ANSI D16.1-2007

# AMERICAN NATIONAL STANDARD

ANSI D16.1-2007

Manual on Classification of Motor Vehicle Traffic Accidents





**ANSI D16.1-2007**Revision of ANSI D-16.1-1996

# **American National Standard**

# Manual on Classification of Motor Vehicle Traffic Accidents Seventh Edition

#### Secretariat

## **National Safety Council**

Prepared by the D16 Committee on Classification of Motor Vehicle Traffic Accidents under the direction of the Association of Transportation Safety Information Professionals of the National Safety Council Highway Traffic Safety Section

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Re	evised from 6 <sup>th</sup> Edition	New for Seventh Edition		
Ref#	Description	Ref#	Description	
2.1.3	Transport device	2.2.6.1	Personal conveyance	
2.1.4	Transport vehicle	2.2.7.1	Low speed vehicle	
2.2.1	Trafficway	2.2.7.2	Working motor vehicle	
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#### **Foreword**

(This foreword is not part of American National Standard, Manual on Classification of Motor Vehicle Traffic Accidents, Seventh Edition)

The purpose of this American National Standard is to provide a common language for reporters, classifiers, analysts and users of traffic accident data. The Manual on Classification of Motor Vehicle Traffic Accidents and its predecessor, Uniform Definitions of Motor Vehicle Accidents, have provided classification assistance for more than half a century.

The Manual is designed to facilitate the development of data on accidents involving motor vehicles and other road vehicles in and out of traffic. It is a standard for statistical classifications of motor vehicle traffic accidents for nationwide use.

The principal changes in this Seventh Edition are the incorporation of new definitions/classifications and a number of modifications to existing definitions/classifications (see "Seventh Edition Revised and New D16.1 Definitions" chart on page ii.)

Evidence of consensus on this standard is obtained through the ANSI committee method. The D16.1 Committee on Classification of Motor Vehicle Traffic Accidents, also called a Consensus Body, includes diverse representation from data producers and processors, government and non-government data users, and general interest. Although membership in the Association of Transportation Safety Information Professionals (ATSIP) is not required to be on the Consensus Body, many members are active in this group that represents many facets of the profession. Consensus Body members are listed on the next page. Recommendations for additional qualified members are welcome.

Many users of the Manual have had questions about its interpretation or its application in unusual situations. The ANSI Committee is particularly interested in questions which help to identify problems in the Manual or subjects that need more detailed coverage. In addition, suggestions for improvement of the Manual are actively solicited and may be submitted at any time. Please submit questions or comments to the Committee Chairman, Kenneth Hackman, National Institute for Safety Research, Inc., 326 Hill Top Road, Oakland, MD, 21550, or to the National Safety Council, 1121 Spring Lake Drive, Itasca, IL, 60143-3201. When submitting questions or comments, please include a telephone number where you may be contacted should additional information or clarification be required.

Kenneth D. Hackman, Chairman David J. Bozak, Secretary Secretariat: D16 Committee National Safety Council 1121 Spring Lake Drive Itasca, IL 60143-3201

# D16.1 7<sup>th</sup> Edition Consensus Body Members

The following members of the D16.1 Consensus Body participated in the review and voting of the Seventh Edition's new and revised definitions and classifications:

Kenneth D. Hackman, National Institute for Safety Research, Inc. - Chairman, D16.1 Committee

Betsy Benkowski, Federal Motor Carrier Safety Administration, Data Analysis and Information Systems

Dan Blower, University of Michigan Transportation Research Institute, Transportation Safety Analysis

Dave Bozak, InfoGroup Inc.

Linda Butler, Tennessee Department of Safety, Crash Analysis & Reporting Section

John Carrico, Kentucky State Police

Richard Conard, Massachusetts Highway Department

Rocco Domenico, Colorado State Patrol

Russell Dunwiddie, Missouri State Highway Patrol, General Headquarters

Scott R. Falb, Iowa Department of Transportation, Office of Driver Services

Dennis Flemons, National Highway Traffic Safety Administration, National Center for Statistics and Analysis

Carl Gonder, State of Alaska Department of Transportation

Robert Hagge, California Department of Motor Vehicles, Research and Development Branch

Jackie Haus, Utah Traffic Records Coordinating Committee/CODES

Larry Holestine, Data Nexus Inc.

Tom Hollingsworth, Ohio Department of Public Safety

Tim Kerns, University of Maryland – Baltimore, National Study Center – Trauma & EMS

Robert Lung, Honolulu Police Department, Traffic Division

Dan Magri, Louisiana Department of Transportation and Development, Planning Division

Chuck Miller, Louisiana Highway Safety Commission

Robert Scopatz, Data Nexus Inc.

William H. Shanks, Alabama Department of Public Safety, Public Information/Education Unit, FARS Section

Brian Tefft, AAA Foundation for Traffic Safety, Research

Joan L. Vecchi, Colorado Motor Vehicle Department

Carol Wright, American Trauma Society

Although not members of the voting Consensus Body, the following individuals provided their considerable expertise in the development of the 7<sup>th</sup> Edition's new and revised definitions and the balloting procedure.

John McDonough, National Institute for Safety Research, Inc.

Deborah Trombley, National Safety Council

Sandra Hackman, National Institute for Safety Research, Inc.

Creighton Miller, Retired – South Dakota Department of Transportation

### Manual on Classification of Motor Vehicle Traffic Accidents

#### 1 Introduction

The primary purpose of the Manual on Classification of Motor Vehicle Traffic Accidents is to promote uniformity and comparability of motor vehicle traffic accident statistics now being developed in Federal, state and local jurisdictions.

The definitions in this Manual are related, but not necessarily identical, to the definitions found in the Uniform Vehicle Code; Manual of the International Statistical Classification of Diseases, Injuries and Causes of Death (ICD); United States Code, Title 23, Highways; and the Manual on Uniform Traffic Control Devices, ANSI D6.1e-1989. These documents were developed for a variety of purposes. This variety is reflected in the definition of terms; similar terms do not necessarily have similar definitions.

The body of the Manual is divided into two sections, one containing definitions and one containing classification instructions. The definitions are presented in an order which avoids dependence upon special terms not previously defined. In addition, an attempt has been made to make every definition complete; modifications of definitions are not introduced intentionally in subsequent sections or subsections.

The use of this standard does not require the use of all classifications described in the Manual or prohibit the use of additional classifications. Accident report forms and summaries should, however, be compatible with the Manual to permit compilation and comparison of information collected in different jurisdictions.

Nothing in this Manual is to be construed as a requirement for accident reporting or investigation. Reporting requirements which govern drivers or police are generally established by state law or city ordinance, while requirements for investigation are ordinarily specified in investigative agencies.

The assignment of accidents to a geographical location, such as a city, county or state, does not imply that the jurisdiction is responsible for such accidents or that it could have prevented them. Such arbitrary assignments indicate only that the accidents occurred within the geographical limits of the jurisdiction.

#### 2 Definitions

# 2.1 Transport Vehicles and Transport Ways

- **2.1.1 person:** A person is any living human. Within the context of this manual, a fetus is considered to be part of a pregnant woman rather than a separate individual. After death, a human body is not considered to be a person.
- **2.1.2 property:** Property is any physical object other than a person.

#### Inclusions:

- Real property, personal property
- Animal wild or domestic
- Sign, guardrail, impact attenuator
- 2.1.3 transport device: A transport device is any device designed primarily for moving persons or property along with the device itself from one place to another, except (1) a weapon, (2) a device used primarily within the confines of a building and its premises, or (3) a personal conveyance.

- Airplane
- Helicopter
- Hovercraft
- Ship
- Submarine
- Train
- Boxcar
- Caboose
- Snowmobile
- Farm Tractor
- Automobile (See 2.2.12)
- Van (See 2.2.14)

- Utility Vehicle (See 2.2.11)
- Bus (See 2.2.10)
- Truck (See 2.2.13-2.2.26)
- Trailer (See 2.2.15)
- Semitrailer (See 2.2.17)
- Motorcycle (See 2.2.9)
- Bicycle
- Moped (See 2.2.9.4)

#### **Exclusions:**

- Devices not designed primarily for moving persons or property for transportation purposes, such as construction machinery, farm or industrial machinery, army tanks, etc.
- Devices which do not move from one place to another, such as pipelines, elevators, escalators, ski lifts, conveyor belt systems, etc.
- Weapons, such as guns, torpedoes, etc.
- Devices used primarily within buildings and their premises, such as fork lifts in factories or lumber yards, motorized baggage trucks in railroad stations, etc.
- Human-powered, non-motorized devices not propelled by pedaling, such as skis, scooters, roller skates, baby carriages, etc.
- Personal conveyances
- **2.1.4 transport vehicle**: A transport vehicle consists of one or more devices or animals and their load. Such devices or animals shall include at least one of the following:
  - A transport device, or a unit, made up of connected transport devices, while idle or in use, for moving persons or property from one place to another,
  - An animal or team of animals while in use for moving person or property other than the animal or team itself from one place to another, or
  - A movable device such as construction, farm or industrial machinery outside the confines of a building and its premises while in use for moving

persons, the device itself, or other property from one place to another.

If such a device or animal has a load, the load is part of that transport vehicle. Loads include:

- Persons or property upon, or set in motion by, the device or animal
- Persons boarding or alighting from the device or animal
- Persons or property attached to and in position to move with the device or animal

If the load upon a transport device includes another transport device, the entire unit including the load is considered to be a single transport vehicle.

- 1.) Transport Devices
- Airplane towing a sailplane
- Tugboat pushing a barge
- Boxcar coupled to a caboose
- Truck tractor towing a semitrailer and a trailer (See 2.2.21)
- Automobile or ATV towing a person on skates, skateboard, sled or bicycle
- Snowmobile towing a skier
- Automobile towing another automobile
- 2.) Animals
- Horse and rider
- Dog team drawing a sled
- Team of horses drawing a sled
- Burro carrying a load of firewood
- Mule towing a boat on a canal
- 3.) Other Movable Devices
- Road grader while traveling under its own power from a maintenance depot to a working place
- Any mower while being ridden down a street under its own power

- Farm tractor while pulling a wagon loaded with corn from a field to a storage place
- Army tank while moving under its own power from a firing range to a motor pool
- **2.1.5 aircraft:** An aircraft is a transport vehicle designed primarily for, or in use for, moving persons or property through the air from one place to another.

#### Inclusions:

- Airplane
- Balloon
- Dirigible
- Glider
- Parachute
- Spacecraft
- **2.1.6** watercraft: A watercraft is a transport vehicle designed primarily for, or in use for, moving persons or property on or through, and supported by, water from one place to another.
- **2.1.7 land vehicle**: A land vehicle is a transport vehicle which is neither an aircraft nor a watercraft.

**2.1.8 transport way:** A transport way is any way or place reserved or commonly used for the operation of transport vehicles.

#### **Exclusions:**

- Hiking trail, sidewalk, footpath
- **2.1.9 airway**: An airway is a transport way reserved primarily for use by aircraft taking off, in flight, or landing.
- **2.1.10 waterway:** A waterway is a transport way reserved primarily for use by watercraft.
- **2.1.11 land way:** A land way is the space within property lines or other boundary lines of any transport way that is neither an airway nor a waterway.

# 2.2 Land Ways, Land Vehicles and Users

**2.2.1 trafficway:** A trafficway is any land way open to the public as a matter of right or custom for moving persons or property from one place to another (See Figure 1).

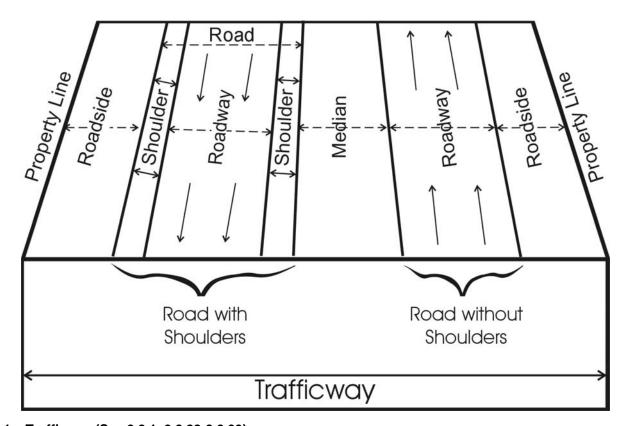


Figure 1 - Trafficway (See 2.2.1, 2.2.28-2.2.33)

#### Inclusions:

- Within areas with guarded entrances, such as military posts or private residential developments, land ways are trafficways if the guards customarily admit public traffic
- Privately constructed and/or maintained road open to the public for moving persons or property for transportation purposes
- Local road in a residential development, which is open to the public
- Land way providing vehicular access and/or circulation from a trafficway to a business open to the public (See 2.5.22)

#### Examples:

- 1.) Land way within a gated community when the gates are open to the public
- 2.) Circulating system of roadways in the land way of a shopping center or shopping mall which provides public access to the parking lots
- 3.) A road providing access to the public from the trafficway to the parking lot of a major chain store
- 4.) A road with unrestricted access in a private retirement community

#### **Exclusions:**

- A land way under construction is not a trafficway if traffic is prohibited from entering by signing or barriers which are in conformance with applicable standards. However, if any part of the land way is open to traffic while the remainder is closed, that part which is open for traffic is a trafficway. Likewise, any temporary bypass of a construction site is a trafficway.
- A land way temporarily closed to travel and marked by signing or barriers which are in conformance with applicable standards is not a trafficway even though used by authorized vehicles, such as maintenance vehicles, or when intentionally or inadvertently used by unauthorized vehicles. A land way open only to local traffic is not considered closed.
- Road in a gated community that is only open to residents and their guests

- Land way not open to the public
- Parking space and parking aisle (See 2.5.22)

#### Examples:

- 1.) Driveway to a residence or business
- 2.) Military base or gated community with restricted access
- 3.) Parking aisle providing entry to parking spaces or stalls
- **2.2.2 private way:** A private way is any land way other than a trafficway. The space within a crossing of a private way and a trafficway shall be considered to be a trafficway.
- **2.2.3 railway**: A railway is any private way reserved primarily for land vehicles moving persons or property from one place to another on rails.
- **2.2.4 railway vehicle:** A railway vehicle is any land vehicle that is (1) designed primarily for, or in use for, moving persons or property from one place to another on rails and (2) not in use on a land way other than a railway.

#### Inclusions:

Street car on private way

#### **Exclusions:**

- Street car operating on trafficway (See 2.2.8)
- **2.2.5 railway train**: A railway train is any motorized railway vehicle.
- **2.2.6 road vehicle**: A road vehicle is any land vehicle other than a railway vehicle. (See 2.2.7 and 2.2.8)
- **2.2.6.1 personal conveyance**: A personal conveyance is a device, other than a transport device, used by a pedestrian (See 2.2.36) for personal mobility assistance or recreation. These devices can be motorized or human powered, but not propelled by pedaling.

