ODOT

STATEWIDE CRASH DATA SYSTEM

2023
MOTOR VEHICLE
TRAFFIC CRASH ANALYSIS
AND
CODE MANUAL

Published by

Transportation Data Section
Crash Analysis and Reporting Unit

December 2024

Oregon Department of Transportation

Oregon Statewide Crash Data System
MOTOR VEHICLE
TRAFFIC CRASH ANALYSIS AND CODE MANUAL

Oregon Department of Transportation
Policy, Data, and Analysis Division
Crash Analysis and Reporting Unit
355 Capitol St NE, MS42
Salem, OR 97301

John Bonnett
Manager

Graphics courtesy of ODOT Design
Photos courtesy of ODOT Photo and Video Services and Crash Analysis and Reporting Unit

The Crash Analysis and Reporting (CAR) Unit compiles data for reported motor vehicle traffic crashes occurring on city streets, county roads and state highways. The data supports various local, county and state traffic safety programs, engineering and planning projects, legislative concepts, and law enforcement services.

Legally reportable motor vehicle traffic crashes are those involving death, bodily injury, damage to personal property in excess of $2,500; or damage to any vehicle over $2500 and any vehicle is towed from the scene as a result of damage (effective 1/1/2018). Drivers are required to file an Accident and Insurance Report Form with DMV within 72 hours of a traffic crash. From 1/1/2004 through 12/31/2016, drivers were required to file a report when damage to the driver's vehicle was over $1,500; damage to any vehicle was over $1,500 and any vehicle was towed from the scene as a result of damage; if injury or death resulted from the accident; or if damage to any one person's property other than a vehicle involved in the accident was over $1,500. From 9/1/1997 through 12/31/2003, the damage threshold was $1,000. Prior to 9/1/1997, the damage threshold was $500.

For more information on filing requirements, please contact Driver and Motor Vehicles Services (DMV).

Disclaimer: The Crash Analysis and Reporting Unit is committed to providing the highest quality crash data to customers. However, because submittal of crash report forms is, by statute, the responsibility of the individual driver, the Crash Analysis and Reporting Unit cannot guarantee that all qualifying crashes are represented in the Statewide Crash Data System (CDS), nor can assurances be made that all details pertaining to a single crash are accurate.

Database expansion and refinement implemented in 2002 may result in slight differences from data reported in earlier years.

TABLE OF CONTENTS

Table of Figures

Table of References

List of handouts provided to new Crash Data Technicians.

1. A Guide to the New Laws on Teen Driving
2. Automated Milepoint Log (AML) and Code Descriptions
3. City, County, or Federal Jurisdiction Report
4. Compass Direction Transparency
5. DMV Drivers Manual Section 2 – Highway Signs, Signals and Markings
6. HPMS Highway Couplets
7. Highway System Intersection Set-ups
8. Route to Highway Cross-Reference Tables
9. Crash Reports System User Guide (FileNet)
10. Street Setup Instructions

Introduction

This manual is an instructional tool for use in the analysis, coding, and decoding of motor vehicle crashes to the Oregon Department of Transportation's Statewide **Crash Data System (CDS)**. The manual is organized according to the layout of data fields on the CDS Data Entry Application. It provides a list of codes, code descriptions, instructions, examples, and validation rules where applicable.

Section I – CRASH LEVEL: records information that is common to a given crash, such as the hour the crash occurred, its location, collision type, crash classification, weather conditions, investigation, etc.

Section II – VEHICLE LEVEL: records information specific to each vehicle involved in the crash, such as vehicle type, direction of travel, action, errors, causes, events, etc.

Section III – PARTICIPANT LEVEL: records information specific to persons involved in the crash, such as participant type, sex, age, injury severity, etc. Participant records are created only for drivers, injured passengers, child passengers age 0 – 4 (whether injured or un-injured), and non-motorists who were struck. Records are *not* created for uninjured passengers or non-motorists (i.e. pedestrians, pedal-cyclists) who were involved but not struck.

Section IV – SYSTEM-GENERATED FIELDS: identifies automated fields that were added to simplify querying and provide additional information for data reporting. Field values are auto-generated based on other Crash, Vehicle or Participant field values entered by a Crash Data Technician.

Section V – APPENDIX: presents a glossary of terms defined by ODOT and by the American National Standards Institute's Manual on Classification of Motor Vehicle Traffic Accidents (ANSI D-16.1-2007), such as legal intervention, aggressive driving vs. road rage.

Table of Figures: has links for the **Graphics, Tables** and **Charts** represented in this manual.

Table of Handouts: references the handouts received by a new Crash Data Technician.

Enterprise Data Warehouse EDW: Look for this symbol [EDW] to identify which data is available in the ODOT Enterprise Data Warehouse (EDW).

Training Manual Reference: The color highlighted titles of the various sections correspond to the Crash Unit's crash coding training document titled "Coding Workbook Manual" for cross-reference between the two documents.

Training Section 1	Training Section 4	Training Section 7
Training Section 2	Training Section 5	Training Section 8
Training Section 3	Training Section 6	Training Section 9

Introduction

(Continued)

NOTES:

Crash –A **crash** is an unstabilized situation that includes at least one harmful event. It begins with the unstabilized situation and ends when control is regained, or, in the absence of control, when all involved vehicles and persons come to rest. A "**motor vehicle traffic crash**" is a crash involving at least one motor vehicle that is "in transport", "on a trafficway that is open to the public by right or custom", which cannot be classified as an aircraft or watercraft accident, and "does not include any harmful event involving a railway train *prior to* involvement of a motor vehicle in transport". *(Refer to ANSI D16.1-2017, "Characteristics of Motor Vehicle Traffic Accidents")*

SQL <null> vs. Blank Values

The CDS is an MS SQL relational database. Data elements that don't always need to be coded have their properties set to allow <null>. In SQL, <null> is *the absence of any value*, which is not the same as "blank". "Blank" is a zero-length string. Instructions in this manual to "leave the field blank", means to tab through the field. The field remains <null>.

No fields in the CDS Crash, Vehicle, Participant and associated lookup tables contain blanks. However, SQL <null> can be inadvertently converted to "blank" or the word "NULL", when data is imported into other software, depending on the software and how the user sets the field properties.

The discussion of <null> vs. "blank" is complicated, due to the variety of ways different software handles those values. When importing CDS data raw data, users are encouraged to familiarize themselves with the way their software interacts with SQL data in regard to <null> and blank values (zero length strings),

Validations: For each data element, a table of business rules occurs at the end of the "Instructions" section. The table lists business rules for the field by rule number; the message that pops up in the data entry screen when the rule is violated; and the severity of the rule violation. Affected fields are highlighted red (severe error) or yellow (warning). Red/Severe errors must be resolved before the crash can be saved to the database. They can't be overridden. Yellow/Warning errors prompt crash data technicians to review the affected field(s) before saving the case. These errors can be overridden.

A single business rule can apply to multiple data elements; so, the rule may be listed under the instructions for each affected element.

Revised vs. Effective: Code descriptions that have been revised will show the code year the revision occurred, in parentheses, i.e.: *(Revised 2014).* New codes will show the code year they became effective, i.e. *(Effective 2014)*

Content Order: This manual is organized to match the order of fields in the CDS data entry screen.

2023 CDS Code Manual Revisions

SECTION	REVISED ITEM	REVISION DESCRIPTION
Table of Contents	Table of Figures	Expanded to include: ○ updated Portland City Sextant ○ Trafficway ○ Couplet Location of Impact ○ Roundabout graphics, and more
Crash Level	Highway Number	○ Removed Highway 484 Esplanade Spur (no longer a state highway)
Crash Level	Special Jurisdiction	○ Added Klamath National Forest
Crash Level	Crash Type	○ Added instruction for using Crash Type code '&' (Overturn) & Event code 010 "Overturned after harmful event"
Crash, Vehicle & Participant Levels	Event	○ Added working vehicle example for Event code 069 (Equipment working on/off road). ○ Specified code 134, "Torrential rain", is coded when not cataclysmic in nature.
Participant Level	Participant Display Sequence Number	○ Expanded explanation of Participant Identifier (PARTIC_ID) ○ Added note on Participant records for uninjured persons.
Participant Level	Participant Type	○ Added "occupant of a working motor vehicle" to list of "Other Non-Motorists" (Code 9)
Participant Level	Driver License Status	○ Added paragraph explaining that the PAR is the official source for coding Driver License Status
Participant Level	Error	○ Expanded instructions and examples for coding this field.
Participant Level	Event	○ Added instruction for Event Code 109, "sub-Bike"
Participant Level	Blood Alcohol Content (BAC) Test Results	○ Added instruction to code this field for all ages. Previously had been limited to persons age 13 and older. ○ Added note re: hospital BAC test results. ○ Expanded instructions for using code 86, and added section for Fatal Crash coding of BAC.
Participant Level	Alcohol Use Reported	○ Expanded instructions
Participant Level	Drug Use Reported	○ Expanded instructions and added Fatal Crash Coding section

2023 CDS Code Manual Revisions (Continued)

SECTION	REVISED ITEM	REVISION DESCRIPTION
Participant Level	Marijuana Use Reported	o Expanded instructions.
Validation Rules	Added Missing Validation Rules	o Added rules 142, 144, 146, 147, 148, 149, 150, 151, 152, 154, 157, and 159 to the affected element's Validations grid and/or to the Validation Rules section in the Appendix

Section I: CRASH LEVEL

(Page intentionally left blank)

DMV Crash Serial Number

Table: CRASH   **Column:** SER_NO   **Data Type:** char   **Length:** 5

Code	Description
00001 – 79999	Actual "file" number assigned by DMV
8xxxx	8 leading: indicates original number assigned to incorrect county
9xxxx	9 leading: use when a duplicate serial number was assigned in the same county
99991 – 99999	Indicates fatal crash with no DMV number assigned

Description:

A number that is assigned to each crash by the Driver and Motor Vehicle Services (DMV) division.

Instructions:

For the purposes of crash coding, this number is referred to as the **"Crash Serial Number"**. The number is stamped on DMV's accident report cover sheet for the case file. Crashes within each county are numbered consecutively each year.

Serial Number, **County** code and **Year** are used together to identify crash report packets before the crash is enteredinto the Crash Data System (CDS). This assists with assembling and tracking physical and scanned documents. Serial Number, County and Year are also used to retrieve the coded crash from within the CDS Data Entry Screen.

For example, the DMV file number "03-1234" is made up of two parts: **"03"** represents the county code (in this case, Clackamas County), and **"1234"** is the Serial Number. The Crash Data System (CDS) data entry field is 5 characters long, so we add a leading zero and enter the number as **"01234"** in the data entry screen.

The DMV Serial Number differs from the "Crash ID". (See "**Crash Identifier**" under the "System-Generated Fields" section, for information on the unique identifer assigned by the database.)

DMV does not include the "county code" with the serial number on **Multnomah County** reports. Refer to the accident report cover sheet to find the name of the county in which the crash occurred.

Crashes Assigned to the Wrong County
Occasionally, DMV assigns the crash to the wrong county. When this happens, Crash Data Technicians retain the incorrect serial number but enters an **"8"** as the first character in the 5-digit field. For example, a crash given number **"1234"** and assigned to Clackamas County in error would be coded to its correct county (i.e. Multnomah) but the Serial Number would be entered as "**81234**". When this occurs within counties using larger serial numbers, "11234" would become "81234". This practice allows the crash to be coded to the correct county in the Crash Data System, while flagging it as being originally assigned to an incorrect county in DMV's files.

Prior to 2021 - A "**green**" feedback form was sent to DMV indicating an error in the county

assignment. A record of the change was entered into the CAR Unit's report tracking database (refer to the Coder's training workbook). When DMV corrected the county assignment in their records, they sent a new serial number back to CAR.

Prior to 2014 - The Crash Data System was updated with the new serial number. Effective for 2014 coding, the revised serial number is retained in our database, and DMV's new number is entered to a spreadsheet
for future reference.

As of 2021, green sheets are only used for out-of-state crashes and for unrelated crash reports stapled together.

Crashes Assigned Duplicate Serial Numbers
When DMV assigns a duplicate serial number (the same number for two different crashes in one county) the Crash Data Technician alters the serial number for the second crash by changing the first character to a **"9"**. For example, if DMV assigned number "1234" to two different crashes in County "03" (Clackamas County), we enter **"01234"** as the serial number for the first crash, and enter **"91234"** for the second crash.

The "9" prefix should be assigned to the later crash date whenever possible. In the case of a larger serial number, "11234" would become "91234".

If an individual crash must be broken out into *more than* two different crashes, the Crash Data Technician should consult the code leader for recommendations on the use of an additional leading number.

Fatal Crashes with No DMV Assigned Number
DMV does not process all fatal crashes if they have no driver record to attribute the crash to. This would happen in cases of hit and run crashes that have no suspect or driver information available, but result in pedestrian or bicyclist fatalities. Another case would be when a vehicle goes into a body of water, there were no witnesses, and the car was recovered but the driver's body was not. DMV does not assume it is a fatality until a victim is recovered that confirms it as a fatality.

In these cases the code team leader will assign a number to the crash that will be unique for the county and year of crash. The assigned number in these cases is often **"99999"**.

Validations:

Rule #	Rule Message	Severity
1	Serial Number is null (field required)	Red/Severe
98	Serial Number is not numeric	Red/Severe
2001-2002	A crash already exists with this serial number, county and year value	Red/Severe

Crash Month, Day & Year

EDW

Table: CRASH	**Column:** CRASH_MO_NO	**Data Type:** char	**Length:** 2
Table: CRASH	**Column:** CRASH_DAY_NO	**Data Type:** char	**Length:** 2
Table: CRASH	**Column:** CRASH_YR_NO	**Data Type:** char	**Length:** 4

Month (MM)

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

Day (DD)

01-31   Actual Day

Year (YYYY)   Year the crash occurred

Description:

A series of fields that when concatenated, describe the date on which the crash occurred, as recorded on the police accident report (PAR) or on the driver report. On the Crash Data System data entry screen, the format of the crash date field is **MMDDYYYY**, where **MM** equals the two-digit month, **DD** equals the two-digit day, and **YYYY** equals the four-digit year. The fields cannot be null.

Instructions:

While the Month and Day are entered manually, the Year is automatically inserted by the electronic data entry system, but _may_ be modified by the Crash Data Technician.

When the exact day of the crash is unknown and there is a missing persons report mentioned in the report, code the date the person went missing. If no missing persons report is mentioned, use the date of the police report.

For information on the "Day of Week" field, refer to the System-Generated Field section of this manual.

Validations:

Rule #	Rule Message	Severity
4	Crash Month, Day or Year is null	Red/Severe
5	Required field [field name] missing	Red/Severe
6	Crash month must be a valid month number (01-12)	Red/Severe
7	Combination of month, day and year do not represent a valid date	Red/Severe
8	Year value must be at least 1985	Red/Severe
9	Future date value invalid	Red/Severe
2001-2002	A crash already exists with this serial number, county and year value	Red/Severe
Varies	[Code field value] was not found in [lookup table name] or is not valid as of the crash date	Red/Severe

Crash Hour

Table: CRASH   **Column:** CRASH_HR_NO   **Data Type:** char   **Length:** 2

Code	Description	Code	Description
00	12:00 a.m. (midnight) - 12:59 a.m.	13	1:00 p.m. to 1:59 p.m.
01	1:00 a.m. to 1:59 a.m.	14	2:00 p.m. to 2:59 p.m.
02	2:00 a.m. to 2:59 a.m.	15	3:00 p.m. to 3:59 p.m.
03	3:00 a.m. to 3:59 a.m.	16	4:00 p.m. to 4:59 p.m.
04	4:00 a.m. to 4:59 a.m.	17	5:00 p.m. to 5:59 p.m.
05	5:00 a.m. to 5:59 a.m.	18	6:00 p.m. to 6:59 p.m.
06	6:00 a.m. to 6:59 a.m.	19	7:00 p.m. to 7:59 p.m.
07	7:00 a.m. to 7:59 a.m.	20	8:00 p.m. to 8:59 p.m.
08	8:00 a.m. to 8:59 a.m.	21	9:00 p.m. to 9:59 p.m.
09	9:00 a.m. to 9:59 a.m.	22	10:00 p.m. to 10:59 p.m.
10	10:00 a.m. to 10:59 a.m.	23	11:00 p.m. to 11:59 p.m.
11	11:00 a.m. to 11:59 a.m.	24	DO NOT USE
12	12:00 p.m. (noon) to 12:59 p.m.	99	Unknown Time

Description:

Crash Hour is a two-digit code representing the hour in which the crash occurred based on military time. _No rounding_ of time is used. This field cannot be null.

Instructions:

If a crash occurs at 11:01 a.m. and another at 11:57 a.m., they are both coded as Crash Hour = 11.

Crashes that occur at 2400 hours are coded to the following day and code "**00**" should be used for "Crash Hour" in those situations.

To convert from "normal" time to military time, add "12" to the hour for crashes that occur between 1:00 pm and 11:59 pm.

Validations:

Rule #	Rule Message	Severity
82	Combination of Crash Hour, Light Condition and Crash Month not found on the cross-reference table	Red/Severe
83	Warning - please review combination of Crash Hour, Light Condition and Crash Month	Yellow/Warning
99	Crash Hour is null	Red/Severe
100	[code field value] was not found in [lookup table name] or is not valid as of the crash date	Red/Severe

County

EDW

Table: Crash   **Column:** CNTY_ID   **Data Type:** char   **Length:** 2

Code	Description	Code	Description	Code	Description
01	Baker	13	Harney	25	Morrow
02	Benton	14	Hood River	26	Multnomah
03	Clackamas	15	Jackson	27	Polk
04	Clatsop	16	Jefferson	28	Sherman
05	Columbia	17	Josephine	29	Tillamook
06	Coos	18	Klamath	30	Umatilla
07	Crook	19	Lake	31	Union
08	Curry	20	Lane	32	Wallowa
09	Deschutes	21	Lincoln	33	Wasco
10	Douglas	22	Linn	34	Washington
11	Gilliam	23	Malheur	35	Wheeler
12	Grant	24	Marion	36	Yamhill

Description:

"County" is a two-digit code that identifies the county in which the crash occurred.

Instructions:

Enter the code for the County in which the crash occurred. Refer to **Crashes Assigned to the Wrong County,** under the DMV Crash Serial Number pages, for instructions on correcting County and Serial Number when DMV assigns the wrong county to a crash report.

Validations:

Rule #	Rule Message	Severity
10	County value is blank (field required)	Red/Severe
11	[code field value] was not found in [lookup table name] or is not valid as of the crash date	Red/Severe
13	Combination of County, City Section and Urban Area not found on the cross-reference table	Red/Severe
15	Combination of County, City Section and Urban Area not found on the cross-reference table	Red/Severe
24	County value entered doesn't match County value for this highway/milepoint for this year	Yellow/Warning
137	Combination of [first code field] and [second code field] not valid in the [cross-reference table name] cross-reference table	Red/Severe
2001-2002	A crash already exists with this serial number, county and year value	Red/Severe

City

Table: CRASH   **Column:** CITY_SECT_ID   **Data Type:** int   **Precision:** 10

Code	Description	Code	Description	Code	Description	Code	Description
Blank	Outside City Limits	041	Cornelius	081	Grass Valley	121	Lonerock
001	Adair Village	042	Corvallis	082	Greenhorn	122	Long Creek
002	Adams	043	Cottage Grove	083	Gresham	123	Lostine
003	Adrian	044	Cove	084	Haines	124	Lowell
004	Albany	045	Creswell	085	Halfway	125	Lyons
005	Amity	046	Culver	086	Halsey	127	Madras
006	Antelope	047	Dallas	087	Happy Valley	128	Malin
007	Arlington	251	~~Damascus~~	088	Harrisburg	129	Manzanita
008	Ashland	048	Dayton	089	Helix	130	Maupin
009	Astoria	049	Dayville	090	Heppner	131	Maywood Park
010	Athena	050	Depoe Bay	091	Hermiston	**126**	McMinnville
011	Aumsville	051	Detroit	092	Hillsboro	132	Medford
012	Aurora	052	Donald	093	Hines	133	Merrill
013	Baker City	053	Drain	094	Hood River	134	Metolius
014	Bandon	054	Dufur	095	Hubbard	135	Mill City
015	Banks	055	Dundee	096	Huntington	136	Millersburg
016	Barlow	056	Dunes City	097	Idanha	137	Milton-Freewater
017	Bay City	057	Durham	098	Imbler	138	Milwaukie
018	Beaverton	058	Eagle Point	099	Independence	139	Mitchell
019	Bend	059	Echo	100	Ione	140	Molalla
020	Boardman	060	Elgin	101	Irrigon	141	Monmouth
021	Bonanza	061	Elkton	102	Island City	142	Monroe
022	Brookings	062	Enterprise	103	Jacksonville	143	Monument
023	Brownsville	063	Estacada	104	Jefferson	144	Moro
024	Burns	064	Eugene	105	John Day	145	Mosier
025	Butte Falls	065	Fairview	106	Johnson City	146	Mt. Angel
026	Canby	066	Falls City	107	Jordan Valley	147	Mt. Vernon
027	Cannon Beach	067	Florence	108	Joseph	148	Myrtle Creek
028	Canyon City	068	Forest Grove	109	Junction City	149	Myrtle Point
029	Canyonville	069	Fossil	110	Keizer	150	Nehalem
030	Carlton	070	Garibaldi	111	King City	151	Newberg
031	Cascade Locks	071	Gaston	112	Klamath Falls	152	Newport
032	Cave Junction	072	Gates	113	Lafayette	153	North Bend
033	Central Point	073	Gearhart	114	La Grande	154	North Plains
034	Chiloquin	074	Gervais	115	Lake Oswego	155	North Powder
035	Clatskanie	075	Gladstone	116	Lakeside	156	Nyssa
036	Coburg	076	Glendale	117	Lakeview	157	Oakland
037	Columbia City	077	Gold Beach	**252**	**La Pine**	158	Oakridge
038	Condon	078	Gold Hill	118	Lebanon	159	Ontario
039	Coos Bay	079	Granite	119	Lexington	160	Oregon City
040	Coquille	080	Grants Pass	120	Lincoln City	161	Paisley

(Continued)

Code	Description	Code	Description	Code	Description	Code	Description
162	Pendleton	185	Sandy	207	Sweet Home	229	Westfir
163	Philomath	186	Scappoose	208	Talent	230	West Linn
164	Phoenix	187	Scio	209	Tangent	231	Weston
165	Pilot Rock	188	Scotts Mills	210	The Dalles	232	Wheeler
167	Port Orford	189	Seaside	211	Tigard	233	Willamina
168	Powers	190	Seneca	212	Tillamook	234	Wilsonville
169	Prairie City	191	Shady Cove	213	Toledo	235	Winston
170	Prescott	192	Shaniko	214	Troutdale	236	Woodburn
171	Prineville	193	Sheridan	215	Tualatin	237	Wood Village
172	Rainier	194	Sherwood	216	Turner	238	Yachats
173	Redmond	195	Siletz	217	Ukiah	239	Yamhill
174	Reedsport	196	Silverton	218	Umatilla	240	Yoncalla
175	Richland	197	Sisters	219	Union	241	Portland (Unk. Section)
176	Riddle	198	Sodaville	220	Unity	242	Portland N
177	Rivergrove	199	Spray	221	Vale	243	Portland NE
178	Rockaway Beach	200	Springfield	222	Veneta	244	Portland E Burnside
179	Rogue River	201	Stanfield	223	Vernonia	245	Portland SE
180	Roseburg	202	Stayton	224	Waldport	246	Portland S (eff. 2022)
181	Rufus	203	Sublimity	225	Wallowa	247	Portland SW
182	St. Helens	204	Summerville	226	Warrenton	248	Portland W Burnside
183	St. Paul	205	Sumpter	227	Wasco	249	Portland NW
184	Salem	206	Sutherlin	228	Waterloo	250	Portland Bridges

Description:

City is a three-digit code assigned to each incorporated city. An incorporated city is one that has been approved by an election, held in accordance with Statute (ORS Chapter 221). One code is assigned to each city, regardless of county boundary lines, except for the City of Portland.

In the table above, cities that are crossed out are no longer incorporated.

Instructions:

City is coded when the crash occurs inside the boundaries of an incorporated city. Not all named locales in Oregon are incorporated cities. They're considered *unincorporated* communities. Leave this field blank for such areas. Examples are Aloha, Clackamas, and Cedar Hills, which occur within the Portland Urban Boundary.

Leave this field blank for crashes that occur outside city limits.

City of Portland
The CAR Unit uses nine different city codes to designate the geographic areas of Portland. This practice helps to identify crash locations when trying to distinguish between similarly named intersections such as:

"**SW** 6th Ave & Morrison St" vs. "**SE** 6th Ave & Morrison St".

(Continued)

The geographical boundaries in Portland are:

- The Willamette River, which separates East Portland from West Portland
- N Williams Avenue, which separates N from NE
- E Burnside Street, which separates NE from SE
- W Burnside Street, which separates NW from SW
- S Portland boundary runs along multiple lines. Use Or-Trans street name prefix.

A crash that occurs on or attributed to **Williams Avenue** is coded to **"Portland N"**, code **"242"**.

Use code **"241"** for **"Portland - Unknown Section"** when not enough information is provided in the report or coding resources to determine which Portland Section the crash occurred in**.**

Use code **"244"** for crashes on **East Burnside**, and code **"248"** for crashes on **West Burnside**.

Use code **"250"** only for crashes that occur on a bridge that crosses the **Willamette River** in Portland.

Figure 1. Portland City Sections
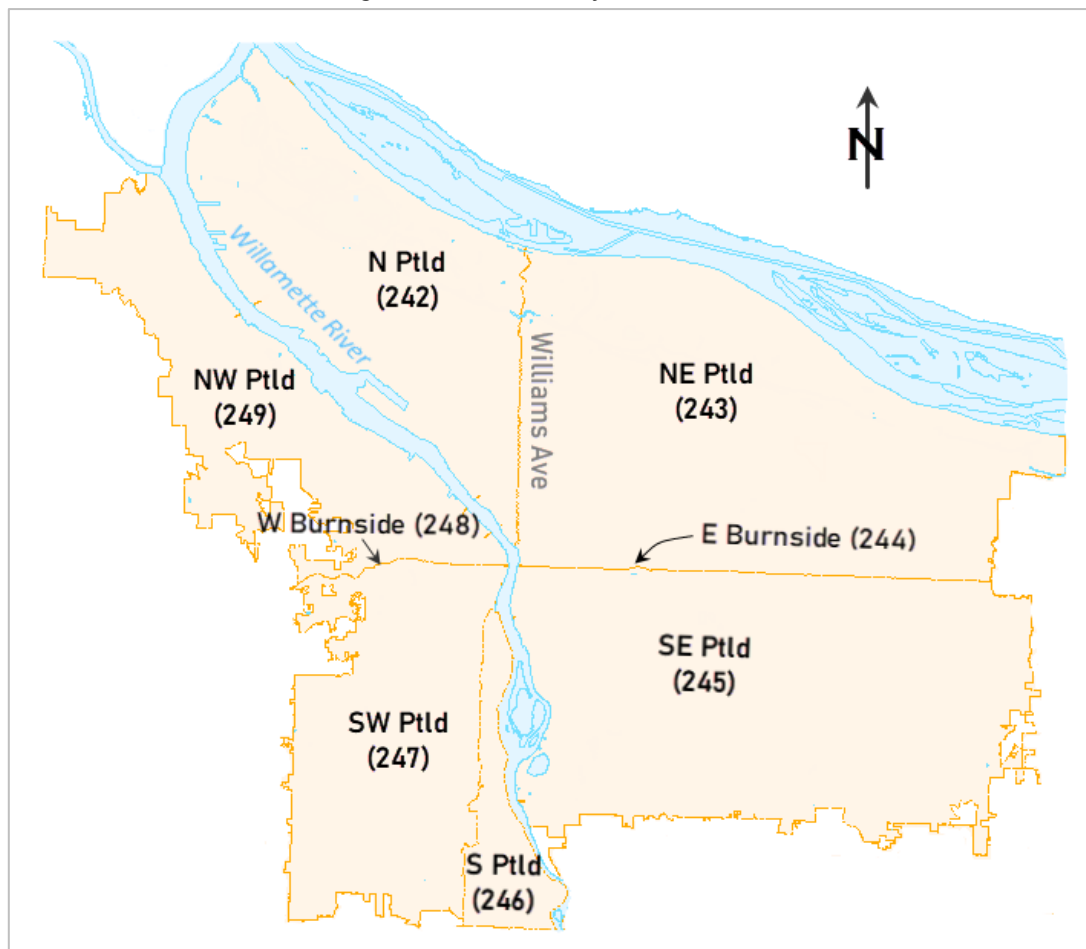
City

(Continued)

Validations:

Rule #	Rule Message	Severity
12	City Value is null	Red/Severe
13	Combination of County, City Section and Urban Area not found on the cross-reference table	Red/Severe
15	Combination of County, City Section and Urban Area not found on the cross-reference table	Red/Severe
16	Combination of [first code field] and [second code field] not valid in the [cross-reference table name] cross-reference table	Red/Severe
64	When Highway Number is not entered but City Identifier is entered, Impact Location code must be a numeric value <=9	Red/Severe
65	When not on a highway and not in a city, and not at an intersection with turning legs, Impact Location code must be <=7	Red/Severe
101	City value entered doesn't match City value for this highway / milepoint for this year in TransInfo	Yellow/Warning
134	When not on a highway and not in a city, and not at an intersection with turning legs, Impact Location code must be <=7	Red/Severe
135	When not on a highway and not in a city, but it is at an intersection with turning legs, Impact Location Code must be <=9	Red/Severe
143	When entered, City must be > 0	Red/Severe
153	Combination of [first code field] and [second code field] not valid in the [cross-reference table name] cross-reference table	Red/Severe

Urban Area

Table: CRASH   **Column:** URB_AREA_CD   **Data Type:** tinyint   **Precision:** 3

Code	Description	Code	Description	Code	Description
Blank	Outside Area	35	Klamath Falls UA	59	Prineville UA
01	Albany UA	36	Junction City UA	61	Rainier UA
05	Astoria UA	37	La Grande UA	63	Redmond UA
07	Baker City UA	38	La Pine UA (Terminated 2015)	65	Roseburg UA
09	Bend UA	39	Lebanon UA	67	Salem-Keizer- UA
11	Brookings UA	41	Lincoln City UA	68	Sandy UA
13	Canby UA	42	Madras UA	69	Seaside UA
17	Coos Bay-North Bend UA	43	McMinnville UA	70	Sheridan UA
19	Corvallis UA	44	Medford UA	71	Silverton UA
21	Cottage Grove UA	45	Milton-Freewater UA	73	St. Helens UA
22	Creswell UA	46	Molalla UA	75	Stayton UA
23	Dallas UA	47	Monmouth-Independence UA	77	Sutherlin UA
25	Eugene-Springfield UA	48	Myrtle Creek UA	79	Sweet Home UA
27	Florence UA	49	Newberg UA	80	Tillamook UA
31	Grants Pass UA	51	Newport UA	81	The Dalles UA
32	Green UA (Terminated 2015)	53	Ontario UA	82	Veneta UA
33	Hermiston UA	55	Pendleton UA	84	Weiser UA (Effective 2016)
34	Hood River UA	57	Portland UA	85	Woodburn UA

Description:

Urban Area is a two-digit code that indicates whether the crash occurred within a Federal Aid Urban Transportation Boundary (FAUB).

Figure 2. Federal Aid Urban Transportation Boundary (FAUB)
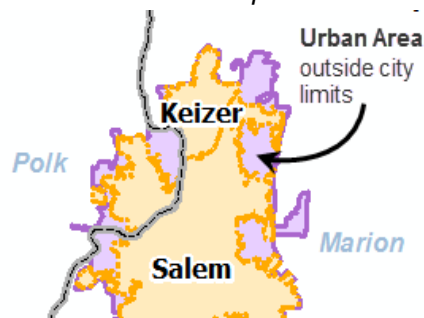
Instructions:

When determining this boundary, the city limits, current census information and major transportation facilities are taken into consideration.

Leave this field blank for crashes that occurred outside urban boundaries.

A large metropolitan urban area may encompass more than one city, and can cross county lines. The Portland Urban Area extends eastward from NW Portland to Troutdale, and southward to Marion County. Cities can lie partially inside and partially outside an urban boundary.

(Continued)

Refer to the Crash Locator Tool (CLT), the Automated Milepoint Logs (AMLs), or the "City – Urban Area" Cross-Reference Table below for assistance in coding this field.

Figure 3. City/Urban Cross-Reference Table

City Code	City Name	UA Code	Urban Area
001	Adair Village	19	CORVALLIS UA
004	Albany	01	ALBANY UA
008	Ashland	44	MEDFORD UA
009	Astoria	05	ASTORIA UA
012	Aurora	85	WOODBURN UA
013	Baker City	07	BAKER CITY UA
016	Barlow	13	CANBY UA
017	Bay City	80	TILLAMOOK UA
018	Beaverton	57	PORTLAND UA
019	Bend	09	BEND UA
022	Brookings	11	BROOKINGS UA
026	Canby	13	CANBY UA
033	Central Point	44	MEDFORD UA
037	Columbia City	73	ST HELENS UA
036	Coburg	25	EUGENEUA
039	Coos Bay	17	COOS BAY-NORTH BEND UA
041	Cornelius	57	PORTLAND UA
042	Corvallis	19	CORVALLIS UA
045	Creswell	22	CRESWELL UA
043	Cottage Grove	21	COTTAGE GROVE UA
047	Dallas	23	DALLAS UA
~~251~~	~~Damascus~~	27	PORTLAND UA
048	Dayton	43	McMINNVILLE UA
055	Dundee	49	NEWBERG UA
057	Durham	57	PORTLAND UA
058	Eagle Point	44	MEDFORD UA
064	Eugene	25	EUGENE UA
065	Fairview	57	PORTLAND UA
067	Florence	27	FLORENCE UA
068	Forest Grove	57	PORTLAND UA
073	Gearhart	69	SEASIDE UA
074	Gervais	85	WOODBURN UA
075	Gladstone	57	PORTLAND UA
078	Gold Hill	31	GRANTS PASS UA
080	Grants Pass	31	GRANTS PASS UA
083	Gresham	57	PORTLAND UA
087	Happy Valley	57	PORTLAND UA

Urban Area

(Continued)

City Code	City Name	UA Code	Urban Area
091	Hermiston	33	HERMISTON UA
092	Hillsboro	57	PORTLAND UA
094	Hood River	34	HOOD RIVER UA
095	Hubbard	85	WOODBURN UA
099	Independence	47	MONMTH-INDPNDNCE UA
102	Island City	37	LA GRANDE UA
103	Jacksonville	44	MEDFORD UA
106	Johnson City	57	PORTLAND UA
109	Junction City	36	JUNCTION CITY UA
110	Keizer	67	SALEM UA
111	King City	57	PORTLAND UA
112	Klamath Falls	35	KLAMATH FALLS UA
114	La Grande	37	LA GRANDE UA
113	Lafayette	43	McMINNVILLE UA
115	Lake Oswego	57	PORTLAND UA
118	Lebanon	39	LEBANON UA
120	Lincoln City	41	LINCOLN CITY UA
127	Madras	42	MADRAS UA
131	Maywood Park	57	PORTLAND UA
126	McMinnville	43	McMINNVILLE UA
132	Medford	44	MEDFORD UA
134	Metolius	42	MADRAS UA
136	Millersburg	01	ALBANY UA
137	Milton-Freewater	45	MILTON-FREEWATER UA
138	Milwaukie	57	PORTLAND UA
140	Molalla	46	MOLALLA UA
141	Monmouth	47	MONMTH-INDPNDNCE UA
148	Myrtle Creek	48	TRI-CITY MYRTLE CREEK UA
151	Newberg	49	NEWBERG UA
152	Newport	51	NEWPORT UA
153	North Bend	17	COOS BAY-NORTH BEND UA
157	Oakland	77	SUTHERLIN UA
159	Ontario	53	ONTARIO UA
160	Oregon City	57	PORTLAND UA
162	Pendleton	55	PENDLETON UA
163	Philomath	19	CORVALLIS UA
164	Phoenix	44	MEDFORD UA
241-250	Portland	57	PORTLAND UA
171	Prineville	59	PRINEVILLE UA
172	Rainier	61	RAINIER UA
173	Redmond	63	REDMOND UA
176	Riddle	48	TRI-CITY MYRTLE CREEK UA
177	Rivergrove	57	PORTLAND UA

City Code	City Name	UA Code	Urban Area
179	Rogue River	31	GRANTS PASS UA
180	Roseburg	65	ROSEBURG UA
182	St. Helens	73	ST HELENS UA
184	Salem	67	SALEM UA
185	Sandy	68	SANDY UA
186	Scappoose	73	ST HELENS UA
189	Seaside	69	SEASIDE UA
193	Sheridan	70	SHERIDAN UA
194	Sherwood	57	PORTLAND UA
196	Silverton	71	SILVERTON UA
198	Sodaville	39	LEBANON UA
201	Stanfield	33	HERMISTON UA
202	Stayton	75	STAYTON UA
203	Sublimity	75	STAYTON UA
206	Sutherlin	77	SUTHERLIN UA
207	Sweet Home	79	SWEET HOME UA
208	Talent	44	MEDFORD UA
209	Tangent	01	ALBANY UA
210	The Dalles	81	THE DALLES UA
211	Tigard	57	PORTLAND UA
212	Tillamook	80	TILLAMOOK UA
214	Troutdale	57	PORTLAND UA
215	Tualatin	57	PORTLAND UA
216	Turner	67	SALEM UA
218	Umatilla	33	HERMISTON UA
222	Veneta	83	VENETA UA
226	Warrenton	05	ASTORIA UA
228	Waterloo	39	LEBANON UA
230	West Linn	57	PORTLAND UA
233	Willamina	70	SHERIDAN UA
234	Wilsonville	57	PORTLAND UA
235	Winston	65	ROSEBURG UA
236	Woodburn	85	WOODBURN UA
237	Wood Village	57	PORTLAND UA

The following urban areas were added or terminated as of the **2005** code year:

- Brookings UA
- Hood River UA
- Madras UA
- Molalla UA
- Sandy UA
- Ashland UA
- Wilsonville UA

The City of Ashland now falls inside the Medford FAUB.
The City of Wilsonville now falls inside the Portland FAUB

.

(Continued)

New urban areas effective for the **2015** code year are:

- Creswell UA
- Junction City UA
- Myrtle Creek UA

- Sheridan UA
- Tillamook UA
- Veneta UA

New urban areas effective in CDS as of the **2016** code year are:

- Grants Pass UA (extends beyond the Jackson County line, to the Medford UA border).
- Weiser UA

Validations:

Rule #	Rule Message	Severity
13	Combination of County, City Section and Urban Area not found on the cross-reference table	Red/Severe
14	Urban Area value was not found, or is not valid as of the crash date	Red/Severe
15	Combination of County and Urban Area is not valid in the cross-reference table	Red/Severe
16	Combination of [first code field] and [second code field] not valid in the [cross-reference table name] cross-reference table	Red/Severe
17	Urban Area value entered doesn't match urban area value for this highway / milepoint for this year	Yellow/Warning
95	Urban Area value indicates urban area but Functional Class value indicates rural area	Red/Severe
96	Urban Area value indicates rural area but Functional Class value indicates urban area	Red/Severe
153	Combination of [first code field] and [second code field] not valid in the [cross-reference table name] cross-reference table	Red/Severe

Functional Classification

Table: CRASH   **Column:** FC_CD   **Data Type:** char   **Length:** 2

Code	Description - State	Code	Description – Non-State
01	Rural Interstate		N/A
02	Rural Other Principal Arterial	02	Rural Other Principal Arterial
06	Rural Minor Arterial	06	Rural Minor Arterial
07	Rural Major Collector	07	Rural Major Collector
08	Rural Minor Collector	08	Rural Minor Collector
09	Rural Local	09	Rural Local
11	Urban Interstate		N/A
12	Urban Other Freeways and Expressways	12	Urban Other Freeways and Expressways
14	Urban Other Principal Arterial	14	Urban Other Principal Arterial
16	Urban Minor Arterial	16	Urban Minor Arterial
17	Urban Collector	17	Urban Major Collector
	N/A	18	Urban Minor Collector
19	Urban Local	19	Urban Local

Description:

Functional Classification categorizes highways and local roads by similar characteristics of mobility and/or land access, based on federal standards. This classification technique recognizes that individual roads and streets are dependent upon each other.

Instructions:

Roads that occur inside a Federal Urban Area Transportation Boundary (FAUB) are considered "urban". All others are considered rural, even in areas with populations greater than 5,000. It is extremely important to *determine the actual crash location, and assign the crash to a particular road*, before coding this and all other roadway elements.

Effective for 2014 coding, **grade-separated ramps** carry the **higher** functional classification of the roads they connect to.

Figure 4. Grade Separated Ramps

Grade-separated ramps carry the higher of the Functional Classifications they connect to.

(RICS Unit 8/28/2015)

Functional Class for ramp 162AA = Interstate because it connects to I-5
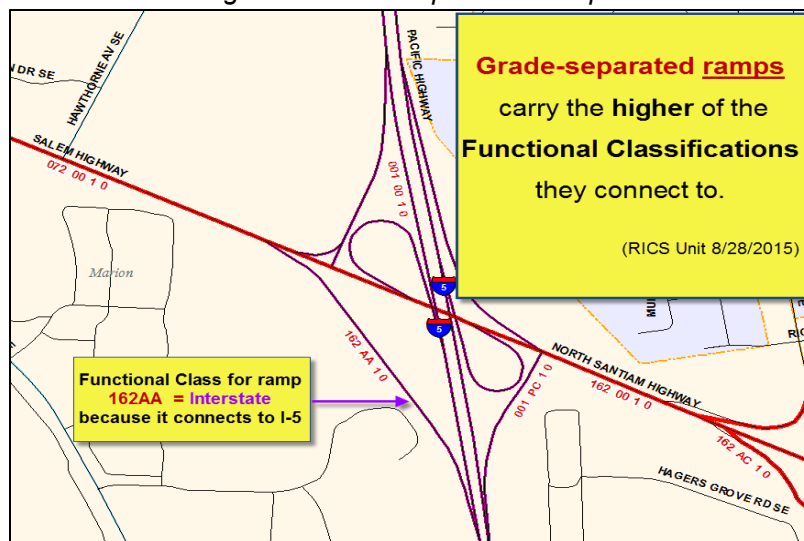
(Continued)

Coding Functional Class for "Local Roads"

Effective for 2022 coding, Crash Techs manually enter the CDS functional class code for local roads. Local roads are not functionally classed; therefore, no local road data exists for the CLT to pass to the CDS functional class field.

Instead, **the CLT loads a single '0'** to the CDS Functional Class field when a local road is selected, as **a placeholder** to alert the Crash Tech to code this field. **Replace the '0'** with the correct CDS functional class code for the local road, based on the local jurisdiction:

County *	24 ▼
City	184 ▼
Urban Area	67 ▼
Functional Class *	0 ▼
NHS? *	0
Highway Number	▼
Roadway Number	▼

Coding Functional Class for Intersectional Crashes

For crashes that occur *in the center* of an intersection (quadrants 1 – 4), **always** code the highest functional classification that exists at the intersection, *even if the vehicles are not traveling on the road that carries the highest functional class*.

For "intersectional crashes" that occur **outside the center** of the intersection (i.e., in zones 5 and 6), **and for all non-intersectional crashes,** assign the crash to the roadway on which the first harmful event (impact) occurred, and code Functional Class accordingly.

Figure 5. Intersectional "Inside"   *Figure 6. Intersectional "Outside"*
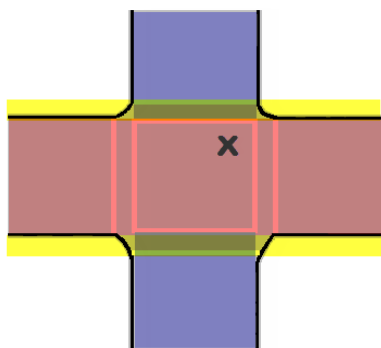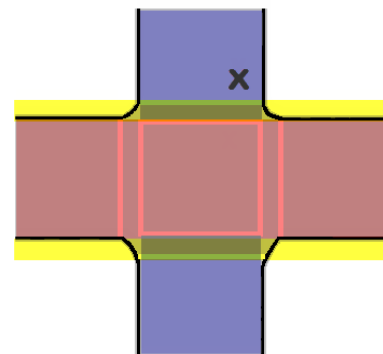
Intersectional Crash inside
Center of Intersection

Code NHS as '1'
Code FC as '02'

NHS = yellow bar
Rural Principal Arterial (FC 02) = red
Rural Minor Arterial   (FC 06) = blue

Intersectional Crash outside
Center of Intersection

Code NHS as '0'
Code FC as '06'

NHS = yellow bar
Rural Principal Arterial (FC 02) = red
Rural Minor Arterial   (FC 06) = blue

(Continued)

For crashes that occur inside the intersection of two state highways with equal classification, assign the crash to the highway that carries the highest priority (usually the highway with the lowest state highway index number). Refer to the "**Highway Intersectional Priority List**" under the instructions for the Highway Number field, to see which highways take priority at intersectional crashes.

- Enter Code **09** for rural local roads *outside* an Urban Area
- Enter Code **19** for local roads *inside* an Urban Area

If you leave the 0 in the Functional Class field and attempt to save the crash, the system will remind you with an error - because 0 isn't an allowable code for functional class.

Classifications

Federal functional classifications define how roadways are intended to operate or function in moving traffic through the state

Arterials provide mobility, typically carrying high traffic volumes on a continuous network with no stub routes but provide very little direct land access. A stub route occurs when a roadway classification stops midway through the road. Arterials must connect from roadway to roadway.

Collectors provide both mobility and land access gathering trips from localized areas and feed them onto the arterial network.**Locals** provide land access. Local roads are lower traffic volume roadways that provide direct land access but are not designed to serve through traffic needs.

Urban Classifications:

Urban principal arterials (including interstates and other types of freeways) focus on mobility by serving trips through urban areas and long distance trips between traffic generators within an urban area.

Urban minor arterials focus on mobility but serve shorter trips between traffic generators within urban areas.

Urban collectors focus on mobility and land access by serving both intra-urban and local trips that take travelers to arterials.

Local Streets focus on land access rather than through trips and include all other public roads.

Rural Classifications:

Rural principal arterials (including rural interstates) focus on statewide and interstate mobility, and typically include the Interstate System and other rural freeways that serve longer distance high-volume corridors.

Functional Classification

Continued

Rural minor arterials also focus on mobility but typically link smaller cities and towns and other statewide traffic generators, such as resorts that are not served by principal arterials.

Rural major collectors link county seats and communities not served by arterials but have an intra-county rather than statewide focus.

Rural minor collectors collect traffic from local roads and smaller communities.
Local roads focus on land access and relatively short trips and include all other public roads.

Validations:

Rule #	Rule Message	Severity
18	Functional Class is null (field required)	Red/Severe
19	Functional Class not in lookup table or not valid as of crash date	Red/Severe
20	Functional Class value entered doesn't match functional class value for this highway / milepoint for this year ITIS	Red/Severe
95	Urban Area value indicates urban area but Functional Class value indicates rural area	Red/Severe
96	Urban Area value indicates rural area but Functional Class value indicates urban area	Red/Severe

NHS

Table: CRASH   **Column:** NHS_FLG   **Data Type:** bit   **Length:** not null

Code	Description
0	No
1	Yes

Description:

NHS indicates whether the highway on which the crash occurred is part of the National Highway System. Prior to the federal surface transportation reauthorization law "MAP-21", only certain state highways and intermodal connectors were included in the National Highway System. MAP-21 expanded the NHS to include many high-volume local roads. The CAR Unit began collecting NHS values for those roads in the 2013 crash file.

NHS is depicted as a yellow border along the road linework in the CLT.

Figure 7. NHS Graphic

State & local road NHS highlighted in yellow.
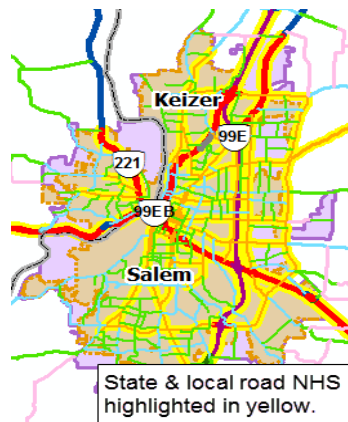
Instructions:

Code "0" is used for crashes that occur on portions of roadway that have **not** been designated as part of the National Highway System.

Code "1" is used for crashes that occur on portions of roadway that **have** been designated as part of the National Highway System.

Coding NHS for Intersectional Crashes
For crashes that occur **in the center** of the intersection (**quadrants 1 – 4**), code NHS according to the **highest functional classification** that exists **at the intersection**, *even if the vehicles are not traveling on the road that carries NHS*.

For intersectional crashes that occur **outside the center** of the intersection **(zones 5 and 6)**, code NHS based on the roadway on which the first harmful event (impact) occurred.

