, state or province codes may be used without the country code (Note that state and province codes are unique within each country but may be duplicated in other countries).

APPENDIX B: Dates and Times

Numbers are always right justified. Use leading zeroes when necessary.

Date

Subfield 1: Month

01	January	09	September
02	February	10	October
03	March	11	November
04	April	12	December
05	May	77	Permanent
06	June	88	Indefinite
07	July	99	Unknown

Subfield 2: Day

nn	Day of Month
77	Permanent
88	Indefinite
98	Unknown

Subfield 3: Year

ccyy	Calendar Year
7777	Permanent
8888	Indefinite
9999	Unknown

Example: The fifth of March, nineteen ninety-two is coded 03051992

Time

Subfield 1: Hour

nn	0-23, representing the time on a 24-hour clock
99	Unknown

Subfield 2: Minute

nn	Minute
99	Unknown

Example: 11:55 p.m. would be coded 2355. Midnight is coded 0000 and is the beginning of a new day, not the end of the preceding day.

APPENDIX C: Names

The length and type of a name field is 35/ANS

NAMES OF PERSONS

There are four subfields within the name and each ends in a spacer ("@") except for the final field. SUFFIX. Spacers must be used to differentiate the name subfields. From left to right, the code is composed of LAST NAME, @,FIRST NAME, @ MIDDLE NAMES SEPARATED BY SPACES, @, SUFFIX. A spacer must follow every subfield except for SUFFIX, even when the subfields contain no data.

Irregular Names

If a person has only one name, that name must be coded in the Last Name subfield. An asterisk (***) in the First Name subfield indicates the person has no first name. If the person's first name is unknown put no data into the First Name subfield except for the spacer.

This Middle Name subfield will accommodate multiple middle names. Multiple middle names should be separated by blank spaces.

The only special character allowed in the Last Name subfield is a hyphen ("-"), which may occur only once and must be embedded between two alphabetic characters (as in the last name "Stuart-Washington").

Prefixes and titles are not allowed in any subfield of the name, and only the defined suffix codes may be used.

Long Names

If a coded name exceeds 35 characters, it may be truncated by the following rules:

1 If the coded name exceeds 35 characters, including spacers @, the suffix subfield will not be coded.

2 If, after (1), the name code still exceeds 35 characters, the middle name is truncated. Truncation begins at the end of the last occurring middle name. If necessary, the middle name subfield may be reduced to the first initial of the first occurring middle name. *The first initial of the first occurring middle name shall always be coded.*

3 If, after (1) and (2), the name code still exceeds 35 characters, the first name is truncated. Truncation begins at the last character of the first name. If necessary, the first name subfield may be reduced to the first initial of the first name. *The first initial of the first name shall always be coded.*

4 If, after (1), and (2), and (3), the name code still exceeds 35 characters, the last name is truncated. Truncation proceeds with the last character of the last name and continues until the name code is 35 characters in length, including spacers and first and middle initials.

CODE	Description
xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx	LAST NAME, @ FIRST NAME, @MIDDLE NAMES SEPARATED BY SPACES, @, SUFFIX

Suffixes (if present)

JR	Junior
SR	Senior
1ST (or I)	First
2nd (or II)	Second
3RD (or III)	Third
4TH (or IV)	Fourth
5TH (or V)	Fifth

Example: DOE@JOHN@X is the proper code for "John X Doe." "John Winston Smith Doe, Jr. is coded DOE@JOHN@WINSTON SMITH@JR. "Kimberly Allen Beauregard Churchill-Rockwell, IV" is coded CHURCHILL-OCKWELL@KIMBERLY@ALLEN@ (the suffix is eliminated, and the second middle name is truncated).

Other Names

Names not belonging to persons, such as those of businesses, organizations, or state governments, are coded without the use of sub-fields, but use the following two rules:

1 When possible, use standard abbreviations, such as CO for "company", INC for 'Incorporated', or US for "United States."

2 If, after abbreviating the name still exceeds 35 characters, truncate the end of the name as necessary.

Example: The code for "John Smith Trade and Transportation Company" is JOHN SMITH TRADE & TRANSPORTATION C. DOE ELECTRONICS, INC. is the code for "Doe Electronics, Incorporated." "Wilson & Co." remains WILSON & CO. Source: Based on Driver History Record Data Dictionary, May 22, 1990, pages B5-B6.

APPENDIX D: Addresses

Address fields are variable length composite fields with a maximum length of 71 or 108. Following are descriptions of how to set up the fields for both. Each subfield contains one type of data followed by either a delimiter, @, to indicate the end of the subfield or an ending delimiter, ",", to show the end of the address code. The spacers must be used to differentiate the name positions. The name and maximum length and type of each subfield is shown in the table below. The maximum length for each subfield includes one space for the delimiter.

SUBFIELD		MAXIMUM LENGTH/TYPE 71	108
Subfield 1	Street Address A (and delimiter)	21/ANS	36/ANS
Subfield 2	Street Address B (and delimiter)	21/ANS	36/ANS
Subfield 3	City or Town (and delimiter)	16/ANS	21/ANS
Subfield 4	Alphabetic State Code(and delimiter)	3/ANS	3/ANS
Subfield 5	Zip Code (and delimiter)	10/ANS	12/ANS

The code is composed in the basic format:

Street Address A@Street Address B@City or Town@State@Zip Code;

If data for any of the five subfields is omitted, that subfield's delimiter must still be coded.

Use standard abbreviations for street and place names if necessary. Abbreviations for use in addresses are listed in *National Five—Digit Zip Code & Post Office Directory* U.S. Postal Service, 1991, pages 2-3 through 2-11.

Use the two-character alphabetic codes for the state subfield. Alphabetic abbreviations of state names are available in Appendix A.

Example: For 29293 Abbot Farms Court, Suite #40, Trenton, New Jersey, 08610 the code is:
29293 ABBOT FARMS CT @SUITE 40@TRENTON@NJ@08610

For 1234 South Elm Avenue, Springfield, Illinois 62703, the code is:
1234 E ELM AVENUE@SPRINGFIELD@IL@62703;

Note the two delimiters following Street Address A in the second example, which indicate that there is no Street Address B.

Source: Based on Driver History Record Data Dictionary, October 1994.