- 1.) Rideable toys
- Roller skates, in-line skates
- Skateboard
- Skates

- Baby Carriage
- Scooter
- Toy Wagon
- 2.) Motorized rideable toys
- Motorized skateboard
- Motorized toy car
- 3.) Devices for personal mobility assistance
- Segway-style device
- Motorized and non-motorized wheelchair
- Handicapped scooter

#### **Exclusions:**

- Golf cart
- Low Speed Vehicle (LSVs) (See 2.2.7.1)
- Go-carts
- Minibike
- "Pocket" motorcycle
- Motor scooter
- Moped (See 2.2.9.4)
- **2.2.7 motor vehicle:** A motor vehicle is any motorized (mechanically or electrically powered) road vehicle not operated on rails (See 2.2.7.1, 2.2.7.2, 2.2.9 2.2.26).

#### Inclusions:

- Electrically powered bus attached to cables
- Trolley on highway tires
- Low speed vehicle (LSVs) (See 2.2.7.1)
- Motor-driven cycle (See 2.2.9.1)
- All working motor vehicles (See 2.2.7.2)

#### **Examples:**

- 1.) A tow truck using its winch to pull a vehicle out of a ditch
- 2.) Electric or telephone company truck with cherry picker repairing cables on a utility pole
- 3.) Road paint striping truck in the process of painting lines on the roadway

4.) Garbage truck being loaded with trash

#### **Exclusions:**

Motorized personal conveyance (See 2.2.6.1)

#### Examples:

- 1.) Motorized skate board
- 2.) Motorized toy car
- 3.) Motorized wheelchair or handicapped scooter
- 4.) Segway-style device
- **2.2.7.1 low speed vehicle**: A low speed vehicle (LSV) is a motor vehicle with four or more wheels whose top speed is greater than 20 miles per hour, but not greater than 25 miles per hour.

LSVs are required to be equipped with basic items of safety equipment: headlamps, stop lamps, turn signal lamps, tail lamps, reflex reflectors, parking brake, windshields of either type AS-1 or AS-5 glazing, rearview mirrors, seat belts and vehicle identification numbers (VINs).

#### Inclusions:

- A conventional golf cart that was modified, after its original manufacture, so as to increase its top speed into the 20-25 mph range
- An originally manufactured custom golf cart (that is not a modified conventional golf cart) that has a top speed above 20 mph but not greater than 25 miles per hour <sup>1</sup>

#### Examples:

- 1.) Neighborhood Electric Vehicle (NEV)
- 2.) Fleet golf carts sold to golf courses that have been speed-modified to increase their top speed into the 20-25 mph range
- 3.) Personal golf carts sold to individual persons that have been speed-modified or originally manufactured to achieve a top speed above 20 mph but not greater than 25 miles per hour

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<sup>&</sup>lt;sup>1</sup> LSVs will be subject to Federal Motor Vehicle Safety Standard (FMVSS), No. 500, Low Speed Vehicles.

4.) Other low speed motor vehicle designed for transport on local streets

#### **Exclusions:**

- Conventional golf cart not modified or originally custom manufactured to achieve top speeds above 20 mph
- Automobile
- Any personal conveyance (See 2.2.6.1)
- Any size slow moving farm tractor/equipmentExamples:
  - 1.) A golf cart used solely to carry one or more people and golf equipment to play golf, sold to golf courses
  - 2.) A golf cart used to carry one or more people and may carry golf equipment to play golf, sold to individual persons who may use them to travel on trafficways to and from golf courses and to play golf, to travel on trafficways for purposes unrelated to golf, or for all of these purposes
  - 3.) A golf cart that has been speed-modified after its manufacture or originally custom manufactured to achieve top speeds greater than 25 mph
  - 4.) Motorized wheelchair
  - 5.) Motorized skateboard
  - 6.) Motorized handicapped scooter
  - 7.) Personal transport devices such as the Segway
- **2.2.7.2 working motor vehicle**: A working motor vehicle is a motor vehicle in the act of performing construction, maintenance or utility work related to the trafficway. This "work" may be located within open or closed portions of the trafficway and motor vehicles performing these activities can be within or outside of the trafficway boundaries.

#### Inclusions:

- Vehicle at work in a marked work zone
- Vehicle at work on the median, shoulder or roadside.
- Mobile maintenance convoy

 A law enforcement vehicle which is participating strictly in a stationary construction or mobile maintenance activity as a traffic slowing, control, signaling or calming influence

#### Examples:

- 1.) Asphalt roller working in a highway construction zone
- 2.) State highway maintenance crew mowing grass on roadside
- 3.) Utility truck performing maintenance on the power lines along the roadway
- 4.) A private excavating company contracted by the state digging the foundation for a new overpass

#### **Exclusions:**

- Vehicle performing a private construction/ maintenance activity
- Law enforcement vehicle performing other work activities, such as traffic stops, accident investigation, patrolling and traffic control, which is not related to construction, maintenance or utility work on the trafficway
- Vehicle performing a work activity other than highway construction, maintenance or utility work
- Construction, maintenance, utility vehicle while moving from one job site to another

#### Examples:

- 1.) An excavation company digging a foundation for a new building
- 2.) Garbage truck, delivery truck, taxi, emergency vehicle, tow truck, etc.
- **2.2.7.3** commercial motor vehicle: A commercial motor vehicle is any motor vehicle used for the transportation of goods, property or people in interstate (See 2.9.2) or intrastate (2.9.3) commerce.

#### Inclusions:

 Motor vehicle providing transportation of goods, property, or people for compensation (for-hire)

- Privately-owned motor vehicle providing transportation of privately-owned goods or property in furtherance of a business enterprise
- Privately-owned motor vehicle providing passenger transportation in furtherance of a business enterprise

#### Examples:

- 1.) A trucking company hauling a manufacturing company's goods for a fee
- 2.) A motor coach transporting passengers within and between cities and towns
- 3.) A truck or truck tractor owned by an individual truck driver used to carry goods or property under contract
- 4.) An airport shuttle bus service paid to transport persons to hotels and other businesses
- 5.) A manufacturing company hauling its own products to retail stores
- 6.) A retail store delivering products to its buyers
- 7.) A business engaged in the transportation of students to and from school and school-related activities
- 8.) An agricultural farm hauling its produce to market
- 9.) A taxi or limousine service transporting passengers for a fee

#### **Exclusions:**

Privately owned motor vehicle providing private transportation of personal property or people

#### **Examples:**

- 1.) A non-commercial horse rancher transporting hay bales from his pasture on one side of the road to his stables on the other side in a medium truck
- 2.) Homeowner carrying recyclables to a drop-off point in a personally owned pickup truck greater than 10,000 lbs.
- 3.) Large family of 10 persons taking a trip in the family's 12-person van

**2.2.8 other road vehicle**: An other road vehicle is any road vehicle other than a motor vehicle.

#### Inclusions:

- Animal-drawn vehicle (any type)
- Animal harnessed to a conveyance
- Animal carrying a person
- Street car (See 2.2.4)
- Pedalcycle (See 2.2.27)
- **2.2.9 motorcycle:** A motorcycle is any motor vehicle having a seat or saddle for the use of its operator and designed to travel on not more than three wheels in contact with the ground.

#### Inclusions:

- Large motorcycle (See 2.2.9.2)
- Motor-driven cycle (See 2.2.9.1)
- Speed-limited motor-driven cycle (See 2.2.9.3)
- Moped (See 2.2.9.4)
- Motor scooter
- Motorized or motor-assisted bicycle

#### Exclusions:

- Construction, farm or industrial machinery
- **2.2.9.1 motor-driven cycle**: A motor-driven cycle is any motorcycle having an engine with less than 150 cubic centimeters displacement or with five brake horsepower or less.

- Moped (See 2.2.9.4)
- Miniature motorcycle (e.g.," Pocket Bike")
- **2.2.9.2 large motorcycle**: A large motorcycle is any motorcycle other than a motor-driven cycle.
- **2.2.9.3 speed-limited motor-driven cycle**: A speed-limited motor-driven cycle is any motor-driven cycle which:
  - 1.) will not attain a speed of more than 30 miles per hour (48 kilometers per hour) in one mile (1.609 kilometers) from a standing start,

- 2.) has an engine with not more than 50 cubic centimeters displacement or with two brake horsepower or less, and
- 3.) has a power drive system which does not require its operator to shift gears.
- **2.2.9.4 moped**: A moped is a speed-limited motor-driven cycle which may be propelled by pedaling.

#### **Exclusions:**

- Motor scooter
- Motorized or motor-assisted bicycles
- **2.2.10 bus**: A bus is a motor vehicle with seating for transporting nine or more persons, including the driver.

#### Inclusions:

- Van-based bus (See 2.2.14.4)
- Small bus (See 2.2.10.1)
- Large bus (See 2.2.10.2)
- School bus designed to carry nine or more persons, including the driver (See 2.8.1)
- Transit bus (See 2.2.10.3)
- Intercity bus (See 2.2.10.4)
- Charter bus (See 2.2.10.5)
- Other bus (See 2.2.10.6)
- Limousine designed for carrying nine or more persons, including the driver

#### **Exclusions:**

- Any school bus that is not designed for carrying nine or more persons
- Any school bus that is an automobile or truck (See 2.8.1)
- Any school bus that is a van or utility vehicle that is not designed for carrying nine or more persons, including the driver
- Recreation vehicle, motorhome and van-based motorhome
- Limousine not designed for carrying nine or more persons

**2.2.10.1 small bus:** A small bus is a bus with seating for nine to fifteen persons, including the driver.

#### Inclusions:

- Van-based bus (See 2.2.14.4)
- Limousine with seating for nine to fifteen persons, including the driver
- Utility vehicle with nine or more seats
- **2.2.10.2 large bus:** A large bus is a bus with seating for sixteen or more persons, including the driver.
- **2.2.10.3 transit bus:** A transit bus is a bus used for passenger transportation over fixed, scheduled routes within primarily urban geographical areas.

#### Inclusions:

 Bus that includes service within a city and between cities that share borders

#### Examples:

- 1.) City metro or ride-on bus
- 2.) Trolley (on highway tires)
- **2.2.10.4 intercity bus:** An intercity bus is a bus used for long-distance passenger transportation between cities over fixed routes with regular schedules.

#### Inclusions:

- Cross-country bus
- Bus service between cities some distance apart, not cities that share borders.

#### Examples:

- 1.) Greyhound or Trailways bus
- **2.2.10.5 charter bus:** A charter bus is a bus providing contract service for a group tour or outing, usually on a round-trip basis.

- Limousine designed for carrying nine or more persons, including the driver.
- **2.2.10.6 other bus:** An other bus is any bus used for transportation purposes other than school bus, transit bus, intercity bus or charter bus.

#### Inclusions:

- Private company providing transportation services for its own employees and others (hotel shuttles, etc.)
- Non-governmental organization (such as churches and non-profit groups)
- Non-educational unit of government (such as departments of corrections)
- 2.2.11 utility vehicle: A utility vehicle is a motor vehicle other than a motorcycle or large bus consisting primarily of a transport device designed for carrying persons, and generally considered a multi-purpose vehicle that is designed to have off-road capabilities. These vehicles are generally four-wheel-drive (4 x 4) and have increased ground clearance. A utility vehicle typically has a gross vehicle weight rating (GVWR) of 10,000 pounds or less. Utility vehicles with wheelbases greater than 88 inches are classified by overall width. The wheelbase and overall width should be rounded to the nearest inch.

#### Primary size categories are:

Mini — the wheelbase is less than or equal to 88 inches. These are typically a microcar with a high clearance, off-road capability.

Small — the wheelbase is greater than 88 inches. Overall width is less than or equal to 66 inches. These are typically a short wheelbase and narrow tracked multi-purpose vehicle.

Midsize — the wheelbase is greater than 88 inches. Overall width is greater than 66 inches, but less than 75 inches. These are typically a multi-purpose vehicle designed around a shortened pickup truck chassis.

Full-size — the wheelbase is greater than 88 inches. Overall width is from 75 inches to less than or equal to 80 inches. These are typically a multi-purpose vehicle designed around an enlarged pickup truck chassis.

Large — the wheelbase is greater than 88 inches. Overall width is more than 80 inches. These are typically a multi-purpose vehicle designed around an enlarged pickup truck chassis.

#### Inclusions:

Small bus

#### Examples:

Small utility vehicle — S-10, Blazer, Wrangler, Ranger, Jimmy, Tracker

Midsize utility vehicle — Cherokee, Comanche, Yukon, Typhoon, Explorer, Escape, Envoy, Sorrento, Element, Axiom, Rodeo, Mountaineer, Xterra

Full-size utility vehicle — Blazer, Suburban, Bronco, F-Series, Sierra, Land Cruiser, Pathfinder Armada, Ascender, Pilot, Escalade, Expedition, Excursion, Yukon

Large utility vehicle — Hummer, Navigator

Small bus — Utility vehicles with more than nine seats; i.e., Chevy Suburban, Ford Excursion, Ford Expedition, GMC Yukon XL, Chevy Tahoe

#### **Exclusions:**

- Four-wheel-drive automobiles (See 2.2.12) are not considered utility vehicles
- 2.2.12 automobile: An automobile is a motor vehicle other than a motorcycle, utility vehicle or low speed vehicle consisting of a transport device typically designed for carrying eight or fewer persons. Automobiles may be classified by size or weight, or both. Size classification is based on wheelbase. Weight classification is based on curb weight, the weight of an automobile with standard equipment and a full complement of fuel and other fluids, but with no load of persons or property. Before classification, wheelbase should be rounded to the nearest inch and curb weight should be rounded to the nearest 100 pounds.

#### Primary size categories are:

Small — wheelbase 99 inches (2.51 meters) or less

Midsize — wheelbase 100 to 109 inches (2.54 to 2.77 meters)

Large — wheelbase 110 inches (2.79 meters) or more

#### Primary weight categories are:

Light — curb weight 2400 pounds (1089 kilograms) or less

Midweight — curb weight 2500 to 3400 pounds (1134 to 1542 kilograms)

Heavy — curb weight 3500 pounds (1588 kilograms) or more

Secondary size and weight categories may be developed by subdivision of the primary categories. (See 3.10 and 3.11.)

