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A Guide for Coders Using the FARS/CRSS Ped/Bike Typing Tool

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16. Abstract

The development of effective countermeasures to prevent pedestrian and bicyclist crashes is often hindered by State crash files that contain insufficient details about these types of crashes. To remedy this, Pedestrian and Bicycle Crash Typing was developed to describe pre-crash actions of involved parties to better define the sequence of events and precipitating actions leading to crashes between motor vehicles and pedestrians or bicyclists. In 2010 NHTSA adopted parts of a stand-alone crash typing application called Pedestrian and Bicycle Crash Analysis Tool (PBCAT) into its two records-based data collection systems, the Fatality Analysis Reporting System (FARS) and the National Automotive Sampling System (NASS) General Estimates System (GES). In 2016 the Crash Report Sampling System (CRSS) replaced the legacy NASS-GES. PBCAT was developed by the Federal Highway Administration's contractor, the University of North Carolina Highway Safety Research Center. In FARS and CRSS, pedestrian and bicycle crash typing is accomplished through a software application referred to as the Ped/Bike Wizard, embedded in the electronic data entry system among a larger set of elements collected for non-motorists. The wizard is automatically presented when entering data for a non-motorist with a certain person type from the set of seven non-motorist person types collected in FARS and CRSS. This revision updates that coding manual.

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INTRODUCTION

The development of effective countermeasures to prevent pedestrian and bicyclist crashes is often hindered by State crash files that contain insufficient details about these types of crashes. To remedy this issue, Pedestrian and Bicycle Crash Typing was developed to describe the pre-crash actions of the involved parties to better define the sequence of events and precipitating actions leading to crashes between motor vehicles and pedestrians or bicyclists. In 2010 the National Highway Traffic Safety Administration adopted parts of a stand-alone crash typing application called Pedestrian and Bicycle Crash Analysis Tool (PBCAT) into its two records-based data collection systems, the Fatality Analysis Reporting System (FARS) and the National Automotive Sampling System (NASS) General Estimates System (GES). In 2016 the Crash Report Sampling System (CRSS) replaced the legacy NASS-GES. PBCAT was developed by the Federal Highway Administration's (FHWA) contractor, the University of North Carolina Highway Safety Research Center (UNC-HSRC).

In FARS and CRSS, pedestrian and bicycle crash typing is accomplished through a software application referred to as the Ped/Bike Wizard. The wizard is embedded within the electronic data entry system among a larger set of elements collected for non-motorists (see **FARS/CRSS Coding and Validation Manual**). The wizard is automatically presented when entering data for a non-motorist with a certain person type from the set of seven non-motorist person types collected in FARS and CRSS. The Ped/Bike Wizard application is only presented for the following four person types:

- Pedestrian,
- Persons on Personal Conveyances,
- Bicyclist,
- Other Cyclist.

By following on-screen prompts and clicking on choices in the wizard, the FARS Analyst or CRSS Case Coder enters data into the file without typing each specific data element's attribute (numeric code). This manual is a guide to FARS Analysts and CRSS Coders who use the wizard to generate the element values (numeric codes) for each specific data element represented in this manual. In this data entry process, the FARS Analyst or CRSS Case Coder must analyze each crash and recognize the appropriate selection in the hierarchy established by the sequence of screens in the wizard. Entry of the data elements and attributes in this manual is structured in the Ped/Bike Wizard such that the selections available on each successive entry screen are limited by the prior choices. Consequently, while all the data elements collected by the Ped/Bike Wizard are defined in this manual, the wizard entry screens are limited by the FARS Analyst's or CRSS Case Coder's selection at each step through the application.

NHTSA performed extensive quality control checks and analysis using the 2010 and 2011 data. The results of the analysis highlighted definitional differences between the PBCAT application and the coded data elements already included in FARS and NASS-GES. As a result, NHTSA removed the Pbtype data file from the 2010 and 2011 FARS and NASS-GES while research was conducted on how improvements could be made. Throughout the 2012 and 2013 data collection years, NHTSA continued to collect the pedestrian and bicycle data for internal use so that it could be monitored for consistency and stability. During this period, NHTSA and FHWA worked collaboratively to identify issues and implement improvements. Following this period of research and evaluation, NHTSA began capturing new and improved pedestrian and bicyclist data beginning with the 2014 data collection year resulting in the following Pbtype data elements being reinstated.

- PB30 – Crash Type – Pedestrian
- PB31 – Crash Location – Pedestrian

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- PB32 – Pedestrian Position
- PB33 – Pedestrian Initial Direction of Travel
- PB34 – Motorist Initial Direction of Travel
- PB35 – Motorist Maneuver
- PB36 – Intersection Leg
- PB37 – Pedestrian Scenario
- PB38 – Crash Group – Pedestrian
- PB30B – Crash Type – Bicycle
- PB31B – Crash Location – Bicycle
- PB32B – Bicyclist Position
- PB33B – Bicyclist Direction
- PB38B – Crash Group – Bicyclist

2019 PED/BIKE MANUAL CHANGES SUMMARY

Below is a list of elements that have substantial changes for 2019. These changes, as well as others, are highlighted throughout the manual by ***bold/italic*** type.

IT IS RECOMMENDED THAT YOU REVIEW THE ENTIRE MANUAL FOR ALL CHANGES

ELEMENT #	ELEMENT NAME	NEW/ REVISED VALUES	NEW/ REVISED REMARKS	COMMENTS
PB30	Crash Type – Pedestrian	X	X	• Revised Attribute Label and Remarks: 140 (Vehicle ***into*** Vehicle ~~/*Object*~~ ***or Vehicle into Object***) • Revised Remarks: 230 (Disabled Vehicle-Related)
PB30B	Crash Type – Bicycle		X	• Revised Remarks: 141 (Motorist Drive-Out – Sign-Controlled Intersection) • Revised Remarks: 143 (Motorist Drive-Through – Sign-Controlled Intersection)

PB27 - MARKED CROSSWALK PRESENT

FORMAT: Element Completed in MDE
SAS NAME: pbtype.PBCWALK
ELEMENT VALUES:

Codes	Attributes
0	None Noted
1	Yes
9	Unknown

Remarks:

0 (None Noted) is used when the case materials indicate there is no marked crosswalk present **OR** when it cannot be determined if a marked crosswalk was present (e.g., not displayed on the diagram, not identified in the narrative, or not in a relevant report field). This attribute may also be selected if a marked crosswalk is not indicated in the case materials and the crash occurs in a location where crosswalk presence is unlikely (e.g., rural roadway, interstate).

1 (Yes) is used when the case materials indicate the presence of a **marked** crosswalk at the crash site. To select this attribute, you only need to establish presence of a marked crosswalk at this location (i.e., the person does not have to be in or near the crosswalk and the crosswalk does not have to be relevant to the crash).

FARS only: Internet maps or other available sources such as the state highway department **may** be used to verify marked crosswalk presence when you suspect they could exist.

9 (Unknown) is used when the case materials state that it is “unknown” if a marked crosswalk is present.

Consistency Checks:

Check	IF	THEN
(1PK3)	NON-MOTORIST LOCATION AT TIME OF CRASH equals 01 or 10,	MARKED CROSSWALK PRESENT must equal 1.

PB28 - SIDEWALK PRESENT

FORMAT: Element Completed in MDE
SAS NAME: pbtype.PBSWALK
Element Values:

Codes	Attributes
0	None Noted
1	Yes
9	Unknown

Remarks:

0 (None Noted) is used when the case materials indicate there is no sidewalk present **OR** when it cannot be determined if a sidewalk was present (e.g., not displayed on the diagram, not identified in the narrative, or not in a relevant report field). This attribute may also be selected if a sidewalk is not indicated in the case materials and the crash occurs in a location where a sidewalk is unlikely (e.g., rural roadway, interstate).

1 (Yes) is used when the case materials indicate the presence of a sidewalk at the crash site. To select this attribute, you only need to establish presence of a sidewalk at this location (i.e., the person does not have to be on the sidewalk and the sidewalk does not have to be relevant to the crash).

FARS only: Internet maps or other available sources such as the state highway department **may** be used to verify sidewalk presence when you suspect they could exist.

9 (Unknown) is used when the case materials state that it is “unknown” if a sidewalk is present.

Consistency Checks:

Check	IF	THEN
(1PK2)	NON-MOTORIST LOCATION AT TIME OF CRASH equals 21,	SIDEWALK PRESENT must equal 1.

PB29 - SCHOOL ZONE

FORMAT: Element Completed in MDE
SAS NAME: pbtype.PBSZONE
ELEMENT VALUES:

Codes	Attributes
0	None Noted
1	Yes
9	Unknown

Remarks:

0 (None Noted) is used when the case materials indicate the crash did not occur in a school zone **OR** when it cannot be determined if the crash occurred in a school zone (e.g., not displayed on the diagram, not identified in the narrative, or not in a relevant report field). This attribute may also be selected if a school zone is not indicated in the case materials and the crash occurs in a location where a school zone is unlikely (e.g., interstate).

1 (Yes) is used when the case materials indicated the crash occurred in a school zone. It does not matter as to the time of the crash, but only that the investigating officer stated or coded the crash was in a school zone.

FARS only: Internet maps or other available sources such as the state highway department **may** be used to verify school zone presence when you suspect they could exist.

9 (Unknown) is used when the case materials state that it is “unknown” if the crash occurred in a school zone.

PB30 - CRASH TYPE – PEDESTRIAN

FORMAT: Element Completed in MDE
SAS NAME: pbtype.PEDCTYPE
ELEMENT VALUES:

Crash Group attribute names are followed by the element value in parenthesis. Crash Type element values and attribute names are listed below the applicable Crash Group.

CRASH GROUP: Unusual Circumstances (100)

Codes	Attributes
120	Dispute-Related
130	Pedestrian on Vehicle
140	Vehicle ***into*** Vehicle ***or Vehicle into*** Object
150	Motor Vehicle Loss of Control
160	Pedestrian Loss of Control
190	Other Unusual Circumstances
220	Driverless Vehicle
230	Disabled Vehicle-Related
240	Emergency Vehicle-Related
250	Play Vehicle-Related

CRASH GROUP: Backing Vehicle (200)

Codes	Attributes
211	Backing Vehicle - Non-Trafficway - Driveway
212	Backing Vehicle - Driveway Access
213	Backing Vehicle - Trafficway
214	Backing Vehicle - Non-Trafficway - Parking Lot
219	Backing Vehicle - Other / Unknown

CRASH GROUP: Working or Playing in Roadway (310)

Codes	Attributes
311	Working in Roadway
312	Playing in Roadway

CRASH GROUP: Bus Stop-Related (340)

Codes	Attributes
341	Transit Bus Stop-Related
342	School Bus Stop-Related

CRASH GROUP: Unique Midblock (350)

Codes	Attributes
320	Entering / Exiting Parked or Stopped Vehicle
330	Mailbox-Related
360	Ice Cream / Vendor Truck-Related

CRASH GROUP: Walking / Running Along Roadway (400)

Codes	Attributes
410	Walking / Running Along Roadway with Traffic - From Behind
420	Walking / Running Along Roadway with Traffic - From Front
430	Walking / Running Along Roadway Against Traffic - From Behind
440	Walking / Running Along Roadway Against Traffic - From Front
459	Walking / Running Along Roadway - Direction / Position Unknown

CRASH GROUP: Driveway Access / Driveway Access Related (460)

Codes	Attributes
461	Motorist Entering Driveway
465	Motorist Exiting Driveway
469	Driveway Access - Other/Unknown

CRASH GROUP: Waiting to Cross (500)

Codes	Attributes
510	Waiting to Cross - Vehicle Turning
520	Waiting to Cross - Vehicle Not Turning
590	Waiting to Cross - Vehicle Action Unknown

CRASH GROUP: Pedestrian in Roadway - Circumstances Unknown (600)

Codes	Attributes
610	Standing in Roadway
620	Walking in Roadway
313	Lying in Roadway

CRASH GROUP: Multiple Threat/Trapped (720)

Codes	Attributes
710	Multiple Threat
730	Trapped

CRASH GROUP: Dash / Dart-Out (740)

Codes	Attributes
741	Dash
742	Dart-Out

CRASH GROUP: Crossing Roadway – Vehicle Not Turning (750)

Codes	Attributes
760	Pedestrian Failed to Yield (At Intersection) (Not At Intersection)
770	Motorist Failed to Yield (At Intersection) (Not At Intersection)

CRASH GROUP: Crossing Roadway – Vehicle Turning (790)

Codes	Attributes
781	Motorist Left Turn - Parallel Paths
782	Motorist Left Turn - Perpendicular Paths
791	Motorist Right Turn - Parallel Paths
792	Motorist Right Turn on Red - Parallel Paths
795	Motorist Right Turn - Perpendicular Paths
794	Motorist Right Turn on Red - Perpendicular Paths
799	Motorist Turn/Merge - Other / Unknown

CRASH GROUP: Non-Trafficway (800)

Codes	Attributes
830	Non-Trafficway - Parking Lot
890	Non-Trafficway - Other / Unknown

CRASH GROUP: Crossing Expressway (910)

Codes	Attributes
910	Crossing an Expressway

CRASH GROUP: Other/Unknown Insufficient Details (990)

Codes	Attributes
900	Other - Unknown Location
680	Not At Intersection - Other / Unknown
690	At Intersection - Other / Unknown

Remarks:

Crash Group 100 (Unusual Circumstances)

CRASH GROUP: 100 (Unusual Circumstances) is used when the crash involved a disabled vehicle, emergency vehicle, vehicle in pursuit, play vehicle, driverless vehicle or collision with a vehicle which was in a prior vehicle-into-vehicle impact; the pedestrian/vehicle impact was dispute-related; the pedestrian was leaning against or pushing a vehicle; the pedestrian lost control; the vehicle lost control; or the pedestrian was involved in a collision as a result of other unusual circumstances (e.g., the pedestrian collided with an object set-in-motion by an in transport motor vehicle).

If the crash involves any unusual crash circumstance types 120, 130, 140, 150, or 190, select the first one that applies. If this crash involves any of the unusual vehicle types or vehicle actions (e.g., Type 220, 230, 240, or 250) select the first one that applies in this order: **240 (Emergency Vehicle-Related)**, **230 (Disabled Vehicle-Related)**, **220 (Driverless Vehicle)**, **250 (Play Vehicle-Related)**.

120 (Dispute-Related) is used when the pedestrian was involved in a collision with a vehicle during a domestic altercation or other dispute. This would only be used if the contact with the pedestrian was unintentional (i.e., not “deliberate intent”). The pedestrian does not need to be a party to the dispute.

130 (Pedestrian on Vehicle) is used when the pedestrian was sitting on, leaning against, or clinging to a vehicle which began to move or was moving. If the pedestrian was pushing a disabled vehicle, see Crash Type 230 (Disabled Vehicle-Related). [Note: In FARS/CRSS this excludes persons on or clinging to the vehicle that would be classified as occupants.]

140 (Vehicle *into* Vehicle *or Vehicle into* Object) is used when the pedestrian was involved in the crash as a result of a vehicle-into-vehicle or vehicle-into-object ***event***.
Examples:

- Vehicle 1 strikes Vehicle 2 that is parked against a curb. This impact propels the parked vehicle into a pedestrian on a sidewalk.
- Vehicle 1 is disabled in the roadway as part of a previous crash. Pedestrians are standing around Vehicle 1. Vehicle 2 strikes one end of the disabled Vehicle 1, which causes Vehicle 1 to strike a pedestrian in the roadway.
- Vehicle 1 strikes a deer in the roadway. The deer is propelled into a jogger on the shoulder.

150 (Motor Vehicle Loss of Control) is used when the pedestrian was involved in a collision with a vehicle which had a prior loss of control due to mechanical failure, surface conditions, driver medical issue, driver blackout or unconsciousness, alcohol or drug impairment, or falling asleep. Do not independently evaluate test results for this determination. The case materials must indicate that the operator's impairment caused the loss of control and not just that alcohol or drugs were listed among the contributing factors in the crash.

160 (Pedestrian Loss of Control) is used when the pedestrian stumbled, fell, or rolled into path of a vehicle due to surface conditions, medical issue, blackout or unconsciousness, alcohol or drug impairment, falling asleep, or other mishap.

190 (Other Unusual Circumstances) is used when the crash involved other unusual circumstances, such as the pedestrian being struck by falling cargo, a wheel which came off a vehicle because of mechanical failure, or tread which separated from a tire.

220 (Driverless Vehicle) is used when the pedestrian was struck by a vehicle that was moving without a driver at the controls or that was set-in-motion by the actions of a child.

230 (Disabled Vehicle-Related) is used when the pedestrian was involved in a collision with a vehicle while near, next to, or pushing a disabled ***or inoperative*** vehicle (including a vehicle that had been in a previous crash). ***For vehicles in a previous crash, it is not necessary to know the damage severity.*** Note: Crashes involving pedestrians standing near tow trucks responding to the disabled vehicle are also included in this crash type.

240 (Emergency Vehicle-Related) is used when the pedestrian was involved in a collision with an active/moving emergency vehicle or with a vehicle being pursued.

250 (Play Vehicle-Related) is used when the pedestrian was involved in a collision with a vehicle while riding a play vehicle that was not a bicycle (e.g., skates, scooter, wagon, sled, etc.). Excludes persons in handicap scooters or wheelchairs.

Crash Group 200 (Backing Vehicle)

CRASH GROUP: 200 (Backing Vehicle) is used when the pedestrian was involved in a collision with a vehicle that was backing up with a driver at the controls at any type of location.

211 (Backing Vehicle - Non-Trafficway - Driveway) is used when the pedestrian was in a driveway (outside the trafficway) and involved in a collision with a vehicle that was backing with a driver at the controls.

212 (Backing Vehicle - Driveway Access) is used when the pedestrian was within the trafficway on a sidewalk, shared-use path or driveway access and was involved in a collision with a vehicle that was backing with a driver at the controls. This includes the driveway crossing which is the portion of the driveway access where a sidewalk or shared-use path crosses over the driveway access.

213 (Backing Vehicle - Trafficway) is used when the pedestrian was involved in a collision with a vehicle that was backing with a driver at the controls. This would typically occur in a travel lane, parking lane, or shoulder but would exclude the driveway access.

214 (Backing Vehicle - Non-Trafficway - Parking Lot) is used when the pedestrian was in a parking lot space/stall or aisle and was involved in a collision with a vehicle that was backing with a driver at the controls.

219 (Backing Vehicle - Other / Unknown) is used when the pedestrian was in another or unknown location and involved in a collision with a vehicle that was backing with a driver at the controls.

Crash Group 310 (Working or Playing in Roadway)

CRASH GROUP: 310 (Working or Playing in Roadway) is used when the pedestrian was working or playing in the roadway.

311 (Working in Roadway) is used when the pedestrian is working in the roadway when involved in a collision with a vehicle. This includes work activities associated with the construction and maintenance for the trafficway, utility work within the roadway, enforcement work (e.g., directing traffic), or other activities that require the pedestrian to be present in the roadway (e.g., refuse worker). It does not include pedestrians (such as a package/mail delivery worker) who are entering/exiting a vehicle in the roadway or crossing the roadway.

312 (Playing in Roadway) is used when the pedestrian is playing in the roadway when involved in a collision with a vehicle. To use this attribute, the pedestrian should be playing in the roadway prior to vehicle's appearance. This does not include a pedestrian on a play vehicle [see **250 (Play Vehicle-Related)**] and does not include a pedestrian that enters the roadway into the path of the vehicle (e.g., to retrieve a ball). See **741 (Dash)** and **742 (Dart-Out)**.

Crash Group 340 (Bus Stop-Related)

CRASH GROUP: 340 (Bus Stop-Related) is used when the pedestrian was involved in a collision with a vehicle while crossing/walking to a bus or a bus stop or while waiting at a bus stop. This Crash Group also applies to pedestrians that are struck by buses or other vehicles, involved with any movement, activity, or interaction that is related to the bus stop. The pedestrian does not have to intend to be a passenger on the bus or previously been a passenger on the bus.

341 (Transit Bus Stop-Related) is used when there is a transit bus (city bus) present, at a marked transit bus stop, at the time of the crash. This attribute applies to the pedestrian's interaction that is related to the transit bus stop, with a collision occurring as a result of that interaction. Examples may include a pedestrian that is struck, by an on-coming vehicle, while either crossing in front of a stopped transit bus or going to/from a marked transit bus stop, or while waiting at a marked transit bus stop.

342 (School Bus Stop-Related) is used when the pedestrian's interaction is related to a school bus stop, with a collision occurring as a result of that interaction. This attribute can be used **whether a school bus is present or not**. Examples may include a pedestrian that is struck, by an on-coming

vehicle, while either crossing in front of a stopped school bus or going to/from a school bus stop, or while waiting at a school bus stop.

Crash Group 350 (Unique Midblock)

CRASH GROUP: 350 (Unique Midblock) is used when the crash was associated with a vendor truck, mailbox, or other roadside pedestrian 'destination' that was not a bus, or the pedestrian was involved in a collision with a vehicle while entering or exiting a parked vehicle.

320 (Entering / Exiting Parked or Stopped Vehicle) is used when the pedestrian was adjacent to a stopped or parked vehicle and in the process of getting into or had just exited that stopped or parked vehicle. Note: This does not include crashes involving a disabled vehicle [see **230 (Disabled Vehicle-Related)**] or pedestrians performing other actions such as crossing the roadway to/from a parked vehicle or other movements that occurred after the pedestrian exited the vehicle.

330 (Mailbox-Related) is used when the pedestrian is going to or from or standing at a mailbox or newspaper box.

360 (Ice-Cream / Vendor Truck-Related) is used when the pedestrian is going to or from an ice-cream truck or other type of vehicle vending from the curb or roadside.

Crash Group 400 (Walking / Running Along Roadway)

CRASH GROUP: 400 (Walking / Running Along Roadway) is used when the pedestrian was walking or running in or adjacent to the roadway (travel lane) within the trafficway boundaries. This also includes situations where the person's action/intent was walking or running along the roadway. For example, a person stopped momentarily when they were struck (e.g., to tie shoes, talk on cell phone) or someone that moved out into the path of a vehicle to avoid an obstacle along the roadside. This may include the roadway edge, shoulder (paved or unpaved), sidewalk, roadside, or median but excludes a person in a driveway access related crash [See Crash Group **460 (Driveway Access/Driveway Access Related)**].

410 (Walking / Running Along Roadway with Traffic - From Behind) is used when the pedestrian was walking/running in or adjacent to the roadway (travel lane) within the trafficway boundaries, facing in the same direction as the flow of traffic and was involved in a collision where the vehicle was coming from behind the pedestrian.

420 (Walking / Running Along Roadway with Traffic - From Front) is used when the pedestrian was walking/running in or adjacent to the roadway (travel lane) within the trafficway boundaries, facing in the same direction as the flow of traffic and was involved in a collision where the vehicle was coming from the front of the pedestrian.

430 (Walking / Running Along Roadway Against Traffic - From Behind) is used when the pedestrian was walking/running in or adjacent to the roadway (travel lane) within the trafficway boundaries, facing in the opposite direction as the flow of traffic and was involved in a collision where the vehicle was coming from behind the pedestrian.

440 (Walking / Running Along Roadway Against Traffic - From Front) is used when the pedestrian was walking/running in or adjacent to the roadway (travel lane) within the trafficway boundaries, facing in the opposite direction as the flow of traffic and was involved in a collision where the vehicle was coming from the front of the pedestrian.