APPENDIX E: Code Reference Cover Sheet

DMV-349 Code Reference revised 1/1/2011

(1) Locality
1 Rural (<30% developed)
2 Mixed (30% to 70% developed)
3 Urban (>70% developed)

(2) Predominant Development Type
1 Farms, woods, pastures
2 Residential
3 Commercial
4 Institutional
5 Industrial

(3) Road Surface Condition
1 Dry
2 Wet
3 Water (standing, moving)
4 Ice
5 Snow
6 Slush
7 Sand, Mud, Dirt, Gravel
8 Fuel, Oil
9 Other*
10 Unknown

(4-5) Weather Condition (Maximum – two per crash)
1 Clear
2 Cloudy
3 Rain
4 Snow
5 Fog, smog, smoke
6 Sleet, hail, freezing rain/drizzle
7 Severe crosswinds
8 Blowing sand, dirt, snow
9 Other*

(6) Weather Contributed To the Crash
1 Yes 2 No 3 Unknown

(7) Ambient Light
1 Daylight
2 Dusk
3 Dawn
4 Dark – lighted roadway
5 Dark – roadway not lighted
6 Dark – unknown lighting
7 Other*
8 Unknown

North Carolina
Crash Report Form DMV-349

A reportable motor vehicle crash must meet at least one of the following criteria:

- results in a fatality, or
- a non-fatal personal injury, or
- property damage of $1,000 or greater, or
- property damage of any amount to a vehicle seized

In addition, a reportable motor vehicle crash must occur on a trafficway (any land way open to the public as a matter of right or custom for moving persons or property from one place to another) or occur after the motor vehicle runs off the roadway but before events are stabilized.

The terms collision, accident, and crash are synonymous when describing a motor vehicle crash.

(FILLING OUT THE DMV-349)

(*) EXPLAIN IN CRASH NARRATIVE
(-) IF QUESTION DOES NOT APPLY, USE A DASH
(If a section does not apply, draw diagonal line through section)
❑ ONLY USE "CHECK BLOCKS" IF THEY APPLY

The Division of Motor Vehicles (DMV) requests that:

1. The DMV-349 should be typewritten or if handwritten the officer should use black ink,
2. The report should be legible. This is of the utmost importance for clarity, when reports are microfilmed or imaged for later storage, and
3. The original should be submitted to the DMV Traffic

(8-9) Contributing Circumstances, Non-Motorist (Maximum – two per person)
0 None
1 Coming from behind parked veh.
2 Darting
3 Lying and/or illegally in roadway
4 Failure to yield right of way
5 Not visible (dark clothing, etc.)
6 Inattentive (talking, eating, etc.)
7 Failure to obey traffic signs, Signals
8 Wrong side of road
9 Other*
10 Unknown

(12-13) Contributing Circumstances, Roadway (Maximum - two per crash)
0 None (no unusual conditions)
1 Road Surface Condition
2 Debris
3 Rut, holes, bumps
4 Work zone (construction, maintenance, utility)
5 Worn travel-polished surface
6 Obstruction in roadway
7 Traffic control device inoperative, not visible or missing
8 Shoulders low, soft or high
9 No shoulders
10 Non-highway work
11 Other*
12 Unknown

(10-11) CRASH LEVEL First Harmful Event & Most Harmful Event
0 Unknown

Non-Collision
1 Ran off road – right
2 Ran off road – left
3 Ran off road - straight
4 Jackknife
5 Overturn/rollover
13 Other non-collision*

Collision of Motor Vehicle With
14 Pedestrian
15 Pedalcyclist
16 RR train, engine
17 Animal
18 Movable object*
19 Fixed object*

Collision of Two or More Motor Vehicles
20 Parked motor vehicle
21 Rear end, slow or stop
22 Rear end, turn
23 Left turn, same roadway
24 Left turn, different roadways
25 Right turn, same roadway
26 Right turn, different roadways
27 Head on
28 Sideswipe, same direction
29 Sideswipe, opposite direction
30 Angle
31 Backing up
32 Other collision with vehicle*

Contributing Circumstances Non-Motorist 8 - 9
First Harmful Event at Crash Level 10
Most Harmful Event at Crash Level 11
Contributing Circumstances Roadway 12 - 13

(20) Commercial Motor Vehicle (CMV)
A commercial motor vehicle (CMV) is defined as a motor vehicle or combination of Motor vehicles **used in commerce** to transport passengers or property If the motor vehicle: **A.** Has a gross combination weight rating of 10,001 or more pounds inclusive of a towed unit, **B.** Is designed to transport 16 or more passengers, including the driver, or **C.** is of any size and is used in the transportation of materials found to be hazardous for the purpose of the Hazardous Materials Act **and which require the motor vehicle to be placed** under the Hazardous Materials Regulations (49 CFR Part 172, Subpart F). **If the vehicle is a CMV. Check Box 20 on the DMV-349**

(14-19) Contributing Circumstances
0 No contributing circumstances indicated
1 Disregarded yield sign
2 Disregarded stop sign
3 Disregarded other traffic signs
4 Disregarded traffic signals
5 Disregarded road markings
6 Exceeded authorized speed limit
7 Exceeded safe speed for conditions
8 Failure to reduce speed

(14-19) Contributing Circumstances Continued -- Driver (Maximum - three per driver)
9 Improper Turn
10 Right turn on red
11 Crossed centerline/going wrong way
12 Improper lane change
13 Use of improper lane
14 Overcorrected/oversteered
15 Passed stopped school bus
16 Passed on hill
17 Passed on curve
18 Other improper passing
19 Failed to yield right of way
20 Inattention
21 Improper backing
22 Improper parking
23 Distracted Driving
24 Improper or no signal
25 Followed too closely
26 Operated vehicle in erratic, reckless, careless, negligent, or aggressive manner
27 Swerved or avoided due to wind, slippery surface, vehicle, object, non-motorist
28 Visibility obstructed
29 Operated defective equipment
30 Alcohol use
31 Drug use
32 Other*
33 Unable to determine
34 Unknown
35 Driver distracted by electronic communication device (cell phone, texting, etc.)
36 Driver distracted by other electronic device (navigation device, DVD player, etc.)
37 Driver distracted by other inside the vehicle
38 Driver distracted by external distraction (outside vehicle)

Driver 1 Contributing Circum-stances 14 - 16
Driver 2 Contributing Circum-stances 17 - 19

(21) Vehicle Number 1, 2, 3, etc. — 21

(22) Person Type — 22
1 Driver
2 Passenger

Non-Motorist (including)
3 Pedestrian
4 Pedalcyclist
5 Roller skater, roller blader, etc.