**2.2.13 truck:** A truck is a motor vehicle designed primarily for carrying property.

#### Inclusions:

- Single-unit truck (See 2.2.19)
- Truck combination (See 2.2.21)

#### **Exclusions:**

- Truck tractor (See 2.2.18)
- 2.2.14 van: A van is a motor vehicle consisting primarily of a transport device which has a gross vehicle weight rating (GVWR) of 10,000 pounds or less and is basically a "box on wheels" that is identifiable by its enclosed passenger and/or cargo area, step-up floor, and relatively short (or non-existent) hood. Vans are classified by size based on frame type and overall vehicle body width. Before classification, vehicle width should be rounded to the nearest inch.

#### Primary size categories are:

Minivan — Unibody van: The body and frame are one integral unit.

Small — Frame-based small vans: The overall body width is from 72 inches to less than or equal to 78 inches. These are frame-based standard cargo vans or passenger vans.

Midsize — Frame-based midsize vans: The overall body width is from more than 78 to less than or equal to 80 inches. These are frame-based midsize cargo vans or passenger vans.

Large — Frame-based large vans: The overall body width is more than 80 inches. These are frame-based large cargo vans or passenger vans.

#### Inclusions:

- Passenger van (See 2.2.14.1)
- Cargo van or delivery van (See 2.2.14.2)
- Van-based motorhome (See 2.2.14.3)

#### **Exclusions:**

- Utility Vehicle Examples:
  - 1.) Minivan Caravan, Voyager, Transport, Lumina
  - 2.) Small Astro Van, Safari
  - 3.) Midsize Vandura, Econoline
  - 4.) Large Step van
- **2.2.14.1 passenger van:** A passenger van is any van where the area behind the driver or cab is designed for carrying passengers.

#### Inclusions:

- Some automobiles (See 2.2.12)
- Miniyan
- Van-based bus (See 2.2.14.4)

#### **Exclusions:**

- Cargo van (See 2.2.14.2)
- **2.2.14.2 cargo van:** A cargo van is any van where the area behind the driver or cab is designed for transporting cargo or operated for general commercial use.

#### Inclusions:

- Some single-unit trucks (See 2.2.19.)
- **2.2.14.3 van-based motorhome:** A van-based motorhome is any van where a frame-mounted recreational unit is added behind the driver or cab area.
- **2.2.14.4 van-based bus:** A van-based bus is any passenger van designed for carrying nine or more persons, including the driver.

#### Examples:

- 1.) Full-sized passenger van with nine seats or more, including the driver
- 2.) Van cutaway or cab-chassis with nine or more seats, including the driver

#### **Exclusions:**

— Any limousine

**2.2.15 trailer:** A trailer is a road vehicle designed to be drawn by another road vehicle.

#### Inclusions:

- Pole trailer (See 2.2.16)
- Semitrailer (See 2.2.17)
- Full trailer (See 2.2.18)
- **2.2.16 pole trailer:** A pole trailer is a trailer designed to be attached to the towing road vehicle by means of a reach or pole, or by being boomed or otherwise secured to the towing road vehicle, and ordinarily used for carrying property of a long or irregular shape such as poles, pipes or structural members that are generally capable of sustaining themselves as beams between the supporting connections.
- **2.2.17 semitrailer:** A semitrailer is a trailer, other than a pole trailer, designed for carrying property and so constructed that part of its weight rests upon or is carried by the towing road vehicle.
- 2.2.18 full trailer: A full trailer is a trailer, other than a pole trailer, designed for carrying property and so constructed that no part of its weight rests upon or is carried by the towing road vehicle. An auxiliary undercarriage assembly, commonly known as a converter dolly and consisting of a chassis, fifth wheel and one or more tow bars, is sometimes used to convert a semitrailer to a full trailer. A semitrailer equipped with a converter dolly is considered to be a full trailer.
- **2.2.19 single-unit truck:** A single-unit truck is a truck consisting primarily of a single motorized transport device designed for carrying property. When connected to a trailer, such a device may be part of a truck combination. (See 2.2.21)

#### Examples:

- 1.) Two-axle, four-tire truck
- 2.) Two-axle, six-tire truck
- 3.) Three or more axle truck

#### **Exclusions:**

- Truck tractor
- Truck combination

- **2.2.20 truck tractor**: A truck tractor is a motor vehicle consisting of a single motorized transport device designed primarily for drawing trailers.
- **2.2.21 truck combination:** A truck combination is a truck consisting primarily of a transport device which is a single-unit truck or truck tractor together with one or more attached trailers.

#### Inclusions:

- Truck tractor with semitrailer
- Truck tractor with semitrailer and one or more full trailers
- Single-unit truck with one or more full trailers
- **2.2.22** gross vehicle weight (GVW): Gross vehicle weight is the actual weight of a road vehicle including the weight of the road vehicle, its load of persons and property, and all added equipment.
- 2.2.23 gross vehicle weight rating (GVWR): A gross vehicle weight rating is the value specified by the manufacturer as the recommended maximum loaded weight of a single motor vehicle. This rating includes the maximum rated capacity of a vehicle, including the base vehicle, mounted equipment and any cargo and passengers. Most of the time, GVWR is the sum of the maximum rated capacity of the axles of the vehicle.

- Initial or second-stage manufacturing GVWR ratings
- 2.2.23.1 gross combination weight rating (GCWR): Gross combination weight rating is the value specified by the manufacturer(s) as the recommended maximum loaded weight of a combination (articulated) motor vehicle. This is for truck tractors and single-unit trucks pulling a trailer(s). GCWR is the sum of the gross vehicle weight ratings (GVWR) of all units; power unit and its trailer(s).
- **2.2.24 light truck:** A light truck is a truck which has a gross vehicle weight rating (GVWR) of 10,000 pounds (4,536 kilograms) or less.
- **2.2.25 medium truck**: A medium truck is a truck which has a gross vehicle weight rating (GVWR) of more than 10,000 pounds and less than or equal to 26,000 pounds (4,536 to 11,793 kilograms).

- **2.2.26** heavy truck: A heavy truck is a truck which has a gross vehicle weight rating (GVWR) of more than 26,000 pounds (11,793 kilograms).
- **2.2.27 pedalcycle**: A pedalcycle is a non-motorized other road vehicle propelled by pedaling.

#### Inclusions:

- Bicycle, tricycle, unicycle, pedalcar
- **2.2.28 roadway:** A roadway is that part of a trafficway designed, improved and ordinarily used for motor vehicle travel or, where various classes of motor vehicles are segregated, that part of a trafficway used by a particular class. Separate roadways may be provided for northbound and southbound traffic or for trucks and automobiles (See Figure 1).

#### **Exclusions:**

Bridle path, bicycle path

NOTE — the above definition of "roadway" is consistent with definitions in general use by police and by traffic engineers. See the Uniform Vehicle Code and the Manual on Uniform Traffic Control Devices (ANSI D6.1e-1989, page 1A-8). Other highway engineers commonly use the term "roadway" as the term "road" is defined in 2.2.33 below. See AASHO Highway Definitions, American Association of State Highway Officials (now AASHTO, American Association of State Highway and transportation Officials), January 1968. For a more recent reference, see the definition of "shoulder" in A Policy on Geometric Design of Highways and Streets, AASHTO, 1984, page 362.

2.2.29 median: A median is an area of a trafficway between parallel roads separating travel in opposite directions (See Figure 1). A flush or painted median should be four or more feet wide between inside roadway edge lines. Medians fewer than four feet wide shall have a barrier to be considered a median. Continuous left-turn lanes are not considered painted medians.

#### Inclusions:

- Physical barrier separating roads with travel in opposite directions
- Depressed, raised or flush area between roads with travel in opposite directions
- Painted median of four or more feet wide between roads with travel in opposite directions

#### Examples:

- 1.) A depressed grassy median separating directions of travel of a divided highway
- 2.) A median with a concrete traffic barrier, guardrail or other physical barrier, separating roads of a multi-lane divided highway
- 3.) A flush painted median of four or more feet of a divided highway

#### **Exclusions:**

- Shoulder, separator (See 2.2.30)
- Turn lane (See 2.5.23)
- Continuous left-turn lane

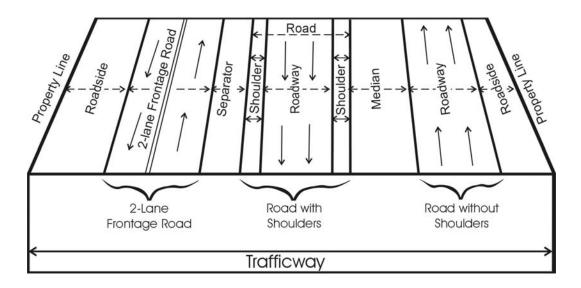


Figure 2 – Trafficway with Frontage Road (See 2.2.1, 2.2.28-2.2.33)

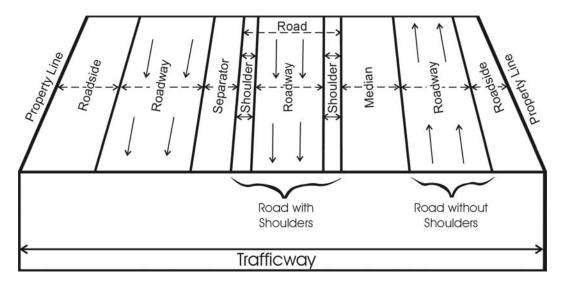


Figure 3 - Trafficway with Multiple Roadways in the Same Direction (See 2.2.1, 2.2.28-2.2.33)

**2.2.30 separator**: A separator is the area of a trafficway between parallel roads separating travel in the same direction or separating a frontage road (See 2.5.18) from other roads (See Figures 2 and 3).

#### Inclusions:

- Physical barrier separating roads with travel in the same direction
- Physical barrier separating a frontage road from other roads of a trafficway
- Depressed, raised or flush area between roads with travel in the same direction
- Depressed, raised or flush area between a frontage road and other roads of a trafficway

#### **Exclusions:**

Shoulder, median

#### Examples:

- 1.) A depressed grassy separator of a freeway between the main travel lanes and a frontage road
- 2.) A concrete separator between the express travel lanes and local travel lanes of a freeway

**2.2.31 roadside**: Roadside is the outermost part of the trafficway from the property line or other boundary in to the edge of the first road (See Figure 1).

#### Inclusions:

- Area between edge of trafficway and edge of roadway with no shoulder
- Area between edge of trafficway and edge of shoulder

#### **Exclusions:**

- Roadways, shoulders, separators and medians
- **2.2.32 shoulder**: A shoulder is that part of a trafficway contiguous with the roadway for emergency use, for accommodation of stopped road vehicles, and for lateral support of the roadway structure (See Figure 1).
- **2.2.33 road:** Road is that part of a trafficway which includes both the roadway and any shoulder alongside the roadway (See Figure 1).

#### Inclusions:

 Designated parking areas on a roadway or between the roadway and the curb

**2.2.34 in-transport**: The term "in-transport" denotes the state or condition of a transport vehicle which is in motion or within the portion of a transport way ordinarily used by similar transport vehicles. When applied to motor vehicles, "in-transport" means on a roadway or in motion within or outside the trafficway.

A transport vehicle which is also a working motor vehicle at the time of the unstabilized situation is not "in-transport."

In roadway lanes used for travel during some periods and for parking during other periods, a parked motor vehicle should be considered to be in-transport during periods when parking is forbidden.

#### Inclusions:

- Motor vehicle in traffic on a roadway
- Driverless motor vehicle in motion on the shoulder, roadside or median
- Motionless or disabled motor vehicle abandoned on a roadway
- Motor vehicle in motion outside the trafficway
- A stopped motor vehicle with any portion of its primary outline as defined by the four sides of the vehicle (e.g., tires, bumpers, fenders) and load, if any, within the roadway

#### Examples:

- 1.) A driverless vehicle previously parked on the shoulder begins to roll forward because the parking brake was not set
- 2.) A stopped vehicle partially on the shoulder with two tires on the roadway
- 3.) A tractor trailer with its load hanging over the roadway edge line
- 4.) A person deliberately driving an all-terrainvehicle (ATV) down a median or the roadside
- 5.) A police vehicle patrolling or responding to an emergency
- 6.) A police or emergency vehicle stopped on the roadway at the scene of an accident or traffic stop or other police action, regardless of whether or not the emergency lights have been activated

- 7.) Construction, maintenance or utility work vehicle traveling on a trafficway from one work site to another location
- 8.) Taxi, limousine or other passenger vehicle, with or without passengers while on the roadway or in motion on a trafficway
- 9.) A school bus stopped in a travel lane with signs and/or lights activated
- 10.) A private citizen using his pickup truck or lawn tractor with a blade removing snow from the roadways in his neighborhood (Not a highway maintenance activity)
- 11.) A farm tractor or combine moving from a storage facility to a field under its own power on the trafficway
- 12.) A moving motor vehicle on a private driveway
- 13.) A car pulling away from a gas pump in a gas station
- 14.) An ATV driving on a recreational off-road trail inside or outside the trafficway
- 15.) A vehicle operating in the closed portion of the trafficway
- 16.) A van left unattended in a lane during rush hour when parking is prohibited because it is in an open travel lane at the time

#### **Exclusions:**

- Transport vehicle stopped off the roadway within the trafficway
- Transport vehicle stopped in parking lanes during periods when parking is allowed
- Transport vehicle performing construction, maintenance or utility work related to the work zone of a trafficway
- A stopped motor vehicle with any portion of its primary outline as defined by the four sides of the vehicle (e.g., tires, bumpers, fenders) and load, if any, not within the roadway

#### Examples:

1.) A disabled utility vehicle stopped on the shoulder, median or roadside

- 2.) An automobile parked in an area designated for parking against the curb of a residential street or in a parking space/lane
- 3.) A truck stopped on the shoulder where only the extended side-view mirror overhangs the roadway edge line
- 4.) A power company truck working on the power lines in an elevated basket in a maintenance work zone
- 5.) A paint striping highway truck in the act of painting the lines in a mobile maintenance zone
- 6.) A concrete mixer discharging its load of concrete in a construction work zone
- 7.) An asphalt spreader or roller repaving the roadway
- 8.) A highway road grader overturns grading a soft, sloped roadside
- 9.) Highway snow removal truck removing or plowing snow as part of a highway maintenance activity
- **2.2.34.1 not in-transport**: Not in-transport means any transport vehicle which is not "in-transport."

#### Inclusions:

- Legally parked transport vehicles off the roadway
- Motionless vehicles off the roadway
- Working motor vehicles (See 2.2.7.2)

#### **Examples:**

- 1.) A stopped vehicle on the shoulder to change a tire
- 2.) An asphalt spreader or roller repaving the roadway
- 3.) A car stopped at the exit of a gas station waiting to enter the roadway
- 4.) A pickup stopped on a private driveway
- 5.) A car legally parked against the curb on a residential street
- 6.) A parked truck completely on the shoulder of a road

#### **Exclusions:**

- Transport vehicles in-transport
- **2.2.34.2 parked motor vehicle**: A parked motor vehicle is a motor vehicle not in-transport, other than a working motor vehicle, that is not in motion and not located on the roadway.