See images next page

Figure 8. Intersectional "Inside"   *Figure 9. Intersectional "Outside"*
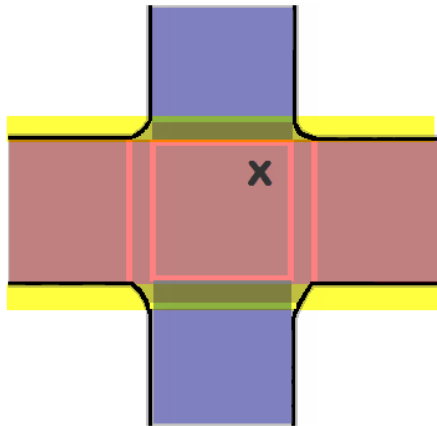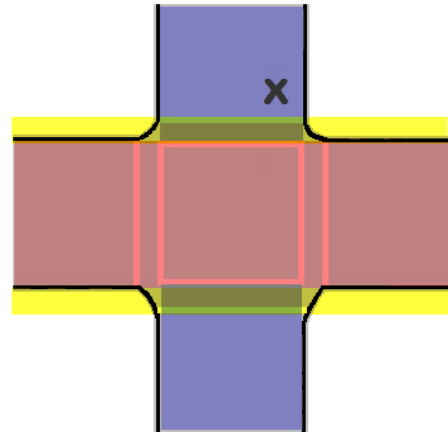
**Intersectional Crash <u>inside</u>
Center of Intersection**

Code NHS as '1'
Code FC as '02'

NHS = yellow bar
Rural Principal Arterial (FC 02) = red
Rural Minor Arterial   (FC 06) = blue

**Intersectional Crash <u>outside</u>
Center of Intersection**

Code NHS as '0'
Code FC as '06'

NHS = yellow bar
Rural Principal Arterial (FC 02) = red
Rural Minor Arterial   (FC 06) = blue

<u>Validations:</u>

Rule #	Rule Message	Severity
22	NHS value entered doesn't match NHS value for this highway/milepoint for this year in ITIS	Yellow/Warning
183	NHS should = 1 for "mainline" Interstate Freeways	Yellow/Warning
184	NHS should = 1 for "mainline" Non-Interstate Freeways	Yellow/Warning

Highway Number

Table: CRASH   Column: HWY_NO   Data Type: char   Length: 3

Code	Description	Code	Description	Code	Description
Blank	Not on Highway System	050	Klamath Falls-Malin	161	Woodburn-Estacada
001	Pacific	051	Wilsonville-Hubbard	162	North Santiam
002	Columbia River	052	Heppner	163	Silver Creek Falls
003	Oswego	053	Warm Springs	164	Jefferson
004	The Dalles - California	054	Umatilla-Stanfield	171	Clackamas
005	John Day	058	Albany-Junction City	172	Eagle Creek-Sandy
006	Old Oregon Trail	060	Rogue River	173	Timberline
007	Central Oregon	061	Stadium Freeway	174	Clackamas-Boring
008	Oregon-Washington	062	Florence-Eugene	180	Eddyville-Blodgett
009	Oregon Coast	063	Rogue Valley	181	Siletz
010	Wallowa Lake	064	East Portland Freeway	189	Dallas-Rickreall
011	Enterprise-Lewiston	066	La Grande-Baker	191	Kings Valley
012	Baker-Copperfield	067	Pendleton	193	Independence
014	Crooked River	068	Cascade Highway North	194	Monmouth
015	McKenzie	069	Belt Line	200	Territorial
016	Santiam	070	McNary	201	Alsea-Deadwood
017	McKenzie-Bend	071	Whitney	210	Corvallis-Lebanon
018	Willamette	072	Salem	211	Albany-Lyons
019	Fremont	075	Sunrise Expressway	212	Halsey-Sweet Home
020	Klamath Falls-Lakeview	081	Pacific Highway East	215	Clear Lake-Belknap
021	Green Springs	091	Pacific Highway West	222	Springfield-Creswell
022	Crater Lake	092	Lower Columbia River	225	McVay
023	Dairy-Bonanza	100	Historic Columbia River	226	Goshen-Divide
025	Redwood	102	Nehalem	227	Eugene-Springfield
026	Mt. Hood	103	Fishhawk Falls	228	Springfield
027	Alsea	104	Fort Stevens	229	Mapleton-Junction City
028	Pendleton-John Day	105	Warrenton-Astoria	231	Elkton-Sutherlin
029	Tualatin Valley	110	Mist-Clatskanie	233	West Diamond Lake
030	Willamina-Salem	120	Swift	234	Oakland-Shady
031	Albany-Corvallis	123	Northeast Portland	240	Cape Arago
032	Three Rivers	127	Cornelius Pass	241	Coos River
033	Corvallis-Newport	130	Little Nestucca	242	Powers
035	Coos Bay-Roseburg	131	Netarts	244	Coquille-Bandon
036	Pendleton-Cold Springs	132	Delta	250	Cape Blanco
037	Wilson River	138	North Umpqua	251	Port Orford
038	Oregon Caves	140	Hillsboro-Silverton	255	Carpenterville
039	Salmon River	141	Beaverton-Tualatin	260	Rogue River Loop
040	Beaverton-Hillsdale	142	Farmington	270	Lake of the Woods
041	Ochoco	143	Scholls	271	Sams Valley
042	Sherman	144	Beaverton-Tigard	272	Jacksonville
043	Monmouth-Independence	150	Salem-Dayton	273	Siskiyou
044	Wapinitia	151	Yamhill-Newberg	281	Hood River
045	Umpqua	153	Bellevue-Hopewell	282	Odell
046	Necanicum	154	Lafayette	290	Sherars Bridge
047	Sunset	155	Amity-Dayton	291	Shaniko-Fossil
048	John Day-Burns	157	Willamina-Sheridan	292	Mosier-The Dalles
049	Lakeview-Burns	160	Cascade Highway	293	Antelope

Code	Description	Code	Description	Code	Description
300	Wasco-Heppner	372	Century Drive	453	Adrian-Arena Valley
301	Celilo-Wasco	380	Paulina	454	Adrian-Caldwell
320	Lexington-Echo	390	Service Creek-Mitchell	455	Olds Ferry-Ontario
321	Heppner-Spray	402	Kimberly-Long Creek	456	I.O.N.
330	Weston-Elgin	410	Sumpter	457	Snake River Corr. Inst.
331	Umatilla Mission	413	Halfway-Cornucopia	481	Baker-Copperfield Spur
332	Sunnyside-Umapine	414	Pine Creek	482	Redwood Spur
333	Hermiston	415	Dooley Mountain	483	McMinnville Spur
334	Athena-Holdman	420	Midland	485	Fort Stevens Spur
335	Havana-Helix	422	Chiloquin	486	Gold Hill Spur
339	Freewater	424	South Klamath Falls	487	Celilo-Wasco Spur
340	Medical Springs	426	Hatfield	488	Chiloquin Spur
341	Ukiah-Hilgard	429	Crescent Lake	489	Parma Spur
342	Cove	431	Warner	490	Homedale Spur
350	Little Sheep Creek	440	Frenchglen	491	Weiser Spur
351	Joseph-Wallowa Lake	442	Steens	492	Payette Spur
360	Madras-Prineville	449	Huntington	493	Ontario Spur
361	Culver	450	Succor Creek		
370	O'Neil	451	Vale-West		

Description:

Highway Number represents ODOT's *original administrative number* assigned to a state highway. ODOT's inventory system existed before the Interstate highway system was built. A **state highway** is defined as:

> *"…a land-based public way designated by the Oregon Transportation Commission as a highway for the purpose of vehicular travel. The State of Oregon commonly has, but may not have, all right, title, interest, jurisdiction, maintenance and control of the entire area within the highway right-of-way."*

Instructions:

Code this field only for crashes that occur on the state highway system. *Leave this field blank for all other crashes*.

Note: ODOT Highway Numbers *do not* always match the signed **Route Number** that is physically posted on the roadside. The Route Number is a political designation for certain travel routes and may continue across state lines. Highway numbers and Route numbers may be assigned to the same segment of road.

The Highway Number matches the state highway inventory number, with these three exceptions:

Highway Number	State Highway Index Number	Highway Name	Route Number
1E	081	Pacific Highway East	OR 99E
1W	091	Pacific Highway West	OR 99W
2W	092	Lower Columbia River Highway	US 30

(Continued)

Highway System Intersectional Crash Coding Priority

Use the following order of priority for coding crashes at the intersection of two or more highways, *when the collision occurs as vehicles are entering or exiting the intersection:*

1) **At the intersection of two or more highways**, code the highway with the smallest index number along with its corresponding milepoint. (The exceptions to this rule are listed below on the "Highway Intersectional Priority List")

2) **At the intersection of a mainline highway and a connection or frontage road**, code the mainline highway if it is being exited or entered (used)

3) **At the intersection of two connections**, code the connection that continues through the intersection

4) **At the intersection of a frontage road and a connection**, code the connection if it is being entered or exited (used)

5) **At the intersection of a city street and a highway**, code the highway if it is being entered or exited (used)

6) **At the intersection of a connection and a city street**, code the connection if it is being entered or exited (used)

7) **At the intersection of a frontage road and a city street**, code the frontage road if it is being entered or exited (used)

8) **At the intersection of a county road and any of the above highway component types**, follow the same rule

Figure 10. Highway Intersectional Priority List
Exceptions to the rule for ranking highways by number. Revised 05/21/2007

Local Area	Less Important	Code More Important Hwy
Albany	16	58
Necanicum Junction	46	47
Parkrose	59	123
Pendleton	36	67
Philomath	27	33
Portland SW	3	26
Prineville	14	41
Progress	141	144
Progress	143	144
Sisters	15	16
Sylvan	29	47
Tillamook Junction	37	47
Vale	5	7
Valley Junction	32	39
Wallace Bridge	30	39
Warm Springs Junction	44	53

Highway Number

(Continued)

Validations:

Rule #	Rule Message	Severity
17	Urban area value entered doesn't match urban area value for this highway / milepoint for this year in ITIS	Yellow/Warning
20	Functional Class value entered doesn't match functional class value for this highway / milepoint for this year in ITIS	Yellow/Warning
22	NHS value entered doesn't match NHS value for this highway / milepoint for this year in ITIS	Yellow/Warning
23	Highway Number value entered must be in the Highway History lookup table where the entry is valid as of the crash date	Red/Severe
24	County value entered doesn't match County value for this highway / milepoint for this year in ITIS	Yellow/Warning
26	Roadway Number must be null when the Highway Number is null	Red/Severe
28	Highway Component Code must be null when the Highway Number is null	Red/Severe
30	Mileage Type Code must be null when the Highway Number is null	Red/Severe
31	Mileage Type value entered doesn't match Mileage Type value for this highway / milepoint for this year in ITIS	Yellow/Warning
43	When Impact Location Code > 04 and Highway No. is null and City ID is not null and Number of turn Legs is null or 0, then Direction from Intersection must be < 9	Red/Severe
63	When Highway Number is entered, Impact Location Code must be a numeric value <=14	Red/Severe
64	When Highway Number is not entered but City Identifier is entered, Impact Location code must be a numeric value <=9	Red/Severe
65	When not on a highway and not in a city, and not at an intersection with turning legs, Impact Location code must be <=7	Red/Severe
101	City value entered doesn't match City value for this highway / milepoint for this year in ITIS	Yellow/Warning
130	Milepoint value not valid for the specified Highway in the specified Crash Year	Red/Severe
134	When not on a highway and not in a city, and not at an intersection with turning legs, Impact Location code must be <=7	Red/Severe
135	When not on a highway and not in a city, but it is at an intersection with turning legs, Impact Location Code must be <=9	Red/Severe
136	Either a Highway, Street or Recreational Road must be specified	Red/Severe
142	A different Highway in Common Alignment has a higher priority	Red/Severe
173	Intersecting Street must not be Unknown ('00000') if crash occurs on a highway outside city limits	Red/Severe
1026	Milepoint must be null when Highway Number is null and crash occurred inside city limits	Red/Severe

Roadway Number

Table: CRASH   **Column:** RDWY_NO   **Data Type:** char   **Length:** 1

Code	Description
Blank	Not on state highway system
1	Undivided highway, or add-mileage alignment of divided hwy *(except I-5 SBD = "non-add" mileage)*
2	Non-add mileage alignment of a divided highway or couplet *(except I-5 NBD = "add" mileage)*
5	Mileage on alignment not yet built or mileage on a non-state owned roadway and considered "located". *(Use for interpreting Roadway Code 5 from the AML. Not used for crash coding.)*

Description:

Roadway Number is a one-digit code used in conjunction with the Highway Number to make highway milepoints unique. Identifies the "add" or "non-add" mileage side of a divided highway..

Instructions:

Code this field for crashes that occur on the state highway system only, including crashes that occur on connections and frontage roads. *Leave this field blank for all other crashes*.

Code 1 is used when a crash occurs on an undivided highway, or on the "**add**" (increasing) mileage side of a divided highway or **couplet**.

Exception: **Interstate 5 southbound** lanes are designated **Roadway 1**, even though the southbound lanes carry "**non-add**" mileage. The northbound "add" mileage side is designated as Roadway 2.

Code 2 is used when a crash occurs:
- On the "non-add" (decreasing) mileage side of a divided highway or couplet
- **On the non-add side of a frontage road**. *(Effective 2007)*

Figure 11. Example of Roadway Number When Milepoints Increase to the North
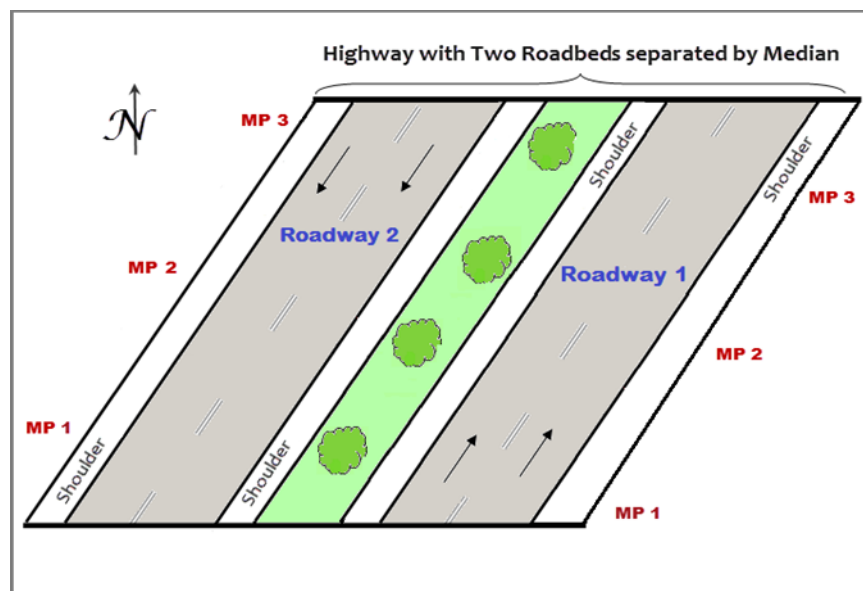
Code "5" is used in the AMLs for land areas that have a surveyed alignment where a road is **intended** to be built. No paved surface exists yet so we don't code crashes in those areas. The mileage is considered "located", and is *neither "add" nor "non-add"*.

The diagram below represents major parts of a trafficway. Definitions follow. A working knowledge of these definitions is required to place a crash properly in relation to the road.

Figure 12. Trafficway
Source: Model Minimum Uniform Crash Criteria, 5ᵗʰ Edition,
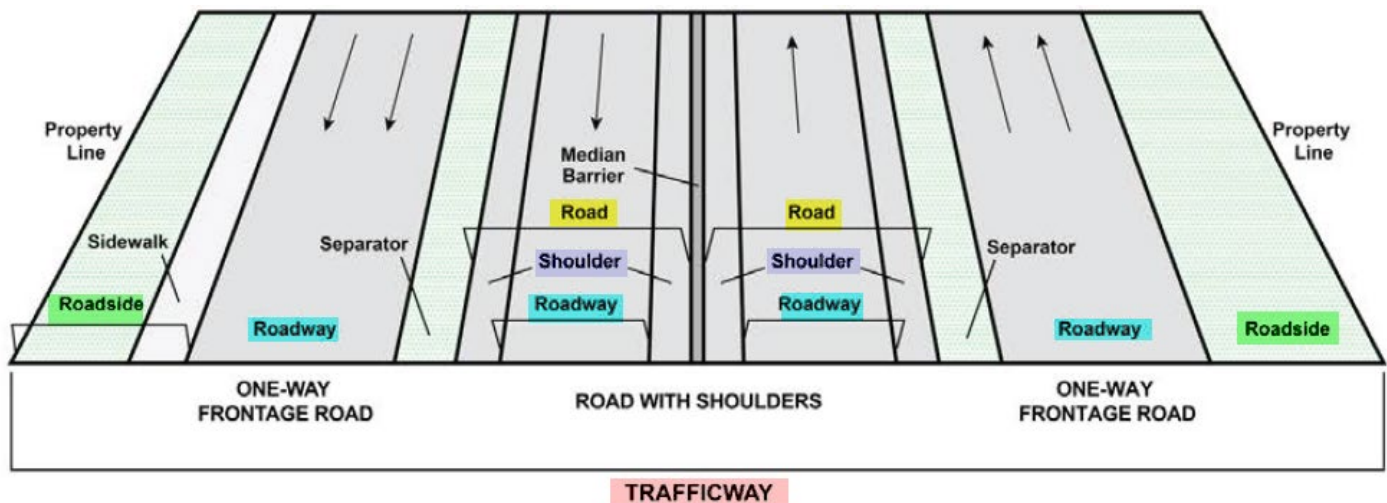
Definitions:

Add-Mileage applies to milepoints have *increasing* values in the direction of travel. The direction of increasing milepoints is used for mileage summarization.

Non-Add Mileage applies to milepoints whose values *decrease* in the direction of travel. Non-add mileage is not included in highway mileage summarization, except for the non-add mileage that extends beyond the start and/or end of the "add-mileage" roadway.

A **road** is the section within a trafficway that's comprised of both the **roadway** and the **shoulder**(s) alongside the roadway. Multiple "roads" may exist within the trafficway right-of-way. Refer to ANSI D16 definition 2.2.33

Roadway is the part of the road designed, improved, and ordinarily used for vehicular travel. The boundary lines are the lateral limits of the traffic lanes. Parking lanes and shoulders are not part of the roadway. A parking lane ceases to exist and is considered a traffic lane when parking along a street is prohibited. Refer to ANSI D16.1 definition 2.2.2

Roadside is the off-road property that exists on both sides of the trafficway, from the property line inward to the edge of the road. Refer to ANSI D16.1 definition 2.2.31

Roadway Number

A "**shoulder**" is the part of the road that exists between the traveled portion of the road (the roadway) and the road edge. It can be paved or unpaved. Refer to ANSI D16.1 definition 2.2.32

A "**trafficway**" is a "land way" that is open to the public by right or custom that exists for the purpose of moving people or property from one place to another. Refer to ANSI D16.1 definition 2.2.1

Validations:

Rule #	Rule Message	Severity
25	Roadway Number value entered must be in the Roadway lookup table where the entry is valid	Red/Severe
26	Roadway Number must be null when the Highway Number is null	Red/Severe
102	Roadway Number is required when Highway Number is entered	Red/Severe

Highway Component

EDW

Table: CRASH   **Column:** HWY_COMPNT_CD   **Data Type:** char   **Length:** 1

Code	Description
Blank	Not on state highway system
0	Mainline state highway - regular
1	Mainline state highway - **Couplet**; use for **both** "add" and "non-add" sides of the highway
3	Frontage road
6	Connection
8	*(placeholder – not in use)*

Description:

Highway Component is a one-digit code that describes the type of service the coded section of highway provides.

Instructions:

Code this field only for crashes that occur on the state highway system. *Leave this field blank for all other crashes.*

Code "0" is used when the crash occurs on the **mainline** _non-couplet_ segments of highway. This refers to all roadways for a highway, excluding connections and frontage roads. *(This is a slight difference from the way mainline is defined by ODOT, but is used for the purposes of crash coding).*

Code "1" is used when the crash occurs on mainline highway segments that form a **couplet**. Enter code 1 when a crash occurs on **either couplet roadway** (add- *or* non-add mileage). *See "Instructions for Coding Highway Couplets" below.*

Code "3" is used when the crash occurs on a **frontage road**. A frontage road is a road, secondary to and generally parallel to the mainline highway, providing service to abutting property and adjacent areas for control of access. A frontage road may or may not be connected to the highway it services.

   Examples of Frontage Roads include the:
   - Enchanted Way S.E. just south of Salem on the east side of I-5 (Pacific Hwy 1)
   - Sunnyside Road on the opposite side of I-5

Code "6" is used when the crash occurs on a **connection**. A connection is a street or road, open to vehicular travel, (often an off or on ramp) which joins a road from the state highway system to any other road, entity, or to another state-owned road. A connection is usually much shorter than a spur or frontage road.

Code "8" is a placeholder and has not yet been approved for use.

Instructions for Coding Highway Couplets

A couplet is composed of the two roadways of a divided highway. It routes the directions of travel onto two adjacent, approximately parallel roadways that are separated by accessible land uses (ex.: a city block). Each roadway has a different street name. The name may change as the highway winds through a city.

(Continued)

Couplets start at the intersection where Roadways 1 and 2 separate, and end at the intersection where the roadways rejoin. **Example:** Oregon Route 99E, Salem Highway 72:

- **Trade Street SE** carries eastbound traffic. It is the **add mileage** side of the couplet because milepoints increase in the direction of travel.

- **Ferry Street SE** carries traffic in the opposite direction (westbound) and is the reverse, **non-add mileage** side of the couplet. Milepoints increase eastbound, but vehicular travel is westbound.

Figure 13. Couplet Diagram
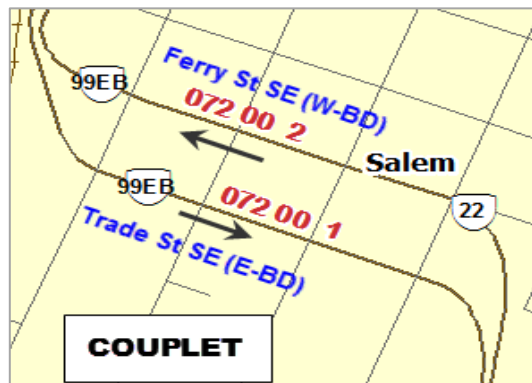
Other examples of state highway couplets include:
- Marion Street and Center Street Bridges in Salem (Willamina-Salem Highway 30)
- Vista Ridge Tunnels in SW Portland (Sunset Hwy 47)
- Dorion Ave and Court Ave (Pendleton Highway 67) is one of two couplets in Pendleton.

Couplet References: Open each of these references to the page showing the couplet you're coding:

- **Master Highway Diagram Book:** *Highway diagrams are available for complex couplets, and must be used in order to achieve accurate and consistent coding.*
- the **Highway System Set-up Book**
- the **Couplet Coding Reference**

1. **Highway Component**: Enter Code 1 (couplet) for crashes that occur anywhere along either couplet roadway; and for those that occur inside the couplet's beginning and ending intersections.

2. **Direction From Nearest Intersection:** Refer to the **Highway System Setup** for the city highway and milepoint you're coding. The **GEN HWY DIR** column shows the general <u>direction the highway milepoints increase</u>: S, N, E or W.

3. **Number of Lanes:** When coding highway couplets, limit the number of lanes to the roadway on which the crash occurred. *(This is the exception to the rule for coding all lanes of mainline highway.)*

4. **Median Type:** Usually this is coded '0' for couplets, but there are exceptions. The Hillsboro and Grants Pass couplets have sections with **two-way traffic on the same roadway,** separated by a barrier. Refer to the **AML** for the Number of Lanes and Median Type for such areas.

(Continued)

Figure 14. Couplet Location of Impact

5. **Location of Impact (LOI):** Use the LOI diagram for *the direction that milepoints increase*, per the AML's **GEN HWY DIR** column. In the example to the right:

   a. Milepoints increase from **West** to **East**.

   b. Number of Lanes = **02** and Median = **0** (roadways are separated by a city block)

      • If *Number of Lanes* = **02**, then *Location of Impact* **cannot** = 07 or 08.
      • If *Number of Lanes* = **03**, then *Location of Impact* **cannot** = 08.

   c. The LOI for the *right lane* of **Roadway 1** is **Code 03** (the direction the milepoints increase).

   d. The LOI code for the *right lane* of **Roadway 2** is **Code 04**.
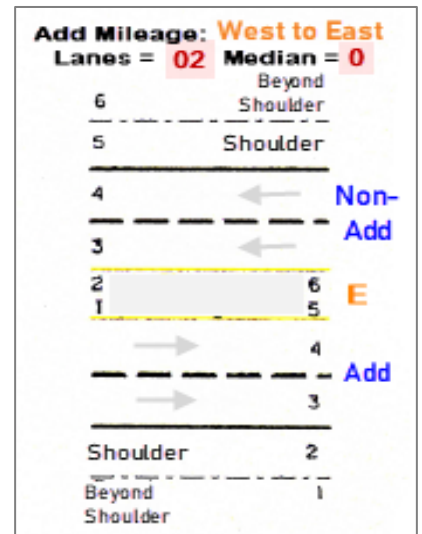
6. **Vehicle Directions of Travel:** Use the directions provided in the Intersection Set-Ups.

Other Highway Component Types

Figure 15. Other Highway Component Types

32
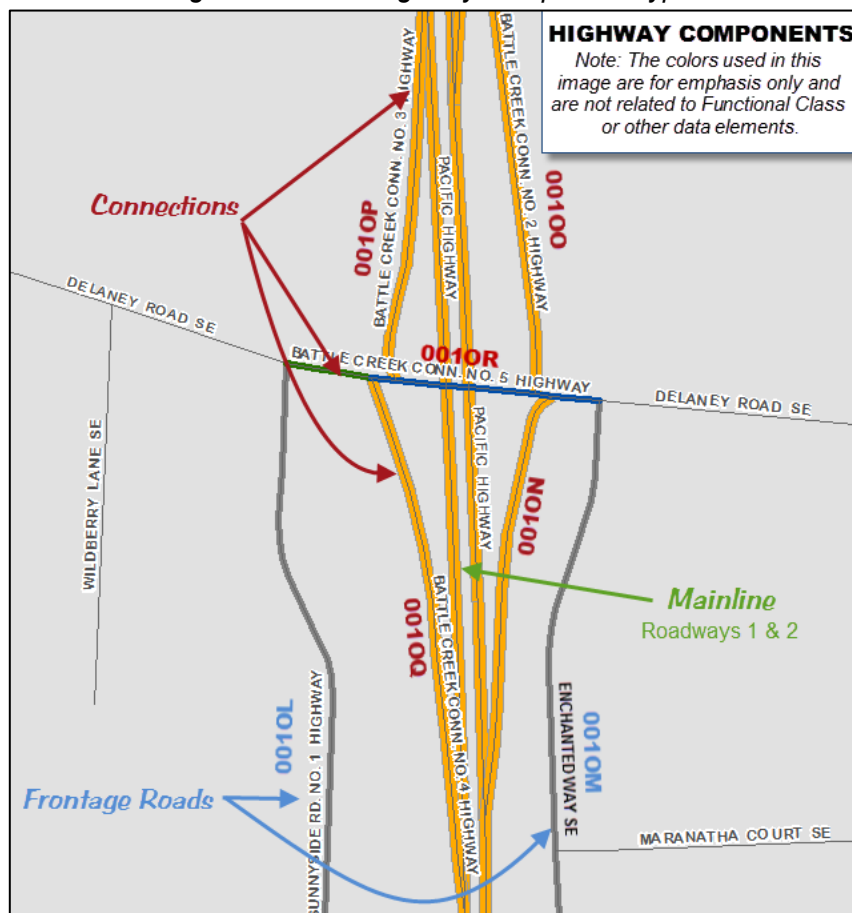
Validations:

Rule #	Rule Message	Severity
27	[code field value] was not found in [lookup table name] or is not valid as of the crash date	Red/Severe
28	Highway Component Code must be null when the Highway Number is null	Red/Severe
33	Highway Component must be 6 if a Road Connection value is specified	Red/Severe
103	Highway Component is required when Highway Number is entered	Red/Severe
138	When Highway Component = 6, the Connection Number must be entered, numeric, and must be > 0	Red/Severe
146	Highway Couplet begins or ends at this milepoint. Please confirm whether crash occurred on or off the couplet, and confirm Highway Component field value	Yellow/Warning

Mileage Type

Table: CRASH   **Column:** MLGE_TYPE_CD   **Data Type:** char   **Length:** 1

Code	Description
Blank	Not on State Highway System
0	Regular Mileage
~~T~~	~~Temporary Mileage~~ *(Terminated 2015)*
~~Y~~	~~Spur Mileage~~ *(Terminated 2010)*
Z	Overlapping

Description:

Mileage Type is used to make milepoints unique in areas where there are multiple occurrences of the same milepoint on a single highway.

Instructions:

Code this field only for crashes that occur on the state highway system. *Leave this field blank for all other crashes.*

Code "0" is used for **Regular Mileage** – Regular mileage represents mileage that does not fall within any of the categories listed below. The majority of the highway system is regular mileage.

Figure 16. Original Highway Alignment (regular mileage)
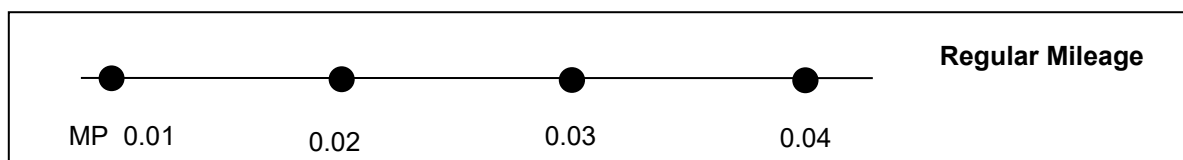
Code "Z" is used for **Overlapping Mileage.** Overlapping (i.e. "Z") Mileage is comprised of duplicate milepoints used on a new length of roadway constructed within a segment of road that already has existing milepoints. This occurs when a highway is lengthened anywhere between its beginning and ending milepoints.

Figure 17. Realigned Highway Showing Regular mileage and Overlapping "Z" mileage
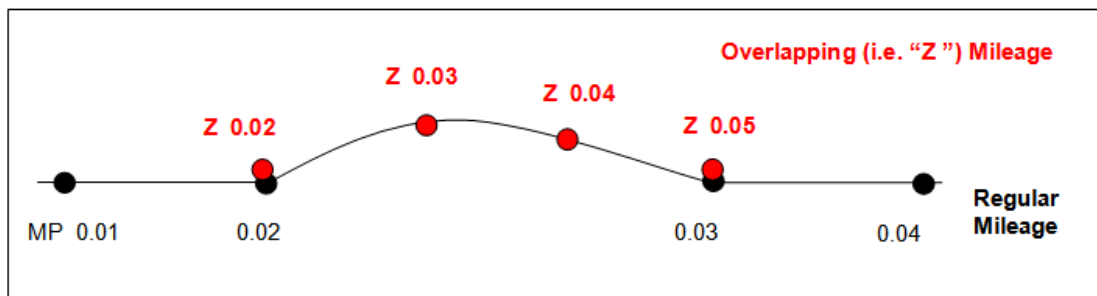
(Continued)

The TransInfo database assigns an "**Overlapping Mileage Code**" to every section of Z mileage that occurs on a highway. The Overlapping Mileage Code is a sequential number that is assigned when reconstruction changes the original highway alignment. This field is not captured in the Crash Data System, except where the code exists as the 9th character of the LRS: i.e. **0001001Z2S00**.

In the TransInfo Highway Inventory and the AML, the first instance of "Z" mileage is assigned Overlapping Mileage Code "1". Subsequent instances of overlapping mileage on the same highway are assigned the next higher number. Gaps in numbers mean the area of the highway that had the missing overlapping mileage code was shortened through realignment, or ownership of the highway segment was transferred to the county or city.

Figure 18. Overlapping Mileage Codes
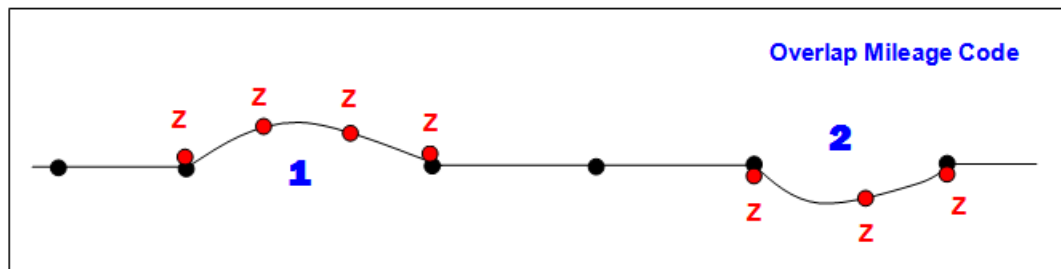
Validations:

Rule #	Rule Message	Severity
29	[code field value] was not found in [lookup table name] or is not valid as of the crash date	Red/Severe
30	Mileage Type Code must be null when the Highway Number is null	Red/Severe
31	Mileage Type value entered doesn't match Mileage Type value for this highway / milepoint for this year in ITIS	Yellow/Warning
104	Mileage Type Code is required when Highway Number is entered	Red/Severe

Connection Number

Table: CRASH   **Column:** RD_CON_NO   **Data Type:** char   **Length:** 1

Code	Description
Blank	Not a ramp or connection on state highway system
1-9	Actual ramp or connection number

Description:

Connection Number is a one-digit code that identifies an on-ramp, off-ramp, over-crossing, or under-crossing road within an interchange. A connection is a street or road, open to vehicular travel, that joins a road from the state highway system to any other road or entity. A connection is usually shorter than a spur or frontage road.

Instructions:

Code this field for crashes that occur on a State Highway connection. *Leave this field blank for all other crashes.*

A Connection Number is assigned to every connection that occurs within an interchange. Connection numbering **re-starts at "1"** for each additional highway. This means more than one connection in an interchange can have the same Connection Number. To distinguish between them, note thehighway number and alphabetic code combination (the connection label) shown in the CLT or the AML.

Refer to the streets database, system setups, CAR Unit diagram, or AML to locate the Connection Number if it's not available via the CLT.

Figure 19. Examples from Automated Milepoint Log (AML)

Validations:

Rule #	Rule Message	Severity
32	When entered, [field name] must be numeric	Red/Severe
33	Highway Component must be 6 if a Road Connection value is specified	Red/Severe
138	When Highway Component = 6, the Connection Number must be entered, numeric, and > 0	Red/Severe

LRS

Table: CRASH   **Column:** LRS_VAL   **Data Type:** varchar   **Length:** 20

Code	Description
Blank	Road is not on the State Highway System
varies	Concatenation of multiple highway segment identifiers and HPMS values; see below

LRS Code String:

Always Zero	Hwy No.	Conn. ID (incl. FR)	Rdwy No.	Mileage Type Code	Overlap Code	Jurisdiction (S = State)	HPMS No. (always 00)	Final LRS
0	091	00	1	0	0	S	00	009100100S00
0	091	AB	1	0	0	S	00	0091AB100S00
0	091	00	1	Z	3	S	00	0091001Z3S00

Description:

The Linear Reference System (LRS) code is comprised of eight TransInfo data elements strung together to identify a unique highway segment. Linear reference systems provide a means of identifying the location of highway features by a relative measure (i.e. the milepoint). In GIS applications, the LRS, together with the milepoint, is used to dynamically snap crashes to a point on a map, in lieu of using spatial coordinates.

Instructions:

Code this field for crashes that occur on State Highways. *Leave this field blank for all othercrashes.*

The LRS value is harvested from the CLT, for known crash locations. When the segment on which the crash occurred is known, but the exact milepoint isn't known, the crash tech manually enters the LRS by stringing together the values of eight different TransInfo fields, as shown in the :LRS Code String grid, above.

There are 12 positions in the state highway LRS. Each one must be entered, including zeros.

A table that explains how to build the LRS is provided on the following page.

The LRS field was added to the Crash Data System as of the 2009 code year. LRS values were loaded retroactively for crash years 2007 and 2008.

LRS

(Continued)

LRS Position	Field Name	Field Description	Sample 1 Mainline	Sample 2 Connection	Sample 3 Z Mileage
1	Zero	Always enter a zero in the 1st position of the LRS	0	0	0
2 - 4	Highway Number	Enter the 3-digit highway number	091	091	091
5 – 6	Connection or Frontage Road ID	Enter zeros for mainline highway. For connections or frontage roads, enter the two-character alphabetic identifier shown in interchange diagram, the CLT or the AML	00	AB	00
7	Roadway Number	Enter the roadway number (1 or 2)	1	1	1
8	Mileage Type Code	Enter the mileage type code (PFX 1 in the AMLs)	0	0	Z
9	Overlap Code	Enter the "overlap code" for Z mileage (PFX 2 in the AMLs, 1 - 9)	0	0	3
10	Jurisdiction	Enter S for State	S	S	S
11 – 12	HPMS No.	No longer used. Enter zeros	00	00	00

Validations:

Rule #	Rule Message	Severity
138	When Highway Component = 6, the Connection Number must be entered, numeric, and must be > 0	Yellow/Warning
139	Warning - the LRS value is not blank. Please check value entered. (For crashes coded prior to 2009.)	Yellow/Warning
1023	Length of LRS value is incorrect. Must be 12 characters	Red/Severe
A01	When Highway Component indicates a mainline or couplet, the 5th and 6th characters of the LRS must = '00'	Red/Severe
A02	When Highway Component indicates a frontage road or connection, the 5th and 6th characters of the LRS must not = '00'	Red/Severe
A04	When Highway Number is not null, the 2nd thru 4th characters of the LRS must match the Highway Number	Red/Severe
A05	The 7th thru character of the LRS must match the Roadway Number	Red/Severe
A06	LRS must be null if Highway Number is null	Red/Severe

Latitude

EDW

Degrees Minutes Seconds (DMS) format

Table: CRASH	**Column:** LAT_DEG_NO	**Data Type:** int	**Precision:** 10
Table: CRASH	**Column:** LAT_MINUTE_NO	**Data Type:** int	**Precision:** 10
Table: CRASH	**Column:** LAT_SEC_NO	**Data Type:** decimal	**Precision:** (9/7)

Code	Description
41 to 46	Latitude Degrees
0 to 59	Latitude Minutes
0.00 to 59.99	Latitude Seconds

Decimal Degrees (DD) format

Table: CRASH	**Column:** LAT_DD	**Data Type:** decimal	**Precision:** (18/15)

Code	Description
41 to 46.999999999999999	Latitude Decimal Degrees

Description:

Latitude is the angular distance of a point on the earth, north or south of the equator. Latitude (and Longitude) make up the spatial coordinates that specify the crash's geographical location on Earth.

"Degrees/Minutes/Seconds" (DMS) is the original format used to collect spatial data in the Crash Data System. CDS transitioned to using Decimal Degree (DD) format, as of the 2019 crash code year but retains both formats.

Instructions:

Latitude is usually imported from the Crash Locator Tool (CLT), but it can be entered manually into the Data Entry screen. The value is entered as degrees, minutes, and seconds. Each are entered into the 3 cells of the Latitude field.

Figure 20. Latitude
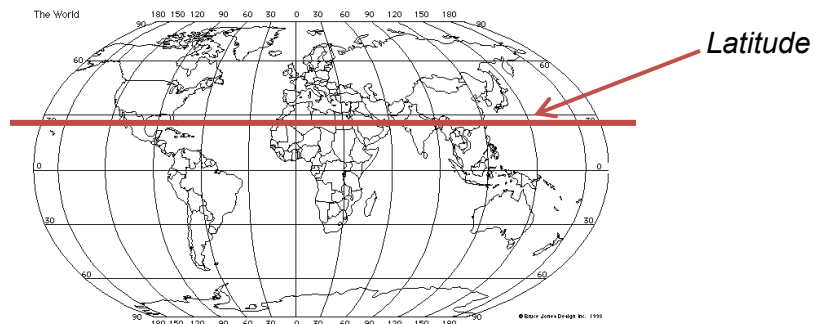
The maximum value for Latitude **"seconds"** is **59.99**. *If the CLT imports a value of 60.00 in the "seconds" field, follow these steps to correct it*:

1) Increase the "*minutes*" value by 1
2) Change the "*seconds*" value to "0.00"

For example, if the CLT imports this Latitude: 45 33 60.00 change it to: 45 **34** 0.00

Latitude

(Continued)

Latitude values are available for crash years 2007 and later.

Validations:

Rule #	Rule Message	Severity
105	When entered, Latitude Degrees must be a whole number between 41 and 47, inclusive	Red/Severe
106	When entered, Latitude Minutes must be a whole number between 0 and 59, inclusive	Red/Severe
107	When entered, Latitude Seconds must be a numeric value between 0.00 and 59.99, inclusive	Red/Severe
125	Latitude Minutes must be null when Latitude Degrees is null	Red/Severe
126	Latitude Seconds must be null when Latitude Degrees is null	Red/Severe
164	Latitude Minutes must be entered when Latitude Degrees is entered	Red/Severe
165	Latitude Seconds must be entered when Latitude Degrees is entered	Red/Severe

Longitude

EDW

Degrees Minutes Seconds (DMS) format

Table: CRASH	**Column:** LONGTD_DEG_NO	**Data Type:** int	**Precision:** 10
Table: CRASH	**Column:** LONGTD_MINUTE_NO	**Data Type:** int	**Precision:** 10
Table: CRASH	**Column:** LONGTD_SEC_NO	**Data Type:** decimal	**Precision:** 9

Code	Description
-116 to -124	Longitude Degrees
0 to 59	Longitude Minutes
0.00 to 59.99	Longitude Seconds

Decimal Degrees (DD) format

| **Table:** CRASH | **Column:** LONGTD_DD | **Data Type:** decimal | **Precision:** (18/15) |

Code	Description
-116 to -124.999999999999999	Longitude Decimal Degrees

Description:

"Longitude" is the angular distance of a point's meridian (an imaginary line between the earth's poles that crosses the equator at right angles), east or west of the prime meridian at Greenwich, England.

"Degrees/Minutes/Seconds" (DMS) is the original format used to collect spatial data in the Crash Data System. CDS transitioned to using Decimal Degree (DD) format, as of the 2019 crash code year but retains both formats.

Instructions:

Longitude is usually imported from the CLT, but it can be entered manually into the Entry screen. The value is entered as degrees, minutes, and seconds. Each are entered into the 3 cells of the Longitude field.

Figure 21. Longitude
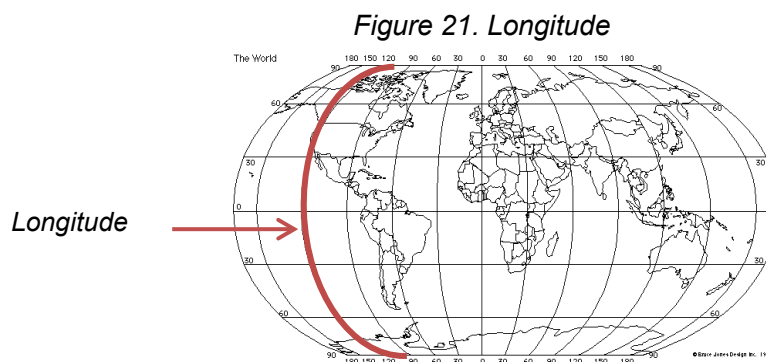
The maximum value for **"seconds"** is 59.99. *If the CLT imports a value of 60.00 in the "seconds" field, follow these steps to correct it:*

1) Increase the "minutes" value by 1
2) Change the "seconds" value to "0.00"

For example, if the CLT imports this Longitude: -122 53 60.00, change it to: -122 **54** 0.00

Longitude

(Continued)

Longitude value are available for crash years 2007 and later.

Validations:

Rule #	Rule Message	Severity
108	When entered, Longitude Degrees must be a whole number between 124 and 117, inclusive or between -124 and -117, inclusive	Red/Severe
109	When entered, Longitude Minutes must be a whole number between 0 and 59, inclusive	Red/Severe
110	When entered, Longitude Seconds must be a numeric value between 0.00 and 59.99, inclusive	Red/Severe
127	Longitude Minutes must be null when Longitude Degrees is null	Red/Severe
128	Longitude Seconds must be null when Longitude Degrees is null	Red/Severe
166	Longitude Minutes must be entered when Longitude Degrees is entered	Red/Severe
167	Longitude Seconds must be entered when Longitude Degrees is entered	Red/Severe

Unlocatable Crash Flag

EDW

Table: CRASH   **Column:** UNLOCT_FLG   **Data Type:** bit   **Length:** not null

Code	Description
0	No
1	Yes

Description:

The Unlocatable Flag is used to spatially display crashes at default locations within the municipal jurisdiction they're known to have occurred, but for which the crash location can't be determined. Data for this field is available for year 2007 and later.

Setting the Unlocatable Flag will load default spatial coordinates into the Latitude and Longitude fields. These default coordinates represent a dummy point that is **off the road network**, but **still within the local jurisdiction** where the crash occurred.

Instructions:

Make every attempt to determine a <u>known</u> location for the crash. Ask the Code Team Lead if you're unfamiliar with the rule for snapping a crash to a mid-street location, when a crash occurred *between two known* <u>city streets</u>, but the precise distance is unknown.

Use a default "unlocatable crash" point when insufficient information exists to identify the crash location. Set an Unlocatable Crash Flag when coding:

- Crashes that occur on a *state highway* or *milepointed county road* at an unknown milepoint.

- Crashes on city streets or *non*-milepointed county roads for which the nearest intersecting street is unknown

- Crashes on city streets or <u>*non-milepointed*</u> county roads where the distance and/or direction from the nearest intersection street is unknown or can't be reasonably determined.

- Some cities & urban areas cross county boundaries. *Be sure to select the City or Urban Area that matches the <u>county</u> in which the crash occurred.*

  See the following page for detailed instructions on how to set the Unlocatable Crash Flag.

Code 0 (No) indicates the crash is at a *known* location (i.e.,it is not "unlocatable").

  As of the 2022 code year: If linework is missing for a road that's open to travel and the road is clearly visible via aerial imagery, use the CLT's "Off OrTrans Mode" Off-OrTrans Mode to snap the crash point to the road. *This is the only allowable use of "Off-OrTrans Mode".* See the instructions in the CLT User Guide v3.3.2, final page.

Code 1 (Yes) indicates the crash location cannot be determined (i.e., it is "unlocatable"). Either:

- The crash report didn't provide enough information to identify the incident location, or

- Linework didn't exist on the "Or-Trans" road network used for geocoding crash points when the crash was entered into CDS. This rule applies to crashes prior to 2022.

How to set the Unlocatable Crash Flag

Click the **Place Unlocatable Crash** button on the bottom right of the application window. This button is available when you begin a new crash data collection session.

When the Unlocatable Crash form opens, select the City, Urban Area or County from the respective dropdown.

Unlocatable City

1. If the crash occurred <u>inside city limits</u>, click the **"Select Unlocatable City" option** (1st priority).

   a. For **Cities that cross county lines,** a second dialog box opens, listing the counties in which the City occurs.

      1) Review all crash materials to verify the county the crash occurred in.

      2) Click the desired County.

      3) The tool will:
         - zoom to the default latitude and longitude assigned to your city,
         - set a crash point at Zoom Level 1, then
         - zoom back out to Level 8, to allow you to view the area.

      This allows you to verify you've selected the correct default unlocatable crash point (DUP) for the: city or city section (Portland), urban area, or county.

   b. For Portland City Sections, select the appropriate **City** and **County** combination.

Unlocatable Urban Area

2. **Select Unlocatable Urban Area** (2nd priority)

   Use this option for unlocatable crashes that occurred **outside** city limits, **but inside** the urban boundary.

   For urban areas that <u>cross county lines</u>, select the appropriate **Urban Area** and **County** combination.

Figure 22. Place Unlocatable Crash

Figure 23. Place Unlocatable City

Figure 24. Place Unlocatable Urban Area

44

Unlocatable County

3. **Select Unlocatable County** (3ʳᵈ priority)

Only use this option for unlocatable crashes that are both _outside city limits_ **and** _outside urban boundaries_.

Figure 25. Place Unlocatable County

When you've selected the desired jurisdiction, the map will *center and zoom* on the default Latitude and Longitude assigned to that jurisdiction.

The CLT Crash Information form will display the following information:

- The jurisdiction you selected for the unlocatable crash, and

- The latitude & longitude values for the jurisdiction.

Click the **Submit** button to send the data to CDS.

4. **Change Unlocatable Crash Location** (or change any other location loaded to the CLT Crash form)

If you loaded a crash location, *haven't submitted yet,* and want to change it, click the **Clear Location** button. This resets the screen so you can start fresh to search a new location or select a new unlocatable crash option.

This also resets the **Place Unlocatable Crash** button, which will be visible on the bottom right corner of the screen.

Special Jurisdiction
(For crashes that occur on Recreational or Other Roads)

Table: CRASH   **Column:** SPECL_JRSDCT_ID   **Data Type:** char   **Length:** 2

Code	Description	Code	Description
Blank	No Special Jurisdiction (default)	**54**	**Klamath National Forest**
40	Deschutes National Forest	59	Crater Lake National Park
41	Fremont National Forest	60	Any BLM Road
42	Malheur National Forest	70	Any State Park Road
43	Mt. Hood National Forest	71	Any State Forest Service Road
44	Ochoco National Forest	80	Burns Reservation
45	Rogue River National Forest	81	Fort McDermitt Reservation
46	Siskiyou National Forest	82	Grand Ronde Reservation
47	Siuslaw National Forest	83	Siletz Reservation
48	Umatilla National Forest	84	Umatilla Reservation
49	Umpqua National Forest	85	Warm Springs Reservation
50	Wallowa-Whitman National Forest	97	Other Federal Jurisdiction
51	Willamette National Forest	98	Other Non-Federal Jurisdiction
52	Winema National Forest	99	Unknown Jurisdiction

Description:

Special Jurisdiction is used for crashes that occur on roads that are open to the public, but under the authority of an agency other than an incorporated city, county, or ODOT.

Examples of special jurisdictions are:

- National Forest Service
- National Park Service
- Bureau of Land Management (BLM)
- State Forest Service
- State Park Service
- Reservations – (Native American Tribal Lands)
- Miscellaneous non-county roads

Instructions:

Code this field only for roads that belong to an agency other than the State, County, or City transportation department. Do not code it for crashes that occur on State Highways, County Roads, or City Streets that run *through* a Special Jurisdiction, but don't belong to that jurisdiction.

Enter the Special Jurisdiction code that corresponds to the area in which the crash occurred.
When a value is entered in Special Jurisdiction, the data entry system enables the following fields:

- Jurisdiction Group (this code is automatically supplied by data entry system)
- Recreational / Other Road Number (modified Street Number field)
- Intersecting Recreational / Other Road Number (modified "Nearest Intersecting Street Number" field)

Coding Recreational and Other Roads

Location coding for Recreational and Other Roads follows the same rules as Non-Milepointed county road coding. (See instructions under Street Number, "Recreational / Other Road"). Some recreational roads have no official or available number, and can be difficult to locate on a map. Code the location as accurately as the information available in the crash report and references allow. Use the CLT to collect a coordinate value, or to set the unlocatable flag if necessary.

If the crash occurred in one of the following jurisdictions, use the two-letter prefix listed below, at the start of the road value. This rule is appropriate for both fields: **"Recreational Road Number"** and **"Nearest Intersecting Recreational Road Number".**

- NF (National Forest); i.e. NF70
- BL (BLM); i.e. BL3-14-06
- NP (National Park); i.e. NP2401
- SF (State Forest); i.e. SF317
- SP (State Park); i.e. SP2401
- CR (miscellaneous non-county road)

*Do **not** insert leading zeros or spaces.*

If a milepoint is referred to on the report, enter it into the Milepoint field.

When a number is not available for a road, but a road name has been given, spell out the name as completely as possible within the 15 alphanumeric spaces allowed in the data entry program. Otherwise, use an abbreviated form of the road name. Consult with the code leader to determine what abbreviation should be used.

If the location cannot be found on a map, enter the road name described in the report, and code Functional Classification as a local road. Reference the crash from the closest road described in the crash reports.

Note: *Prior to the 2003 code year, recreational / other road crashes were entered into a separate database, called the Recreational Crash Program, which has been archived by the CAR Unit.*

Validations:

Rule #	Rule Message	Severity
34	[code field value] was not found in [lookup table name] or is not valid as of the crash date	Red/Severe
137	When not on a highway and not in a city, but it is at an intersection with turning legs, Impact Location Code must be <=9	Red/Severe

Jurisdiction Group
(For Special Jurisdictions)

Table: JRSDCT_GRP   **Column:** JRSDCT_GRP_CD   **Data Type:** char   **Length:** 1

Code	Description
Blank	No Special Jurisdiction
1	National Forest
2	State Forest
3	National Park
4	State Park
5	Bureau of Land Management
6	Reservation - (Native American Tribal Lands)
7	Other Federal Jurisdiction
8	Other Type Jurisdiction (non-federal land)
9	Unknown Jurisdiction

Description:

Jurisdiction Group is a one-digit system-generated value that classifies Special Jurisdictions by type.