459 (Walking / Running Along Roadway - Direction / Position Unknown) is used when the pedestrian was walking/running in or adjacent to the roadway (travel lane) within the trafficway boundaries, but there is insufficient information to determine either the position or direction of the pedestrian at the time of the crash.

Crash Group 460 (Driveway Access / Driveway Access Related)

CRASH GROUP: 460 (Driveway Access / Driveway Access Related) is used when the pedestrian was crossing or in a driveway access. This includes the driveway crossing which is the portion of the driveway access where a sidewalk or shared-use path crosses over the driveway access. This also applies when the pedestrian is crossing or standing at the edge of the travel lane in front of the driveway access or is next to the driveway access when in a collision with a vehicle either entering or exiting the driveway.

461 (Motorist Entering Driveway) is used when the motor vehicle was turning into a driveway and collided with the pedestrian.

465 (Motorist Exiting Driveway) is used when the motor vehicle was exiting a driveway and collided with the pedestrian.

469 (Driveway Access - Other / Unknown) is used when the pedestrian was known to be in or near a driveway access when involved in a collision with a vehicle but it cannot be determined if the vehicle was entering or exiting the driveway.

Crash Group 500 (Waiting to Cross)

CRASH GROUP: 500 (Waiting to Cross) is used when the pedestrian was standing on the curb or near the roadway edge waiting to cross the roadway when involved in a collision with a vehicle. If the pedestrian began to cross the roadway, stopped, and then was involved in a collision with a vehicle, see Crash Groups **720 (Multiple Threat/Trapped)**, **740 (Dash/Dart-Out)**, **750 (Crossing Roadway - Vehicle Not Turning)**, **790 (Crossing Roadway - Vehicle Turning)**.

510 (Waiting to Cross - Vehicle Turning) is used when the pedestrian was standing near the curb or roadway edge and waiting to cross the roadway when involved in a collision with a turning vehicle.

520 (Waiting to Cross - Vehicle Not Turning) is used when the pedestrian was standing near the curb or roadway edge and waiting to cross the roadway when involved in a collision with a vehicle that was not turning.

590 (Waiting to Cross - Vehicle Action Unknown) is used when the pedestrian was standing near the curb or roadway edge and waiting to cross the roadway when involved in a collision with a vehicle, but it could not be determined if the vehicle was turning or not.

Crash Group 600 (Pedestrian in Roadway – Circumstances Unknown)

CRASH GROUP: 600 (Pedestrian in Roadway - Circumstances Unknown) is used when the pedestrian was standing, walking, or lying in the road right-of-way at an intersection or midblock location but the circumstances do not otherwise fit any previously described or are unknown.

610 (Standing in Roadway) is used when the pedestrian was standing in the roadway prior to the collision with the vehicle, but the crash cannot be further classified.

620 (Walking in Roadway) is used when the pedestrian was walking in the roadway prior to the collision with the vehicle, but the crash cannot be further classified.

313 (Lying in Roadway) is used when the pedestrian is lying in the roadway when involved with a collision with a motor vehicle. This includes someone sitting, getting up, asleep/unconscious, kneeling, etc.

Crash Group 720 (Multiple Threat / Trapped)

CRASH GROUP: 720 (Multiple Threat / Trapped) is used when the pedestrian entered the roadway in front of standing or slowing traffic, the traffic started moving then the pedestrian was then involved in a collision with a vehicle traveling in the same direction as the stopped traffic (multiple threat). Note: Multiple threats may occur at non-signalized locations. This also applies when the pedestrian entered the roadway on a green signal and was trapped when the signal changed (trapped).

710 (Multiple Threat) is used when the pedestrian entered the traffic lane in front of stopped or slowing traffic and was involved in a collision with a vehicle traveling in the same direction as the stopped or slowing traffic. If there is a traffic signal present and the light changes while the person is crossing, see **730 (Trapped)**.

730 (Trapped) is used when the pedestrian was involved in a collision with a vehicle while crossing at a signalized intersection or signalized midblock crossing when the light changed, and traffic started moving.

Crash Group 740 (Dash / Dart-Out)

CRASH GROUP: 740 (Dash / Dart-Out) is used when the pedestrian either ran into the roadway in front of a motorist whose view of the pedestrian was not obstructed or walked or ran into the road and was involved in a collision with a vehicle where the driver's view of the pedestrian was blocked until an instant before impact.

741 (Dash) is used when the pedestrian ran into the roadway and was involved in a collision with a vehicle and there is no mention in the case materials that the driver's view of the pedestrian was obstructed. The case materials should state that the pedestrian ran.

742 (Dart-Out) is used when the pedestrian walked or ran into the roadway and was involved in a collision with a vehicle where the driver's view of the pedestrian was blocked until an instant before impact. A dart-out can only occur if there is some documented visual obstruction (e.g., parked vehicle, building or vegetation).

Crash Group 750 (Crossing Roadway – Vehicle Not Turning)

CRASH GROUP: 750 (Crossing Roadway - Vehicle Not Turning) is used when the pedestrian crossing the roadway (not an expressway) and involved in a collision with a vehicle that was traveling straight through.

At Intersection

760 (Pedestrian Failed to Yield) is used when the pedestrian was involved in a collision with a vehicle while crossing the roadway (not an expressway). The involved motorist had the right-of-way and was traveling or intending to travel straight through. This code should not be used if any of the following apply: **710 (Multiple Threat)**, **730 (Trapped)**, **741 (Dash)**, and **742 (Dart-Out)**. If it is **NOT** apparent that either party had the right-of-way, select "Other/Unknown."

770 (Motorist Failed to Yield) is used when the pedestrian had the right-of-way and was involved in a collision with a vehicle while crossing the roadway (not an expressway) by a vehicle that was traveling or intending to travel straight through. This code should not be used if any of

the following apply: **710 (Multiple Threat)**, **730 (Trapped)**, **741 (Dash)**, and **742 (Dart-Out)**. If it is **NOT** apparent that either party had the right-of-way, select "Other/Unknown."

Not At Intersection

760 (Pedestrian Failed to Yield) is used when the pedestrian was involved in a collision with a vehicle while crossing the roadway (not an expressway). The involved vehicle was traveling or intending to travel straight through, and the officer identified the pedestrian failed to yield. The officer does not have to make the specific statement "failed to yield." For example, a person crossing in the path of a vehicle outside of an intersection and not in a crosswalk would be failing to yield. The motorist would have the right-of-way in this circumstance.

770 (Motorist Failed to Yield) is used when the pedestrian was involved in a collision with a vehicle while crossing the roadway (not an expressway). The vehicle was traveling or intending to travel straight through, and the officer identified the motorist failed to yield. The officer does not have to make the specific statement "failed to yield." For example, a person crossing in a mid-block crosswalk has the right-of-way unless the crossing is signalized, and the officer identifies the motorist had the right-of-way.

Crash Group 790 (Crossing Roadway – Vehicle Turning)

CRASH GROUP: 790 (Crossing Roadway - Vehicle Turning) is used when the pedestrian was crossing a non-expressway road and involved in a collision with a vehicle that was turning or about to turn.

781 (Motorist Left Turn - Parallel Paths) is used when the motorist was initially traveling on a parallel path with the pedestrian. The motorist made a left turn before the collision with the pedestrian.

782 (Motorist Left Turn - Perpendicular Paths) is used when the motorist was initially traveling on a crossing path with the pedestrian. The motorist made a left turn before the collision with the pedestrian.

791 (Motorist Right Turn - Parallel Paths) is used when the motorist was initially traveling on a parallel path with the pedestrian. The motorist made a right turn before the collision with the pedestrian.

792 (Motorist Right Turn on Red - Parallel Paths) is used when the motorist was initially traveling on a parallel path with the pedestrian. The motorist made a right turn on red before the collision with the pedestrian.

795 (Motorist Right Turn - Perpendicular Paths) is used when the motorist was initially traveling on a crossing path with the pedestrian. The motorist made a right turn before the collision with the pedestrian.

794 (Motorist Right Turn on Red - Perpendicular Paths) is used when the motorist was initially traveling on a crossing path with the pedestrian. The motorist made a right turn on red before the collision with the pedestrian.

799 (Motorist Turn/Merge - Other / Unknown) is used when either the approach paths or turn direction are unknown and do not fit with any of the prescribed circumstances.

Crash Group 800 (Non-Trafficway)

CRASH GROUP: 800 (Non-Trafficway) is used when the pedestrian was in a parking lot space or aisle or in another or unknown non-trafficway area (e.g., driveway, non-right-of-way sidewalk or shared-use path, yard, open area, etc.), when involved in a collision with a vehicle which was not backing.

830 (**Non-Trafficway - Parking Lot)** is used when the pedestrian in a parking lot space or aisle was involved in a collision with a vehicle.

890 (Non-Trafficway - Other / Unknown) is used when the pedestrian was in another non-trafficway area (e.g., driveway, non-right-of-way sidewalk or shared-use path, yard, open area, etc.) and involved in a collision with a vehicle or there were other or unknown circumstances.

Crash Group 910 (Crossing Expressway)

CRASH GROUP/TYPE: 910 (Crossing Expressway) is used when the pedestrian was attempting to cross an expressway or expressway ramp when involved with collision with a motor vehicle. An expressway is a major thoroughfare without intersecting cross streets, having specific entrance and exit ramps. It includes superhighways, interstates, freeways, turnpikes, and parkways. Entrance and exit ramps are considered part of an expressway. The pedestrian does not have to be in a travel lane of the expressway or expressway ramp. The case materials need to indicate that the pedestrian was attempting to cross not just walking along or in the expressway.

Crash Group 990 (Other / Unknown – Insufficient Details)

CRASH GROUP: 990 (Other / Unknown - Insufficient Details) is used when the circumstances do not clearly fit any of the situations described or are unknown.

900 (Other - Unknown Location) is used when the pedestrian is involved in a collision with a vehicle and the crash situation is not covered by any of the types listed or insufficient information is available to specify the crash type.

680 (Not At Intersection - Other / Unknown) is used when the crash occurred at a Not At Intersection location, but the actions of the pedestrian prior to the collision with the vehicle do not otherwise fit any previously described circumstances or it cannot be determined.

690 (At Intersection - Other / Unknown) is used when the pedestrian/vehicle collision occurred at an intersection, but the actions of the pedestrian prior to the collision cannot be determined, do not otherwise fit any previously described circumstances, or it cannot be determined who failed to yield.

Consistency Checks:

Check	IF	THEN
(0PB1)	PEDESTRIAN/BIKE TYPING - CRASH TYPE - PEDESTRIAN equals 741,	at least one NON-MOTORIST CONTRIBUTING CIRCUMSTANCES must equal 11.
(0PB2)	PEDESTRIAN BIKE TYPING - CRASH TYPE - PEDESTRIAN equals 760,	at least one NON-MOTORIST CONTRIBUTING CIRCUMSTANCES should equal 02.
(FP9f)	PERSON TYPE equals 05, 06, 07, 08 and the PEDESTRIAN/BIKE - CRASH TYPE equals blank, case status is flawed.	--
(PB00)	PEDESTRIAN/BIKE TYPING - CRASH TYPE - PEDESTRIAN equals 110-910,	at least one SEQUENCE OF EVENTS for the striking vehicle must equal 08 or 15.
(PB04)	PEDESTRIAN/BIKE TYPING - CRASH TYPE - PEDESTRIAN for a person involved in the first harmful event equals 211, 212, 461, 465, 680, 830, 890, 900 or 910,	RELATION TO JUNCTION (b) must not equal 02. Note: this edit is restricted to vehicles which are involved in only one event with pedestrian(s).
(PB05)	PEDESTRIAN/BIKE TYPING - CRASH TYPE - PEDESTRIAN for a person involved in the first harmful event equals 311, 312 or 313,	RELATION TO TRAFFICWAY must equal 01 or 11. Note: this edit is restricted to vehicles which are involved in only one event with pedestrian(s).
(PB06)	PEDESTRIAN/BIKE TYPING - CRASH TYPE - PEDESTRIAN equals 730,	TRAFFIC CONTROL DEVICE for the striking vehicle must equal 01-03.
(PB12)	PEDESTRIAN/BIKE TYPING - CRASH TYPE - PEDESTRIAN for a person involved in the first harmful event equals 510, 520 or 590,	RELATION TO TRAFFICWAY must not equal 01 or 11. Note: this edit is restricted to vehicles which are involved in only one event with pedestrian(s).
(PB15)	PEDESTRIAN/BIKE TYPING - CRASH TYPE - PEDESTRIAN equals 910,	at least one NON-MOTORIST ACTION/CIRCUMSTANCES must equal 03.
(PB17)	PEDESTRIAN/BIKE TYPING - CRASH TYPE - PEDESTRIAN for a person involved in the first harmful event equals 211-214, or 219,	PRE-EVENT MOVEMENT (PRIOR TO RECOGNITION OF CRITICAL EVENT) must equal 08, 09, 13, or 98. Note: this edit is restricted to vehicles which are involved in only one event with pedestrian(s).
(PB18)	PEDESTRIAN/BIKE TYPING - CRASH TYPE - PEDESTRIAN equals 742,	at least one NON-MOTORIST CONTRIBUTING CIRCUMSTANCES must equal 01.
(PB19)	NON-MOTORIST ACTION/CIRCUMSTANCES equals 08,	PEDESTRIAN/BIKE TYPING - CRASH TYPE - PEDESTRIAN must not equal 510, 520, 590, 830, or 890.
(PB20)	PEDESTRIAN/BIKE TYPING - CRASH TYPE - PEDESTRIAN equals 510, 520, or 590,	at least one NON-MOTORIST ACTION/ CIRCUMSTANCES must equal 02
(PB22)	SCHOOL BUS RELATED equals 1, and PERSON TYPE equals 05 or 08,	PEDESTRIAN/BIKE TYPING - CRASH TYPE - PEDESTRIAN should equal 342.
(PB23)	PEDESTRIAN/BIKE TYPING - CRASH TYPE - PEDESTRIAN equals 342, and PERSON TYPE equals 05 or 08,	SCHOOL BUS RELATED should equal 1.
(PB24)	PERSON TYPE equals 05 or 08, and NON-MOTORIST LOCATION AT TIME OF CRASH equals 14, 16, 20, 21, 22, 24, or 25,	PEDESTRIAN/BIKE TYPING - CRASH TYPE - PEDESTRIAN should equal 230, 320, 330, 410, 420, 430, 440, 459, 510, 520, 590, 830, or 890.

Check	IF	THEN
(PB25)	PERSON TYPE equals 05 or 08, and NON-MOTORIST LOCATION AT TIME OF CRASH equals 01-03 or 09,	PEDESTRIAN/BIKE TYPING - CRASH TYPE - PEDESTRIAN should equal 690, 710, 730, 741, 742, 760, 770, 781, 782, 791, 792, 794, 795, or 799.
(PB27)	NON-MOTORIST ACTION/ CIRCUMSTANCES equals 05, and PERSON TYPE equals 05 or 08,	PEDESTRIAN/BIKE TYPING - CRASH TYPE - PEDESTRIAN should equal 410 or 420.
(PB28)	NON-MOTORIST ACTION/ CIRCUMSTANCES equals 06, and PERSON TYPE equals 05 or 08,	PEDESTRIAN/BIKE TYPING - CRASH TYPE - PEDESTRIAN should equal 430 or 440.
(PB29)	NON-MOTORIST ACTION/CIRCUMSTANCES equals 04, and PERSON TYPE equals 05 or 08,	PEDESTRIAN/BIKE TYPING - CRASH TYPE - PEDESTRIAN should equal 410, 420, 430, 440, or 459
(PB30)	PEDESTRIAN/BIKE TYPING - CRASH TYPE - PEDESTRIAN equals 220,	at least one DRIVER PRESENCE must equal 0 for the vehicle number identified in this person's VEHICLE NUMBER OF MOTOR VEHICLE STRIKING NON-MOTORIST.
(PB32)	PEDESTRIAN/BIKE TYPING - CRASH TYPE - PEDESTRIAN equals 742,	at least one DRIVER'S VISION OBSCURED BY must not equal 00 or 95 for the vehicle number identified in this person's VEHICLE NUMBER OF MOTOR VEHICLE STRIKING NON-MOTORIST.
(PB34)	NUMBER OF FORMS SUBMITTED FOR PERSONS NOT IN MOTOR VEHICLES equals 01, and FIRST HARMFUL EVENT equals 08, and RELATION TO JUNCTION (b) equals 02,	PEDESTRIAN/ BIKE TYPING - CRASH TYPE - PEDESTRIAN must not equal 320, 330, 360, 680, 830, 890, 900, or 910.
(PB36)	PEDESTRIAN/BIKE TYPING - CRASH TYPE - PEDESTRIAN equals 250,	PERSON TYPE must equal 08.
(PB37)	PEDESTRIAN/BIKE TYPING - CRASH TYPE - PEDESTRIAN equals 311, 312, or 313,	at least one NON-MOTORIST ACTION/ CIRCUMSTANCES must equal 08 or 10.
(PB38)	PEDESTRIAN/BIKE TYPING - CRASH TYPE - PEDESTRIAN equals 410 or 420,	at least one NON-MOTORIST ACTION/ CIRCUMSTANCES must equal 05.
(PB39)	PEDESTRIAN/BIKE TYPING - CRASH TYPE - PEDESTRIAN equals 430 or 440,	at least one NON-MOTORIST ACTION/ CIRCUMSTANCES must equal 06.
(PB44)	PEDESTRIAN/BIKE TYPING - CRASH TYPE - PEDESTRIAN equals 240,	EMERGENCY MOTOR VEHICLE USE should equal 2-6 for at least one vehicle.
(PB45)	PEDESTRIAN/BIKE TYPING - CRASH TYPE - PEDESTRIAN equals 781 or 782,	PRE-EVENT MOVEMENT (PRIOR TO RECOGNITION OF CRITICAL EVENT) should equal 11 or 17 for the vehicle number identified in this person's VEHICLE NUMBER OF MOTOR VEHICLE STRIKING NON-MOTORIST.
(PB49)	PERSON TYPE equals 05 or 08 and PRE-EVENT MOVEMENT (PRIOR TO RECOGNITION OF CRITICAL EVENT) equals 13 for the vehicle number identified in this person's VEHICLE NUMBER OF MOTOR VEHICLE STRIKING NON-MOTORIST,	at least one PEDESTRIAN/BIKE TYPING - CRASH TYPE - PEDESTRIAN should equal 211-214 or 219.

Check	IF	THEN
(PB50)	PERSON TYPE equals 05 or 08, and PRE-EVENT MOVEMENT (PRIOR TO RECOGNITION OF CRITICAL EVENT) equals 10-12 or 16 for the vehicle number identified in this person's VEHICLE NUMBER OF MOTOR VEHICLE STRIKING NON-MOTORIST,	at least one PEDESTRIAN/BIKE TYPING - CRASH TYPE - PEDESTRIAN should equal 461, 465, 469, 510, 781, 782, 791, 792, 794, 795, or 799.
(PB56)	PEDESTRIAN/BIKE TYPING - CRASH TYPE - PEDESTRIAN equals 791, 792, 794, 795,	PRE-EVENT MOVEMENT (PRIOR TO RECOGNITION OF CRITICAL EVENT) must equal 10 or 17 for the vehicle number identified in this person's VEHICLE NUMBER OF MOTOR VEHICLE STRIKING NON-MOTORIST.
(PB59)	NON-MOTORIST ACTION/ CIRCUMSTANCES equals 16, and PERSON TYPE equals 05 or 08,	PEDESTRIAN/BIKE TYPING - CRASH TYPE - PEDESTRIAN should equal 459.
(PB60)	PERSON TYPE equals 05 or 08, and DRIVER PRESENCE equals 0 for the motor vehicle which strikes the non-motorist,	PEDESTRIAN/BIKE TYPING - CRASH TYPE - PEDESTRIAN should equal 220.
(PB61)	PEDESTRIAN/BIKE TYPING - CRASH TYPE - PEDESTRIAN equals 220,	DRIVER PRESENCE should equal 0 for the motor vehicle striking the non-motorist.
(PB62)	PEDESTRIAN/BIKE TYPING - CRASH TYPE - PEDESTRIAN equals 230,	at least one NON-MOTORIST ACTION/ CIRCUMSTANCES must equal 12.
(PB63)	PEDESTRIAN/BIKE TYPING - CRASH TYPE - PEDESTRIAN equals 230,	at least one RELATED FACTOR - CRASH LEVEL should equal 19 or 23.
(PBA9)	PEDESTRIAN/BIKE TYPING - CRASH TYPE - PEDESTRIAN equals 741,	NON-MOTORIST CONTRIBUTING CIRCUMSTANCES must not equal 01.
(PBB1)	PEDESTRIAN/BIKE TYPING - CRASH TYPE - PEDESTRIAN equals 742,	NON-MOTORIST CONTRIBUTING CIRCUMSTANCES must not equal 11.
(PBB3)	***PEDESTRIAN/BIKE TYPING-PEDESTRIAN CRASH TYPE equals 341 or 342,***	***RELATED FACTORS - CRASH LEVEL should equal 31.***
(PBB6)	***PEDESTRIAN CRASH GROUP equals 750 or 790***	***NM ACTION/CIRCUMSTANCES must not equal 08 (In Roadway – Other [Working, Playing, etc.]).***
(PBB7)	***PEDESTRIAN CRASH GROUP equals 750 or 790***	***at least one NM ACTION/CIRCUMSTANCES should equal 03 (Crossing Roadway).***
(PBC1)	***PEDESTRIAN/BIKE TYPING - CRASH TYPE - PEDESTRIAN equals 410,***	***at least one NON-MOTORIST CONTRIBUTING CIRCUMSTANCES should equal 09.***

PB31 - CRASH LOCATION – PEDESTRIAN

FORMAT: Element Completed in MDE
SAS NAME: pbtype.PEDLOC
ELEMENT VALUES:

Codes	Attributes
1	At Intersection
2	Intersection-Related
3	Not At Intersection
4	Non-Trafficway Location
9	Unknown / Insufficient Information

Remarks:

1 (At Intersection) is used when a person is **on a roadway** (travel lane) either (1) in the intersection, (2) in an area between a crosswalk and the perimeter of the intersection, or (3) in a crosswalk (whether marked or unmarked) adjacent to an intersection. The crossing or connection of a roadway and a driveway access is **not** an intersection and should be coded as **2 (Intersection-Related)** or **3 (Not At Intersection)**.

2 (Intersection-Related) is used when a person is within the trafficway 50 feet out from the perimeter of an "At intersection" area including the entire cross section of the trafficway (e.g., medians, turn lanes, bike lanes, parking lanes, shoulders, sidewalks, etc.) **OR** the crash is related to the flow of traffic through an intersection (e.g., the result of queuing traffic). Intersection-related area exclusions: (1) intersection, (2) crosswalk, (3) any area between the crosswalk and an intersection.

3 (Not At Intersection) is used when a person is within the trafficway more than 50 feet out from the perimeter of an "At Intersection" area **AND** the crash is not identified as related to the movement of the traffic units through an intersection. This includes the entire cross section of the trafficway (e.g., medians, turn lanes, bike lanes, parking lanes, shoulders, sidewalks, etc.). This attribute is the default when the case materials give no indication that the crash is within 50 feet of an intersection.

4 (Non-Trafficway Location) is used when a person is off the trafficway, including parking lot spaces and aisles, driveways (beyond the driveway access), private roads, yards, and other open areas. Note: Crashes occurring on paved shoulders, sidewalks (within the trafficway) or driveway crossings are considered to be "trafficway" crashes and should not be placed in the **4 (Non-Trafficway Location)**.