In roadway lanes used for travel during some periods and for parking during other periods, a parked motor vehicle should be considered to be in-transport during periods when parking is forbidden.

#### Inclusions:

 Any stopped motor vehicle where the entirety of the vehicle's primary outline as defined by the four sides of the vehicle (e.g., tires, bumpers, fenders) and load, if any, is not within the roadway

#### Examples:

- 1.) A driver of vehicle stopped curbside on a city street opens his door into the travel lane
- 2.) A truck stopped on the shoulder where only the extended side-view mirror overhangs the roadway edge line
- 3.) A motionless vehicle on the shoulder, median or roadside
- 4.) A truck stopped at a gas station pump
- 5.) A car stopped in a private driveway
- 6.) A van parked in a metered parking lane, even when the meter time has expired

#### **Exclusions:**

- A motor vehicle in motion anywhere within the trafficway boundaries or any vehicle that has any portion of its primary outline or load, if any, overlapping or falling completely within the roadway
- A motor vehicle left unattended on a roadway, where parking is always prohibited

#### Examples:

1.) A vehicle driving down the road shoulder, median or roadside

- 2.) A driverless motor vehicle without engine power starts in motion from a stopped position on the shoulder
- 3.) A stopped vehicle partially on the shoulder with two tires on the roadway
- 4.) A tractor trailer with part of its load extending over the roadway edge line
- 5.) A van left unattended in a lane during rush hour when parking is prohibited because it is in an open travel lane at that time
- 6.) A delivery service leaves his truck stopped at the curb of a street marked with "no parking at any time" signs while making his delivery
- **2.2.35 occupant**: An occupant is any person who is part of a transport vehicle.
- **2.2.36 pedestrian**: A pedestrian is any person who is not an occupant.

#### Inclusions:

- Person on foot.
- Person walking, running, jogging, hiking, sitting or lying within the trafficway or on private property, etc.
- Persons in buildings
- Person on personal conveyance (See 2.2.6.1)
- A person ejected from a transport vehicle who has come to rest in the trafficway during a prior unstabilized situation and struck in a second or subsequent unstabilized situation is considered a pedestrian

#### **Exclusions:**

- A person ejected from a transport vehicle during one unstabilized situation is still considered an occupant and not a pedestrian for the purposes of that unstabilized situation.
- **2.2.37 driver:** A driver is an occupant who is in actual physical control of a transport vehicle or, for an out-of-control vehicle, an occupant who was in control until control was lost.
- **2.2.38 passenger:** A passenger is any occupant of a road vehicle other than its driver.

- **2.2.39 pedalcyclist**: A pedalcyclist is any occupant of a pedalcycle in-transport.
- **2.2.40 motorist**: A motorist is any occupant of a motor vehicle in-transport.
- **2.2.41 non-motorist**: A non-motorist is any person other than a motorist.

#### Inclusions:

- Pedestrians
- Occupants of motor vehicles not in-transport
- Occupants of transport vehicles other than motor vehicles
- **2.2.42 traffic unit**: A traffic unit is a land vehicle or a pedestrian.

#### Inclusions:

- Motor vehicles in-transport (See 2.2.34), motor vehicles not in-transport (See 2.2.34.1), railway trains
- Pedestrians and pedalcyclists
- Other non-motorists
- **2.2.43 bikeway:** A bikeway is that part of a trafficway specifically designated as being open for pedalcycle travel or, where various classes of pedalcycle are segregated, that part of a trafficway open for a particular class. (See 2.2.28)
- **2.2.44 bicycle trail**: A bicycle trail is a bikeway reserved exclusively for pedalcycles and separated from roadways by open space or barriers.
- **2.2.45 bicycle lane**: A bicycle lane is a bikeway which (1) is contiguous with a parallel roadway and (2) has been designated for preferential or exclusive use by pedalcycles.
- **2.2.46 shared road:** A shared road is any bikeway which is part of a roadway, but not a bicycle lane.

# 2.3 Injuries and Damage

**2.3.1 injury**: An injury is bodily harm to a person.

#### **Exclusions:**

- Effects of diseases such as stroke, heart attack, diabetic coma, epileptic seizure
- **2.3.2 fatal injury**: A fatal injury is any injury that results in death. (See 3.1.3)
- **2.3.3 fatality:** A fatality is any death resulting from a fatal injury. (See 3.1.3)
- **2.3.4 incapacitating injury:** An incapacitating injury is any injury, other than a fatal injury, which prevents the injured person from walking, driving or normally continuing the activities the person was capable of performing before the injury occurred.

#### Inclusions:

- Severe laceration
- Broken or distorted limb
- Skull or chest injury
- Abdominal injury
- Unconsciousness at or when taken from the accident scene
- Unable to leave the accident scene without assistance

#### **Exclusions:**

- Momentary unconsciousness
- **2.3.5 nonincapacitating evident injury:** A nonincapacitating evident injury is any injury, other than a fatal injury or an incapacitating injury, which is evident to observers at the scene of the accident in which the injury occurred.

#### Inclusions:

Lump on head, abrasions, bruises, minor lacerations

#### **Exclusions:**

- Limping (the injury cannot be seen)
- **2.3.6 possible injury**: A possible injury is any injury reported or claimed which is not a fatal injury, incapacitating injury or nonincapacitating evident injury.

#### Inclusions:

- Momentary unconsciousness
- Claim of injuries not evident
- Limping, complaint of pain, nausea, hysteria
- **2.3.7 damage:** Damage is harm to property that reduces the monetary value of that property.

#### Inclusions:

 Harm to wild animals, or birds, which have monetary value

#### **Exclusions:**

- Harm to wild animals, or birds, which have no monetary value
- Harm to a snow bank unless, for example, additional snow removal costs are incurred because of the harm
- Mechanical failure during normal operation, such as tire blowout, broken fan belt or broken axle
- **2.3.8 road vehicle damage:** Road vehicle damage is damage to a road vehicle.

#### Inclusions:

Damage to any part of a road vehicle

#### **Exclusions:**

- Injury to any person, whether or not the person is part of the road vehicle
- **2.3.9 motor vehicle damage**: Motor vehicle damage is road vehicle damage to a motor vehicle.
- **2.3.10 other-road-vehicle damage**: Other-road-vehicle damage is road vehicle damage to an other road vehicle.
- **2.3.11 disabling damage:** Disabling damage is road vehicle damage which precludes departure of the vehicle from the scene of the accident in its usual operating manner by daylight after simple repairs.

#### Inclusions:

Vehicle which could be driven but would be further damaged thereby

#### **Exclusions:**

- Damage which can be remedied temporarily at the scene without special tools or parts other than tires
- Tire disablement without other damage even if no spare tire is available
- Headlamp or taillight damage, which would make night driving hazardous but would not affect daytime driving
- Damage to turn signals, horn or windshield wipers which makes them inoperative
- **2.3.12 functional damage**: Functional damage is any road vehicle damage, other than disabling damage, which affects operation of the road vehicle or its parts.

#### Inclusions:

- Door, window, hood or trunk lid which will not operate properly
- Broken glass which obscures vision
- Any damage which would prevent the motor vehicle from passing an official motor vehicle inspection
- Tire damage even though the tire may be changed at the scene
- Bumper which is loose

#### **Exclusions:**

 Dented or bent fender, bumper, grill, body panel; destroyed hubcap

#### 2.4 Accidents

**2.4.1 harmful event:** A harmful event is an occurrence of injury or damage.

#### Inclusions:

— Injury or damage resulting when a driver dies or loses consciousness because of a disease condition such as a stroke, heart attack, diabetic coma or epileptic seizure. In such a case the immediate effect of the disease, such as the driver's death or loss of consciousness, is not itself considered to be a harmful event.

**2.4.2 deliberate intent:** Deliberate intent is the classification given to the cause of an event which occurs when a person acts deliberately to cause the event or deliberately refrains from prudent acts which would prevent occurrence of the event.

#### Inclusions:

- Suicide
- Self-inflicted injury
- Homicide
- Injury or damage purposely inflicted

#### **Exclusions:**

Injury or damage beyond that which was intended

#### Examples:

- 1.) When a driver intentionally kills or injures himself with a motor vehicle, by driving it against a fixed object or into a body of water, for example, the driver's death or injury is a result of deliberate intent.
- 2.) When a driver intentionally kills or injures another person with a motor vehicle, by running into a pedestrian, for example, the death or injury is a result of deliberate intent.
- 3.) When a driver intentionally causes damage with a motor vehicle, by ramming another vehicle, for example, the damage is a result of deliberate intent.
- **2.4.3 legal intervention:** Legal intervention is a category of deliberate intent in which the person who acts or refrains from acting is a law-enforcing agent or other official.

#### Examples:

1.) If a lawbreaker crashes either intentionally or unintentionally into a road block set up by police to stop him, the crash is considered a result of legal intervention. If a driver other than the lawbreaker crashes into the road block, the crash is not considered to be a result of legal intervention.

2.) If a police car is intentionally driven into another vehicle, the crash is considered to result from legal intervention. If a lawbreaker being pursued by the police loses control of his vehicle and crashes, the crash is not considered to result from legal intervention unless the police intended that the lawbreaker crash.

- 3.) If during the course of the pursuit, the police vehicle strikes a road vehicle other than the subject of the pursuit, a non-motorist or property, then that harmful event is not legal intervention.
- 2.4.3.1 police pursuit: A police pursuit is an event that is initiated when a law enforcement officer, operating an authorized emergency vehicle, gives notice to stop to a motorist the officer is attempting to contact, and that motorist fails to comply with the signal by either maintaining his/her speed, increasing speed, or taking other evasive action to elude the officer's continued attempts to stop the motorist. This notice needs to be either through the use of visual or audible emergency signals, including alternating flashing headlights, or a combination of emergency devices. A pursuit is terminated when the motorist stops, or when the attempt to apprehend is discontinued.
- **2.4.4 unstabilized situation:** An unstabilized situation is a set of events not under human control. It originates when control is lost and terminates when control is regained or, in the absence of persons who are able to regain control, when all persons and property are at rest.

#### **Exclusions:**

Sets of events which are the result of deliberate intent or legal intervention

#### Examples:

- 1.) If intentional acts cause injury or damage beyond that reasonably to be expected from the acts, the unexpected injury or damage is not the result of deliberate intent. There is, therefore, an unstabilized situation unless the contrary can be clearly established.
- 2.) In a motor vehicle crash live electric wires fall on a motor vehicle, but there is no injury from the electric current while the occupants remain in the motor vehicle. The unstabilized situation ends with the occupants in a temporary position of safety. Any subsequent injury resulting from attempts by the occupants to leave the motor vehicle, or attempts by others to rescue the occupants, is a part of a new unstabilized situation.

- 3.) In a motor vehicle crash the occupants of the motor vehicle are carried or thrown into water, but there is no injury from the submersion and the occupants reach a temporary position of safety. At this point the unstabilized situation has ended. Any subsequent injury from attempts by the occupants to reach shore, or from attempts by others to rescue the occupants is part of a new unstabilized situation.
- 4.) In a motor vehicle crash objects are loosened but remain in place until all persons are removed from danger from objects that might fall or roll. No property damage would result if the objects fell or rolled. This ends the unstabilized situation. Any subsequent injury attributable to the fall or roll of the loosened objects is not part of the original unstabilized situation.
- 5.) In a motor vehicle crash the motor vehicle catches on fire and is burning, but all occupants have been rescued and the fire is under control. No additional property damage is expected. This is the end of the unstabilized situation. If the heat of the fire ignites nearby combustible materials, any subsequent injury or damage from the induced ignition is not a part of the original unstabilized situation.
- 6.) In a motor vehicle crash an involved motor vehicle carrying explosive materials is stopped and occupants and bystanders are removed from the scene. At this point the unstabilized situation is ended. If the explosive materials detonate during later attempts to remove or salvage them, any injury or damage resulting from the explosion is not a part of the original unstabilized situation.
- 7.) A pedestrian is struck by a motor vehicle intransport which leaves the scene. The pedestrian comes to rest in the roadway. Any subsequent injury resulting from contact with another motor vehicle in-transport is part of a new unstabilized situation.
- 8.) A pedestrian is struck by a motor vehicle and thrown into the path of another motor vehicle and the pedestrian is struck a second time before coming to rest. There is only one unstabilized situation.
- 9.) A motor vehicle in-transport brakes, attempting to avoid a pedestrian crossing the roadway. The motor vehicle in-transport strikes the pedestrian. At the same time (i.e., when the first vehicle

started to brake and before it came to rest), a second motor vehicle in-transport swerves to avoid a collision with the braking vehicle, striking a utility pole. The two motor vehicles in-transport do not strike each other, but these events are all within one unstabilized situation.

NOTE — if thorough investigation fails to establish whether an accident scene is the result of one or more unstabilized situations, then it should be treated as a single unstabilized situation.

**2.4.5 cataclysm:** A cataclysm is an avalanche, landslide/mudslide, hurricane, cyclone, downburst, flood, torrential rain, cloudburst, lightning, tornado, tidal wave, earthquake or volcanic eruption (See 2.4.9 transport accident).

The following are typical definitions of cataclysms:

- Avalanche: A mass of snow, rock and/or ice falling down a mountain or incline. (Source: National Weather Service)
- Landslide/Mudslide: Fast moving soil, rocks and water that flow down hills, mountain slopes and canyons. (Source: National Weather Service)
- Hurricane: A tropical cyclone with surface winds in excess of 32 m/s (64 knots or 74 mph) in the Western Hemisphere. There are various regional names for these storms. (Source: National Weather Service.)
- Cyclone: A large-scale circulation of winds around a central region of low atmospheric pressure, counterclockwise in the Northern Hemisphere. (Source: National Weather Service) To qualify as a Cataclysm, the winds must be 74 mph or greater.
- Downburst: A strong downdraft current of air from a cumulonimbus cloud, often associated with intense thunderstorms. Downdrafts may produce damaging winds at the surface. To qualify as a Cataclysm, the winds must be 74 mph or greater.
- Flood: The inundation of a normally dry area caused by an increased water level in an established watercourse, such as a river, stream or drainage ditch. A flash flood can be caused by a Cloudburst or Torrential Rainfall that occurs in a short period of time, generally less than six hours. Also, at times a dam failure can cause a flash flood, depending on the type of dam and time

period during which the break occurs.