Instructions:

The code and description are automatically loaded by the Crash Data System based on the value that was entered into the Special Jurisdiction field. A shortened version of the descriptions listed above will automatically appear in the data entry screen.

This field is only populated for crashes that occur on roads classified as "special jurisdiction". *For all other crashes, this field will remain blank.*

Validations:

Rule #	Rule Message	Severity
34	[code field value] was not found in [lookup table name] or is not valid as of the crash date	Red/Severe
137	Combination of [first code field] and [second code field] not valid in the [cross-reference table name] cross-reference table	Red/Severe

Street Number (First Street)

Table: CRASH **Column:** AGY_ST_NO **Data Type:** char **Length:** 7
Table: CRASH **Column:** RECRE_RD_NM **Data Type:** varchar **Length:** 15

Code	Description
Blank	Crash occurred on a State highway outside city limits
xxxxxxx	Varies depending on the jurisdiction of the road being coded

Description:

The Street Number field length and coding instructions vary, depending on the local government and road jurisdiction for the crash, and if the crash location is **"intersectional"**. Street Number codes are found in the Set-up Books, the CDS Streets database, or County Road log books.

Instructions:

Code Street Number for all crashes, except those on state highways outside city limits.
Never enter "00000" in the Street Number field.

For **non-intersectional** crashes, the value entered in the Street Number field represents the road on which the crash occurred.

For **intersectional** crashes involving **city streets** or **non-milepointed county roads**, enter the **smallest** street number of the two roads being coded. This practice simplifies coding and avoids complex hierarchical rules.

These sections explain how to code Street Number for each jurisdiction:

1. City Streets and State Highways inside City Limits
   - Portland Bridges
   - Complicated Diagrams & Zones (Portland only; crashes coded prior to 2012)
   - Cul-de-sacs

2. State Highways
   - Inside city limits
   - Outside city limits

3. County Roads
   - Non-milepointed
   - Milepointed

4. Recreational / Other Roads

---

1. City Streets and State Highways Inside City Limits:
Street Number codes for roads inside cities are 5 characters in length, and include leading zeros when necessary.

Crashes in this jurisdiction require entries in both the "first" Street Number field and the "second" Street Number field (Nearest Intersecting Street Number).

For **intersectional** crashes inside cities, enter the **smaller** of the two street numbers into the 1st Street Number field.

Street Number codes for city streets are available from the Non-System Set-up Books. Street Number codes for state highways inside city streets are available from the System Set-up Book. Use the codes provided for all fields represented in the Set-ups.

Portland Bridges that cross the Willamette River:

Code Willamette River bridges in the City of Portland according to the "Willamette River Bridge" supplement (i.e. Portland Bridges notebook). There are 10 bridges included in the supplement.

  a) Enter "250" (Portland Bridges) into the City field
  b) Look up the street number code for the **bridge** and enter it into the "Street Number" field
  c) Follow the "Willamette River Bridge" supplement instructions for how to code the Nearest Intersecting Street Number for this bridge

Portland Complicate Zone/Diagrams:

Using Complicate Zone/Diagrams to set up new Portland intersections was discontinued in 2012, though many older set-ups have not yet been converted. Use these instructions to interpret those setups and decode historic data.

The City of Portland provided zone diagrams to the CAR Unit for coding complicated intersections inside their city. These locations were assigned a "Diagram" number and were partitioned into separate "Zones". The "Diagram" number (which was the larger of the two numbers) was entered into the "Street Number" field. The "Zone" number was entered into the Nearest Intersecting Street Number field. Contact the City of Portland for historic diagrams.

Street Numbers for Multiple Cul-de-sacs that are Named the Same:

Some jurisdictions, such as the City of Springfield, allow multiple cul-de-sacs to be built intersecting a main road, all named the same. This represents a problem when we have to assign street numbers to cul-de-sacs, because our streets database doesn't allow two streets in the same jurisdiction to be named the same. Therefore, we must create and reference a diagram when coding and decoding the cul-de-sacs. Crash Data Technicians will consult with the Code Team Leader for instructions on creating a cul-de-sac diagram.

The Crash Data Technician will select a cross street at the southern or westernmost part of the area as a fixed reference point. Each cul-de-sac will be labeled Cul 1, Cul 2, Cul 3, etc. based on the number of cul-de-sacs present, with 1 being the first cul-de-sac to the North or East of the reference point. It is important to add a cultural reference, such as a gas station or historic landmark, to the diagram that will not change to assist in the identification of new cul-de-sacs added after the initial set up of this area.

If additional cul-de-sacs are added between existing cul-de-sacs at a later time, label them with a decimal (i.e. 1.5 will fall between cul-de-sac 1 and 2, etc.). If a new cul-de-sac is added to the South or West of the original reference point, label them with negatives. Cul -1, Cul -2, Cul -3 etc.

(See images on next page.)

Figure 26. Cul de sac, Example 1 – Lawnridge Ave. in Springfield, Oregon

.
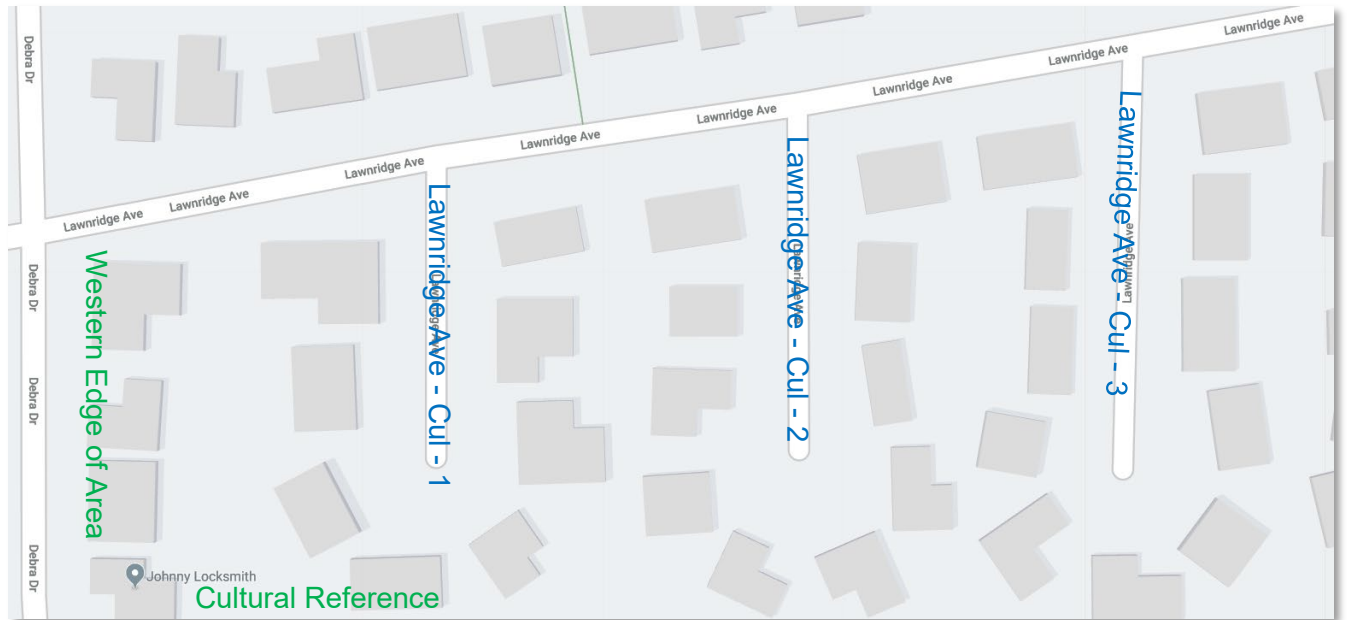
Figure 27. Cul de sac, Example 2 - 6th Street in Springfield
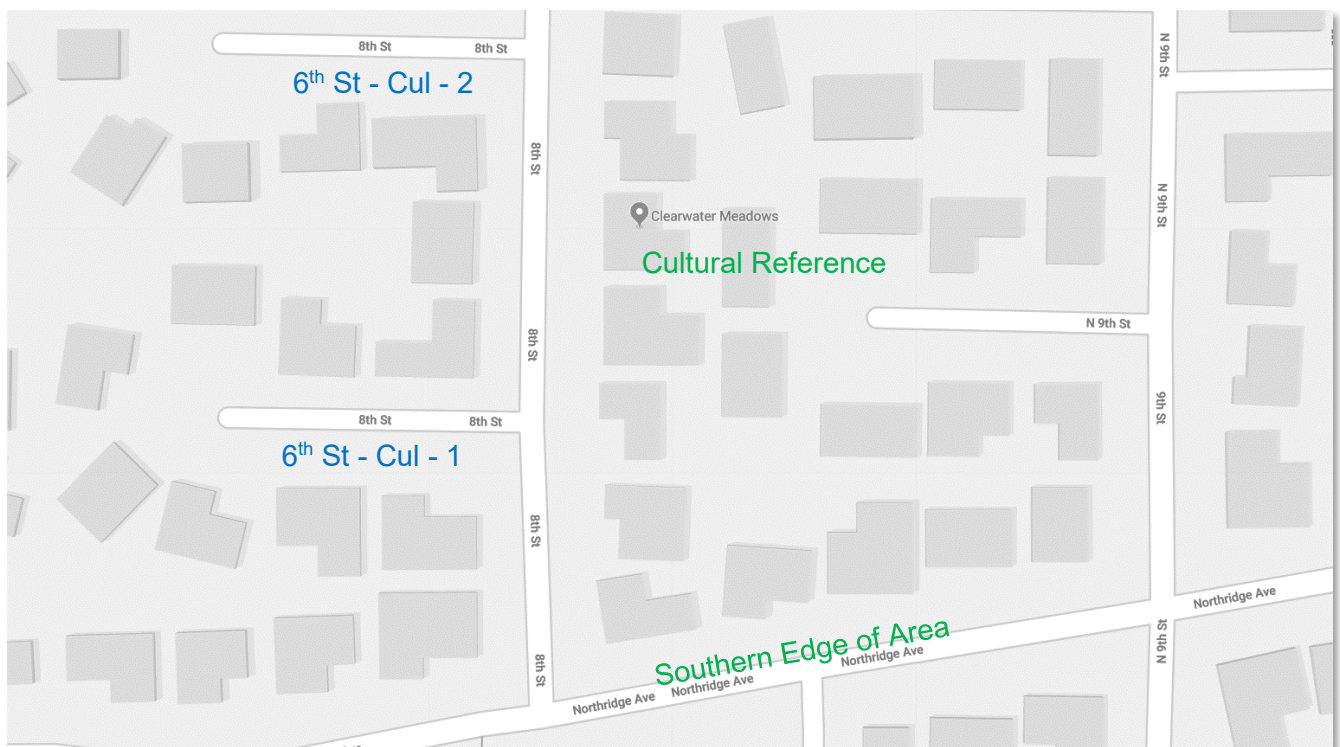
2. State Highways Outside City Limits

For crashes on state highways **inside** city limits, follow the instructions for City Streets. *Leave the 1st Street Number field blank for crashes that occur on state highways **outside** city limits.*

3. County Roads

For crash coding purposes, the term "**county road**" refers to a **non-state road that is outside city limits.** "County road" is not designated by maintenance jurisdiction or urban boundary in our system.

When both the **City** and **Highway Number** fields are blank, the Crash Data Entry System recognizes that a County Road or Special Jurisdiction Road will be entered into the **Street Number** field. The data entry system automatically lengthens the **Street Number** field to **seven characters**. This enables us to code the full Public Road Inventory (PRI) number, which may be six characters long; and allows us to code an "**alphabetic tie-breaker**" in the 7th position, for situations where two county roads carry the same PRI number.

Enter leading zeros for numbers taken from the County Road Log books, to make the code at least 5 characters in length.

Rules for coding county roads in the Street Number field depends on whether or not the road is milepointed.

"Non-milepointed" County Roads

Non-milepointed county roads are coded similarly to city streets. Don't code milepoints for county roads in these three counties:
- Deschutes
- Multnomah
- Washington

Do code:
- Street and Nearest Intersecting Street fields
- Distance from Intersection *(Use hundredths of a mile per the conversion chart.)*
- Direction from Nearest Intersection.

Look up the road number in the Streets database or in the Non-System Set-up Book, and enter the number **exactly as shown**. If no number is available, submit a new intersection "set-up" request involving the desired road.

For **intersectional** crashes on "non-milepointed" county roads, enter the **smaller** of the two street numbers into the 1st Street Number field.

"Milepointed" County Roads

For intersectional crashes on <u>milepointed</u> county roads, enter the lowest number of the two roads being used and its corresponding milepoint in the Milepoint field.

For non-intersectional crashes on milepointed county roads, code the "on" street and its milepoint. Do not code a second street.

Look up the number in the Streets database, and check the County Road Log to verify as needed. Enter leading zeros as needed.

If no number is available from the County Road Log, check the Streets database for an alphabetic abbreviation as the assigned number. Otherwise, submit a request for a new street "set-up", and propose an alphabetic abbreviation for the street number that is **six** characters or less.

Coding Milepointed County Roads that extend beyond the Official County Log road end

When you reach the end of the milepointed county road in the county log book, as seen below, and the crash occurred beyond the ending milepoint, code the crash as if it occurred on a "non-milepointed" county road. *Do not extend the milepoints by converting the distance into a milepoint.* The end milepoint provided in the County Road Log book serves as the end milepoint for the road

1) Measure the distance from the Log book's end milepoint point
2) Use the Distance From conversion chart to convert the distance to 100ths/mp
3) Enter street numbers to both the Street and the Nearest Intersecting Street fields

Example:

1st Street = 00537
2nd Street = 00891
Dist from Intersection = #### (100ths milepoint conversion)
Dir from Intersection = 1

Figure 28. County Road Log

Lane County Roads

As of code year 2022, use standard "milepointed" county road coding for Lane "county roads". The instructions below are retained to aid in interpreting historic crash data.

Lane "county road" numbers have always been six digits long, with a dash separating the last two digits from the first four. Ex: **7911-00**

But our legacy system limited the the street field to five characters. So, prior to 2009, only the first four digits of the Lane County road number were entered, along with a leading zero. This made the street code 5 digits long. The dash and final 2 digits were omitted. **Ex: 07911**

As of 2009, the full number is coded, but the dash is still omitted. **Ex: 791100**

---

4. Recreational and Other Roads

The Street Number field changes to "Recreational Road Name" when a value is entered into the "Special Jurisdiction" field. The field length for Recreational Road is expanded to 15 characters.

Refer to the "Special Jurisdiction" field for instructions on how to code Recreational Road Name and Intersecting Recreational Road Name.

Validations:

Rule #	Rule Message	Severity
36	First street number must be less than the intersecting street number	Yellow/Warning
136	Either a Highway, Street or Recreational Road must be specified	Red/Severe
149, 181, 182	First Street must not be blank or 00000 for crashes that occur within city limits	Red/Severe
150	First Street must not be blank or 00000 for crashes that occur within city limits	Red/Severe
151, 152, 159, 160	First Street must not be blank or 00000 for non-system crashes that occur outside city limits	Red/Severe
154	When entered, Street Number must be five digits (if City is not null)	Red/Severe
157	[code field value] was not found in [lookup table name] or is not valid as of the crash date	Red/Severe
161	[code field value] was not found in [lookup table name] or is not valid as of the crash date	Red/Severe
163	Combination of Street Number and Intersecting Street Number not found in cross reference table	Red/Severe
168	When entered, Street Number must be between five and seven digits inclusive for crashes occurring outside city limits	Red/Severe
170	When entered, Street Number must be between five and seven digits inclusive for crashes occurring outside city limits	Red/Severe
2004	AGY_ST_NO was not found in the ST table for this jurisdiction or is not valid as of the crash date.	Red/Severe

Nearest Intersecting Street Number (Second Street)

EDW

| **Table:** CRASH | **Column:** ISECT_AGY_ST_NO | **Data Type:** char | **Length:** 7 |
| **Table:** CRASH | **Column:** ISECT_RECRE_RD_NO | **Data Type:** varchar | **Length:** 15 |

Code	Description
Blank	Crash occurred on a State Highway outside city limits, or on a milepointed County Road
00000	Street not found
xxxxxxx	Up to 7 characters, depending on the jurisdiction of the road being coded *(Can be up to 15 characters for Special Jurisdiction road)*

Description:

The "Nearest Intersecting Street" is the road closest to the one entered in the "Street Number" field, belonging to the same jurisdiction, and preferably on the same side of the road. This is always true when coding physically divided state highways such as Interstate 5.

For roads that are not physically divided, it is permissible to enter the nearest intersecting street from the other side of the road. See the illustrations below for examples.

Figure 29. Divided Highway

Example 1

Figure 30. Undivided Highway
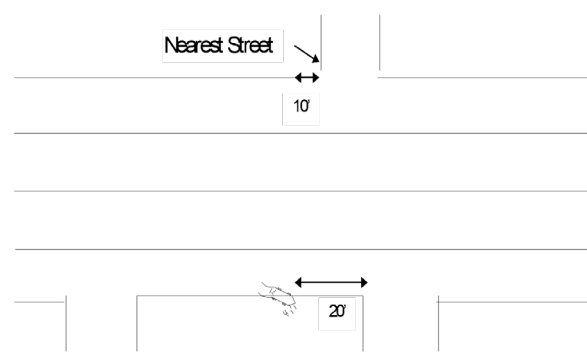
Example 2

Instructions:

For **Intersectional** crashes, enter the **larger** of the two street codes in the 2nd Street Number field for crashes that occur on city streets, state highways **inside** city limits, and non-milepointed county roads.

When no intersecting road exists within the same jurisdiction, it is permissible to code the nearest cross-street from a neighboring jurisdiction. Enter REF in the "Diag" field of the Intersection Set-up.

Leave this field blank for crashes that occurred on:

- state highways **outside** of city limits
- **milepointed** county roads

City Streets (2nd Street Number)
Crashes that occur inside city limits require a code in both the 1st Street Number and the 2nd Street Number fields.

(Continued)

For **intersectional** crashes within city limits (including intersections of a city street and a state highway), code the **larger** of the two street codes in the **2nd Street Number** field.

Enter "00000" in this field when there is insufficient information available from the crash report for you to identify the nearest intersecting street. (Only use this code when absolutely necessary, because it limits the value of the data.)

State Highways (2nd Street Number)

When an **intersectional** crash occurs **inside city limits** and is coded to state highway jurisdiction, the rule for coding the **larger** street number in the **2nd Street Number** field still applies. If the state highway's street number is the larger number, enter it in the 2nd Street Number field.

Outside city limits, when the **1st Street Number** is a *non-milepointed county road,* and the **2nd Street Number** coded is a *state highway, frontage road, or connection*, create a composite code to represent the state highway or highway component. Enter the alphabetic prefix listed below in the first two positions of this field. Enter the State Highway Index Number in the next 3 positions of the field.

- OH – to represent a mainline highway, as in OH026
- OF – to represent a frontage road, as in OF026
- OC – to represent a ramp or connection, as in OC026

*Leave both the 1st and 2nd Street Number fields blank for state highway crashes that occurred **outside city limits**.*

Non-Milepointed County Roads (2nd Street Number)

For Deschutes, Multnomah, and Washington County roads, follow the same instructions as for City Streets.

Enter **"00000"** in this field when there is insufficient information available from the crash report for you to identify the nearest intersecting street. (Only use this code when absolutely necessary, because it limits the value of the data.)

Milepointed County Roads (2nd Street Number)

For milepointed county roads, only the 1st Street Number field is coded. *The 2nd Street Number field is not coded.*

If no county road number or milepoint is available from the County Log Books, code the crash as if it occurred on a non-milepointed county road. See team lead for further instructions.

For *intersectional* crashes on milepointed county roads, enter the **larger** of the two street codes in the 2nd Street Number field.

Lane County Roads

As of code year 2022, <u>use standard "milepointed county road" coding</u> for Lane County county roads.

Recreational and Other Roads

For crashes that occur in Special Jurisdictions, the Nearest Intersecting Street Number field changes to "Intersecting Recreational Road Name". The field length for Intersecting Recreational Road is expanded to 15 characters.

Refer to "Special Jurisdiction" for instructions on how to code Intersecting Recreational Road Name.

Validations:

Rule #	Rule Message	Severity
36	First street number must be less than the intersecting street number	Red/Severe
155	When entered, Street Number must be five digits	Red/Severe
156	Combination of [first code field] and [second code field] not valid in the [cross-reference table name] cross-reference table	Red/Severe
158	[code field value] was not found in [lookup table name] or is not valid as of the crash date	Red/Severe
162	[code field value] was not found in [lookup table name] or is not valid as of the crash date	Red/Severe
163	Combination of Street Number and Intersecting Street Number not found in cross reference table	Red/Severe
169	When entered, Intersecting Street Number must be between five and seven digits inclusive for crashes occurring outside city limits	Red/Severe
171	When entered, Intersecting Street Number must be between five and seven digits inclusive for crashes occurring outside city limits	Red/Severe
173	Intersecting Street must not be Unknown ("00000") if crash occurs on a highway outside city limits	Red/Severe
178	When City is not null and Highway is not null and milepoint is known, then Intersecting St # must not be null	Red/Severe
2003	Intersecting Street must not be null if the crash occurred inside city limits	Red/Severe

Intersection Sequence Number

Table: CRASH   **Column:** ISECT_SEQ_NO   **Data Type:** smallint   **Precision:** 5

Code	Description
Blank	Crash is Unlocatable
0	Non-intersectional crash
1 - 99	Sequential number assigned to the junction of two roads

Description:

The Intersection Sequence Number identifies which junction of the same two roads has been coded, for roads that intersect multiple times at different geographic locations; such as "loops", "circles", and for roads that intersect each other at two points greater than 50 feet apart.

Instructions:

Code this field for intersectional crashes inside city limits. The system automatically loads a default value of '**1**'. *This value must be verified, and changed when the same two streets intersect at different locations*. Refer to the Intersection Setups to find the correct Sequence Number for the location you intend to code.

Intersection sequence numbers are generally assigned in the order of occurrence, from **south** to **north** *(for north/south roads),* or **west** to **east** *(for east/west roads)*. When road construction adds an additional intersection, or eliminates one of two existing intersections for the same two roads, the resulting Sequence Number(s) may no longer follow the general rule (south to north, west to east).

City Streets and "Non-Milepointed" County Roads

Use Code 1 to indicate the **southernmost** junction for the through-street that runs north to south, or the **westernmost** junction for the through-street that runs east to west.

Use Code 2 to represent the ***next*** southernmost or westernmost intersection.. Continue numbering in this manner.

Figure 31. Intersection Sequence Number, Example Set 1
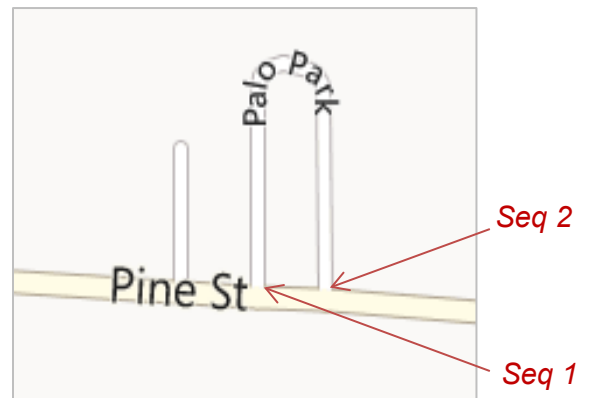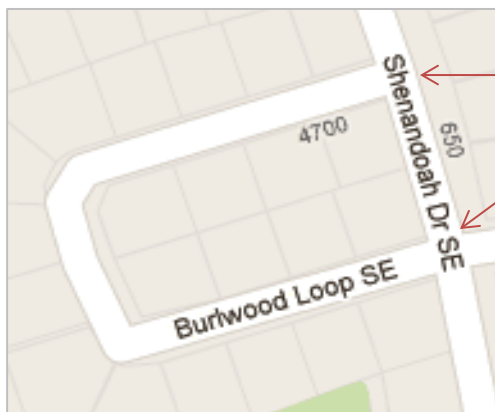
(continued next page)

58

Sample 3: Two Separate Intersections.
Johnson St intersects 178th Ave twice, **more than 50 feet apart**. Set these up as two separate intersections. Assign Seq 1 to the southernmost; Seq 2 to the next.

Sample 4: 4-legged Intersection.
An intersection of the same two streets that is off-set by **50 feet or less** is **one** 4-legged intersection. Set this up once. **Do not assign Sequence Numbers.**
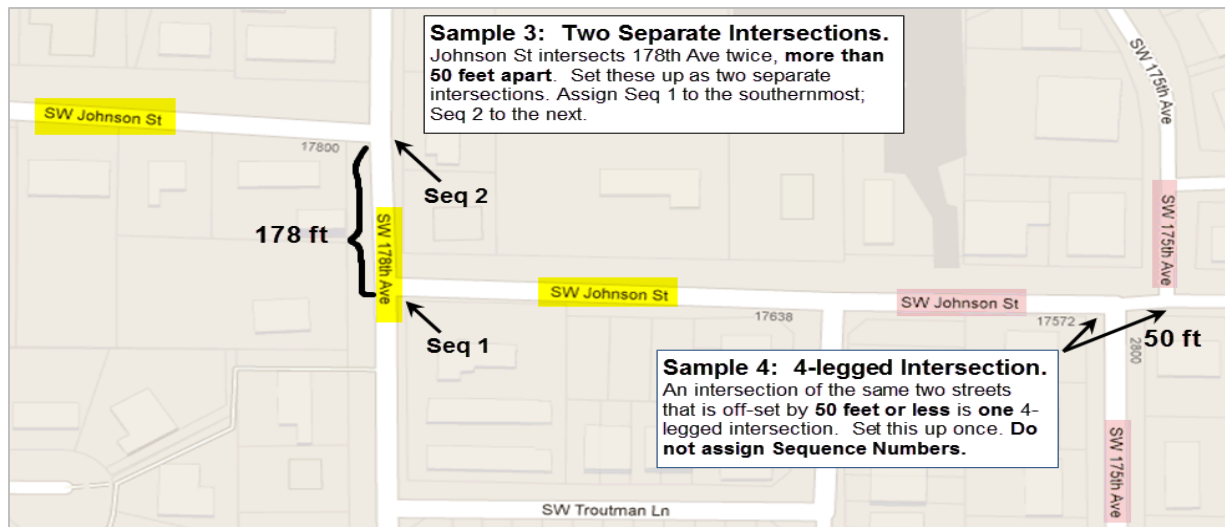
Milepointed County Roads and State Highways

Use **"1"** to represent the **first occurrence** of the intersection according to the **lowest milepoint.** Increase the sequence number for each subsequent milepoint at which the two roads intersect.

Figure 32. Intersection Sequence Number, Example Set 2

SE Powell Blvd (Hwy 26) and Powell S Frontage Rd

MP 3.62 **Seq# 1**   MP 3.71 **Seq# 2**   MP 3.76 **Seq# 3**, etc.
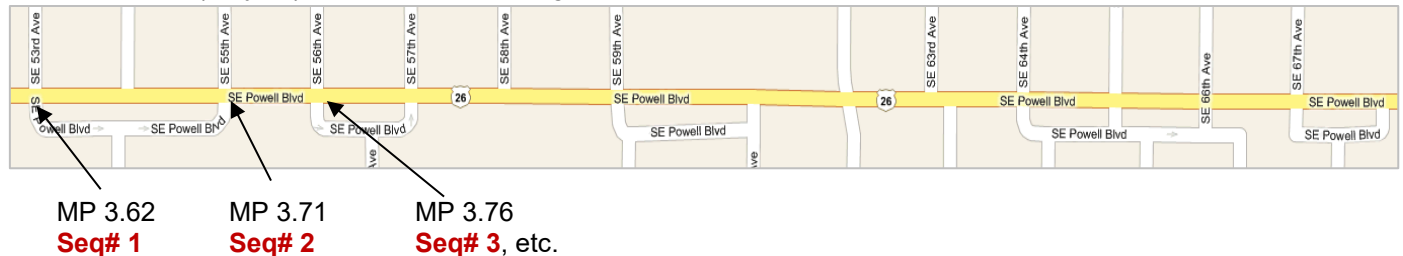
Intersection Sequence Numbers for "SE Powell Blvd" and "Powell S Frontage Rd" set-ups highlighted below.

View / Maintain Intersections

Intersections for Street:

Cnty	City	Type	Street #	SPfx	Street Name
26	245	S	01988		POWELL S FRNTGE

Inter Id	Cnty	City	I Typ	Src	Diag	Street #	Full Street Name	Seq	TC	Ln	Mdn	Trn	Dir	Hwy	Rd	Mlge	Milepoint	Comp	Con	FC	Eff. Date	Term. Date
48032	26	245	4	B		01940	SE POWELL BLVD	1	004	04	0	00	3	026	1	0	3.62	0		14	04/02/1999	
48033	26	245	1	B		01940	SE POWELL BLVD	2	004	04	0	00	3	026	1	0	3.71	0		14	04/02/1999	
48034	26	245	1	B		01940	SE POWELL BLVD	3	004	04	0	00	3	026	1	0	3.76	0		14	01/04/2006	
48035	26	245	1	B		01940	SE POWELL BLVD	4	004	04	0	00	3	026	1	0	3.81	0		14	04/02/1999	
48036	26	245	4	B		01940	SE POWELL BLVD	5	004	04	0	00	3	026	1	0	3.92	0		14	04/02/1999	
48037	26	245	4	B		01940	SE POWELL BLVD	6	004	04	0	00	3	026	1	0	4.13	0		14	04/02/1999	
48038	26	245	1	B		01940	SE POWELL BLVD	7	004	04	0	00	3	026	1	0	4.17	0		14	04/02/1999	
48039	26	245	1	B		01940	SE POWELL BLVD	8	004	04	0	00	3	026	1	0	4.22	0		14	04/02/1999	
48040	26	245	3	B		01940	SE POWELL BLVD	9	004	04	0	00	3	026	1	0	4.26	0		14	04/02/1999	
48041	26	245	3	B		01940	SE POWELL BLVD	10	004	04	0	00	3	026	1	0	4.31	0		14	04/02/1999	
48042	26	245	3	B		01940	SE POWELL BLVD	11	004	04	0	00	3	026	1	0	4.64	0		14	04/02/1999	
48043	26	245	3	B		01940	SE POWELL BLVD	12	004	04	0	00	3	026	1	0	4.7	0		14	04/02/1999	
48044	26	245	1	B		01940	SE POWELL BLVD	13	004	04	0	00	3	026	1	0	4.74	0		14	04/02/1999	
48045	26	245	1	B		01940	SE POWELL BLVD	14	004	04	0	00	3	026	1	0	4.8	0		14	04/02/1999	
48046	26	245	1	B		01940	SE POWELL BLVD	15	004	04	0	00	3	026	1	0	4.89	0		14	04/02/1999	

Intersection Sequence Number

(Continued)

Validations:

Rule #	Rule Message	Severity
174	Intersection Sequence Number is required when two streets are specified	Red/Severe
175	Intersection Sequence Number is not allowed when only one street is Specified	Red/Severe
176	Intersection Sequence Number is not valid for these two streets	Red/Severe

Distance From Nearest Intersection

Table: CRASH   **Column:** FROM_ISECT_DSTNC_QTY   **Data Type:** int   **Length:** 4

Code	Description
Blank	Crash occurred on State Highway System or milepointed county road. Crash occurred on city street or non-milepointed county road where distance from nearest intersection is unknown.
0000	Intersectional crashes within city limits, and on non-milepointed county roads.
0001 – 9998	Measurement in **feet** for city streets. Measurement in **hundredths of a mile** for non-milepointed county roads, and for special jurisdiction roads.
9999	Distance exceeds 9999 ft., for city street crashes.

Description:

This field represents the distance a crash occurred from the nearest intersecting roadway.

Instructions:

Code this field for crashes that occur on city streets, non-milepointed county roads, and special jurisdiction roads. Coding instructions vary depending on the jurisdiction. For city streets, the code represents a measurement in feet. For non-milepointed county roads and special jurisdiction roads, the code represents a measurement in hundredths of a mile.

Using the Crash Locator Tool (CLT) aerial imagery, begin the measurement **at the curb line** of the nearest intersecting road. *The presence and orientation of a crosswalk has no bearing on where the measurement begins.*

End the measurement at the crash location.

Enter the resulting value into the Data Entry screen. Four digits are required in this field, so enter leading zeros when necessary.

Figure 33. Start of Measurement

Curb Line

Enter **"0000"** for intersectional crashes inside city limits and on non-milepointed county roads. Decimal points are assumed, never coded.
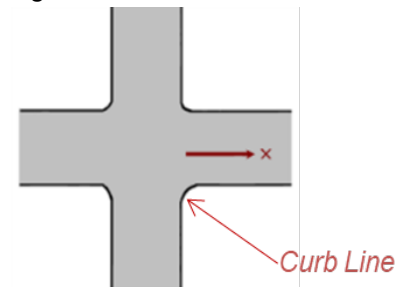
City Streets

For non-intersectional crashes on city streets, code this field using a foot-measurement up to 9,998 feet (omit the comma). If the distance exceeds 9,998 feet and no other reference is available, enter **"9999"**.

If the distance from an intersecting roadway cannot be determined **or approximated**, skip this field. Keep in mind that leaving the Distance from Nearest Intersection field null for city street crashes creates an unknown location of impact, which reduces the usefulness of the data.

(Continued)

Milepointed County Roads when the Milepoint is Unknown

For crashes on *milepointed* county roads, where the milepoint is unknown, code this field the same as you would for *non*-milepointed county roads.

As of the 2022 code year, <u>use standard "milepointed county road" coding</u> for Lane County "county roads".

Figure 34. Conversion Table - Distance from Nearest Intersection Non-Milepointed County Roads

Miles (Hundredths)	Feet	Miles (Hundredths)	Feet	Miles (Hundredths)	Feet	Miles (Hundredths)	Feet	Miles (Hundredths)	Feet
1 Mile	5280	1/5 .20	1056	.40	2112	.60	3168	.80	4224
.01	53	.21	1109	.41	2165	.61	3221	.81	4277
.02	106	.22	1162	.42	2218	.62	3274	.82	4330
.03	158	.23	1215	.43	2270	.63	3326	.83	4382
.04	211	.24	1267	.44	2323	.64	3379	.84	4435
.05	264	1/4 .25	1320	.45	2376	.65	3432	.85	4488
.06	317	.26	1373	.46	2429	.66	3485	.86	4540
.07	370	.27	1426	.47	2482	.67	3538	.87	4594
.08	422	.28	1478	.48	2535	.68	3590	.88	4646
.09	475	.29	1531	.49	2587	.69	3643	.89	4700
1/10 .10	528	.30	1584	1/2 .50	2640	.70	3696	.90	4752
.11	581	.31	1637	.51	2693	.71	3749	.91	4805
1/8 .12	634	.32	1690	.52	2746	.72	3802	.92	4858
.13	686	1/3 .33	1742	.53	2798	.73	3855	.93	4910
.14	739	.34	1795	.54	2851	.74	3907	.94	4963
.15	792	.35	1848	.55	2904	3/4 .75	3960	.95	5016
.16	845	.36	1901	.56	2957	.76	4013	.96	5069
1/6 .17	898	.37	1954	.57	3010	.77	4066	.97	5122
.18	950	.38	2006	.58	3062	.78	4118	.98	5174
.19	1003	.39	2059	.59	3115	.79	4171	.99	5227

Validations:

Rule #	Rule Message	Severity
38	Distance from Intersection must be > 0 when Road Character is not 1 (Intersection) and Milepoint is not provided	Red/Severe
39	Distance from Intersection must = 0 when Road Character = 1	Red/Severe
144	Distance From Nearest Intersection must be null if crash occurred on the State Highway System	Red/Severe
185	If Distance From Intersection = "0", then Road Character Code must = "1"	Red/Severe

Direction from Nearest Intersection

Table: CRASH   **Column:** CMPSS_DIR_CD   **Data Type:** char   **Length:** 1

Code	Description
0	Non-intersectional crash occurred on state highway system outside city limits; or crash occurred on a milepointed county road at a non-intersectional location; or in all other cases if direction from second street is unknown.
1	North of nearest intersection
2	Northeast of nearest intersection
3	East of nearest intersection
4	Southeast of nearest intersection
5	South of nearest intersection
6	Southwest of nearest intersection
7	West of nearest intersection
8	Northwest of nearest intersection
9	Center of the Intersection

Figure 35. Compass Direction Codes
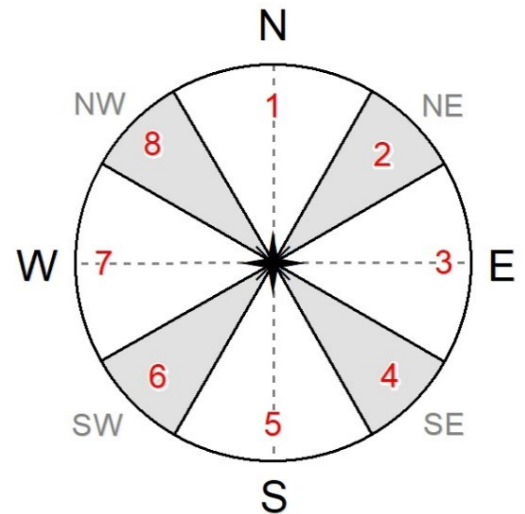
Description:

The Direction from Nearest Intersection value represents the compass direction *from* the crash *to* the nearest intersection.

Instructions:

Place the compass transparency (depicted above) over the <u>center of the nearest intersection</u> on a map or diagram. Orient the North arrow to the northern or northerly direction of the intersection. The numbered section under which the crash location falls represents the code to use for the "Direction from Nearest Intersection" field and the vehicle "Direction of Travel From" and "To" fields.

Use **Code "0"** for the following situations:
- For non-intersectional crashes on milepointed county roads
- For non-intersectional crashes on state highways *outside* city limits
- For all other cases when the direction from the nearest intersecting street is unknown.

Use **Code "9"** for crashes that occur at the center of an intersection ("Location of Impact" quadrants 1, 2, 3 or 4). This rule applies to all road types.

Figure 36. Intersection Direction From

For intersectional crashes that occur in "Location of Impact" quadrants 5 or 6, enter the Direction code relative to the center of the intersection.

The diagram to the right shows an intersection with turning legs. The highlighted numbers are the **Direction** codes. The small numbers represent **Location of Impact** codes, with codes "0" and "9" shown on the turning legs.

63
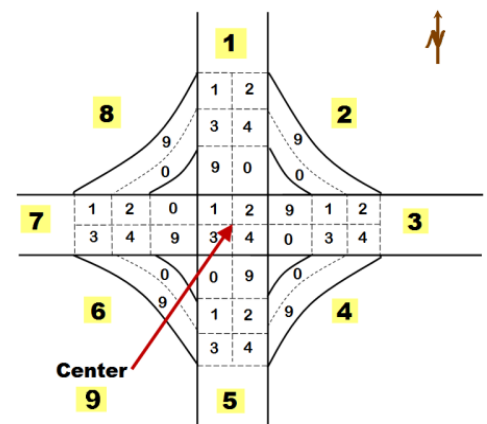
City Streets and Highways Inside City Limits

All directions are valid, but Crash Data Technicians should use the directions assigned to the intersection in the Set-ups or Streets database.

Use **Code "0"** when the Direction from the Nearest Intersecting Street is unknown.

County Roads

Non-milepointed County Roads

For Multnomah and Washington Counties, all direction codes are valid, but intersections should be set up with cardinal directions whenever possible.

For Deschutes county roads, use cardinal directions only (1, 3, 5 or 7).

Milepointed County Roads

Use cardinal directions only (1, 3, 5 or 7) for *intersectional* crashes.
Use **Code "0"** for *non-intersectional* crashes.

For crashes on *milepointed* county roads, <u>when the milepoint is unknown</u>, code this field the same as you would for <u>*non*-milepointed</u> county roads.

As of the 2022 code year, <u>use standard "milepointed county road" coding</u> for Lane County "county roads".

State Highways Outside City Limits
Use **Code "0"** for non-intersectional crashes on state highways outside city limits.

Use cardinal directions (1, 3, 5 or 7) for **intersectional** crashes on state highways outside city limits, *<u>based on the predominate direction of the state highway</u>*.

In areas where the highway makes an abrupt or significant change in direction, you may need to deviate from the rule of using the predominate direction of the state highway.

(Continued)

Validations:

Rule #	Rule Message	Severity
40	Required field [field name] missing	Red/Severe
41	[code field value] was not found in [lookup table name] or is not valid as of the crash date	Red/Severe
42	When Road Character = 1 and Number of Turn Legs = 0 and Location of Impact = 01, 02, 03 or 04, then Direction from Intersection must = 9	Red/Severe
43	When Impact Location Code > 04 and Highway No. is null and City ID is not null and Number of Turn Legs is null or 0 then Direction from Intersection must be < 9.	Red/Severe
144	When City is null and Road Character is not Intersectional and Milepoint is known, then Direction from Nearest Intersection should = 0	Yellow/Warning
180	When City is null and Road Character is not Intersectional and Milepoint is known, then Direction from Nearest Intersection should = 0	Yellow/Warning
312	Required field [field name] missing	Red/Severe
313	[code field value] was not found in [lookup table name] or is not valid as of the crash date	Red/Severe
314	Required field [field name] missing	Red/Severe
315	[code field value] was not found in [lookup table name] or is not valid as of the crash date	Red/Severe
316	Discrepancy exists between Movement and From or To Direction	Red/Severe
662	Discrepancy exists between Movement and From or To Direction	Red/Severe

Milepoint

Table: CRASH   **Column:** MP_NO   **Data Type:** decimal   **Precision:** 5

Code	Description
Blank	Crash occurred on City Street or non-milepointed County or Other road.
00000 to 99998	Actual milepoint to the nearest 0.01 mile. Can be a negative number, the decimal point is assumed.
99999	Unknown

Description:

Milepoint is a five-digit code used to identify the crash location on a state highway or milepointed county road. The field length will accommodate a negative symbol and a decimal point.

"Milepoints" differs from "mileposts". **Mileposts** are physical posts placed on the roadside to mark the distance in miles from the beginning of the highway. The measurements between these posts are referred to as **milepoints**.

Instructions:

Accuracy of the milepoint is very important. The milepoint at which a crash occurred is determined from information provided by driver and police reports, and approved highway and public road inventory. When necessary, add or subtract mileage from a known milepoint that marks a fixed reference on the highway.

Enter code "99999" only after a reasonable effort to determine the milepoint is unsuccessful.

Code this field to **the nearest one-hundredth of a mile**. The data entry system will *right-justify* the number entered, and will automatically insert a decimal point. For example, values entered as **245, 2.45**, **00245,** or **002.45** will display in the data entry screen as **2.45**

Leave the Milepoint field blank for crashes on*:*
- Non-milepointed county roads (described below)
- City streets
- Special jurisdiction roads for which a milepoint is not available

State Highway Milepoints

State Highway milepoints are loaded from the Crash Locator Tool*.* For intersectional crashes on state highways inside city limits, verify the milepoint assigned to the intersection from the Highway System Setup references. Outside city limits, verify state highway intersectional crash milepoints using the Automated Milepoint Logs (AML).

Most highway milepoints represent "normal" mileage. Other types of mileage are described below, and require special handling.

Negative (X) milepoints

Negative milepoints, also known as "X" milepoints, are created when a highway is extended beyond its original beginning milepoint (i.e. MP 0.00), in the opposite direction from the increasing milepoints.

Negative milepoints are preceded by a negative sign. Enter a **negative symbol** as the first character of the Milepoint value, and then enter the milepoint number. An entry of **-245** or **-00245** will display as **-2.45**.

Prior to 1989, negative milepoints existed on connections. ODOT began restoring them effective 2019.

Overlapping (Z) milepoints

Overlapping milepoints, also known as "Z" milepoints, can occur anywhere along a stretch of highway between its beginning and ending milepoints. Z milepoints are assigned sections of highway that are lengthened due to re-alignment. Enter the milepoint given, and code a **"Z"** in the Mileage Type field.

Refer to the instructions for the "**Mileage Type**" field on page 37 of this manual for more information on overlapping (Z) milepoints.

Milepoint Equations

Milepoint equations are created when an existing highway has been shortened due to construction, such as when a curve is straightened. The milepoint equation specifies **two different** milepoints that now exist **at a single point** on the highway. This is a method of accounting for changes in a linear measurement system without re-milepointing the entire highway.

Milepoint equations are identified in the **AML** by a pink **E** in the middle Roadway Code. In the image below, **MP 41.60** (BK) **is equal to MP 42.25** (AH) and represents the same point on the highway.

Figure 37. Automated Milepoint Log (AML)

In the image below, **BK** = "**back**"; **AH** = "**ahead**"

Calculating Milepoints Involving Milepoint Equations

When the crash location involves a milepoint equation, the Crash Data Technician must calculate the milepoint to be coded. This is a 3-step process, and requires the following information:

- An existing cross-road or boundary to be used as a reference
- The desired distance from the reference cross-road or boundary to the crash location
- The "begin" and "end" Equation milepoints
- The direction of increasing milepoints for the highway

Note to Crash Data Technicians:
Straightline charts are helpful for determining general crash locations, but *do not use them as a source for milepoints*. Use System Set-ups or if that's unavailable, use the current code year's AML (the CAR Unit's customized extract of the highway inventory summary).

Scenario #1:

Calculate a location **one-half mile east** of Salmon River Rd on Mt. Hood Hwy 26. Milepoints **increase to the east**, and the crash location is *east* of the "Equation **Begin** MP".

Figure 38. Milepoint Equation Calculations

Step 1: Look up the milepoint for Salmon River Rd. in the AML (MP 41.45), and subtract it from the Equation **Begin** MP (41.60).

Equation **Begin** MP	41.60
minus Reference MP	-41.45
Reference Distance	**0.15**

Step 2: Subtract the "Reference Distance" from the distance you need to go eastward.

Distance **Eastward**	0.50
minus Reference Distance	-0.15
Crash Distance	**0.35**

Step 3: Add the result (the Crash Distance) to the Equation **End** MP to determine the crash milepoint.

Equation **End** MP	42.25
plus Crash Distance	+0.35
Crash Milepoint	**42.60**

Scenario #2:

Calculate a location **one-half mile west** of Tamarack Dr. on Mt. Hood Hwy 26. Milepoints *increase to the east*, and the crash location is *west* of the "Equation **End** MP".

Step 1: Look up the milepoint for Tamarack Dr in the AML (MP 42.57). Subtract the Equation **End** MP from the Reference MP.

Reference MP	42.57
minus Equation End MP	-42.25
Reference Distance	**0.32**

Step 2: Subtract the "reference distance" from the distance you need to go westward.

Distance **Westward**	0.50
minus Reference Distance	-0.32
Crash Distance	**0.18**

Step 3: Subtract the resulting distance from the Equation Begin MP to get the crash milepoint.

Equation **Begin** milepoint	41.60
minus Crash Distance	-0.18
Crash Milepoint	**41.42**

County Road Milepoints

Milepoints for "milepointed county roads" are obtained from the County Road Milepoint Logs stored in the unit reference area.

When the milepoint is *unknown* but the crash location *is known*, complete these three fields:
- Nearest Intersecting Road Number
- Distance from Nearest Intersection
- Direction from Nearest Intersection

Leave the Milepoint field blank for crashes on county roads in the following counties:
- Deschutes
- Multnomah
- Washington

Validations:

Rule #	Rule Message	Severity
17	Urban area value entered doesn't match urban area value for this highway/milepoint for this year in ITIS	Yellow/Warning
20	Functional Class value entered doesn't match functional class value for this highway/ milepoint for this year in ITIS	Yellow/Warning
22	NHS value entered doesn't match NHS value for this highway/milepoint for this year in ITIS	Yellow/Warning
24	County value entered doesn't match County value for this highway/milepoint for this year in ITIS	Yellow/Warning
31	Mileage Type value entered doesn't match Mileage Type value for this highway/milepoint for this year in IT IS	Yellow/Warning
39	Distance from Intersection must = 0 when Road Character = "1"	Red/Severe
44	When entered, [field name] must be numeric	Red/Severe
101	City value entered doesn't match City value for this highway/milepoint for this year in IT IS	Yellow/Warning
130	Milepoint value not valid for the specified Highway in the specified Crash Year	Yellow/Warning
131	When entered, the milepoint value must be <= 999.99	Red/Severe
133	Milepoint is required when Highway Number is entered	Red/Severe
146	Highway Couplet begins or ends at this milepoint. Please confirm whether crash occurred on	Yellow/Warning
178	When City is not null and Highway is not null and milepoint is known, then Intersecting St # must not be null.	Red/Severe
1026	Milepoint must be null when Highway Number is null and crash occurred inside city limits.	Red/Severe

Posted Speed

Table: CRASH   **Column:** POST_SPEED_LMT_VAL   **Data Type:** char   **Length:** 2

Code	Description
Blank	Unknown or Not Reported. (Information on posted speed is not available.)
00	No statutory limit (ex.: private road open to public, such as logging, etc.)
05-70	Actual Posted Speed

Description:

Posted Speed represents the regulatory speed posted for the section of road on which the crash occurred.

Instructions:

Code this field only when information regarding posted speed is available from the PAR, highway inventory "Automated Milepoint Log" (AML), or is loaded from the Crash Locator Tool (CLT). _Leave this field blank for all other situations_.

In Oregon, speed zones are established either by statute (statutory speed), or through an engineering and traffic investigation (designated speed). Oregon statutory speed limits are listed here:

- **15 mph** Alleys and narrow residential roadways
- **20 mph** Business districts, school zones and some residential
- **25 mph** Residential districts, public parks and ocean shores
- **55 mph** Some open rural highways; and trucks on some interstate highways
- **60 mph** Trucks on some interstate; and open rural highways
- **65 mph** Passenger vehicles, light trucks, motor homes and light duty commercial vehicles on some interstate highways; some open rural highways; trucks on some interstate highways;
- **70 mph** Passenger vehicles, light trucks, motor homes and light duty commercial vehicles on some interstate highways

For state highways, if the posted speed on the PAR conflicts with the ODOT highway inventory (AML) use the speed provided by the highway inventory. The exception to this rule is for highways where a work zone has temporarily changed the posted speed.

For all other roads, use the Posted Speed Limit listed on the PAR.

See "Traffic Control Device" for the definition and examples of regulatory signs.

Validations:

Rule #	Rule Message	Severity
45	When entered, Posted Speed Limit value must be <= 70 (as of April 2016)	Red/Severe
120	For this Crash Date (01/01/2016 through 03/31/2016), valid Posted Speeds are: 5,10,15,20,25,30,35,40,45,50,55,60,65	Red/Severe
121	For this Highway, valid Posted Speeds are: 5,10,15,20,25,30,35,40,45,50,55,60,65,70	Red/Severe
122	For (Years 1985 – 2015), valid Posted Speeds are: 5,10,15,20,25,30,35,40,45,50,55,60,65	Red/Severe

Character of Road

Table: CRASH   **Column:** RD_CHAR_CD   **Data Type:** char   **Length:** 1

Code	Description
1	Intersection
2	Driveway or alley access
3	Straight roadway
4	Transition (change in number of lanes)
5	Curve (horizontal curve)
6	Open access or turnout
7	Grade / Hill (vertical curve)
8	Bridge structure (including overpass and underpass)
9	Tunnel
0	Unknown

Description:

Road Character refers to the alignment, contour, structure, or other distinctive feature that describes the roadway at the crash location.