9 (Unknown / Insufficient Information) is used when there is insufficient information to determine where the person was located.

Consistency Checks:

Check	IF	THEN
(PB35)	NUMBER OF FORMS SUBMITTED FOR PERSONS NOT IN MOTOR VEHICLES equals 01, and FIRST HARMFUL EVENT equals 08, and RELATION TO JUNCTION (b) equals 02,	PEDESTRIAN/ BIKE TYPING - CRASH LOCATION - PEDESTRIAN must equal 1.
(PB66)	PEDESTRIAN/ BIKE TYPING - CRASH LOCATION - PEDESTRIAN equals 1,	NON-MOTORIST LOCATION AT TIME OF CRASH must equal 01, 02, 03, 09, or 22.
(PB67)	PEDESTRIAN/ BIKE TYPING - CRASH LOCATION - PEDESTRIAN equals 2,	NON-MOTORIST LOCATION AT TIME OF CRASH must equal 10, 11, 13, 14, 16, 20-25, 28, 98, 99.
(PB68)	PEDESTRIAN/ BIKE TYPING - CRASH LOCATION - PEDESTRIAN equals 3,	NON-MOTORIST LOCATION AT TIME OF CRASH must equal 10, 11, 13, 14, 16, 20-24, 28, 98, 99.
(PB69)	PEDESTRIAN/ BIKE TYPING - CRASH LOCATION - PEDESTRIAN equals 4,	NON-MOTORIST LOCATION AT TIME OF CRASH must equal 24, 25, 98, 99.
(PB70)	PEDESTRIAN/ BIKE TYPING - CRASH LOCATION - PEDESTRIAN equals 9,	NON-MOTORIST LOCATION AT TIME OF CRASH must equal 16, 22, 24, 98, or 99.
(PB91)	PEDESTRIAN/ BIKE TYPING - CRASH LOCATION - PEDESTRIAN equals 1,	PEDESTRIAN/ BIKE TYPING - PEDESTRIAN POSITION must equal 1, 2 or 9.
(PB92)	PEDESTRIAN/ BIKE TYPING - CRASH LOCATION - PEDESTRIAN equals 2,	PEDESTRIAN/ BIKE TYPING - PEDESTRIAN POSITION must equal 3, 4, 5, 6, 7, 8 or 9.
(PB93)	PEDESTRIAN/ BIKE TYPING - CRASH LOCATION - PEDESTRIAN equals 3,	PEDESTRIAN/ BIKE TYPING - PEDESTRIAN POSITION must equal 2, 3, 4, 5, 6, or 9.
(PB94)	PEDESTRIAN/ BIKE TYPING - CRASH LOCATION - PEDESTRIAN equals 4,	PEDESTRIAN/ BIKE TYPING - PEDESTRIAN POSITION must equal 7, 8 or 9.
(PB95)	PEDESTRIAN/ BIKE TYPING - CRASH LOCATION - PEDESTRIAN equals 9,	PEDESTRIAN/ BIKE TYPING - PEDESTRIAN POSITION must equal 2, 5 or 9.
(PBA3)	CRASH LOCATION-PEDESTRIAN equals 1 (At Intersection) and PEDESTRIAN SCENARIO equals 2a, 2b, 2c, 2d, 4a, 4b, 4c, 4d, 6a, 6b, 6c, 6d, 8a, 8b, 8c, 8d, 10a, 10b, 10c, 10d, or 12a, 12b, 12c, 12d,	PEDESTRIAN POSITION must equal 1, 9.
(PBA4)	CRASH LOCATION-PEDESTRIAN equals 2 (Intersection-Related) and PEDESTRIAN SCENARIO equals 2a, 2b, 2c, 2d, 4a, 4b, 4c, 4d, 6a, 6b, 6c, 6d, 8a, 8b, 8c, 8d, 10a, 10b, 10c, 10d, or 12a, 12b, 12c, 12d,	PEDESTRIAN POSITION must equal 3-9.
(PBB2)	CRASH LOCATION - PEDESTRIAN equals 1 or 2,	PEDESTRIAN INITIAL DIRECTION OF TRAVEL must equal 1-4, or 9, MOTORIST MANEUVER must equal 1-3, or 9, INTERSECTION LEG must equal 1, 2, or 9, and MOTORIST INITIAL DIRECTION OF TRAVEL must equal 1-4, or 9.
(PBB5)	***PEDESTRIAN/ BIKE TYPING - CRASH LOCATION -PEDESTRIAN equals 1,***	***NON-MOTORIST ACTION/CIRCUMSTANCES should not equal 05, 06, or 16.***

PB32 - PEDESTRIAN POSITION

FORMAT: Element Completed in MDE
SAS NAME: pbtype.PEDPOS
ELEMENT VALUES:

Codes	Attributes
1	Intersection Area
2	Crosswalk Area
3	Travel Lane
4	Paved Shoulder / Bicycle Lane / Parking Lane
5	Sidewalk / Shared-Use Path / Driveway Access
6	Unpaved Right-of-Way
7	Non-Trafficway - Driveway
8	Non-Trafficway - Parking Lot / Other
9	Other / Unknown

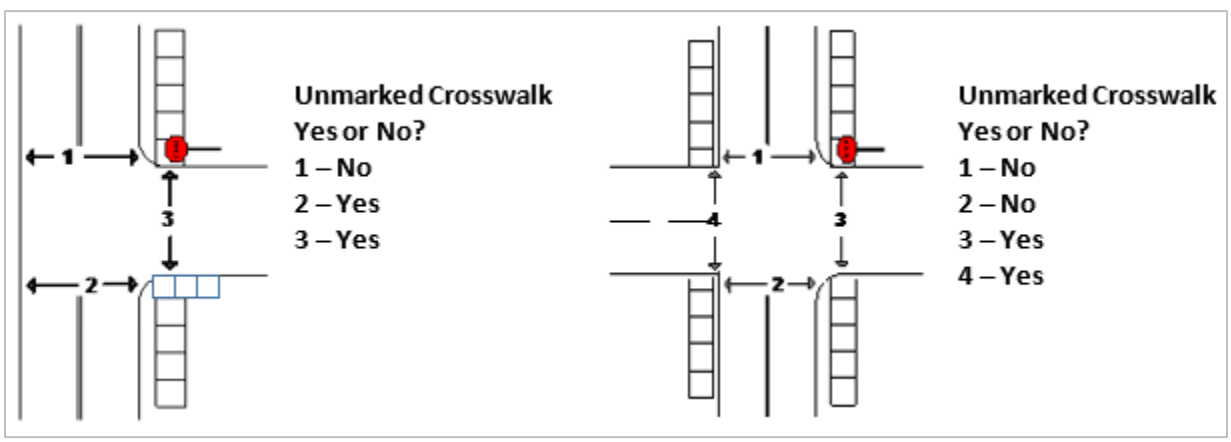
Remarks:

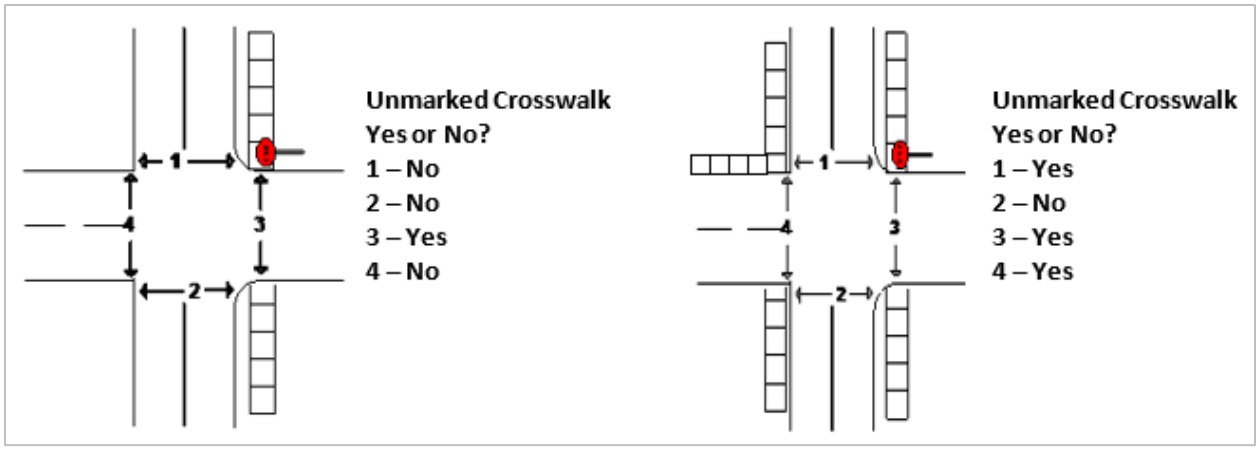
1 (Intersection Area) is used when the person is either in an intersection (the area embraced within the prolongation of the lateral curb lines or, if none, the lateral boundary lines of the roadways) or in the area between the crosswalk, marked or unmarked and the perimeter of the intersection. If there are no sidewalks/crosswalks, the person must be in the intersection to choose this attribute. For a pedestrian or person on a personal conveyance in a marked bicycle lane or an unmarked prolongation of the bicycle lane in an intersection, use **1 (Intersection Area)**.

2 (Crosswalk Area) is used when the person is:

- Within a marked crosswalk.
- On an intersection leg in an area where there is a sidewalk on at least one side of that leg, but no crosswalk is identified in the case materials. The general area of the projection of the sidewalk across the leg is an unmarked crosswalk area. These are unmarked crosswalk areas. For midblock locations, the crosswalk must be marked.

This attribute includes crosswalk areas that pass through a median, crossing, or traffic island.





3 (Travel Lane) is used when the person is on a roadway and not in the intersection area or crosswalk area.

4 (Paved Shoulder / Bicycle Lane / Parking Lane) is used when the person is on the paved shoulder, bicycle lane, or parking lane parts of a trafficway. A bicycle lane is a bikeway adjacent to travel lanes which has been designated for preferential or exclusive use by pedalcyclists through striping, signage, or pavement markings. This attribute excludes pedestrians and persons on a personal conveyance in a bicycle lane in an intersection (i.e., use **1 (Intersection Area)**). For shoulders, if it is unknown if the shoulder was paved or unpaved, then default to **9 (Other / Unknown)**.

5 (Sidewalk / Shared-Use Path / Driveway Access) is used when the person is within the trafficway on a sidewalk, shared-use path, or driveway access. This includes the driveway crossing which is the portion of the driveway access where a sidewalk or shared-use path crosses over the driveway access.

6 (Unpaved Right-of-Way) is used when the person is in an area within the trafficway where there is no improved surface (e.g., no pavement). Examples include grass medians, unpaved shoulders, and roadside locations like the space between the curb and the sidewalk. See **9 (Other / Unknown)** for paved medians. If it is unknown if the location was paved or unpaved, then default to **9 (Other / Unknown)**.

7 (Non-Trafficway - Driveway) is used when the person is on the part of the driveway outside the trafficway. If the person is in a driveway access, use attribute **5 (Sidewalk / Shared-Use Path / Driveway Access)**.

8 (Non-Trafficway - Parking Lot / Other) is used when the person is on other non-trafficway areas (parking lot spaces/stalls and aisles, non-right-of-way sidewalk or shared-use path, yard, open areas, etc.).

9 (Other / Unknown) is used when the person is located within the trafficway in an area of an improved surface not applicable to previous attributes (e.g., a paved gore, paved separator/median, concrete traffic island.). This attribute also applies if the location of the person is not reported or unknown. If it is unknown if the location was paved or unpaved, then default to this attribute. For Non-Trafficway Location, this attribute is used when the person's position cannot be classified.

Consistency Checks:

Check	IF	THEN
(PB76)	PEDESTRIAN/ BIKE TYPING - PEDESTRIAN POSITION equals 1,	NON-MOTORIST LOCATION AT TIME OF CRASH must equal 03.
(PB77)	PEDESTRIAN/ BIKE TYPING - PEDESTRIAN POSITION equals 2,	NON-MOTORIST LOCATION AT TIME OF CRASH must equal 01, 02, or 10.
(PB78)	PEDESTRIAN/ BIKE TYPING - PEDESTRIAN POSITION equals 3,	NON-MOTORIST LOCATION AT TIME OF CRASH must equal 11, 13.
(PB79)	PEDESTRIAN/ BIKE TYPING - PEDESTRIAN POSITION equals 4,	NON-MOTORIST LOCATION AT TIME OF CRASH must equal 14, 16, 20, 98, or 99.
(PB80)	PEDESTRIAN/ BIKE TYPING - PEDESTRIAN POSITION equals 5,	NON-MOTORIST LOCATION AT TIME OF CRASH must equal 21, 23, 24, 98, or 99.
(PB81)	PEDESTRIAN/ BIKE TYPING - PEDESTRIAN POSITION equals 6,	NON-MOTORIST LOCATION AT TIME OF CRASH must equal 20, 22, 28, 98, or 99.
(PB82)	PEDESTRIAN/ BIKE TYPING - PEDESTRIAN POSITION equals 7 or 8,	NON-MOTORIST LOCATION AT TIME OF CRASH must equal 25.
(PB83)	PEDESTRIAN/ BIKE TYPING - PEDESTRIAN POSITION equals 9,	NON-MOTORIST LOCATION AT TIME OF CRASH must equal 09, 20, 22, 28, 98, or 99.
(PB91)	PEDESTRIAN/ BIKE TYPING - CRASH LOCATION - PEDESTRIAN equals 1,	PEDESTRIAN/ BIKE TYPING - PEDESTRIAN POSITION must equal 1, 2, or 9.
(PB92)	PEDESTRIAN/ BIKE TYPING - CRASH LOCATION - PEDESTRIAN equals 2,	PEDESTRIAN/ BIKE TYPING - PEDESTRIAN POSITION must equal 3, 4, 5, 6, 7, 8, or 9.
(PB93)	PEDESTRIAN/ BIKE TYPING - CRASH LOCATION - PEDESTRIAN equals 3,	PEDESTRIAN/ BIKE TYPING - PEDESTRIAN POSITION must equal 2, 3, 4, 5, 6, or 9.
(PB94)	PEDESTRIAN/ BIKE TYPING - CRASH LOCATION - PEDESTRIAN equals 4,	PEDESTRIAN/ BIKE TYPING - PEDESTRIAN POSITION must equal 7, 8, or 9.
(PB95)	PEDESTRIAN/ BIKE TYPING - CRASH LOCATION - PEDESTRIAN equals 9,	PEDESTRIAN/ BIKE TYPING - PEDESTRIAN POSITION must equal 2, 5, or 9.
(PBA2)	PEDESTRIAN SCENARIO equals 1a, 1b, 1c, 1d, 3a, 3b, 3c, 3d, 5a, 5b, 5c, 5d, 7a, 7b, 7c, 7d, 9a, 9b, 9c, 9d, or 11a, 11b, 11c, 11d,	PEDESTRIAN POSITION must equal 2.
(PBA3)	CRASH LOCATION-PEDESTRIAN equals 1 (At Intersection) and PEDESTRIAN SCENARIO equals 2a, 2b, 2c, 2d, 4a, 4b, 4c, 4d, 6a, 6b, 6c, 6d, 8a, 8b, 8c, 8d, 10a, 10b, 10c, 10d, or 12a, 12b, 12c, 12d,	PEDESTRIAN POSITION must equal 1, 9.
(PBA4)	CRASH LOCATION-PEDESTRIAN equals 2 (Intersection-Related) and PEDESTRIAN SCENARIO equals 2a, 2b, 2c, 2d, 4a, 4b, 4c, 4d, 6a, 6b, 6c, 6d, 8a, 8b, 8c, 8d, 10a, 10b, 10c, 10d, or 12a, 12b, 12c, 12d,	PEDESTRIAN POSITION must equal 3-9.

PB33 - PEDESTRIAN INITIAL DIRECTION OF TRAVEL

FORMAT: Element Completed in MDE
SAS NAME: pbtype.PEDDIR
ELEMENT VALUES:

What was the Pedestrian's Initial Direction of Travel?

Codes	Attributes
1	Northbound
2	Eastbound
3	Southbound
4	Westbound
9	Not Derived/Unknown Initial Direction of Travel

Remarks: This data element is derived by the PBCAT application from **PB34 - Motorist Direction** and **PB37 - Pedestrian Scenario**. For example, if PB34 - Motorist Direction is coded westbound and PB37 - Pedestrian Scenario, is coded 11a (pedestrian within crosswalk area, approached from same direction as motorist), then the PBCAT application derives PB33-Pedestrian Initial Direction of Travel, as westbound, the same direction as the motorist.

This data element is not applicable when **PB31 - Crash Location - Pedestrian** equals **3 (Not At Intersection)**, **4 (Non-Trafficway Location)**, **or 9 (Unknown/Insufficient Information)**.

9 (Not Derived/Unknown Initial Direction of Travel) is applicable when the pedestrian is at or near an intersection (**PB31 - Crash Location - Pedestrian** equals **1 (At Intersection)** or **2 (Intersection-Related)**). This value is applied by the system when **PB37 - Pedestrian Scenario** equals **99 (Unknown/Insufficient Information)**, any of "**d - other**" scenarios are selected, or any of the "**c - approach direction unknown**" scenarios are selected. This value is applied because the pedestrian is not approaching or traveling (e.g., standing, working, playing lying, etc.), the pedestrian is traveling/approaching from a known direction but the travel/approach direction is something other than the possible attributes (e.g., Northeast), or the travel direction of the pedestrian relative to the vehicle is unknown.

PB34 - MOTORIST INITIAL DIRECTION OF TRAVEL

FORMAT: Element Completed in MDE
SAS NAME: pbtype.MOTDIR
ELEMENT VALUES:

What was the Motorist's Initial Direction of Travel?

Codes	Attributes
1	Northbound
2	Eastbound
3	Southbound
4	Westbound
9	Unknown Initial Direction of Travel

Remarks: This data element is not applicable when **PB31 - Crash Location - Pedestrian** equals **3 (Not At Intersection)**, **4 (Non-Trafficway Location)**, or **9 (Unknown/Insufficient Information)**.

9 (Unknown Initial Direction of Travel) is applicable when the pedestrian is at or near an intersection (**PB31 - Crash Location - Pedestrian** equals **1 (At Intersection)** or **2 (Intersection-Related)**) and used when the motorist's initial direction of travel is unknown (i.e., unknown if Northbound, Southbound, Eastbound, Westbound).

PB35 - MOTORIST MANEUVER

FORMAT: Element Completed in MDE
SAS NAME: pbtype.MOTMAN
ELEMENT VALUES:

Select the maneuver being made by the motorist at the time of the collision.

Codes	Attributes
1	Left Turn
2	Right Turn
3	Straight Through
9	Unknown Motorist Maneuver

Remarks:
This data element is not applicable when **PB31 - Crash Location - Pedestrian** equals **3 (Not At Intersection)**, **4 (Non-Trafficway Location)**, or **9 (Unknown/Insufficient Information)**.

9 (Unknown Motorist Maneuver) is applicable when the pedestrian is at or near an intersection (**PB31 - Crash Location - Pedestrian** equals **1 (At Intersection)** or **2 (Intersection-Related)**) and used when the motorist's maneuver is unknown (i.e., unknown if motorist traveling straight through, motorist turning right, or motorist turning left).

PB36 - INTERSECTION LEG

FORMAT: Element Completed in MDE
SAS NAME: pbtype.PEDLEG
ELEMENT VALUES:

Codes	Attributes
1	Nearside
2	Farside
9	Unknown/None of the Above

Remarks: Requires the user to select the correct leg of the intersection where the crash occurred. The choices, regardless of the motorist maneuver, will always be "Nearside" and "Farside."

This data element is not applicable when **PB31 - Crash Location - Pedestrian** equals **3 (Not At Intersection)**, **4 (Non-Trafficway Location)**, or **9 (Unknown/Insufficient Information)**.

1 (Nearside) is used when the crash occurred as the motorist was approaching or entering the intersection.

2 (Farside) is used when the crash occurred as the motorist was exiting or leaving the intersection.

9 (Unknown/None of the Above) is used when it is unknown if the crash occurred as the motorist was approaching or entering the intersection (Nearside) or exiting or leaving the intersection (Farside).

PB37 - PEDESTRIAN SCENARIO

FORMAT: Element Completed in MDE
SAS NAME: pbtype.PEDSNR
ELEMENT VALUES:

Motorist traveling straight through – Crash Occurred on Near (Approach) Side of Intersection

Codes	Attributes
1a	Pedestrian within crosswalk area, traveled from motorist's left.
1b	Pedestrian within crosswalk area, traveled from motorist's right.
1c	Pedestrian within crosswalk area, approach direction unknown.
1d	Pedestrian within crosswalk area, other.
2a	Pedestrian outside crosswalk area, traveled from motorist's left.
2b	Pedestrian outside crosswalk area, traveled from motorist's right.
2c	Pedestrian outside crosswalk area, approach direction unknown.
2d	Pedestrian outside crosswalk area, other.

Motorist traveling straight through - Crash Occurred on Far Side of Intersection

Codes	Attributes
3a	Pedestrian within crosswalk area, traveled from motorist's left.
3b	Pedestrian within crosswalk area, traveled from motorist's right.
3c	Pedestrian within crosswalk area, approach direction unknown.
3d	Pedestrian within crosswalk area, other.
4a	Pedestrian outside crosswalk area, traveled from motorist's left.
4b	Pedestrian outside crosswalk area, traveled from motorist's right.
4c	Pedestrian outside crosswalk area, approach direction unknown.
4d	Pedestrian outside crosswalk area, other.

Motorist turning right - Crash Occurred on Near (Approach) Side of Intersection

Codes	Attributes
5a	Pedestrian within crosswalk area, traveled from motorist's left.
5b	Pedestrian within crosswalk area, traveled from motorist's right.
5c	Pedestrian within crosswalk area, approach direction unknown.
5d	Pedestrian within crosswalk area, other.
6a	Pedestrian outside crosswalk area, traveled from motorist's left.
6b	Pedestrian outside crosswalk area, traveled from motorist's right.
6c	Pedestrian outside crosswalk area, approach direction unknown.
6d	Pedestrian outside crosswalk area, other.

Motorist turning right - Crash Occurred on Far Side of Intersection

Codes	Attributes
7a	Pedestrian within crosswalk area, approach direction same as motorist's.
7b	Pedestrian within crosswalk area, approach direction opposite motorist's.
7c	Pedestrian within crosswalk area, approach direction unknown.
7d	Pedestrian within crosswalk area, other.
8a	Pedestrian outside crosswalk area, approach direction same as motorist's.
8b	Pedestrian outside crosswalk area, approach direction opposite motorist's.

Codes	Attributes
8c	Pedestrian outside crosswalk area, approach direction unknown.
8d	Pedestrian outside crosswalk area, other.

Motorist turning left - Crash Occurred on Near (Approach) Side of Intersection

Codes	Attributes
9a	Pedestrian within crosswalk area, traveled from motorist's left.
9b	Pedestrian within crosswalk area, traveled from motorist's right.
9c	Pedestrian within crosswalk area, approach direction unknown.
9d	Pedestrian within crosswalk area, other.
10a	Pedestrian outside crosswalk area, traveled from motorist's left.
10b	Pedestrian outside crosswalk area, traveled from motorist's right.
10c	Pedestrian outside crosswalk area, approach direction unknown.
10d	Pedestrian outside crosswalk area, other.