6 Other*
7 Unknown

(23) Seating Position — 23
1 Front – left (**Driver**, motorcycle driver)
2 Front – middle
3 Front – right
4 Second seat – left (motorcycle passenger)
5 Second seat – middle
6 Second seat – right
7 Third row – left (motorcycle passenger)
8 Third row – middle
9 Third row – right
10 Sleeper section of cab (truck)
11 Passenger in other enclosed area (refer to multi-occupant form)
12 Passenger in unenclosed area (pickup)
13 Trailing unit
14 Riding on vehicle exterior
15 Unknown

(24) DOB mm/dd/ccyy — 24
(If unavailable approx. **Age**) — 25

(25) Ethnicity
W White
B Black
I American Indian
H Hispanic
A Asian
O Other*
U Unknown

(26) Gender — 26
M Male
F Female
U Unknown

(27) Occupant/Non-Motorist Protection — 27
0 None used
1 Lap belt only
2 Shoulder and lap belt
3 Shoulder belt only
4 Child restraint
5 Helmet (motorcyclist or Non-Motorist)
Codes 6-8 Non-Motorist
6 Protective pads
7 Reflective clothing
8 Lighting
9 Other*
10 Unable to determine

(28) Air Bag Deployed — 28
0 No Air Bag(s)
1 Not deployed
2 Deployed front
3 Deployed side
4 Deployed both front and side
5 Unknown

(29) Air Bag Switch Status — 29
0 No ON-OFF switch
1 Switch in ON position
2 Switch in OFF position
3 Unknown if Switch present
4 Unknown pos. in vehicle

(30) Trapped — 30
1 Yes
2 No
3 Unknown

(31) Ejection — 31
1 Not ejected
2 Totally ejected
3 Partially ejected
4 Unknown

(32) Injury Status — 32
1 Killed
2 A type injury (disabling)
3 B type injury (evident)
4 C type injury (possible)
5 No injury
6 Unknown

Names and Addresses
Names and addresses are necessary for all persons involved in the crash, including non-motorists, as well as motor vehicle occupants.

This will help later investigations, including identifying persons previously involved in a crash, as well as persons whose injury status is later updated following a crash.

Vehicle Towing
Towed To/By:

(33) Relation to Roadway Surface

The location of the first harmful event (at the crash level) as it relates to its position within or outside the trafficway

1 **On Roadway** (Surface)

Off Roadway

2 Shoulder
3 Median
4 Roadside
5 Outside Trafficway
6 Unknown

(34) Vision Obstruction

0 None
1 Vehicle window(s) obscured
2 Trees, crops, brush, etc.
3 Building(s)
4 Embankment
5 Sign(s)
6 Hillcrest
7 Parked vehicle(s)
8 Vehicle(s) in traffic/moving
9 Blinded, headlights
10 Blinded, sunlight
11 Blinded, other lights
12 Other*
13 Unknown

(35) Physical Condition

1 Apparently normal
2 Illness
3 Fatigue
4 Fell asleep, fainted, loss of consciousness
5 Impairment due to medications, drugs, alcohol
6 Medical condition
7 Other physical impairment
8 Restriction not complied with
9 Other*
10 Unknown

(36) Driver License Restrictions

Restrictions assigned to an individual's driver license by the license examiner.

Indicate restrictions shown on the Driver's License. For out-of-state drivers, write out the restriction.

(37) Alcohol/Drugs Suspected

0 No
1 Yes – alcohol, impairment suspected
2 Yes – alcohol, no impairment detected
3 Yes – other drugs, impairment suspected
4 Yes – other drugs, no impairment detected
5 Yes – alcohol and other drugs, impairment suspected
6 Yes – alcohol and other drugs, no impairment detected
7 Unknown

(38) Alcohol/Drugs Test Status

0 No test
1 Alcohol test
2 Test for other drugs
3 Alcohol & other drugs test
4 Test refused
5 Unknown

(39) Alcohol/Drugs Test Results

0 No test
1 No alcohol or other drugs
2 Alcohol (percent BAC)
3 Other drugs reported
4 Contaminated sample/unusable
5 Pending
6 Unknown

(40) Vehicle Seizure (DWI)

Check this box if the crash involves alcohol or other drugs in sufficient amount to constitute a DWI, and the vehicle is "seized."

(41) Vehicle Style (Type)

1 Passenger car
2 Pickup
3 Light truck (mini-van, panel)
4 Sport utility
5 Van
6 Commercial bus
7 School bus
8 Activity bus
9 Other bus
10 Single unit truck (2-axle, 6-tire)
11 Single unit truck (3 or more axles)
12 Truck/trailer
13 Truck/tractor (i.e., bobtail)
14 Tractor/semi-trailer
15 Tractor/doubles
16 Unknown heavy truck
17 Taxicab
18 Farm equipment
19 Farm tractor
20 Motorcycle
21 Moped
22 Motor scooter or motor bike
23 Pedalcycle
24 Pedestrian
25 Motor home/recreational vehicle
26 Other*
27 All terrain vehicle (ATV)
28 Firetruck
29 EMS Vehicle, Ambulance, Rescue Squad
30 Military
31 Police
32 Unknown

(42) Vehicle Drivable

Vehicle is disabled by damage severe enough to prevent driving it. For comparison purposes, this data element could be used as a minimum reporting threshold for "property damage only" crashes.

(43) TAD

Damaged Areas

FC Front concentrated
FD Front distributed
FL Front left corner
FR Front right corner
BC Rear concentrated
BD Rear distributed
BL Rear left corner
BR Rear right corner
LP Left side (door)
RP Right side (door)
LFQ Left side front quarter
RFQ Right side front quarter
LBQ Left side rear quarter
RBQ Right side rear quarter
LD Left side distributed
RD Right side distributed
L&T Left side & top (rollover)
R&T Right side & top (rollover)
TOP Top
UND Underneath

Extent of Deformity

The Severity of Damage is based on a scale of "0" being no damage and "7" being the most severe damage

(44) Estimated Damage

Dollar estimate of the cost to restore the vehicle to its condition just prior to the crash, or the estimated value of the vehicle before the crash, whichever is less. For a "totaled" vehicle, enter a dollar estimate of the retail value of the vehicle prior to the crash. Do not enter the word "totaled".

A vehicle being towed by another is part of the towing vehicle and its damage should be included in the "Parts Damaged" and "Amount of Damage" categories.