Instructions

The proper coding of this data element is critical to the crash record, since this element controls the analysis between intersectional crashes and non-intersectional crashes.

Intersectional Crashes

Code "1" is used for all **intersectional crashes**. This rule applies to all road jurisdictions (city streets, county roads, and state highways). Intersectional crashes are never coded to zones 7 or 8.

Figure 39. Intersectional Crashes

Quadrants 1, 2, 3 and 4 represent the center of the intersection.

Zones 5 and 6 extend 50 feet.
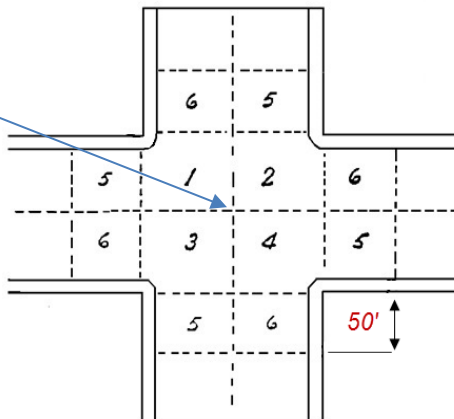
(Continued)

Definition: *Any crash that occurs within the limits (the extended curb lines) of the intersection of two or more roads, or any crash that occurs outside the center of the intersection, within location of impact zones 5 or 6, and as a direct result of some maneuver at or because of the intersection, will be classed as intersectional and so coded.*

Additional Rules for "Intersectional" Crashes

Conditions surrounding an accident that occurred outside the limits of an intersection must justify the classification of "intersection".

For example:

Rear-End Collisions at Intersections

Rear-end collisions involving a vehicle first in line at the intersection should be coded as intersectional.

Turning Maneuvers at Intersections

A crash involving a turning movement is classified as "intersectional" when the crash results from the turning movement and the impact is within location of impact zones 5 or 6. When the point of impact is beyond location of impact zones 5 or 6, the turning movement should have been completed and the **Road Character** should be coded as "non-intersectional".

Pedestrian Collisions at Intersections

If a pedestrian is struck while crossing from one corner of an intersection to another, code the Character of Road as **intersectional**. If a pedestrian is struck while crossing within a marked or unmarked crosswalk at the intersection, code **Road Character** as intersectional.

Complex Intersections

Complex intersections and interchanges are areas where more than one road character exists. This could be an intersection that occurs at a curve or on an overpass/bridge etc. When an *intersectional crash* occurs at a complex intersection, the **Road Character** is coded as intersection. Other road characters that exist at the intersection and are relevant to the crash should be identified through the Event field or Related Flags.

Non-intersectional crashes that occur outside the intersection, but are related to movement or control of traffic through the intersection, may be "Intersection-Related".

Non-Intersectional Crashes

Crashes that don't meet the definition of "intersectional" are "non-intersectional". Non-intersectional crashes can occur **within the area of** a complex intersection or interchange, on a curve, bridge, etc. In such cases, the **Road Character** field must be coded as the curve, bridge, etc. rather than as an intersection.

Code "2" is used for crashes that involve the movement of traffic units into, out of, or across a **driveway** or **alley access**.

Example: A vehicle is struck, or strikes another vehicle or a non-motorist, while turning into or out of a driveway.

For crashes that involve a traffic unit *waiting* to turn into a driveway or alley access, refer to the instructions for **Driveway Related**.

Code "3" is used for crashes on **straight roads** that don't involve transitioning lanes, driveways, turn-outs, hills, bridges, curves, or tunnels.

Code "4" is used for crashes involving a lane **transition**.
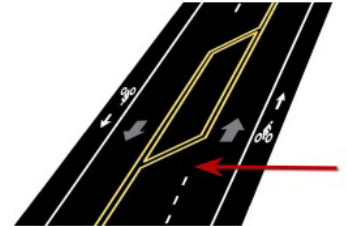
Code "5" is used for crashes involving a horizontal **curve**.

Code "6" is used for crashes involving an "**open access**" or turnout; i.e, a space adjacent to a road where vehicles may pull off to enable other vehicles to pass.

Code "7" is used for crashes that occur on a grade, vertical slope, hill, etc.

(Continued)

Code "8" is used for crashes that occur **on** or **under** a bridge structure.

Code "9" is used for crashes that occur inside a tunnel.

Coding Priority

More than one **Road Character** may exist at a crash location. For example, a crash may occur at a driveway on a hill, or on a curve built into a tunnel. In order to maintain consistency in how this field is coded by the data entry team, the following rules assign priority.

Intersections: If a crash occurs within an intersection as a result of a maneuver at or because of the intersection, code 1 takes precedence.

Driveways or alley access: When a crash involves a movement **into** or **out of** a driveway or alley access, code 2 takes precedence.

Bridge over-crossings and under-crossings: When a crash occurs **on** or **under** a bridge, code 8 takes precedence.

Grade (Hill) vs. Curve: When a crash location is on a vertical grade with a curve, code 7 takes precedence, unless the police report specifies that the driver failed to negotiate the curve.

Grade (Hill) vs. Turnout: When a crash involves a turnout on a grade, code 6 takes precedence.

Tunnel: If a crash occurs in a tunnel, code 9 takes precedence.

Validations:

Rule #	Rule Message	Severity
38	Distance from Intersection must be > 0 when Road Character is not 1 (Intersection) and Milepoint is not provided	Red/Severe
39	Distance from Intersection must = 0 when Road Character = 1	Red/Severe
42	When Road Character = 1 and Number of Turn Legs = 0 and Location of Impact = 01, 02, 03 or 04, then Direction from Intersection must = 9	Red/Severe
46	Required field [field name] missing	Red/Severe
47	[code field value] was not found in [lookup table name] or is not valid as of the crash date	Red/Severe
48	Location of Impact must be 01,02,03,04,05,06 when Road Character = 1	Red/Severe
50	[code field value] was not found in [lookup table name] or is not valid as of the crash date	Red/Severe
51	Intersection Type Code must be null when Road Character does not indicate "Intersection" (1)	Red/Severe
53	Intersection Related Flag must be 0 when Road Character = 1	Red/Severe
56	Number of Lanes must be null when Road Character indicates Intersection (1)	Red/Severe
57	Number of Lanes must be specified (numeric value) when Road Character is something other than Intersection (1)	Red/Severe
59	Number of Legs must be numeric when Road Character is Intersection (1)	Red/Severe
60	Median Type Code must be null when Road Character indicates Intersection (1)	Red/Severe
61	[code field value] was not found in [lookup table name] or is not valid as of the crash date	Red/Severe
82	Combination of Crash Hour, Light Condition and Crash Month not found on the cross-reference table	Red/Severe
83	Warning - please review combination of Crash Hour, Light Condition and Crash Month	Yellow/Warning
114	Number of Legs must be null or zero when Road Character<> 1 (Intersection)	Red/Severe
129	Median Type is required when Road Character <> 1 (Intersection)	Red/Severe
179	When Road Character = 1 and Number of Turning Legs >=1, and Direction does not equal 9 then Location of Impact must be 00,01,02,03,04,05,06 or 09	Red/Severe

Off Roadway

Code	Description
0	No
1	Yes

Table: CRASH   **Column:** OFF_RDWY_FLG   **Data Type:** bit   **Length:** not null

Description:

Off Roadway is a Yes / No field that indicates where the crash occurred in relation to the roadway.

Definition: *"Roadway" is the part of a trafficway designed, improved, and ordinarily used for vehicular travel. The boundary lines are the lateral limits of the traffic lanes. Parking lanes and shoulders are not part of the roadway. (A parking lane ceases to exist and is considered a traffic lane during hours when parking along a street is prohibited.)*

A bicycle lane is a portion of the roadway set apart for bicycle travel and designated by striping, signs or pavement markings. Crashes that occur in a bicycle lane are not Off-Roadway crashes.

Figure 40. Off Roadway
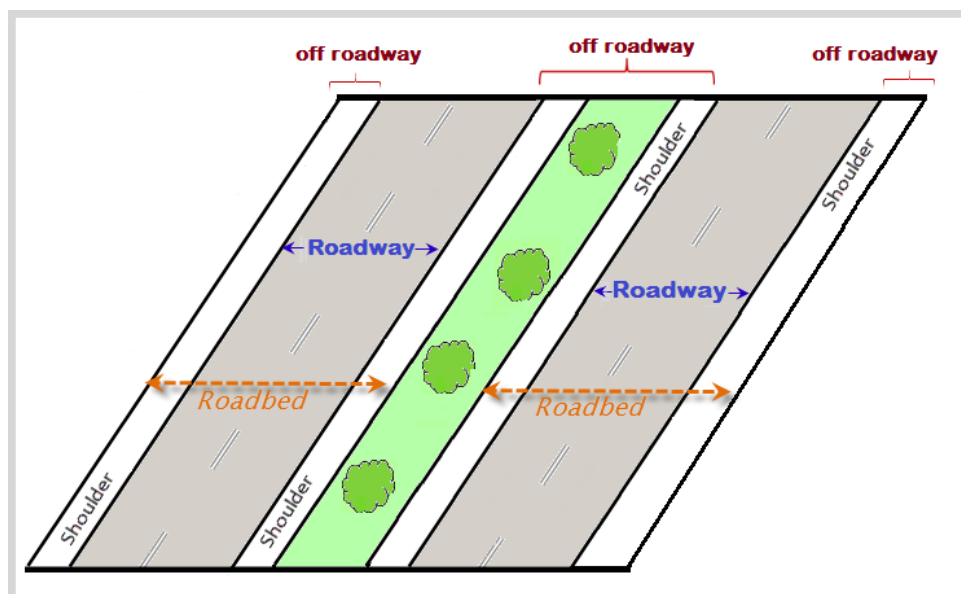
Instructions:

This field should be coded *according to the location of the first harmful event*. Crashes are considered "off roadway" if the first harmful event occurs outside the travel portion of the road. Examples: crashes that occur on the shoulder, on a median or striking a median barrier, parking lanes during hours where parking is permitted, etc.), roadside, etc.

Code "0" is used when the first harmful event of the crash occurred *on* the roadway. When a vehicle overturns on the roadway first and continues its path off-road, the crash is considered to have occurred "on the roadway". Collisions with over-crossing structures are considered to be "on the roadway" if the structure was hit while the vehicle was traveling directly under it and within the travel lane.

(Continued)

Code "1" is used when the first harmful event of the crash occurred *off* the roadway. Crashes that occur with solid median barriers are considered "off roadway", as are crashes that occur on an earth, grass median.

If the Crash Type coded is **"8 – Fixed Object"** and the Collision Type coded is **"9 – Fixed Object"**, then Off Roadway **must** be coded **"1 – Yes"** unless one or more of the following events are coded for the striking vehicle:

> 049 – Bridge girder or other horizontal structure overhead
> 063 – Tree branch or other vegetation overhead, etc.
> 064 – Wire or cable across or over the road
> 067 – Slides, rocks off or on road, falling rocks
> 073 – Other bump (not speed bump), pothole or pavement irregularity (Per PAR)
> 074 – Other overhead object (highway sign, signal head, etc.); not bridge
> 127 – Rock slide or land slide

Validations:

Rule #	Rule Message	Severity
46	[field name] value must be 1 for Yes or 0 for No	Red/Severe
49	[field name] value must be 1 for Yes or 0 for No	Red/Severe
113	Required field [field name] missing	Red/Severe
147	This is a rare occurrence. Please verify whether this "fixed object crash" occurred on or off the roadway	Yellow/Warning
356	Off Roadway Flag must = 1 if Crash Type = Fixed Object and Collision Type = Fixed Object and the Striking Vehicle Event Codes do not equal 049, 063, 064, or 067	Red/Severe

Intersection Type

EDW

Table: CRASH   **Column:** ISECT_TYP_CD   **Data Type:** char   **Length:** 1

Code	Description	Code	Description
Blank	Not intersectional	5	5-legged
0	Unknown intersection type	6	6-legged
1	Cross	7	7-legged
2	2-legged	8	8-legged
3	3-legged	9	9-legged
4	4-legged		

Description:

Intersection Type is a one-digit code that indicates the way in which two or more roads meet or cross.

Instructions:

Code this field for "intersectional" crashes only (refer the definition under Character of Road on page 56).
For all other crashes, this field remains null.

Code "0" is *only* used when the intersecting street is unknown and there is no description provided about the intersection type.

Figure 41. Intersection Types

Code "1" is used for cross-type intersections:
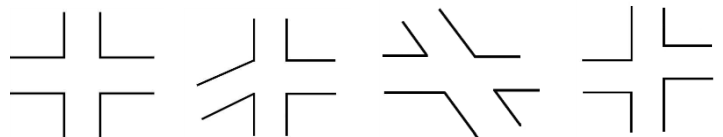
Code "2" is used for two-legged intersections:
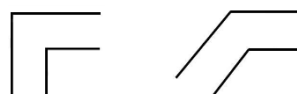
Code "3" is used for three-legged intersections:
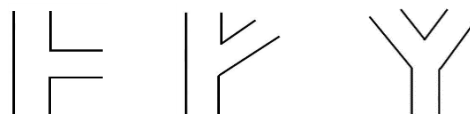
Code "4" is used for four-legged intersections, and for cross-streets that are off-set by 50 feet or less and are controlled by a common traffic control device:

50 feet or less
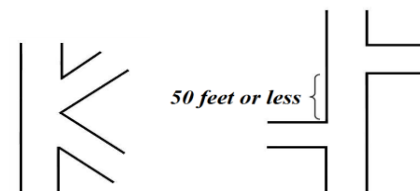
Code "5" is used for five-legged intersections:
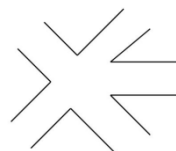
Code "6" is used for six-legged intersections:
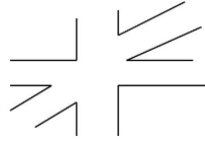
Codes "7", "**8**" and "**9**" are available for rare intersections having more than six legs.

Validations:

Rule #	Rule Message	Severity
50	[code field value] was not found in [lookup table name] or is not valid as of the crash date	Red/Severe
51	Intersection Type Code must be null when the Road Character <> 1 (Intersection)	Red/Severe

Intersection Related

Table: CRASH   **Column:** ISECT_REL_FLG   **Data Type:** bit   **Length:** not null

Code	Description
0	No
1	Yes

Description:

Intersection Related is a Yes / No field that indicates whether a *"non-intersectional"* crash occurred as a result of movement or control of traffic through a nearby intersection.

Instructions:

Code "0" is used for "intersectional" crashes, and for non-intersectional crashes that are *not* related to the movement or control of traffic through a nearby intersection.

Code "1" is used for non-intersectional crashes that result from an activity, behavior, or control related to the movement of traffic units through an intersection.

Examples:

1. A rear-end crash involves the first vehicle stopped at an intersection. Code these related fields:

   - **Intersection-Related Flag** = 0 (No)
   - **Character of Road** = 1 (Intersection)

2. A rear-end crash involves the second and third vehicles at an intersection, but not the first vehicle. The crash report indicates that the collision occurred due to activity, behavior, or control at the intersection. Code these related fields:

   - **Intersection-Related Flag** = 1 (Yes)
   - Do *not* code **Character of Road** as "1" – Intersection.

Validations:

Rule #	Rule Message	Severity
53	Intersection Related Flag must be 0 when Road Character = 1	Red/Severe
116	[field name] value must be 1 for Yes or 0 for No	Red/Severe

Roundabout

Table: CRASH   **Column:** RNDBT_FLG   **Data Type:** bit   **Length:** not null

Code	Description
0	No – crash did not occur on the circular roadway of a roundabout, nor involve a vehicle entering or exiting the circular roadway.
1	Yes – crash occurred on the circular roadway of a roundabout, or involved a vehicle entering or exiting the circular roadway.

Description:

Roundabout is a Yes / No field that indicates whether a crash is related to the movement or control of traffic through a roundabout. *(Neighborhood traffic circles and rotaries are excluded, as of the 2022 code year.)*

Roundabouts are a type of circular intersection. They range in size and shape (they can be circular, peanut-shaped, teardrop, doubled, etc.), but they must have these three distinguishing features:

- **Counterclockwise Traffic**. Traffic runs counterclockwise around a central island.
- **Yield Control**. Vehicles entering the roundabout are required to yield to the circulating traffic.
- **Reduced Speed**. The curvature of the roundabout results in lower speeds throughout.

Figure 42. Roundabout

Figure 1. Modern Roundabout Schematic

https://highways.dot.gov/sites/fhwa.dot.gov/files/2022-06/fhwasa15016.pdf
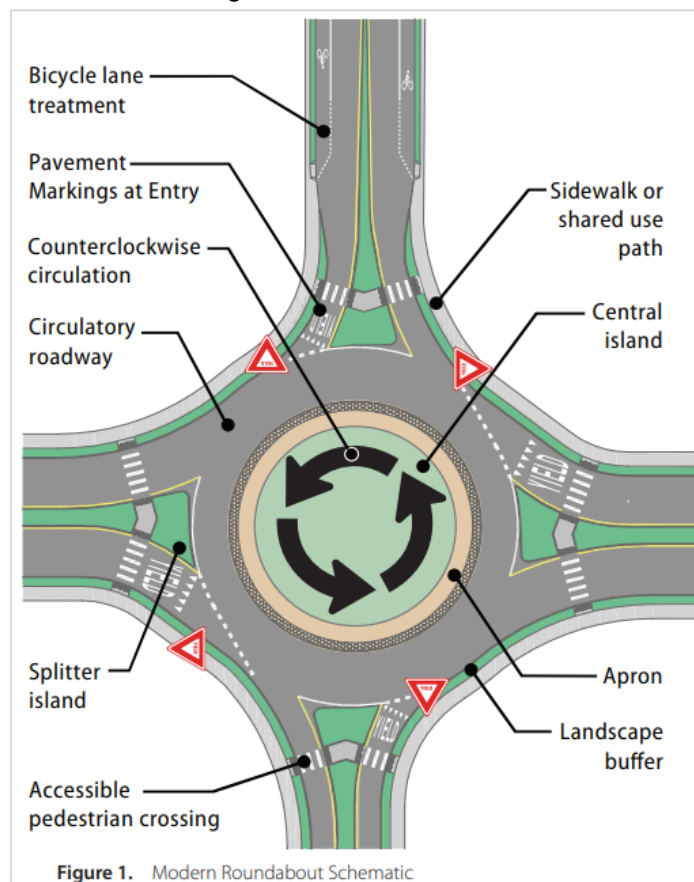
Instructions:

Roundabout crashes are those that occur *on the circulatory roadway* of the roundabout, *or while in the process of entering or exiting the circulatory roadway.*

Crashes that occur on the approach to a roundabout *that involve the first vehicle stopped at, but not actively entering or exiting the circulatory roadway*, may be "intersectional" crashes according to state file coding rules for Character of Road; but they *are not Roundabout crashes*.

For local road roundabouts, Character of Road is coded "intersectional".

For state highway roundabouts, Character of Road depends on where the crash occurred in relation to the intersecting roadways. *Refer to the "State Highway Roundabout" instruction section, below.*

Local Road Roundabouts

Use **Code 1** for crashes that occur *on the circulatory roadway of the roundabout*, or *while actively entering or exiting the circulatory lanes*. Code **Location of Impact** by quadrant (01 – 04)

Crashes that occur in Location of Impact zones 05 or 06 *that don't involve a vehicle actively entering or exiting the circulatory roadway*, **are not roundabout crashes**. They may be considered "intersectional" Character of Road by ODOT's definition, but they are excluded from FHWA's definition of roundabout crashes.

- Code "Character of Road" according to the crash circumstances
- Roundabout = **0**
- Location of Impact = **05** or **06**

Figure 43. Local Road Roundabouts
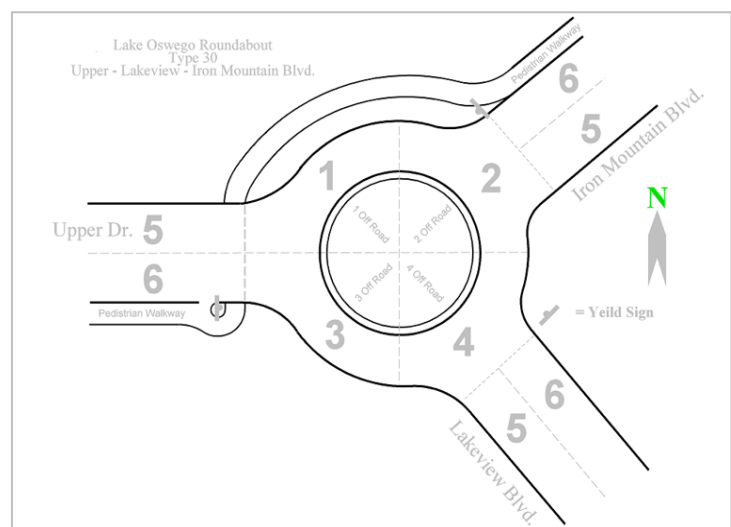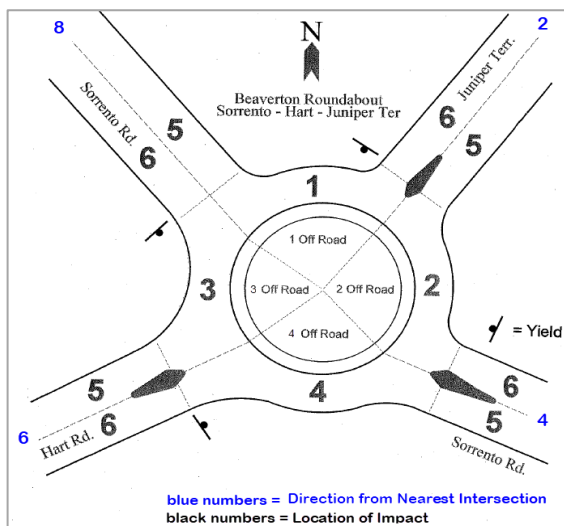
Use **Code "0"** when the crash does not occur within the circulatory roadway of a roundabout, or does not involve a vehicle actively entering or exiting the circulatory roadway. The Crash Data Entry screen will load **'0'** by default when the technician tabs through the field.

Example: A rear-end crash involves the first vehicle stopped on the approach to the roundabout.
Character of Road = **1** (intersectional), but Roundabout = **0**.

Use **Code "1"** when the crash occurs on the circulatory roadway of the roundabout, or involves a vehicle actively entering or leaving the circulatory roadway of a roundabout.

State Highway Roundabouts

State highway roundabouts are typically larger than local road roundabouts, and are more complex to code. *Interchange diagrams are available, and must be followed when coding a state highway roundabout.*

The approaches to and from the roundabout split the mainline highway into separate roadways, creating increasing and decreasing milepoints. Cross-streets are made up of another mainline highway, one or more highway connections, or Roadway 1 and Roadway 2 of a single highway connection.

Roundabouts are defined as "circular intersections"; however, for state highway roundabouts, we code only the crashes that occur where the roadways merge or diverge as "intersectional". This rule maintains consistency with state highway coding for **Location of Impact**, **Direction from Intersection**, **Milepoint**, **Number of Lanes**, and other fields; and enables the crash tech to save the crash without violating validation rules.

Code and snap crashes that occur *elsewhere* on the circular roadway *to the milepoint where the crash actually occurred*. See bulleted list, next page.

Figure 44. State Highway Roundabout US-101 at US-101 Bus/OR 102 Interchange

Roundabout

When determining the highway segment the crash occurred on in relation to the roundabout, pay careful attention to:

- Highway numbers
- Roadway numbers
- Highway component types
- Milepoints
- Street numbers
- Intersection Sequence Numbers
- Distance from nearest intersection
- Direction from nearest intersection
- Vehicle movements
- Vehicle directions of travel
- Vehicle actions
- Crash and vehicle level events

Validations:

Rule #	Rule Message	Severity
117	[field name] value must be 1 for Yes or 0 for No	Red/Severe

Driveway Related

Table: CRASH   **Column:** DRVWY_REL_FLG   **Data Type:** bit   **Length:** not null

Code	Description
0	No
1	Yes

Description:

Driveway Related is a "Yes / No" field that indicates whether a crash is due to the activity or movement of traffic at a driveway or alley access, yet did not involve traffic units in the process of using the access.

Instructions:

This field must be coded '0' if **Character of Road** is coded "**driveway**".

Use **Code "0"** when the crash *is unrelated* to the activity* or movement of traffic into, out of, or across a driveway or alley access, even if a driveway or alley access is present at the crash location.

Use **Code "1"** when the crash *is due* to the activity or movement of traffic at a driveway or alley access, yet did not involve the traffic units actively using the access.

> Examples: a vehicle is rear-ended while stopped in traffic, *waiting* to turn into a driveway or alley but had not initiated its turn.

Crashes involving Driveways that exist at Intersections
If a crash involves a traffic unit that is using a driveway at an intersection, then Character of Road = 1 (Intersection) and Driveway Related = 1 (Yes).

If a driveway exists at an intersection but *it is not being used*, then Character of Road = 1 (Intersection) and Driveway Related = 0 (No).

Figure 45. Driveways

Driveway

Driveway at intersection

Validations:

Rule #	Rule Message	Severity
118	[field name] value must be 1 for Yes or 0 for No	Red/Severe

Number of Lanes

EDW

Table: CRASH   **Column:** LN_QTY   **Data Type:** tinytint   **Precision:** 3

Code	Description
Blank	Crash occurred inside intersection.
01-98	Number of all travel lanes, both directions added (Except for highway couplets)
99	Unknown number of lanes

Description:

Number of Lanes is a two-digit code that represents the total number of travel lanes for the involved road.

Do not rely on the Crash Locator Tool for Number of Lanes for state highway crashes. The Crash Locator is only able to load data for the roadway being coded. Refer to the instructions below.

Instructions:

Code this field for non-intersectional crashes only. **Code all the travel lanes for both directions of travel**, **even if the crash occurred on a divided highway**. *(This is a change in coding practice from instructions used prior to 2003).* The only exception to this rule is for crashes on state highway **couplets**. *For highway couplets, limit the number of lanes to the roadway on which the crash occurred*.

Continuous left turn lanes are not included in the count of travel lanes, unless the crash involved the continuous left turn lane.

Merge/diverge lanes are coded only when they are in use.

Validations:

Rule #	Rule Message	Severity
56	Intersection Related Flag must be 0 when Road Character = 1	Red/Severe
57	Number of Lanes must be specified (numeric value) when Road Character is something other than Intersection (1)	Red/Severe

Number of Turning Legs

EDW

Table: CRASH   **Column:** TURNG_LEG_QTY   **Data Type:** int   **Precision:** 10

Code	Description
Blank	Non-intersectional crash
00	No turning legs at intersection
01 - 98	Actual number of turning legs at intersection
99	Unknown number of turning legs

Description:

Number of Turning Legs is a two-digit code that indicates the number of turning legs at an intersection where a crash occurs. Turn lanes are not coded in this field.

Instructions:

Turning Leg (configuration recognized in crash coding) is a travel lane for channelizing traffic at right-angles most commonly found at an intersection (not to be mistaken for a **right turn lane**). A common form of turning leg is recognized by a triangular shaped island, raised curb, or painted, that separates right-turning traffic from through traffic at an intersection.

Figure 46. Turn Lane vs. Turning Leg
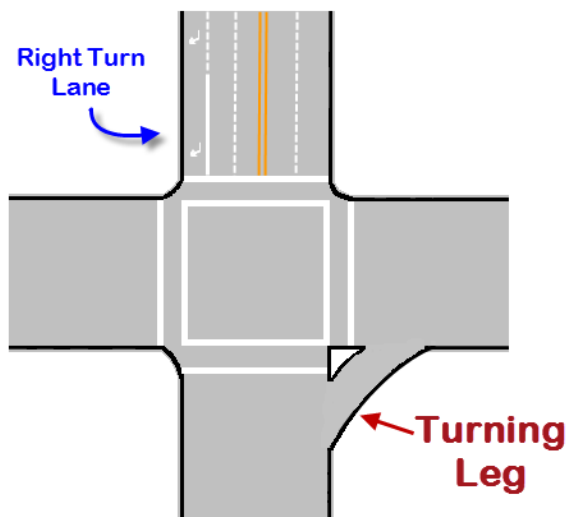
Validations:

Rule #	Rule Message	Severity
42	When Road Character = 1 and Number of Turn Legs = 0 and Location of Impact = 01, 02, 03 or 04, then Direction from Intersection must = 9	Red/Severe
59	Number of Legs must be numeric when Road Character is Intersection (1)	Red/Severe
114	Number of Legs must be null or zero when Road Character is <> 1 Intersection)	Red/Severe

Median Type

Table: CRASH   **Column:** MEDN_TYP_CD   **Data Type:** char   **Length:** 1

Code	Description
Blank	Crash occurred inside intersection
0	No physical barrier between opposing traffic on single road bed.
1	Raised median, planter or barrier
2	Earth or grass median separating opposing traffic on two road beds

Description:

Median Type is a one-digit code that indicates the type of separation that divides opposing traffic along a roadway.

Instructions:

Code "0" is used for continuous left turn lanes, highway couplets, and paved/painted medians.

Code "1" is used for metal guard rails, concrete barriers, curbing, planters or other fixed barriers separating opposing directions of traffic on one roadbed.

Code "2" is used for roadways divided by earth or vegetation which may include a cable or guard rail in the center.

When using Vehicle Level Action Code 029 (*vehicle crossed, plunged over, or through median barrier*) or 033 (*vehicle crossed earth or grass median*), use the Digital Video Log (DVL) or aerial imagery to verify the correct median type has been coded.

Validations:

Rule #	Rule Message	Severity
60	Median Type Code must be null when Road Character indicates Intersection (1)	Red/Severe
61	[code field value] was not found in [lookup table name] or is not valid as of the crash date	Red/Severe
129	Median Type is required when Road Character <> 1 (Intersection)	Red/Severe

Location of Impact

Table: CRASH   **Column:** IMPCT_LCT_CD   **Data Type:** char   **Length:** 2

Description:

Location of Impact is a two-digit code that describes where the first harmful event occurred in relation to the roadway. Coding of this field is influenced by the following factors. Instructions for each situation are presented in their own sections below:

- The crash is intersectional
- The crash is not intersectional and occurred on a city street
- The crash is not intersectional and occurred on a county road
- The crash is not intersectional and occurred on a state highway

Intersectional Crashes:

Code	Description
00	Left lane of a two lane turning leg
01 – 04	Quadrant representing the center of the intersection (see diagram)
05 – 06	Zone on approach or exit
09	Right lane of a two lane turning leg or a single lane turning leg

For *intersectional* crashes, Location of Impact is coded the same way, regardless of road jurisdiction. Refer to Character of Road for the definition of **"Intersectional Crashes"**.

Quadrants 01, 02, 03 and 04 represent the center of the intersection. Quadrants 01 and 02 are always oriented towards the north or northerly direction of the road.

Zones 05 and 06 represent areas within 50 feet approaching or exiting the intersection. For crashes that occur as a direct result of movement *at* or *because of* the intersection, use these codes when the first harmful event involves the first vehicle stopped outside the center of the intersection. Use **code 05** for the **first zone on the left** at the intersection curb line. Use **code 06** for the **first zone on the right** at the intersection curb line.

Note: The leading zero for the Location of Impact codes is omitted from the diagrams that follow.

Figure 47. Intersectional Location of Impact
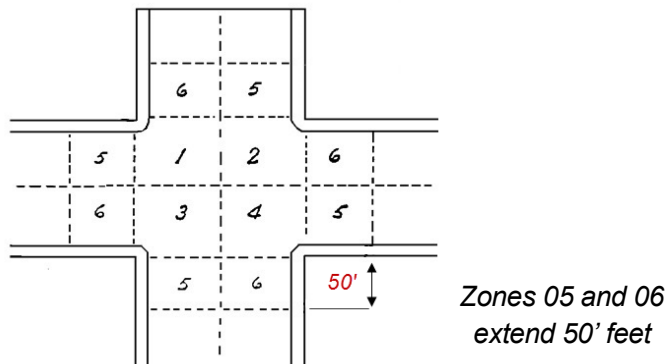
Zones 05 and 06
extend 50' feet

(Continued)

Coding Location of Impact for Turning Legs at Intersections

This diagram shows an intersection with turning legs. The larger, highlighted numbers are the **Direction from Intersection** codes. The smaller numbers represent **Location of Impact** codes.

Use **Code 09** when the turning leg has only **one lane**.

When the turning leg has **two lanes**, use **Code 09** for the right-hand lane entering or exiting the intersection. Use **Code 00** for the other lane on the turning leg.

Figure 48. Intersection Turning Legs & Compass Direction Codes
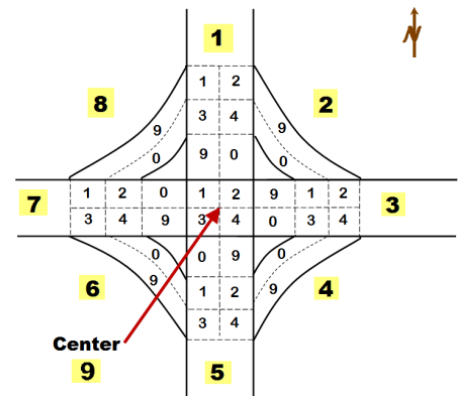
Location of Impact Schematics

Figure 49. Location of Impact Diagrams - Set 1

Intersection Type 1
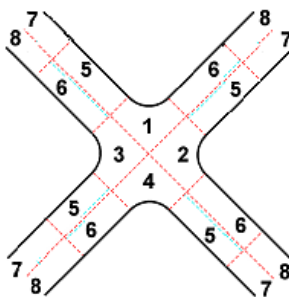
Intersection Type 1
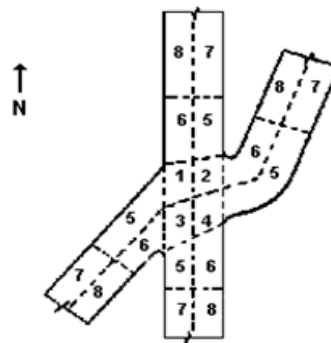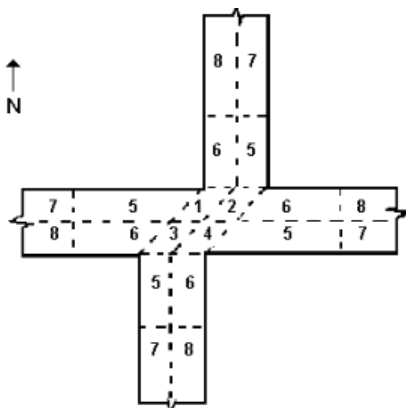
Intersection Type 1, Off-set

Intersection Type 1, Off-set
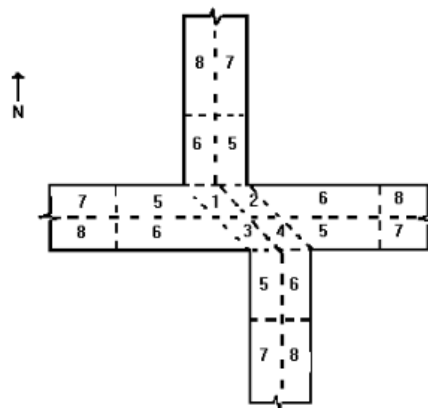
(Continued)

Figure 50. Location of Impact Diagrams - Set 2

Intersection Type 2
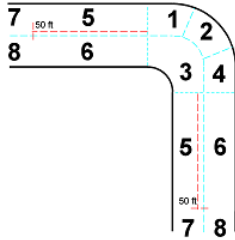
Intersection Type 2
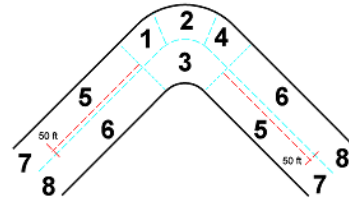
Intersection Type 3
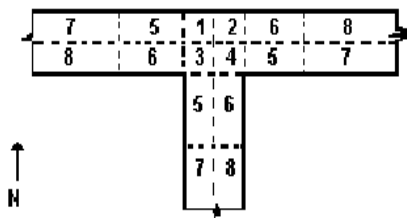
Intersection Type 3
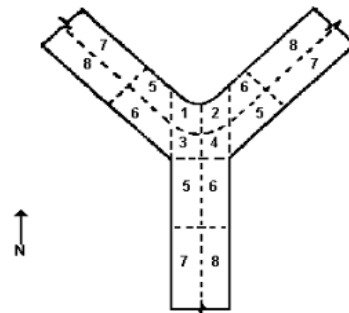
Intersection Type 3, with 1 turning leg
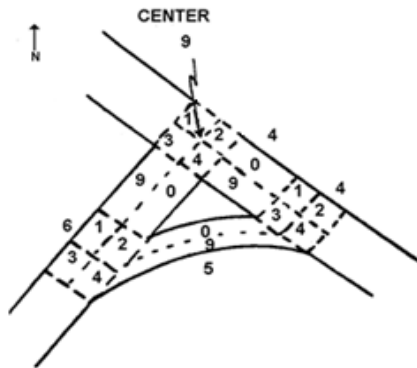
Intersection Type 3, with 2 turning legs
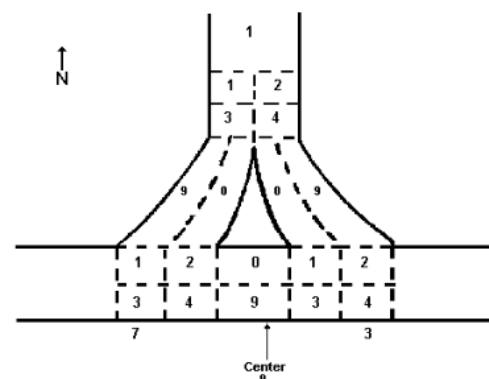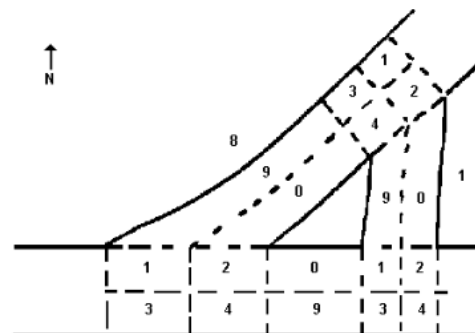
Location of Impact

(Continued)

Figure 51. Location of Impact Diagrams - Set 3

Intersection Type 4
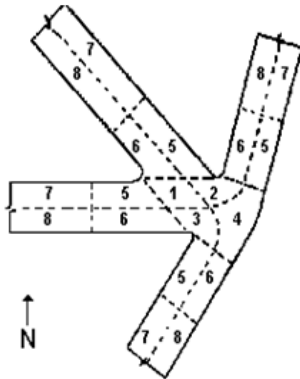
Intersection Type 4 - Offset
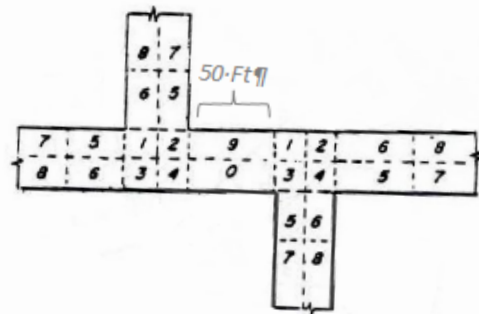
Intersection Type 5
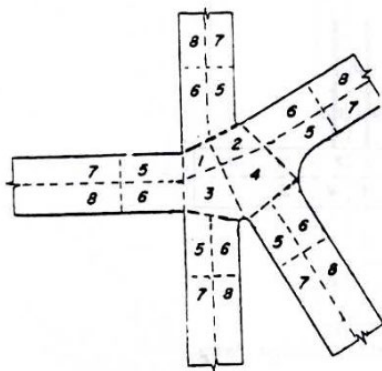
Intersection Type 6
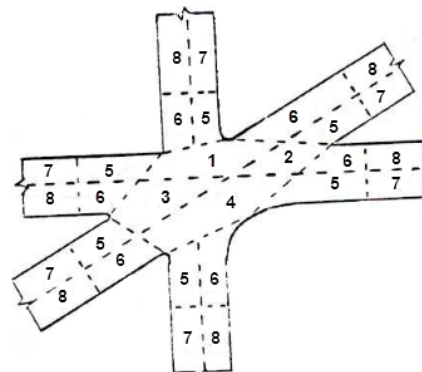
Non-Intersectional Crashes on City Streets

Code	Description
00	Crash location unknown
05 – 06	Zone within 50 feet of intersection
07 – 08	Zone 51 feet to mid-block. Reverse these codes at mid-block to reference from the next nearest intersecting road

Non-intersectional crashes on city streets are coded to zones **05**, **06**, **07** or **08**.

Figure 52. City Street Location of Impact Zones
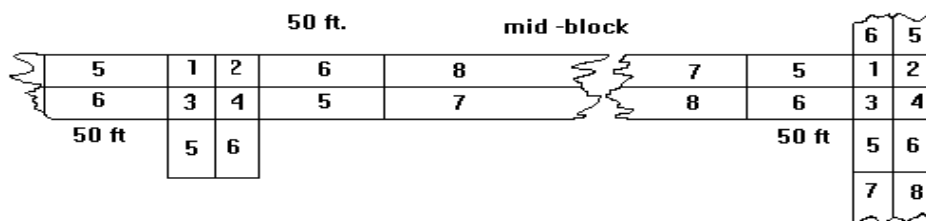
Location of Impact

(Continued)

Zones 05 and 06 represent areas within 50 feet approaching or exiting the intersection. Use **Code 05** for the **first zone on the left** at the intersection curb line. Use **Code 06** for the **first zone on the right** at the intersection curb line.

Zones 07 and 08 represent areas 51 feet away from the intersection and go to the middle of the block. These two zones *reverse at mid-block* to reference from the *next* nearest intersection. Use **Code 07** for the **second zone on the left**. It extends from zone 05 to mid-block. Use **Code 08** for the **second zone on the right**. It extends from zone 06 to mid-block.

Use **Code 00** if the location of impact is unknown for non-intersectional city street crashes.

Non-Intersectional Crashes on County Roads

Code	Description
00	Unknown
01	Same direction – beyond shoulder
02	Same direction – shoulder
03	Intended direction of travel of "striking vehicle" (One or more lanes)
04	Centerline or center turn lane
05	Opposing direction – traffic lane(s)
06	Opposing direction – shoulder
07	Opposing direction – beyond shoulder

The Location of Impact field is not intended to identify the *lane* in which the impact occurred, for county road crashes. It identifies the *side of the road* on which the impact occurred, and *whether the striking vehicle was outside of its normal lane of travel* at the time of the crash.

Non-intersectional county road crashes are coded with reference to the appropriate *side of the road the striking vehicle should be traveling on.* (See **Vehicle Number** for information on the "striking vehicle".)

For non-intersectional county road crashes, code the travel lane of the striking vehicle as "03". All other lane numbers ascend from that lane. Code the off-road location *on the striking vehicles' side of the road* as "01". Code the shoulder of the road as "02", centerline as "04", and the opposing lane as "05". Code the shoulder *on the opposing side* as "06", and the off-road location on the opposing side as "07".

The illustrations that follow are meant to clarify how to code Location of Impact for non-intersectional crashes on county roads.

Example 1: Turning Into driveway, or U-turns: Striker is driving in his "intended direction of travel lane" prior to turning into a driveway or making a U-turn.

Example 2: Turning out of driveway: Striker leaves driveway from the location of impact code area 1. See the following examples.

Figure 53. Striking Vehicle Diagram
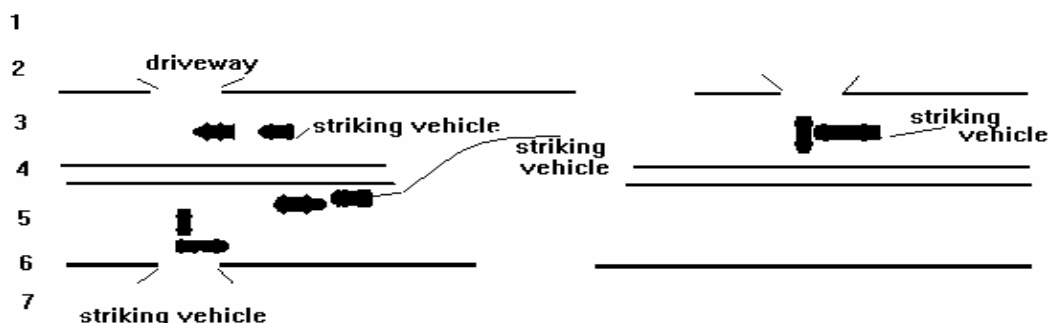
Non-Intersectional Crashes on State Highways

Code	Description
00 - 14	Varies according to median and number of lanes (see examples)

All highway system crashes are located by milepoint. Location of Impact is coded based on the following fields:

- Number of Lanes
- Median Type, and
- The direction in which the highway milepoints increase

Code "01" indicates that the crash occurred off roadway, *in the direction of the increasing milepoints*.

Code "02" represents the shoulder of the road.

Code "03" represents the right-hand lane of travel in the direction of increasing milepoints.

The codes increase sequentially according to the number of lanes and type of median on the highway.

The following pages show common examples of highways, according to the direction of the increasing milepoints (South, North, East and West), the number of travel lanes, and the type of median present.

The numbers the occur in the middle or on the side of each schematic represent the Location of Impact code for that area.

State Highway LOI Diagram – Southbound
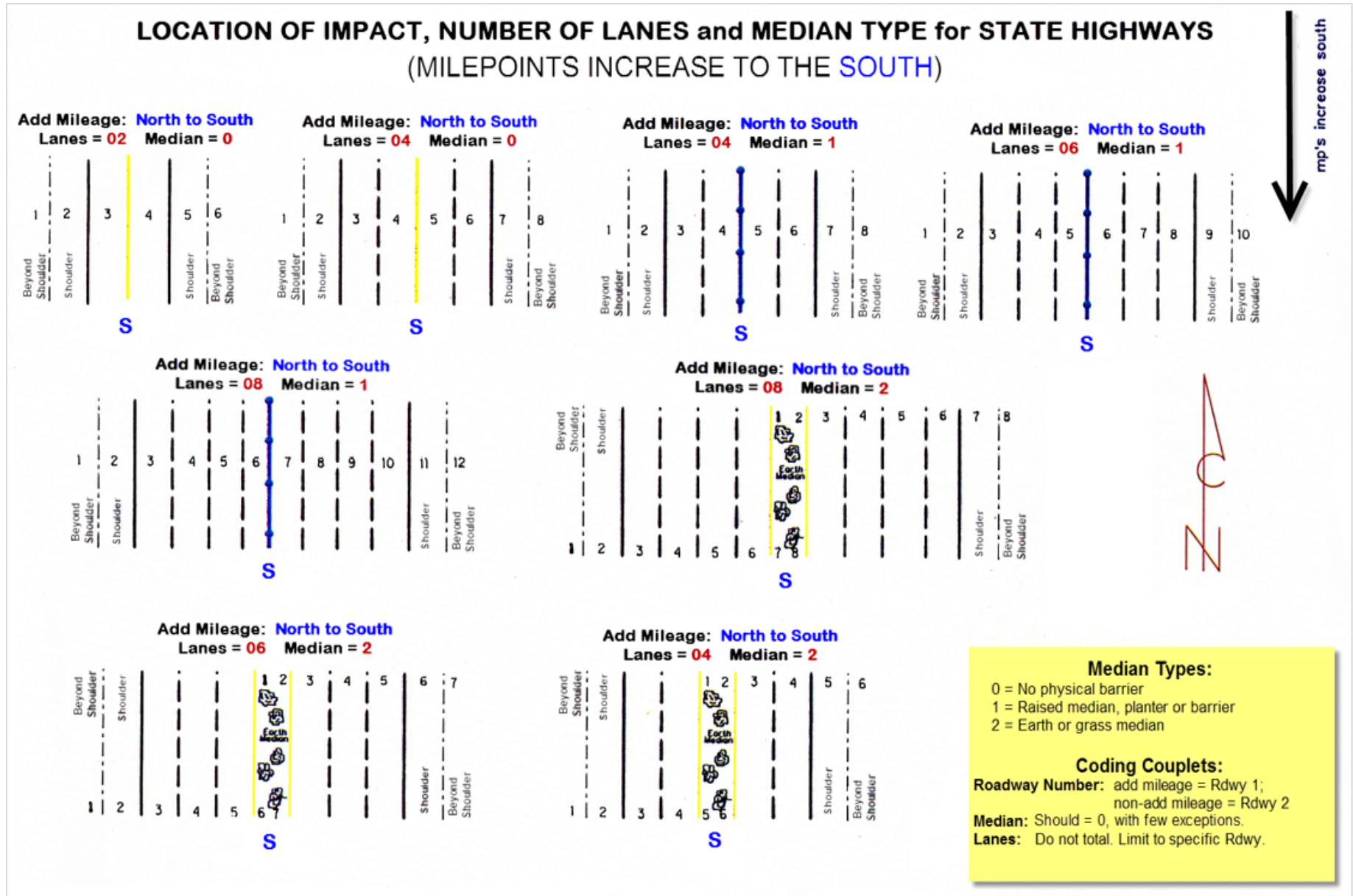
Figure 54. State Highway Location of Impact Diagrams - Southbound

State Highway LOI Diagram - Northbound

> *Exception:* *I-5 (Pacific Hwy 1) southbound lanes are designated Roadway 1, even though I-5 milepoints increase to the north.*
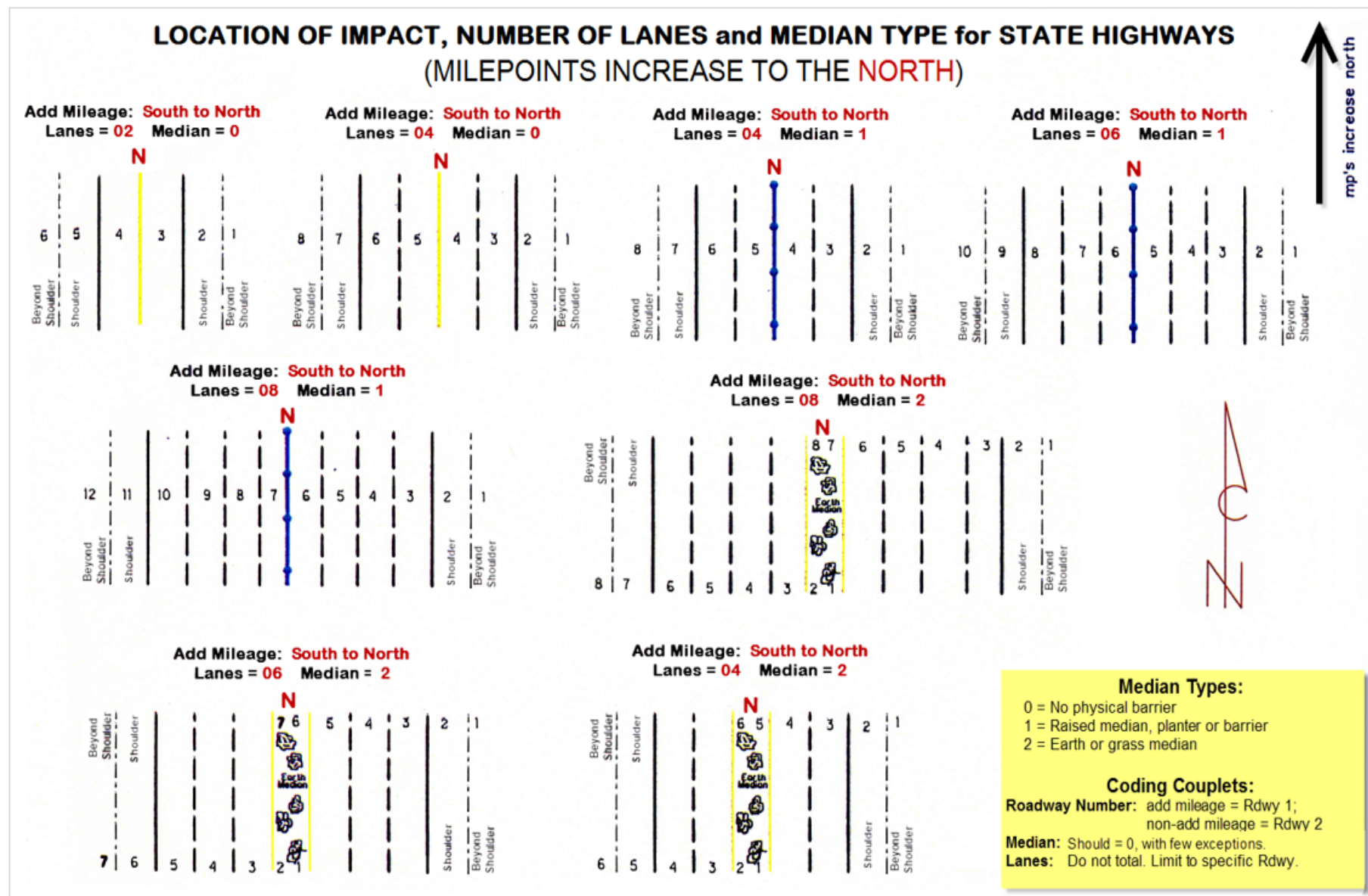
Figure 55. State Highway Location of Impact Diagrams - Northbound

State Highway LOI Diagram – Eastbound

Figure 56. State Highway Location of Impact Diagrams - Eastbound

97

State Highway LOI Diagram - Westbound

Figure 57. State Highway Location of Impact Diagrams - Westbound

Location of Impact

(Continued)

Validations:

Rule #	Rule Message	Severity
48	Location of Impact must be 01,02,03,04,05,06 when Road Character = 1	Red/Severe
62	[code field value] was not found in [lookup table name] or is not valid as of the crash date	Red/Severe
63	When Highway Number is entered, Impact Location Code must be a Numeric value <=14	Red/Severe
64	When Highway Number is not entered but City Identifier is entered, Impact Location code must be a numeric value <=9	Red/Severe
65	When Highway Number is not entered and City Identifier is not entered, Impact Location code must be a numeric value <=7	Red/Severe
134	When not on a highway and not in a city, and not at an intersection with turning legs, Impact Location code must be <=7	Red/Severe
135	When not on a highway and not in a city, but it is at an intersection with turning legs, Impact Location Code must be <=9	Red/Severe
179	When Road Character = 1 and Number of Turning Legs >=1, and Direction does not equal 9 then Location of Impact must be 00, 01, 02, 03, 04, 05, 06 or 09	Red/Severe
1024	When Road Character = 1 (Intersectional) and Number of Turning Legs = 0 and Direction From Intersection = 9 (Center of Intersection), then Location of Impact must be 01, 02, 03, or 04.	Red/Severe

Crash Type

Table: CRASH   **Column:** CRASH_TYP_CD   **Data Type:** char   **Length:** 1

Code	Description	Code	Description
Collision with Motor Vehicle in Transport		*Other Crash Type*	
A	Entering at angle – one vehicle stopped	1	Motor vehicle on other roadway
B	Entering at angle – all others	2	Parked motor vehicle
C	From same direction – both going straight	3	Pedestrian
D	From same direction – one turn, one straight	4	Railway train
E	From same direction – one stopped	6	Pedalcyclist
F	From same direction – all others	7	Animal
G	From opposite direction – both going straight	8	Fixed object
H	From opposite direction – one left turn, one straight	9	Other object
I	From opposite direction – one stopped	&	Overturned
J	From opposite direction – all others	0	Other non-collision

Description:

Crash Type is a single-character field that identifies the first harmful event. A harmful event is an occurrence of injury or damage.