Motorist turning left - Crash Occurred on Far Side of Intersection

Codes	Attributes
11a	Pedestrian within crosswalk area, approach direction same as motorist's.
11b	Pedestrian within crosswalk area, approach direction opposite motorist's.
11c	Pedestrian within crosswalk area, approach direction unknown.
11d	Pedestrian within crosswalk area, other.
12a	Pedestrian outside crosswalk area, approach direction same as motorist's.
12b	Pedestrian outside crosswalk area, approach direction opposite motorist's**.**
12c	Pedestrian outside crosswalk area, approach direction unknown.
12d	Pedestrian outside crosswalk area, other.

Unknown

Codes	Attributes
99	Unknown/Insufficient Information.

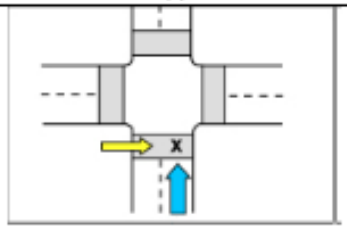
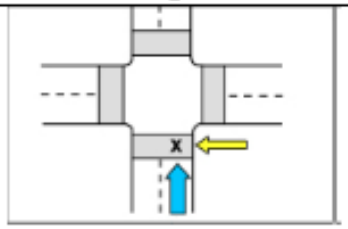
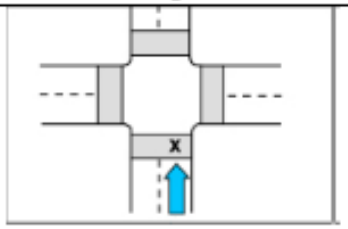
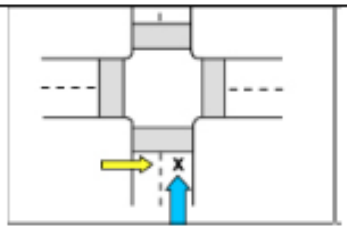
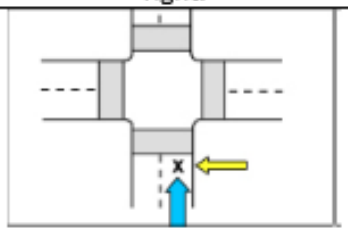
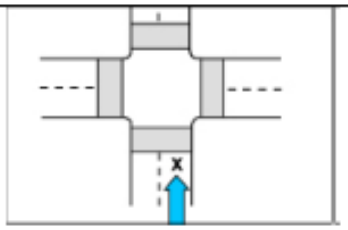
Remarks: This data element is not applicable when **PB31 - Crash Location - Pedestrian** equals **3 (Not At Intersection)**, **4 (Non-Trafficway Location)**, or **9 (Unknown / Insufficient Information)**.

(See Scenario Diagrams on following pages)

99 (Unknown/Insufficient Information) is populated in this element when **PB34 Motorist Initial Direction of Travel**, **PB35 Motorist Maneuver**, or **PB36 Intersection Leg** is coded as "unknown." This represents circumstances where it is unknown or there is insufficient information to establish the travel direction of the vehicle (i.e., Northbound, Southbound, Eastbound, Westbound), the movement of the vehicle (i.e., motorist traveling straight through, motorist turning right, or motorist turning left), or to establish if the crash occurred on the near (approach) side or far side of the intersection.

Figure 118. Motorist traveling straight through.

Crash Occurred Near (Approach) Side of Intersection

A	B	C
 1a. Pedestrian within crosswalk area, traveled from motorist's left.	 1b. Pedestrian within crosswalk area, traveled from motorist's right.	 1c. Pedestrian within crosswalk area, approach direction unknown.
 2a. Pedestrian outside crosswalk area, traveled from motorist's left.	 2b. Pedestrian outside crosswalk area, traveled from motorist's right.	 2c. Pedestrian outside crosswalk area, approach direction unknown.

Crash Occurred Far Side of Intersection

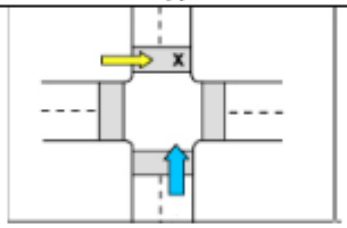
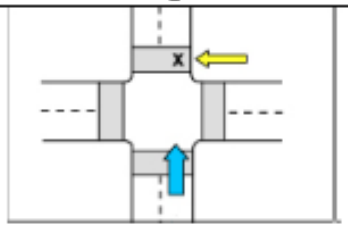
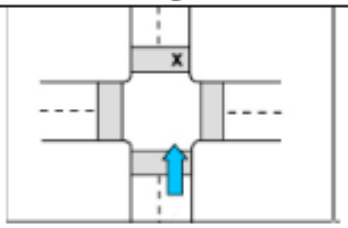
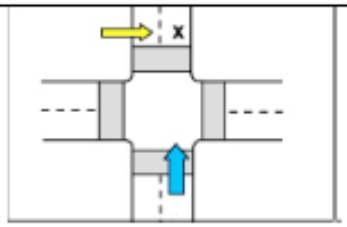
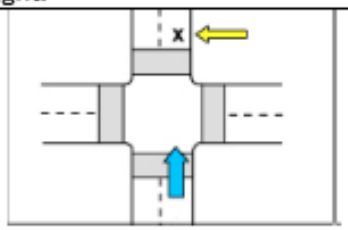
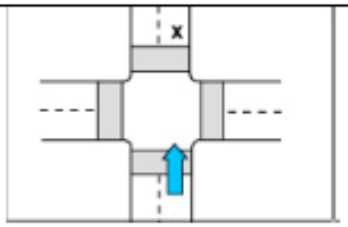
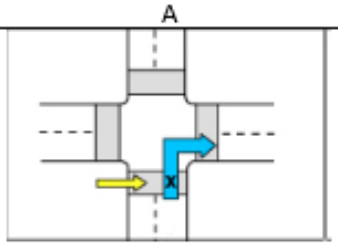
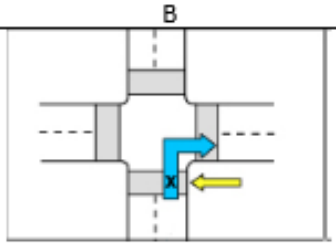
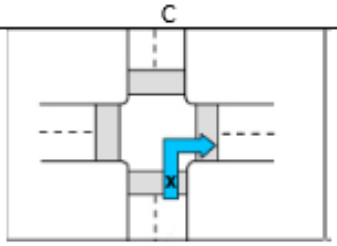
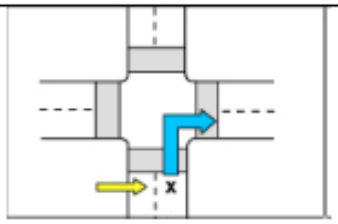
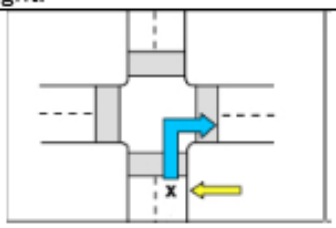
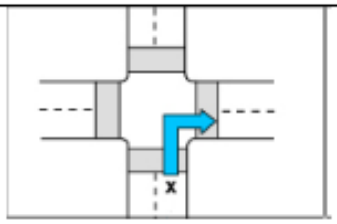
A	B	C
 3a. Pedestrian within crosswalk area, traveled from motorist's left.	 3b. Pedestrian within crosswalk area, traveled from motorist's right.	 3c. Pedestrian within crosswalk area, approach direction unknown.
 4a. Pedestrian outside crosswalk area, traveled from motorist's left.	 4b. Pedestrian outside crosswalk area, traveled from motorist's right.	 4c. Pedestrian outside crosswalk area, approach direction unknown.

Figure 119. Motorist turning right.

Crash Occurred Near (Approach) Side of Intersection

A	B	C
 5a. Pedestrian within crosswalk area, traveled from motorist's left.	 5b. Pedestrian within crosswalk area, traveled from motorist's right.	 5c. Pedestrian within crosswalk area, approach direction unknown.
 6a. Pedestrian outside crosswalk area, traveled from motorist's left.	 6b. Pedestrian outside crosswalk area, traveled from motorist's right.	 6c. Pedestrian outside crosswalk area, approach direction unknown.

Crash Occurred Far Side of Intersection

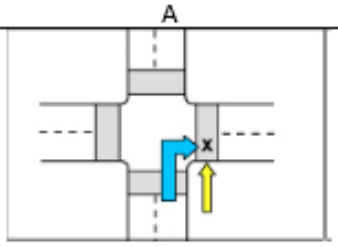
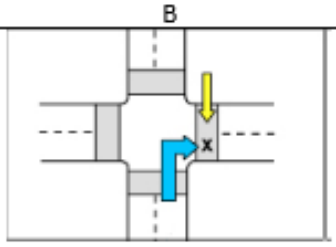
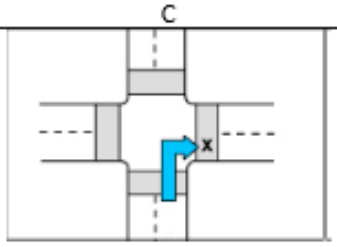
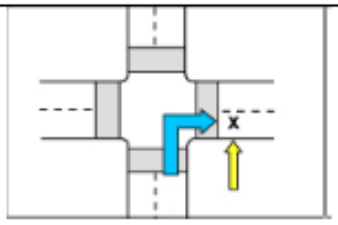
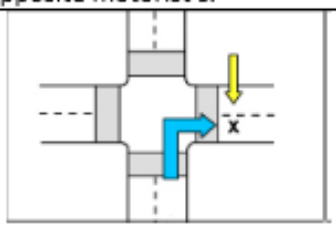
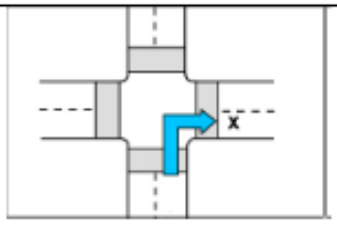
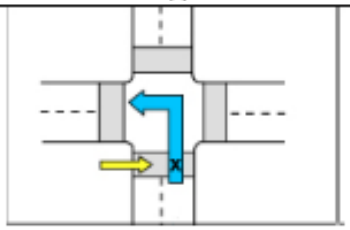
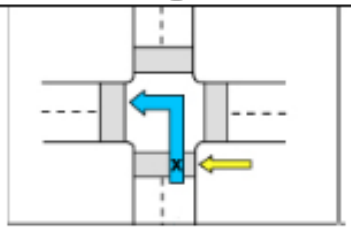
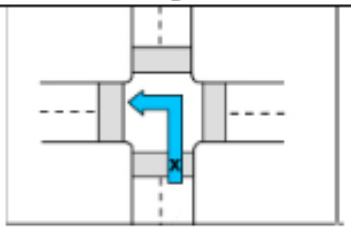
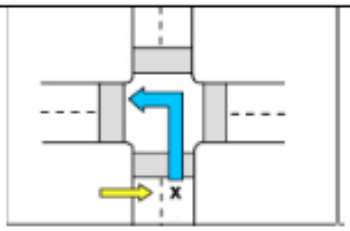
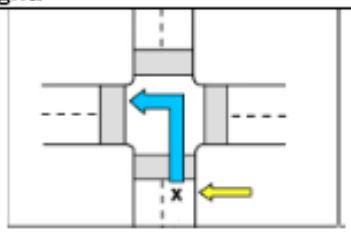
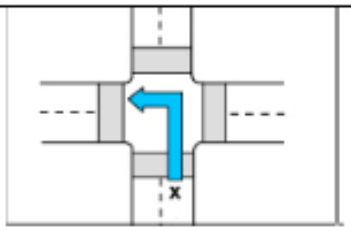
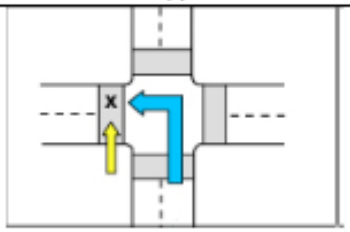
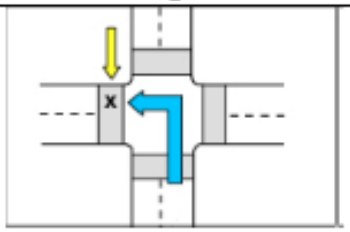
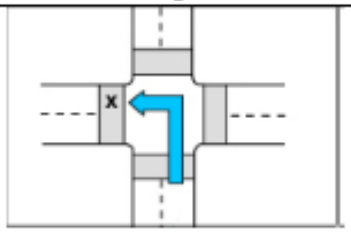
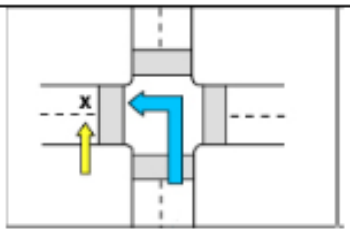
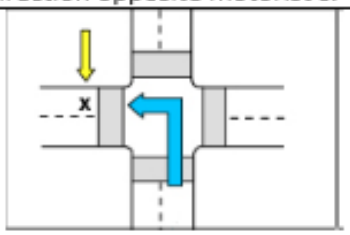
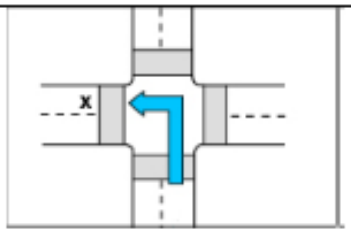
A	B	C
 7a. Pedestrian within crosswalk area, approach direction same as motorist's.	 7b. Pedestrian within crosswalk area, approach direction opposite motorist's.	 7c. Pedestrian within crosswalk area, approach direction unknown.
 8a. Pedestrian outside crosswalk area, approach direction same as motorist's.	 8b. Pedestrian outside crosswalk area, approach direction opposite motorist's.	 8c. Pedestrian outside crosswalk area, approach direction unknown.

Figure 120. Motorist turning left.

Crash Occurred Near (Approach) Side of Intersection

A	B	C
 9a. Pedestrian within crosswalk area, traveled from motorist's left.	 9b. Pedestrian within crosswalk area, traveled from motorist's right.	 9c. Pedestrian within crosswalk area, approach direction unknown.
 10a. Pedestrian outside crosswalk area, traveled from motorist's left.	 10b. Pedestrian outside crosswalk area, traveled from motorist's right.	 10c. Pedestrian outside crosswalk area, approach direction unknown.

Crash Occurred Far Side of Intersection

A	B	C
 11a. Pedestrian within crosswalk area, approach direction same as motorist's.	 11b. Pedestrian within crosswalk area, approach direction opposite motorist's.	 11c. Pedestrian within crosswalk area, approach direction unknown.
 12a. Pedestrian outside crosswalk area, approach direction same as motorist's.	 12b. Pedestrian outside crosswalk area, approach direction opposite motorist's.	 12c. Pedestrian outside crosswalk area, approach direction unknown.

PB38 - CRASH GROUP – PEDESTRIAN

FORMAT: Element Completed by MDE
SAS NAME: pbtype.PEDCGP
ELEMENT VALUES:

Crash Group attribute names are left justified, with the element value prior to the attribute name. Crash Type element values and attribute names are listed below the applicable Crash Group with their applicable element value in parenthesis.

CRASH GROUP: 100 Unusual Circumstances

- Dispute Related (120) *
- Pedestrian on Vehicle (130) *
- Vehicle-Vehicle/Object (140) *
- Motor Vehicle Loss of Control (150) *
- Pedestrian Loss of Control (160) *
- Other Unusual Circumstances (190) *
- Driverless Vehicle (220) *
- Disabled Vehicle-Related (230) *
- Emergency Vehicle Related (240) *
- Play Vehicle Related (250) *

CRASH GROUP: 200 Backing Vehicle

- Backing Vehicle-Non-Trafficway-Driveway (211) *
- Backing Vehicle-Driveway Access (212) *
- Backing Vehicle-Trafficway (213) *
- Backing Vehicle-Non-Trafficway-Parking Lot (214) *
- Backing Vehicle-Other/Unknown (219) *

CRASH GROUP: 310 Working or Playing in Roadway

- Working in Roadway (311) *
- Playing in Roadway (312) *

CRASH GROUP: 340 Bus Stop-Related

- Transit Bus Stop-Related (341) *
- School Bus Stop-Related (342) *

CRASH GROUP: 350 Unique Midblock

- Entering/Exiting Parked or Stopped Vehicle (320) *
- Mailbox-Related (330) *
- Ice Cream/Vendor Truck-Related (360) *

CRASH GROUP: 400 Walking/Running Along Roadway

- Walking/Running Along Roadway with Traffic – From Behind (410) *
- Walking/Running Along Roadway with Traffic – From Front (420) *
- Walking/Running Along Roadway Against Traffic – From Behind (430) *
- Walking/Running Along Roadway Against Traffic – From Front (440) *
- Walking/Running Along Roadway – Direction/Position Unknown (459) *

CRASH GROUP: 460 Driveway Access/Driveway Access Related

- Motorist Entering Driveway (461) *
- Motorist Exiting Driveway (465) *
- Driveway Access – Other/Unknown (469) *

CRASH GROUP: 500 – Waiting to Cross

- Waiting to Cross – Vehicle Turning (510) *
- Waiting to Cross – Vehicle Not Turning (520) *
- Waiting to Cross – Vehicle action Unknown (590) *

CRASH GROUP: 600 – Pedestrian in Roadway – Circumstances Unknown

- Standing in Roadway (610) *
- Walking in Roadway (620) *
- Lying in Roadway (313) *

CRASH GROUP: 720 – Multiple Threat/Trapped

- Multiple Threat (710) *
- Trapped (730) *

CRASH GROUP: 740 – Dash/Dart-Out

- Dash (741) *
- Dart-Out (742) *

CRASH GROUP: 750 – Crossing Roadway – Vehicle Not Turning

- Pedestrian Failed to Yield (760) (At Intersection) (Not At Intersection)*
- Motorist Failed to Yield (770) (At Intersection) (Not At Intersection)*

CRASH GROUP: 790 – Crossing Roadway – Vehicle Turning

- Motorist Left Turn – Parallel Path (781) *
- Motorist Left Turn – Perpendicular Paths (782) *
- Motorist Right Turn – Parallel Path (791) *
- Motorist Right Turn on Red – Parallel Paths (792) *
- Motorist Right Turn – Perpendicular Paths (795) *
- Motorist Right Turn on Red – Perpendicular Paths (794) *
- Motorist Turn/Merge – Other/Unknown (799) *

CRASH GROUP: 800 – Non-Trafficway

- Non-Trafficway – Parking Lot (830) *
- Non-Trafficway – Other/Unknown (890) *

CRASH GROUP: 910 – Crossing Expressway

- Crossing an Expressway (910) *

CRASH GROUP: 990 – Other/Unknown – Insufficient Details

- Other – Unknown Location (900) *
- Not at Intersection – Other/Unknown (680) *
- At Intersection – Other/Unknown (690) *

***See manual element PB30 Crash Type - Pedestrian for individual attribute remarks**

Remarks:

100 (Unusual Circumstances) is used when the crash involved a disabled vehicle, emergency vehicle, vehicle in pursuit, play vehicle, driverless vehicle, or collision with a vehicle which was in a prior vehicle-into-vehicle impact; the pedestrian/vehicle impact was dispute-related; the pedestrian was leaning against or pushing a vehicle; the pedestrian lost control; the vehicle lost control; or the pedestrian was involved in a collision as a result of other unusual circumstances (e.g., the pedestrian collided with an object set-in-motion by an in-transport motor vehicle). If this crash involves unusual circumstances, select the first one that applies (lowest to highest number).

200 (Backing Vehicle) is used when the pedestrian was involved in a collision with a vehicle that was backing up with a driver at the controls at any type of location.

310 (Working or Playing in Roadway) is used when the pedestrian was working or playing in the roadway.

340 (Bus Stop-Related) is used when the pedestrian was involved in a collision with a vehicle while crossing/walking to a bus or a bus stop or while waiting at a bus stop. This Crash Group also applies to pedestrians that are struck by buses or other vehicles, involved with any movement, activity, or interaction that is related to the bus stop. The pedestrian does not have to intend to be a passenger on the bus or previously been a passenger on the bus.

350 (Unique Midblock) is used when the crash was associated with a vendor truck, mailbox, or other roadside pedestrian 'destination' that was not a bus, or the pedestrian was involved in a collision with a vehicle while entering or exiting a parked vehicle.

400 (Walking / Running Along Roadway) is used when the pedestrian was standing, walking, or running in or adjacent to the roadway (travel lane) within the trafficway boundaries. This also includes situations where the person's action/intent was walking or running along the roadway. For example, a person stopped momentarily when they were struck (e.g., to tie shoes, talk on cell phone) or someone that moved out into the path of a vehicle to avoid an obstacle along the roadside. This may include the roadway edge, shoulder (paved or unpaved), sidewalk, roadside, or median but excludes a person in a driveway access related crash [See **460 (Driveway Access/Driveway Access Related)**].

460 (Driveway Access / Driveway Access Related) is used when the pedestrian was crossing or in a driveway access. This includes the driveway crossing which is the portion of the driveway access where a sidewalk or shared-use path crosses over the driveway access. This also applies when the pedestrian is crossing in front of the driveway access at the edge of the travel lane.

500 (Waiting to Cross) is used when the pedestrian was standing on the curb or near the roadway edge waiting to cross the roadway when involved in a collision with a vehicle. If the pedestrian began to cross the roadway, stopped, and then was involved in a collision with a vehicle, see Crash Groups **720 (Multiple Threat / Trapped)**, **740 (Dash / Dart-Out)**, **750 (Crossing Roadway - Vehicle Not Turning)**, **790 (Crossing Roadway - Vehicle Turning)**.

600 (Pedestrian in Roadway - Circumstances Unknown) is used when the pedestrian was standing, walking, or lying in the road right-of-way at an intersection or midblock location but the circumstances do not otherwise fit any previously described or are unknown.

720 (Multiple Threat / Trapped) is used when the pedestrian entered the roadway in front of standing or slowing traffic, the traffic started moving then the pedestrian was then involved in a collision with a vehicle traveling in the same direction as the stopped traffic (multiple threat). Note: Multiple threats may occur at non-signalized locations. This also applies when the pedestrian entered the roadway on a green signal and was trapped when the signal changed (trapped).

740 (Dash / Dart-Out) is used when the pedestrian either ran into the roadway in front of a motorist whose view of the pedestrian was not obstructed or walked or ran into the road and was involved in a collision with a vehicle where the driver's view of the pedestrian was blocked until an instant before impact.

750 (Crossing Roadway - Vehicle Not Turning) is used when the pedestrian crossing the roadway (not an expressway) and involved in a collision with a vehicle that was traveling straight through.

790 (Crossing Roadway - Vehicle Turning) is used when the pedestrian was crossing a non-expressway road and involved in a collision with a vehicle that was turning or about to turn.

800 (Non-Trafficway) is used when the pedestrian was in a parking lot space or aisle or in another or unknown non-trafficway area (e.g., driveway, non-right-of-way sidewalk or shared-use path, yard, open area, etc.), when involved in a collision with a vehicle which was not backing.

910 (Crossing Expressway) for definition, see Crash Type **910 (Crossing an Expressway)** under **Crash Type - Pedestrian (PB30)**.

990 (Other / Unknown - Insufficient Details) is used when the circumstances do not clearly fit any of the situations described or are unknown.

PB30B - CRASH TYPE – BICYCLE

FORMAT: Element Completed in MDE
SAS NAME: pbtype.BIKECTYPE
ELEMENT VALUES:

Crash Group attribute names are followed by the element value in parenthesis. Crash Type element values and attribute names are listed below the applicable Crash Group.