(45) Cargo Body Type

1 Bus (seats for 16 or more, including driver)
2 Bus (seats for less than 16, including driver)
3 Van/enclosed box
4 Grain/chips/gravel truck
5 Pole truck
6 Cargo tank
7 Flatbed
8 Dump
9 Concrete mixer
10 Auto transporter
11 Garbage/refuse
12 Log truck
13 Other*
14 Intermodal Cargo Container

(46) Name of EMS

Record the name of the EMS (or EMS unit number if available) that responded to the crash. A letter designation, unique to each injured person is provided in the first column of the Occupant and Non-Motorist Section. This unique identifier must precede the name of the EMS for each injured person being transported.

Example: A - Cumberland County Ambulance

(47) Injured Taken by EMS to

Record the destination of the injured person preceded by the unique letter designation (from the first column) for the person involved, if they were taken to a hospital, clinic, doctor's office, or other place of emergency medical aid. Include both name of treatment facility and city or town.

Example: A - N.C. Memorial, Chapel Hill; B - Duke Hospital, Durham, etc.

KEY DEFINITIONS

CRASH/MOTOR VEHICLE/UNIT

A **motor vehicle crash** is any event that results in death, injury or property damage attributable directly to a motor vehicle or its load in transport, but not involving aircraft or watercraft. It must occur on a trafficway or after the motor vehicle runs off the roadway but before events are stabilized.

A **motor vehicle** is any mechanically or electrically powered device, not operated on rails, upon which any person or property may be transported or drawn upon a highway.

A **unit** is any motor vehicle, pedestrian, pedalcyclist, moped or other road vehicle, excluding railway vehicles, which can be shown on the report as "other" RR train.

DRIVERLESS MOTOR VEHICLE

A driverless motor vehicle, though previously parked, or a motor vehicle out of control while being towed or pushed, is considered to be a motor vehicle in transport. Also, an abandoned motor vehicle, upon a roadway, is considered to be a motor vehicle in transport. This principle does not apply to such devices as farm or industrial machinery, highway graders, construction machinery, or similar devices which are not in use at the time of the crash for transport.

HIT & RUN

A hit & run vehicle is one which was involved in the crash as the "striking vehicle" or as the "vehicle struck" but which left the scene. The appropriate box must be checked, e.g., vehicle 1, vehicle 2, etc. and any information that is known, included in the Driver and/or Vehicle areas.

NON-CONTACT VEHICLE OR NON-MOTORIST

Non-contact phantom motor vehicles or non-motorists are units that caused the crash but left the scene. They should not be counted in the number of units, but should be referred to in the narrative.

Non-contact motor vehicles or non-motorists are units that caused the crash and remained at the scene. They should be counted as units with identifying information, and referred to in the narrative. A school bus could be an example of a non-contact vehicle that is related to a crash (refer to data element # 68).

SCHOOL BUS

A motor vehicle used for the transportation of any school pupil at or below the 12th-grade level to or from a public or private school or school-related activity.

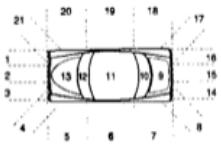
A school bus must be externally identifiable by the color yellow, the words "school bus", flashing red lights located on the front and rear, and identifying lettering on both sides indicating the school or school district served, or the company operating the bus.

MOTOR VEHICLE STATUS

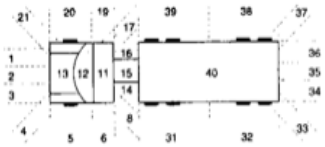
The use of the device at the time of the crash is the primary criterion for establishing motor vehicle status. For example:

1. A registered motor vehicle is being drawn by a team of horses on a city street; it is considered other road vehicle.
2. A registered motor vehicle is being used to draw a plow engaged in breaking ground on a farm; it is considered farm machinery while engaged in plowing.
3. A registered truck is engaged in spreading concrete at a road construction site; it is construction machinery.
4. A motorized highway grader, under its own power, is moving from one work place to another on a public way; it is considered a motor vehicle in transport.
5. A registered truck, with a blade attached, is engaged in plowing snow from a trafficway; it is considered road maintenance machinery.
6. A riding, motorized lawn mower, under its own power, is being driven from one home to another on a city street; it is considered a motor vehicle in transport.
7. A military tank is being moved, under its own power, from the firing range to the motor pool, on a land way of a military post; it is considered a motor vehicle in transport.

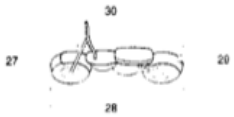
48 Points of Initial Contact | **0 Pedestrian & Non-Contact Vehicle** | **UNDERNEATH: 22 Front, 23 Center, 24 Rear, 25 Rollover, 26 Unknown**



Passenger Cars/Small Trucks



Tractor-Trailers



Motorcycle, Bicycle, Moped or ATV

(49) Vehicle Maneuver/Action
1 Stopped in travel lane
2 Parked out of travel lanes
3 Parked in travel lanes
4 Going straight ahead
5 Changing lanes or merging
6 Passing
7 Making right turn
8 Making left turn
9 Making U turn
10 Backing
11 Slowing or stopping
12 Starting in roadway
13 Parking
14 Leaving parked position
15 Avoiding object in road
16 Other*

(50) Non-motorist Action
1 Entering or crossing specified location
2 Walking, riding, running/jogging **with** traffic
3 Walking, riding, running/jogging **against** traffic
4 Working
5 Pushing vehicle
6 Approaching or leaving vehicle
7 Playing
8 Standing
9 Other*

(51) Non-motorist Location Prior to Crash
1 Marked crosswalk at intersection
2 At intersection but no crosswalk
3 Non-intersection crosswalk
4 Driveway access crosswalk
5 In roadway
6 Not in roadway
7 Median (but not on shoulder)
8 Island
9 Shoulder
10 Sidewalk
11 Within 10 feet of roadway (not on shoulder, median, sidewalk, island)
12 Beyond 10 feet of roadway (within trafficway)
13 Outside trafficway
14 Shared-use path or trails

(52-56) VEHICLE LEVEL

Crash Sequence of Harmful Events (First, Second, Third, Fourth), fields 52-55, and Most Harmful Event, field 56 for each Unit (Vehicle)

If a vehicle has only one event, then only one code is required. Vehicles can have up to 4 harmful events. The Most Harmful Event may or may not be one of the 4 events.