Instructions:

Collision with Motor Vehicle in Transport
When the first harmful event is a collision with another motor vehicle in transport, the Crash Type field also describes the *intended path of travel* of the striking vehicle, in relation to the first vehicle that was struck. The exception to this rule is **Code "1"** – Motor vehicle on other roadway.

Other Crash Types
For other crash types, this field describes first harmful events other than those involving motor vehicles in transport, with the exception of **Code "1"**.

Code "1" is used when a motor vehicle in transport leaves the travel portion of one road and enters a different roadway, having a collision with a motor vehicle in transport on the second roadway.

Code "3" (Pedestrian) is used when a vehicle strikes a pedestrian <u>as the first harmful event</u>.
> Enter **code "3"** (Pedestrian) in this field, *and*
> Enter **code "0"** in the **Collision Type** field

> **Do not use code "3"** for crashes where a pedestrian is struck ***subsequent to*** the first harmful event (i.e., a "sub-ped" crash). Enter Event code 005 in the pedestrian's participant record, for such cases.

Code "6" (Pedalcyclist) is used when a vehicle strikes a bicyclist or other pedalcyclist <u>as the first harmful event</u>.

> **Do not use code "6"** for crashes where a pedalcyclist is struck ***subsequent to*** the first harmful event. Istead, enter Event code **109** (Sub-Bike) in the pedalcyclist's participant record. *(Effective 2014).*

Code "8" (Fixed Object) is used when the first harmful event is a stationary object that is permanently or intentionally located on or off road. When **Crash Type = Fixed Object** and the location is ***not*** off-road, one of the following Event codes must be used:

Code	Fixed Objects that Can Be Struck while Driving On a Roadway
049	Bridge girder (horizontal structure overhead)
063	Tree branch or other vegetation overhead, etc.
064	Wire or cable across or over the road
073	Other bump (not speed bump), pothole or pavement irregularity
074	Other overhanging object (highway sign, signal head, etc.); not bridge
118	Expansion joint
127	Rock slide or land slide

Code "&" (Overturned) is used only when the <u>first harmful event</u> is an overturn (rollover). For example, a vehicle is driven down a ditch, trips due to the soft surface (as opposed to striking the ditch), and rolls over.

When **Crash Type** = Overturn, do not use **Event** code '010' - "overturned *after* first harmful event". Code Collision Type as Non-collision (code 8).

Validations:

Rule #	Rule Message	Severity
66	Required field [field name] missing	Red/Severe
67	[code field value] was not found in [lookup table name] or is not valid as of the crash date	Red/Severe
70	Combination of [first code field] and [second code field] not valid in the [cross-reference table name] cross-reference table	Red/Severe
71	Combination of [first code field] and [second code field] must be confirmed.	Yellow/Warning
89	When Crash Type Code = 4 (Train), one of Crash-level Event code values must be 111, 112, 113, 015 or 016	Red/Severe
90	If Crash Type Code = 4 (Train), at least one vehicle on this crash must have a Vehicle-level Event Code value of 017, 018, or 019	Red/Severe
91	When Crash Type Code = 8 (Fixed Object), at least one Vehicle on this crash must have a Vehicle-level Event Code value that is between 037 and 067, or between 077 and 079, or be one of the following values: 072, 073, 074, 088, 095, 096, 100, 118, 119, 120 or 127	Red/Severe

Crash Type

(Continued)

132	At least two vehicles must be coded when the Crash Type is 1, 2, A, B, C, D, E, F, G, H, I or J	Red/Severe
148	Crash Type code 'H' is not valid for crashes coded to mainline Interstate highway	Red/Severe
604	Crash type indicates Pedestrian, but no pedestrian was coded	Red/Severe
605	Crash type indicates Pedalcyclist, but no pedalcyclist was coded	Red/Severe
649	If Crash Type Code = 3 (Pedestrian) then none of the Participant Event Codes can be 005 (sub-ped)	Red/Severe
708	If a Pedestrian is struck as the first harmful event, Crash Type must = 3 and Collision Type must = 0. If Pedestrian is struck subsequent to the first harmful event, enter Event code 005 on the Crash Level and on the Participant Level for the Pedestrian record	Red/Severe

Collision Type

Table: CRASH   **Column:** COLLIS_TYP_CD   **Data Type:** char   **Length:** 1

Code	Description	Code	Description
1	Angle	7	Parking Maneuver
2	Head-On	8	Non-collision
3	Rear-End	9	Fixed-Object or Other-Object
4	Sideswipe-meeting	0	Pedestrian
5	Sideswipe-overtaking	-	Backing
6	Turning Movement	&	Miscellaneous

Description:

Collision Type is a one-character alphanumeric code. It refers to the angle or direction of impact between vehicles based on their intended path of travel, or to the type of first impact (i.e. Non-Collision, Fixed Object, Pedestrian, etc.). Therefore, *any attempted maneuver to avoid the collision is not relevant to the coding of this field*.

Coding Priority
If a vehicle is performing more than one of the movements bulleted below, at the same time, the priority for coding Vehicle Movement is as follows:

1. Parking
2. Backing
3. Turning
4. Stopped

If a vehicle strikes a pedestrian as the first harmful event, enter **Code "0"** (Pedestrian) in this field, and enter **Code "3"** in the **Crash Type** field. (This rule does not apply to crashes in which a pedestrian is struck subsequent to the first harmful event; i.e., a "sub-ped" crash. See Event code 005 for such cases.)

If Crash Type = "8" (Fixed Object) and Collision Type = "9" (Fixed Object), then Off Roadway Flag **_must_** be coded as "1" (Off Road), **_except_** for when the following Event codes are used:

Code	Description
049	Bridge girder (horizontal structure overhead)
063	Tree branch or other vegetation overhead, etc.
064	Wire or cable across or over the road
073	Other bump (not speed bump), pothole or pavement irregularity
074	Other overhanging object (highway sign, signal head, etc.); not bridge
127	Rock slide or land slide

Definitions:

Angle Collision – An angle collision results when vehicles collide while traveling on crossing paths. An angle collision involves one vehicle traveling on one roadway (i.e. North to South) and another vehicle entering from another roadway, open access, or driveway (i.e. East to West). In other words, a cross-movement on one street must be attempted by a vehicle traveling on the intersecting street in order for Collision Type to be classed as angle.

Backing Collision – A backing collision results when a vehicle is backing in a traffic lane and strikes another vehicle also in a traffic lane. This type will not include backing during a parking maneuver.

Fixed Object or Other Object Collision – A fixed or other object collision results when one vehicle strikes a fixed or other object on the roadway or off roadway. The **Vehicle Event** field should be coded describing what was hit.

Head-On Collision – The head-on type of collision results when the drivers of two vehicles traveling in opposite directions on parallel paths attempt to occupy the same position at the same time and find their forward movement impeded. It is not necessary for the vehicles to collide head-on; that is, for each to be struck perpendicularly to the front of the car. It is the alteration of the intended path of travel that defines the type of collision. To conform to the definition, any attempted maneuver to avoid the collision is inconsequential to the complete crash.

Miscellaneous Collision – Miscellaneous collisions include all animal crashes except animals drawing vehicles, and all crashes not classifiable under the above types. Examples include hitting a wild or domestic animal, lost load, or drive shaft fell from vehicle.

Non-collision – A non-collision crash initially involves only one vehicle, and cannot be classified as another collision. The most common non-collision crash type is an overturn (rollover). If the vehicle strikes another object, second vehicle, etc. after the initial overturn, the Collision Type is still classified as "Non-collision".

Parking Maneuver Collision – A parking maneuver collision results when a vehicle in the act of entering or leaving a parked position is involved in a collision. A parking maneuver continues until the vehicle has completely cleared the parked position and is moving in the traffic lane. The reverse is true for a vehicle entering a parked position.

Pedestrian Collision – A pedestrian collision results when the first harmful event is any impact between a motor vehicle in traffic and a pedestrian. This excludes any crash where a pedestrian is injured after the initial vehicle impact. In this case, the first harmful event would be the collision type (i.e. rear-end collision) with the pedestrian being coded as a supplemental event to the crash.

Rear-End Collision – A rear end collision results when a vehicle traveling in the same direction or parallel on the same path as another vehicle, collides with the rear end or a second vehicle. In this type, the direction of travel was parallel but continuous.

Collision Type

Sideswipe-meeting Collision – A sideswipe meeting collision results when vehicles traveling in opposite directions on parallel paths collide. The side of at least one of the vehicles must be involved

Sideswipe-overtaking Collision – A sideswipe overtaking collision results when vehicles traveling in the same direction on parallel paths collide. The side of at least one of the vehicles must be involved.

Turning movement Collision – A turning movement collision results when one or more vehicles in the act of a turning maneuver is involved in a collision with another vehicle.

Validations:

Rule #	Rule Message	Severity
68	Required field [field name] missing	Red/Severe
69	[code field value] was not found in [lookup table name] or is not valid as of the crash date	Red/Severe
70	Combination of Crash Type Code and Collision Type Code is not valid	Red/Severe
71	Combination of Crash Type Code and Collision Type Code must be confirmed	Yellow/Warning

Crash Severity

Table: CRASH   **Column:** CRASH.SVRTY_CD   **Data Type:** char   **Length:** 1

Code	Description
2	Fatal crash
4	Non-fatal injury crash
5	Property damage only crash (PDO)

Description:

Crash Severity is classified according to the type of injury sustained in the crash.

Instructions:

For example, if there were two injuries and one fatality, it is a fatal Crash. Enter Crash Severity **code "2"**. If there were no injuries, it is a "property damage only" crash. Enter Crash Severity **code "5"**.

*Effective for 2015 crash data entry, "**Property damage only**" was discontinued as an option for "Crash Severity" for **Pedestrian** and **Pedalcycle-Involved** motor vehicle crashes.*

There is no legal requirement, nor option, for bicyclists and pedestrians to report when they're involved in a crash. In the absence of formal reporting from these participants, a decision had to be made regarding their injury severity. It was determined that, as vulnerable road users, bicyclists and pedestrians must receive at least a "possible injury" in collisions with motor vehicles. Therefore, the Crash Severity value for non-fatal crashes in which pedestrians or pedalcyclists are struck is **code "4"**.

Died Prior to Crash

When the death of a driver initiates the unstabilized situation, if *no other persons are injured*, and property damage exceeds the monetary threshold established by DMV, code Crash Severity as **5 - Property Damage Only**. Also refer to Participant Injury Severity instructions for this type of incident.

Definitions:

Fatal Crash is a motor vehicle crash that results in fatal injuries to one or more persons. For purposes of Motor Vehicle Crash Classification, death must occur within 30 days. *(See ANSI D16.1-2007, definition 3.1.3, "Time of Classification".)* Crashes that result from deliberate intent, suicide, homicide (not negligent homicide) and non-traffic are not included. Crashes that occur on private property or in parking lots are only coded when they involve entering or exiting the roadway.

Non-Fatal Injury Crash is a motor vehicle crash that results in any injury not resulting in death.

Property Damage Only (PDO) crash is a motor vehicle crash in which there is no injury to any person, but damage occurred to a motor vehicle, other road vehicle, or to other property, including injury to domestic animals.

Crash Severity

(Continued)

Validations:

Rule #	Rule Message	Severity
72	Required field [field name] missing	Red/Severe
73	[code field value] was not found in [lookup table name] or is not valid as of the crash date	Red/Severe
624	Combination of [first code field] and [second code field] not valid in the [cross-reference table name] cross-reference table	Red/Severe
625	Combination of [first code field] and [second code field] must be confirmed.	Yellow/Warning
627	Crash Severity indicates Fatal Crash, but no Participant was coded with a fatal injury	Red/Severe
629	Crash Severity indicates at least one Participant was injured, but no Participant was coded	Red/Severe

Weather Condition

Table: CRASH   **Column:** WEATHR_COND_CD   **Data Type:** char   **Length:** 1

Code	Description
0	Unknown
1	Clear
2	Cloudy
3	Rain
4	Sleet / Freezing Rain / Hail
5	Fog
6	Snow
7	Dust
8	Smoke
9	Ash

Description:

Weather Condition represents the atmospheric conditions at the time of the crash.

Instructions:

Code the predominant weather condition. When multiple options apply, code the weather condition most related to the occurrence of the crash.

Oregon's climate varies widely. The temperate Pacific rainforest regions experience frequent rainfall that may clear rapidly. This creates a situation where the Weather Condition is clear, but the roads are still wet; resulting in crashes that occur due to wet pavement, despite the clear skies.

This combination of codes triggers a warning flag in the data entry system because we need the system to warn crash techs in case they entered these codes by mistake. If the entry is correct, press the "Accept Warnings" button.

Validations:

Rule #	Rule Message	Severity
74	Required field [field name] missing	Red/Severe
75	[code field value] was not found in [lookup table name] or is not valid as of the crash date	Red/Severe
78	Combination of Weather Condition Code and Road Surface Condition Code is not valid	Red/Severe
79	Warning – combination of Weather Condition Code and Road Surface Condition Code must be confirmed – Please review	Yellow/Warning

Road Surface Condition

Table: CRASH   **Column:** RD_SURF_COND_CD   **Data Type:** char   **Length:** 1

Code	Description
0	Unknown
1	Dry
2	Wet
3	Snow
4	Ice

Description:

Road Surface Condition represents the condition of the travel lanes at the time of the crash.

Instructions:

When a crash occurs in a tunnel, the predominant weather condition outside is coded. However, this could create a situation where the Weather Condition is coded **"rain"** and the Road Surface Condition is coded **"dry"**. This combination of codes will produce a yellow warning flag in the data entry system, but in this scenario, the coding is correct.

If there is a conflict between ice and snow, and the crash report indicates that the vehicle slid on ice, code the Road Surface Condition as Ice.

Validations:

Rule #	Rule Message	Severity
76	Required field [field name] missing	Red/Severe
77	[code field value] was not found in [lookup table name] or is not valid as of the crash date	Red/Severe
78	Combination of Weather Condition Code and Road Surface Condition Code is not valid	Red/Severe
79	Warning – combination of Weather Condition Code and Road Surface Condition Code must be confirmed – Please review	Yellow/Warning

Light Condition

Table: CRASH   **Column:** LGT_COND_CD   **Data Type:** char   **Length:** 1

Code	Description
0	Unknown
1	Daylight
2	Darkness – with street lights
3	Darkness – no street lights
4	Dawn (Twilight)
5	Dusk (Twilight)

Description:

Light Condition represents the amount of ambient light available at the time of the crash. The code used for Light Condition should be compatible with the time of year and hour of day, unless special circumstances exist.

Instructions:

Do not use Code "0" – Unknown, unless **Crash Hour** is also unknown.

If light conditions are not stated on the driver report or PAR, refer to the chart below to determine the most appropriate code.

Figure 58. Seasonal Dusk/Dawn Chart
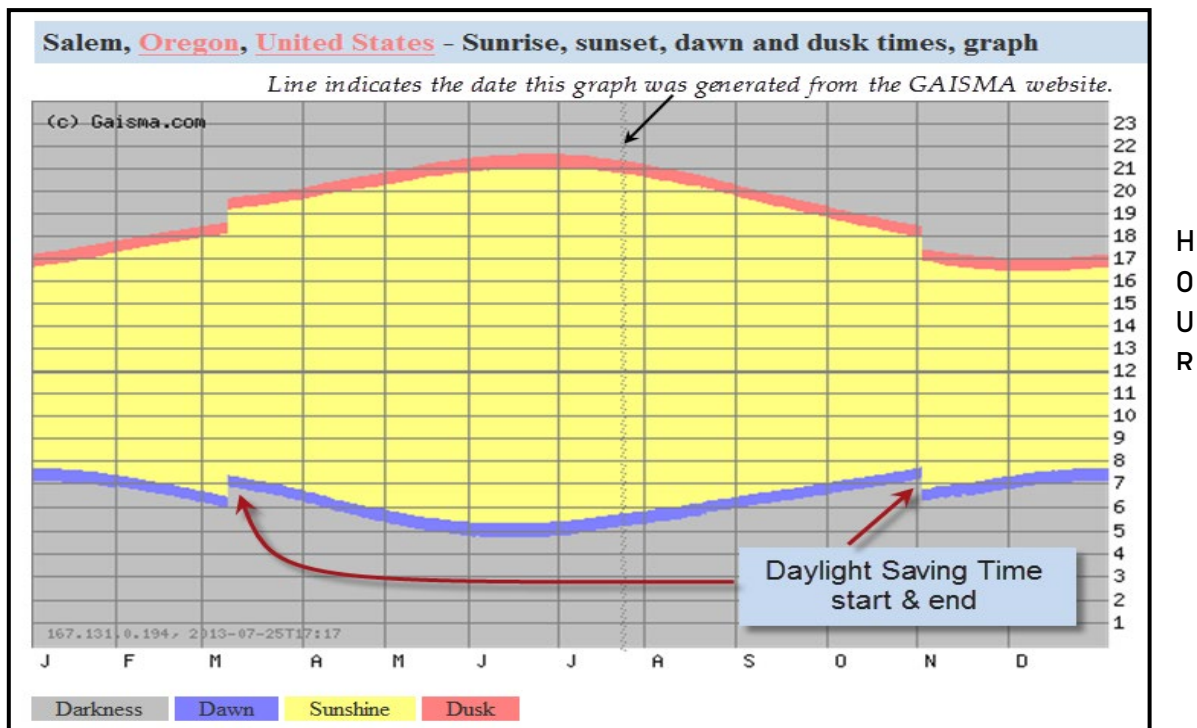
Source: GAISMA, http://www.gaisma.com, used with permission. Notes and labels added.

Light Condition

(Continued)

Validations:

Rule #	Rule Message	Severity
80	Required field [field name] missing	Red/Severe
81	[code field value] was not found in [lookup table name] or is not valid as of the crash date	Red/Severe
82	Combination of Crash Hour, Light Condition and Crash Month not found on the cross-reference table	Red/Severe
83	Warning – please review combination of Crash Hour, Light Condition and Crash Month	Yellow/Warning

Traffic Control Device

Table: CRASH   **Column:** TRAF_CNTL_DEVICE_CD   **Data Type:** char   **Length:** 3

Code	Description	Code	Description
000	No control (as stated on Police Report)	020	Crossbuck
001	Traffic signals	021	Through green arrow or signal
002	Flashing beacon – red (stop)	022	Left turn green arrow, lane markings or signal
003	Flashing beacon – amber (caution)	023	Right turn green arrow, lane markings or signal
004	Stop sign	024	Wigwag or flashing lights without drop arm gate
005	Slow sign	025	Crossbuck and advance warning
006	Regulatory sign	026	Flashing lights with drop-arm gates
007	Yield sign *(Effective 2006)*	027	Supplemental overhead signal (RR crossing only)
008	Warning sign *(Effective 2006)*	028	Special rail road stop sign
009	Curve sign *(Effective 2006)*	029	Illuminated grade crossing
010	School crossing sign or Special signal	037	Metered ramps
011	Police officer, flagman, school patrol	038	Rumble strip *(Effective 2006)*
012	Bridge gate – barrier	**040**	**Automated Flagger Assistance Device**
013	Temporary barrier	090	Left turn refuge (when refuge is involved)
014	No passing zone	091	Right turn at all times sign, lane markings, or signal
015	One way street	092	Emergency signs or flares
016	Channelization	093	Acceleration or deceleration lanes
017	Median barrier	094	Right turn prohibited on red after stopping
018	Pilot car	095	Bus stop sign and red lights
019	Special pedestrian signal	090	Left turn refuge (when refuge is involved)

Description:

Traffic Control Device (TCD) is a three-digit code that indicates the predominant control present at the crash location.

Instructions:

More than one traffic control may be present (for example, a yield sign and a traffic signal at the same intersection), so code the control that is most pertinent to the crash.

A police officer or flagger controlling traffic (Codes 011, 040) takes precedence over other traffic controls. Automated Flagger Assistance Devices (AFAD) are controlled remotely by flaggers.

Oregon adopted a **Stop as Yield** law effective January 1, 2020. See below for coding instructions.

"Stop as Yield" Coding for Traffic Control Devices

Oregon statute (ORS 814.416) allows **pedalcyclists** to proceed through an intersection controlled by a stop sign or flashing red beacon without stopping, under certain circumstances.

Crash Data Technicians use a **combination** of fields to identify crashes involving a violation of Oregon's **"Stop as Yield"** law, including the Traffic Control Device field.

Use code **002** (flashing beacon – red, stop) or **004** (stop sign), whichever type of traffic control is present.

For violations of ORS 814.416*, refer to the **Stop as Yield section** under each of the following fields to see how to code them in combination with Traffic Control Device:*

- Crash Level Cause
- Participant Level Non-Motorist Location
- Participant Level Action
- Error
- Participant Level Cause

(ORS 814.416)

(1) A person operating a bicycle who is approaching an intersection where traffic is controlled by a flashing red signal may, without violating ORS 811.265 (Driver failure to obey traffic control device), do any of the following without stopping, *if the person slows the bicycle to a safe speed*:

- Proceed through the intersection.
- Make a right or left turn into a two-way street.
- Make a right or left turn into a one-way street in the direction of traffic upon the one-way street.

(2) A person commits the offense of improper entry into an intersection where traffic is controlled by a flashing red signal if the person does any of the following while proceeding as described in subsection (1) of this section:

    (a)   Fails to yield the right of way to traffic lawfully within the intersection or approaching so close as to constitute an immediate hazard;

    (b)   Disobeys the directions of a police officer;

    (c)   Fails to exercise care to avoid an accident; or

    (d)   Fails to yield the right of way to a pedestrian in an intersection or crosswalk under ORS 811.028 (Failure to stop and remain stopped for pedestrian).

(3) The offense described in this section, *improper entry into an intersection where traffic is controlled by a flashing red signal*, is a Class D traffic violation. [2019 c.683 §3]

Definitions

Frequently requested definitions are listed below. Refer to the Oregon Driver Manual for other examples of standard traffic control devices.

(Continued)

Automated Flagger Assistance Device: These mechanical devices are designed to be operated remotely by a flagger, allowing the flagger to be positioned safely outside the traffic lane. The devices may use stop/slow paddles and reflective lights, drop arms, or red/yellow signals.

Channelization: A method or device by which traffic is deliberately directed or diverted to another roadway or lane.

Flagger: A person who controls the movement of vehicular traffic through school zones, crash sites, or road construction areas using a sign, hand, or flag signals. *See ORS 811.230*

Regulatory Signs: inform road users of selected traffic laws or regulations and their applicability

Warning Signs: give notice of a situation that might not be readily apparent.

Examples

Examples of Traffic Control Devices begin on next page. Refer to the Manual on Uniform Traffic Control Devices (MUTCD) for more. *Manual on Uniform Traffic Control Devices (MUTCD) - FHWA (dot.gov)*

1. **Pedestrian Signal**

Figure 59. Pedestrian Signal - Rectangular Rapid-Flashing Beacon (RRFB)

https://safety.fhwa.dot.gov/ped_bike/step/docs/TechSheet_RRFB_508compliant.pdf

2. **Warning Signs**

Figure 60. Warning Signs

(Continued)

3. Rail Crossing Controls

Figure 61. Rail Crossing Controls
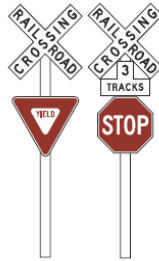
RR Advance Sign   *RR Crossbucks*   *RR Drop Arm Gate*
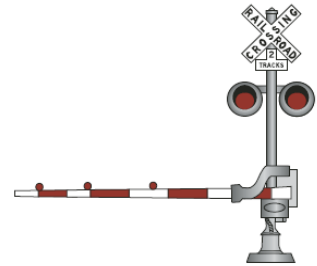
4. Route Signs

Figure 62. Route Signs

5. School Zone Signs

Figure 63. School Zone Signs
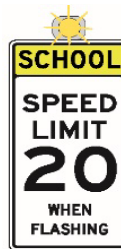
Overhead School Crossing Sign

Validations:

Rule #	Rule Message	Severity
84	Required field [field name] missing	Red/Severe
85	Traffic Control Device code was not found in the lookup table or is not valid as of the crash date	Red/Severe

Traffic Control Device Functional

Table: CRASH   **Column:** TRAF_CNTL_FUNC_FLG   **Data Type:** char   **Length:** 3

Code	Description
0	No
1	Yes

Description:

Traffic Control Device Functional is a yes/no field that indicates if the Traffic Control Device coded was functional at the time of the crash.

Instructions:

When using a default data entry screen for PDO crashes, a default value of 1 is loaded into this field. However, the field is not disabled, and the value may be changed.

Code "0" is used when the traffic control device is present but is not functioning correctly.

Code "1" is the default code. It is used when:

- A traffic control is known to be present and is known to be functioning properly
- A traffic control is known to be present but no information is available on whether the device is functioning properly
- No information exists on the presence of traffic control devices (assuming that if one exists, it is functioning correctly)

Validations:

Rule #	Rule Message	Severity
119	Value must be 1 for Yes or 0 for No	Red/Severe

Investigating Agency

Table: CRASH   **Column:** INVSTG_AGY_CD   **Data Type:** char   **Length:** 2

Code	Description
0	Driver report indicates the crash was not investigated by police
1	State Police –police report has been received
2	County Police - Police report has been received
3	City Police - Police report has been received
4	Unknown investigating agency –police report has been received
5	On Scene - Police report has not been received
6	Tribal Police
7	Other Police (includes safety and security officers)
8	No information available on whether crash was reported by police (Effective 2016)

Description:

Investigating Agency indicates whether law enforcement was present at the scene; if a police crash report has been received and, if so, which agency reported the crash.

Instructions:

See Code Descriptions in table above.

Validations:

Rule #	Rule Message	Severity
87	[code field value] was not found in [lookup table name] or is not valid as of the crash date	Red/Severe
186	The Investigating Agency field must be coded	Red/Severe

Crash Level Events

EDW

Table: CRASH_CAUSE_EVNT   **Column:** CRASH_EVNT_1_CD   **Data Type:** char   **Length:** 3
Table: CRASH_CAUSE_EVNT   **Column:** CRASH_EVNT_2_CD   **Data Type:** char   **Length:** 3
Table: CRASH_CAUSE_EVNT   **Column:** CRASH_EVNT_3_CD   **Data Type:** char   **Length:** 3

Code	Description (* denotes further description in 'Definitions' section)
Blank	None applicable at this level
001	Occupant fell, jumped, or was ejected from moving vehicle
002	Passenger interfered with driver
003	Animal or insect in vehicle interfered with driver
004	Pedestrian indirectly involved (Not struck)
005	"Sub-Ped": pedestrian struck subsequent to collision, etc.
006	Pedal-cyclist indirectly involved (Not struck) *(Effective 2014)*
007	Hitchhiker (Soliciting a ride)
008	Passenger or non-motorist being towed or pushed on conveyance
009	Actively getting on or off stopped or parked vehicle (must have physical contact with vehicle)
010	Overturned <u>after</u> first harmful event *(Crash Type must not equal & - "Overturn")*
011	Vehicle being pushed
012	Vehicle towed or had been towing another vehicle
013	Vehicle forced by impact into another vehicle, cyclist or pedestrian
014	Vehicle set in motion by non-driver (Child released brakes, etc.)
015	At or on railroad right-of-way (Not light-rail)
016	At or on light-rail right-of-way
017	Train struck vehicle
018	Vehicle struck train
019	Vehicle struck railroad car on roadway
020	Jackknife: trailer or towed vehicle struck towing vehicle
021	Trailer or towed vehicle overturned
022	Trailer connection broke
023	Detached trailing object struck other vehicle, non-motorist, or object
024	Vehicle door opened into adjacent traffic lane
025	Wheel came off
026	Hood flew up
028	Lost load, load moved or shifted
029	Tire failure
030	Pet: cat, dog and similar
031	Stock: cow, calf, bull, steer, sheep, etc.
032	Horse, mule, or donkey
033	Horse and rider
034	Wild animal, game (Includes birds; not deer or elk)
035	Deer or elk, wapiti

Code	Description *(* denotes further description in 'Definitions' section)*	
036	Animal-drawn vehicle	
037	Culvert, open low or high manhole	
038	*Impact attenuator	
039	Parking meter	
040	Curb (Also narrow sidewalks or bridges)	
042	Leading edge of guardrail	
043	Guard rail (Not metal median barrier)	
044	Median barrier (Raised or metal)	
045	Retaining wall or tunnel wall	
046	*Bridge railing or parapet (*On bridge or approach*)	
047	*Bridge abutment (Approach ends)	*(Revised 2014)*
048	*Bridge pillar or column -- even if struck protective guardrail first	
049	*Bridge girder (horizontal bridge structure overhead)	
050	Traffic raised island	
051	*Gore	
052	Pole – type unknown	
053	Pole – power or telephone	
054	Pole – street light only	
055	Pole – traffic signal and/or ped signal only	
056	Pole – sign bridge	
057	Stop or yield sign	
058	Other sign, including street signs	
059	Hydrant	
060	Delineator or marker (Reflector posts)	
061	Mailbox	
062	Tree, stump or shrubs	
063	Tree branch or other vegetation overhead, etc.	
064	Wire or cable across or over the road	
065	Temporary sign or barricade in road, etc.	
066	Permanent sign or barricade in/off road	
068	Foreign obstruction / debris in road (Not gravel)	
069	Equipment working on/off road (example: working motor vehicles inside work zone boundaries; snowplow actively plowing; street sweeper actively sweeping, etc.) *Do not create a vehicle record for equipment or working motor vehicles actively working on/off road.*	
070	Other equipment in or off road (Including parked trailer, boat)	
071	Wrecker, street sweeper, snow plow or sanding equipment	
072	Rock, brick or other solid wall	*(Effective 2004)*
073	Other bump *(not speed bump)* pothole or pavement irregularity	
074	Other overhead object (highway sign, signal head, etc.); not Bridge	*(Effective 2004)*
075	Bridge or road cave in	

Code	Description *(* denotes further description in 'Definitions' section)*
076	High water
077	Snow bank
078	Low or high shoulder at pavement edge *(Revised 2014)*
079	Cut slope or ditch embankment
080	Struck by rock or other object set in motion by other vehicle, including lost loads *(Do not use with code 081)*
081	Struck by rock or other moving, falling or flying object *(Do not use with code 080)*
082	Vehicle obscured view
083	Vegetation obscured view
084	View obscured by fence, sign, phone booth, etc.
085	Wind gust
086	Vehicle immersed in body of water
087	Fire or explosion
089	Crash related to another separate crash (same day, same time? - check w/ RN)
090	Two-way traffic on divided roadway all routed to one side
091	Building, other structure *(Effective 2004)*
092	Other (phantom) non-contact vehicle (On PAR or witness statement)
093	Cell phone (on PAR or report submitted by driver using phone)
094	Police report indicates teenage driver of an involved vehicle was in violation of graduated license program
095	*Guy wire
096	Berm (Earthen or gravel mound)
097	Gravel in roadway
098	Abrupt edge
099	Cell phone use witnessed by other participant
100	Fixed object, unknown type
101	Non-Fixed object, other or unknown type
102	Texting *(Effective 2014)*
103	Work Zone Worker *(Effective 2014)*
104	Passenger riding on vehicle exterior
105	Passenger riding on pedalcycle
106	Pedestrian in non-motorized wheelchair
107	Pedestrian in motorized wheelchair
108	Law Enforcement / Police Officer *(Effective 2014)*
109	"Sub-Bike": pedal-cyclist injured subsequent to collision, etc. *(Effective 2014)*
110	Non-motorist struck vehicle
111	Street car or trolley (on rails or overhead wire system) struck vehicle
112	Vehicle struck street car / trolley (On rails or overhead wire system)

Code	Description *(* denotes further description in 'Definitions' section)*	
113	At or on street car or trolley right-of-way	
114	Vehicle struck railroad equipment on tracks (Not train)	
115	Distracted by navigation system or GPS device	*(Effective 2014)*
116	Distracted by other electronic device	*(Effective 2014)*
117	Rail crossing drop arm gate	*(Effective 2014)*
118	*Expansion joint	*(Effective 2014)*
119	Jersey barrier	*(Effective 2014)*
120	Wire or cable median barrier	
121	Fence	*(Effective 2014)*
123	Loose object in vehicle struck occupant	*(Effective 2014)*
124	Sliding or swerving due to wet, icy, slippery or loose surface	
125	Shoulder gave way	
126	Rocks / boulder (Not gravel; not rock slide)	*(Effective 2014)*
127	Rock slide or land slide	*(Effective 2014)*
128	Curve present at crash location *(Do not use with code 130, nor Character of Road code '5' - Curve)* *(Effective 2014*	
129	Vertical grade, hill present at crash location *(Do not use with code 131, nor Character of Road code '7' – Vertical grade/hill)* *(Effective 2014*	
130	View obscured by curve *(Do not use with code 128)*	*(Effective 2014)*
131	View obscured by vertical grade, hill *(Do not use with code 129)*	*(Effective 2014)*
132	View obscured by vehicle window conditions	*(Effective 2014)*
133	View obscured by water spray	*(Effective 2014)*
134	Torrential rain (Exceptionally heavy rain, not cataclysmic in nature)	*(Revised 2023)*
135	Injured occupant of railway train, light rail, street car or cable car	*(Effective 2019)*

Description:

Event is comprised of up to three 3-digit codes that represent incidents or situations contributing to or occurring during a crash. Events generally represent occurrences of injury or property damage; but they may also identify other crash factors.

Instructions:

On the Crash Level, enter the Events that relate to the overall crash, in the order of occurrence. Up to three Event codes are allowed. If more than three events occur, code the three most significant events related to the crash occurrence.

Code 103 – Work Zone Worker may be pedestrians, motor vehicle occupants, or "other non-motorist" if using equipment inside barriers or off road. Code the Participant Type field accordingly, and use code 103 in the Participant Event field as well, to enable reporting of Work Zone Worker attributes (i.e. gender, age, non-motorist location, etc.)

Code 128 - Curve present at crash location: *Use <u>only when you can't code Character of Road as '5' (Curve)</u> due to coding priority rules*. Do not use with Event Code 130.

Code 129 – Vertical grade/hill present at crash location: *Use <u>only when you can't code Character of Road code '7' (Vertical grade/hill)</u> due to coding priority rules.* Do not use with Event Code 131.

Events specific to Vehicles and Participants are listed under those sections of this manua as well.

Definitions:

Figure 64. Bridge Components
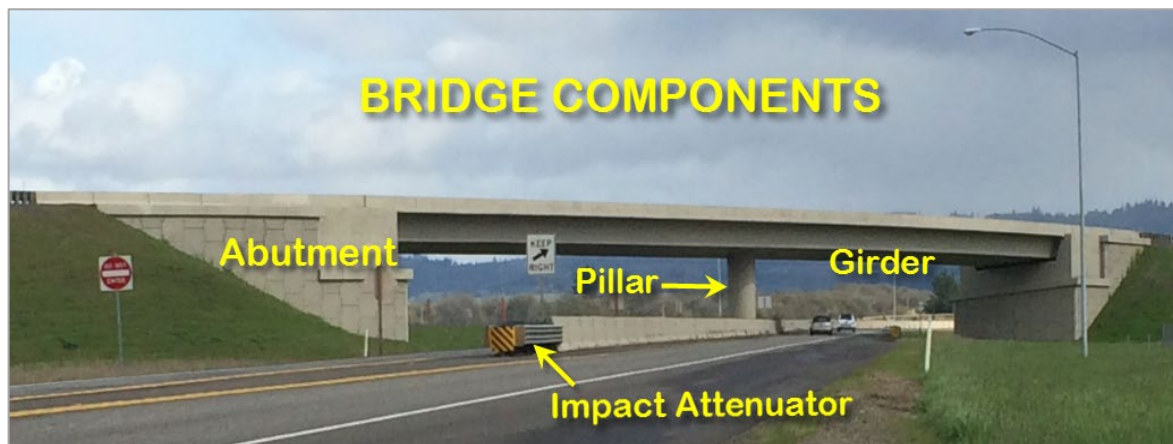
Bridge Abutment: A retaining wall supporting the ends of a bridge. (*See image on next page)*

Bridge Girder: A large beam beneath the deck of the bridge: or other horizontal structure that supports vertical loads by resisting bending.

Bridge Pillar / Column: A vertical structure that resists compression and supports the ends of a bridge between abutments.

Bridge Railing or Parapet: A protective wall or fence built at the outermost edge of the upper bridge span or at the sidewalk / rail end to protect pedestrians and vehicles.

(Continued)

Impact attenuator: A device used to divert and decelerate impacts of vehicles from striking more rigid objects, in order to reduce the crash severity. Examples include barrels filled with water or sand and plastic collapsible structures. *(see image on previous page)*

Expansion Joint: Engineered "pre-planned cracks in concrete slabs that allow for the structure to expand when it is heated during the day, and to contract when it is cold at night or in the winter. Expansion joints permit independent vertical and horizontal movement between adjoining parts of the structure and help minimize cracking.

Gore: An area inside the triangular space that divides a ramp exit or entrance from the mainline roadway. Its purpose is to provide recovery room for a vehicle. Impact attenuating devices are usually located inside the gore area.

Guy Wire: A stabilizing brace made of cable, wire or rope that is used to secure or steady a sign, pole or structure.
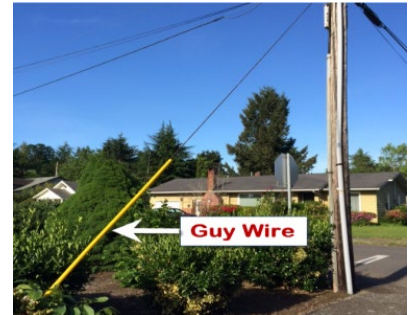
Validations:

Rule #	Rule Message	Severity
88	Value was not found in the EVNT table or is not valid for use as of the crash date	Red/Severe
89	When Crash Type Code = 4 (Train), one of Crash Level Event code values must be 015 or 016	Red/Severe
709	If CRASH level Cause code = 099, there must be at least one driver, Bicyclist (or other Non-Motorist) with Partic Evnt = 093	Red/Severe
710	If CRASH level CAUSE code = 099, there must be at least one driver, Bicyclist (or other Non-Motorist) with Partic Evnt = 099	Red/Severe

Crash Level Events by Category

Event codes grouped by category and some Events apply to more than one category.

Animal

Code	Description
030	Pet: cat, dog and similar
031	Stock: cow, calf, bull, steer, sheep, etc.
032	Horse, mule, or donkey
033	Horse and rider
034	Wild animal, game (Includes birds; not deer or elk)
035	Deer or elk, wapiti
036	Animal-drawn vehicle

Avoiding

These codes may be used in conjunction with Vehicle Action code 007: Avoiding maneuver (Successful)

Code	Description
004	Pedestrian indirectly involved (Not struck)
006	Pedal-cyclist indirectly involved (Not struck)
007	Hitchhiker (Soliciting a ride)
030	Pet: cat, dog and similar
031	Stock: cow, calf, bull, steer, sheep, etc.
032	Horse, mule, or donkey
033	Horse and rider
034	Wild animal, game (Includes birds; not deer or elk)
035	Deer or elk, wapiti
036	Animal-drawn vehicle
068	Foreign obstruction / debris in road (Not gravel)
073	Other bump (not speed bump), pothole or pavement irregularity (Per PAR)
092	Other (phantom) non-contact vehicle (On PAR or report)

Distractions

Code	Description
002	Passenger interfered with driver
003	Animal or insect in vehicle interfered with driver
004	Pedestrian indirectly involved (Pedestrian not struck)
006	Pedal-cyclist indirectly involved (Pedal-cyclist not struck)
007	Hitchhiker (Soliciting a ride)
030	Pet: cat, dog and similar
031	Stock: cow, calf, bull, steer, sheep, etc.
032	Horse, mule, or donkey
033	Horse and rider
034	Wild animal, game (Includes birds; not deer or elk)
035	Deer or elk, wapiti

Distractions (cont.)

Code	Description
092	Other (phantom) non-contact vehicle (On PAR or report)
093	Cell phone (On PAR or report submitted by using phone)
099	Cell phone use witnessed by other participant
102	Texting
115	Distracted by navigation system or GPS device
116	Distracted by other electronic device

Fixed Object

Code	Description
037	Culvert, open low or high manhole
038	Impact attenuator
039	Parking meter
040	Curb (Also narrow sidewalks or bridges)
042	Leading edge of guardrail
043	Guard rail (Not metal median barrier)
044	Median barrier (Raised or metal)
045	Retaining wall or tunnel wall
046	Bridge railing or parapet (On bridge or approach)
047	Bridge abutment
048	Bridge pillar or column (Even if struck protective guard rail first)
049	Bridge girder (Horizontal bridge structure overhead)
050	Traffic raised island
052	Pole – type unknown
053	Pole – power or telephone
054	Pole – Street light only
055	Pole – Traffic signal and/or ped signal only
056	Pole – Sign bridge
057	Stop or yield sign
058	Other sign, including street signs
059	Hydrant
060	Delineator or marker (Reflector posts)
061	Mailbox
062	Tree, stump or shrubs
063	Tree branch or other vegetation overhead, etc.
064	Wire or cable across or over the road
066	Permanent sign or barricade in/off road
072	Rock, brick or other solid wall
073	Other bump (not speed bump), pothole or pavement irregularity

(Continued)

Fixed Object (cont.)

Code	Description
074	Other overhead object (highway sign, signal head, etc.); not bridge
075	Bridge or road cave in
077	Snow bank
078	Low or high shoulder at pavement edge
079	Cut slope or ditch embankment
091	Building, other structure
095	Guy wire
096	Berm (Earthen or gravel mound)
098	Abrupt edge
100	Fixed object, unknown type
118	Expansion joint
119	Jersey Barrier
120	Wire or cable median barrier
121	Fence
126	Rocks / boulder (Not gravel; not rock slide)
127	Rock slide or land slide

Miscellaneous

Code	Description
010	Overturned <u>after</u> first harmful event *(Crash Type must not equal & - "Overturn")*
011	Vehicle being pushed
012	Vehicle towed or had been towing another vehicle
013	Vehicle forced by impact into another vehicle, cyclist or pedestrian
051	Gore
076	High water
085	Wind gust
086	Vehicle immersed in body of water
087	Fire or Explosion
089	Crash related to another separate crash
090	Two-way traffic on divided roadway all routed to one side
094	Police report indicates teenage driver of an involved vehicle was in violation of graduated license program
124	Sliding or swerving due to wet, icy, slippery or loose surface
125	Shoulder gave way
128	Curve present at crash location *(Do not use with code 130 nor Character of Road code '5' - Curve)*
129	Vertical grade, hill present at crash location *(Do not use with code 131 nor Character of Road code '7' – Vertical grade/hill)*
134	Torrential rain (Exceptionally heavy rain, not cataclysmic in nature) *(Revised 2023)*

Crash Level Events by Category

(Continued)

Non Fixed Object

Code	Description
065	Temporary sign or barricade in road, etc.
068	Foreign obstruction / debris in road (Not gravel)
069	Equipment working on/off road (example: working motor vehicles inside work zone boundaries; snowplow actively plowing; street sweeper actively sweeping, etc.) *Do not create a vehicle record for equipment or working motor vehicles actively working on/off road.*
070	Other equipment in or off road (Including parked trailer, boat)
080	Struck by rock or other object set in motion by other vehicle, including lost loads. *(Do not use with code 081)*
081	Struck by rock or other moving, falling or flying object. *(Do not use with code 080)*
097	Gravel in roadway
101	Non-Fixed object, other or unknown type
117	Rail crossing drop arm gate

Non-Motorist

Code	Description
004	Pedestrian indirectly involved (Pedestrian not struck)
005	"Sub-Ped": pedestrian injured subsequent to collision
006	Pedal-cyclist indirectly involved (Pedal-cyclist not struck)
007	Hitchhiker (Soliciting a ride)
008	Passenger or non-motorist being towed or pushed on conveyance
011	Vehicle being pushed
024	Vehicle door opened into adjacent traffic lane
036	Animal-drawn vehicle
103	Work Zone Worker
105	Passenger riding on pedalcycle
106	Pedestrian in non-motorized wheelchair
107	Pedestrian in motorized wheelchair
108	Law Enforcement / Police Officer
109	"Sub-Bike": pedal-cyclist injured subsequent to collision
110	Non-motorist struck vehicle
135	Injured occupant of railway train, light rail, street car or cable car (Effective 2019)

Occupant

Code	Description
001	Occupant fell, jumped, or was ejected from moving vehicle
002	Passenger interfered with driver
008	Passenger or non-motorist being towed or pushed on conveyance
009	Getting on or off stopped or parked vehicle (has physical contact with vehicle)
014	Vehicle set in motion by non-driver (Child released brakes, etc.)
094	Police report indicates teenage driver of an involved vehicle was in violation of graduated license program
104	Passenger riding on vehicle exterior
108	Law Enforcement / Police Officer
123	Loose object in vehicle struck occupant

Rail Related

Code	Description
015	At or on railroad right-of-way (Not light-rail)
016	At or on light-rail right-of-way
017	Train struck vehicle
018	Vehicle struck train
019	Vehicle struck railroad car on roadway
111	Street car or trolley (On rails or overhead wires) struck vehicle
112	Vehicle struck street car / trolley (On rails or overhead wires)
113	At or on street car or trolley right-of-way
114	Vehicle struck railroad equipment on tracks (Not train)
117	Rail Crossing Drop Arm Gate
135	Injured occupant of railway train, light rail, street car or cable car *(Effective 2019)*

View Obscured

Code	Description
082	Vehicle obscured view
083	Vegetation obscured view
084	View obscured by fence, sign, phone booth, etc.
130	View obscured by curve *(Do not use with code 128)*
131	View obscured by vertical grade, hill *(Do not use with code 129)*
132	View obscured by vehicle window conditions
133	View obscured by water spray
134	Torrential rain (exceptionally heavy rain, not cataclysmic in nature) *(Revised 2023)*

Crash Level Events by Category

Vehicle Related

Code	Description
010	Overturned <u>after</u> first harmful event *(Crash Type must not equal & - "Overturn")*
011	Vehicle being pushed
012	Vehicle towed or had been towing another vehicle
013	Vehicle forced by impact into another vehicle, cyclist or pedestrian
014	Vehicle set in motion by non-driver (Child released brakes, etc.)
020	Jackknife: trailer or towed vehicle struck towing vehicle
021	Trailer or towed vehicle overturned
022	Trailer connection broke
023	Detached trailing object struck other vehicle, non-motorist, or object *(Effective 2004)*
024	Vehicle door opened into adjacent traffic lane
025	Wheel came off
026	Hood flew up
028	Lost load, load moved or shifted
029	Tire failure
071	Wrecker, street sweeper, snow plow or sanding equipment

Crash Level Cause

Table: CRASH_CAUSE_EVNT   **Column:** CRASH_CAUSE_1_CD   **Data Type:** char   **Length:** 2
Table: CRASH_CAUSE_EVNT   **Column:** CRASH_CAUSE_2_CD   **Data Type:** char   **Length:** 2
Table: CRASH_CAUSE_EVNT   **Column:** CRASH_CAUSE_3_CD   **Data Type:** char   **Length:** 2

Code	Description *(*denotes further description in 'Definitions' section)*
00	No cause associated at this level *(Use only for Vehicle or Participant level Cause)*
01	Speed too fast for conditions (Not exceeding limit)
02	Did not yield right-of-way
03	Passed stop sign or red flasher
04	Disregarded traffic signal *(Revised 2014)*
05	*Drove left of center on two-way road; straddling the center line
06	Improper overtaking
07	Followed too closely
08	Made improper turn
10	*Other improper driving
11	Mechanical defect – other than represented by codes 21, 22, or 25
12	*Other (Not improper driving)
13	Improper change of traffic lanes
14	Disregarded other traffic control device
15	*Wrong way on one-way roadway (Also when roadway has a solid or earth median and vehicle is traveling on wrong side)
16	Driver drowsy / fatigued / sleepy
17	Physical Illness *(Effective 2014)*
18	Non-Motorist illegally in roadway
19	Not visible: dark / non-reflective clothing
20	Vehicle improperly parked
21	Defective steering mechanism
22	Inadequate or no brakes
24	Vehicle lost load or load shifted
25	Tire failure
26	Phantom / non-contact vehicle
27	Inattention
28	Non-Motorist Inattention *(Effective 2014)*
29	Failed to avoid vehicle ahead *(Effective 2014)*
30	Driving in excess of posted speed
31	Speed Racing (Per PAR or self-reported)
32	Careless Driving (Per PAR or self-reported)
33	Reckless Driving (Per PAR or self-reported)
34	*Aggressive Driving (Per PAR)
35	*Road Rage Related (Per PAR)
40	View Obscured *(Effective 2014)*
50	Improper use of median or shoulder *(Effective 2014)*

Crash Level Cause

(Continued)

Description:

Cause is a two-digit code that represents the circumstance(s) most responsible for the crash occurrence.