Initial Approach Path – Crossing Paths or Parallel Paths

CRASH GROUP: Loss of Control / Turning Error (110)
Loss of Control

Codes	Attributes
121	Bicyclist Lost Control - Mechanical Problems
122	Bicyclist Lost Control - Oversteering, Improper Braking, Speed
123	Bicyclist Lost Control - Alcohol / Drug Impairment
124	Bicyclist Lost Control - Surface Conditions
129	Bicyclist Lost Control - Other / Unknown
131	Motorist Lost Control - Mechanical Problems
132	Motorist Lost Control - Oversteering, Improper Braking, Speed
133	Motorist Lost Control - Alcohol / Drug Impairment
134	Motorist Lost Control - Surface Conditions
139	Motorist Lost Control - Other / Unknown

Initial Approach Path – Crossing Paths

CRASH GROUP: Loss of Control / **Turning Error** (110)
Turning Error

Codes	Attributes
111	Motorist Turning Error - Left Turn
112	Motorist Turning Error - Right Turn
113	Motorist Turning Error - Other
114	Bicyclist Turning Error - Left Turn
115	Bicyclist Turning Error - Right Turn
116	Bicyclist Turning Error - Other

Drive / Ride-Out / Through

CRASH GROUP: Motorist Failed to Yield - Sign-Controlled Intersection (140)

Codes	Attributes
141	Motorist Drive-Out - Sign-Controlled Intersection
143	Motorist Drive-Through - Sign-Controlled Intersection

CRASH GROUP: Bicyclist Failed to Yield – Sign-Controlled Intersection (145)

Codes	Attributes
142	Bicyclist Ride-Out - Sign-Controlled Intersection
144	Bicyclist Ride-Through - Sign-Controlled Intersection
147	Multiple Threat - Sign-Controlled Intersection

CRASH GROUP: Motorist Failed to Yield – Signalized Intersection (150)

Codes	Attributes
151	Motorist Drive-Out - Right Turn on Red
152	Motorist Drive-Out - Signalized Intersection
154	Motorist Drive-Through - Signalized Intersection

CRASH GROUP: Bicyclist Failed to Yield – Signalized Intersection (158)

Codes	Attributes
153	Bicyclist Ride-Out - Signalized Intersection
155	Bicyclist Ride-Through - Signalized Intersection

Sub-Group: Bicyclist Failed to Clear

Codes	Attributes
156	Bicyclist Failed to Clear - Trapped
157	Bicyclist Failed to Clear - Multiple Threat
159	Bicyclist Failed to Clear - Unknown

CRASH GROUP: Crossing Paths – Other Circumstances (190)

Codes	Attributes
148	Sign-Controlled Intersection - Other/Unknown
158	Signalized Intersection - Other/Unknown
160	Crossing Paths - Uncontrolled Intersection
180	Crossing Paths - Intersection - Other/Unknown
380	Crossing Paths - Midblock - Other/Unknown

Initial Approach Path - Parallel Paths

Motorist Turned or Merged

CRASH GROUP: Motorist Left Turn/Merge (210)

Codes	Attributes
211	Motorist Left Turn - Same Direction
212	Motorist Left Turn - Opposite Direction

CRASH GROUP: Motorist Right Turn/Merge (215)

Codes	Attributes
213	Motorist Right Turn - Same Direction
217	Motorist Right Turn on Red - Same Direction
214	Motorist Right Turn - Opposite Direction
218	Motorist Right Turn on Red - Opposite Direction

CRASH GROUP: Parking/Bus Related (219)

Codes	Attributes
215	Motorist Drive-In/Out – Parking
216	Bus/Delivery Vehicle Pullover

Bicyclist Turned or Merged

CRASH GROUP: Bicyclist Left Turn/Merge (220)

Codes	Attributes
221	Bicyclist Left Turn - Same Direction
222	Bicyclist Left Turn - Opposite Direction

CRASH GROUP: Bicyclist Right Turn/Merge (225)

Codes	Attributes
223	Bicyclist Right Turn - Same Direction
224	Bicyclist Right Turn - Opposite Direction

Overtaking/Passing Circumstances

CRASH GROUP: Motorist Overtaking Bicyclist (230)

Codes	Attributes
231	Motorist Overtaking - Undetected Bicyclist
232	Motorist Overtaking - Misjudged Space
235	Motorist Overtaking - Bicyclist Swerved
239	Motorist Overtaking - Other / Unknown

CRASH GROUP: Bicyclist Overtaking Motorist (240)

Codes	Attributes
241	Bicyclist Overtaking - Passing on Right
242	Bicyclist Overtaking - Passing on Left
243	Bicyclist Overtaking - Parked Vehicle
244	Bicyclist Overtaking - Extended Door
249	Bicyclist Overtaking - Other / Unknown

One Party on the Wrong Way/Wrong Side

CRASH GROUP: Wrong Way/Wrong Side (258)

Codes	Attributes
250	Wrong-Way / Wrong-Side - Bicyclist
255	Wrong-Way / Wrong-Side - Motorist
259	Wrong-Way / Wrong-Side - Unknown

CRASH GROUP: Parallel Paths Other Circumstances (290)

Codes	Attributes
219	Motorist Turn/Merge - Other / Unknown
280	Parallel Paths - Other / Unknown
225	Bicyclist Ride-Out - Parallel Path

Initial Approach Path – Crossing Paths

Bicyclist Ride-Out

CRASH GROUP: Bicyclist Failed to Yield – Midblock (310)

Codes	Attributes
311	Bicyclist Ride-Out - Residential Driveway
312	Bicyclist Ride-Out - Commercial Driveway
313	Bicyclist Ride-Out – Driveway, Unknown Type

Codes	Attributes
318	Bicyclist Ride-Out - Other Midblock
319	Bicyclist Ride-Out - Midblock - Unknown
357	Multiple Threat - Midblock

Motorist Drive-Out

CRASH GROUP: Motorist Failed to Yield – Midblock (320)

Codes	Attributes
321	Motorist Drive-Out - Residential Driveway
322	Motorist Drive-Out - Commercial Driveway
323	Motorist Drive-Out - Driveway, Unknown Type
328	Motorist Drive-Out - Other Midblock
329	Motorist Drive-Out - Midblock – Unknown

Unusual/Specific Circumstances

CRASH GROUP: Backing Vehicle (600)

Codes	Attributes
610	Backing Vehicle

CRASH GROUP: Other /Unusual Circumstances (850)

Codes	Attributes
700	Play Vehicle-Related
800	Unusual Circumstances

CRASH GROUP: Non-Trafficway (910)

Codes	Attributes
910	Non-Trafficway

CRASH GROUP: Other/Unknown Insufficient Details (990)

Codes	Attributes
970	Unknown Approach Paths
980	Unknown Location

Remarks: Crash Type selection depends upon the Initial Approach Path.

Initial Approach Path - Crossing Paths is used when the bicyclist and motorist were traveling on intersecting paths prior to their impact. This should be evaluated based on the parties' movements prior to any avoidance actions that may occur or any turns that caused the impact between the two parties.

Initial Approach Paths - Parallel Paths is used when the bicyclist and motorist were traveling in the same or opposite directions prior to their impact. This should be evaluated based on the parties' movements prior to any avoidance actions that may occur or any turns that caused the impact between the two parties.

If the Approach Path is unknown, see Crash Type **970 (Unknown Approach Paths)**.

Initial Approach Path - Crossing Paths or Parallel Paths

CRASH GROUP: 110 (Part 1) Loss of Control

Loss of Control is used to identify situations where the critical factor leading to the collision involved control loss by the motorist or the bicyclist. Control loss can be related to mechanical failure, environmentally induced vehicle instability, driver medical issues, unconsciousness, falling asleep, or alcohol/drug impairment. The loss of control must have occurred prior to the driver doing any avoidance maneuver. For operators steering out of their lane and into the path of the other operator while executing a turn, see "**Turning Error.**"

121 (Bicyclist Lost Control - Mechanical Problems) is used when the bicyclist lost control due to mechanical problems / part failure (e.g., flat tire, brake failure, broken chain, etc.).

122 (Bicyclist Lost Control - Oversteering, Improper Braking, Speed) is used when the bicyclist lost control due to oversteering, improper braking, or speed too fast for conditions. Care should be used to differentiate oversteering from **overcorrecting**, which indicates an avoidance maneuver was made.

123 (Bicyclist Lost Control - Alcohol/Drug Impairment) is used when the case materials indicate that the bicyclist lost control as a result of alcohol or drug impairment. Do not independently evaluate test results for this determination. The case materials must indicate that the operator's impairment caused the loss of control and not just that alcohol or drugs were listed among the contributing factors in the crash.

124 (Bicyclist Lost Control - Surface Conditions) is used when the bicyclist lost control due to surface conditions (sand, debris, potholes, ice, etc.).

129 (Bicyclist Lost Control - Other/Unknown) is used when the bicyclist lost control due to other or unknown circumstances. For example, a prior collision with moving or stationary object(s), falling asleep, driver illness such as heart attacks, diabetic comas, unconsciousness, or blackout, etc. This would exclude prior contact with a parked vehicle. See **243 (Bicyclist Overtaking - Parked Vehicle)** and **244 (Bicyclist Overtaking - Extended Door)**.

131 (Motorist Lost Control - Mechanical Problems) is used when the motorist lost control due to mechanical problems (e.g., blowout, stalled engine, wheel falls off, etc.).

132 (Motorist Lost Control - Oversteering, Improper Braking, Speed) is used when the motorist lost control due to oversteering, improper braking, or speed too fast for conditions. Care should be used to differentiate oversteering from **overcorrecting**, which indicates an avoidance maneuver was made.

133 (Motorist Lost Control - Alcohol/Drug Impairment) is used when the case materials indicate that the motorist lost control as a result of alcohol or drug impairment. Do not independently evaluate test results for this determination. The case materials must indicate that the operator's impairment caused the loss of control and not just that alcohol or drugs were listed among the contributing factors in the crash.

134 (Motorist Lost Control - Surface Conditions) is used when the motorist lost control due to surface conditions (sand, debris, potholes, ice, etc.).

139 (Motorist Lost Control - Other/Unknown) is used when the motorist lost control due to other or unknown circumstances. For example, a prior collision with moving or stationary object(s), falling asleep, driver illness such as heart attacks, diabetic comas, unconsciousness, or blackout, etc.

Initial Approach Path - Crossing Paths

CRASH GROUP: 110 (Part 2) Turning Error

Turning Error is used to identify situations where the critical factor leading to the collision involved either the motorist or the bicyclist executing an improper left or right turn at an intersection or to/from a driveway. These are situations where one operator travels out of their lane during the turn and into the path of the other operator. This excludes situations where the movement into the path of the other operator was caused by a loss of control (e.g., sliding on ice when turning).

111 (Motorist Turning Error - Left Turn) is used when the motorist made a left turn at an intersection or a commercial driveway, cut the corner and entered the opposing traffic lane (travel lane, bike lane, paved shoulder, parking lane) occupied by the bicyclist.

112 (Motorist Turning Error - Right Turn) is used when the motorist made a right turn at an intersection or a commercial driveway, swung too wide and entered the opposing traffic lane (travel lane, bike lane, paved shoulder, parking lane) occupied by the bicyclist.

113 (Motorist Turning Error - Other) is used when the motorist made a turning error which led them into the path of a bicyclist who was not in the opposing traffic lane (e.g., on the sidewalk). Also, use this attribute for circumstances when the motorist turned into a residential driveway striking the bicyclist on the driveway access or when the motorist made a turning error subsequent to exiting from a residential driveway access.

114 (Bicyclist Turning Error - Left Turn) is used when the bicyclist made a left turn at an intersection or a commercial driveway, cut the corner and entered the opposing traffic lane (travel lane, bike lane, paved shoulder, parking lane) occupied by the motorist.

115 (Bicyclist Turning Error - Right Turn) is used when the bicyclist made a right turn at an intersection or a commercial driveway, swung too wide and entered the opposing traffic lane (travel lane, bike lane, paved shoulder, parking lane) occupied by the motorist.

116 (Bicyclist Turning Error - Other) is used when the bicyclist turned into a residential driveway striking the motorist or made a turning error subsequent to exiting from a residential driveway access.

Drive/Ride-Out/Through

Drive/Ride - Out/Through is used when the bicyclist and motorist are on crossing paths and identifies situations where the critical factor leading to the collision involves either the motorist or the bicyclist failing to yield the right-of-way while turning at or proceeding straight through an intersection.

CRASH GROUP: 140 (Motorist Failed to Yield - Sign-Controlled Intersection)

This group is used when **PB31B-Crash Location-Bicycle** is **1 (At Intersection)** or **2 (Intersection-Related)** and the motorist did not properly yield right-of-way to the bicyclist at an intersection where the motorist was controlled by a sign (stop or yield) or flashing signal. **Note:** Crashes at traffic circles or roundabouts with yield control are included here.

141 (Motorist Drive-Out - Sign-Controlled Intersection) is used when the case materials indicate that the bicyclist had the right-of-way and the motorist was stopped at a sign (stop or yield) or flashing signal prior to ***turning or*** proceeding ***straight through*** and colliding with the bicyclist.

143 (Motorist Drive-Through - Sign-Controlled Intersection) is used when the case materials indicate that the bicyclist had the right-of-way and the motorist did not stop at a sign (stop or yield) or flashing light-controlled intersection ***prior to turning or proceeding straight through and colliding with the bicyclist***.

CRASH GROUP: 145 (Bicyclist Failed to Yield - Sign-Controlled Intersection)

This group is used when **PB31B-Crash Location-Bicycle** is **1 (At Intersection)** or **2 (Intersection-Related)** and the bicyclist did not properly yield right-of-way to the motorist at an intersection where the bicyclist was controlled by a sign (stop or yield) or flashing signal. Note: Crashes at traffic circles or roundabouts with yield control are included here.

142 (Bicyclist Ride-Out - Sign-Controlled Intersection) is used when the case materials indicate that the motorist had the right-of-way and the bicyclist was stopped prior to proceeding and colliding with the motorist. Note: **147 (Multiple Threat - Sign-Controlled Intersection)** takes precedence if both apply.

144 (Bicyclist Ride-Through - Sign-Controlled Intersection) is used when the case materials indicate that the motorist had the right-of-way and the bicyclist did not stop at a sign (stop or yield) or flashing light controlled intersection. Note: **147 (Multiple Threat - Sign-Controlled Intersection)** takes precedence if both apply.

147 (Multiple Threat - Sign-Controlled Intersection) is used when the case materials indicate that the motorist had the right-of-way and the bicyclist entered a sign-controlled intersection in front of standing or slowing traffic and was involved in a collision with another vehicle whose view of the bicyclist was blocked. This value takes precedence over **142 (Bicyclist Ride-Out - Sign-Controlled Intersection)** and **144 (Bicyclist Ride-Through - Sign-Controlled Intersection)**.

CRASH GROUP: 150 (Motorist Failed to Yield - Signalized Intersection)

This group is used when **PB31B-Crash Location-Bicycle** is **1 (At Intersection)** or **2 (Intersection-Related)** and the motorist either violated the signal or did not properly yield right-of-way to the bicyclist.

151 (Motorist Drive-Out - Right Turn on Red) is used when the case materials indicate that the bicyclist had the right-of-way and the motorist was stopped at a red signal prior to attempting to make a right turn on red resulting in a collision with the bicyclist.

152 (Motorist Drive-Out - Signalized Intersection) is used when the case materials indicate that the bicyclist had the right-of-way and the motorist was stopped at a red signal prior to proceeding into the intersection on red when going straight or making a turn, resulting in a collision with the bicyclist. This does not include situations where the motorist was making a right turn on red. See **151 (Motorist Drive-Out - Right Turn on Red)**.

154 (Motorist Drive-Through - Signalized Intersection) is used when the case materials indicate that the bicyclist had the right-of-way and the motorist proceeded through the red light without stopping (runs the red light).

CRASH GROUP: 158 (Bicyclist Failed to Yield - Signalized Intersection)

This group is used when **PB31B-Crash Location-Bicycle** is **1 (At Intersection)** or **2 (Intersection-Related)** and the bicyclist either violated the signal or did not properly yield right-of-way to the motorist. **Do not confuse with Crash TYPE 158.**

153 (Bicyclist Ride-Out - Signalized Intersection) is used when the case materials indicate that the motorist had the right-of-way and the bicyclist was **stopped at a red signal** prior to entering the intersection on a red light, resulting in a collision with the motorist.

155 (Bicyclist Ride-Through - Signalized Intersection) is used when the case materials indicate that the motorist had the right-of-way and the bicyclist proceeded through the red light **without stopping** resulting in a collision with the motorist. The bicyclist could be turning or going straight through the intersection.

SUB-GROUP: Bicyclist Failed to Clear- Signalized Intersection is used when the bicyclist entered the intersection **on green** but did not clear the intersection before the signal changed for the cross-street traffic giving those operators the right-of-way.

156 (Bicyclist Failed to Clear - Trapped) is used when the bicyclist **entered the intersection on green**, did not clear the intersection before the signal changed for the cross-street traffic giving those operators the right-of-way, and was involved in a collision with a vehicle whose view was **not obstructed** by standing or stopped traffic.

157 (Bicyclist Failed to Clear - Multiple Threat) is used when the bicyclist **entered the intersection on green**, did not clear the intersection before the signal changed for the cross-street traffic giving those operators the right-of-way, and was involved in a collision with a motorist whose view of the bicyclist was obstructed by standing or stopped traffic.

159 (Bicyclist Failed to Clear - Unknown) is used when the bicyclist **entered the intersection on green,** failed to clear the intersection and was involved in a collision with a vehicle, but it is unknown whether the bicyclist was trapped in the intersection by a signal change or if there was a multiple threat situation or other circumstances surrounding the crash.

CRASH GROUP: 190 (Crossing Paths - Other Circumstances)

This group is used when the bicyclist and motorist were on initial crossing paths, but the crash cannot be further classified.

148 (Sign-Controlled Intersection - Other / Unknown) is used when the crash occurred at a sign-controlled intersection but cannot be further classified.

158 (Signalized Intersection - Other / Unknown) is used when the crash occurred at a signal-controlled intersection but cannot be further classified. **Do not confuse with Crash GROUP 158.**

160 (Crossing Paths - Uncontrolled Intersection) is used when the crash occurred at an intersection not controlled by signs or signals.

180 (Crossing Paths - Intersection - Other / Unknown) is used when the bicyclist and motorist were on initial crossing paths, but the crash circumstances cannot be further classified.

380 (Crossing Paths - Midblock - Other / Unknown) is used when the crash involved a bicyclist and motorist on initial crossing paths at a midblock location but cannot be further classified.

Initial Approach Paths - Parallel Paths

Motorist Turned or Merged is used when the motorist made a turn or merged into the path of a bicyclist.

CRASH GROUP: 210 (Motorist Left Turn/Merge)

This group is used when the motorist made a left turn or merge into the path of a bicyclist traveling in the same or opposite direction as the motorist.

211 (Motorist Left Turn - Same Direction) is used when the motorist turned left in front of a bicyclist going in the same direction as the motorist.

212 (Motorist Left Turn - Opposite Direction) is used when the motorist turned left in front of a bicyclist coming from the opposite direction as the motorist.

CRASH GROUP: 215 (Motorist Right Turn/Merge)

This group is used when the motorist made a right turn or merge into the path of a bicyclist traveling in the same or opposite direction as the motorist.

213 (Motorist Right Turn - Same Direction) is used when the motorist turned right in front of a bicyclist going in the same direction as the motorist. Excludes motorist right turn on red. See **217 (Motorist Right Turn on Red - Same Direction)**.

217 (Motorist Right Turn on Red - Same Direction) is used when the motorist turned right on red (RTOR) in front of a bicyclist traveling in the same direction as the motorist.

214 (Motorist Right Turn - Opposite Direction) is used when the motorist turned right in front of a bicyclist traveling in the opposite direction as the motorist. Excludes motorist right turn on red. See **218 (Motorist Right Turn on Red - Opposite Direction)**. For a bicyclist traveling in the wrong direction and the motorist makes a right turn into the path of the bicyclist, this crash type takes priority over **250 (Wrong Way / Wrong Side - Bicyclist)** to capture the turning maneuver which made the situation critical.

218 (Motorist Right Turn on Red - Opposite Direction) is used when the motorist turned right on red (RTOR) in front of a bicyclist traveling in the opposite direction as the motorist.

CRASH GROUP: 219 (Parking / Bus-Related)

This group is used when the bicyclist was involved in a collision with a vehicle entering or exiting a parking space or by a bus or delivery vehicle pulling into or away from the curb while in forward motion. If the motorist was “backing” see Crash Group **600 (Backing Vehicle)**.

215 (Motorist Drive-In/Out-Parking) is used when the vehicle and bicyclist collided while the involved vehicle was moving forward in the process of exiting or entering on-street parking. If the motorist was “backing” see **610 (Backing Vehicle)**.

216 (Bus/Delivery Vehicle Pullover) is used when the bicyclist was involved in a collision with a bus or delivery vehicle pulling forward into or away from the curb. If the vehicle was “backing” see **610 (Backing Vehicle)**.

Bicyclist Turned or Merged is used when the bicyclist made a turn or merged into the path of a motorist.

CRASH GROUP: 220 (Bicyclist Left Turn/Merge)

This group is used when the bicyclist made a left turn or merge into the path of a motor vehicle traveling in the same or opposite direction as the bicyclist. This excludes bicyclists that are traveling on a sidewalk or other parallel path prior to turning left into the path of a vehicle on the roadway. See Crash Type - Bicycle **225 (Bicyclist Ride-Out - Parallel Path)**.

221 (Bicyclist Left Turn - Same Direction) is used when the bicyclist turned or merged left in front of a motorist going in the same direction as the bicyclist.

222 (Bicyclist Left Turn - Opposite Direction) is used when the bicyclist turned or merged left in front of a motorist traveling in the opposite direction as the bicyclist.

CRASH GROUP: 225 (Bicyclist Right Turn/Merge)

This group is used when the bicyclist made a right turn or merge into the path of a motor vehicle traveling in the same or opposite direction as the bicyclist. This excludes bicyclists that are traveling on a sidewalk or other parallel path prior to turning right into the path of a vehicle on the roadway. See Crash Type - Bicycle **225 (Bicyclist Ride-Out - Parallel Path)**.

223 (Bicyclist Right Turn - Same Direction) is used when the bicyclist turned or merged right in front of a motorist going in the same direction as the bicyclist.

224 (Bicyclist Right Turn - Opposite Direction) is used when the bicyclist turned or merged right in front of a motorist coming from the opposite direction as the bicyclist. For a bicyclist traveling in the wrong direction that makes a right turn into the path of the motorist, this crash type takes priority over **250 (Wrong Way / Wrong Side - Bicyclist)** to capture the turning maneuver which made the situation critical.

Overtaking/Passing Circumstances

CRASH GROUP: 230 (Motorist Overtaking Bicyclist)

This group is used when the motorist was traveling the same direction as the bicyclist and overtaking the bicyclist when they collided. This includes both passing the bicyclist and approaching from behind at a faster speed. A motorist that passes on the left by entering the opposing traffic lane and strikes an oncoming bicyclist is coded under Crash Group - Bicyclist **258 (Wrong Way / Wrong Side)**.