0 Unknown

Non-Collision
1 Ran off road right
2 Ran off road left
3 Ran off road straight ahead
4 Jackknife
5 Overturn/rollover
6 Crossed centerline/median
7 Downhill runaway
8 Cargo/equipment loss or shift
9 Fire/explosion
10 Immersion
11 Equipment failure (tires, brakes, etc.)
12 Separation of units
13 Other non collision*

Collision of Motor Vehicle With
14 Pedestrian
15 Pedalcyclist
16 RR train, engine
17 Animal
18 Movable object*

Collision of Two or More
Motor Vehicles
20 Parked motor vehicle
21 Rear end, slow or stop
22 Rear end, turn
23 Left turn, same roadway
24 Left turn, different roadways
25 Right turn, same roadway
26 Right turn, different roadways
27 Head on
28 Sideswipe, same direction
29 Sideswipe, opposite direction
30 Angle
31 Backing up
32 Other collision with vehicle*

Collision with Fixed Object
33 Tree
34 Utility pole (with or without light)
35 Luminaire pole (non-breakaway)
36 Luminaire pole (breakaway)
37 Official highway sign (non-breakaway)
38 Official highway sign (breakaway)
39 Overhead sign support
40 Commercial sign
41 Guardrail end on shoulder
42 Guardrail face on shoulder
43 Guardrail end in median
44 Guardrail face in median
45 Shoulder barrier end (non-guardrail)
46 Shoulder barrier face (non-guardrail)
47 Median barrier end (non-guardrail)
48 Median barrier face (non-guardrail)
49 Bridge rail end
50 Bridge rail face
51 Overhead part of underpass
52 Pier on shoulder of underpass
53 Pier in median of underpass
54 Abutment (supporting wall) of underpass
55 Traffic island curb or median
56 Catch basin or culvert on shoulder
57 Catch basin or culvert in median
58 Ditch
59 Embankment
60 Mailbox
61 Fence or fence post
62 Construction barrier
63 Crash cushion
64 Other fixed object*

(57) Distance & Direction from Road to Object Struck
0 None
1 In road
2 Right of road, 0-10 ft.
3 Right of road, 11-30 ft.
4 Right of road, over 30 ft.
5 Left of road, 0-10 ft.
6 Left of road, 11-30 ft.
7 Left of road, over 30 ft.
8 Straight ahead, 0-10 ft.
9 Straight ahead, 11-30 ft.
10 Straight ahead, over 30 ft.

(58) Vehicle Underride/Override
An underride refers to a vehicle sliding under another vehicle during a crash. An override refers to a vehicle riding up over another vehicle. Both can occur with a parked vehicle.
1 Underride

(59) Vehicle Defects
Maximum of two per Vehicle
0 None detected
1 Brakes
2 Headlights
3 Rear lights
4 Steering
5 Tires
6 Other defects*
7 Unknown

(60) Authorized Speed Limit
Authorized speed limit for the vehicle at the time of the crash. The authorization may be indicated by the posted speed limit, blinking sign at construction zones, restricted speed for permitted vehicles

(61) Estimate of Original Speed
Estimated speed in miles per hour for each vehicle involved in the collision. Estimates reflect the speed of each vehicle at the moment the driver initially perceived an existing hazard.

(62) Estimate of Speed at Impact
Estimated speed in miles per hour for each vehicle involved in the collision. Estimates reflect the speed of each vehicle at the moment of impact.

(63) Tire Impressions Before Impact
Length (in feet) of the tire impressions (skid marks, tire print yaw) for each vehicle involved in the collision, prior to impact.

(64) Distance Traveled After Impact
Distance (in feet) each vehicle or pedestrian traveled after impact as a result of the force of the collision.

(65) Emergency Vehicle Use
Indicates vehicles which are on an emergency response, i.e., traveling with physical emergency signals in use; lights, siren sounding, etc.
1 Firetruck
2 EMS Vehicle, Ambulance, Rescue Squad, etc.
3 Military
4 Police
5 Other

(66) Post Crash Fire
If "Yes" check block

(67) School Bus - Contact Vehicle
If "Yes" check block. This data element is used to determine "school bus related." The school bus, with or without a pupil on board, is directly involved as a contact vehicle.

(68) School Bus - Noncontact Vehicle
If "Yes" check block. This data element is used to determine "school bus related." The school bus, with or without a pupil on board, is indirectly involved as a noncontact vehicle.

(69) Road Feature
0 No special feature
1 Bridge
2 Bridge approach
3 Underpass
4 Driveway, public
5 Driveway, private
6 Alley intersection

Intersection of roadways (7-12)
7 Four-way intersection
8 T-intersection
9 Y-intersection
10 Traffic circle/roundabout
11 Five-point, or more
12 Related to intersection

13 Non-intersection median crossing
14 End or beginning-divided highway

Interchange (15-21)
15 Off-ramp entry
16 Off-ramp proper
17 Off-ramp terminal on crossroad
18 Merge lane between on and off ramp
19 On-ramp entry
20 On-ramp proper
21 On-ramp terminal on crossroad

22 Railroad crossing
23 Tunnel
24 Shared-use paths or trails
25 Other*

(70) Road Character - Horizontal and Vertical Alignment
1 Straight, level
2 Straight, hillcrest
3 Straight, grade
4 Straight, bottom (sag)
5 Curve, level
6 Curve, hillcrest
7 Curve, grade
8 Curve, bottom (sag)
9 Other*

(71) Road Classification
1 Interstate
2 US Route
3 NC Route
4 State Secondary Route
5 Local Street
6 Public Vehicular Area
7 Private Road, Driveway
8 Other*

(72) Road Surface Type
1 Concrete
2 Grooved concrete
3 Smooth asphalt
4 Coarse asphalt
5 Gravel
6 Sand
7 Soil
8 Other*

(73) Road Configuration
(Trafficway Description)
1 One-way, not divided
2 Two-way, not divided
3 Two-way, divided, unprotected median
4 Two-way, divided, positive median barrier
5 Unknown

(74) Access Control
1 No access control
2 Full access control
3 Partial access control

(75) Number of Lanes
Total number of lanes in both directions in the trafficway. If parking lot,

(76) Traffic Control Device
0 No control present
1 Stop sign
2 Yield sign
3 Stop and go signal
4 Flashing signal with stop sign
5 Flashing signal without stop sign
6 RR gate and flasher
7 RR flasher
8 RR crossbucks only
9 Human control
10 Warning sign
11 School zone signs
12 Flashing stop and go signal
13 Double yellow line, no passing zone
14 Other*

(77) Traffic Control Operating
1 Yes
2 No
3 Unknown

(78 - 81) Work Zone Related

(78) Did crash occur in or near
1 Construction work area
2 Maintenance work area
3 Utility work area
4 Intermittent/moving work- e.g., patching pothole
5 No

(79) Work activity at time of crash
1 On going
2 No apparent activity

(82) Trailer Type
0 No trailer
Non-semi trailers
1 Boat
2 Camper
3 Utility
4 Horse
5 House trailer (mobile home)
6 Towed vehicle
7 Other non-semi
Semi trailers
8 Tanker
9 Enclosed van
10 Flatbed or platform
11 Other semi trailer
12 Double trailer

(83) Overwidth Trailer/Mobile Home
Enter the number of the vehicle pulling overwidth trailer, including overwidth mobile home, followed by the permit number.