A Cause field is also available on the Vehicle and Participant Levels, for coding the causes specific to vehicles and/or participants that precipitated the crash, when applicable.

Note for Media Requests: ODOT's Crash Data System's "Cause" coding represents the crash data technicians' understanding of crash factors as described in police reports; or, in the absence of police reports, by individual driver reports. *It does not represent the legal or law enforcement conclusion of "cause" that should inform media interests.*

Instructions:

At least one Cause code must be entered on the Crash Level. (Vehicle and Participant Cause fields are coded only when applicable.) Up to three Cause codes are allowed. Enter the codes that explain why the crash happened. *Code the primary, most relevant cause first.*

"Stop as Yield" coding for the Crash Level Cause:

Oregon statute (ORS 814.416) allows **pedalcyclists** to proceed through an intersection controlled by a stop sign or flashing red beacon without stopping, under certain circumstances.

Crash Data Technicians use a **combination** of fields to identify crashes involving a violation of Oregon's Stop as Yield law:

For Crash Level Cause:

1. Enter code **02 - Did not yield right of way** in the first Crash Level Cause cell, and

2. Enter code **03 - Passed stop sign or red flasher** in the second Crash Level Cause cell

3. Refer to the **Stop as Yield section** under each of the following fields for instructions on how to code them:

   - Traffic Control Device
   - Non-Motorist Location
   - Participant Level Action
   - Error
   - Participant Level Cause

Code "00" must not be entered into any Crash Level "Cause". It may be used for Vehicle and/or Participant Level Cause, but only in the *first* Cause cell; and only *for vehicle and participant records for which no Cause code applies*. Tab through the remaining Cause fields so they remain blank.

Use Cause code **10** or **12**, whichever is most applicable.

(Continued)

Code "01", too fast for conditions, must be used with discretion. <u>Use this code only when it's clear that a vehicle was operated at a speed greater than was reasonable or prudent for the conditions</u>, and neither code **050** "Driving in excess of posted speed" nor code **053** "Speed Racing" apply.

Code "05" is used when the vehicle is straddling the center line or driving on the wrong side of an undivided, two-way road.

Code "10" is used when a participant caused the crash but <u>no other</u> cause code applies. *This code doesn't enlighten crash data customers about the cause of the crash; so, when multiple causes are applicable along with Code 10, enter Cause 10 last.*

Code "12" is used <u>*when improper driving was not a factor*</u> in the crash, <u>*and no other Cause code applies*</u>.

For example:

- A deer jumps out in front of vehicle, leaving the driver no time to react
- A passenger, animal or insect. etc., interfered with the driver

Code "15" is used when the vehicle is traveling on the wrong side of a divided roadway or is traveling the wrong direction on a one way road.

Do not use Cause codes 34 or 35, defined below, without approval from the Code Team Lead.

Aggressive Driving

Code "34" – Aggressive Driving is used only when the PAR states that "aggressive driving" was involved*. <u>It must not be used based solely on witness statements</u>.*

Aggressive driving occurs when "an individual commits a combination of moving traffic offenses so as to endanger other persons or property. *https://one.nhtsa.gov/people/injury/research/aggressionwisc/chapter_1.htm*

Aggressive driving crashes are <u>unintentional</u> and <u>unrelated</u> to road rage incidents. Compare to "Road Rate Related Crashes" and "Road Rage", below. Examples of aggressive driving are:

Weaving, tailgating, cutting other vehicles off, deliberately preventing someone from merging, etc., ***but not intending to collide with another vehicle.***

Aggressive driving is a traffic offense, whereas road rage is a criminal offense.

Road Rage Related Crashes

Code "35" – Road Rage Related is used for <u>unintentional</u> crashes that occur as **collateral damage** from an act of road rage. "Road Rage Related" crashes are entered into CDS. "Road rage" crashes are not.

Examples of Road Rage Related Crashes

1. The crash report describes a driver flashing lights and/or sounding the horn excessively, causing distraction to another driver, resulting in that driver experiencing a collision. The collision was unintented.

2. A motorist fleeing from a vehicle driven by an angry spouse crashes unintentionally into a third vehicle.

Road Rage
(Do not enter these crashes into CDS)

NHTSA defines road rage as *"an assault with a motor vehicle or other dangerous weapon by the operator or passenger(s) of one motor vehicle on the operator or passenger(s) of another motor vehicle caused by an incident that occurred on a roadway."*

It is an <u>intentional,</u> <u>criminal act</u> that involves <u>willful and wanton disregard for the safety of others</u>. It meets the definition of "Deliberate Intent" and is therefore excluded from entry into CDS.

Examples of "Road Rage" Incidents

1. A driver or passenger angrily throwing projectiles from a moving vehicle with the intent of damaging other vehicles, pedestrians or pedal-cyclists.

2. An angry driver intentionally causes a collision between vehicles; strikes a pedestrian, pedalcycle, or object; or deliberately runs another vehicle off the road

3. A driver or passenger exits a car intending to start confrontations, including striking other vehicles with an object.

<u>**Validations:**</u>

Rule #	Rule Message	Severity
92	Value was not found in the lookup table or is not valid for use as of the crash date	Red/Severe
703-707	If CRASH level CAUSE code = "[code field value]", there must be at least one Driver, Bicyclist, or Bicyclist Towing with CAUSE = "[code field value]"	Red/Severe

Crash Level Cause by Category

(Continued)

Cause codes grouped by category. Some Causes apply to more than one category.

Behavior

Code	Description
02	Did not yield right-of-way
03	Passed stop sign or red flasher
04	Disregarded traffic signal
05	Drove left of center on two-way road
06	Improper overtaking
07	Followed too closely
08	Made improper turn
13	Improper change of traffic lanes
14	Disregarded other traffic control device
15	Wrong way on one-way roadway. (Also when roadway has a solid or earth median and vehicle is deliberately traveling on wrong side)
16	Driver drowsy / fatigued / sleepy
17	Physical Illness
18	Non-Motorist illegally in roadway
19	Not visible: dark / non-reflective clothing
27	Inattention
28	Non-Motorist Inattention
29	Failed to avoid vehicle ahead
32	Careless Driving (Per PAR or self-reported)
33	Reckless Driving (Per PAR or self-reported)
34	Aggressive Driving (Per PAR) *(Requires approval from the Code Team Leader)*
35	Road Rage (Per PAR) *(Requires approval from the Code Team Leader)*
50	Improper use of median or shoulder

Miscellaneous

Code	Description
00	No cause associated at this level *(Use only for Vehicle or Participant level Cause field)*
10	Other improper driving
12	Other (Not improper driving)
26	Phantom / non-contact vehicle
40	View Obscured

Speed

Code	Description
01	Speed too fast for conditions (Not exceeding limit)
30	Driving in excess of posted speed
31	Speed Racing (Per PAR or self-reported)

Crash Level Cause by Category

(Continued)

Vehicle Related

Code	Description
11	Mechanical defect
20	Vehicle improperly parked
21	Defective steering mechanism
22	Inadequate or no brakes
24	Vehicle lost load or load shifted
25	Tire failure

School Zone

Table: CRASH   **Column:** SCHL_ZONE_IND   **Data Type:** char   **Length:** 1

Code	Description
Blank	Not reported
0	No
1	Yes
9	Unknown

Description:

School Zone is a one-digit code that indicates the crash occurred:

- On a road adjacent to school grounds and that is marked by signs indicating a school zone with words, symbols, or a combination of words and symbols that give notice to the presence of the school zone
- In a crosswalk that is not adjacent to school grounds but that is marked by such signs

This definition of "School Zone" is found in ORS 801.462.

Instructions:

Code "0" is used when information clearly indicates that the crash did not occur inside a designated school zone.

Code "1" is used when information clearly indicates that a crash occurred inside a school zone.

Code "9" is used when information indicates that a designated school zone exists near the area of the crash, but it is unknown if the crash occurred within the designated school zone boundaries.

Leave this field blank if no information is available on the existence of a designated school zone.

See "Traffic Control Device" for images of school zone signs.

Validations:

Rule #	Rule Message	Severity
93-94	[field name] must be blank, 0 (No), 1 (Yes), or 9 (Unknown)	Red/Severe
172	School Zone cannot be 1 for Interstate highways (Functional Class 01 or 11)	Red/Severe

Work Zone

Table: CRASH   **Column:** WRK_ZONE_IND   **Data Type:** char   **Length:** 1

Code	Description
Blank	Not reported
0	No
1	Yes
9	Unknown

Description:

Work Zone is a one-digit code that indicates if the crash occurred in a work zone.

Instructions:

A work zone is an area identified by advance warning where road construction, repair, maintenance, or utility work is being done on or adjacent to a highway, regardless of whether or not workers are present. For CDS, road construction, repair, maintenance or utility work includes, but is not limited to, the setting up and dismantling of cones, barriers or advance warning systems.

If no information is available on the existence of a work zone, leave this field blank.

Code "0" is used when information from the driver or police report clearly indicates that no work zone was present.

Code "1" is used when information on the driver or police report clearly indicates that a crash occurred inside a work zone, or where road construction, maintenance, utility work, cones or flaggers are present.

Code "9" is used when information indicates that a work zone exists near the area of the crash, but it is unknown if the crash occurred within the work zone boundaries.

Validations:

Rule #	Rule Message	Severity
94	[field name] must be blank, 0 (No), 1 (Yes), or 9 (Unknown)	Red/Severe

Secondary Crash Indicator

Table: CRASH   **Column:** SCNDRY_CRASH_IND   **Data Type:** char   **Length:** 1

Code	Description
Null / blank	No police crash report (PAR) was received; or, crash occurred prior to implementation of this data element. (This field became effective as of 2019 crash coding)
0	No information available from PAR on whether this was a secondary crash.
1	PAR indicates this is a secondary crash.

Description:

For the purpose of capturing this data, we are using the MMUCC Subfield (3) definition: "Secondary Crash: includes a motor vehicle traffic crash within a traffic incident scene, or within a traffic queue in either direction resulting from a prior traffic incident."

This data is collected to support traffic incident management on Oregon roads.

The Secondary Crash Indicator field is effective as of the 2019 crash code year.

Figure 65. Secondary Crash box on PAR

Instructions:

The police crash report is the source for this data element. Secondary crash is <u>not</u> decided by the crash data technician. The police must state or describe this incident as a secondary crash (see instructions for Code 1, below).

Do not use hearsay or statements from drivers, witnesses, or passengers from a driver's crash report.

Blank indicates **no** police report was received, or the crash occurred prior to implementation of this data element.

Use **Code 0** when there's no information available from the PAR on whether this was a secondary crash.

Use **Code 1** when the Secondary Crash box was checked on a PAR, or the police state in the narrative that this was a secondary crash. The term "secondary crash" does not need to be used if the narrative reflects it in a way that is undeniable.

For example:

   If the narrative states that the crash was secondary to an incident ahead, this indicates a "secondary crash".

   If the narrative indicates that a crash was a result of another incident ahead, in a queue that slowed or distracted traffic, then the officer is stating it was a "secondary crash", without specifically using those words. This is a "secondary crash", and needs to be coded as such.

Validations: None.

(Page intentionally left blank)

Section II: VEHICLE LEVEL

(Page intentionally left blank)

Vehicle Coded Sequence Number

EDW

Table: VHCL   **Column:** VHCL_CODED_SEQ_NO   **Data Type:** tinytint   **Precision:** 3

Code	Description
01-99	Assigned sequentially for each vehicle

Description:

Vehicle Coded Sequence Number (i.e. Vehicle Number) is a two-digit numeric value displayed in the Data Entry screen and used to increment vehicle records sequentially, *in the Data Entry screen*, for a given crash. Crash Data Technicians can reassign the Vehicle Coded Sequence Number, to manage vehicle records as needed. This number is unique *within a given crash*, but *not unique* within the Crash Data System.

> **Note to data users:** This data element is not the same as the Vehicle Identifier (VHCL_ID), which is the primary key for the VHCL table. VHCL_ID uniquely identifies a vehicle within the Crash Data System. It also exists on the PARTIC table, for the purpose of matching participants to their vehicles for reporting purposes. However, VHCL_ID is not displayed in the Data Entry screen and is invisible to the Crash Data Technician.

Instructions:

This code is system-generated, but may be changed by the Crash Data Technician as needed, to modify the order of vehicle records in the Data Entry Screen.

Always code the striking* vehicle first. The term "striking vehicle" refers to the vehicle that initially impacted a second vehicle, an object, pedestrian or pedal-cyclist. However, the striking vehicle is not necessarily the vehicle that was in error.

> **Note to data users**: Refer to the System Generated Fields section of the manual for information on the Striking Vehicle Flag.

Do not generate a vehicle record for pedestrians, pedal-cyclists, or other non-motorists.

Validations:

Rule #	Rule Message	Severity
653	When the Participant Type is 0, 1, 2 or 8 a valid Participant Vehicle Number is required	Red/Severe
661	When the Participant Type is 3, 4, 5, 6, 7 or 9 the Participant Vehicle Number must be null	Red/Severe

Vehicle Ownership

EDW

Table: VHCL   **Column:** VHCL_OWNSHP_CD   **Data Type:** char   **Length:** 1

Code	Description
0	Not collected for PDO Crashes *(Default value for PDO crashes effective 2016)*
1	Private
2	U.S. (federal) Government
3	Public (city, county, state)
4	Rental vehicle
5	Stolen vehicle
9	Unknown ownership

Description:

Vehicle Ownership is a one-digit code. Ownership information is obtained from the driver report and/or PAR.

Instructions:

Code "1" includes vehicles privately owned motor vehicles, including corporate vehicles used for business purposes not otherwise described above.

Code "5" is used for stolen vehicles. This code takes precedence over all other ownership codes.

Effective for 2016 crash data entry, information for this field is no longer collected for Property Damage Only crashes. The field is set to "0" in PDO Default entry screens.

Validations:

Rule #	Rule Message	Severity
303	Required field [field name] missing	Red/Severe
304	[code field value] was not found in [lookup table name] or is not valid as of the crash date	Red/Severe

Special Use

EDW

Table: VHCL   **Column:** VHCL_USE_CD   **Data Type:** char   **Length:** 1

Code	Description
0	No special use *(Default value for PDO crashes effective 2016)*
1	Police
2	Fire
3	Ambulance
4	Hearse
5	Taxi
6	Logging
7	Farm ("F" Plate)
8	Military
9	Unknown use
T	Transportation Network Company (TNC)

Description:

Special Use is a one-digit code indicating that the vehicle is being used for a purpose that may not be readily apparent from its design. The vehicle may or may not have special markings to indicate its usage type.

Instructions:

Police and Fire vehicles are always considered to be in special use, though they may not be in emergency use at the time of the crash.

Enter code 'T' for private vehicles operating under Uber, Lyft or other transportation network companies.

Effective for 2016 crash data entry, information for this field is no longer collected for Property Damage Only crashes. The field is set to "0" in PDO Default entry screens.

Validations:

Rule #	Rule Message	Severity
306	Value was not found in lookup table or is not valid as of the crash date	Red/Severe
307	Combination of Vehicle Type and Vehicle Use not valid in the cross-reference table	Red/Severe
308	Combination of [first code field] and [second code field] must be confirmed	Yellow/Warning

Vehicle Type

EDW

Table: VHCL   **Column:** VHCL_TYP_CD   **Data Type:** char   **Length:** 2

Code	Description
01	Passenger car, pickup, van, light delivery, custom van, limo having less than 9 seats
02	Truck tractor with no trailers (Bobtail)
03	Farm tractor or self-propelled farm equipment (Not truck)
04	Truck tractor with trailer/mobile home in tow
05	Truck with non-detachable bed: Panel truck, self-propelled crane, tow truck, fire truck, refuse packer, leach packer, log grappler, etc.
06*	Moped, mini-bike, motor scooter (seated)
07	School bus, or van used to transport students
08	Other bus (*For flexi-bus or articulated bus, code "trailer"*)
09	Motorcycle, dirt bike, *and Tier 3 eBikes*. (*For side car, code "trailer"*) *Effective 2022*
10	Other vehicle type: Forklift, backhoe, mailster, go-cart, golf cart, lawnmower, snowplow, street cleaner, road grader, ice cream scooter, meter maid scooter. *(Do not create a vehicle record for equipment or working motor vehicles working on/off road.)*
11	Motorhome
12	Motorized street car or trolley, not using rails or wires
13	ATV
14*	Motorized scooter (Standing), E-scooter
15	Snowmobile
16	Motorized Bicycle or Electric Bicycle (*eBike*), *Tiers 1 and 2 only*. *Effective 2022*
17	Utility Task Vehicle (UTV) Side-by-Side; other Recreational Off-Highway Vehicle (ROV)
99	Unknown vehicle type

Description:

Vehicle Type is a two-digit code that identifies the general class of vehicle involved in a crash.

Create a Vehicle Record only for motor vehicles in transport (exception: parked motor vehicle).
Do not create a vehicle record for equipment, including motor vehicles, working on or off road; for example: working motor vehicles inside work zone boundaries; snowplow actively plowing; sweeper actively sweeping, etc.

Instructions:

Code "01" is used for standard passenger vehicles, pickup trucks, light delivery trucks, vans, and limousines having 8 or less seating positions including the driver. Use code 08 for limos having more than more 9 or more seats. If the number of seating positions for a limo is unknown, use code 01.

Code "02" is used for truck tractors designed to pull a trailer, but with no trailer attached. This type of vehicle is commonly called a "Bobtail".

Code "03" is used for farm tractors, F-plated trucks and self-propelled farm machinery. Do not use this code for motor carrier trucks.

Code "04" is used for truck tractors that have one or more trailers attached, or may be transporting a mobile home (not to be confused with Code 11, Motorhome).

Code "06" includes *seated* motor scooters. See note under Code 14 for additional information. As of coding for 2022, "motorized bicycle" was assigned it's own Vehicle Type. See Code 16.

Code "07" applies to standard school buses as well as vans used to transport students.

Code "08" is used for city, transit, and other types of buses. For articulated (flexible) buses, enter the number of trailing flexible sections in the Number of Trailers field. Also use code 08 for limousines having 9 or more seating positions.

Code "09" is used for motorcycles, dirt bikes, and Tier <u>3-classified eBikes</u> that have top speeds exceeding **20 mph**. (see Tier definitions under Code 16, below).

   If a sidecar and/or other trailing object is attached to the motorcycle, enter the appropriate value in the Number of Trailers field.

Code "10" is used for all other types of road vehicles.

Code "13" is used for ATVs. ATV crashes are only entered into ODOT's Crash Data System when the incident occurs on the traveled portion of a public roadway. Off-road ATV crashes are not entered into the system. License and endorsement requirements are not considered when coding this type of vehicle. *(ATVs were included with motorcycles under Code 09, prior to 2007.)*

Code "14" is used for standing-type scooters, such as Segway scooters and E-scooters. These are considered personal conveyances. Riders are not required by law to file a crash report, have insurance or a driver's license; therefore, collisions involving "standing" motorized scooters will only be entered into the Crash Data System if the incident occurs on a trafficway and involves a motor vehicle in transport.

Code "16" is used for motorized bicycles; and for **Tier 1 and 2** electric battery-powered bicycles (**eBikes**) having speed-limited motors that *<u>don't exceed 20 mph</u>*, per the classifications listed below.

   Tier 1: Top speed = **20 mph** and the eBike works only by pedaling. Use Code 16**.**

   Tier 2: Equipped w/ a throttle-actuated motor that *ceases to assist* when the eBike reaches **20 mph**. Use Code 16.

   Tier 3: Motor *should* cease to assist when the eBike reaches **28 mph** but <u>these vehicles can reach much higher speeds</u>. ***Tier 3 eBikes are classified*** as ***motorcycles*** per ANSI D16-2017 definition 2.2.9. **Use Code 09.**

   To determine the eBike's classification tier:
   - Check the report for the eBike's VIN; or its make, model, and model year.

Vehicle Type

(Continued)

- If the VIN is available, use the USDOT's VIN Decoder linked below to find the vehicle's top speed. https://vpic.nhtsa.dot.gov/decoder/
- Otherwise, search the internet using the eBike's make, model, and model year, to <u>find the manufacturer's stated top speed for the eBike</u>.

Definitions:

Articulated Bus: A flexible bus comprised of two or more rigid sections that are linked by a pivoting joint. Also called "bendy bus", "accordion bus" or "flexi-bus".

Farm Tractor: Motor vehicles designed and used primarily in agricultural operations for drawing or operating other farm machines, equipment and implements of husbandry.

Validations:

Rule #	Rule Message	Severity
301	Required field [field name] missing	Red/Severe
302	Value was not found in lookup table or is not valid as of the crash date	Red/Severe
307	Combination of Vehicle Type and Vehicle Use not valid in the cross-reference table	Red/Severe
308	Combination of [first code field] and [second code field] must be confirmed.	Yellow/Warning
339-354	Trailer quantity unusual for Vehicle Type [vehicle type]	Yellow/Warning

Emergency Use

Table: VHCL   **Column:** EMRGCY_VHCL_USE_FLG   **Data Type:** bit   **Length:** not null

Code	Description
0	No *(Default value for PDO crashes effective 2016)*
1	Yes

Description:

Emergency Use is a Yes / No field that indicates whether the vehicle was being used as an emergency vehicle at the time of the crash. This code may be applied to any type of vehicle.

Instructions:

Code "0" is used for vehicles that are not being used in an emergency. This includes police, fire, and ambulance vehicles not running with lights or sirens.

Code "1" is used for any vehicles that are being used in an emergency. This includes police, fire, and ambulance vehicles running with lights and / or sirens.

Effective for 2016 crash data entry, information for this field is no longer collected for Property Damage Only crashes. The field is set to "0" in PDO Default entry screens.

Validations:

Rule #	Rule Message	Severity
334	[field name] value must be 1 for Yes or 0 for No	Red/Severe

Number of Trailers

EDW

Table: VHCL   **Column:** TRLR_QTY   **Data Type:** tinytint   **Precision:** 3

Code	Description
0	No trailers attached
1	One trailing unit
2	Two trailing units
3	Three or more trailing units
8	Trailing, but number of units unknown
9	Unknown *(Default value for PDO crashes effective 2016)*

Description:

Number of Trailers is a one-digit code that indicates whether any trailers were attached to a vehicle, and if so, how many.

Instructions:

Code "0" is used when it is known that there are no trailers attached or that no information is given indicating the presence of trailers for this vehicle. (Use this code as a default).

Code "9" is used when conflicting information exists regarding trailing units for this vehicle.

Effective for 2016 crash data entry, information for this field is no longer collected for Property Damage Only crashes. The field is set to '9' in PDO Default entry screens.

Validations:

Rule #	Rule Message	Severity
311	When entered, [field name] must be numeric	Red/Severe
339 - 354	Warning: trailer quantity unusual for Vehicle Type. Please confirm.	Yellow/Warning
355	Value entered in #Trlr field is out of range	Red/Severe

Vehicle Movement

Table: VHCL   **Column:** MVMNT_CD   **Data Type:** char   **Length:** 1

Code	Description	Code	Description
0	Unknown	5	Backing
1	Straight ahead	6	Stopped in traffic
2	Turning right	7	Parked - properly
3	Turning left	8	Parked - improperly
4	Making a U-turn	9	Parking maneuver

Description:

Vehicle Movement is a one-digit code that represents the intended movement of the vehicle at the time of the crash.

Instructions:

Curves in the roadway do not influence how Movement is coded. If a vehicle is traveling straight ahead and encounters a curve, Movement Code = 1.

If **Vehicle Movement = 6** (stopped in traffic), then **Vehicle Action** must be one of the following, and *must not* be 021 (car ran away – no driver).

1. 011 – Stopped in traffic not waiting to make a left turn
2. 012 – Stopped because of left turn signal; waiting etc.
3. 013 – Stopped while executing a turn
4. 022 – Struck, or was struck by, vehicle, pedal-cyclist, or pedestrian in prior collision before crash stabilized
5. 023 – Vehicle stalled

*If the **Vehicle Movement** field is coded 7 (Parked – properly), then the **Participant Type** field for **all** injured occupants of that vehicle **must** be coded as 8 (occupant of a parked motor vehicle).

Coding Priority

If a vehicle is performing more than one of the movements listed below, at the same time, the priority for coding Vehicle Movement is as follows:

1. Parking
2. Backing
3. Turning
4. Stopped

Vehicle Movement

(Continued)

Validations:

Rule #	Rule Message	Severity
316	Discrepancy exists between Movement and From or To Direction	Red/Severe
319	If Vehicle Movement Code = 6 then Vehicle Action Code must = 011, 012, 013, 022 or 023	Red/Severe
320	If Vehicle Movement Code = 7 or 8 then Vehicle Action Code must = 008, 009, 021, 023 or 032	Red/Severe
321	If Vehicle Movement Code = 9 then Vehicle Action Code must = 008 or 009	Red/Severe
332	Required field [field name] missing	Red/Severe
333	[code field value] was not found in [lookup table name] or is not valid as of the crash date	Red/Severe

Direction of Travel From / To

EDW

Table: VHCL	**Column:** CMPSS_DIR_FROM_CD	**Data Type:** char	**Length:** 1
Table: VHCL	**Column:** CMPSS_DIR_TO_CD	**Data Type:** char	**Length:** 1

Code	Description
0	Unknown
1	North
2	Northeast
3	East
4	Southeast
5	South
6	Southwest
7	West
8	Northwest
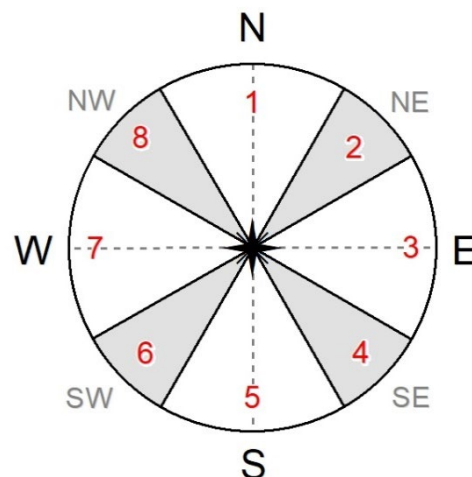
Description:

Direction of Travel is represented by two, 1-digit fields ("Direction From" and "Direction To"). Used together, these fields indicate the vehicle's intended direction of travel.

Instructions:

The first field indicates the direction the vehicle came from. The second field indicates the direction the vehicle was heading.

Curves in the roadway do not influence how Direction of Travel is coded. If a vehicle is traveling straight ahead and encounters a curve, its Direction of Travel will reflect straight movement.

Inside City Limits
Use the illustration above (consistent with the transparency handout) to assign this vehicle's direction of travel.

Valid values for Direction of Travel To/From when the crash occurred inside city limits are 1 through 8. Refer to the Street Set-up for the city street you're coding.

If the directions (or any other information) in the Street Set-up is incorrect, the Crash Data Technician should submit a request for correction to the CAR Unit's Decode Technician.

Outside City Limits
When coding crashes that occurred on County Roads, use only codes that represent cardinal directions (N, S, E, W).

Direction of Travel From / To

(Continued)

At intersections, when one county road runs in a cardinal direction and the other does not; code the non-cardinal road to the opposite cardinal direction. When this is the circumstance on a highway intersection outside city limits, apply the same rule.

At intersections, when both roadways have non-cardinal directions, code them to the nearest cardinal direction.

Multnomah and **Washington County** roads are the exception to this rule. For these non-milepointed counties, follow the instructions under **Inside City Limits**, above.

State Highways Outside City Limits
Use cardinal directions (1, 3, 5 or 7) for intersectional crashes on state highways outside city limits, based on the predominate direction of the state highway (the general direction that roadway 1 milepoints *increase*, with the exception of Pacific Hwy 1, I-5.). In areas where the highway makes an abrupt or significant change in direction, the coding may deviate from this rule.

Exception: intersections having five or more legs may require use of a non-cardinal direction.

Validations:

Rule #	Rule Message	Severity
312	Required field [field name] missing	Red/Severe
313	Code was not found in lookup table or is not valid as of the crash date	Red/Severe
314	Required field [field name] missing	Red/Severe
315	[code field value] was not found in [lookup table name] or is not valid as of the crash date	Red/Severe
316	Discrepancy exists between Movement and From or To Direction	Red/Severe

Vehicle Level Action

Table: VHCL   **Column:** ACTN_CD   **Data Type:** char   **Length:** 3

Code	Description (* denotes further description in 'Definitions' section)
000	No action or non-warranted
001	Skidded
003	Overhanging load struck another vehicle, etc.
006	Slowed down
007	*Avoiding maneuver (successful)
008	Parallel parking or parked
009	Angle parking or parked
011	*Stopped in traffic not waiting to make a left turn
012	*Stopped because of left turn signal or waiting, etc.
013	*Stopped while executing a turn
014	Emergency vehicle legally parked in the roadway *(Effective 2016)*
015	Proceeded after stopping for a stop sign / flashing red
016	Turned on red after stopping
018	Entering street or highway from alley or driveway
019	Entering alley or driveway from street or highway
020	Before entering roadway, struck pedestrian, etc. on sidewalk or shoulder
021	Car ran away – no driver
022	Struck, or was struck by, a vehicle or pedestrian involved in a prior collision before the crash stabilized
023	Vehicle stalled or disabled
029	Vehicle crossed, plunged over, or through median barrier
031	Passing situation
032	Vehicle parked beyond curb or shoulder
033	Vehicle crossed earth or grass median
048	**Changed lanes just prior, and unrelated to, the unstabilized situation** *(Effective 2022)*
051	Entering / starting in traffic lane from off-road
052	Merging *(Effective 2014)*
053	**Lane Splitting (applies to motorcycles only)** *(Effective 2022)*
088	Other action

Description:

Vehicle Action is a three-digit code that reflects the driver's handling of the vehicle prior to the first harmful event, or in the absence of a driver, actions that occurred in relation to this vehicle.

This field is not coded based on violations of law driver error.

Instructions:

If Vehicle Movement is 6 – Stopped in traffic, then Vehicle Action **must** be one of the following:

    011 – Stopped in traffic not waiting to make a left turn
    012 – Stopped because of left turn signal; waiting etc.

      013 – Stopped while executing a turn

      022 – Struck, or was struck by, vehicle, pedal-cyclist, or pedestrian in prior collision before crash
              stabilized

      023 – Vehicle stalled

Use **Code 007**, "Avoiding Maneuver", only when the avoiding maneuver was successful.

Use **Code 021**, "Car ran away – No Driver", for driverless vehicles that are set in motion. When using this code, **do not** use Vehicle Movement code "6" (stopped in traffic).

For **Code 029**, **"**Vehicle crossed, plunged over or through median barrier"*,* and **Code 033**, "Vehicle crossed earth or grass median", verify the Median Type present at the crash location by using Street View or the Digital Video Log (DVL). Use the Action code that matches the median type.

Use **Code 048**, "Changed lanes just prior, and unrelated to, the unstabilized situation", when it's an intentional maneuver made during normal driving; not an avoidance maneuver.

Use **Code 052**, "Merging", only for transition zones (see image below), not for changing lanes – even though officers or drivers may use that term instead.

Figure 66. Merge Area
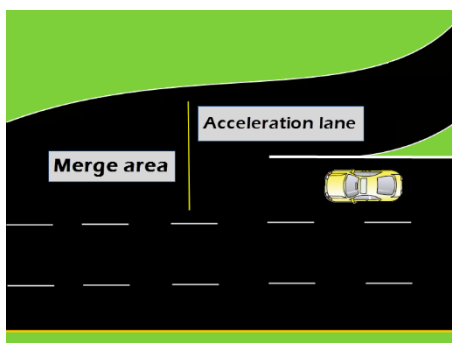
Use **Code 053** (**Lane splitting**) when a motorcycle is ridden between two lanes of traffic that is moving in the same direction at regular speeds. It differs from lane "filtering", which is maneuvering between rows of stopped or slowly moving vehicles at a similarly slow speed. If lane splitting occurs, also consider if a passing error applies to the driver record. *Lane splitting is illegal in Oregon.*

Validations:

Rule #	Rule Message	Severity
318	Code was not found in lookup table or is not valid as of the crash date	Red/Severe
319	If Vehicle Movement Code = 6 then Vehicle Action Code must = 011, 012, 013, 022 or 023	Red/Severe
320	If Vehicle Movement Code = 7 or 8 then Vehicle Action Code must = 008, 009, 021, 023 or 032	Red/Severe
321	If Vehicle Movement Code = 9 then Vehicle Action Code must = 008 or 009	Red/Severe

Vehicle Level Cause

Table: VHCL_CAUSE_EVNT **Column:** VHCL_CAUSE_1_CD **Data Type:** char **Length:** 2
Table: VHCL_CAUSE_EVNT **Column:** VHCL_CAUSE_2_CD **Data Type:** char **Length:** 2
Table: VHCL_CAUSE_EVNT **Column:** VHCL_CAUSE_3_CD **Data Type:** char **Length:** 2

Code	Description
00	No cause associated at this level *(Default value for PDO crashes effective 2016)*
11	Mechanical defect
20	Vehicle improperly parked
21	Defective steering mechanism
22	Inadequate or no brakes
24	Vehicle lost load, load moved or shifted
25	Tire failure
26	Phantom / non-contact vehicle

Description:

Cause is a two-digit code that represents the circumstance(s) most responsible for the occurrence of the crash.

Instructions:

If applicable, enter the Cause code(s) specific to this vehicle that explains why it was involved in the crash, Code the primary, most relevent cause first.
.

Up to three Cause codes are allowed at this level.

Enter **Code "00"** in the first Cause field if no Cause code applies to this vehicle.

*As of the 2016 code year, **Cause** is no longer coded on the Vehicle Level for "Property Damage Only" crashes. Default screens set the Vehicle level Cause field to "00" and disable it so the value can't be changed. **Enter applicable codes in the Crash level "Cause" fields.***

Validations:

Rule #	Rule Message	Severity
321	Code was not found in lookup table or is not valid as of the crash date	Red/Severe
323	[code field value] was not found in [lookup table name] or is not valid for use as of the crash date, or is not valid for use at this level	Red/Severe

Vehicle Level Event

Table: VHCL_CAUSE_EVNT   **Column:** VHCL_EVNT_1_CD   **Data Type:** char   **Length:** 2
Table: VHCL_CAUSE_EVNT   **Column:** VHCL_EVNT_2_CD   **Data Type:** char   **Length:** 2
Table: VHCL_CAUSE_EVNT   **Column:** VHCL_EVNT_3_CD   **Data Type:** char   **Length:** 2

Code	Description
Blank	Not applicable at this level *(Default value for PDO crashes effective 2016)**
004	Pedestrian indirectly involved (Not struck)
006	Pedal-cyclist indirectly involved (Not struck)
007	Hitchhiker (Soliciting a ride)
010	Overturned <u>after</u> first harmful event *(Crash Type must not equal & - "Overturn")*
011	Vehicle being pushed
012	Vehicle towed or had been towing another vehicle
013	Vehicle forced by impact into other vehicle, cyclist or pedestrian
014	Vehicle set in motion by non-driver (Child released brakes, etc.)
017	Train struck vehicle
018	Vehicle struck train
019	Vehicle struck railroad car on roadway
020	Jackknife; trailer or towed vehicle struck towing vehicle
021	Trailer or towed vehicle overturned
022	Trailer connection broke
023	Detached trailing object struck other vehicle, non-motorist, or object *(Effective. 2004)*
024	Vehicle door opened into adjacent lane
025	Wheel came off
026	Hood flew up
028	Lost load, load moved or shifted
029	Tire failure
030	Pet: cat, dog and similar
031	Stock: cow, calf, bull, steer, sheep, etc.
032	Horse, mule, or donkey
033	Horse and rider
034	Wild animal, game (Includes birds; not deer or elk)
035	Deer or elk, wapiti
036	Animal-drawn vehicle
037	Culvert, open low or high manhole
038	Impact attenuator
039	Parking meter
040	Curb (Also narrow sidewalks or bridges)
042	Leading edge of guardrail
043	Guard rail (Not metal median barrier)
044	Median barrier (Raised or metal)

Code	Description	
045	Retaining wall or tunnel wall	
046	Bridge railing (on bridge and approach)	
047	Bridge abutment ~~(Approach ends)~~	*(Revised 2014)*
048	Bridge pillar or column (Even if struck protective guard rail first)	
049	Bridge girder (Horizontal bridge structure overhead)	*(Effective 2014)*
050	Traffic raised island	
051	Gore	
052	Pole – type unknown	
053	Pole – power or telephone	
054	Pole – Street light only	
055	Pole – Traffic signal and ped signal only	
056	Pole – sign bridge	
057	Stop or yield sign	
058	Other sign, including street signs	
059	Hydrant	
060	Delineator or marker (Reflector posts)	
061	Mailbox	
062	Tree, stump or shrubs	
063	Tree branch or other vegetation overhead, etc.	
064	Wire or cable across or over the road	
065	Temporary sign or barricade in road, etc.	
066	Permanent sign or barricade in/off road	
068	Foreign obstruction / debris in road (Not gravel)	
069	Equipment working on/off road (example: working motor vehicles inside work zone boundaries; snowplow actively plowing; street sweeper actively sweeping, etc.) *Do not create a vehicle record for equipment or working motor vehicles actively working on/off road.*	
070	Other equipment in or off road (Including parked trailer, boat)	
071	Wrecker, street sweeper, snow plow or sanding equipment	
072	Rock, brick or other solid wall	*(Effective 2004)*
073	Other bump (not speed bump) pothole or pavement irregularity	
074	Other overhead object (highway sign, signal head, etc.); not bridge	
075	Bridge or road cave in	
076	High water	
077	Snow bank	
078	Low or high shoulder at pavement edge	*(Effective 2014)*
079	Cut slope or ditch embankment	
080	Struck by rock or other object set in motion by other vehicle, including lost loads *(Do not use with code 081)*	*(Effective 2014)*
081	Struck by rock or other moving, falling or flying object *(Do not use with code 080)*	*(Effective 2014)*
085	Wind gust	
086	Vehicle immersed in body of water	

Vehicle Level Event

(Continued)

Code	Description	
087	Fire or explosion	
089	Crash related to another separate crash	
090	Two-way traffic on divided roadway all routed to one side	
091	Building, other structure	*(Effective 2014)*
092	Other (phantom) non-contact vehicle (On report)	
095	Guy wire	
096	Berm (Earthen or gravel mound)	
097	Gravel in roadway	
098	Abrupt edge	
100	Fixed object, unknown type	
101	Non-Fixed object, other or unknown type	
111	Street car / trolley (on rails and / or overhead wire) struck vehicle	
112	Vehicle struck street car / trolley (On rails or overhead wires)	
114	Vehicle struck railroad equipment (Not train) on tracks	*(Effective 2014)*
117	Rail Crossing Drop Arm Gate	*(Effective 2014)*
118	Expansion joint	*(Effective 2014)*
120	Wire or cable median barrier	
121	Fence	*(Effective 2014)*
124	Sliding or swerving due to wet, icy, slippery or loose surface	*(Effective 2014)*
125	Shoulder gave way	
126	Rocks / boulder (Not gravel; not rock slide)	*(Effective 2014)*
127	Rock slide or land slide	*(Effective 2014)*
128	Curve present at crash location	*(Effective 2014)*
129	Vertical grade, hill present at crash location	*(Effective 2014)*
134	Torrential rain (exceptionally heavy rain, not cataclysmic in nature)	*(Revised 2023)*

Description:

Vehicle Level Event is comprised of up to three, three-digit codes that represent an incident or situation specific to the vehicle being coded.. Events generally represent occurrences of injury or property damage; but they may also identify other crash factors.

Instructions:

At the vehicle level, enter the event most relevant to the specific vehicle being coded, preferably in order of occurrence. Vehicle level events may also be applicable at the crash level.

Effective for 2016, **Event is no longer coded to specific vehicles for "Property Damage Only" crashes. Default screens set the Vehicle level Cause field to "00" and disable it so the value can't be changed. **Enter applicable codes in the <u>Crash</u> level "Event" fields.***

Vehicle Level Event

(Continued)

Validations:

Rule #	Rule Message	Severity
90	If Crash Type Code = 4 (Train), at least one vehicle on this crash must have a Vehicle-level event Code value of 111, 112, 113, 017, 018, or 019	Red/Severe
91	When Crash Type Code = 8 (Fixed Object), at least one Vehicle on this crash must have a vehicle-level Event Code value that is between 037 and 067, or between 077 and 079, or be one of the following values: 072, 073, 074, 088, 095, 096, 100, 118, 119, 120 or 127	Red/Severe
324	[code field value] was not found in [lookup table name] or is not valid for use as of the crash date, or is not valid for use at this level	Red/Severe

Vehicle Level Event by Category

Event codes grouped by category. Some Events apply to more than one category.

*Effective for 2016, **Event** is no longer coded to specific vehicles when Crash Severity is "Property Damage Only". Default screens set the Vehicle level Cause field to "00" and disable it so the value can't be changed. **Enter applicable code(s) in the <u>Crash</u> level "Event" fields.***

Animal

Code	Description
030	Pet: cat, dog and similar
031	Stock: cow, calf, bull, steer, sheep, etc.
032	Horse, mule, or donkey
033	Horse and rider
034	Wild animal, game (Includes birds; not deer or elk)
035	Deer or elk, wapiti
036	Animal-drawn vehicle

Avoiding

These codes may be used in conjunction with Vehicle Action code 007: Avoiding maneuver (Successful)

Code	Description
004	Pedestrian indirectly involved (Not struck)
006	Pedal-cyclist indirectly involved (Not struck)
007	Hitchhiker (Soliciting a ride)
030	Pet: cat, dog and similar
031	Stock: cow, calf, bull, steer, sheep, etc.
032	Horse, mule, or donkey
033	Horse and rider
034	Wild animal, game (Includes birds; not deer or elk)
035	Deer or elk, wapiti
036	Animal-drawn vehicle
068	Foreign obstruction / debris in road (Not gravel)
073	Other bump (not speed bump), pothole or pavement irregularity (Per PAR)
092	Other (phantom) non-contact vehicle (On PAR or report)

Distractions

Code	Description
004	Pedestrian indirectly involved (Not struck)
006	Pedal-cyclist indirectly involved (Not struck)
007	Hitchhiker (Soliciting a ride)

Fixed Object

Code	Description
037	Culvert, open low or high manhole
038	Impact attenuator
039	Parking meter
040	Curb (Also narrow sidewalks or bridges)
042	Leading edge of guardrail
043	Guard rail (Not metal median barrier)
044	Median barrier (Raised or metal)
045	Retaining wall or tunnel wall
046	Bridge railing or parapet (On bridge or approach)
047	Bridge abutment ~~(Approach ends)~~
048	Bridge pillar or column (Even if struck protective guard rail first)
049	Bridge girder (Horizontal bridge structure overhead)
050	Traffic raised island
052	Pole – type unknown
053	Pole – power or telephone
054	Pole – street light only
055	Pole – traffic signal and/or ped signal only
056	Pole – sign bridge
057	Stop or yield sign
058	Other sign, including street signs
059	Hydrant
060	Delineator or marker (Reflector posts)
061	Mailbox
062	Tree, stump or shrubs
063	Tree branch or other vegetation overhead, etc.
064	Wire or cable across or over the road
066	Permanent sign or barricade in/off road
072	Rock, brick or other solid wall
073	Other bump (not speed bump), pothole or pavement irregularity
074	Other overhead object (highway sign, signal head, etc.); not bridge
075	Bridge or road cave in
077	Snow bank
078	Low or high shoulder at pavement edge
079	Cut slope or ditch embankment
091	Building, other structure
095	Guy wire
096	Berm (Earthen or gravel mound)
098	Abrupt edge
100	Fixed object, unknown type

Fixed Object (cont.)

Code	Description
118	Expansion joint
119	Jersey Barrier
120	Wire or cable median barrier
121	Fence
126	Rocks / boulder (Not gravel; not rock slide)
127	Rock slide or land slide

Miscellaneous

Code	Description
010	Overturned <u>after</u> first harmful event *(Crash Type must not equal & - "Overturn")*
011	Vehicle being pushed
012	Vehicle towed or had been towing another vehicle
013	Vehicle forced by impact into another vehicle, cyclist or pedestrian
051	Gore
076	High water
085	Wind gust
086	Vehicle immersed in body of water
087	Fire or Explosion
089	Crash related to another separate crash
090	Two-way traffic on divided roadway all routed to one side
094	Police report indicates teenage driver of an involved vehicle was in violation of graduated license program *(Effective 2000)*
124	Sliding or swerving due to wet, icy, slippery or loose surface
125	Shoulder gave way
128	Curve present at crash location
129	Vertical grade, hill present at crash location
134	Torrential rain (exceptionally heavy rain, not cataclysmic in nature) *(Revised 2023)*

Non Fixed Object

Code	Description
065	Temporary sign or barricade in road, etc.
068	Foreign obstruction / debris in road (Not gravel)
069	Equipment working on/off road (example: working motor vehicles inside work zone boundaries; snowplow actively plowing; street sweeper actively sweeping, etc.) *Do not create a vehicle record for equipment or working motor vehicles actively working on/off road.*
070	Other equipment in or off road (Including parked trailer, boat)
080	Struck by rock or other object set in motion by other vehicle, including lost loads *(Do not use with code 081)*
081	Struck by rock or other moving, falling or flying object *(Do not use with code 080)*
097	Gravel in roadway
101	Non-Fixed object, other or unknown type

Non-Motorist

Code	Description
004	Pedestrian indirectly involved (Pedestrian not struck)
006	Pedal-cyclist indirectly involved (Pedal-cyclist not struck)
007	Hitchhiker (Soliciting a ride)
011	Vehicle being pushed
024	Vehicle door opened into adjacent traffic lane
036	Animal-drawn vehicle

Occupant

Code	Description
014	Vehicle set in motion by non-driver (Child released brakes, etc.)

Rail Related

Code	Description
017	Train struck vehicle
018	Vehicle struck train
019	Vehicle struck railroad car on roadway
111	Street car or trolley (On rails or overhead wires) struck vehicle
112	Vehicle struck street car / trolley (On rails or overhead wires)
113	At or on street car or trolley right-of-way
114	Vehicle struck railroad equipment on tracks (Not train)
117	Rail Crossing Drop Arm Gate

Vehicle Level Event by Category

(Continued)

Vehicle Related

Code	Description
010	Overturned <u>after</u> first harmful event *(Crash Type must not equal & - "Overturn")*
011	Vehicle being pushed
012	Vehicle towed or had been towing another vehicle
013	Vehicle forced by impact into another vehicle, cyclist or pedestrian
014	Vehicle set in motion by non-driver (Child released brakes, etc.)
020	Jackknife: trailer or towed vehicle struck towing vehicle
021	Trailer or towed vehicle overturned
022	Trailer connection broke
023	Detached trailing object struck other vehicle, non-motorist, or object
024	Vehicle door opened into adjacent traffic lane
025	Wheel came off
026	Hood flew up
028	Lost load, load moved or shifted
029	Tire failure
071	Wrecker, street sweeper, snow plow or sanding equipment

Vehicle Speed Flag

EDW

Table: VHCL   **Column:** VHCL_SPEED_FLG   **Data Type:** bit   **Length:** not null

Code	Description
0	No *(Default value for PDO crashes effective 2016)*
1	Yes

Description:

Vehicle Speed Flag is a Yes / No field entered at the vehicle level. This field indicates that this vehicle was **driven in excess of the posted speed**.

Instructions

Only use information from the police report, or the driver's own admission, in coding this field. Information provided on the PAR such as a citation or warning issued, calculated speed estimates, etc., may be used. **DO NOT** code this field based on witness statements.

Use **Code "0"** when this vehicle was **not** being driven in excess of the posted speed. For cases where a driver was traveling too fast for conditions, but was not driving in excess of the posted speed, enter 0 and use the Participant Level Error code 047 (Too fast for conditions).

Use **Code "1"** when the PAR or this vehicle's driver admits he or she was exceeding the posted speed. Also enter the Participant Level Error code 050 (Speeding).

*Effective for 2016 crash data entry, Speed data is no longer collected for specific vehicles when Crash Severity is Property Damage Only. **Enter the applicable value in the <u>Crash</u> level "Cause" field.***

Validations:

Rule #	Rule Message	Severity
325	[field name] value must be 1 for Yes or 0 for No	Red/Severe

Vehicle Hit and Run

Table: VHCL **Column:** VHCL_HIT_RUN_FLG **Data Type:** bit **Length:** not null

Code	Description
0	No *(Default value for PDO crashes effective 2016)*
1	Yes

Description:

Vehicle Level Hit and Run is a Yes / No field that indicates whether the operator fled the scene of the crash _in this vehicle_.

Instructions

Use **Code "0"** if the vehicle remained at the scene, i.e. no "hit and run" occurred. _Also use Code "0" if the driver fled the scene but left the vehicle at crash site_. In that case, capture the driver's action of hit and run on the Participant Level.

Enter **Code "1"** if the police report states that the Hit and Run driver left the scene in this vehicle.

The PAR is the only accepted source of information for this field.

Effective for 2016 crash data entry, information for this field is no longer collected for Property Damage Only crashes.