231 (Motorist Overtaking - Undetected Bicyclist) is used when the motorist was overtaking the bicyclist, either as a passing maneuver or approaching from behind at a faster speed, and the case materials indicate that the motorist did not see the bicyclist or there is indication that the motorist saw the bicyclist but the recognition was too late to avoid the collision. For example, the officer identifies that the driver was distracted or inattentive, the bicyclist was wearing dark clothing/not visible, or there was no roadway lighting and/or no lights/reflectors on the bicycle at night.

232 (Motorist Overtaking - Misjudged Space) is used when the motorist was overtaking the bicyclist, either as a passing maneuver or approaching from behind at a faster speed, and the case materials indicate that the motorist saw the bicyclist but misjudged the width or distance required to pass the bicyclist resulting in a collision between the two.

235 (Motorist Overtaking - Bicyclist Swerved) is used when the motorist was overtaking the bicyclist, either as a passing maneuver or approaching from behind at a faster speed, and the bicyclist swerved or moved suddenly into the path of an overtaking vehicle. (Note: Bicyclists that were clearly merging or turning to the left and were struck by a vehicle traveling in the same direction would be coded under **221 (Bicyclist Left Turn - Same Direction)**.

239 (Motorist Overtaking - Other / Unknown) is used when the motorist was overtaking the bicyclist, either as a passing maneuver or approaching from behind at a faster speed, but the specific circumstances surrounding the overtaking maneuver do not conform to the other situations described or are unknown. If the bicyclist struck a parked vehicle and that impact resulted in a collision with a motor vehicle in-transport, use **243 (Bicyclist Overtaking - Parked Vehicle)** or **244 (Bicyclist Overtaking - Extended Door)**.

CRASH GROUP: 240 (Bicyclist Overtaking Motorist)

This group is used when the bicyclist was traveling the same direction as the motorist and was overtaking the motorist on the right or the left when they collided. Note: A bicyclist that passes on the left by entering the opposing traffic lane and strikes an oncoming vehicle is coded under Crash Group - Bicyclist **258 (Wrong Way / Wrong Side)**.

241 (Bicyclist Overtaking - Passing on Right) is used when the bicyclist was involved in a collision with a motor vehicle in a travel lane while attempting to pass it on the right.

242 (Bicyclist Overtaking - Passing on Left) is used when the bicyclist was involved in a collision with a motor vehicle in a travel lane while attempting to pass it on the left.

243 (Bicyclist Overtaking - Parked Vehicle) is used when the bicyclist struck a parked vehicle resulting in a collision with a motor vehicle in-transport.

244 (Bicyclist Overtaking - Extended Door) is used when the bicyclist was involved in a collision with an extended door (open or opened into the path of the bicyclist) of a parked vehicle resulting in a subsequent collision with a motor vehicle in-transport.

249 (Bicyclist Overtaking - Other / Unknown) is used when the specific circumstances surrounding the overtaking maneuver of the bicyclist do not conform to any of the situations described or are unknown. For example, the bicyclist passes or takes an avoidance maneuver around one vehicle going the same direction as the bicyclist and strikes the rear of another vehicle in the adjacent lane also going the same direction.

One Party on the Wrong-Way / Wrong-Side

CRASH GROUP: 258 (Wrong-Way / Wrong-Side)

This group is used when the two parties collided head-on when either the bicyclist or motorist was going the wrong way on a one-way roadway, traveling in the wrong travel lane of a two-way roadway (e.g., passing), or entered the opposing travel lane as part of an avoidance maneuver or as a result of being distracted/ inattentive (e.g., lane drift).

250 (Wrong Way / Wrong Side - Bicyclist) is used when the bicyclist was traveling the wrong way on a one-way roadway or on the wrong side of a two-way roadway and collided with a motor vehicle.

255 (Wrong Way / Wrong Side - Motorist) is used when the motorist was traveling the wrong way on a one-way roadway or on the wrong side of a two-way roadway and collided with a bicyclist.

259 (Wrong Way / Wrong Side - Unknown) is used when it is known that either the bicyclist or the motorist was traveling the wrong way on a one-way roadway or on the wrong side of a two-way roadway, but it cannot be determined which one was going the wrong way or was on the wrong side.

CRASH GROUP: 290 (Parallel Paths - Other Circumstances)

This group is used when the bicyclist and motorist were on initial parallel paths, but the crash cannot be further classified.

219 (Motorist Turn/Merge - Other / Unknown) is used when the motorist's turning maneuver is other than those described or is unknown.

280 (Parallel Paths - Other / Unknown) is used when the crash involved a bicyclist and motorist initially traveling in the same or opposite direction but cannot be further classified.

225 (Bicyclist Ride-Out - Parallel Path) is used when the bicyclist, initially traveling in the same or opposite direction as the motorist in a location other than the roadway, shoulder, parking lane, or a bicycle lane (e.g., a sidewalk, shared-use path, or roadside) made a left or right turn and rode into the path of the motorist.

Initial Approach Path - Crossing Paths

Bicyclist Ride-Out is used to identify situations where the critical factor leading to the collision involved the bicyclist entering the roadway into the path of the motorist.

CRASH GROUP: 310 (Bicyclist Failed to Yield - Midblock)

This group is used when **PB31B-Crash Location-Bicycle** is **3 (Not At Intersection)** and the bicyclist rode into the street from a non-intersection location (including residential or commercial driveway or other midblock location) without yielding to the motorist.

311 (Bicyclist Ride-Out - Residential Driveway) is used when the bicyclist rode from a residential driveway access into the path of a motor vehicle that was proceeding straight ahead on the roadway. If the collision resulted from the motor vehicle turning into the driveway access, see **113 (Motorist Turning Error - Other)**.

312 (Bicyclist Ride-Out - Commercial Driveway) is used when the bicyclist rode from a commercial driveway access into the path of a motor vehicle that was proceeding straight ahead on the roadway. If the collision resulted from the motor vehicle turning into the commercial driveway access, see **111 (Motorist Turning Error - Left Turn)**, **112 (Motorist Turning Error - Right Turn)**.

313 (Bicyclist Ride-Out – Driveway, Unknown Type) is used when the bicyclist rode from a driveway access into the path of a motor vehicle, but it cannot be identified if the driveway was residential or commercial.

318 (Bicyclist Ride-Out - Other Midblock) is used when the bicyclist rode from a midblock area other than a driveway into the path of a motor vehicle when the two were initially on crossing paths. For example, a bicyclist rides down their driveway then cuts across the yard and into the roadway.

319 (Bicyclist Ride-Out - Midblock - Unknown) is used when the bicyclist rode into the roadway and into the path of a motor vehicle from an unknown midblock location.

357 (Multiple Threat - Midblock) is used when the bicyclist entered the roadway in front of standing or slowing traffic at a midblock location and was involved in a collision with a vehicle where the driver was traveling in the same direction as the stopped traffic, and whose view of the bicyclist was blocked. This selection would take precedence over Bicyclist Ride-Out.

Motorist Drive-Out is used to identify situations where the critical factor leading to the collision involved the motorist entering the roadway or driveway access into the path of the bicyclist.

CRASH GROUP: 320 (Motorist Failed to Yield - Midblock)

This group is used when **PB31B-Crash Location-Bicycle** is **3 (Not At Intersection)** and the motorist drove across the sidewalk or into the street from a non-intersection location (including residential or commercial driveway or other midblock location) without yielding to the bicyclist.

321 (Motorist Drive-Out - Residential Driveway) is used when the motorist drove from a residential driveway into the path of a bicyclist that was proceeding straight ahead on the roadway or driveway crossing. If the collision resulted from the bicyclist turning into the driveway access, see **116 (Bicyclist Turning Error - Other)**.

322 (Motorist Drive-Out - Commercial Driveway) is used when the motorist drove from a commercial driveway into the path of a bicyclist that was proceeding straight ahead on the roadway or driveway crossing. If the collision resulted from the bicyclist turning into the commercial driveway access, see **114 (Bicyclist Turning Error - Left Turn)**, **115 (Bicyclist Turning Error - Right Turn)**.

323 (Motorist Drive-Out - Driveway, Unknown Type) is used when the motorist drove from a driveway into the path of a bicyclist, but it cannot be identified if the driveway was residential or commercial.

328 (Motorist Drive-Out - Other Midblock) is used when the motorist drove from a midblock area other than a driveway into the path of a bicyclist when the two were initially on crossing paths. For example, a motorist that drives from the roadside into the path of a bicyclist traveling on the road shoulder.

329 (Motorist Drive-Out - Midblock - Unknown) is used when the motorist drove into the roadway or sidewalk/driveway crossing area and into the path of a bicyclist in an unknown midblock area.

Unusual /Specific Circumstances

CRASH GROUP: 600 (Backing Vehicle)

This group is used when the motorist was backing when the vehicle contacted the bicyclist.

610 (Backing Vehicle) is used when the bicyclist was involved in a collision with a vehicle that was backing up with a driver at the controls at any type of location. For example, use this attribute for a vehicle that backs up into a bicyclist in a driveway crossing, not **321 (Motorist Drive-Out - Residential Driveway)**. A driverless vehicle rolling backwards is captured by **800 (Unusual Circumstances)**.

CRASH GROUP: 850 (Other / Unusual Circumstances)

This group is used when the bicyclist was riding a child's vehicle such as a tricycle (not an adult tricycle), bicycle with training wheels, or "Big Wheel" type tricycle or there were other unusual circumstances such as being involved in a collision with an object set-in-motion or by an in-transport motor vehicle which was redirected into the bicyclist by a prior collision.

700 (Play Vehicle-Related) is used when the bicyclist was riding a child's vehicle such as a tricycle (not an adult tricycle), bicycle with training wheels, or "Big Wheel" type tricycle. If the motor vehicle was backing up with a driver at the controls when the play vehicle was contacted, **use 610 (Backing Vehicle).**

800 (Unusual Circumstances) is used when there were other unusual circumstances not defined by the other attributes. This would include all set-in-motion situations such as; propelling an object, animal, or parked vehicle into the bicyclist. Also, includes a vehicle to vehicle collision where an in-transport vehicle is re-directed into the bicyclist. Crashes involving a bicyclist and a driverless motor vehicle in-transport are included here.

CRASH GROUP: 910 (Non-Trafficway)

910 (Non-Trafficway) is used when the bicyclist is in a parking lot space or aisle, driveway, non-right-of-way sidewalk or shared-use path, yard, open area, etc., (and involved in a collision with a vehicle which was not backing).

CRASH GROUP: 990 (Other / Unknown - Insufficient Details)

This group is used when there is insufficient information to determine the location of the impact between bicyclist and the motorist or the initial approach paths of the bicyclist/motorist.

970 (Unknown Approach Paths) is used when there is insufficient information to determine the initial approach paths of the bicyclist and motorist.

980 (Unknown Location) is used when there is insufficient information to determine the location of the impact between the bicyclist and the motorist.

Consistency Checks:

Check	IF	THEN
(FP9F)	PERSON TYPE equals 05, 06, 07, 08 and the PEDESTRIAN/BIKE - CRASH TYPE equals blank, case status is flawed.	--
(PB02)	PEDESTRIAN/BIKE TYPING - CRASH TYPE - BICYCLE equals 111-980,	at least one SEQUENCE OF EVENTS for the striking vehicle must equal 09.
(PB07)	PEDESTRIAN/BIKE TYPING - CRASH TYPE - BICYCLE for a person involved in the first harmful event equals 311, 312, 313, 321,322 or 323,	RELATION TO JUNCTION (b) must equal 04 or 08. Note: this edit is restricted to vehicles which are involved in only one event with bicyclist(s).
(PB08)	PEDESTRIAN/BIKE TYPING - CRASH TYPE - BICYCLE for a person involved in the first harmful event equals 141-144, 147, 151-157 or 159,	RELATION TO JUNCTION (b) must equal 02 or 03. Note: this edit is restricted to vehicles which are involved in only one event with bicyclist(s).

Check	IF	THEN
(PB09)	PEDESTRIAN/BIKE TYPING - CRASH TYPE - BICYCLE equals 141, 143, 151-158, 217 or 218,	TRAFFIC CONTROL DEVICE for the striking vehicle must not equal 00.
(PB10)	PEDESTRIAN/BIKE TYPING - CRASH TYPE - BICYCLE equals 151, 156, 157, 217 or 218,	TRAFFIC CONTROL DEVICE for the striking vehicle must equal 01-04.
(PB11)	PEDESTRIAN/BIKE TYPING - CRASH TYPE - BICYCLE equals 143 or 154,	TRAFFIC CONTROL DEVICE for the striking vehicle must equal 01-04, 08, 20, 21, 28, or 29.
(PB16)	PEDESTRIAN/BIKE TYPING - CRASH TYPE - BICYCLE equals 142, 144, 147, 153, 155, 156, 157, 159, 311, 312, 313, 318, 319, or 357,	at least one NON-MOTORIST CONTRIBUTING CIRCUMSTANCES must equal 02.
(PB21)	PEDESTRIAN/BIKE TYPING - CRASH TYPE - BICYCLE equals 160,	TRAFFIC CONTROL DEVICE for the striking vehicle should equal 00.
(PB26)	NON-MOTORIST CONTRIBUTING CIRCUMSTANCES equals 02, and PERSON TYPE equals 06 or 07,	PEDESTRIAN/BIKE TYPING - CRASH TYPE - BICYCLE should equal 142, 144, 147, 153, 155, 156, 157, 159, 311, 312, 313, 318, 319, or 357.
(PB31)	PEDESTRIAN/BIKE TYPING - CRASH TYPE - BICYCLE equals 147, 157, or 357,	at least one DRIVER'S VISION OBSCURED BY must equal 06 for the vehicle number identified in this person's VEHICLE NUMBER OF MOTOR VEHICLE STRIKING NON-MOTORIST.
(PB33)	PEDESTRIAN/BIKE TYPING - CRASH TYPE - BICYCLE equals 156,	DRIVER'S VISION OBSCURED BY for the striking vehicle must not equal 06.
(PB40)	PEDESTRIAN/BIKE TYPING - CRASH TYPE - BICYCLE equals 610,	at least one PRE-EVENT MOVEMENT (PRIOR TO RECOGNITION OF CRITICAL EVENT) must equal 08, 09, or 13 for the vehicle number identified in this person's VEHICLE NUMBER OF MOTOR VEHICLE STRIKING NON-MOTORIST.
(PB41)	PEDESTRIAN/BIKE TYPING - CRASH TYPE - BICYCLE equals 215,	PRE-EVENT MOVEMENT (PRIOR TO RECOGNITION OF CRITICAL EVENT) must equal 08 or 09 for the vehicle number identified in this person's VEHICLE NUMBER OF MOTOR VEHICLE STRIKING NON-MOTORIST.
(PB42)	PEDESTRIAN/BIKE TYPING - CRASH TYPE - BICYCLE equals 111, 211, or 212,	PRE-EVENT MOVEMENT (PRIOR TO RECOGNITION OF CRITICAL EVENT) must equal 11, 16, or 17 for the vehicle number identified in this person's VEHICLE NUMBER OF MOTOR VEHICLE STRIKING NON-MOTORIST.
(PB43)	PEDESTRIAN/BIKE TYPING - CRASH TYPE - BICYCLE equals 112, 151, 213, 214, 217, or 218,	PRE-EVENT MOVEMENT (PRIOR TO RECOGNITION OF CRITICAL EVENT) must equal 10, 16, or 17 for the vehicle number identified in this person's VEHICLE NUMBER OF MOTOR VEHICLE STRIKING NON-MOTORIST.
(PB46)	PEDESTRIAN/BIKE TYPING - CRASH TYPE - BICYCLE equals 221-225,	PRE-EVENT MOVEMENT (PRIOR TO RECOGNITION OF CRITICAL EVENT) should equal 01 for the vehicle number identified in this person's VEHICLE NUMBER OF MOTOR VEHICLE STRIKING NON-MOTORIST.

Check	IF	THEN
(PB52)	PERSON TYPE equals 06 or 07, and PRE-EVENT MOVEMENT (PRIOR TO RECOGNITION OF CRITICAL EVENT) equals 13 for the vehicle number identified in this person's VEHICLE NUMBER OF MOTOR VEHICLE STRIKING NON-MOTORIST,	at least one PEDESTRIAN/BIKE TYPING - CRASH TYPE - BICYCLE should equal 610.
(PBA0)	PEDESTRIAN/ BIKE TYPING - CRASH TYPE - BICYCLE equals 111, 211, 212, and VEHICLE NUMBER - VEHICLE LEVEL equals VEHICLE NUMBER OF MOTOR VEHICLE STRIKING NON-MOTORIST,	PRE-EVENT MOVEMENT (PRIOR TO RECOGNITION OF CRITICAL EVENT) should equal 11.
(PBA1)	PEDESTRIAN/ BIKE TYPING - CRASH TYPE - BICYCLE equals 112, 151, 213, 214, 217, or 218, and VEHICLE NUMBER - VEHICLE LEVEL equals VEHICLE NUMBER OF MOTOR VEHICLE STRIKING NON-MOTORIST,	PRE-EVENT MOVEMENT (PRIOR TO RECOGNITION OF CRITICAL EVENT) should equal 10.
(PBC0)	***PEDESTRIAN/BIKE TYPING - CRASH TYPE - BICYCLE equals 250,***	***at least one NON-MOTORIST CONTRIBUTING CIRCUMSTANCES should equal 09.***

PB31B - CRASH LOCATION – BICYCLE

FORMAT: Element Completed in MDE
SAS NAME: pbtype.BIKELOC
ELEMENT VALUES:

Codes	Attributes
1	At Intersection
2	Intersection-Related
3	Not At Intersection
4	Non-Trafficway Location
9	Unknown / Insufficient Information

Remarks:

1 (At Intersection) is used when a person is on a roadway (travel lane) either (1) in the intersection, (2) in an area between a crosswalk and the perimeter of the intersection, or (3) in a crosswalk (whether marked or unmarked) adjacent to an intersection. The crossing or connection of a roadway and a driveway access is **not** an intersection and should be coded as **2 (Intersection-Related)** or **3 (Not At Intersection)**. The intersection is the area embraced within the prolongation of the lateral curb lines or, if none, the lateral boundary lines of the roadways.

2 (Intersection-Related) is used when a person is within the trafficway 50 feet out from the perimeter of an "At Intersection" area including the entire cross section of the trafficway (e.g., medians, turn lanes, bike lanes, parking lanes, shoulders, sidewalks, etc.) **OR** the crash is related to the flow of traffic through an intersection (e.g., the result of queuing traffic). Intersection-related area **exclusions**: 1) intersection, 2) crosswalk, 3) any area between the crosswalk and an intersection.

3 (Not At Intersection) is used when a person is within the trafficway more than 50 feet out from the perimeter of an "At Intersection" **AND** the crash is not identified as related to the movement of the traffic units through an intersection. This includes the entire cross section of the trafficway (e.g., medians, turn lanes, bike lanes, parking lanes, shoulders, sidewalks, etc.). This attribute is the default when the case materials give no indication that the crash is within 50 feet of an intersection.

4 (Non-Trafficway Location) is used when a person is off the trafficway, including parking lot spaces and aisles, driveways (beyond the driveway access), private roads, yards, and other open areas. Note: Crashes occurring on paved shoulders, sidewalks or driveway crossings are considered to be "trafficway" crashes and should not be placed in the **4 (Non-Trafficway Location)**.

9 (Unknown / Insufficient Information) is used when there is insufficient information to determine where the person was located. Selecting this attribute will type the crash as **980 (Unknown Location)** and exit the wizard.

Consistency Checks:

Check	IF	THEN
(PB71)	PEDESTRIAN/ BIKE TYPING - CRASH LOCATION - BICYCLE equals 1,	NON-MOTORIST LOCATION AT TIME OF CRASH must equal 01, 02, 03, 09, 16, or 22.
(PB72)	PEDESTRIAN/ BIKE TYPING - CRASH LOCATION - BICYCLE equals 2,	NON-MOTORIST LOCATION AT TIME OF CRASH must equal 10, 11, 13, 14, 16, 20, 21, 22, 23, 24, 25, 28, 98, 99.
(PB73)	PEDESTRIAN/ BIKE TYPING - CRASH LOCATION - BICYCLE equals 3,	NON-MOTORIST LOCATION AT TIME OF CRASH must equal 10, 11, 13, 14, 16, 20, 21, 22, 23, 24, 28, 98, 99.
(PB74)	PEDESTRIAN/ BIKE TYPING - CRASH LOCATION - BICYCLE equals 4,	NON-MOTORIST LOCATION AT TIME OF CRASH must equal 24, 25, 98, 99.
(PB75)	PEDESTRIAN/ BIKE TYPING - CRASH LOCATION - BICYCLE equals 9,	NON-MOTORIST LOCATION AT TIME OF CRASH must equal 16, 22, 24, 98 or 99.
(PB96)	PEDESTRIAN/ BIKE TYPING - CRASH LOCATION - BICYCLE equals 1,	PEDESTRIAN/ BIKE TYPING - BICYCLIST POSITION must equal 1, 2, 3, 8, or 9.
(PB97)	PEDESTRIAN/ BIKE TYPING - CRASH LOCATION - BICYCLE equals 3,	PEDESTRIAN/ BIKE TYPING - BICYCLIST POSITION must equal 1, 2, 3, 4, 8, or 9.
(PB98)	PEDESTRIAN/ BIKE TYPING - CRASH LOCATION - BICYCLE equals 4,	PEDESTRIAN/ BIKE TYPING - BICYCLIST POSITION must equal 4, 5, 6, or 9.
(PB99)	PEDESTRIAN/ BIKE TYPING - CRASH LOCATION-BICYCLE equals 9,	PEDESTRIAN/ BIKE TYPING - BICYCLIST POSITION must equal 9.
(PBB4)	***PEDESTRIAN/ BIKE TYPING - CRASH LOCATION -BICYCLE equals 1,***	***NON-MOTORIST ACTION/CIRCUMSTANCES should not equal 05, 06, or 16.***

PB32B - BICYCLIST POSITION

FORMAT: Element Completed in MDE
SAS NAME: pbtype.BIKEPOS
ELEMENT VALUES:

Codes	Attributes
1	Travel Lane
2	Bicycle Lane / Paved Shoulder / Parking Lane
3	Sidewalk / Crosswalk / Driveway Access
4	Shared-Use Path
5	Non-Trafficway - Driveway
6	Non-Trafficway - Parking Lot / Other
8	Other
9	Unknown

Remarks:

1 (Travel Lane) is used when a person is on a roadway (travel lane) and not in a bicycle lane or crosswalk (marked/unmarked crosswalk or shared-use path crossing).

2 (Bicycle Lane / Paved Shoulder / Parking Lane) is used when a person is in a bicycle lane, on a paved shoulder, or parking lane parts of a trafficway. A bicycle lane is a bikeway adjacent to travel lanes which has been designated for preferential or exclusive use by pedalcyclists through striping, signage, or pavement markings. This attribute includes bicyclists in a marked bicycle lane or an unmarked prolongation of the bicycle lane in an intersection (i.e., **do not use 1 (Travel Lane)**). If you do not know if there is a bike lane through the intersection, then default to **1 (Travel Lane)**. If it is unknown if the shoulder was paved or unpaved, then default to **8 (Other)**.

3 (Sidewalk / Crosswalk / Driveway Access) is used when a person is within the trafficway on a sidewalk, crosswalk (this includes shared-use path crossing), or driveway access. This includes the driveway crossing which is the portion of the driveway access where a sidewalk or shared-use path crosses over the driveway access.