- Lightning: A visible electrical discharge produced by a thunderstorm. The discharge may occur within or between clouds, between the cloud and air, between a cloud and the ground or between the ground and a cloud. (Source: National Weather Service)
- Tornado: A violently rotating column of air, usually pendant to a cumulonimbus, with circulation reaching the ground. It nearly always starts as a funnel cloud and may be accompanied by a loud roaring noise. On a local scale, it is the most destructive of all atmospheric phenomena.
- Earthquake: Shock waves detectable and sometimes causing violent tremors at the earth's surface, generally originating by movements along deep seated fault planes.
- Volcanic Eruption: Formed by the partial melting of existing rock and dissolved gases; the liberation of this gas and magma under considerable pressure is considered an eruption. Products of the volcanic eruption include lava flows, pyroclastic materials (volcanic glass), volcanic dust/ash and gases.

#### Inclusions:

- Any wind above the minimum speed associated with a category one hurricane (75 mph or more)
- Damage produced by very large hail

#### **Exclusions:**

Natural events not listed above

#### Examples:

- 1.) Rain, snow, fog, small hail, ice, smog, etc.
- 2.) Winds below the minimum speed associated with a category one hurricane (74 mph or less)
- 3.) A few small falling rocks not associated with a landslide or avalanche
- 4.) An old tree falling only due to a rotting root system
- 5.) Shallow standing water
- **2.4.6 accident**: An accident is an unstabilized situation which includes at least one harmful event.

- 2.4.7 contact vehicle: A contact vehicle is any road vehicle which comes in contact with one or more road vehicles, non-motorists or property in a collision accident, or has a noncollision accident. A contact vehicle is directly involved in an accident. (See 2.6.2 Collision accident and 2.6.3 Noncollision accident.)
- **2.4.8 noncontact vehicle**: A noncontact vehicle is any vehicle other than a contact vehicle. A noncontact vehicle is indirectly involved in an accident.

#### Examples:

- 1.) A vehicle changes lanes into the path of another vehicle (without making contact) causing an accident. The vehicle changing lanes is a noncontact vehicle.
- 2.) A school bus is stopped on the roadway picking up or discharging pupils and one of the pupils is struck without the school bus being struck. The school bus is a noncontact vehicle.
- 3.) A pedestrian darts into the roadway causing a motor vehicle to stop suddenly without striking the pedestrian. A following vehicle swerves to avoid the stopped vehicle and collides with a fixed object. The first vehicle is a noncontact vehicle.
- 2.4.9 transport accident: A transport accident is an accident (1) that involves a transport vehicle in-transport, (2) in which the first harmful event is not produced by the discharge of a firearm or explosive device, and (3) that does not directly result from a cataclysm where the timing is such that the cataclysm is occurring at the time of the accident. (See 2.4.5 Cataclysm)

#### Inclusions:

- An accident occurring as a result of natural events which is not a cataclysm.
- An accident related to a cataclysm, but occurring after the cataclysm has ended

#### Examples:

- 1.) Motor vehicle driven into water after a hurricane or flood because a bridge was washed out by the hurricane or flood (after a cataclysm has ended)
- 2.) Motor vehicle driven into fallen materials covering a roadway after a landslide or avalanche (after a cataclysm has ended)

- 3.) Motor vehicle driven into fallen tree in roadway after a tornado or hurricane (after a cataclysm has ended)
- 4.) After an earthquake, a motor vehicle intransport drives into a hazard created by buckled or collapsed features of the roadway left behind after the earthquake is over (after a cataclysm has ended)
- 5.) A tree branch from a rotted tree or a tree with a deteriorated root structure falls across several motor vehicles in the roadway from winds below 74 mph or more (less than a category one hurricane)
- 6.) 25 mph wind propels a trash can from a city sidewalk into a passing motor vehicle
- 7.) A motor vehicle is struck by loosened, deteriorated or previously damaged parts that fall from an overpass as it passes under (there is no cataclysm)
- 8.) The scaffolding at a building under construction collapses and falls on a motor vehicle traveling on the roadway adjacent to the building (there is no cataclysm)
- 9.) Power lines or overhead traffic signal falling on a motor vehicle in-transport (there is no cataclysm)

#### **Exclusions:**

Accidents occurring as a direct result of and during a cataclysm

#### Examples:

- 1.) Motor vehicle is swept away while a bridge it was crossing is washed out during a hurricane or flood (accident directly results from a cataclysm)
- 2.) Motor vehicle is struck and damaged by falling materials (rock and earth or snow) of significant size or amount to be a landslide or avalanche (accident directly results from a cataclysm)
- 3.) Motor vehicle on roadway is struck by a windblown tree during a tornado or winds of 74 mph or more (accident directly results from a cataclysm)
- 4.) A motor vehicle in-transport suffers damage because of structures collapsing, buckling or shifting during an earthquake (accident directly results from a cataclysm)

5.) A motor vehicle in-transport suffers damage from golf-ball-sized hail during a tornado

- 6.) Motor vehicle sustains damage from very large rain drops during torrential rain
- **2.4.10** aircraft accident: An aircraft accident is a transport accident that involves an aircraft in-transport.
- **2.4.11 watercraft accident:** A watercraft accident is a transport accident if it (1) involves a watercraft in-transport and (2) is not an aircraft accident.
- **2.4.12 motor vehicle accident:** A motor vehicle accident is a transport accident that (1) involves a motor vehicle intransport, (2) is not an aircraft accident or watercraft accident, and (3) does not include any harmful event involving a railway train in-transport prior to involvement of a motor vehicle in-transport.

#### **Exclusions:**

 Any school bus accident in which no school bus is directly involved and which involves no other motor vehicle (See 2.8.2)

#### Examples:

- 1.) If a child approaching a school bus, stopped with its red lights flashing, is struck by a pedalcycle, but neither the pedalcycle nor the child come in contact with the school bus, then there is (1) a school bus accident that is not a motor vehicle accident and (2) an other road vehicle accident (collision involving pedestrian).
- **2.4.13 railway accident:** A railway accident is a transport accident that (1) involves a railway train intransport and (2) is not an aircraft accident, watercraft accident or motor vehicle accident.
- **2.4.14 other-road-vehicle accident:** An other-road-vehicle accident is a transport accident that (1) involves an other road vehicle in-transport and (2) is not an aircraft accident, watercraft accident, motor vehicle accident or railway accident.
- **2.4.15 street car accident:** A street car accident is an other-road-vehicle accident that involves a street car intransport.
- **2.4.16 pedalcycle accident:** A pedalcycle accident is an other-road-vehicle accident that (1) involves a pedalcycle in-transport and (2) is not a street car accident.

- **2.4.17 road vehicle accident**: A road vehicle accident is a transport accident that is either a motor vehicle accident or an other-road-vehicle accident.
- **2.4.18 traffic accident**: A traffic accident is a road vehicle accident in which (1) the unstabilized situation originates on a trafficway or (2) a harmful event occurs on a trafficway.

#### **Exclusions:**

- A road vehicle in-transport has both its unstabilized situation and harmful events on a private way
- **2.4.19 nontraffic accident:** A nontraffic accident is a road vehicle accident which is not a traffic accident.

- A road vehicle in-transport has both its unstabilized situation and harmful events on a private way
- **2.4.20 road vehicle traffic accident:** A road vehicle traffic accident is a traffic accident.
- **2.4.21 road vehicle nontraffic accident:** A road vehicle nontraffic accident is a nontraffic accident.
- **2.4.22 motor vehicle traffic accident:** A motor vehicle traffic accident is a motor vehicle accident which is a traffic accident.
- 2.4.23 motor vehicle nontraffic accident: A motor vehicle nontraffic accident is a motor vehicle accident which is a nontraffic accident.
- **2.4.24 other-road-vehicle traffic accident:** An other-road-vehicle traffic accident is an other-road-vehicle accident which is a traffic accident.
- **2.4.25 other-road-vehicle nontraffic accident:** An other-road-vehicle nontraffic accident is an other-road-vehicle accident which is a nontraffic accident.
- **2.4.26 injury accident**: An injury accident is any road vehicle accident that results in one or more injuries.
- **2.4.27 fatal accident:** A fatal accident is any injury accident that results in one or more fatal injuries.
- **2.4.28 nonfatal injury accident:** A non-fatal injury accident is any injury accident other than a fatal accident.

- **2.4.29 noninjury accident**: A noninjury accident is any road vehicle accident other than an injury accident. A noninjury accident is also called a property-damage-only accident. (See 2.4.30)
- **2.4.30 property-damage-only accident:** A property-damage-only accident is a noninjury accident.

#### 2.5 Location

2.5.1 urban area: An urban area is an area whose boundaries shall be those fixed by responsible state and local officials in cooperation with each other and approved by the Federal Highway Administration, U.S. Department of Transportation. Such boundaries are established in accordance with the provisions of Title 23 of the United States Code. Urban area boundary information is available from state highway or transportation departments. In the event that boundaries have not been fixed as above for any urban place designated by the Bureau of the Census having a population of 5000 or more, the area within boundaries fixed by the Bureau of the Census shall be an urban area.

- **2.5.2 rural area**: A rural area is any area which is not within urban areas.
- **2.5.3 Interstate System:** The Interstate System is the National System of Interstate and Defense Highways as defined in Section 101, Title 23, United States Code.
- **2.5.4 interstate highway:** An Interstate highway is a trafficway on the Interstate System.
- **2.5.5 other U.S. route numbered highway:** An other U.S. route numbered highway is a trafficway numbered by the American Association of State Highway Officials, but not an interstate highway.
- **2.5.6 other state route numbered highway:** An other state route numbered highway is a trafficway within a state trafficway system, but not an interstate highway or other U.S. route numbered highway.
- **2.5.7 county road:** A county road is a trafficway within a county trafficway system that is not an Interstate highway, other U.S. route numbered highway, or other state route numbered highway.

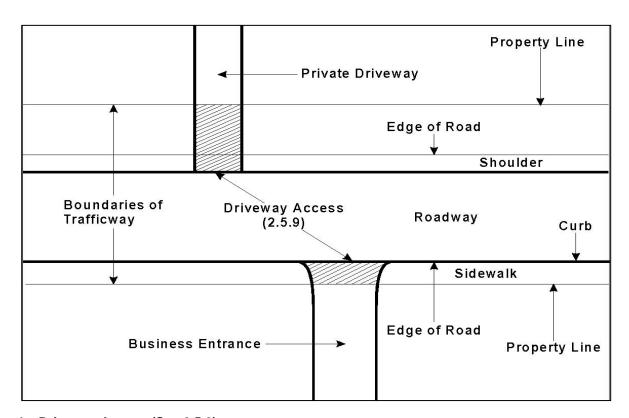


Figure 4 - Driveway Access (See 2.5.9)

- **2.5.8 city street:** A city street is a trafficway within a city trafficway system that is not an Interstate highway, other U.S. route numbered highway, other state route numbered highway, or county road.
- **2.5.9 driveway access:** A driveway access is a portion of the trafficway at the end of a driveway (See 2.5.9.1, providing access to property adjacent to a trafficway. (See Figure 4)

#### Inclusions:

- Entrance to private residence
- Entrances to gas station
- Includes sidewalks which cross over a driveway access

#### **Exclusions:**

- Any area not within a trafficway
- **2.5.9.1 driveway:** A driveway is a private way which provides vehicular access to the public from a trafficway to

property, parking or loading areas outside the boundaries of the trafficway, but is considered to be not open to the public for transportation purposes as a trafficway. A driveway is outside the trafficway and is typically not provided an official identification name or number.

#### Inclusions:

- A private drive providing access to a residence
- Entrance to business or other private entity not open to the public for transportation purposes

#### **Exclusions:**

- Privately constructed and/or maintained road open to the public for moving persons or property from one place to another
- Parking lot (See 2.5.22), which includes parking stalls, parking lot aisles and parking lot ways
- Entrance to business or other entity open to the public
- Driveway access (See 2.5.9)

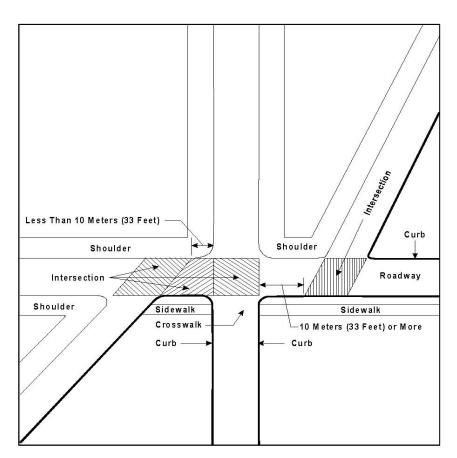


Figure 5 – Intersection (See 2.5.10)

- 2.5.10 intersection: An intersection is an area which (1) contains a crossing or connection of two or more roadways not classified as driveway access and (2) is embraced within the prolongation of the lateral curb lines or, if none, the lateral boundary lines of the roadways. Where the distance along a roadway between two areas meeting these criteria is less than 10 meters (33 feet), the two areas and the roadway connecting them are considered to be parts of a single intersection (See Figure 5).
- **2.5.11 junction:** A junction is either an intersection or the connection between a driveway access and a roadway other than a driveway access.
- **2.5.12** at-grade intersection: An at-grade intersection is an intersection where all roadways cross or join at the same level.
- **2.5.13 channelized intersection**: A channelized intersection is an at-grade intersection in which traffic is diverted into definite paths by raised or painted traffic islands.
- **2.5.14 grade separation**: A grade separation is a crossing at different levels of two trafficways, or a trafficway and a railway.
- **2.5.15 fully-controlled access highway:** A fully-controlled access highway is a trafficway on which preference is given to through traffic by permitting access

- only from other trafficways and by providing grade separations at all crossing trafficways.
- **2.5.16 interchange:** An interchange is a system of interconnecting roadways in conjunction with one or more grade separations, providing for the movement of traffic between two or more roadways on different levels.
- **2.5.17 ramp:** A ramp is an auxiliary roadway used for entering or leaving through-traffic lanes.
- **2.5.18 frontage road:** A frontage road is a roadway generally paralleling an expressway, freeway, parkway or through street so designed as to intercept, collect and distribute traffic desiring to cross, enter or leave such facility and to furnish access to property which otherwise would be isolated as a result of controlled-access features. The frontage road may be within the same trafficway as the main roadway or in a separate trafficway.
- 2.5.19 gore: A gore is an area of land where two roadways diverge or converge. The area is bounded on two sides by the edges of the roadways, which join at the point of divergence or convergence. The direction of traffic shall be the same on both sides of these roadways. The area includes shoulders or marked pavement, if any, between the roadways. The third side is 60 meters (approximately 200 feet) from the point of divergence or convergence or, if any other road is within 70 meters (230 feet) of that point, a line 10 meters (33 feet) from the nearest edge of such road (See Figure 6).