Validations:

Rule #	Rule Message	Severity
327	[field name] value must be 1 for Yes or 0 for No	Red/Severe

Safety Equipment Use in Vehicle

EDW

Table: VHCL   **Column:** VHCL_SFTY_EQUIP_USED_QTY   **Data Type:** tinyint **Precision:** 3

Table: VHCL   **Column:** VHCL_SFTY_EQUIP_UNUSED_QTY   **Data Type:** tinyint **Precision:** 3

Table: VHCL   **Column:** VHCL_SFTY_EQUIP_USE_UNKNOWN_QTY   **Data Type:** tinyint **Precision:** 3

Code	Description
00-99	**Equipment Used**
	Actual number of persons in vehicle who were using safety equipment
00-99	**Equipment Unused**
	Actual number of persons in vehicle who were not using safety equipment, or used equipment improperly.
00-99	**Equipment Use Unknown**
	Actual number of persons in vehicle for whom safety equipment use is not known.

Description:

Safety Equipment Use in Vehicle is made up of three sets of two-digit codes. This field records the **total number of vehicle occupants**, including un-injured passengers **over** age four*, according to whether or not they used safety equipment.

Instructions:

Entries are required for all three fields, for each vehicle coded. *Include all occupants of parked motor vehicles, to ensure they're counted in the total number of persons involved, for annual publications.*

In the first field, enter the total number of vehicle occupants who were using safety equipment (belts, booster seats, helmets, etc.).

In the second field, enter the total number of vehicle occupants who were not using safety equipment, or were using safety equipment improperly.

In the third field, enter the total number of vehicle occupants for whom safety equipment use is unknown.

This is the only field that records information on un-injured passengers. Participant records are not created for uninjured passengers in the Crash Data System.

Validations:

Rule #	Rule Message	Severity
329-331	When entered, [field name] must be numeric	Red/Severe
336	More participants in vehicle [vehicle sequence number] show safety equipment use than indicated on the vehicle row	Red/Severe
337	More participants in vehicle [vehicle sequence number] show safety equipment unused than indicated on the vehicle row	Red/Severe
338	More participants in vehicle [vehicle sequence number] show safety equipment use unknown than indicated on the vehicle row	Red/Severe

Vehicle Occupant Count

Table: VHCL   **Column:** VHCL_OCCUP_CNT   **Data Type:** tinyint   **Precision:** 3

Code	Description
00-99	Total number of persons in vehicle

Description:

Vehicle Occupant Count is a derived field generated by the data entry system.

Instructions:

It is calculated by adding the numbers that were entered into the following three fields:

- Safety Equipment Used
- Safety Equipment Un-used
- Safety Equipment Use Unknown

Verify that the total count is correct before proceeding to the next record.

Note that this number may not match the number of Participant records entered for the vehicle because no Participant record is created for un-injured passengers **over** age four.

Validations:

None

Section III: PARTICIPANT LEVEL

(Page intentionally left blank)

Participant Display Sequence Number

Table: PARTIC   **Column:** PARTIC_DSPLY_SEQ_NO   **Data Type:** tinyint   **Precision:** 3

Code	Description
01-99	Number assigned to each coded participant by the Date Entry system, in sequential order

Description:

Participant Display Sequence Number (i.e. Participant Number) is a two-digit numeric field used to order participant records sequentially, *in the Data Entry screen*, for a given crash. Crash Data Technicians can reassign the Participant Display Sequence Number, to manage vehicle records as needed. This number is unique *within a given crash*, but **not unique** within the annual data file.

> **Note to data users:** This data element is not the same as the Participant Identifier (PARTIC_ID), which is the primary key for the PARTIC table. PARTIC_ID uniquely identifies a participant within the Crash Data System, and can be used to specify participants when querying, or to join participant records to their Errors, Causes, and Events. However, PARTIC_ID is not displayed in the Data Entry screen and is invisible to the Crash Data Technician (CDT). Therefore, CDTs can't use this key field when they need to manually re-order the Vehicle or Participant records in the Participant level's Data Entry grid.

Instructions:

The Crash Data System records Participant Level data for:

- All drivers
- ~~All children ages four and under~~ *(discontinued, effective 2018)*
- All other **injured** participants

Effective 2018, Participant records are no longer created for uninjured persons who are not drivers,. Prior to 2018, participant records were created for uninjured vehicle occupants age 0 to 4.

When multiple non-motorists (pedestrians, pedal-cyclists, or other non-occupants) are involved, create a Participant record only for the injured non-motorist.

Do not create a participant record for uninjured occupants of legally parked vehicles.

Validations:

None

Vehicle Coded Sequence Number (Participant Level)   EDW

CDS Data Entry Screen Only

Code	Description
Blank	Injured pedestrian, pedal-cyclist or other non-motorist
01–99	Number assigned to each occupied vehicle by the Data Entry system, in sequential order

Description:

Vehicle Coded Sequence Number (Participant Level), also referred to as the Vehicle Number, is a two-digit, sequential number generated on the Vehicle grid of the crash data entry screen. It is duplicated in the Participant grid of the data entry screento allow Crash Data Technicians to manage participant records by vehicle number. This duplication is a function of the Data Entry screen. Vehicle Coded Sequence Number does not exist on the PARTIC table.

> **Note to data users:** This data element is not the same as the Vehicle Identifier (VHCL_ID). The VHCL_ID is the primary key for the VHCL table. It exists on the PARTIC table to allow data users to match participants to their vehicles. However, VHCL_ID is not displayed in the Data Entry screen and is invisible to the Crash Data Technician.

Instructions:

The code is system-generated, but may be changed by the Crash Data Technician to modify the order of vehicles in the Participant grid of the Data Entry screen.

All occupants of a given vehicle are assigned the same vehicle number.

This field is blank for Participant records that represent injured pedestrians, pedal-cyclists and other non-motorists.

Do not enter a participant record for uninjured occupants of legally parked vehicles.

Validations:

None

Participant Vehicle Sequence Number

EDW

Table: PARTIC   **Column:** PARTIC_VHCL_SEQ_NO   **Data Type:** tinyint   **Precision:** 3

Code	Description
01-99	Assigned sequentially for occupants of a given vehicle.

Description:

Participant Vehicle Sequence Number (PVS) is a system-generated field used to order participant records within a given vehicle on the Participant grid of the Data Entry screen. Once generated, it <u>cannot</u> be modified.

Instructions:

The Data Entry system assigns this number sequentially for all occupants of a given vehicle, beginning with **"01"** for the driver. Numbering re-starts at **"01"** for occupants of the next vehicle, and for occupants of each subsequent vehicle.

Non-motorists are also numbered sequentially, beginning with "01". The PVS Number increases consecutively for each additional non-motorist, even though their records may not occur next to each other in Participant grid.

The example below shows how the Vehicle and PVS number would be assigned for a crash involving a vehicle with two occupants, a pedestrian, a second vehicle with one occupant, and a bicyclist.

Participant Number	Vehicle Number	PVS Number	Participant Type	
Code	Code	Code	Code	Description
01	01	01	1	Driver of Vehicle No. 1
02	01	02	2	Passenger of Vehicle No. 1
03	Blank	01	3	*Pedestrian*
04	02	01	1	Driver of Vehicle No. 2
05	Blank	02	6	*Pedal-cyclist*

Validations:

Rule #	Rule Message	Severity
653	When the Participant Type is 0, 1, 2 or 8 a valid Participant Vehicle Number is required	Red/Severe
661	When the Participant Type is 3, 4, 5, 6, 7 or 9 the Participant Vehicle Number must be null	Red/Severe

Participant Type

Table: PARTIC   **Column:** PARTIC_TYP_CD   **Data Type:** char   **Length:** 1

MOTORISTS	
Code	**Description**
0	Unknown occupant type in a motor vehicle in transport
1	Driver *(Default value for PDO crashes effective 2016)*
2	Passenger

NON-MOTORISTS	
Code	**Description**
3	Pedestrian
4	Pedestrian using a pedestrian conveyance (wheelchair, skates, etc.)
5	Pedestrian towing an object, other participant, conveyance, etc.
6	Pedal-cyclist
7	Pedal-cyclist towing an object, other participant, conveyance, etc.
8	Occupant of a parked motor vehicle
9	Other non-motorist (occupant of a non-motor vehicle; horse-drawn carriage; persons in buildings; ***injured occupant of rail, street, or cable vehicle***)

Description:

Participant Type is a one-digit code that represents the participant's role in the crash.

Note: The Participant Type does not change during the course of a crash. Participants maintains their participant type from the start of the unstabilized situation until it resolves. Chain-reaction crashes may involve mutiple sets of unstabilized situations. These require careful evaluation to determine when one crash ends and another begins. See ANSI D.16-2017 definition 2.4.4 for helpful scenarios.

Instructions:

There are two categories of Participants: "*motorists*" and "*non-motorists*". A "motorist" is any occupant of a motor vehicle in transport. A "non-motorist" is any person other than a motorist *(see ANSI D16.2017, definitions 2.2.40 and 2.2.41).*

Motor vehicles that are stopped, "parked" or left unattended within the travel portion of the roadway are "in transport". Their occupants are motorists. Participant Type ***must*** be coded 0, 1, or 2.

Examples of a motor vehicle "in transport" are below. See ANSI D-16.2017 definition 2.2.34 for more scenarios.

- A vehicle being driven *or motionless* within the travel portion of a roadway
- A *driverless* motor vehicle, in motion, on the roadway
- A vehicle *parked improperly* on the travel portion of the road
- A motionless motor vehicle that is disabled or abandoned on a roadway

Motor vehicles that are fully off the travel portion of the roadway (i.e., on the shoulder, or outside the trafficway boundaries) are not considered to be "in transport". Use Code 8 or 9 for their occupants.

*Effective for 2016 crash data entry, when Crash Severity is "Property Damage Only", participant records are created only for <u>drivers</u>. The field defaults to "1" in PDO Default data entry screens.

Motorists

Code "0" is used when it is known that the participant was an occupant of a motor vehicle in transport, but the participant's role (i.e., driver or passenger) is not known.

Code "1" is used for the vehicle operator, i.e. driver. *"A driver is an occupant who is in actual physical control of a transport vehicle or, for an out-of-control vehicle, an occupant who was in control until control was lost." (See ANSI D16.1-2007, definition 2.2.37)*

Also use **code "1"** for operators of vehicles that are <u>stalled or improperly parked on the travel portion of the roadway</u>.

Code "2" is used for occupants of a motor vehicle in transport who are not the driver *(see ANSI D16.1-2007, definition 2.2.38).* For occupants who are riding on the exterior of the vehicle, or are otherwise attached to the outside of a vehicle, use code 2, and use Participant Level Event code 104.

Non-Motorists

Code "3" is used for:
- Pedestrians (unless they are towing another person or object. See code 5)
- Persons who are on foot carrying, *or being carried by,* another person
- Persons who are **being towed** by a pedestrian. Also enter code **"008"** in one of the Participant Level Event fields for this participant

Code "4" is used for a pedestrian who is on a conveyance, such as a wheelchair (including motorized wheelchairs), skates, skateboard, etc. For a participant using a <u>non-motorized</u> wheelchair, enter code 106 in the Participant Level Event field. For a participant using a <u>motorized</u> wheelchair, enter code 107 in the Participant Level Event field.

Code "5" is used for a pedestrian who is in the act of towing another person or object.

Code "6" is used for an occupant of a non-motorized pedalcycle in transport, and for:

- A person riding as a passenger on a pedal-cycle, including a tandem cycle. Also enter code 105 in one of the Participant Level Event fields for this participant

- A person who is **being towed** by a pedalcyclist. Also enter code **"008"** in one of the Participant Level Event fields for this participant

Code "7" is used for a pedalcyclist who is in the act of towing another person or object.

Code "8" is used for participants who are injured occupants of a motor vehicle that is legally parked, or illegally parked *outside* the travel portion of the roadway.

Code "9" is used for all **other types of non-motorists**, such as:

- an occupant of a "working motor vehicle" *(see ANSI D16-2017 definition 2.2.7.2 and 2.5.24 work zone)*
- an occupant of a non-motor vehicle **(i.e. train, light rail, street or cable car),**
- rider on horseback,
- an occupant of a horse-drawn carriage,
- persons in buildings, etc. Persons in buildings are outside the trafficway. They are not using the sidewalk or road as a pedestrian.

Validations:

Rule #	Rule Message	Severity
357	Moving vehicle must have Driver coded unless Action Code = 021 "Ran Away -- No Driver", or Action Code = 023, "Vehicle stalled or disabled", or Vehicle Event Code = 011, "Vehicle being Pushed"	Red/Severe
601	Required field [field name] missing	Red/Severe
630	When Participant Type is 0, 1, 2, 6, 7 or 8, Safety Equipment Type must be specified	Red/Severe
631	When Participant Type is 3, 4, 5, or 9, Safety Equipment Type must be blank	Red/Severe
653	When the Participant Type is 0, 1, 2 or 8 a valid Participant Vehicle Number is required	Red/Severe
661	When the Participant Type is 3, 4, 5, 6, 7 or 9 the Participant Vehicle Number must be null	Red/Severe
663	When the Participant Type is 6 or 7 (Pedalcyclist), Safety Equipment Type must be 0, 5, 6, or 9	Red/Severe
679	When Participant Type is 1 (Driver), Safety Equipment Type must be 0, 1, 2, 5, 6, 8 or 9	Red/Severe
680	When Participant Type is 1 (Driver), the PVS value must be 01. Re-sequence participants if necessary	Red/Severe
690	Participant Type Code must = 8 for all occupants of properly parked motor vehicles	Red/Severe

Participant Level Hit and Run

EDW

Table: PARTIC   **Column:** PARTIC_HIT_RUN_FLG   **Data Type:** bit   **Length:** not null

Code	Description
0	No *(Default value for PDO crashes effective 2016)*
1	Yes

Description:

Participant Level Hit and Run is a yes/no field that indicates whether or not a participant remained at the scene of the crash. The PAR is the only accepted source of information for this field.

Instructions:

Use **Code "0"** when this participant remained at the scene of the crash.

Use **Code "1"** if driver _fled on foot, abandoning the vehicle at scene_.

Effective for 2016 crash data entry, information for this field is no longer collected for Property Damage Only crashes. The field defaults to "0" in PDO Default entry screens.

Validations:

Rule #	Rule Message	Severity
610	[field name] value must be 1 for Yes or 0 for No	Red/Severe

Public Employee

Table: PARTIC   **Column:** PUB_EMPL_FLG   **Data Type:** bit   **Length:** not null

Code	Description
0	No *(Default value for PDO crashes effective 2016)*
1	Yes

Description:

Public Employee is a yes/no field that indicates if a participant was employed by a public agency **_and_** was on duty at the time of the crash.

Instructions:

For the purposes of this manual, a public employee is any person employed by a city, county, state, or federal agency.

The following types of people are "public employees".

- Police officers
- Municipal firefighters
- Other government and public school employees (i.e. school bus drivers)
- Government construction workers / flaggers
- Military employees

Use **Code "0"** when the participant is **not** on duty as a public employee.

Use **Code "1"** when the participant **is** on duty as a public employee.

Effective for 2016 crash data entry, information for this field is no longer collected for Property Damage Only crashes. The field is set to "0" in PDO Default entry screens.

Validations:

Rule #	Rule Message	Severity
611	[field name] value must be 1 for Yes or 0 for No	Red/Severe

Sex

Table: PARTIC   **Column:** SEX_CD   **Data Type:** char   **Length:** 1

Code	Description
1	Male
2	Female
3	Non-Binary Gender (New value effective 2017)
9	Unknown *(Default value for PDO crashes effective 2016)*

Description:

Sex is a one-digit code that indicates the participant's gender.

Instructions:

Effective for 2016 crash data entry, information for this field is no longer collected for Property Damage Only crashes. The field is set to "0" in PDO Default entry screens.

Validations:

Rule #	Rule Message	Severity
614	Required field [field name] missing	Red/Severe

Age

Table: PARTIC   **Column:** AGE_VAL   **Data Type:** char   **Length:** 2

Code	Description
00	Age is unknown * *(Default value for PDO crashes effective 2016)*
01	Infants from birth to less than two years of age
02-98	Actual age of participant 2 years or over
99	Ninety-nine years of age or over

Description:

Age is a two-digit code that represents the age of the participant at the time of the crash. The actual age is coded with the following exceptions:

Instructions:

Code "00" is used when the age of the participant is not known.

Code "01" is used when the age of the participant is an infant from birth to less than two years of age.

Code "99" is used when the participant is age 98 or older.

*Effective for 2016 crash data entry, information for this field is no longer collected for Property Damage Only crashes. The field is set to "00" in PDO Default entry screens.

*Effective for 2018 crash data entry, uninjured children ages 0 to 4 are no longer entered into the Crash Data Ssystem. Participant records are no longer created for uninjured passengers of any age.

Validations:

Rule #	Rule Message	Severity
616	Required field [field name] missing	Red/Severe
617	Age must be two-digit numeric between 00 and 99 inclusive	Red/Severe
664	When the Participant's Injury Severity is 7, the Participant Age must be 01 - 04	Red/Severe
688	This is a rare occurrence, please confirm that Driver Age is less than 14	Yellow/Warning
694	Age must be two-digit numeric between 00 and 99 inclusive	Red/Severe

Driver License Status

Table: PARTIC   **Column:** DRVR_LIC_STAT_CD   **Data Type:** char   **Length:** 1

Code	Description
Blank	Participant is not a driver
0	Not licensed
1	Valid Oregon license or permit
2	Valid license, other state or country
3	Suspended / revoked
4	Expired
8	Other non-valid license
9	Unknown if driver was licensed *(Default value for PDO crashes effective 2016)*

Description:

Driver License Status is a one-digit code that indicates the class of license and the state that issued it.

The PAR is the official source for coding for Driver License Status, regardless whether a DMV driver record is available (i.e. for fatal crashes). Staff interpretation of driver license status based on a review of a DMV driver record does not override professional law enforcement determination of the driver's license status at the time of the crash. However, if no PAR is available, or if the PAR contains no information on the driver's license status, it is permissible for fatal crash coding staff to use the DMV driver record.

Instructions:

Code "0" is used when a driver is not licensed, and when a driver is operating farm equipment or an ATV and does not hold a valid Oregon license, certificate, endorsement, or permit. **Drivers age 13 or younger cannot have a valid Oregon license.** Oregon may issue a hardship license to drivers as young as age 14, though this is rare. (See Other Permits and Licenses section below.)

Do not use code 0 "unlicensed" when the crash report indicates the driver's license is "suspended", "revoked', or "expired".   Enter code 3 if suspended or revoked. Enter code 4 if the license is expired.

Code "1" is used for drivers who have a valid Oregon license, Commercial Driver License (CDL), certificate, endorsement or permit and are operating their vehicle in compliance with their license restrictions. Examples are:

- Operator holding standard vehicle license (Class C)
- Certified operator age 16 or older driving farm equipment
- ATV or motorcycle operator who has a Class C license with an endorsement

Code "8" is used when the driver's license is not valid for any other reason. Examples include:

- Operating the vehicle in violation of conditions set by DMV, such as driving during hours prohibited by a hardship license;

(Continued)

- Violating conditions of learner's permit; for example, violation of Graduated Driver License restrictions (Also enter 094 for Participant Level Event);
- Operating a vehicle without corrective lenses, when required;
- Operating a heavy truck with no Commercial Driver's License

Code "9" is used when no information exists regarding the driver's license status, such as for a hit-and-run driver who was never located.

Other Permits and License

1. **Special Instruction Permit:** issued to applicants who have no driving experience and are under 15 years of age.

2. **Moped-Restricted Driver License:** issued to moped-only operator's age 16 years or older.

3. **30- or 90-Day Temporary Driver Permit:** issued to persons who are otherwise qualified for the driving privilege but need additional time to obtain proof of legal presence or resolve an issue with the Social Security Administration.

4. **Disability Golf Cart Driver Permit:** issued only to persons with ambulatory disabilities per ORS 807.210(1). The cart must be operated in areas with designated speed of 25 mph or less, and is exempt from registration, vehicle equipment, and safety requirements.

5. **Student / Emergency Driver Permit:** issued only to persons age 14 or older.

*Effective for 2016 crash data entry, information for this field is no longer collected for Property Damage Only crashes. The field is set to "00" in PDO Default entry screens.

Validations:

Rule #	Rule Message	Severity
618	Required field [field name] missing	Red/Severe
619	[code field value] was not found in [lookup table name] or is not valid as of the crash date	Red/Severe
685	Driver License Status must be blank for non-drivers	Red/Severe
687	If Driver Age is between 01 and 13, Driver License Status must = "0"	Red/Severe
688	This is a rare occurrence, please confirm that Driver Age is less than 14	Yellow/Warning

Residence of Driver

EDW

Table: PARTIC   **Column:** DRVR_RES_STAT_CD   **Data Type:** char   **Length:** 1

Code	Description
Blank	Participant is not a driver
1	Oregon resident within 25 miles of home
2	Oregon resident more than 25 miles from home
3	Oregon resident – unknown distance from home
4	Non-resident
9	Unknown if Oregon resident *(Default value for PDO crashes effective 2016)*

Description:

Residence of Driver is a one-digit code that indicates the proximity of residency to the location of the crash.

Instructions:

See the **Mileage Chart** on the following page for distances between Portland and other Oregon cities.

Effective for 2016 crash data entry, information for this field is no longer collected for Property Damage Only crashes. The field is set to "9" in PDO Default entry screens.

Validations:

Rule #	Rule Message	Severity
620	Required field [field name] missing	Red/Severe
621	[code field value] was not found in [lookup table name] or is not valid as of the crash date	Red/Severe
686	Driver Residence must be blank for non-drivers	Red/Severe

(Continued)

Figure 67. Mileage Table

Mileages reflect the shortest distances between cities over state highways. ODOT RICS Unit, 2017.

MILEAGE TABLE	Albany	Ashland	Astoria	Baker City	Bend	Burns	Coos Bay	Corvallis	Eugene	Florence	Forest Grove	Grants Pass	Gresham	Klamath Falls	La Grande	McMinnville	Medford	Newberg	Newport	Ontario	Pendleton	Portland	Redmond	Roseburg	Salem	Springfield	The Dalles	Tillamook	Woodburn
Albany	-	219	158	351	123	253	147	11	44	94	73	179	78	213	329	50	207	50	61	383	277	69	121	111	24	43	152	92	40
Arlington	205	370	228	168	169	230	347	216	245	298	160	380	126	306	124	173	381	159	248	239	72	136	153	313	182	244	53	210	166
Ashland	219	-	374	447	200	299	182	222	178	202	290	41	295	64	472	264	12	269	252	428	442	285	216	108	240	176	331	309	255
Astoria	158	374	-	396	255	385	233	151	199	184	80	334	108	364	352	105	362	106	134	464	300	95	239	266	136	199	175	66	121
Baker City	351	447	396	-	247	164	466	356	356	404	328	488	294	383	44	341	459	327	388	72	96	304	230	421	350	352	221	378	333
Bandon	171	182	257	490	261	392	24	158	140	72	223	142	244	245	495	198	170	212	122	522	443	236	259	85	201	137	318	191	206
Beaverton	67	282	93	312	167	297	208	79	107	159	15	242	21	276	268	34	270	20	109	383	216	9	151	175	44	107	91	67	28
Bend	123	200	255	247	-	130	237	127	128	190	181	241	145	137	271	158	212	161	176	260	241	160	16	192	131	124	131	206	146
Brookings	249	146	339	559	295	424	107	238	216	155	306	105	327	208	565	280	134	294	205	555	525	317	311	168	272	220	400	274	289
Burns	253	299	385	164	130	-	367	257	259	320	311	339	275	235	205	288	311	291	306	130	198	290	146	322	261	253	260	336	276
Clatskanie	130	347	35	361	221	351	256	128	171	207	56	306	75	341	317	82	334	82	157	431	265	61	205	238	108	170	140	93	91
Condon	220	329	244	199	128	192	347	231	237	300	175	370	141	265	155	189	341	174	266	254	103	151	112	302	198	234	69	225	182
Coos Bay	147	182	233	466	255	367	-	135	116	48	200	142	220	245	471	174	170	188	98	498	419	212	235	85	177	113	294	167	186
Coquille	164	164	251	484	255	385	18	153	134	66	217	124	238	227	489	192	152	206	116	516	437	229	253	67	195	131	312	185	199
Corvallis	11	222	151	356	127	257	135	-	40	83	71	182	90	213	340	46	210	58	49	388	288	81	126	111	35	44	163	90	51
Cottage Grove	60	158	216	370	142	271	96	60	20	83	132	118	137	181	386	106	146	111	109	402	334	127	140	51	81	17	209	151	99
Dallas	31	248	129	364	146	276	164	29	70	112	51	208	71	242	320	25	236	37	66	406	268	60	144	140	15	73	143	64	32
Elgin	349	492	354	64	291	225	491	360	389	434	303	524	270	428	20	317	504	303	393	135	72	279	275	459	326	386	197	353	309
Enterprise	386	536	409	106	336	270	528	397	426	479	341	561	307	473	65	354	548	340	429	178	109	317	320	494	363	426	234	391	347
Eugene	44	178	199	356	128	259	116	40	-	61	112	138	120	173	369	86	166	94	87	388	318	110	126	71	64	4	193	130	81
Florence	94	202	184	404	190	320	48	83	61	-	151	162	172	234	422	126	190	139	50	450	371	164	188	94	118	65	245	119	135
Forest Grove	73	290	80	328	181	311	200	71	112	151	-	250	36	285	283	26	278	26	101	398	232	23	166	182	50	115	107	52	45
Fossil	213	309	264	195	108	172	328	218	218	280	195	350	166	245	175	209	321	194	265	233	123	171	92	282	218	214	89	245	236
Gold Beach	225	175	311	544	316	446	78	213	194	126	278	134	299	238	549	252	162	267	176	576	497	290	314	140	255	192	373	247	261
Grants Pass	179	41	334	488	241	339	142	182	138	162	250	-	254	104	504	224	29	229	212	470	452	245	257	68	199	136	327	269	216
Heppner	260	372	283	155	172	213	391	271	301	345	215	413	181	309	111	228	384	214	303	227	59	191	155	346	232	277	109	265	221
Hermiston	255	399	282	124	219	223	396	266	297	348	210	409	176	351	80	224	387	209	298	195	28	186	203	363	232	295	104	260	216
Hillsboro	73	292	87	322	176	306	206	78	117	156	6	252	30	286	278	32	280	20	106	391	226	17	160	184	50	117	101	58	37
Hood River	131	346	152	242	152	282	273	142	172	224	86	307	52	289	198	99	335	85	174	312	146	62	136	239	108	171	21	136	92
Independence	20	238	134	362	143	273	159	22	63	106	54	198	68	233	318	28	226	40	75	404	266	59	141	131	12	67	141	72	30
John Day	257	353	359	80	153	70	372	262	262	324	287	393	249	290	135	292	365	285	311	132	127	264	136	327	266	258	190	337	281
Junction City	31	193	179	358	130	260	116	26	14	63	97	153	109	187	359	72	181	84	73	391	308	100	128	85	54	18	183	116	72
Klamath Falls	213	64	364	383	137	235	245	213	173	234	285	104	282	-	408	259	76	263	261	365	378	279	153	171	234	170	268	303	250
La Grande	329	472	352	44	271	205	471	340	369	422	283	504	250	408	-	297	484	283	372	115	52	259	255	437	306	369	177	333	289
Lake Oswego	63	283	102	311	169	299	216	78	108	157	27	239	19	273	266	34	271	20	110	381	215	8	167	176	41	108	89	81	24
Lakeview	298	160	430	303	174	139	341	301	261	322	357	200	320	96	344	332	171	335	349	270	335	335	191	267	306	259	305	380	323
Lebanon	14	220	169	337	109	239	150	19	45	99	85	180	89	214	340	61	208	64	67	369	288	80	107	112	35	45	163	106	54
Lincoln City	76	289	110	392	189	319	123	74	122	75	76	238	99	292	348	50	266	65	25	450	296	88	187	170	57	122	171	44	76
Madras	147	243	242	240	42	172	262	152	151	214	140	282	103	159	251	155	255	138	200	278	199	118	26	216	155	148	89	190	133
McDermitt	390	346	532	256	277	147	514	404	406	467	458	410	422	306	299	435	381	438	454	184	351	437	293	469	408	400	407	483	423
McMinnville	50	264	105	341	158	288	174	46	86	126	26	224	49	259	297	-	252	14	76	411	245	38	156	157	26	90	120	67	33
Medford	207	12	362	459	212	311	170	210	166	190	278	29	282	76	484	252	-	257	240	442	454	273	228	96	227	164	343	297	243
Milton-Freewater	306	471	329	111	271	227	449	317	347	400	261	482	228	408	69	275	483	260	350	180	29	237	255	414	284	346	155	311	268
Milwaukie	71	287	101	309	173	303	220	81	112	161	30	243	16	277	265	42	275	28	116	380	214	7	171	179	44	111	88	75	28
Newberg	50	269	106	327	161	291	188	58	94	139	26	229	35	283	283	14	257	-	90	397	231	23	159	161	30	94	106	78	19
Newport	61	252	134	388	176	306	98	49	87	50	101	212	124	261	372	76	240	90	-	438	321	114	174	144	83	87	196	69	96
North Bend	144	185	230	463	235	364	3	132	113	45	197	145	220	248	467	171	173	185	95	495	416	209	233	88	174	111	291	164	191
Nyssa	386	433	480	85	263	133	501	391	391	453	413	473	377	368	128	425	445	411	433	13	388	388	271	456	395	387	305	462	409
Oakridge	82	179	232	329	96	226	145	82	42	103	153	167	157	131	367	128	167	135	132	356	337	151	112	98	106	34	235	171	123
Ontario	383	428	464	72	260	130	498	388	388	450	398	470	364	365	115	411	442	397	438	-	167	374	268	453	392	384	293	448	403
Oregon City	60	276	109	312	158	287	207	71	101	154	36	236	18	270	268	37	264	23	121	382	216	13	141	168	38	100	91	88	21
Pendleton	277	442	300	96	241	198	419	288	318	371	232	452	198	378	52	245	454	231	321	167	-	208	225	385	254	317	125	282	238
Portland	69	285	95	304	160	290	212	81	110	164	23	245	14	279	259	38	273	23	114	374	208	-	144	177	47	110	83	74	30
Prineville	140	236	242	211	35	156	254	144	144	207	169	276	132	172	230	174	247	167	193	250	222	146	19	209	148	141	117	219	163
Rainier	116	332	48	347	207	337	259	128	157	210	71	292	61	303	303	65	320	71	161	417	251	47	191	224	94	157	126	107	77
Redmond	121	216	239	230	16	146	235	126	126	188	166	257	129	153	255	156	228	159	174	268	225	144	-	190	129	122	114	204	144
Reedsport	120	181	206	439	211	341	27	108	89	21	173	141	193	244	444	147	169	162	71	471	392	185	209	73	150	87	267	141	159
Roseburg	111	108	266	421	192	322	85	111	71	94	182	68	186	171	437	157	96	161	144	453	385	177	190	-	132	68	260	201	148
St. Helens	98	314	66	329	189	319	240	109	139	192	53	274	43	308	285	67	302	52	143	399	233	29	173	206	76	138	108	103	59
Salem	24	240	136	350	131	261	177	35	64	118	50	199	56	234	306	26	227	30	83	392	254	47	129	132	-	64	129	74	17
Seaside	141	342	17	384	238	368	216	134	168	168	63	306	92	351	339	88	334	90	118	454	288	79	222	239	119	172	163	49	101
Sheridan	50	267	169	354	164	293	161	48	88	113	39	227	61	261	310	13	255	27	63	424	258	51	162	159	32	92	133	54	46
Silverton	36	252	132	347	130	260	183	47	77	130	56	212	49	246	296	40	240	30	97	389	244	42	128	145	14	77	120	88	13
Springfield	43	176	199	352	124	253	113	44	4	65	115	136	119	170	369	90	164	94	87	384	317	110	122	68	64	-	192	134	80
The Dalles	152	331	175	221	131	260	294	163	193	245	107	327	73	268	177	120	343	106	196	293	125	83	114	260	129	192	-	157	113
Tillamook	92	309	66	378	206	336	167	90	130	119	52	269	86	303	333	67	297	78	69	448	282	74	204	201	74	134	157	-	92
Toledo	56	259	142	383	171	301	105	44	82	57	108	219	131	256	379	83	254	97	7	433	328	121	169	151	76	86	203	76	91
Union	343	482	366	35	282	199	486	354	384	436	298	518	264	419	14	311	494	297	386	107	66	274	265	451	320	383	191	348	303
Vale	367	413	484	89	244	114	481	371	371	433	402	454	365	349	132	402	425	403	420	17	185	377	252	436	375	367	309	450	396
Vernonia	106	322	64	349	204	334	228	100	140	190	28	280	57	316	305	54	308	54	130	419	253	45	187	214	80	146	128	61	63
Woodburn	40	255	121	333	146	276	186	51	81	135	45	216	39	250	289	33	243	19	96	403	238	30	144	148	17	80	113	92	-

Injury Severity

Table: PARTIC   **Column:** INJ_SVRTY_CD   **Data Type:** char   **Length:** 1

Code	Description
1	Fatal Injury (**K**)
2	Suspected Serious Injury (**A**) *was "Incapacitating (Serious/Major)" prior to 2018*
3	Suspected Minor Injury (**B**) *was "Non-incapacitating (Moderate)" prior to 2018*
4	Possible injury (**C**) *was "Possible injury – complaint of pain (Minor)" prior to 2018*
5	Died prior to crash
9	No apparent injury (**O**) *was "No injury - participant over age 4" prior to 2018* *(Default value for PDO crashes effective 2016)*
~~7~~	~~No injury newborn to age 4~~ *(Discontinued effective 2018)*

Description:

Injury Severity is a one-digit code that represents the extent of bodily harm sustained by a participant, as reported by the driver or investigating officer (except for fatalities – see Code 1, below).

Instructions:

Code the more serious injury when a discrepancy exists between a driver report and officer's report.

*Effective for 2015 crash coding, **Pedestrians** and **Pedalcyclists** must be assigned an Injury Severity code of "1", "2", "3" or "4". The reason is:*

> *There is no legal requirement, nor option, for bicyclists and pedestrians to report when they're involved in a crash. In the absence of formal reporting from these participants, a decision had to be made regarding their injury severity. It was determined that, as vulnerable road users, bicyclists and pedestrians must receive at least a "possible injury" in collisions with motor vehicles.*

Effective for 2018 crash coding, data for un-injured children age 0 to 4 is no longer collected. Do not create a Participant record for *any* uninjured individual, of any age.

Code 1: A **fatal injury (K)** is any injury that results in death within 30 days after the motor vehicle crash in which the injury occurred. For the purposes of motor vehicle traffic crash classification, the death must occur within thirty 24-hour periods from the time of the crash. The death certificate is the final, official source of record for cause of death, death date, and death time, when available.

If the person did not die at the scene but died within 30 days of the motor vehicle crash in which the injury occurred, the injury classification should be changed from the attribute previously assigned to the attribute "Fatal Injury."

Code 2: A **suspected serious injury (A)** is any injury other than fatal which results in one or more of the following:

(Continued)

- Severe laceration resulting in exposure of underlying tissues/muscle/organs or resulting in significant loss of blood
- Broken or distorted extremity (arm or leg)
- Crush injuries
- Suspected skull, chest or abdominal injury other than bruises or minor lacerations
- Significant burns (second and third degree burns over 10% or more of the body)
- Unconsciousness when taken from the crash scene
- Paralysis

In the absence of information specifying the above injuries, use **code 2** for a non-fatal injury which *"prevents the injured person from walking, driving or normally continuing the activities the person was capable of performing before the injury occurred". (See ANSI D16.1-2007, definition 2.3)*

Code 3: A **suspected minor injury (B)** is any injury that is evident at the scene of the crash, other than fatal or serious injuries. Examples include lump on the head, abrasions, bruises, minor lacerations (cuts on the skin surface with minimal bleeding and no exposure of deeper tissue).

Code 4: A **possible injury (C)** is any injury reported or claimed which is not a fatal, suspected serious, or suspected minor injury. Examples include momentary loss of consciousness, claim of injury, limping, complaint of pain or nausea. Possible injuries are those that are reported by the person or are indicated by his/her behavior, but no wounds or injuries are readily evident.

Code 5 is used for participants who die prior to the crash. Example: a driver suffers a massive heart attack and dies while traveling on a trafficway. The subsequent loss of vehicle control results in injury to his passengers, or damage to any property exceeding the monetary threshold established by DMV.

If the crash results only in property damage, the system won't allow you to change the default Injury Severity code from '9'. Save the crash and hand the file to the Crash Tech Team Lead. The Team Lead will open the saved Preliminary or Reportable Crash, change the **Injury Severity** code to **'5'** – Died Prior to Crash, and accept the warning that is prompted.

~~Code 7 is used for participants age newborn to four years, who are not injured.~~ *(Discontinued as of the 2018 crash data file)*

Code 9: No apparent injury (O) is a situation where there is no reason to believe that the person sustained any bodily harm from the motor vehicle crash. There is no physical evidence of injury, and the person does not report any change in normal function. Use code 9 for coded participants who are un-injured (i.e., drivers), effective 2018.

Also effective 2018, data is no longer collected on un-injured children age 0 to 4.

*Changes to the Injury Severity code descriptions and definitions were made to comply with the MMUCC Guideline (Model Minimum Uniform Crash Criteria), Fourth Edition. These changes are effective in the Crash Data System as of the 2018 code year.

Injury Severity

(Continued)

Validations:

Rule #	Rule Message	Severity
622	Required field [field name] missing	Red/Severe
623	[code field value] was not found in [lookup table name] or is not valid as of the crash date	Red/Severe
624	Combination of [first code field] and [second code field] not valid in the [cross-reference table name] cross-reference table	Red/Severe
625	Combination of [first code field] and [second code field] must be confirmed	Yellow/Warning
629	Crash Severity indicates at least one Participant was injured, but no Participant was coded with an injury	Red/Severe
664	When the Participant's Injury Severity is 7, the Participant Age must be 00 – 04 (applies to historic crash data prior to 2018)	Red/Severe
689	Died Prior to Crash is a very rare occurrence. Please verity the Injury Severity Code for this Participant	Yellow/Warning

Participant Safety Equipment Use

Table: PARTIC   **Column:** SFTY_EQUIP_USE_CD   **Data Type:** char   **Length:** 1

Code	Description
Blank	Not applicable (Pedestrians, other types of non-motorists)
0	No safety equipment used
1	Seat belt or harness used improperly
2	Seat belt or harness, fastened
3	Child restraint used improperly
4	Child restraint used properly
5	Helmet used improperly
6	Helmet used properly
8	Equipment used, type unknown
9	Unknown if used *(Default value for PDO crashes effective 2016)*

Description:

Participant Level Safety Equipment Use is a one-digit code that records the type and use of safety equipment (properly or improperly) reported for each participant.

Instructions:

The Police Traffic Crash Report is the source of this information. When the information is not available or is unknown to the officer, the driver's report is the source.

Code this field for motor vehicle occupants, pedal-cyclists, and <u>injured</u> occupants of parked motor vehicles.

Safety equipment use for injured occupants of parked motor vehicles must be coded because the **Participant Level** Safety Equipment Use field is used to validate the corresponding **Vehicle Level** Safety Equipment Use field.

Leave this field blank for pedestrians, and for occupants of most other non-motorized transport devices.

Effective for 2016 crash data entry, information for this field is no longer collected for Property Damage Only crashes. The field is set to "9" in PDO Default entry screens.

Participant Safety Equipment Use

(Continued)

Validations:

Rule #	Rule Message	Severity
630	When Participant Type is 0, 1, 2, 6, 7 or 8, Safety Equipment Type must be specified	Red/Severe
631	When Participant Type is 3, 4, 5, or 9, Safety Equipment Type must be blank	Red/Severe
632	[code field value] was not found in [lookup table name] or is not valid as of the crash date	Red/Severe
663	When the Participant Type is 6 or 7 (Pedalcyclist), Safety Equipment Type must be 0, 5, 6, or 9	Red/Severe
665	When Vehicle Type is 01, Partic. Safety Equip Type must be null, 0, 1, 2, 3, 4, 8, or 9	Red/Severe
666	When Vehicle Type is 02, Partic. Safety Equip Type must be null, 0, 1, 2, 3, 4, 8, or 9	Red/Severe
667	When Vehicle Type is 03, Partic. Safety Equip Type is generally null, 0, 1, 2, 8 or 9. Confirm value.	Yellow/Warning
668	When Vehicle Type is 04, Partic. Safety Equip Type must be null, 0, 1, 2, 3, 4, 8 or 9	Red/Severe
669	When Vehicle Type is 05, Partic. Safety Equip Type must be null, 0, 1, 2, 3, 4, 8 or 9	Red/Severe
670	When Vehicle Type is 06, Partic. Safety Equip Type must be null, 0, 5, 6 or 9	Red/Severe
671	When Vehicle Type is 07, Partic. Safety Equip Type must be null, 0, 1, 2, 3, 4, 8 or 9	Red/Severe
672	When Vehicle Type is 08, Partic. Safety Equip Type must be null, 0, 1, 2, 3, 4, 8 or 9	Red/Severe
673	When Vehicle Type is 09, Partic. Safety Equip Type must be null, 0, 5, 6 or 9	Red/Severe
674	When Vehicle Type is 10, Partic. Safety Equip Type is generally null, 0, 1, 2, 8 or 9. Confirm value.	Yellow/Warning
675	When Vehicle Type is 11, Partic. Safety Equip Type must be null, 0, 1, 2, 3, 4, 8 or 9	Red/Severe
676	When Vehicle Type is 13, Partic. Safety Equip Type is generally null, 0, 5, 6, 8 or 9. Confirm value.	Yellow/Warning
677	When Vehicle Type is 14, Partic. Safety Equip Type is generally null, 0, 5, 6, 8 or 9. Confirm value.	Yellow/Warning
678	When Vehicle Type is 15, Partic. Safety Equip Type is generally null, 0, 5, 6, 8 or 9. Confirm value.	Yellow/Warning
679	When Participant Type is 1 (Driver), Safety Equipment Type must be 0, 1, 2, 5, 6, 8 or 9	Red/Severe
681	When Vehicle Type is 12, Partic. Safety Equip Type must be null, 0, 1, 2, 3, 4, 8 or 9	Red/Severe

Airbag Deployment

Table: PARTIC   **Column:** AIRBAG_DEPLOY_IND   **Data Type:** char   **Length:** 1

Code	Description
Blank	Not reported or not applicable *(Default value for PDO crashes effective 2016)*
0	Airbag is available on this vehicle but did not deploy
1	Airbag deployed
9	Airbag is available on this vehicle, but information about deployment is not given

Description:

Airbag Deployment is a one-digit code that indicates the general availability of airbags in a given vehicle, and whether or not the airbag deployed during the crash.

Instructions:

Information for this field is obtained from the PAR or driver report. This field is not intended to represent or imply further research into the availability of airbags for the subject vehicle.

Effective for 2016 crash data entry, information for this field is no longer collected for Property Damage Only crashes. The field is left blank in PDO Default entry screens.

Validations:

Rule #	Rule Message	Severity
659	[field name] must be blank, 0 (No), 1 (Yes), or 9 (Unknown)	Red/Severe
660	When Participant is a Pedestrian or Pedalcyclist, the Airbag Deployed Indicator must be null.	Red/Severe

Non-Motorist Movement

Table: PARTIC   **Column:** MVMNT_CD   **Data Type:** char   **Length:** 1

Code	Description
Blank	Participant is a motorist *(Default value for PDO crashes effective 2016)*
0	Unknown
1	Straight ahead
2	Turning right
3	Turning left
4	Making a U-Turn
5	Backing
6	Stopped in traffic

Description:

Non-Motorist Movement is a one-digit code that indicates the movement of participants who were not occupants of a motor vehicle in transport, (i.e., a pedestrian, pedalcyclist, horse and rider, etc.).

Instructions:

Effective for 2016 crash data entry, information for this field is no longer collected for Property Damage Only crashes. The field is left blank in PDO Default entry screens.

Validations:

Rule #	Rule Message	Severity
634	Participant Movement Code must be a 0 or 1 when Participant is a pedestrian who is not using pedestrian conveyance	Red/Severe
635	[code field value] was not found in [lookup table name] or is not valid as of the crash date	Red/Severe
636	Participant Movement Code must be null when participant is a vehicle occupant	Red/Severe
654	Participant Movement Code is required when participant is a Pedestrian, Pedalcyclist or Unknown Non-motorist	Red/Severe
662	Discrepancy exists between Movement and From / To Direction	Red/Severe

Non-Motorist Direction of Travel From / To

Table: PARTIC   **Column:** CMPSS_DIR_FROM_CD   **Data Type:** char   **Length:** 1
Table: PARTIC   **Column:** CMPSS_DIR_TO_CD   **Data Type:** char   **Length:** 1

Code	Description
0	Unknown
1	North
2	Northeast
3	East
4	Southeast
5	South
6	Southwest
7	West
8	Northwest
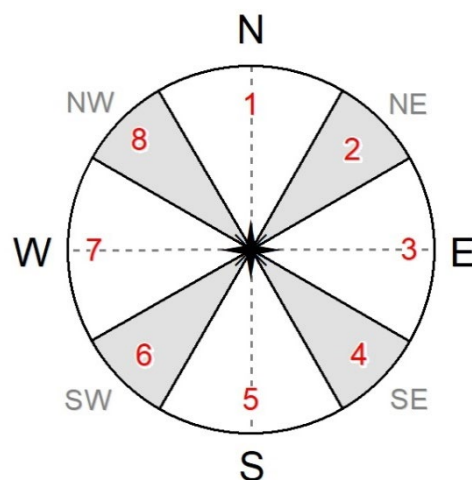
Description:

Non-Motorist Direction of Travel contains two, 1-digit fields: **"Direction From"** and **"Direction To"**. Used together, these fields indicate the person's intended direction of travel.

Instructions:

The first field indicates the direction the participant came from.

The second field indicates the intended direction the participant was heading toward.

Effective for 2016 crash data entry, information for this field is no longer collected for Property Damage Only crashes. The field is left blank in PDO Default entry screens.

Validations:

Rule #	Rule Message	Severity
637	A valid Participant Direction From value is required when Participant is not a vehicle occupant	Red/Severe
638	A valid Participant Direction To value is required when Participant is not a vehicle occupant	Red/Severe
639	Participant Direction From value must be null when Participant is a vehicle occupant	Red/Severe
640	Participant Direction To value must be null when Participant is a vehicle occupant	Red/Severe
656	A valid Participant Direction From value is required when Participant is not a vehicle occupant	Red/Severe
657	A valid Participant Direction To value is required when Participant is not a vehicle occupant	Red/Severe
662	Discrepancy exists between Movement and From or To Direction	Red/Severe

Non-Motorist Location

Table: PARTIC   **Column:** NON_MOTRST_LOC_CD   **Data Type:** char   **Length:** 2

Code	Description
Blank	Not applicable (Not a non-mototrist) *(Default value for PDO crashes effective 2016)*
00	At intersection – not in roadway
01	At intersection – inside crosswalk
02	At intersection – in roadway, outside crosswalk
03	At intersection – in roadway, unknown if crosswalk is available
04	Not at intersection – in roadway
05	Not at intersection – on shoulder
06	Not at intersection – on median
07	Not at intersection – beyond shoulder, but within trafficway right-of-way
~~08~~	~~Not at intersection – in bike path or parking~~ *(Terminated 2015)*
09	Not at intersection – on sidewalk
10	Outside trafficway boundaries
13	At Intersection – in bike lane *(Effective 2016)*
14	Not at intersection – in bike lane *(Effective 2016)*
15	Not at intersection – inside mid-block crosswalk
16	Not at intersection – in parking lane *(Effective 2016)*
18	Other – not in roadway
99	Unknown location

Description:

Non-Motorist Location is a two-digit code that indicates where the non-motorist (pedestrian, bicyclist, etc.) was located at the time of the crash.

Instructions:

This field was changed from Pedestrian Location to Non-Motorist Location at the start of the 2007 code year.

Stop as Yield coding for Non-Motorist Location:

Oregon statute (ORS 814.416) allows **pedalcyclists** to proceed through an intersection controlled by a stop sign or flashing red beacon without stopping, under certain circumstances.

Crash Data Technicians use a **combination** of fields to identify crashes involving a violation of Oregon's Stop as Yield law:

For Non-Motorist Location:

1. Entercode **01**, **02**, **03** or **13** (whichever is most applicable) for crashes resulting from violations of the **"Stop as Yield"** law.

Non-Motorist Location

(Continued)

2. Refer to the **Stop as Yield section** under each of the following fields for instructions on how to code them:

- Traffic Control Device
- Crash Level Cause
- Participant Level Action
- Error
- Participant Level Cause

Effective for 2016 crash data entry, information for this field is no longer collected for Property Damage Only crashes. The field is left blank in PDO Default entry screens.

Validations:

Rule #	Rule Message	Severity
641	When the Participant is a pedestrian or pedalcyclist, a valid Non-Motorist Location value must be entered	Red/Severe
642	When the Participant is not a pedestrian or pedalcyclist, the Non-Motorist Location value must be null	Red/Severe
658	When the Participant is a pedestrian or pedalcyclist, a valid Non-Motorist Location value must be entered	Red/Severe

Participant Level Action

EDW

Table: PARTIC   **Column:** ACTN_CD   **Data Type:** char   **Length:** 3

Code	Description	
000	No action or non-warranted *(Default value for PDO crashes effective 2016)*	
002	Getting on or off stopped vehicle or parked vehicle (code for driver or passenger)	
010	Passenger interfering with driver	
017	Lost control of vehicle	
022	Struck, or was struck by, vehicle or pedestrian in prior collision before crash stabilized	
024	Dead by unassociated cause	
025	Fatigued, sleepy, asleep	
026	Driver blinded by sun	
027	Driver blinded by headlights	
028	Physically ill	
030	Pursuing or attempting to stop a vehicle	*(Effective 2014)*
034	Crossing at intersection – no traffic signal present	
035	Crossing at intersection – traffic signal present	
036	Crossing at intersection – diagonally	
037	Crossing between intersections	
038	Driver's attention distracted	
043	Playing	
044	Pushing or working on vehicle	
045	Working (In or off roadway, not on a vehicle)	
046	Non-Motorist walking, running, riding, etc., with traffic	*(Effective 2014)*
047	Non-Motorist walking, running, riding, etc., facing traffic	*(Effective 2014)*
050	Standing or lying down	
052	Merging	*(Effective 2014)*
055	Blinded by water spray	*(Effective 2014)*
088	Other action	

Description:

Participant Level Action is a three-digit code that describes what the participant was doing, their condition, or other factors affecting the individual at the time of the crash.

Instructions:

An Action code must be entered at this level.

Stop as Yield coding for Participant Level "Action":

Oregon statute (ORS 814.416) allows **pedalcyclists** to proceed through an intersection controlled by a stop sign or flashing red beacon without stopping, under certain circumstances.