(84) Crash Diagram
The diagram should include:
1 Roads and intersecting roads; if a vehicle is struck exiting a driveway, give the name of the business or resident
2 Direction of travel for each lane
3 All pertinent roadside features
4 Paths of travel for vehicles, pedestrians, bicyclists, etc.
5 Tire marks and debris
6 Measurements pertinent to the location of the point of impact. Use a tape for distances up to 500 feet. Use an odometer for greater distances

For crashes within an Interchange:
1 Add a small line sketch of the interchange and show an "x" where the crash occurred
2 Sketch should be less than 25% of the total diagram area, and
3 Conform to the north arrow
4 Identify number, name of the road(s), ramps, and service roads shown

(85) Crash Narrative
Provide a word description of events occurring prior to, during, and after the crash which are not elsewhere on the form. Note all pertinent and unusual aspects of the crash. Statements made in this narrative should be in the opinion of the investigating officer.

(86) Additional Property Damage
Enter any property other than motor vehicles that was damaged, identify property and its owner and enter an estimate of the dollar damage. Damage to signs, buildings, mailboxes, fences, etc., should be entered here.

(80) Work area marked with warning signs, cones
1 Yes
2 No

(81) Location of crash
1 Before work area
2 In work area approach taper
3 Adjacent to actual work area

APPENDIX F: DMV-349 (Front)

DMV-349 (Rev. 1/2009)

THIS REPORT IS FOR THE USE OF THE DIVISION OF MOTOR VEHICLES. THE DATA IS COLLECTED FOR STATISTICAL ANALYSIS AND SUBSEQUENT HIGHWAY SAFETY PROGRAMMING. DETERMINATIONS OF "FAULT" ARE THE RESPONSIBILITY OF INSURERS OR OF THE STATE'S COURTS.

Do not write in these spaces

Date Received by DMV

No. of Units Involved | Form ____ of ____ | ☐ Supplemental Report | ☐ Non-Reportable

Crash Date	County	Time	Local Use/Patrol Area
mm/dd/ccyy		(24 Hour Clock)	

LOCATION

33 Relation to Roadway Surface ____ Crash occurred ☐ In ☐ Near ____ Municipality ☐ ☐☐☐☐ outside municipality

on ____ Highway Number, or Highway, Street. (If ramp or service road, indicate on line) ☐ Ramp or Service Road (R.R.Crossing #____) ____ or ____ Miles ____ (0 ft.-Intersection) ☐☐☐☐ N S E W ft. (If available)

at or from ____ Use Highway Number, Street Name or Adjacent County or State Line ☐☐☐☐ N S E W toward ____ Use Highway Number, Street Name or Adjacent County or State Line

Latitude ____ Longitude ____ Altitude ____

UNIT # ____ ☐ VEHICLE ☐ PEDESTRIAN ☐ HIT & RUN ☐ COMMERCIAL 20 VEHICLE

Driver ____ First ____ Middle ____ Last ____ Suffix

Address ____

City ____ State ____ Zip ____

Same Address on Driver's License? ☐ Yes ☐ No — Driver's Phone Numbers H ( ) ____ W ( ) ____

D.L. # ____ CDL License ☐ D.L. Class ____ State ____

DOB ____ mm/dd/ccyy — 34 Vision Obstruction ____ 35 Physical Condition ____ 36 D.L. Restrictions ____

37 Alcohol/ Drugs Suspected ____ 38 Alcohol/ Drugs Test ____ 39 Results (if known) ____ 40 Vehicle Seizure (DWI) ☐

Owner ____ Same as Driver? ☐

Address ____ Same Address as Driver? ☐

City ____ State ____ Zip ____

Plate # ____ Plate State ____ Plate Year ____

VIN ____

Vehicle Make ____ Vehicle Year ____ 41 Vehicle Style (Type) ____ 42 Vehicle Drivable ☐ Yes ☐ No

43 TAD ____ 44 Estimated Damage ____

Insurance Company ____

Policy # ____

UNIT # ____ ☐ VEHICLE ☐ PEDESTRIAN ☐ HIT & RUN ☐ OTHER ____

Driver ____ First ____ Middle ____ Last ____ Suffix

Address ____

City ____ State ____ Zip ____

Same Address on Driver's License? ☐ Yes ☐ No — Driver's Phone Numbers H ( ) ____ W ( ) ____

D.L. # ____ CDL License ☐ D.L. Class ____ State ____

DOB ____ mm/dd/ccyy — 34 Vision Obstruction ____ 35 Physical Condition ____ 36 D.L. Restrictions ____

37 Alcohol/ Drugs Suspected ____ 38 Alcohol/ Drugs Test ____ 39 Results (if known) ____ 40 Vehicle Seizure (DWI) ☐

Owner ____ Same as Driver? ☐

Address ____ Same Address as Driver? ☐

City ____ State ____ Zip ____

Plate # ____ Plate State ____ Plate Year ____

VIN ____

Vehicle Make ____ Vehicle Year ____ 41 Vehicle Style (Type) ____ 42 Vehicle Drivable ☐ Yes ☐ No

43 TAD ____ 44 Estimated Damage ____

Insurance Company ____

Policy # ____

20 COMMERCIAL VEHICLE: Cargo, Carrier Name, Address, Source

Unit ____ 45 Cargo Body Type ____ ☐ Same Address as Owner?