Gore

Radius of 60 Meters

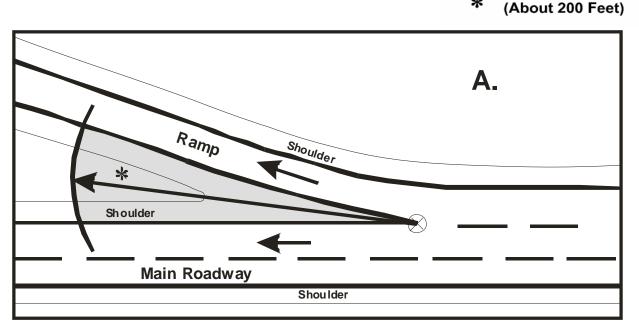


Figure 6 - Gore (See 2.5.19)

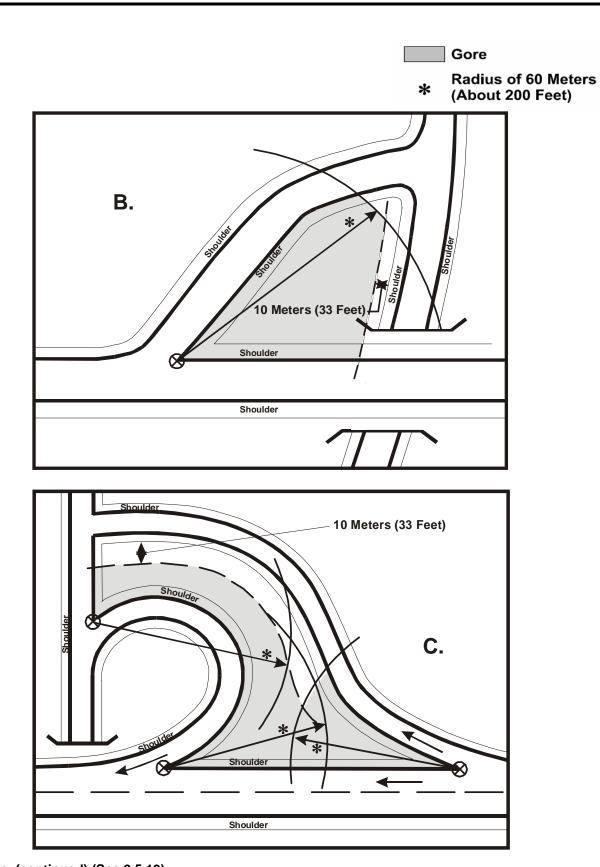


Figure 6 – Gore (continued) (See 2.5.19)



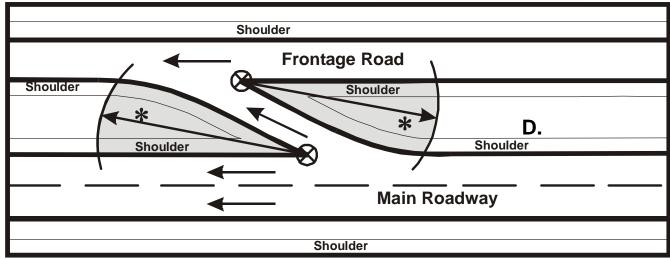


Figure 6 – Gore (continued) (See 2.5.19)

#### Inclusions:

- Area at rest area entry or exit ramp
- Area at truck weigh station entry or exit ramp
- Area where two main roadways diverge or converge
- Area where a ramp and another roadway, or two ramps, diverge or converge
- Area where a frontage road and another roadway, or two frontage roads, diverge or converge

#### **Exclusions:**

- Island for channelization of vehicle movements
- Island for pedestrian refuge
- **2.5.20 curb return:** A curb return is the curved section of curb used at intersections in joining straight sections of curb.
- 2.5.21 crosswalk: A crosswalk is (1) that part of a roadway at an intersection included within the connections of the lateral lines of the sidewalks on opposite sides of the roadway measured from the curbs or, in the absence of curbs, from the edges of the traversable roadway, or (2) any portion of a roadway at an intersection or elsewhere

distinctly indicated for pedestrian crossing by lines or other markings on the surface of the roadway.

- **2.5.22 parking lot:** A parking lot is an area used primarily for parking road vehicles. When paved and marked, it commonly includes the following areas:
  - Parking stalls areas reserved primarily for parked road vehicles
  - 2.) Parking lot aisles areas used primarily for vehicular access to parking stalls. Parking lot aisles are not trafficways.
  - Parking lot ways land ways which are used primarily for vehicular circulation within parking lots and for vehicular access to parking lot aisles. Parking lot ways in parking lots open to the public are trafficways.
- **2.5.23 turn lane**: A turn lane is a lane exclusively designated for vehicles turning from one trafficway to another.

#### Inclusions:

Continuous left-turn lane

#### **Exclusions:**

Through travel lanes

2.5.24 work zone: A work zone is an area of a trafficway where construction, maintenance or utility work activities are identified by warning signs/signals/indicators, including those on transport devices (e.g., signs, flashing lights, channelizing devices, barriers, pavement markings, flagmen, warning signs and arrow boards mounted on the vehicles in a mobile maintenance activity) that mark the beginning and end of a construction, maintenance or utility work activity.

It extends from the first warning sign, signal or flashing lights to the END ROAD WORK sign or the last traffic control device pertinent for that work activity.

Work zones also include roadway sections where there is ongoing, moving (mobile) work activity such as lane line painting or roadside mowing only if the beginning of the ongoing, moving (mobile) work activity is designated by warning signs or signals.

#### Inclusions:

The following situations within the trafficway:

- Long-term stationary construction such as building a new bridge, adding travel lanes to the roadway, extending an existing trafficway, etc. (construction activity/work)
- Work involving moving activities such as striping the roadway, median and roadside grass mowing/ landscaping, pothole repair, snowplowing, lane line painting, etc., where there are warning signs or signals marking the beginning of the moving work area (Mobile maintenance activity/work)
- Short-term stationary work such as repairing/ maintaining electric, gas, water lines or traffic signals (Utility activity/work)
- Areas identified by signage as a work zone where the ongoing work activity has temporarily paused

#### **Exclusions:**

- Any private construction, maintenance or utility work outside the trafficway
- Any area of the trafficway where there is moving maintenance activity (e.g., roadside grass mowing/landscaping, pothole repair, snowplowing, lane line painting) without warning signs or signals
- Citizen removing snow from the trafficway as a neighborly gesture

 Area identified by signage, where the activity has not begun or is completed

# 2.6 Road Vehicle Accident Types

- **2.6.1 overturning accident:** An overturning accident is a road vehicle accident in which the first harmful event is the overturning of a road vehicle.
- 2.6.2 collision accident: A collision accident is a road vehicle accident other than an overturning accident in which the first harmful event is a collision of a road vehicle in-transport with another road vehicle, other property or pedestrians.
- **2.6.3 noncollision accident:** A noncollision accident is any road vehicle accident other than a collision accident.

- Overturning accident (See 2.6.1)
- Jackknife accident (See 2.6.4)
- Accidental poisoning from carbon monoxide generated by a road vehicle in-transport
- Breakage of any part of a road vehicle intransport, resulting in injury or in further property damage
- Explosion of any part of a road vehicle in-transport
- Fire starting in a road vehicle in-transport
- Fall or jump from a road vehicle in-transport
- Occupant hit by an object in, or thrown against some part of a road vehicle in-transport
- Injury or damage from moving part of a road vehicle in-transport
- Object falling from, or in, a road vehicle intransport
- Object falling on a road vehicle in-transport
- Toxic or corrosive chemicals leaking out of a road vehicle in-transport
- Injury or damage involving only the road vehicle that is of a noncollision nature, such as a bridge giving way under the weight of a road vehicle, striking holes or bumps on the surface of the

trafficway, or driving into water, without overturning or collision

- **2.6.4 jackknife accident**: A jackknife accident is a noncollision accident in which the first harmful event results from unintended contact between any two units of a multi-unit road vehicle such as a truck combination.
- **2.6.5 collision involving pedestrian:** A collision involving pedestrian is a collision accident in which the first harmful event is the collision of a pedestrian and a road vehicle in-transport.
- 2.6.6 collision involving motor vehicle in-transport: A collision involving motor vehicle in-transport is an accident that is both a motor vehicle accident and a collision accident in which the first harmful event is the collision of two or more motor vehicles in-transport.
- 2.6.7 collision involving other road vehicle in-transport: A collision involving other road vehicle intransport is an accident that is both an other-road-vehicle accident and a collision accident in which the first harmful event is the collision of two or more other road vehicles intransport.
- 2.6.8 collision involving parked motor vehicle: A collision involving parked motor vehicle (See 2.2.34.2) is a collision accident in which the first harmful event is the striking of a motor vehicle not in-transport (See 2.2.34.1) by a road vehicle in-transport (See 2.2.34).
- **2.6.9 collision involving railway vehicle**: A collision involving railway vehicle is a collision accident in which the first harmful event is the collision of a road vehicle intransport and a railway vehicle.
- **2.6.10 collision involving pedalcycle**: A collision involving pedalcycle is an accident that is both a motor vehicle accident and a collision accident in which the first harmful event is the collision of a pedalcycle in-transport and a motor vehicle in-transport.
- **2.6.11 collision involving animal:** A collision involving animal is a collision accident in which the first harmful event is the collision of an animal, other than an animal powering an other road vehicle, and a road vehicle intransport.
- **2.6.12 collision involving fixed object:** A collision involving fixed object is a collision accident in which the first harmful event is the striking of a fixed object by a road vehicle in-transport. Fixed objects include such objects as

guardrails, bridge railings or abutments, construction barricades, impact attenuators, trees, embedded rocks, utility poles, ditches, steep earth or rock slopes, culverts, fences and buildings.

2.6.13 collision involving other object: A collision involving other object is any collision accident other than a (1) collision involving pedestrian, (2) collision involving motor vehicle in-transport, (3) collision involving other road vehicle in-transport, (4) collision involving parked motor vehicle, (5) collision involving railway vehicle, (6) collision involving pedalcycle, (7) collision involving animal, or (8) collision involving fixed object.

# 2.7 Location of Road Vehicle Accidents

- 2.7.1 on-roadway accident: An on-roadway accident is (1) a collision accident in which the initial point of contact between colliding units in the first harmful event is within a roadway or (2) a noncollision accident in which the road vehicle involved was partly or entirely on the roadway at the time of the first harmful event.
- **2.7.2 off-roadway accident:** An off-roadway accident is any road vehicle accident other than an on-roadway accident.
- **2.7.3 at-intersection accident:** An at-intersection accident is a traffic accident in which the first harmful event occurs within the limits of an intersection (See Figure 5).
- 2.7.4 **driveway access accident**: A driveway access accident is a traffic accident in which the first harmful event occurs on a driveway access (See 2.5.9) or involves a road vehicle entering or leaving another roadway by way of a driveway access (See Figure 4). This requires at least one traffic unit (vehicle, pedalcyclist or pedestrian) to be physically on the driveway access within the trafficway.

#### Inclusions:

Accidents occurring on sidewalks within the driveway access

#### Examples:

1) A car turning into a private residence driveway striking a bicyclist riding on the sidewalk that crosses over the driveway access.

2.) A tractor trailer backing out of a business entrance onto the trafficway, while partially on the driveway access, is struck by a car on the roadway.

### **Exclusions:**

Driveway access related accidents (See 2.7.4.1)

### Examples:

- 1.) A car on the roadway waiting to turn into a driveway is rear-ended by another motor vehicle
- 2.) A truck in the process of turning out of a driveway, but is no longer on the driveway, strikes a motor vehicle (or non-motorist) on the roadway

2.7.4.1 driveway access related accident: A driveway access related accident is a traffic accident that (1) occurs adjacent to a driveway, (2) is not a driveway access accident and (3) results from an activity, behavior or control related to the movement of traffic units onto or out of a driveway.

### Inclusions:

 A traffic accident, other than a driveway access accident, which occurs at the connection of a driveway and a roadway and is related to the driveway access

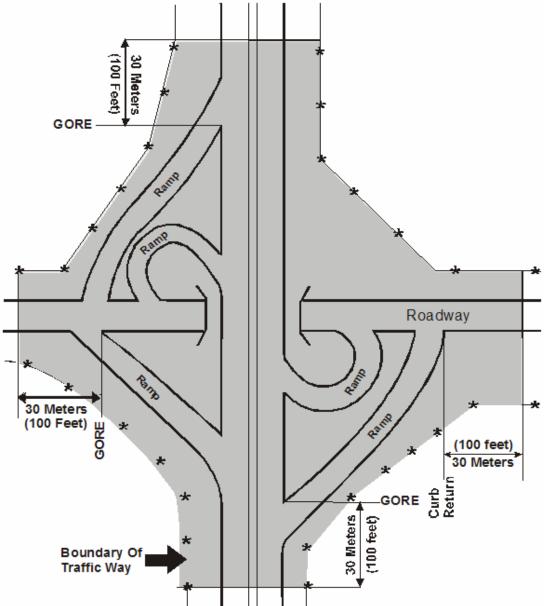


Figure 7 – Interchange Accidents (Accidents which occur within the shaded area are interchange accidents [See 2.7.7]).

### Examples:

- 1.) A car on the roadway waiting to turn into a driveway is rear-ended by another motor vehicle
- 2.) A truck in the process of turning out of a driveway, but is no longer on the driveway, strikes a motor vehicle (or non-motorist) on the roadway

### **Exclusions:**

- Driveway access accident (See 2.7.4)
- 2.7.5 intersection-related accident: An intersection-related accident is a traffic accident in which the first harmful event (1) occurs on an approach to or exit from an intersection and (2) results from an activity, behavior or control related to the movement of traffic units through the intersection. (See Figure 5)
- **2.7.6 nonjunction accident:** A nonjunction accident is a road vehicle accident that is not an at-intersection accident, a driveway access accident or an intersection-related accident.
- 2.7.7 interchange accident: An interchange accident is a traffic accident in which the first harmful event occurs within boundaries which include all ramps of auxiliary roadways and include each roadway entering or leaving the interchange to a point 30 meters (100 feet) beyond the gore or curb return at the outermost ramp connection. Interchange accidents may include at-intersection accidents, intersection-related accidents, driveway access accidents or nonjunction accidents (See Figure 7).
- **2.7.8 work zone accident:** A work zone accident is a motor vehicle traffic accident in which the first harmful event occurs within the boundaries of a work zone or on an approach to or exit from a work zone, resulting from an activity, behavior or control related to the movement of the traffic units through the work zone.