4 (Shared-Use Path) is used when a person is on a bikeway physically separated from motorized vehicular traffic by an open space or barrier and either within the highway right-of-way or an independent right-of-way. Shared-Use Paths will also be used by pedestrians, skaters, wheelchairs, joggers, and other non-motorized users. Shared-use path crossings are coded under **3 (Sidewalk / Crosswalk / Driveway Access)**.

5 (Non-Trafficway - Driveway) is used when the person is on the part of the driveway outside the trafficway. If the person is in a driveway access, use attribute **3 (Sidewalk / Crosswalk / Driveway Access)**.

6 (Non-Trafficway - Parking Lot / Other) is used when the person is in an other non-trafficway area (parking lot spaces and aisles, non-right-of-way sidewalk or multi-use path, yard, open areas, etc.).

8 (Other) is used when the person is located within the trafficway in an area with an improved surface not applicable to previous attributes (e.g., a paved gore, paved separator, concrete traffic island) or when the person is in an area within the trafficway where there is no improved surface (e.g., no pavement). Examples include grass medians, unpaved shoulders, and roadside locations like the space between the curb and the sidewalk.

9 (Unknown) is used when the position of the person is not reported or unknown.

Consistency Checks:

Check	IF	THEN
(PB84)	PEDESTRIAN/ BIKE TYPING - BICYCLIST POSITION equals 1,	NON-MOTORIST LOCATION AT TIME OF CRASH must equal 03, 09, 11, or 13.
(PB85)	PEDESTRIAN/ BIKE TYPING - BICYCLIST POSITION equals 2,	NON-MOTORIST LOCATION AT TIME OF CRASH must equal 14, 16, or 20.
(PB86)	PEDESTRIAN/ BIKE TYPING - BICYCLIST POSITION equals 3,	NON-MOTORIST LOCATION AT TIME OF CRASH must equal 01, 02, 10, 21, 23, 98, or 99.
(PB87)	PEDESTRIAN/ BIKE TYPING - BICYCLIST POSITION equals 4,	NON-MOTORIST LOCATION AT TIME OF CRASH must equal 24.
(PB88)	PEDESTRIAN/ BIKE TYPING - BICYCLIST POSITION equals 5 or 6,	NON-MOTORIST LOCATION AT TIME OF CRASH must equal 25.
(PB89)	PEDESTRIAN/ BIKE TYPING - BICYCLIST POSITION equals 8,	NON-MOTORIST LOCATION AT TIME OF CRASH must equal 20, 22, 28, 98, or 99.
(PB90)	PEDESTRIAN/ BIKE TYPING - BICYCLIST POSITION equals 9,	NON-MOTORIST LOCATION AT TIME OF CRASH must equal 22, 98, or 99.
(PB96)	PEDESTRIAN/ BIKE TYPING - CRASH LOCATION - BICYCLE equals 1,	PEDESTRIAN/ BIKE TYPING - BICYCLIST POSITION must equal 1, 2, 3, 8, or 9.
(PB97)	PEDESTRIAN/ BIKE TYPING - CRASH LOCATION - BICYCLE equals 3,	PEDESTRIAN/ BIKE TYPING - BICYCLIST POSITION must equal 1, 2, 3, 4, 8, or 9.
(PB98)	PEDESTRIAN/ BIKE TYPING - CRASH LOCATION - BICYCLE equals 4,	PEDESTRIAN/ BIKE TYPING - BICYCLIST POSITION must equal 4, 5, 6, or 9.
(PB99)	PEDESTRIAN/ BIKE TYPING - CRASH LOCATION-BICYCLE equals 9,	PEDESTRIAN/ BIKE TYPING - BICYCLIST POSITION must equal 9.

PB33B - BICYCLIST DIRECTION

FORMAT: Element Completed by MDE
SAS NAME: pbtype.BIKEDIR
ELEMENT VALUES:

Codes	Attributes
1	With Traffic
2	Facing Traffic
3	Not Applicable
9	Unknown

Remarks:

1 (With Traffic) is used when the bicyclist was traveling with the flow of traffic for the side of the trafficway the bicyclist occupied prior to the crash. Includes being in or adjacent to a travel lane (e.g., roadway, bike lane, shoulder, sidewalk, roadside).

2 (Facing Traffic) is used when the bicyclist was traveling against the flow of traffic for the side of the trafficway the bicyclist occupied prior to the crash. Includes being in or adjacent to a travel lane (e.g., roadway, bike lane, shoulder, sidewalk, roadside).

3 (Not Applicable) is used when the bicyclist was traveling on one of the following: exiting a driveway, in a parking lot, or other non-trafficway area.

9 (Unknown) is used when the bicyclist's direction is unknown.

PB38B - CRASH GROUP – BICYCLIST

FORMAT: Element Completed by MDE
SAS NAME: pbtype.BIKECGP
ELEMENT VALUES:

Crash Group attribute names are left justified, with the element value prior to the attribute name. Crash Type element values and attribute names are listed below the applicable Crash Group with their applicable element value in parenthesis.

Initial Approach Path – Crossing Paths or Parallel Paths

CRASH GROUP: 110 - Loss of Control/Turning Error

Loss of Control

- Bicyclist Lost Control - Mechanical Problems (121) *
- Bicyclist Lost Control - Oversteering, Improper Braking, Speed (122) *
- Bicyclist Lost Control - Alcohol/Drug Impairment (123) *
- Bicyclist Lost Control - Surface Conditions (124) *
- Bicyclist Lost Control - Other/Unknown (129) *
- Motorist Lost Control - Mechanical Problems (131)*
- Motorist Lost Control - Oversteering, Improper Braking, Speed (132) *
- Motorist Lost Control - Alcohol/Drug Impairment (133) *
- Motorist Lost Control - Surface Conditions (134) *
- Motorist Lost Control - Other/Unknown (139) *

Initial Approach Path – Crossing Paths

CRASH GROUP: 110 - Loss of Control/**Turning Error**

Turning Error

- Motorist Turning Error - Left Turn (111) *
- Motorist Turning Error - Right Turn (112) *
- Motorist Turning Error - Other (113) *
- Bicyclist Turning Error - Left Turn (114) *
- Bicyclist Turning Error - Right Turn (115) *
- Bicyclist Turning Error - Other (116) *

Drive/Ride-Out/Through

CRASH GROUP: 140 – Motorist Failed to Yield – Sign-Controlled Intersection

- Motorist Drive-Out - Sign-Controlled Intersection (141) *
- Motorist Drive-Through - Sign-Controlled Intersection (143) *

CRASH GROUP: 145 – Bicyclist Failed to Yield – Sign-Controlled Intersection

- Bicyclist Ride-Out - Sign-Controlled Intersection (142) *
- Bicyclist Ride-Through - Sign-Controlled Intersection (144) *
- Multiple Threat - Sign-Controlled Intersection (147) *

CRASH GROUP: 150 – Motorist Failed to Yield – Signalized Intersection

- Motorist Drive-Out - Signalized Intersection (152) *
- Motorist Drive-Out - Right Turn on Red (151) *
- Motorist Drive-Through - Signalized Intersection (154) *

CRASH GROUP: 158 – Bicyclist Failed to Yield – Signalized Intersection

- Bicyclist Ride-Out - Signalized Intersection (153) *
- Bicyclist Ride-Through - Signalized Intersection (155) *

Subgroup: Bicyclist Failed to Clear

- Bicyclist Failed to Clear - Trapped (156) *
- Bicyclist Failed to Clear - Multiple Threat (157) *
- Bicyclist Failed to Clear - Unknown (159) *

CRASH GROUP: 190 – Crossing Paths – Other Circumstances

- Sign-Controlled Intersection - Other/Unknown (148) *
- Signalized Intersection - Other/Unknown (158) *
- Crossing Paths - Intersection - Other/Unknown (180) *
- Crossing Paths - Uncontrolled Intersection (160) *
- Crossing Paths - Midblock - Other/Unknown (380) *

Initial Approach Path – Parallel Paths

Motorist Turned or Merged

CRASH GROUP: 210 – Motorist Left Turn/Merge

- Motorist Left Turn - Same Direction (211) *
- Motorist Left Turn - Opposite Direction (212) *

CRASH GROUP: 215 – Motorist Right Turn/Merge

- Motorist Right Turn - Same Direction (213) *
- Motorist Right Turn on Red - Same Direction (217) *
- Motorist Right Turn - Opposite Direction (214) *
- Motorist Right Turn on Red - Opposite Direction (218) *

CRASH GROUP: 219 – Parking/Bus-Related

- Motorist Drive-In/Out Parking (215) *
- Bus/Delivery Vehicle Pullover (216) *

Bicyclist Turn or Merged

CRASH GROUP: 220 – Bicyclist Left Turn/Merge

- Bicyclist Left Turn - Same Direction (221) *
- Bicyclist Left Turn - Opposite Direction (222) *

CRASH GROUP: 225 – Bicyclist Right Turn/Merge

- Bicyclist Right Turn - Same Direction (223) *
- Bicyclist Right Turn - Opposite Direction (224) *

Overtaking/Passing Circumstances

CRASH GROUP: 230 – Motorist Overtaking Bicyclist

- Motorist Overtaking - Undetected Bicyclist (231) *
- Motorist Overtaking - Misjudged Space (232) *
- Motorist Overtaking - Bicyclist Swerved (235) *
- Motorist Overtaking – Other/Unknown (239) *

CRASH GROUP: 240 – Bicyclist Overtaking Motorist

- Bicyclist Overtaking - Passing on Right (241) *
- Bicyclist Overtaking - Passing on Left (242) *
- Bicyclist Overtaking - Parked Vehicle (243) *
- Bicyclist Overtaking - Extended Door (244) *
- Bicyclist Overtaking - Other/Unknown (249) *

One Party on the Wrong Way/Wrong Side

CRASH GROUP: 258 – Wrong Way/Wrong Side

- Wrong Way / Wrong Side - Bicyclist (250) *
- Wrong Way / Wrong Side - Motorist (255) *
- Wrong Way / Wrong Side - Unknown (259) *

CRASH GROUP: 290 – Parallel Paths – Other Circumstances

- Motorist Turn/Merge - Other/Unknown (219) *
- Parallel Paths - Other/Unknown (280) *
- Bicyclist Ride-Out - Parallel Path (225) *

Initial Approach Path – Crossing Paths

Bicyclist Ride-Out

CRASH GROUP: 310 Bicyclist Failed to Yield - Midblock

- Bicyclist Ride-Out - Residential Driveway (311) *
- Bicyclist Ride-Out - Commercial Driveway (312) *
- Bicyclist Ride-Out – Driveway, Unknown Type (313) *
- Bicyclist Ride-Out - Other Midblock (318) *
- Bicyclist Ride-Out - Midblock - Unknown (319) *
- Multiple Threat - Midblock (357) *

Motorist Ride-Out

CRASH GROUP: 320 – Motorist Failed to Yield – Midblock

- Motorist Drive-Out - Residential Driveway (321) *
- Motorist Drive-Out - Commercial Driveway (322) *
- Motorist Drive-Out – Driveway, Unknown Type (323) *
- Motorist Drive-Out - Other Midblock (328) *
- Motorist Drive-Out - Midblock - Unknown (329) *

Unusual/Specific Circumstances

CRASH GROUP: 600 – Backing

- Backing Vehicle (610) *

CRASH GROUP: 850 – Other/Unusual Circumstances

- Play Vehicle-Related (700) *
- Unusual Circumstances (800) *

CRASH GROUP: 910 – Non-Trafficway

- Non-Trafficway (910) *

CRASH GROUP: 990 – Other/Unknown – Insufficient Details

- Unknown Approach Paths (970) *
- Unknown Location (980) *

***See manual element PB30B Crash Type - Bicycle for individual attribute remarks**

Remarks:

110 (Loss of Control) is used to identify situations where the critical factor leading to the collision involved control loss by the motorist or the bicyclist. Control loss can be related to mechanical failure, environmentally induced vehicle instability, driver medical issues, unconsciousness, falling asleep, or alcohol/drug impairment. The loss of control must have occurred prior to the driver doing any avoidance maneuver. For operators steering out of their lane and into the path of the other operator while executing a turn, see "**Turning Error**."

110 (Turning Error) is used to identify situations where the critical factor leading to the collision involved either the motorist or the bicyclist executing an improper left or right turn at an intersection or to/from a driveway. These are situations where one operator travels out of their lane during the turn and into the path of the other operator. This excludes situations where the movement into the path of the other operator was caused by a loss of control (e.g., sliding on ice when turning).

140 (Motorist Failed to Yield - Sign-Controlled Intersection) is used when **PB31B-Crash Location-Bicycle** is **1 (At Intersection)** or **2 (Intersection-Related)** and the motorist did not properly yield right-of-way to the bicyclist at an intersection where the motorist was controlled by a sign (stop or yield) or flashing signal. Note: Crashes at traffic circles or roundabouts with yield control are included here.

145 (Bicyclist Failed to Yield - Sign-Controlled Intersection) is used when **PB31B-Crash Location-Bicycle** is **1 (At Intersection)** or **2 (Intersection-Related)** and the bicyclist did not properly yield right-of-way to the motorist at an intersection where the bicyclist was controlled by a sign (stop or yield) or flashing signal. Note: Crashes at traffic circles or roundabouts with yield control are included here.

150 (Motorist Failed to Yield - Signalized Intersection) is used when **PB31B-Crash Location-Bicycle** is **1 (At Intersection)** or **2 (Intersection-Related)** and the motorist either violated the signal or did not properly yield right-of-way to the bicyclist.

158 (Bicyclist Failed to Yield - Signalized Intersection) is used when **PB31B-Crash Location-Bicycle** is **1 (At Intersection)** or **2 (Intersection-Related)** and the bicyclist either violated the signal or did not properly yield right-of-way to the motorist.

190 (Crossing Paths - Other Circumstances) is used when the bicyclist and motorist were on initial crossing paths, but the crash cannot be further classified.

210 (Motorist Left Turn/Merge) is used when the motorist made a left turn or merge into the path of a bicyclist traveling in the same or opposite direction as the motorist.

215 (Motorist Right Turn/Merge) is used when the motorist made a right turn or merge into the path of a bicyclist traveling in the same or opposite direction as the motorist.

219 (Parking / Bus-Related) is used when the bicyclist was involved in a collision with a vehicle entering or exiting a parking space or by a bus or delivery vehicle pulling into or away from the curb while in forward motion. If the motorist was "backing" see **600 (Backing Vehicle)**.

220 (Bicyclist Left Turn/Merge) is used when the bicyclist made a left turn or merge into the path of a motor vehicle traveling in the same or opposite direction as the bicyclist. This excludes bicyclists that are traveling on a sidewalk or other parallel path prior to turning left into the path of a vehicle on the roadway. See Crash Type - Bicycle **225 (Bicyclist Ride-Out - Parallel Path)**.

225 (Bicyclist Right Turn/Merge) is used when the bicyclist made a right turn or merge into the path of a motor vehicle traveling in the same or opposite direction as the bicyclist. This excludes bicyclists that are traveling on a sidewalk or other parallel path prior to turning right into the path of a vehicle on the roadway. See Crash Type - Bicycle **225 (Bicyclist Ride-Out - Parallel Path)**.

230 (Motorist Overtaking Bicyclist) is used when the motorist was traveling the same direction as the bicyclist and overtaking the bicyclist when they collided. This includes both passing the bicyclist and approaching from behind at a faster speed. A motorist that passes on the left by entering the opposing traffic lane and strikes an oncoming bicyclist is coded under Crash Group - Bicyclist **258 (Wrong Way/Wrong Side)**.

240 (Bicyclist Overtaking Motorist) is used when the bicyclist was traveling the same direction as the motorist and was overtaking the motorist on the right or left when they collided. Note: A bicyclist that passes on the left by entering the opposing traffic lane and strikes an oncoming vehicle is coded under Crash Group - Bicyclist **258 (Wrong Way/Wrong Side)**.

258 (Wrong-Way / Wrong-Side) is used when the two parties collided head-on when either the bicyclist or motorist was going the wrong way on a one-way roadway, traveling in the wrong travel lane of a two-way roadway (e.g., passing), or entered the opposing travel lane as part of an avoidance maneuver or as a result of being distracted/inattentive (e.g., lane drift).

290 (Parallel Paths - Other Circumstances) is used when the bicyclist and motorist were on initial parallel paths, but the crash cannot be further classified.

310 (Bicyclist Failed to Yield - Midblock) is used when **PB31B-Crash Location-Bicycle** is **3 (Not At Intersection)** and the bicyclist rode into the street from a non-intersection location (including residential or commercial driveway or other midblock location) without yielding to the motorist.

320 (Motorist Failed to Yield - Midblock) is used when **PB31B-Crash Location-Bicycle** is **3 (Not At Intersection)** and the motorist drove across the sidewalk or into the street from a non-intersection location (including residential or commercial driveway or other midblock location) without yielding to the bicyclist.

600 (Backing Vehicle) is used when the motorist was backing when the vehicle contacted the bicyclist.

850 (Other / Unusual Circumstances) is used when the bicyclist was riding a child's vehicle such as a tricycle (not an adult tricycle), bicycle with training wheels, or “Big Wheel” type tricycle or there were other unusual circumstances such as being involved in a collision with an object set-in-motion or by an in-transport motor vehicle which was redirected into the bicyclist by a prior collision.

910 (Non-Trafficway) for definition, see Crash Type **910 (Non-Trafficway)** under **Crash Type - Bicycle (PB30B)**.

990 (Other / Unknown - Insufficient Details) is used when there is insufficient information to determine the location of the impact between bicyclist and the motorist or the initial approach paths of the bicyclist/motorist.

APPENDICES

2019 Consistency Checks

2019 Consistency Checks

The following pages contain Consistency Checks, Intra-consistency Checks, and Special Processing Rules. They are arranged in alpha / numeric order. All questions concerning the FARS/CRSS Pedestrian/Bicyclist Manual and coding issues should be directed through the CDAN Helpdesk, to Coding Questions.

Error Code	Error Test
0PB1	If PEDESTRIAN/BIKE TYPING - CRASH TYPE - PEDESTRIAN equals 741, then at least one NON-MOTORIST CONTRIBUTING CIRCUMSTANCES must equal 11.
0PB2	If PEDESTRIAN BIKE TYPING - CRASH TYPE - PEDESTRIAN equals 760, then at least one NON-MOTORIST CONTRIBUTING CIRCUMSTANCES should equal 02.
1PK2	If NON-MOTORIST LOCATION AT TIME OF CRASH equals 21, then SIDEWALK PRESENT must equal 1.
1PK3	If NON-MOTORIST LOCATION AT TIME OF CRASH equals 01 or 10, then MARKED CROSSWALK PRESENT must equal 1.
FP9F	PERSON TYPE equals 05, 06, 07, 08 and the PEDESTRIAN/ CRASH TYPE equals blank, case status is flawed.
PB00	If PEDESTRIAN/BIKE TYPING - CRASH TYPE - PEDESTRIAN equals 110-910, then at least one SEQUENCE OF EVENTS for the striking vehicle must equal 08 or 15.
PB02	If PEDESTRIAN/BIKE TYPING - CRASH TYPE - BICYCLE equals 111-980, then at least one SEQUENCE OF EVENTS for the striking vehicle must equal 09.
PB04	If PEDESTRIAN/BIKE TYPING - CRASH TYPE - PEDESTRIAN for a person involved in the first harmful event equals 211, 212, 461, 465, 680, 830, 890, 900 or 910, then RELATION TO JUNCTION (b) must not equal 02. Note: this edit is restricted to vehicles which are involved in only one event with pedestrian(s).
PB05	If PEDESTRIAN/BIKE TYPING - CRASH TYPE - PEDESTRIAN for a person involved in the first harmful event equals 311, 312 or 313, then RELATION TO TRAFFICWAY must equal 01 or 11. Note: this edit is restricted to vehicles which are involved in only one event with pedestrian(s).
PB06	If PEDESTRIAN/BIKE TYPING - CRASH TYPE - PEDESTRIAN equals 730, then TRAFFIC CONTROL DEVICE for the striking vehicle must equal 01-03.
PB07	If PEDESTRIAN/BIKE TYPING - CRASH TYPE - BICYCLE for a person involved in the first harmful event equals 311, 312, 313, 321, 322 or 323, then RELATION TO JUNCTION (b) must equal 04 or 08. Note: this edit is restricted to vehicles which are involved in only one event with bicyclist(s).
PB08	If PEDESTRIAN/BIKE TYPING - CRASH TYPE - BICYCLE for a person involved in the first harmful event equals 141-144, 147, 151-157 or 159, then RELATION TO JUNCTION (b) must equal 02 or 03. Note: this edit is restricted to vehicles which are involved in only one event with bicyclist(s).
PB09	If PEDESTRIAN/BIKE TYPING - CRASH TYPE - BICYCLE equals 141, 143, 151-158, 217 or 218, then TRAFFIC CONTROL DEVICE for the striking vehicle must not equal 00.
PB10	If PEDESTRIAN/BIKE TYPING - CRASH TYPE - BICYCLE equals 151, 156, 157, 217 or 218, then TRAFFIC CONTROL DEVICE for the striking vehicle must equal 01-04.
PB11	If PEDESTRIAN/BIKE TYPING - CRASH TYPE - BICYCLE equals 143 or 154, then TRAFFIC CONTROL DEVICE for the striking vehicle must equal 01-04, 08, 20, 21, 28, or 29.