Source: ☐ Truck ☐ Shipping papers ☐ Driver

Carrier Identification Numbers, GVWR, Axles

US DOT# ____ ICC# ____ Axles on Vehicle Including Trailers ____

State ____ State # ____ IFTA# ____

FEI# ____ Fleet# ____ Gross Vehicle Weight Rating ____

Names and Addresses for All Persons (Unit 1/Unit 2 Drv, Ped, etc. - See Above); Use check blocks if address same as Driver

	21	22	23	24	25	26	27	28	29	30	31	32	
A				Unit1-Drv1, Ped1, etc. see above									see above — Veh#___ Towed To/By:
B				Unit2-Drv2, Ped2, etc. see above									see above — Veh#___ Towed To/By:
C													
D													
E													
F													
G													
H													

46 Name of EMS ____ 46 Name of EMS ____

47 Injured Taken by EMS to ____ (Treatment Facility and City or Town) 47 Injured Taken by EMS to ____ (Treatment Facility and City or Town)

DMV-349 (Back)

48 POINTS OF INITIAL CONTACT (Write in Codes) Unit# ___ Unit# ___

CRASH SEQUENCE (Unit Level)	Unit#___	Unit#___
49 Vehicle Maneuver/Action		
50 Non-Motorist Action		
51 Non-Motorist Location Prior to Impact		
52 **Crash Sequence - First Event for This Unit**		
53 Crash Sequence - Second Event *		
54 Crash Sequence - Third Event *		
55 Crash Sequence - Fourth Event *		
56 **Most Harmful Event for This Unit**		
57 Distance/Direction to Object Struck		
58 Vehicle Underride/Override		
59 Vehicle Defects		

VEHICLE INFO.	Veh.#___	Veh.#___
60 Authorized Speed Limit		
61 Estimate of Original Traveling Speed		
62 Estimate of Speed at Impact		
63 Tire Impressions Before Impact (ft.)		
64 Distance Traveled After Impact (ft.)		
65 Emergency Vehicle Use		
66 Post Crash Fire (if "Yes" check block)	☐	☐
67 School Bus - Contact Vehicle *	☐	☐
68 School Bus - Noncontact Vehicle *	☐	☐

COMMERCIAL VEHICLE: Hazardous Materials Involvement Unit:_____

Haz Mat Placard ☐ Yes ☐ No

Hazardous Cargo ☐ Yes ☐ No

Released (does not include fuel from fuel tank)

Carrying Haz Mat ☐ Yes ☐ No

From Placard indicate: 4-digit placard number or name from diamond or box: ___ ___ ___ ___ 1-digit number from bottom of diamond: ___

ROADWAY INFO.	
69 Road Feature	
70 Road Character	
71 Road Classification	
72 Road Surface Type	
73 Road Configuration	
74 Access Control	
75 Number of Lanes	
76 Traffic Control Type	
77 Traffic Control Oper	

WORK ZONE RELATED	
78 Workzone Area	
79 Work Activity	
80 Work Area Marked	
81 Crash Location	

TRAILER INFO.	Unit.#___	Unit.#___
82 Trailer Type		
1st Trailer No. Axles		
Width (inches)		
Length (feet)		
2nd Trailer No. Axles		
Width (inches)		
Length (feet)		
83 Unit.#___ Overwidth Trailer and Overwidth Mobile Home	Overwidth Permit #	

84 **DIAGRAM**

Indicate North

Unit.#___ was: ☐ Traveling ☐ Parked Facing ☐ N ☐ S ☐ E ☐ W on _____

Unit.#___ was: ☐ Traveling ☐ Parked Facing ☐ N ☐ S ☐ E ☐ W on _____

85 **NARRATIVE** (Include pertinent and unusual aspects, which are not listed elsewhere on the form)

ADDITIONAL PROPERTY DAMAGE

86 Type/ Owner _____ Owner Address _____ Phone _____ State Property? ☐ Estimated Damage $ _____

WITNESSES

Name _____ Address _____ Phone No. ( ) _____

Name _____ Address _____ Phone No. ( ) _____

TRAFFIC VIOLATION(S)

Name _____ Charge(s) _____

(Citation # optional)

Name _____ Charge(s) _____

Officer Name _____ Officer Number _____ Department _____ Date of Report _____

APPENDIX G: Completing the DMV 349 & Supplemental Reports

Completing the Crash Report Form DMV-349

A reportable motor vehicle crash must meet at least one of the following criteria:

- results in a fatality, or
- a non-fatal personal injury, or
- property damage of $1,000 or greater, or
- property damage of any amount to a vehicle seized

In addition, a reportable motor vehicle crash must occur on a trafficway (any land way open to the public as a matter of right or custom for moving persons or property from one place to another) or occur after the motor vehicle runs off the roadway but before events are stabilized.

The terms collision, accident, and crash are synonymous when describing a motor vehicle crash.

(FILLING OUT THE DMV-349)

(*) EXPLAIN IN CRASH NARRATIVE
(-) IF QUESTION DOES NOT APPLY, USE A DASH
(If a section does not apply, draw diagonal line through section)
 ONLY USE "CHECK BLOCKS" IF THEY APPLY

The Division of Motor Vehicles (DMV) requests that:

1. The DMV-349 should be typewritten or if handwritten the officer should use black ink,
2. The report should be legible. This is of the utmost importance for clarity, when reports are microfilmed or imaged for later storage, and
3. The original should be submitted to the DMV Traffic Records Section.

COMPLETING A SUPPLEMENTAL

When completing a supplemental report note that:

- It is not necessary to rewrite most of the information as listed on be original DMV-349 (report). Supplemental reports must be reported on a separate DMV-349 from the original report. The location must be completed in addition to the date, and time of the crash.

- List only the names of drivers (or owner, if no driver) as shown on the original report.

- List the additional information or correction to be made.

- If the original report included a hit and run driver and the driver has been apprehended the supplement must include all information for that respective driver and vehicle on the front and back of the report.

Supplemental traffic crash reports must be submitted when:

1. The original report was incomplete because of lack of information or an incomplete investigation.

2. A correction on the original report is necessary because of inaccurate information.

3. A person dies of injuries sustained in a traffic crash within one year of the crash.

APPENDIX H: Crashes Involving Commercial Motor Vehicles

CRASHES INVOLVING COMMERCIAL MOTOR VEHICLES (CMV)

The reporting of motor vehicle crashes involving CMV's has been incorporated into the DMV-349. All of the data requirements to meet the Office of Motor Carrier, Federal Highway Administration requirements for SAFETYNET, and the seven motor carrier specific data elements recommended by the National Governor's Association have been addressed.

The DMV-349 is designed to record information for a single CMV involved in a crash. Questions concerning hazardous materials involvement may be found on the reverse side of the DMV-349 in rare instances where two or more CMV's are involved in the same crash, a second DMV-349 must be submitted with the appropriate information for subsequent CMVs.