### Inclusions:

- Collision and noncollision accidents occurring within the signs or markings indicating a work zone
- Collision and noncollision accidents occurring on approach to, exiting from, or adjacent to work zones that are related to the work zone, regardless of distance

### Examples:

- 1.) An automobile on the roadway loses control within a work zone due to a shift or reduction in the travel lanes and crashes into another vehicle in the work zone
- 2.) A van in an open travel lane strikes a highway worker in the work zone
- 3.) A highway construction vehicle working on the edge of the roadway is struck by a motor vehicle in-transport in a construction work zone
- 4.) A rear-end collision accident occurs before the signs or markings indicating a work zone caused by vehicles slowing or stopped on the roadway because of the work zone activity
- 5.) A pickup in-transport loses control in an open travel lane within a work zone caused by a shift or reduction in the travel lanes and crashes into another vehicle down the road that had already exited the work zone
- 6.) A tractor trailer approaching an intersection strikes a pedestrian outside of the work zone. The accident is caused by a lack of visibility created by work zone equipment on the intersecting roadway
- 7.) A sport utility loses control and overturns on a roadway within a work zone due to a severe lane shift without any collision event

### **Exclusions:**

- Accidents involving working motor vehicles that do not involve a motor vehicle in-transport
- An accident that occurs on the opposite side of a divided highway from the work zone, if the work zone is not signed on the accident side of the highway, and the accident is clearly unrelated to the work zone

### Examples:

- 1.) Two motor vehicles performing work in a work zone collide
- 2.) A highway maintenance truck strikes a highway worker. Both are within the closed portion of the work site
- 3.) A utility worker repairing the electrical lines over the trafficway falls from the bucket of a cherry

picker without being struck by a motor vehicle intransport

### 2.8 School Bus

- 2.8.1 school bus: A school bus is 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 motor vehicle is not a school bus while on trips which involve the transportation exclusively of other passengers or exclusively for other purposes. A motor vehicle is a school bus only if it is externally identifiable by the following characteristics:
  - 1.) Its color is yellow
  - The words "school bus" appear on the front and rear
  - 3.) Flashing red lights are located on the front and rear
  - Lettering on both sides identifies the school or school district served, or the company operating the bus

### Inclusions:

- Any automobile, bus, van, utility vehicle, truck or other vehicle which meets the above criteria
- Any such vehicle going to pick up, or returning from delivering school pupils

### **Exclusions:**

- Any vehicle while being used to transport nonschool pupils such as senior citizens or migrant workers
- 2.8.2 school bus accident: A school bus accident is (1) a motor vehicle accident in which a school bus, with or without a pupil on board, is involved directly as a contact vehicle, or (2) a motor vehicle accident or an other-road-vehicle accident in which a school bus, with or without a pupil on board, is involved indirectly as a noncontact vehicle.

### Inclusions:

 A collision involving motor vehicle in-transport in which one or more school buses strike(s) or are (is) struck by another road vehicle (directly involved)

- A collision involving pedestrian in which a child approaching or leaving a school bus, stopped and with its red lights flashing, is struck and injured by a motor vehicle (School bus indirectly involved)
- A collision accident or noncollision accident involving a motor vehicle in-transport passing a school bus stopped and with its red lights flashing (The school bus is a noncontact vehicle indirectly involved)
- A collision accident in which a child approaching or leaving a school bus, stopped and with its red lights flashing, is struck and injured by a pedalcycle (School bus indirectly involved)

### **Exclusions:**

 A collision accident or noncollision accident involving a motor vehicle which is normally used as a school bus, but is carrying only senior citizens when the collision occurs

### 2.9 Commerce

- **2.9.1 commerce:** Commerce is any trade, traffic or transportation of commodities or persons for financial consideration or exchange, or in the furtherance of a business enterprise.
- **2.9.2 interstate commerce:** Interstate commerce is commerce in the United States where the transit between the points of origin and termination does not occur entirely within the borders of the state of origin.

### Inclusions:

- Between a place in a state and place outside of such state (including a place outside of the U.S.)
- Between two places in a state through another state or a place outside of the U.S.
- Between two places in a state as part of trade, traffic or transportation originating or terminating outside the state or the U.S.

### **Exclusions:**

- Intrastate commerce
- 2.9.3 intrastate commerce: Intrastate commerce is commerce in any state where the transit between the

points of origin and termination occurs entirely within the borders of the state of origin.

### **Exclusions:**

- Interstate commerce
- **2.9.4 motor carrier:** A motor carrier is the legal business entity, individual, partnership, corporation or organization that directs, controls and is responsible for the transportation of goods, property or people.

### Inclusions:

- For-hire and private business entities engaged in commerce
- Governments
- Religious organizations; i.e., churches, temples, synagogues, mosques, etc.
- Charities
- And all other entities responsible for the transportation of goods, property or people
- 2.9.5 hazardous material: Hazardous material is a substance or material which has been designated by the U.S. Department of Transportation, or other authorizing entity, as capable of posing an unreasonable risk to health, safety and property when transported in commerce. Any motor vehicle transporting quantities of hazardous materials in quantities above the thresholds established by the U.S. Department of Transportation, or other authorized entity, is required to display a hazardous materials placard (See 2.9.5.1).

### **Exclusions:**

- Fuel or oil carried by the vehicle for its own use
- 2.9.5.1 hazardous materials placard: A hazardous materials placard is a sign required to be affixed to any motor vehicle transporting quantities of hazardous materials in quantities above the thresholds established by the U.S. Department of Transportation, or other authorized entity. This placard identifies the hazard class division number, 4-digit hazardous material identification number, or name of the hazardous material being transported.
- **2.9.6 at work:** A person is at work when engaged in duties, activities or tasks that produce a product or service; that are done in exchange for money, goods, services,

profit or benefit; and that are legal activities in the United States.<sup>2</sup>

### Inclusions:

 Persons who are driving or traveling as a condition of employment for a work-related activity.

### Examples:

- 1.) Truck driver driving for pay with or without cargo
- 2.) Salesperson driving to a customer's office for a sales call
- 3.) Sales trainee riding with the salesperson in Example 2
- 4.) Clerk driving own personal vehicle at request of supervisor to buy office supplies
- 5.) Self-employed construction worker hauling materials to job site
- 6.) A police vehicle patrolling or responding to an emergency
- 7.) Any person driving a company-owned vehicle from their home in a work-related activity

### **Exclusions:**

- Persons who are commuting to or from work
- Persons driving or traveling for reasons not required by the person's employer for a workrelated activity

### Examples:

- 1.) Truck driver using employer's truck to do personal errands
- 2.) Salesperson driving home (commuting) after last sales call of the day
- 3.) Sales trainee driving to second job after last sales call of the day
- 4.) Clerk driving between home and office

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<sup>&</sup>lt;sup>2</sup> This definition is adapted from the definition used in the Census of Fatal Occupational Injuries program at the Bureau of Labor Statistics.

- 5.) Self-employed construction worker hauling materials for use at his/her own home
- 6.) Any person driving a company-owned vehicle to or from their home in a non-work-related activity

### 3 Classification

## 3.1 Classification of Persons by Injury Severity

- **3.1.1 Introduction.** The purpose of this classification is to describe the most severe injury to any person involved in a road vehicle accident.
- **3.1.2 Categories.** There are five mutually exclusive categories for classification of injured persons. In order of precedence, these are:
  - person with fatal injury
  - person with incapacitating injury
  - person with nonincapacitating evident injury
  - person with possible injury
  - person with no injury
- Time of classification. Injuries should be classified on the basis of conditions at the scene of the accident. The single exception to this rule applies to fatal injuries. If any injury results in death within a specified period after the road vehicle accident in which the injury occurred, the injury classification should be changed to fatal injury. For general use in the administration of highway safety programs, the specified period is 30 days. This 30-day fatality counting rule is suitable for most applications, but other fatality counting rules are sometimes needed to meet specialized requirements. A 12-month rule for counting fatalities is used under World Health Organization procedures adopted for vital statistics reporting in the United States. Experience indicates that, of the deaths from motor vehicle accidents which occur within 12 months of those accidents, about 99.5 percent occur within 90 days and about 98.0 percent occur within 30 days.
- 3.1.4 Guide to classification. The injury classification applies to any person involved in road vehicle accidents while either in or out of a road vehicle. The categories are so defined that, for the most part, neither medical attention nor special tests are required for classification. Classification usually can be done by ordinary observation

at the time of the accident or from information submitted on the accident report.

- 3.1.5 Additional guides for fatal injuries. The underlying cause of death recorded in the medical certification part of the death certificate determines whether or not a death is classified as a fatal injury resulting from a road vehicle accident. Instructions for interpretation of information reported on death certificates are too detailed for inclusion in this manual. Normally, the medical examiner or coroner will be the final authority on matters pertaining to cause of death whether or not an autopsy is performed.
- **3.1.6** Alternate injury scale. A more detailed scale for recording injuries by type and severity is available in The Abbreviated Injury Scale (AIS), a publication of the American Association for Automotive Medicine.

## 3.2 Classification of Road Vehicles by Damage Severity

- **3.2.1 Introduction.** The purpose of this classification is to describe the most severe damage to any road vehicle involved in a road vehicle accident.
- **3.2.2 Categories.** There are four mutually exclusive categories for road vehicle damage to motor vehicles (See 3.2.2.1) or other road vehicles (See 3.2.2.2).
- **3.2.2.1 Motor vehicles.** In order of precedence, motor vehicle categories by severity of damage are:
  - Disabling damage to motor vehicle
  - Functional damage to motor vehicle
  - Other motor vehicle damage
  - No damage to motor vehicle
- **3.2.2.2 Other road vehicles.** In order of precedence, other road vehicle categories by severity of damage are:
  - Disabling damage to other road vehicle
  - Functional damage to other road vehicle
  - Other other-road-vehicle damage
  - No damage to other road vehicle
- **3.2.3 Alternate damage scale.** A more detailed scale for recording damage by severity and type of impact is

available in Vehicle Damage Scale for Traffic Accident Investigators, a National Safety Council publication.

## 3.3 Accident Classification by Transport Vehicle Type

- **3.3.1 Introduction**. The purpose of this classification is to describe the type of transport accident.
- **3.3.2 Categories.** There are five mutually exclusive categories for classification of transport accidents. In order of precedence, these are:
  - Aircraft accident
  - Watercraft accident
  - Motor vehicle accident
  - Railway accident
  - Other-road-vehicle accident
- 3.3.3 Basis for categories. The five categories of transport accidents listed above are based upon those used for compilation of vital statistics. Current definitions for this purpose are given in the World Health Organization "Manual of the International Statistical Classification of Diseases, Injuries, and Causes of Death," Volume I, pages 547-552 (1975 Revision, published in 1977).

## 3.4 Accident Classification by Injury Severity

- **3.4.1 Introduction.** The purpose of this classification is to describe the severity of a road vehicle accident in terms of injuries received. The accident is classified according to the most serious injury to any person involved.
- **3.4.2 Categories.** There are five mutually exclusive categories of injury severity for classification of road vehicle accidents (See 3.4.2.1). These may be reduced to three mutually exclusive categories by combining the nonfatal injury categories (See 3.4.2.2).
- **3.4.2.1 Five category set.** Road vehicle accident categories, in order of precedence, are:
  - Fatal accident
  - Incapacitating injury accident
  - Nonincapacitating evident injury accident
  - Possible injury accident

- Noninjury accident
- **3.4.2.2 Three category set.** Road vehicle accident categories, in order of precedence, are:
  - Fatal accident
  - Nonfatal injury accident
  - Noninjury accident
- **3.4.3 General.** The "noninjury accident" classification applies only to road vehicle accidents which result in damage but not injury.

## 3.5 Accident Classification by Damage Severity

- **3.5.1 Introduction.** The purpose of this classification is to describe the severity of a road vehicle accident in terms of damage to property.
- **3.5.2 Categories.** There are five categories of damage severity for classification of motor vehicle accidents (See 3.5.2.1) or other-road-vehicle accidents (See 3.5.2.2).
- **3.5.2.1 Motor vehicle accidents.** Motor vehicle accident categories, in order of precedence, are:
  - Disabling damage accident
  - Functional damage accident
  - Other motor vehicle damage accident
  - Other property damage accident
  - No damage accident
- **3.5.2.2 Other-road-vehicle accidents.** Other-road-vehicle accident categories, in order of precedence, are:
  - Disabling damage accident
  - Functional damage accident
  - Other other-road-vehicle damage accident
  - Other property damage accident
  - No damage accident
- **3.5.3 Interpretation.** This classification does not actually describe or measure the severity of the whole road vehicle accident, but only the most serious damage to one road vehicle. A motor vehicle accident in which one motorcycle was disabled would have the same "damage"

severity" as one in which four trucks with trailers were demolished.

**3.5.4 General.** The "no damage" classification applies only when there is injury (See 2.3.1) but no damage in a road vehicle accident; if there were neither damage nor injury there would be no accident.

### 3.6 Accident Classification by Number of Vehicles

- **3.6.1 Introduction.** The purpose of this classification is to describe a motor vehicle accident in terms of the number of motor vehicles in-transport which are involved, or other-road-vehicle accident in terms of the number of other road vehicles in-transport which are involved.
- **3.6.2 Categories.** The categories for classification of road vehicle accidents by number of vehicles are:
  - Single-vehicle accident
  - Two-vehicle accident
  - Three-vehicle accident
  - And so on
- 3.6.3 Noncontact road vehicles. A noncontact (or "phantom") road vehicle is not counted as one of the road vehicles involved in an accident (See 2.4.8). Noncontact vehicles may or may not be recorded on accident reports but should not be counted when classifying accidents by number of vehicles involved. Information about a noncontact vehicle may be recorded for legal purposes, but such vehicles are not counted for statistical purposes.
- **3.6.4** Single-vehicle accidents. Common types of single-vehicle accidents are noncollision accidents or collisions involving pedestrians, fixed objects, wild animals or unrestrained domestic animals.
- **3.6.5 School bus.** If a school bus is directly involved (as a contact vehicle) in a motor vehicle accident, the school bus is counted as any other motor vehicle would be. If a school bus is indirectly involved (e.g., as a noncontact vehicle) in a motor vehicle accident or an other-road-vehicle accident, it is not counted.