Error Code	Error Test
PB12	If PEDESTRIAN/BIKE TYPING - CRASH TYPE - PEDESTRIAN for a person involved in the first harmful event equals 510, 520 or 590, then RELATION TO TRAFFICWAY must not equal 01 or 11. Note: this edit is restricted to vehicles which are involved in only one event with pedestrian(s).
PB15	If PEDESTRIAN/BIKE TYPING - CRASH TYPE - PEDESTRIAN equals 910, then at least one NON-MOTORIST ACTION/CIRCUMSTANCES must equal 03.
PB16	If PEDESTRIAN/BIKE TYPING - CRASH TYPE - BICYCLE equals 142, 144, 147, 153, 155, 156, 157, 159, 311, 312, 313, 318, 319, or 357, then at least one NON-MOTORIST CONTRIBUTING CIRCUMSTANCES must equal 02.
PB17	If PEDESTRIAN/BIKE TYPING - CRASH TYPE - PEDESTRIAN for a person involved in the first harmful event equals 211-214, or 219, then PRE-EVENT MOVEMENT (PRIOR TO RECOGNITION OF CRITICAL EVENT) must equal 08, 09, 13, or 98. Note: this edit is restricted to vehicles which are involved in only one event with pedestrian(s).
PB18	If PEDESTRIAN/BIKE TYPING - CRASH TYPE - PEDESTRIAN equals 742, then at least one NON-MOTORIST CONTRIBUTING CIRCUMSTANCES must equal 01.
PB19	If NON-MOTORIST ACTION/CIRCUMSTANCES equals 08, then PEDESTRIAN/BIKE TYPING - CRASH TYPE - PEDESTRIAN must not equal 510, 520, 590, 830, or 890.
PB20	If PEDESTRIAN/BIKE TYPING - CRASH TYPE - PEDESTRIAN equals 510, 520, or 590, then at least one NON-MOTORIST ACTION/CIRCUMSTANCES must equal 02.
PB21	If PEDESTRIAN/BIKE TYPING - CRASH TYPE - BICYCLE equals 160, then TRAFFIC CONTROL DEVICE for the striking vehicle should equal 00.
PB22	If SCHOOL BUS RELATED equals 1, and PERSON TYPE equals 05 or 08, then PEDESTRIAN/BIKE TYPING - CRASH TYPE - PEDESTRIAN should equal 342.
PB23	If PEDESTRIAN/BIKE TYPING - CRASH TYPE - PEDESTRIAN equals 342, and PERSON TYPE equals 05 or 08, then SCHOOL BUS RELATED should equal 1.
PB24	If PERSON TYPE equals 05 or 08, and NON-MOTORIST LOCATION AT TIME OF CRASH equals 14, 16, 20, 21, 22, 24, or 25, then PEDESTRIAN/BIKE TYPING - CRASH TYPE - PEDESTRIAN should equal 230, 320, 330, 410, 420, 430, 440, 459, 510, 520, 590, 830, or 890.
PB25	If PERSON TYPE equals 05 or 08, and NON-MOTORIST LOCATION AT TIME OF CRASH equals 01-03 or 09, then PEDESTRIAN/BIKE TYPING - CRASH TYPE - PEDESTRIAN should equal 690, 710, 730, 741, 742, 760, 770, 781, 782, 791, 792, 794, 795, or 799.
PB26	If NON-MOTORIST CONTRIBUTING CIRCUMSTANCES equals 02, and PERSON TYPE equals 06 or 07, then PEDESTRIAN/BIKE TYPING - CRASH TYPE - BICYCLE should equal 142, 144, 147, 153, 155, 156, 157, 159, 311, 312, 313, 318, 319, or 357.
PB27	If NON-MOTORIST ACTION/CIRCUMSTANCES equals 05, and PERSON TYPE equals 05 or 08, then PEDESTRIAN/BIKE TYPING - CRASH TYPE - PEDESTRIAN should equal 410 or 420.
PB28	If NON-MOTORIST ACTION/CIRCUMSTANCES equals 06, and PERSON TYPE equals 05 or 08, then PEDESTRIAN/BIKE TYPING - CRASH TYPE - PEDESTRIAN should equal 430 or 440.
PB29	If NON-MOTORIST ACTION/CIRCUMSTANCES equals 04, and PERSON TYPE equals 05 or 08, then PEDESTRIAN/BIKE TYPING - CRASH TYPE - PEDESTRIAN should equal 410, 420, 430, 440, or 459.
PB30	If PEDESTRIAN/BIKE TYPING - CRASH TYPE - PEDESTRIAN equals 220, then at least one DRIVER PRESENCE must equal 0 for the vehicle number identified in this person's VEHICLE NUMBER OF MOTOR VEHICLE STRIKING NON-MOTORIST.

2019 Consistency Checks

Error Code	Error Test
PB31	If PEDESTRIAN/BIKE TYPING - CRASH TYPE - BICYCLE equals 147, 157, or 357, then at least one DRIVER'S VISION OBSCURED BY must equal 06 for the vehicle number identified in this person's VEHICLE NUMBER OF MOTOR VEHICLE STRIKING NON-MOTORIST.
PB32	If PEDESTRIAN/BIKE TYPING - CRASH TYPE - PEDESTRIAN equals 742, then at least one DRIVER'S VISION OBSCURED BY must not equal 00 or 95 for the vehicle number identified in this person's VEHICLE NUMBER OF MOTOR VEHICLE STRIKING NON-MOTORIST.
PB33	If PEDESTRIAN/BIKE TYPING - CRASH TYPE - BICYCLE equals 156, then DRIVER'S VISION OBSCURED BY for the striking vehicle must not equal 06.
PB34	If NUMBER OF FORMS SUBMITTED FOR PERSONS NOT IN MOTOR VEHICLES equals 01, and FIRST HARMFUL EVENT equals 08, and RELATION TO JUNCTION (b) equals 02, then PEDESTRIAN/ BIKE TYPING - CRASH TYPE - PEDESTRIAN must not equal 320, 330, 360, 680, 830, 890, 900, or 910.
PB35	If NUMBER OF FORMS SUBMITTED FOR PERSONS NOT IN MOTOR VEHICLES equals 01, and FIRST HARMFUL EVENT equals 08, and RELATION TO JUNCTION (b) equals 02, then PEDESTRIAN/ BIKE TYPING - CRASH LOCATION - PEDESTRIAN must equal 1.
PB36	If PEDESTRIAN/BIKE TYPING - CRASH TYPE - PEDESTRIAN equals 250, then PERSON TYPE must equal 08.
PB37	If PEDESTRIAN/BIKE TYPING - CRASH TYPE - PEDESTRIAN equals 311, 312, or 313, then at least one NON-MOTORIST ACTION/CIRCUMSTANCES must equal 08 or 10.
PB38	If PEDESTRIAN/BIKE TYPING - CRASH TYPE - PEDESTRIAN equals 410 or 420, then at least one NON-MOTORIST ACTION/CIRCUMSTANCES must equal 05.
PB39	If PEDESTRIAN/BIKE TYPING - CRASH TYPE - PEDESTRIAN equals 430 or 440, then at least one NON-MOTORIST ACTION/CIRCUMSTANCES must equal 06.
PB40	If PEDESTRIAN/BIKE TYPING - CRASH TYPE - BICYCLE equals 610, then at least one PRE-EVENT MOVEMENT (PRIOR TO RECOGNITION OF CRITICAL EVENT) must equal 08, 09, or 13 for the vehicle number identified in this person's VEHICLE NUMBER OF MOTOR VEHICLE STRIKING NON-MOTORIST.
PB41	If PEDESTRIAN/BIKE TYPING - CRASH TYPE - BICYCLE equals 215, then PRE-EVENT MOVEMENT (PRIOR TO RECOGNITION OF CRITICAL EVENT) must equal 08 or 09 for the vehicle number identified in this person's VEHICLE NUMBER OF MOTOR VEHICLE STRIKING NON-MOTORIST.
PB42	If PEDESTRIAN/BIKE TYPING - CRASH TYPE - BICYCLE equals 111, 211, or 212, then PRE-EVENT MOVEMENT (PRIOR TO RECOGNITION OF CRITICAL EVENT) must equal 11, 16, or 17 for the vehicle number identified in this person's VEHICLE NUMBER OF MOTOR VEHICLE STRIKING NON-MOTORIST.
PB43	If PEDESTRIAN/BIKE TYPING - CRASH TYPE - BICYCLE equals 112, 151, 213, 214, 217, or 218, then PRE-EVENT MOVEMENT (PRIOR TO RECOGNITION OF CRITICAL EVENT) must equal 10, 16, or 17 for the vehicle number identified in this person's VEHICLE NUMBER OF MOTOR VEHICLE STRIKING NON-MOTORIST.
PB44	If PEDESTRIAN/BIKE TYPING - CRASH TYPE - PEDESTRIAN equals 240, then EMERGENCY MOTOR VEHICLE USE should equal 2-6 for at least one vehicle.
PB45	If PEDESTRIAN/BIKE TYPING - CRASH TYPE - PEDESTRIAN equals 781 or 782, then PRE-EVENT MOVEMENT (PRIOR TO RECOGNITION OF CRITICAL EVENT) should equal 11 or 17 for the vehicle number identified in this person's VEHICLE NUMBER OF MOTOR VEHICLE STRIKING NON-MOTORIST.

Error Code	Error Test
PB46	If PEDESTRIAN/BIKE TYPING - CRASH TYPE - BICYCLE equals 221-225, then PRE-EVENT MOVEMENT (PRIOR TO RECOGNITION OF CRITICAL EVENT) should equal 01 for the vehicle number identified in this person's VEHICLE NUMBER OF MOTOR VEHICLE STRIKING NON-MOTORIST.
PB49	If PERSON TYPE equals 05 or 08 and PRE-EVENT MOVEMENT (PRIOR TO RECOGNITION OF CRITICAL EVENT) equals 13 for the vehicle number identified in this person's VEHICLE NUMBER OF MOTOR VEHICLE STRIKING NON-MOTORIST, then at least one PEDESTRIAN/BIKE TYPING - CRASH TYPE - PEDESTRIAN should equal 211-214 or 219.
PB50	If PERSON TYPE equals 05 or 08, and PRE-EVENT MOVEMENT (PRIOR TO RECOGNITION OF CRITICAL EVENT) equals 10-12 or 16 for the vehicle number identified in this person's VEHICLE NUMBER OF MOTOR VEHICLE STRIKING NON-MOTORIST, then at least one PEDESTRIAN/BIKE TYPING - CRASH TYPE - PEDESTRIAN should equal 461, 465, 469, 510, 781, 782, 791, 792, 794, 795, or 799.
PB52	If PERSON TYPE equals 06 or 07, and PRE-EVENT MOVEMENT (PRIOR TO RECOGNITION OF CRITICAL EVENT) equals 13 for the vehicle number identified in this person's VEHICLE NUMBER OF MOTOR VEHICLE STRIKING NON-MOTORIST, then at least one PEDESTRIAN/BIKE TYPING - CRASH TYPE - BICYCLE should equal 610.
PB56	If PEDESTRIAN/BIKE TYPING - CRASH TYPE - PEDESTRIAN equals 791, 792, 794, 795, then PRE-EVENT MOVEMENT (PRIOR TO RECOGNITION OF CRITICAL EVENT) must equal 10 or 17 for the vehicle number identified in this person's VEHICLE NUMBER OF MOTOR VEHICLE STRIKING NON-MOTORIST.
PB59	If NON-MOTORIST ACTION/CIRCUMSTANCES equals 16, and PERSON TYPE equals 05 or 08, then PEDESTRIAN/BIKE TYPING - CRASH TYPE - PEDESTRIAN should equal 459.
PB60	If PERSON TYPE equals 05 or 08, and DRIVER PRESENCE equals 0 for the motor vehicle which strikes the non-motorist, then PEDESTRIAN/BIKE TYPING - CRASH TYPE - PEDESTRIAN should equal 220.
PB61	If PEDESTRIAN/BIKE TYPING - CRASH TYPE - PEDESTRIAN equals 220, then DRIVER PRESENCE should equal 0 for the motor vehicle striking the non-motorist.
PB62	If PEDESTRIAN/BIKE TYPING - CRASH TYPE - PEDESTRIAN equals 230, then at least one NON-MOTORIST ACTION/ CIRCUMSTANCES must equal 12.
PB63	If PEDESTRIAN/BIKE TYPING - CRASH TYPE - PEDESTRIAN equals 230, then at least one RELATED FACTOR - CRASH LEVEL should equal 19 or 23.
PB66	If PEDESTRIAN/ BIKE TYPING - CRASH LOCATION - PEDESTRIAN equals 1, then NON-MOTORIST LOCATION AT TIME OF CRASH must equal 01, 02, 03, 09, or 22.
PB67	If PEDESTRIAN/ BIKE TYPING - CRASH LOCATION - PEDESTRIAN equals 2, then NON-MOTORIST LOCATION AT TIME OF CRASH must equal 10, 11, 13, 14, 16, 20-25, 28, 98, 99.
PB68	If PEDESTRIAN/ BIKE TYPING - CRASH LOCATION - PEDESTRIAN equals 3, then NON-MOTORIST LOCATION AT TIME OF CRASH must equal 10, 11, 13, 14, 16, 20-24, 28, 98, 99.
PB69	If PEDESTRIAN/ BIKE TYPING - CRASH LOCATION - PEDESTRIAN equals 4, then NON-MOTORIST LOCATION AT TIME OF CRASH must equal 24, 25, 98, 99.
PB70	If PEDESTRIAN/ BIKE TYPING - CRASH LOCATION - PEDESTRIAN equals 9, then NON-MOTORIST LOCATION AT TIME OF CRASH must equal 16, 22, 24, 98, or 99.
PB71	If PEDESTRIAN/ BIKE TYPING - CRASH LOCATION - BICYCLE equals 1, then NON-MOTORIST LOCATION AT TIME OF CRASH must equal 01, 02, 03, 09, 16, or 22.
PB72	If PEDESTRIAN/ BIKE TYPING - CRASH LOCATION - BICYCLE equals 2, then NON-MOTORIST LOCATION AT TIME OF CRASH must equal 10, 11, 13, 14, 16, 20, 21, 22, 23, 24, 25, 28, 98, 99.

Error Code	Error Test
PB73	If PEDESTRIAN/ BIKE TYPING - CRASH LOCATION - BICYCLE equals 3, then NON-MOTORIST LOCATION AT TIME OF CRASH must equal 10, 11, 13, 14, 16, 20, 21, 22, 23, 24, 28, 98, 99.
PB74	If PEDESTRIAN/ BIKE TYPING - CRASH LOCATION - BICYCLE equals 4, then NON-MOTORIST LOCATION AT TIME OF CRASH must equal 24, 25, 98, 99.
PB75	If PEDESTRIAN/ BIKE TYPING - CRASH LOCATION - BICYCLE equals 9, then NON-MOTORIST LOCATION AT TIME OF CRASH must equal 16, 22, 24, 98 or 99.
PB76	If PEDESTRIAN/ BIKE TYPING - PEDESTRIAN POSITION equals 1, then NON-MOTORIST LOCATION AT TIME OF CRASH must equal 03.
PB77	If PEDESTRIAN/ BIKE TYPING - PEDESTRIAN POSITION equals 2, then NON-MOTORIST LOCATION AT TIME OF CRASH must equal 01, 02, or 10.
PB78	If PEDESTRIAN/ BIKE TYPING - PEDESTRIAN POSITION equals 3, then NON-MOTORIST LOCATION AT TIME OF CRASH must equal 11, 13.
PB79	If PEDESTRIAN/ BIKE TYPING - PEDESTRIAN POSITION equals 4, then NON-MOTORIST LOCATION AT TIME OF CRASH must equal 14, 16, 20, 98, or 99.
PB80	If PEDESTRIAN/ BIKE TYPING - PEDESTRIAN POSITION equals 5, then NON-MOTORIST LOCATION AT TIME OF CRASH must equal 21, 23, 24, 98, or 99.
PB81	If PEDESTRIAN/ BIKE TYPING - PEDESTRIAN POSITION equals 6, then NON-MOTORIST LOCATION AT TIME OF CRASH must equal 20, 22, 28, 98, or 99.
PB82	If PEDESTRIAN/ BIKE TYPING - PEDESTRIAN POSITION equals 7 or 8, then NON-MOTORIST LOCATION AT TIME OF CRASH must equal 25.
PB83	If PEDESTRIAN/ BIKE TYPING - PEDESTRIAN POSITION equals 9, then NON-MOTORIST LOCATION AT TIME OF CRASH must equal 09, 20, 22, 28, 98, or 99.
PB84	If PEDESTRIAN/ BIKE TYPING - BICYCLIST POSITION equals 1, then NON-MOTORIST LOCATION AT TIME OF CRASH must equal 03, 09, 11, or 13.
PB85	If PEDESTRIAN/ BIKE TYPING - BICYCLIST POSITION equals 2, then NON-MOTORIST LOCATION AT TIME OF CRASH must equal 14, 16, or 20.
PB86	If PEDESTRIAN/ BIKE TYPING - BICYCLIST POSITION equals 3, then NON-MOTORIST LOCATION AT TIME OF CRASH must equal 01, 02, 10, 21, 23, 98, or 99.
PB87	If PEDESTRIAN/ BIKE TYPING - BICYCLIST POSITION equals 4, then NON-MOTORIST LOCATION AT TIME OF CRASH must equal 24.
PB88	If PEDESTRIAN/ BIKE TYPING - BICYCLIST POSITION equals 5 or 6, then NON-MOTORIST LOCATION AT TIME OF CRASH must equal 25.
PB89	If PEDESTRIAN/ BIKE TYPING - BICYCLIST POSITION equals 8, then NON-MOTORIST LOCATION AT TIME OF CRASH must equal 20, 22, 28, 98, or 99.
PB90	If PEDESTRIAN/ BIKE TYPING - BICYCLIST POSITION equals 9, then NON-MOTORIST LOCATION AT TIME OF CRASH must equal 22, 98, or 99.
PB91	If PEDESTRIAN/ BIKE TYPING - CRASH LOCATION - PEDESTRIAN equals 1, then PEDESTRIAN/ BIKE TYPING - PEDESTRIAN POSITION must equal 1, 2, or 9.
PB92	If PEDESTRIAN/ BIKE TYPING - CRASH LOCATION - PEDESTRIAN equals 2, then PEDESTRIAN/ BIKE TYPING - PEDESTRIAN POSITION must equal 3, 4, 5, 6, 7, 8, or 9.
PB93	If PEDESTRIAN/ BIKE TYPING - CRASH LOCATION - PEDESTRIAN equals 3, then PEDESTRIAN/ BIKE TYPING - PEDESTRIAN POSITION must equal 2, 3, 4, 5, 6, or 9.
PB94	If PEDESTRIAN/ BIKE TYPING - CRASH LOCATION - PEDESTRIAN equals 4, then PEDESTRIAN/ BIKE TYPING - PEDESTRIAN POSITION must equal 7, 8, or 9.
PB95	If PEDESTRIAN/ BIKE TYPING - CRASH LOCATION - PEDESTRIAN equals 9, then PEDESTRIAN/ BIKE TYPING - PEDESTRIAN POSITION must equal 2, 5, or 9.

Error Code	Error Test
PB96	If PEDESTRIAN/ BIKE TYPING - CRASH LOCATION - BICYCLE equals 1, then PEDESTRIAN/ BIKE TYPING - BICYCLIST POSITION must equal 1, 2, 3, 8, or 9.
PB97	If PEDESTRIAN/ BIKE TYPING - CRASH LOCATION - BICYCLE equals 3, then PEDESTRIAN/ BIKE TYPING - BICYCLIST POSITION must equal 1, 2, 3, 4, 8, or 9.
PB98	If PEDESTRIAN/ BIKE TYPING - CRASH LOCATION - BICYCLE equals 4, then PEDESTRIAN/ BIKE TYPING - BICYCLIST POSITION must equal 4, 5, 6, or 9.
PB99	If PEDESTRIAN/ BIKE TYPING - CRASH LOCATION-BICYCLE equals 9, then PEDESTRIAN/ BIKE TYPING - BICYCLIST POSITION must equal 9.
PBA0	If PEDESTRIAN/ BIKE TYPING - CRASH TYPE - BICYCLE equals 111, 211, 212, and VEHICLE NUMBER - VEHICLE LEVEL equals VEHICLE NUMBER OF MOTOR VEHICLE STRIKING NON-MOTORIST, then PRE-EVENT MOVEMENT (PRIOR TO RECOGNITION OF CRITICAL EVENT) should equal 11.
PBA1	If PEDESTRIAN/ BIKE TYPING - CRASH TYPE - BICYCLE equals 112, 151, 213, 214, 217, or 218, and VEHICLE NUMBER, VEHICLE LEVEL equals VEHICLE NUMBER OF MOTOR VEHICLE STRIKING NON-MOTORIST, then PRE-EVENT MOVEMENT (PRIOR TO RECOGNITION OF CRITICAL EVENT) should equal 10.
PBA2	If PEDESTRIAN SCENARIO equals 1a, 1b, 1c, 1d, 3a, 3b, 3c, 3d, 5a, 5b, 5c, 5d, 7a, 7b, 7c, 7d, 9a, 9b, 9c, 9d, or 11a, 11b, 11c, 11d, then PEDESTRIAN POSITION must equal 2.
PBA3	If CRASH LOCATION-PEDESTRIAN equals 1 (At Intersection) and PEDESTRIAN SCENARIO equals 2a, 2b, 2c, 2d, 4a, 4b, 4c, 4d, 6a, 6b, 6c, 6d, 8a, 8b, 8c, 8d, 10a, 10b, 10c, 10d, or 12a, 12b, 12c, 12d, then PEDESTRIAN POSITION must equal 1, 9.
PBA4	If CRASH LOCATION-PEDESTRIAN equals 2 (Intersection-Related) and PEDESTRIAN SCENARIO equals 2a, 2b, 2c, 2d, 4a, 4b, 4c, 4d, 6a, 6b, 6c, 6d, 8a, 8b, 8c, 8d, 10a, 10b, 10c, 10d, or 12a, 12b, 12c, 12d, then PEDESTRIAN POSITION must equal 3-9.
PBA5	If PEDESTRIAN SCENARIO equals 1a, 1b, 1c, 1d, 2a, 2b, 2c, 2d, 3a, 3b, 3c, 3d, 4a, 4b, 4c, 4d, then PRE-EVENT MOVEMENT (PRIOR TO RECOGNITION OF CRITICAL EVENT) should equal 01, 02, 03, 04, 06, 08, 09, 12, 13, 14, 15, 16, or 17 for the vehicle number that struck this non-motorist.
PBA6	If PEDESTRIAN SCENARIO equals 5a, 5b, 5c, 5d, 6a, 6b, 6c, 6d, 7a, 7b, 7c, 7d, 8a, 8b, 8c, 8d, then PRE-EVENT MOVEMENT (PRIOR TO RECOGNITION OF CRITICAL EVENT) should equal 10 for the vehicle number that struck this non-motorist.
PBA7	If PEDESTRIAN SCENARIO equals 9a, 9b, 9c, 9d, 10a, 10b, 10c, 10d, 11a, 11b, 11c, 11d, 12a, 12b, 12c, 12d, then PRE-EVENT MOVEMENT (PRIOR TO RECOGNITION OF CRITICAL EVENT) should equal 11 for the vehicle number that struck this non-motorist.
PBA9	If PEDESTRIAN/BIKE TYPING - CRASH TYPE - PEDESTRIAN equals 741, then NON-MOTORIST CONTRIBUTING CIRCUMSTANCES must not equal 01.
PBB1	If PEDESTRIAN/BIKE TYPING - CRASH TYPE - PEDESTRIAN equals 742, then NON-MOTORIST CONTRIBUTING CIRCUMSTANCES must not equal 11.
PBB2	If CRASH LOCATION - PEDESTRIAN equals 1 or 2, then PEDESTRIAN INITIAL DIRECTION OF TRAVEL must equal 1-4, or 9, MOTORIST MANEUVER must equal 1-3, or 9, INTERSECTION LEG must equal 1, 2, or 9, and MOTORIST INITIAL DIRECTION OF TRAVEL must equal 1-4, or 9.
PBB3	***If PEDESTRIAN/BIKE TYPING-PEDESTRIAN CRASH TYPE equals 341 or 342, then RELATED FACTORS - CRASH LEVEL should equal 31.***
PBB4	***NON-MOTORIST ACTION/CIRCUMSTANCES should not equal 05, 06, or 16.***
PBB5	***If PEDESTRIAN/ BIKE TYPING - CRASH LOCATION -PEDESTRIAN equals 1, then NON-MOTORIST ACTION/CIRCUMSTANCES should not equal 05, 06, or 16.***

2019 Consistency Checks

Error Code	Error Test
PBB6	***If PEDESTRIAN CRASH GROUP equals 750 or 790, then NM ACTION/CIRCUMSTANCES must not equal 08 (In Roadway – Other [Working, Playing, etc.]).***
PBB7	***If PEDESTRIAN CRASH GROUP equals 750 or 790, then at least one NM ACTION/CIRCUMSTANCES should equal 03 (Crossing Roadway).***
PBC0	***If PEDESTRIAN/BIKE TYPING - CRASH TYPE - BICYCLE equals 250, then at least one NON-MOTORIST CONTRIBUTING CIRCUMSTANCES should equal 09.***
PBC1	***If PEDESTRIAN/BIKE TYPING - CRASH TYPE - PEDESTRIAN equals 410, then at least one NON-MOTORIST CONTRIBUTING CIRCUMSTANCES should equal 09.***

DOT HS 813 025
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U.S. Department
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**National Highway
Traffic Safety
Administration**

NHTSA

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