COMMERCIAL MOTOR VEHICLES CARRIER IDENTIFICATION NAME, NUMBERS, AND ADDRESS

This Information is provided as a quick reference to aid law enforcement in correctly identifying the carrier identification numbers for purposes of reporting crashes or inspections. When a commercial motor vehicle crash report and/or inspection report is filled out, the correct motor carrier will receive credit (good and bad) for the crash and/or inspection.

The Federal Highway Administration and States use the crash and/or inspection reports in determining safety fitness ratings of motor carriers and targeting unsafe motor carriers for in depth investigations. To avoid improperly identifying the name and address of a motor carrier the officer should rely on more than a single document or item when identifying the motor carrier. The officer should review as many of the following items as possible to determine the name and address of the motor carrier.

Side of the Vehicle - the correct name, address and US DOT#/ICC# of the motor carrier may or may not be marked on the side of the vehicle. If the marking on the side of the vehicle matches the name on the other items, the correct motor carrier is probably identified. The US DOT# is required if the vehicle is an interstate private carrier. The ICC MC# is required if the vehicle is an interstate for hire carrier. The State Exemption Numbers, also contained on the side of the vehicle, are required for intrastate passenger carriers and/or carriers of household goods.

Driver interview - The officer should ask questions, such as;

1. Is the vehicle leased or rented?
2. Who is the motor carrier that is responsible for this load?
3. Who is directing and controlling the movement of this vehicle?
4. Where is the motor carrier's principal place of business?

Lease Agreement - This document is excellent for identifying the name of the lessee.

Driver's Log - When logs are required; they will contain the name of the motor carrier and the city and state where the motor carrier's principal place of business is located,

Shipping Papers (Bill of Lading) - generally this document will provide the officer with the name of the motor carrier who is responsible for the load. The shipping papers are the written transportation contract between the shipper and the carrier. They identify the freight, who is to receive it, and the place of delivery and give the terms of the agreement.

Vehicle Registration -These documents are good for identifying the owner and/or registrant who may or may not be the responsible motor carrier. Even when the registration identifies the responsible motor carrier, it may or may not show the address of the motor carrier's principal place of business because carriers with terminals in multiple states generally register their vehicles in the state of domicile. Therefore, the address may be a terminal address.

The vehicle registration or "Cab Card" also contains the IFTA# (International Fuel Tax Agreement Number) and the Fuel Tax Account #, which is comprised of the State, FEI# (Federal Employee Identification Number and Fleet Number.)

APPENDIX I: Important Definitions

CRASH/MOTOR VEHICLE/UNIT

A motor vehicle crash is any event that results in death, injury or property damage attributable directly to a motor vehicle or its load in transport, but not involving aircraft or watercraft. It must occur on a trafficway or after the motor vehicle runs off the roadway but before events are stabilized.

A motor vehicle is any mechanically or electrically powered device, not operated on rails, upon which any person or property may be transported or drawn upon a highway.

A unit is any motor vehicle, pedestrian, pedalcyclist, moped or other road vehicle, excluding railway vehicles, which can be shown on the report as "other" RR train.

DRIVERLESS MOTOR VEHICLE

A driverless motor vehicle, though previously parked, or a motor vehicle out of control while being towed or pushed, is considered to be a motor vehicle in transport. Also, an abandoned motor vehicle, upon a roadway, is considered to be a motor vehicle in transport. This principle does not apply to such devices as farm or industrial machinery, highway graders, construction machinery, or similar devices which are not in use at the time of the crash for transport.

HIT & RUN

A hit & run vehicle is one which was involved in the crash as the “striking vehicle” or as the “vehicle struck” but which left the scene. The appropriate box must be checked, e.g., vehicle 1, vehicle 2, etc. and any information that is known, included in the Driver and/or Vehicle areas.

NON-CONTACT VEHICLE OR NON-MOTORIST

Non-contact phantom motor vehicles or non-motorists are units that caused the crash but left the scene. They should not be counted in the number of units, but should be referred to in the narrative.

Non-contact motor vehicles or non-motorists are units that caused the crash and remained at the scene. They should be counted as units with identifying information, and referred to in the narrative. A school bus could be an example of a non-contact vehicle that is related to a crash (refer to data element # 68).

Important Definitions (cont.)

SCHOOL BUS

A motor vehicle used for the transportation of any school pupil at or below the 12th-grade level to or from a public or private school or school-related activity.

A school bus must be externally identifiable by the color yellow, the words “school bus”, flashing red lights located on the front and rear, and identifying lettering on both sides indicating the school or school district served, or the company operating the bus.

MOTOR VEHICLE STATUS

The use of the device at the time of the crash is the primary criterion for establishing motor vehicle status. For example:

1. A registered motor vehicle is being drawn by a team of horses on a city street; it is considered other road vehicle.
2. A registered motor vehicle is being used to draw a plow engaged in breaking ground on a farm; it is considered farm machinery while engaged in plowing.
3. A registered truck is engaged in spreading concrete at a road construction site; it is construction machinery.
4. A motorized highway grader, under its own power, is moving from one work place to another on a public way; it is considered a motor vehicle in transport.
5. A registered truck, with a blade attached, is engaged in plowing snow from a trafficway; it is considered road maintenance machinery.
6. A riding, motorized lawn mower, under its own power, is being driven from one home to another on a city street; it is considered a motor vehicle in transport.
7. A military tank is being moved, under its own power, from the firing range to the motor pool, on a land way of a military post; it is considered a motor vehicle in transport.

Fatal injury - Any injury that results in death within 12 months after the crash occurred.

A Type Injury (disabling) - An injury obviously serious enough to prevent the injured person from performing his or her normal activities for at least one day beyond the day of the crash. Massive loss of blood, broken bone, unconsciousness of more than momentary duration are examples.

B Type Injury (evident) - an obvious injury, other than a fatality or A Type injury, which is evident at the scene. Bruises, swelling, limping, soreness, are examples. This injury would not necessarily prevent the person from carrying on his or her normal activities.

C Type lnjury (possible) - No visible injury, but person complains of pain, or has been momentarily unconscious.

Derived Data Elements - These are data elements which are not necessarily collected at the scene by the police. Instead, they can be obtained by counting or recoding information that has already been collected on the DMV-349. Examples include:

1. Day of week
2. Number of motorists
3. Number of non-motorist
4. Vehicle body type
5. Crash severity
6. Total persons injured
7. Total persons killed