## 3.7 Accident Classification by First Harmful Event

- **3.7.1 Introduction**. The purpose of this classification is to describe a road vehicle accident in terms of the first harmful event that occurred.
- **3.7.2 Categories.** Under two broad classifications, there are ten mutually exclusive categories for classification of motor vehicle accidents (See 3.7.2.1) and nine mutually exclusive categories for classification of otherroad-vehicle accidents (See 3.7.2.2).
- **3.7.2.1 Motor vehicle accidents.** Motor vehicle accident categories are:
  - Collision accident
    - Collision involving pedestrian
    - Collision involving motor vehicle in-transport
    - Collision involving parked motor vehicle
    - Collision involving railway vehicle
    - Collision involving pedalcycle
    - Collision involving animal
    - Collision involving fixed object
    - Collision involving other object
  - Noncollision accident
    - Overturning accident
    - Jackknife accident
    - Other noncollision accident
- **3.7.2.2 Other-road-vehicle accidents.** Other-road-vehicle accident categories are:
  - Collision accident
    - Collision involving pedestrian
    - Collision involving other road vehicle intransport
    - Collision involving parked motor vehicle
    - Collision involving railway vehicle
    - Collision involving animal
    - Collision involving fixed object
    - Collision involving other object

- Noncollision accident
  - Overturning accident
  - Jackknife accident
  - Other noncollision accident
- **3.7.3 Guide to classification.** The use of the first harmful event rather than the most severe or significant harmful event is specified for uniformity in reported road vehicle accident statistics. For analytic purposes it may be desirable to collect and use information about subsequent harmful events.

### 3.8 Accident Classification by Location

### 3.8.1 Roadway-Related Location

- **3.8.1.1 Introduction.** The purpose of this classification is to describe a road vehicle traffic accident in terms of its location with respect to roadways.
- **3.8.1.2 Categories.** There are two mutually exclusive categories for classification of road vehicle traffic accidents in terms of location with respect to roadways. These are:
  - On-roadway accident
  - Off-roadway accident
- **3.8.1.3 Inadequate information.** If there is insufficient information to determine clearly in which category a road vehicle traffic accident belongs, classify the accident as an on-roadway accident.

### 3.8.2 Junction-Related Location

- **3.8.2.1 Introduction.** The purpose of this classification is to describe a traffic accident in terms of its location with respect to junctions.
- **3.8.2.2 Categories.** There are four mutually exclusive categories for classification of traffic accidents in terms of location with respect to junctions. In order of precedence, these are:
  - At-intersection accident
  - Driveway access accident
  - Intersection-related accident

Nonjunction accident

### 3.8.3 Administrative Class of Trafficway

- **3.8.3.1 Introduction.** The purpose of this classification is to describe a traffic accident in terms of the administrative class of trafficway on which it occurred.
- **3.8.3.2 Categories.** There are six mutually exclusive categories for classification of traffic accidents by administrative class of trafficway. In order of precedence these are:
  - Interstate highway accidents
  - Other U.S. route numbered highway accidents
  - Other state route numbered highway accidents
  - County road accidents
  - City street accidents
  - All other traffic accidents
- **3.8.3.3 Intersections or interchanges.** For traffic accidents within intersections or interchanges, assign the administrative class of trafficway as follows:
  - In an at-intersection accident, assign the accident to the highest class of trafficway at the intersection.
  - In an interchange accident, assign the accident to the highest class of trafficway in the interchange unless the accident occurs on the lower class trafficway and does not occur at the connections of ramps and lower class roadways. Accidents which occur at the connections of ramps and the lower class roadways, including those in merge /diverge lanes, should be assigned to the highest class trafficway in the interchange (See Figure 6) (See also 3.8.3.4 Ramps or Frontage Roads).
- **3.8.3.4** Ramps or frontage roads. A ramp or connecting road at an intersection or interchange is presumed to be part of the highest class of trafficway with which it connects. A frontage road is not considered to be a ramp or connecting road.
- **3.8.3.5** First harmful event. The location of the first harmful event determines the trafficway classification for the traffic accident. When the first harmful event does not occur on a trafficway the traffic accident should be attributed to the class of trafficway on which the unstabilized situation originated.

- **3.8.3.6 Overlapping systems.** Some sections of trafficways are on more than one administrative system. For example, a highway may have both a U.S. route number and a state route number. In such a case, a traffic accident should be assigned to the highest administrative system at the accident location.
- **3.8.3.7 Inadequate information.** In any case where there is a question as to which administrative class of trafficway a traffic accident should be assigned, it should be assigned to the higher class.

### 3.8.4 Access Class of Trafficway

- **3.8.4.1 Introduction**. The purpose of this classification is to describe a traffic accident in terms of the access class of trafficway on which it occurred.
- **3.8.4.2 Categories.** There are two mutually exclusive categories for classification of traffic accidents by access class of trafficway. These are:
  - Fully-controlled access highway accidents
  - Other traffic accidents
- **3.8.4.3 Guide to classification.** Classification of traffic accidents by access class of trafficway should be compatible with classification of accidents by administrative class of trafficway (See 3.8.3).

### 3.8.5 Land Use Character

- **3.8.5.1 Introduction.** The purpose of this classification is to describe the location of a road vehicle accident in terms of the general area in which it occurred.
- **3.8.5.2 Categories.** There are two mutually exclusive categories for classifying road vehicle accidents with respect to location by land use character. These categories are:
  - Urban area accident
  - Rural area accident

### 3.8.6 Political Subdivision

**3.8.6.1 Introduction**. The purpose of this classification is to describe the location of a road vehicle accident in terms of the political subdivision in which it occurred.

- **3.8.6.2 Categories.** Any city, county, state or other political jurisdiction is a possible category for classification of road vehicle accident by political jurisdiction. Such categories are not necessarily mutually exclusive.
- **3.8.6.3 Guide to classification.** The location of the first harmful event is presumed to be the accident location for purposes of classification of road vehicle accidents by political jurisdiction.

### 3.8.7 Bikeway-Related Location

- **3.8.7.1 Introduction.** The purpose of this classification is to describe a road vehicle traffic accident involving one or more pedalcycles in terms of its location with respect to bikeways.
- **3.8.7.2 Categories.** There are four mutually exclusive categories for classification of road vehicle traffic accidents in terms of location with respect to bikeways. These are:
  - Bicycle trail accidents
  - Bicycle lane accidents
  - Shared road accidents
  - Non-bikeway accidents
- **3.8.7.3 Inadequate information**. If there is insufficient information to determine clearly in which category a road vehicle traffic accident belongs, classify the accident as a non-bikeway accident.

## 3.9 Type of Motor Vehicle Classification

- **3.9.1 Introduction**. The purpose of this classification is to describe the type of motor vehicle involved in a motor vehicle accident.
- **3.9.2** Categories. Categories for classification of motor vehicles by type include:
  - Automobile (See 3.10 and 3.11)
    - Van
      - Cargo Van
      - Passenger Van
    - Other automobile

American National Standard

— Utility vehicle
— Mini
— Single-unit truck and full trailer
— Small
— Midsize
— Full-size
— Large

ANSI D-16.1 - 2007

— Truck combination
— Single-unit truck and full trailer
— Single-unit truck and semitrailer
— Truck tractor and semitrailer
— Truck tractor, semitrailer and full trailer(s)

— Bus

Van-based bus

— Small bus

Large bus

School bus

Other bus

— Motorcycle (See 3.12)

— Moped

Truck tractor

— Truck (See 3.13)

Light truck

Medium truck

Heavy truck

Single-unit truck

Truck combination

— Single-unit truck and full trailer

Single-unit truck and semitrailer

Truck tractor and semitrailer

Truck tractor, semitrailer and full trailer(s)

Other motor vehicle

— Low Speed Vehicle

**3.9.3 Categories.** Categories for classification of trucks by configuration include:

Truck tractor

— Truck (See 3.13)

— Single-unit

— Van

Other single-unit

— Truck

**3.9.4 Categories**. Categories for classification of buses by configuration include:

- Bus

Van-based bus

— Small bus

— Large bus

School bus

**3.9.4.1 Categories.** Categories for classification of buses by use include:

School bus

Transit bus

— Inter-city bus

Charter bus

Other bus

## 3.10 Automobile Classification by Size

**3.10.1 Introduction**. The purpose of this classification is to describe the sizes of automobiles involved in motor vehicle accidents.

**3.10.2 Categories.** There are three mutually exclusive categories of automobile size, based on wheelbase expressed to the nearest inch. Where a finer breakdown is desired, the three-category set may be expanded to a seven-category set.

**3.10.2.1 Three-category set.** Primary automobile size categories are:

Small — wheelbase 99 inches (2.51 meters) or less

Midsize — wheelbase 100 to 109 inches (2.54 to 2.77 meters)

Large — wheelbase 110 inches (2.79 meters) or more

**3.10.2.2 Seven-category set.** Secondary automobile size categories are:

Ultrasmall — wheelbase 89 inches (2.26 meters) or less

Minicompact — wheelbase 90 to 94 inches (2.29 to 2.39 meters)

Subcompact — wheelbase 95 to 99 inches (2.41 to 2.51 meters)

Compact — wheelbase 100 to 104 inches (2.54 to 2.64 meters)

Intermediate — wheelbase 105 to 109 inches (2.67 to 2.77 meters)

Full-size — wheelbase 110 to 114 inches (2.79 to 2.90 meters)

Largest — wheelbase 115 inches (2.92 meters) or more

**3.10.3 Guide to classification**. It is not expected that automobile size categories will generally be determined by investigating officers or entered on accident report forms. These data ordinarily may be obtained more economically and accurately by computer interpretation of vehicle identification numbers (VIN's), from tables of size by year, make and model, or by other means.

# 3.11 Automobile Classification by Weight

- **3.11.1 Introduction**. The purpose of this classification is to describe the weights of automobiles involved in motor vehicle accidents.
- **3.11.2 Categories.** There are three mutually exclusive categories of automobile weight, based on curb weight expressed to the nearest 100 pounds. Curb weight is the weight of an automobile with standard equipment and a full complement of fuel and other fluids, but with no occupants or other load. Where a finer breakdown is desired, the three-category set may be expanded to a seven-category set.
- **3.11.2.1 Three-category set.** Primary automobile weight categories are:

Light — curb weight 2400 pounds (1089 kilograms) or less

Midweight — curb weight 2500 to 3400 pounds (1134 to 1542 kilograms)

Heavy — curb weight 3500 pounds (1588 kilograms) or more

- **3.11.2.2 Seven-category set.** Secondary automobile weight categories are:
  - A curb weight 1400 pounds (635 kilograms) or less
  - B curb weight 1500 to 1900 pounds (680 to 862 kilograms)
  - C curb weight 2000 to 2400 pounds (907 to 1089 kilograms)
  - D curb weight 2500 to 2900 pounds (1134 to 1315 kilograms)
  - E curb weight 3000 to 3400 pounds (1361 to 1542 kilograms)
  - F curb weight 3500 to 3900 pounds (1588 to 1769 kilograms)
  - G curb weight 4000 pounds (1814 kilograms) or more
- **3.11.3 Guide to classification.** It is not expected that automobile weight categories will generally be determined by investigating officers or entered on accident report forms. These data ordinarily may be obtained more economically and accurately by computer interpretation of vehicle identification numbers (VINs), from tables of weight by year, make and model, or by other means.

# 3.12 Motorcycle Classification by Type

- **3.12.1 Introduction.** The purpose of this classification is to describe the type of motorcycle involved in a motor vehicle accident.
- **3.12.2** Categories. Categories of motorcycle include:
  - Large motorcycle
  - Motor-driven cycle
  - Speed-limited motor-driven cycle
  - Moped
  - Other speed-limited motor-driven cycle
  - Other motor-driven cycle

3.12.3 General. Motorcycles include a broad range of transport devices. To support traffic safety programs, it is desirable that motor vehicle accident records permit distinction at least between large motorcycles and motor-driven cycles. Where distinctive license plates are used for motor-driven cycles, speed-limited motor-driven cycles or mopeds, they facilitate accurate identification of these vehicles.

# 3.13 Truck Classification by Weight

- **3.13.1 Introduction.** The purpose of this classification is to describe the weights of trucks involved in motor vehicle accidents.
- **3.13.2 Categories.** There are three mutually exclusive categories of trucks based on gross vehicle weight rating (GVWR). The categories are:

Light truck — gross vehicle weight rating under 10,000 pounds (4,536 kilograms)

Medium truck — gross vehicle weight rating 10,000 to 26,000 pounds (4,536 to 11,793 kilograms)

Heavy truck — gross vehicle weight rating over 26,000 pounds (11,793 kilograms)

3.13.3 Guide to classification. A gross vehicle weight rating (GVWR) appears on a label or tag affixed to single-unit trucks, truck tractors and trailers manufactured for use in the United States. Such a label is required by federal regulations issued by the National Highway Traffic Safety Administration (49CFR567). The required label is generally placed on the door or door frame next to the driver's seating position or, for trailers, on the forward half of the left side.

Gross vehicle weight ratings for trucks are also encoded in vehicle identification numbers and may be included in computerized motor vehicle records maintained by the states.

Substitution of an estimate for a gross vehicle weight rating should take place only when the rating is not available from the above sources.

## 3.14 Classification of Persons by Work Status

- **3.14.1 Introduction.** The purpose of this classification is to indicate, for each person involved in the motor vehicle accident, whether or not the person was at work or not at work.
- **3.14.2 Categories.** There are two mutually exclusive categories for classification of work status of a person involved in a motor vehicle accident. The categories are:
  - At work (See 2.9.4)
  - Not at work

## 3.15 Classification of Accidents by Work Status

- **3.15.1 Introduction**. The purpose of this classification is to indicate whether or not a motor vehicle accident is work related.
- **3.15.2 Categories.** There are two mutually exclusive categories for classification of work status of a motor vehicle accident. The categories are:
  - Work related
  - Not work related
- **3.15.3 Guide to classification.** A motor vehicle accident is work related if any person involved in the accident is at work (See 3.14).

### References

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### **Characteristics of Motor Vehicle Traffic Accidents**

Motor vehicle traffic accidents have a number of characteristics that are used to distinguish between motor vehicle traffic accidents and other events such as non-accidents, aircraft or railway accidents and other motor vehicles, cataclysms and nontraffic accidents. The questions below address all of the distinguishing characteristics of motor vehicle traffic accidents. If the answer to each of the questions below is "yes," then the incident is a motor vehicle traffic accident.

- 1) Did the incident include one or more occurrences of injury (2.3.1) or damage (2.3.7)?
- 2) Was there at least one occurrence of injury or damage which was not a direct result of a cataclysm (2.4.5 Cataclysm and 2.4. 9 Transport accident)?
- 3) Did the incident involve one or more motor vehicles (2.2.7)?
- 4) Of the motor vehicles involved, was at least one in-transport (2.2.34)?
- 5) Was the incident an unstabilized situation (2.4.4)?
- 6) Did the unstabilized situation originate on a trafficway (2.2.1) or did injury or damage occur on a trafficway?
- 7) If the incident involved a railway train (2.2.5) in-transport, did a motor vehicle in-transport become involved prior to any injury or damage involving the train?
- 8) Is it true that neither an aircraft (2.1.5) in-transport nor a watercraft (2.1.6) in-transport was involved in the incident?

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