Participant Level Action

(Continued)

Crash Data Technicians use a **combination** of fields to identify crashes involving a violation of Oregon's Stop as Yield law:

For Participant Level Action:

1. Enter code **034** - **Crossing at intersection – no traffic signal present**, if the traffic control is a stop sign.

2. Enter code **035 - Crossing at intersection – traffic signal present** if the traffic control is a flashing red beacon.

3. Refer to the **Stop as Yield section** under each of the following fields for instructions on how to code them:

   - Traffic Control Device
   - Crash Level Cause
   - Non-Motorist Location
   - Error
   - Participant Level Cause

*Effective for 2016 crash data entry, information for this field is no longer collected for Property Damage Only crashes. The field is left blank in PDO Default entry screens.

Validations:

Rule #	Rule Message	Severity
643	When Participant is not a vehicle occupant, a Participant Action Code is required	Red/Severe
644	Participant Action was not found in the look-up table or is not valid for use as of the crash date	Red/Severe

Participant Level Action by Category

EDW

Participant Action codes grouped by category. Some Actions apply to more than one category.

*Effective for 2016 crash data entry, information for this field is no longer collected for Property Damage Only crashes. The field is left blank in PDO Default entry screens.

Non-Motorists

Code	Description
000	No action or non-warranted
022	Struck, or was struck by, vehicle or pedestrian in prior collision before crash stabilized
028	Physically ill
030	Pursuing or attempting to stop a vehicle *(Effective 2014)*
034	Crossing at intersection – no traffic signal present
035	Crossing at intersection – traffic signal present
036	Crossing at intersection – diagonally
037	Crossing between intersections
043	Playing
044	Pushing or working on vehicle
045	Working (In or off roadway, not on a vehicle)
046	Non-Motorist walking, running, riding, etc., with traffic *(Effective 2014)*
047	Non-Motorist walking, running, riding, etc., facing traffic *(Effective 2014)*
050	Standing or lying down
052	Merging *(Effective 2014)*
055	Blinded by water spray *(Effective 2014)*
088	Other action

Occupants

Code	Description
000	No action or non-warranted
002	Getting on or off stopped vehicle or parked vehicle (Code for driver or passenger)
010	Passenger interfering with driver
017	Lost control of vehicle
024	Dead by unassociated cause
025	Fatigued, sleepy, asleep
026	Driver blinded by sun
027	Driver blinded by headlights
028	Physically ill
030	Pursuing or attempting to stop a vehicle *(Effective 2014)*
038	Driver's attention distracted
055	Blinded by water spray *(Effective 2014)*
088	Other action

Error

Table: PARTIC_ERR   **Column:** CRASH_ERR_CD   **Data Type:** char   **Length:** 3

Code	Description
000	No error *(Default value for PDO crashes, eff. 2016)**
001	Wide turn
002	Cut corner on turn
003	Failed to obey mandatory traffic turn signal, sign or lane markings
004	Left turn in front of oncoming traffic
005	Left turn where prohibited
006	Turned from wrong lane
007	Turned into wrong lane
008	U-turned illegally
009	Improperly stopped in traffic lane
010	Improper signal or failure to signal
011	Backing improperly (Not parking)
012	Improperly parked
013	Improper start leaving parked position
014	Improper start from stopped position
015	Improper or no lights (Vehicle in traffic)
016	Inattention
017	Driving unsafe vehicle (No other error apparent)
018	Entering/exiting parked position with insufficient clearance; other improper parking maneuver
019	Disregarded other driver's signal
020	Disregarded traffic signal
021	Disregarded stop sign or flashing red
022	Disregarded warning sign, flares or flashing amber
023	Disregarded police officer or flagman
024	Disregarded siren or warning of emergency vehicle
025	Disregarded Rail Road signal, Rail Road sign, or Rail Road flagman
026	Failed to avoid stopped or parked vehicle ahead other than school bus
027	Did not have right-of-way over pedal-cyclist
028	Did not have right-of-way
029	Failed to yield right-of-way to pedestrian
030	Passing on a curve
031	Passing on the wrong side
032	Passing on straight road under unsafe conditions
033	Passed vehicle stopped at crosswalk for pedestrian
034	Passing at intersection
035	Passing on crest of hill
036	Passing in "No Passing" zone
037	Passing in front of oncoming traffic
038	Cutting in (two lanes - two way only)

Error

(Continued)

Code	Description
039	Driving on wrong side of the road (Used for two-way, undivided roadways) *(Revised 2014)*
040	Driving through safety zone or over island
041	Failed to stop for school bus
042	Failed to decrease speed for slower moving vehicle
043	Following too closely (Per PAR or driver admission)
044	Straddling or driving on wrong lanes
045	Improper change of traffic lanes
046	Wrong way on one-way roadway (Also when roadway has a solid or earth median and vehicle is traveling on wrong side)
047	Driving too fast for conditions (Not exceeding posted speed)
048	Opened door into adjacent traffic lane
049	Impeding traffic
050	Driving in excess of posted speed
051	Reckless driving (Per PAR or self-reported)
052	Careless driving (Per PAR or self-reported)
053	Speed Racing (Per PAR or self-reported)
054	Crossing at intersection – no traffic signal present
055	Crossing at intersection – traffic signal present
056	Crossing at intersection – diagonally
057	Crossing between intersections
059	Walking, running, etc., on shoulder with traffic
060	Walking, running, etc., on shoulder facing traffic
061	Walking, running, etc., on pavement with traffic
062	Walking, running, riding, etc., on pavement facing traffic
063	Playing in street or road
064	Pushing or working on vehicle in road or on shoulder
065	Working in roadway or along shoulder (Not on vehicle)
070	Standing or lying in roadway
071	Improper use of traffic lane by non-motorist *(Effective 2014)*
073	Eluding / Attempting to Elude *(Effective 2014)*
079	Failed to negotiate a curve *(Effective 2014)*
080	Failed to maintain lane
081	Ran off road
082	Driver misjudged clearance (Used only for signs, structures, etc.; not for parked vehicle.)
083	Over correcting / over-steering
085	Overloading or improper loading of vehicle with cargo or passengers
097	Unable to determine which driver disregarded traffic control device

Description:

Error is a three-digit code that provides a more specific and complete record of what occurred during the crash.

Instructions:

Enter the Error code(s) that describe this participant's behavior as it relates to the crash occurrence. Up to three Errors may be entered.

Consider how and why the crash occurred. *Enter the primary (most significant) Error relative to the crash occurrence in the first cell, for this participant*. Enter the next most significant error, down to the least signficant in the remaining cells.

For example, if a driver was speeding, passing improperly, and was cited for reckless driving, code reckless driving in the first Error cell for that driver. (Reckless or careless driving indicate multiple poor driving choices were involved and carry more significant penalty.) "Passing improperly" may (or may not) have more influence on why the crash occurred than speeding. Weigh the available information before making your choice.

Error codes may be applied to motorcyclists, moped riders, pedalcyclists, etc., because they are operated under the same rules of the road as motor vehicles, with the exception of the Oregon Stop as Yield law effective January 1, 2020.

Some Error codes are specific to non-motorists.

Error code **"047"**, too fast for conditions, must be used with discretion. Use this code only when it's clear that a vehicle was operated at a speed greater than was reasonable or prudent for the conditions, and neither code **050** "Driving in excess of posted speed" nor code **053** "Speed Racing" apply.

Stop as Yield coding for Participant Level "Error":

Oregon statute (ORS 814.416) allows **pedalcyclists** to proceed through an intersection controlled by a stop sign or flashing red beacon without stopping, under certain circumstances.

Crash Data Technicians use a **combination** of fields to identify crashes involving a violation of Oregon's Stop as Yield law:

For Error:

1. Enter code **028 - Did not have right of way** in the first Error field,

2. Enter code **035 - Disregarded stop sign or flashing red** in the second Error field,

3. Refer to the **Stop as Yield section** under each of the following fields for instructions on how to code them.

Error

(Continued)

- Traffic Control Device
- Crash Level Cause
- Non-Motorist Location
- Participant Level Action
- Participant Level Cause

---

*Effective for 2016, **Error** is no longer coded for individual participants when Crash Severity is "Property Damage Only". The field is left blank in PDO Default entry screens.*

Validations:

Rule #	Rule Message	Severity
645	When Participant is not a vehicle occupant, a Participant Error Code is required if no Crash-level error has been specified	Red/Severe
646	[code field value] was not found in [lookup table name] or is not valid for use as of the crash date, or is not valid for use at this level	Red/Severe
691	Entered invalid Error Code (054 - 070) for Driver	Red/Severe
700	Participant Error Code must not equal '027' if no Pedalcyclist is involved in the crash	Red/Severe
701	Participant Error Code must not equal '029' if no Pedestrian is involved in the crash	Red/Severe
1025	Vehicle Speed-Inv indicates "exceeding posted limit". Corresponding Error codes are 050 or 053	Red/Severe
1028	Participant may have Error code 047 or 050, but not both	Red/Severe

Error by Category

EDW

Error codes grouped by category. Some Errors apply to more than one category.

Effective for 2016 crash data entry, information for this field is no longer collected for Property Damage Only crashes. The field is left blank in PDO Default entry screens.

Code	Description
000	No error *(Default value for PDO crashes, eff. 2016)*

Turning Maneuvers

Code	Description
001	Wide turn
002	Cut corner on turn
003	Failed to obey mandatory traffic turn signal, sign or lane markings
004	Left turn in front of oncoming traffic
005	Left turn where prohibited
006	Turned from wrong lane
007	Turned into wrong lane
008	U-turned illegally

Improper Maneuvers

Code	Description
009	Improperly stopped in traffic lane
010	Improper signal or failure to signal
011	Backing improperly (Not parking)
012	Improperly parked
013	Improper start leaving parked position
014	Improper start from stopped position
015	Improper or no lights (Vehicle in traffic)
016	Inattention
017	Driving unsafe vehicle (No other error apparent)
018	Entering, exiting parked position with insufficient clearance or other improper parking maneuver

Disregarding Errors

Code	Description
019	Disregarded other driver's signal
020	Disregarded traffic signal
021	Disregarded stop sign or flashing red
022	Disregarded warning sign, flares or flashing amber
023	Disregarded police officer or flagman
024	Disregarded siren or warning of emergency vehicle
025	Disregarded Rail Road signal, Rail Road sign, or Rail Road flagman
026	Failed to avoid stopped or parked vehicle ahead other than school bus

Error by Category

(Continued)

Right-of-Way Errors

Code	Description
027	Did not have right-of-way over pedal-cyclist
028	Did not have right-of-way
029	Failed to yield right-of-way to pedestrian

Passing Maneuvers

Code	Description
030	Passing on a curve
031	Passing on the wrong side
032	Passing on straight road under unsafe conditions
033	Passed vehicle stopped at crosswalk for pedestrian
034	Passing at intersection
035	Passing on crest of hill
036	Passing in "No Passing" zone
037	Passing in front of oncoming traffic
038	Cutting in (Two lanes - two way only)

Miscellaneous Errors

Code	Description
039	Driving on wrong side of road (Used for two-way, undivided roadways) *(Effective 2014)*
040	Driving through safety zone or over island
041	Failed to stop for school bus
042	Failed to decrease speed for slower moving vehicle
043	Following too closely (Per PAR or driver admission)
044	Straddling or driving on wrong lanes
045	Improper change of traffic lanes
046	Wrong way on one-way roadway (Also when roadway has a solid or earth median and vehicle is traveling on wrong side)
048	Opened door into adjacent traffic lane

Basic Rule Errors

Code	Description
047	Driving too fast for conditions (Not exceeding posted speed)
049	Impeding traffic
050	Driving in excess of posted speed

Error by Category

(Continued)

Violations

Code	Description
051	Reckless driving (Per PAR or self-reported)
052	Careless driving (Per PAR or self-reported)
053	Speed Racing (Per PAR or self-reported)

Non-Motorist Errors

Code	Description
054	Crossing at intersection – no traffic signal present
055	Crossing at intersection – traffic signal present
056	Crossing at intersection – diagonally
057	Crossing between intersections
059	Walking, running, etc., on shoulder with traffic
060	Walking, running, etc., on shoulder facing traffic
061	Walking, running, etc., on pavement with traffic
062	Walking, running, riding, etc., on pavement facing traffic
063	Playing in street or road
064	Pushing or working on vehicle in road or on shoulder
065	Working in roadway or along shoulder (Not on vehicle)
070	Standing or lying in roadway
071	Improper use of traffic lane by non-motorist *(Effective 2014)*

Other Errors

Code	Description
073	Eluding / Attempt to Elude *(Effective 2014)*
079	Failed to negotiate a curve *(Effective 2014)*
080	Failed to maintain lane
081	Ran off road
082	Driver misjudged clearance (used only for signs, structures, etc. Not for parked vehicle.)
083	Over correcting / over-steering
085	Overloading or improper loading of vehicle with cargo or passengers
097	Unable to determine which driver disregarded traffic control device

Participant Level Cause

Table: PARTIC_CAUSE_ERR_EVNT   **Column:** PARTIC_CAUSE_1_CD   **Data Type:** char   **Length:** 2
Table: PARTIC_CAUSE_ERR_EVNT   **Column:** PARTIC_CAUSE_2_CD   **Data Type:** char   **Length:** 2
Table: PARTIC_CAUSE_ERR_EVNT   **Column:** PARTIC_CAUSE_3_CD   **Data Type:** char   **Length:** 2

Code	Description
00	None applicable at this level *(Default value for PDO crashes, eff. 2016)*
01	Speed too fast for conditions
02	Did not yield right-of-way
03	Passed stop sign or flashing red
04	Disregarded traffic signal
05	*Drove left of center on two-way road; straddling the center line
06	Improper overtaking
07	Followed too closely
08	Made improper turn
10	Other improper driving
12	Other (Not improper driving)
13	Improper change of traffic lanes
14	Disregarded other traffic control device
15	Wrong way on one-way roadway (Also when roadway has a solid or earth median and vehicle is traveling on wrong side)
17	Physical Illness *(Effective 2014)*
16	Driver drowsy / fatigued / sleepy
18	Non-Motorist illegally in roadway
19	Not visible: dark / non-reflective clothing
26*	Phantom / Non-contact vehicle
27	Inattention
28	Non-Motorist Inattention *(Effective 2014)*
29	Failed to avoid vehicle ahead *(Effective 2014)*
30	Driving in excess of posted speed
31	Speed Racing (Per PAR, or self-reported)
32	Careless Driving (Per PAR, or self-reported)
33	Reckless Driving (Per PAR, or self-reported)
34	Aggressive Driving (Per PAR, or self-reported)
40	View obscured *(Effective 2014)*
50	Improper use of median or shoulder *(Effective 2014)*

Description:

Cause is a two-digit code that represents the circumstance(s) most responsible for the occurrence of the crash.

Instructions:

Enter the codes that represent circumstances specific to this participant that contributed to, or resulted in, the occurrence of the crash. Code the primary, most relevent cause first.

Participant Level Cause

(Continued)

Up to three Participant Cause codes are allowed. Participant Cause codes may also apply at the Crash Level.

*Effective for 2016 crash data entry, **Cause** *is no longer coded at the Participant Level for "Property Damage Only" crashes. Leave the Participant level Cause field blank, and **enter the appropriate code(s) in the Crash level "Cause" fields.***

Stop as Yield coding for Participant Level "Cause":

Oregon statute (ORS 814.416) allows **pedalcyclists** to proceed through an intersection controlled by a stop sign or flashing red beacon without stopping, under certain circumstances.

Crash Data Technicians use a **combination** of fields to identify crashes involving a violation of Oregon's Stop as Yield law:

For Participant Level Cause:

1. Enter code **02 - Did not yield right of way** in the first Participant Level Cause cell, and

2. Enter code **03 - Passed stop sign or red flasher** in the second Participant Level Cause cell

3. Refer to the **Stop as Yield section** under each of the following fields for instructions on how to code them:

   - Traffic Control Device
   - Crash Level Cause
   - Non-Motorist Location
   - Participant Level Action
   - Error

Use **Code "00"** if no cause code applies to this participant.

Use **Code "01"** – too fast for conditions, must be used with discretion. Use this code only when it's clear that a vehicle was operated at a speed greater than was reasonable or prudent for the conditions, and neither code **050** "Driving in excess of posted speed" nor code **053** "Speed Racing" apply.

Use **Code "05"** when the vehicle is straddling the center line or driving on the wrong side of an undivided, two-way road.

Use **Code "10"** when a driver error was a factor in the crash, but no other cause code applies.

Use **Code "12"** when improper driving was **not** a factor in the crash, and no other cause code applies. Examples include: deer jumps out in front of vehicle; leaving driver no time to react; illness; passenger

interfered with driver; and mechanical defect. This code should only be used when no other cause is applicable to the crash.

Use **Code "15"** when the vehicle is traveling on the wrong side of a divided roadway or traveling the wrong direction on a one way road.

Use **Code "26"** when the participant was affected by a non-contact or phantom vehicle (a vehicle indirectly involved in the crash).

Do not use Cause codes 34 or 35, defined below, without approval from the Code Team Lead.

Aggressive Driving

Code "34" – Aggressive Driving is used only when the PAR states that "aggressive driving" was involved. *It must not be used based solely on witness statements.*

Aggressive driving occurs when "an individual commits a combination of moving traffic offenses so as to endanger other persons or property.
https://one.nhtsa.gov/people/injury/research/aggressionwisc/chapter_1.htm

Aggressive driving crashes are underlined unintentional and underlined unrelated to road rage incidents. Compare to "Road Rate Related Crashes" and "Road Rage", below. Examples of aggressive driving are:

Weaving, tailgating, cutting other vehicles off, deliberately preventing someone from merging, etc., ***but not intending to collide with another vehicle.***

Aggressive driving is a traffic offense, whereas road rage is a criminal offense.

"Road Rage Related" Crashes

Code "35" – Road Rage Related is used for unintentional crashes that occur as collateral damage from an act of road rage. "Road Rage Related" crashes are entered into CDS. "Road rage" crashes are not.

Examples of Road Rage Related Crashes

1. The crash report describes a driver flashing lights and/or sounding the horn excessively, causing distraction to another driver, resulting in that driver experiencing a collision. The collision was unintented.

2. A motorist fleeing from a vehicle driven by an angry spouse crashes unintentionally into a third vehicle.

Road Rage   (Do not enter these crashes into CDS)

NHTSA defines road rage as *"an assault with a motor vehicle or other dangerous weapon by the operator or passenger(s) of one motor vehicle on the operator or passenger(s) of another motor vehicle caused by an incident that occurred on a roadway."*

It is an <u>intentional</u>, <u>criminal act</u> that involves <u>willful and wanton disregard for the safety of others</u>. This meets the definition of "Deliberate Intent". This excludes the incident from being categorized as a motor vehicle traffic crash; so, the incident is not entered into the state crash data system.

Examples of "Road Rage" Incidents

1. A driver or passenger angrily throwing projectiles from a moving vehicle with the intent of damaging other vehicles, pedestrians or pedal-cyclists.

2. An angry driver intentionally causes a collision between vehicles; strikes a pedestrian, pedalcycle, or object; or deliberately runs another vehicle off the road

3. A driver or passenger exits a car intending to start confrontations, including striking other vehicles with an object.

<u>**Validations:**</u>

Rule #	Rule Message	Severity
647	Red/Severe	Red/Severe
695	Cause Code [code value] not valid for Participant Type	Red/Severe
696	Cause Code '[code value]' not valid for Participant Type	Red/Severe
697	Cause Code '[code value]' not valid for Participant Type	Red/Severe
703 - 707	If CRASH level CAUSE code = [code field value], there must be at least one Driver, Bicyclist, or Bicyclist Towing with CAUSE = [code field value]	Red/Severe
1027	Vehicle Speed-Inv indicates "exceeding posted limit". Corresponding Cause codes are 30 or 31.	Red/Severe
1029	Error code can be 01 or 30 but not both	Red/Severe

Participant Level Cause by Category

EDW

Cause codes grouped by category. Some Causes apply to more than one category.

*Effective for 2016, **Cause** is no longer coded at the Participant Level for "Property Damage Only" crashes. Leave the Participant level field blank, but **enter the appropriate code(s) in the <u>Crash</u> level "Cause" fields.***

Behavior

Code	Description
00	None applicable at this level *(Default value for PDO crashes, eff. 2016)*
02	Did not yield right-of-way
03	Passed stop sign or red flasher
04	Disregarded traffic signal *(Revised 2014)*
05	*Drove left of center on two-way road; straddling the center line
06	Improper overtaking
07	Followed too closely
08	Made improper turn
10	Other improper driving
13	Improper change of traffic lanes
14	Disregarded other traffic control device
15	Wrong way on one-way roadway (Also when roadway has a solid or earth median and vehicle is traveling on wrong side) *(Revised 2014)*
16	Driver drowsy / fatigued / sleepy
17	Physical Illness *(Effective 2014)*
18	Non-Motorist illegally in roadway
19	Not visible: dark / non-reflective clothing
27	Inattention
28	Non-Motorist Inattention *(Effective 2014)*
29	Failed to avoid vehicle ahead *(Effective 2014)*
31	Speed Racing (Per PAR or self-reported)
32	Careless Driving (Per PAR or self-reported)
33	Reckless Driving (Per PAR or self-reported)
34	Aggressive Driving (Per PAR or self-reported) *Do not use code "34" without approval from the Code Team Leader.*
50	Improper use of median or shoulder *(Effective 2014)*

Miscellaneous

Code	Description	
10	Other improper driving	
12	Other (not improper driving)	
26	Phantom / non-contact vehicle	
40	View obscured	*(Effective 2014)*

Speed

Code	Description
01	Speed too fast for conditions (not exceeding limit)
30	Driving in excess of posted speed
31	Speed Racing (Per PAR or self-reported)

Participant Level Event

EDW

Table: PARTIC_CAUSE_ERR_EVNT **Column:** PARTIC_EVNT_1_CD **Data Type:** char **Length:** 3
Table: PARTIC_CAUSE_ERR_EVNT **Column:** PARTIC_EVNT_2_CD **Data Type:** char **Length:** 3
Table: PARTIC_CAUSE_ERR_EVNT **Column:** PARTIC_EVNT_3_CD **Data Type:** char **Length:** 3

Code	Description
Blank	Non applicable at this level *(Default value for PDO crashes, eff. 2016)**
001	Occupant fell, jumped or was ejected from moving vehicle
002	Passenger interfered with driver
003	Animal or insect in vehicle interfered with driver
005	"Sub-Ped": Pedestrian struck subsequent to initial event (apply to Pedestrian record)
007	Hitchhiker (Soliciting a ride)
008	Passenger or non-motorist being towed or pushed on conveyance *(Revised 2014)*
009	Actively getting on or off stopped or parked vehicle. (Must have physical contact with vehicle) *(Revised 2014)*
080	Struck by rock or other object set in motion by other vehicle, including lost loads *(Do not use with code "081")*
081	Struck by rock or other moving, falling or flying object *(Do not use with code "080")*
082	Vehicle obscured view
083	Vegetation obscured view
084	View obscured by fence, sign, phone booth, etc.
092	Other (phantom) non-contact vehicle (Per PAR or report)
093	Cell phone (Per PAR or report submitted by driver using phone)
094	Police report indicates teenage driver of this vehicle was in violation of graduated license program
099	Cell phone use witnessed by other participant
102	Texting *(Revised 2014)*
103	Work Zone Worker *(Applies to this Participant and at Crash level)* *(Effective 2014)*
104	Passenger riding on vehicle exterior
105	Passenger riding on pedalcycle
106	Pedestrian in non-motorized wheelchair
107	Pedestrian in motorized wheelchair
108	Law Enforcement / Police Officer *(Effective 2014)*
109	"Sub-Bike" (Pedal-cyclist injured subsequent to collision, etc.) *(Effective 2014)*
110	Non-motorist struck vehicle
115	Distracted by navigation system or GPS device *(Effective 2014)*
116	Distracted by other electronic device *(Effective 2014)*
123	Loose object in vehicle struck occupant *(Effective 2014)*
130	View obscured by curve *(Effective 2014)*
131	View obscured by vertical grade, hill *(Effective 2014)*
132	View obscured by vehicle window conditions *(Effective 2014)*
134	Torrential rain (exceptionally heavy rain, not cataclysmic in nature) *(Revised 2023)*
135	Injured occupant of railway train, light rail, street car or cable car *(Effective 2019)*

Participant Level Event

(Continued)

Description:

Participant Level Event is comprised of up to three three-digit codes that represent an incident or situation specific to this participant. Events generally represent occurrences of injury or property damage; but they may also identify other crash factors.

Instructions:

At the participant level, enter the Event(s) most relevant to this participant, preferably in order of occurrence. Participant level Events may also be applicable at the Crash level.

If more than three Events occur, code the three most significant events in relation to this Participant.

Event **Code "005",** Sub-Ped **must** be coded <u>to the Pedestrian's record</u>; **not** to the Driver or Vehicle record.

When Event **Code "094"** is used, **Drivers License Status** must be coded "8 – Other non-valid license" (includes Graduated Drivers License violations).

Event **Code "109",** Sub-Bike **must** be coded to the Bicyclist's record; **not** to the Driver or Vehicle record.

Event Code "110", Non-Motorist Struck Vehicle must be coded to the non-motorist's participant record Event field.

Effective for 2016, **Event is no longer coded at the Participant level for Property Damage Only crashes. Leave this field blank, but **enter the appropriate code(s) in the <u>Crash</u> level "Event" fields.***

Validations:

Rule #	Rule Message	Severity
648	[code field value] was not found in [lookup table name] or is not valid for use as of the crash date, or is not valid for use at this level	Red/Severe
649	If Crash Type = 3 (Pedestrian) then no Participant Event Code can be 005 (sub-ped)	Red/Severe
683-684	Event not valid for participant type	Red/Severe
698-699	Event Code '[code value]' not valid for Participant Type	Red/Severe
702	Event Code '[code value]' not valid for Participant Type	Red/Severe
708	If a Pedestrian is struck as the first harmful event, Crash Type must = 3 and Collision Type must = 0. If Pedestrian is struck subsequent to the first harmful event, enter Event code 005 on the Crash Level and on the Participant Level for the Pedestrian	Red/Severe
710	If CRASH EVENT code = '099', there must be at least one Active Participant (Driver, Pedestrian, Bicyclist, or other Non-Motorist) with Partic Evnt = '099'	Red/Severe

Participant Level Event by Category

Event codes grouped by category. Some Events apply to more than one category.

*Effective for 2016, **Event** is no longer coded at the Participant level for Property Damage Only crashes. Leave this field blank, but **enter the appropriate code(s) in the <u>Crash</u> level "Event" fields.***

Code	Description
Blank	Not applicable at this level *(Default value for PDO crashes, eff. 2016)*

Avoiding

These codes may be used in conjunction with Vehicle Action code 007: Avoiding maneuver (Successful)

Code	Description
007	Hitchhiker (Soliciting a ride)
092	Other (phantom) non-contact vehicle

Distractions

Code	Description
002	Passenger interfered with driver
003	Animal or insect in vehicle interfered with driver
007	Hitchhiker (Soliciting a ride)
093	Cell phone (*Per PAR or report submitted by driver using phone*)
099	Cell phone use witnessed by other participant
102	Texting
115	Distracted by navigation system or GPS device
116	Distracted by other electronic device

Non Fixed Object

Code	Description
080	Struck by rock or other object set in motion by other vehicle, including lost loads (*Do not use with code "081"*)
081	Struck by rock or other moving, falling or flying object (*Do not use with code "080"*)

Non-Motorists

Code	Description
005	"Sub-Ped" (Pedestrian injured subsequent to collision, etc.)
007	Hitchhiker (Soliciting a ride)
103	Work Zone Worker *(Applies to this Participant and at Crash level)*
105	Passenger riding on pedalcycle
106	Pedestrian in non-motorized wheelchair
107	Pedestrian in motorized wheelchair
108	Law Enforcement / Police Officer
109	"Sub-Bike" (Pedalcyclist injured subsequent to collision, etc.)
110	Non-motorist struck vehicle
135	Injured occupant of railway train, light rail, street car or cable car *(Effective 2019)*

Participant Level Event by Category

(Continued)

Occupant

Code	Description
001	Occupant fell, jumped, or was ejected from moving vehicle
008	Passenger being towed or pushed on conveyance
009	Actively getting on or off stopped or parked vehicle (Has physical contact with vehicle)
014	Vehicle set in motion by non-driver (Child released brakes, etc.)
094	Police report indicates teenage driver of this vehicle was in violation of graduated license program
103	Work Zone Worker *(Applies to this Participant and to the Crash level)*
104	Passenger riding on vehicle exterior
108	Law Enforcement / Police Officer
109	"Sub-Bike" (Pedal-cyclist injured subsequent to collision, etc.)
123	Loose object in vehicle struck occupant
135	Injured occupant of railway train, light rail, street car or cable car *(Effective 2019)*

View Obscured

Code	Description
082	Vehicle obscured view
083	Vegetation obscured view
084	View obscured by fence, sign, phone booth, etc.
130	View obscured by curve
131	View obscured by vertical grade, hill
132	View obscured by vehicle window conditions
133	View obscured by water spray
134	Torrential rain (Exceptionally heavy rain, not cataclysmic in nature) *(Revised 2023)*

Blood Alcohol Content (BAC) Test Results

Table: PARTIC   **Column:** BAC_VAL   **Data Type:** char   **Length:** 2

Code	Description
Blank	Not available
00-79	Actual BAC test result, in hundredths (<u>Enter the leading zero</u> for values lower than .10)
80	.80 or greater
84	Suspect sample
85	Test refused
86	No test administered
87	Test administered, results unknown

Description:

BAC Test Results is a two-digit code that represents the results of a breathalyzer, laboratory blood alcohol content test, other converted test, or other information regarding the availability of a BAC test result. The only acceptable sources for this field are the police report (from the reverse side of the face sheet, or from the narrative, including police reporting of hospital test results), forensic lab reports, and medical examiner narrative or test results.

Instructions:

This field applies to all participant records, regardless of injury severity or age.

Leave this field blank when no BAC testing information is available for the participant record being coded.

BAC test results represent **hundredths** of a percent. Enter **the first two digits** to the right of the decimal point, <u>including the leading zero if it's present</u>. *Do not enter the decimal point*. It's assumed.

For BAC results **lower than .10**, the leading zero must be entered. Omitting the leading zero (entering "1" instead of "01") changes the reported BAC to a value 10 times higher than the actual test result (to .10 instead of .01).

- ▸ For BAC results **.01 through .09**, enter "01", "02", "03", "04", "05", "06", "07", "08", or "09"

- ▸ Very high BAC results **(.35 and over)** are rare. Crashes involving high BACs must be reviewed by the Code Team Lead.

Figure 68. BAC Results

When test results show more than two digits to the right of the decimal, **ignore** the third digit; **do not round** the BAC. Many testing devices are reliable only to two decimal places.

A BAC result displayed as **< 0.010 gm/dL** (i.e. 0.009) means "**less than 0.01**". Enter **00** in this field. (The third digit is imprecise; its presence means there is too little alcohol to be detected in the sample.) '

*Note: Hospital test results reported in police or medical examiner reports are typically available shortly after a crash victim's arrival in an emergency room. Hospital blood draws typically represent the victim's BAC level closest to the time the crash occurred, and can be higher than the forensic lab result. If a crash file includes both hospital blood test results and forensic lab results for the same person, code the hospital test result, *unless information suggests it may be contaminated*, or *the forensic lab report shows it results from a specimen that was taken earlier.*

Use Code "80" when the BAC is .80 or above, and no official statement is available to indicate that the sample was contaminated or suspect.

Use Code "84" when an official report is received that indicates the BAC sample tested was contaminated or "suspect".

Use Code "85" when the police report indicates that the subject refused to submit to testing.

Use Code "86" for **non-fatalities**: when the PAR indicates that no test was given and no other official result is received (i.e. a toxicology report). For fatal crashes, don't use code 86 until information from a state lab or LOIS is received for this participant.
For **fatalities**, refer to the toxicology or medical examiner (M.E.) report. If no toxicology or M.E. report was received, and the response from the state lab indicates the fatality wasn't tested, enter code 86 for the fatal victim.

Use Code "87" when the police report indicates that a test was administered, but results are not available.

Fatal Crash Coding of BAC Test Results field

BAC test results may be received from difference sources, showing different test results. Sources may be:
- PAR face sheet (reverse side)
- PAR narrative or supplemental (including quotes regarding hospital blood draw results)
- Forensic lab BAC or toxicology report
- Medical examiner report
- Death certificate (Use only if the BAC is not available from the above sources).
- LOIS or state lab communications regarding availabilty of BAC or toxicology testing.
- Liver tissue results are not comparable to BAC results from other specimen types. *If liver tissue results are the only result available for coding BAC, enter code "87".*

Example of LOIS report on surviving driver test availability:

State #	Name	Date of Accident	Incident#/Reporting Agency	Result
01-07		1/9/2021	21-7193 OSP	Not in our system

For BAC results showing both "ethanol" and "acetone" levels, use the "ethanol" results for BAC.

(Continued)

Validations:

Rule #	Rule Message	Severity
650	When entered, BAC Value must be between 00-79, or be 80, 84, 85, 86 or 87	Red/Severe
692	BAC values between .35 and .80 are very rare. Please verify before continuing	Yellow/Warning
693	When entered, BAC values must contain two digits. Enter a leading zero for values less than "10"	Red/Severe

Alcohol Use Reported

Table: PARTIC   **Column:** ALCHL_USE_RPT_IND   **Data Type:** char   **Length:** 1

Code	Description
Blank	Not reported; no information provided regarding alcohol use by this participant
0	Police report that participant had **not** been drinking
1	Police report that participant **had** been drinking; **or the participant admits it**
9	Police report that it is **unknown** if participant had been drinking; or conflicting info exists on driver reports

Description:

Code this field for all participants, regardless of participant type or injury severity.

Instructions:

Alcohol Use Reported is a one-digit code that represents a participant's use of alcohol *as indicated by police.* A participant's admission of his own alcohol use is also considered reliable information for coding this field "yes" (code 1).

> *If a police report is not available, use whatever reliable information exists to code this field. Statements made by drivers or witnesses about someone other than themselves are not considered reliable sources for this field.*

Code this field independently of tests results received through sources other than the PAR. *Don't change this field's coding based on receipt of forensic lab or medical examiner test results.* (This instruction differs from what is allowed for coding the "Drug Use Reported" field.)

For example, an officer may note in the report that he suspected a driver had been drinking, but test results received separately from the police report are negative for alcohol. The officer's initial observation takes precedence for this field. (Several hours may pass between the time an officer makes a determination of alcohol-involvement at the scene, and the time the suspect is tested, potentially resulting in a BAC result of .00. In such a case, enter **"1"** in the Alcohol Use Reported field, and **"00"** in the BAC Test Results field.)

Leave this field blank when there is no information regarding alcohol use for this participant.

Code "0" is used when the police report positively states that this participant had not been drinking. Do not use driver statements for this code.

Code "1" is used when the officer indicates that this participant had been drinking, or when the participant admits to having been drinking.

Common indicators from officers are:
- observations made at the scene
- officer states odor of alcohol
- preliminary breath tests

Alcohol Use Reported

(Continued)

- field sobriety tests
- BAC test results noted in the report narrative
- conclusion stated in narrative

Code "9" is used when the officer states that it is unknown whether this participant had been drinking, or conflicting information exists in the drivers' reports. The officer's report takes precedence when using this code.

Validations:

Rule #	Rule Message	Severity
651	Alcohol Use Reported Indicator must be blank, 0, 1 or 9	Red/Severe

Drug Use Reported

EDW

Table: PARTIC   **Column:** DRUG_USE_RPT_IND   **Data Type:** char   **Length:** 1

Code	Description
Blank	Not reported
0	Participant had **not** been using drugs
1	Participant **had been using** drugs (Reported by police, **test results,** or suspect admits it)
9	**Unknown** if participant had been using drugs (As reported by police; no tests available)

Description:

Code this field for all participants, regardless of injury severity.

Instructions:

Drug Use Reported is a one-digit code that represents use of any kind of drug (including "over the counter" medicines) by the participant, as reported by: an officer; by the participant's own statement; by crime lab results or by Medical Examiner toxicology reports. When reviewing toxicology reports, disregard drugs administered by medical staff to treat the crash participant.

Leave this field blank when no information exists to indicate drug use for this participant. This instruction represents a change from coding practice prior to 2003.

Code "0" is used when the police report specifically states that this participant had **_not_** been using drugs, and/or test results are negative for drugs.

Code "1" is used when the officer indicates that this participant had been using drugs, when the participant admits to having been using drugs, or test results are positive for drugs. Common indicators by officers are:

- Observations made at the scene
- Field testing
- Test results noted in the police report

Code "9" is used when the police report indicates it is unknown whether or not this participant had been using drugs, and no test results are received to indicate otherwise. Refer also to Scenarios 6 & 7 under Marijuana Use Reported.

Fatal Crash Coding of the Drug Use Reported field

Toxicology results may be received from different sources, with differing results. Sources may be:
- PAR face sheet (reverse side)
- PAR narrative or supplemental - including quotes regarding hospital results (urine, blood or other tissue sample)
- Forensic lab BAC or toxicology report
- Medical examiner report
- Death certificate (use only if the toxicology report is not available from the above sources).
- LOIS or state lab communications regarding availabilty of BAC or toxicology testing.

Drug Use Reported

(Continued)

It is acceptable to update drug and marijuana field codes based on receipt of forensic lab reports or medical examiner reports.

Validations:

Rule #	Rule Message	Severity
652	Drug Use Reported Indicator must be blank, 0, 1 or 9	Red/Severe

Marijuana Use Reported

Table: PARTIC   **Column:** MJ_USE_RPT_IND   **Data Type:** char   **Length:** NULL

Code	Description
Blank	No information is available regarding use of cannabis
0	Negative *(See instructions)*
1	Positive *(See instructions)*
2	Suspected *(See instructions)*
3	Not Suspected *(See instructions)*
9	Unknown *(See instructions)*

Description:

Marijuana Use is a one-digit code that indicates whether a crash participant was **impaired** by cannabis (codes 0 and 1) according to forensic lab test results, Medical Examiner investigative report, or police report. No other source may be used for this field.

The coding requirements for this field are unique. Entries may not correspond to entries in the "Drug Use Reported" field.

Instructions:

Cannabinoid metabolites can be stored in the body **for weeks**. *Therefore, their presence in lab test results do confirm impairment, nor even recent use.* The **type** of test, and **when it was performed relative to ingestion,** are important considerations. Drug Recognition Expert (**DRE**) and **ARIDE** evaluations are considered highly accurate in identifying whether a subject is impaired by cannabis. (Source: OR/ID HIDTA)

Standard Field Sobriety Tests (SFST's) are not sufficient for determining cannabis impairment. A subject's admission to using cannabis is not acceptable for determining cannabis impairment.

Code this field for all participants. **Leave this field blank** when there's no information on whether this participant used cannabis; i.e.:

- The PAR checkbox for "marijuana" is blank, **and**

- No information on the use of cannabis is available in the narrative or supplemental police reports for this participant; **and**

- Lab test results for this participant are not available.

- **Blood** tests *for cannabinoids* take precedence over urine and other types of tissue results when coding this field.

Code **"0"** (**Negative**) is used when:

1) A blood test is negative. The report states that the test ***"fails to confirm the presence of any controlled substances or common pharmaceuticals";*** or

2) A blood test *"fails to confirm the presence of"* **tetrahydrocannabinols (THC)** or **Delta-9 THC**; or

3) A blood test confirms the presence of other drugs, but **tetrahydrocannabinols (THC)** and **Delta-9 THC** are not listed.

4) A certified **DRE** or **ARIDE** evaluation *does not specify* impairment by cannabis for this participant.

Code **"1"** (**Positive**) is used when:

1) A blood test is positive: <u>confirms</u> the presence of" tetrahydrocannabinols **(THC)** or **Delta-9 THC**, or

2) A **DRE** or **ARIDE** evaluation confirms the use of cannabis products by this participant.

   Note: If "**Marijuana Use Reported**" is coded "**1**", "**Drug Use Reported**" must also be coded "1".

Code **"2"** (**Suspected**) is used when:

1) A blood test result "*detects the presence of cannabinoids, but these results are not confirmed*", or

2) *If no **blood** test is available*, and urine or another test indicates the presence of cannabis, 9-Carboxy-THC,or its metabolites; or

3) Police indicate that marijuana was used or is suspected but they don't specify the source is a DRE, ARIDE evaluation, or blood test; or

4) In the absence of a police report, the participant admits having used cannabis products within two hours of the crash. (Police reporting takes precedence.)

   Note: *If "**Marijuana Use Reported**" is coded "2", and no other drugs are involved, code "**Drug Use Reported**" = 9 (unknown), due to the narrow constraints we use for reporting cannabis use.*

Code **"3"** (**Not Suspected**) is used when:

1) The PAR states "**None**" for impairment, but doesn't provide information on the type of test nor availability of DRE or ARIDE evaluation; or

2) No blood test results indicating the presence of THC or Delta-9 THC are available, or

3) No certified DRE or ARIDE evaluation is available and the DRE evaluation checkbox is blank, or

4) Urine or tests of specimens *other than blood tests* are negative; ie., "fail to confirm the presence of" THC, cannabinoids, or controlled substances. (rev. 10/9/2019)

Code **"9"** (**Unknown**) is used when:

1) The police report it is unknown to them whether this participant had been using cannabis, or

2) Lab tests are inconclusive (i.e., the sample is contaminated or otherwise unreliable), or

3) The participant admits having used cannabis products more than two-hours from the time of the crash

Marijuana Use Coding Scenarios

1. Officer checks "No" under general Drug category on the PAR. No other information is available
    - *Leave the Marijuana Use Reported field blank. Code "0" for Drug Use Reported.*

2. Toxicological examination confirms the presence of other drugs, but says nothing about cannabioids.
    - *Enter code 0 (Negative) for Marijuana Use Reported. Enter code "1" for Drug Use Reported.*

3. An officer indicates that a **DRE** evaluation was positive for marijuana. No blood test results are available in the crash information packet
    - *Enter code 1 (Positive) for Marijuana Use Reported <u>and</u> code 1 for Drug Use Reported*

4. Toxicological examination "indicates the presence of the following; however, **this is not confirmed**:.." and lists "**cannabinoids**"; or indicates the presence of "9-**Carboxy**-THC", a THC metabolite.
    - *Enter code 2 (Suspected) for Marijuana Use Reported*

5. A driver, pedestrian, or pedalcyclist states he "smoked weed <u>a couple hours ago</u>" but police officer checks "No" for drug use.
    - *Enter Code 2 (Suspected) for Marijuana Use Reported. Enter code 9 for Drug Use Reported*

6. Urine test results "fail to confirm the presence of cannabinoids".
    - *Enter Code 3 (Not Suspected) for Marijuana Use Reported*

7. Officer checks "None" under impairment and indicates this was based on anything *other than* a certified DRE or ARIDE evaluation or lab test; such as: verbal statements, observations, etc. or there was nothing else mentioned on how "no impairment" was determined.
    - *Enter Code 3 (Not Suspected) for the Marijuana Use Reported*

8. A driver states he wasn't using cannabis products, but vehicle passengers were using cannabis when the crash occurred. PAR checkboxes are blank, and no other information is provided.
    - *Enter Code the Marijuana Use Reported field "9" (Unknown)*

9. A driver, pedestrian, or pedalcyclist admits to having used cannabis products earlier in the day. No length of time is reported between ingestion and crash.
    - *Enter Code both the Marijuana Use Reported and the Drug Use Reported fields 9 (Unknown)*

10. Police find evidence of cannabis use in the vehicle. Driver stated she had used it the night before. PAR checkboxes are blank and no other information is available
    - *Leave both the Marijuana Use Reported and the Drug Use Reported fields blank*

<u>**Validations:**</u>

Rule #	Rule Message	Severity
N/A	When Participant Marijuana Use Reported = 1, Participant Drug Use Reported must also = 1	Red/Severe

Section IV: SYSTEM GENERATED DATA ELEMENTS or VALUES

(Page intentionally left blank)

Crash ID

EDW

Table: CRASH   **Column:** CRASH_ID   **Data Type:** int   **Precision:** 10

Code	Description
9999999	Primary Key. *Sequential number automatically generated by the Crash Data System*

Description:

Crash ID is the unique identifier assigned to a given crash by the Crash Data System, without regard to DMV Serial Number, County, or Year.

CRASH_ID is the primary key for the CRASH table. It also exists in the VHCL and PARTIC tables.
It is not visible on the Data Entry screen, because the number isn't generated until the crash is validated and saved.

Vehicle ID

Table: VHCL	Column: VHCL_ID	Data Type: int	Precision: 10
Table: PARTIC	Column: VHCL_ID	Data Type: int	Precision: 10

Code	Description
9999999	Primary Key. *Sequential number automatically generated by Crash Data System*

Description:

Vehicle ID is the unique identifier assigned to every vehicle in the Crash Data System. It is the primary key for the VHCL table, and also exists on the PARTIC table, for the purpose of matching participants to their vehicles.

Vehicle ID is not visible on the Data Entry screen, because the system generates the number after the crash has been validated and saved.

Participant ID

EDW

Table: PARTIC   **Column:** PARTIC_ID   **Data Type:** int   **Precision:** 10

Code	Description
9999999	Primary Key. *Sequential number automatically generated by Crash Data System*

Description:

Participant ID is the unique identifier assigned to each participant in the Crash Data System. It is the primary key for the PARTIC table, and may be used to match participants to their Errors, Causes and Events, among other uses.

Participant ID is not visible on the Data Entry screen, because the system generates the number after the crash has been validated and saved.

Day of Week

Table: CRASH   **Column:** CRASH_WK_DAY_CD   **Data Type:** char   **Length:** 1

Code	Description
1	Sunday
2	Monday
3	Tuesday
4	Wednesday
5	Thursday
6	Friday
7	Saturday

Description:

Day of Week is a single character, system-generated code that identifies the day on which the crash occurred, out of seven days in a week.

Crash Date

Table: CRASH   **Column:** CRASH_DT   **Data Type:** datetime   **Length:** NULL

Code	Description
N/A	date/time value (*varies*)

Description:

Crash Date is a system-generated"Date/Time" created from the Month, Day and Year codes entered by the crash technician. It identifies the date the crash occurred. The hours, minutes and seconds default to zeros because crash "time" is not captured in the database. (See "Crash Hour" page

Jurisdiction Group

EDW

Table: JRSDCT_GRP   **Column:** JRSDCT_GRP_CD   **Data Type:** char   **Length:** 2

Code	Description
1	National Forest
2	State Forest
3	National Park
4	State Park
5	Bureau of Land Management
6	Indian Reservation
7	Other Federal Jurisdiction
8	Other Type Jurisdiction (non-federal land)
9	Unknown Jurisdiction

Description:

Jurisdiction Group is a one-digit system-generated value that classifies Special Jurisdictions by type.

Instructions:

The code and description are automatically loaded by the Crash Data System based on the value that was entered into the Special Jurisdiction field. A shortened version of the descriptions listed above will automatically appear in the data entry screen.

This field is only populated for crashes that occur on roads classified as "special jurisdiction". *For all other crashes, this field will remain blank.*

Validations:

Rule #	Rule Message	Severity
34	[code field value] was not found in [lookup table name] or is not valid as of the crash date	Red/Severe
137	Combination of [first code field] and [second code field] not valid in the [cross-reference table name] cross-reference table	Red/Severe

Alcohol Involved Flag

Table: CRASH   **Column:** ALCHL_INVLV_FLG   **Data Type:** bit   **Length:** not null

Code	Description
0	No
1	Yes

Description:

Alcohol-Involved Flag is a system-generated code indicating whether an *active participant** in the crash had been using alcohol. The data entry system populates this field based on the values coded to the Participant Level BAC Test Results and Alcohol Use Reported fields.

*An **"active participant"** is a person who was in a position of control during the crash: a driver, pedestrian, pedal-cyclist or other non-motorist.

Code "0" is generated when no active participants were reported to have been drinking, and no positive BAC test result was received for any active participant.

Code "1" is generated when at least one active participant was reported to have been drinking, or a positive BAC test result (.01 or higher) was received for any active participant.

Note: *Prior to 2003, BAC test result information was collected for fatally injured participants only. Non-fatally injured participants were flagged as to whether or not they had been drinking, but actual BAC values were not reported. As of 2003, the Crash Data System includes BAC test results on all participants for whom the information is received. The increase in alcohol-involvement figures for 2003 and later years represents, at least in part, an improvement in data collection and reporting, rather than an actual increase in alcohol-involved traffic crashes.*

Drug Involved Flag

Table: CRASH   **Column:** DRUG_INVLV_FLG   **Data Type:** bit   **Length:** not null

Code	Description
0	No
1	Yes

Description:

Drug-Involved is a system-generated code indicating whether an *active participant** in the crash was reported to have used drugs. The data entry system populates this field based on the Participant Level Drug Use Reported field.

*An **"active participant"** is a person who was in a position of control during the crash: a driver, pedestrian, pedal-cyclist or other non-motorist.

Code "0" is generated when no active participants were reported to have used drugs.

Code "1" is generated when at least one active participant was reported to have used drugs.

Note: *Prior to 2003, drug-involvement was summarized along with alcohol data, and was not broken out separately in the Crash Data System. As of 2003, the Crash Data System reports drug involvement for all participants for whom the information is received.*

Marijuana Involved Flag

EDW

Table: CRASH   **Column:** MJ_INVLV_FLG   **Data Type:** bit   **Length:** not null

Code	Description
0	No
1	Yes

Description:

Marijuana-Involved is a system-generated code indicating whether an *active participant** in the crash:
- Had a positive blood test result for THC, or
- Had a DRE evaluation that indicated marijuana use
- Had an ARIDE evaluation that indicated marijuana use

* An **"active participant"** is a person who had a measure of control over the crash circumstances: a driver, pedestrian, pedal-cyclist or other non-motorist.

The data entry system populates this field based on the Participant Level Marijuana Use Reported field.

Code "0" is generated when no active participants had a positive blood test result for THC, or a positive DRE or ARIDE evaluation for marijuana.

Code "1" is generated when at least one active participant had a positive blood test for THC, or a positive DRE or ARIDE evaluation for marijuana.

Note: *This field was introduced as of the 2016 crash data entryyear.*

Speed Involved Flag

Table: CRASH   **Column:** CRASH_SPEED_INVLV_FLG   **Data Type:** bit   **Length:** not null

Code	Description
0	No
1	Yes

Description:

Speed-Involved Flag exists on the Crash Level as a system-generated value. This field indicates whether or not a **driver** involved in the crash was exceeding the posted speed, driving too fast for conditions, or speed racing.

The data entry system populates this field based on the Vehicle Speed Flag, the Participant Error field, and the Crash or Participant Cause fields.

Hit and Run Flag

Table: PARTIC   **Column:** PARTIC_HIT_RUN_FLG   **Data Type:** bit   **Length:** not null

Code	Description
0	No
1	Yes

Description:

Hit and Run is a system-generated code indicating that a participant fled the scene of the crash, on foot or in a vehicle. It is populated according to the values coded in the Vehicle and Participant Level Hit and Run fields.

Effective for 2016 crash data entry, information on Hit and Run is no longer collected for Property Damage Only crashes. PDO default values for vehicles and participants cause the Crash level flag to be set to "0".

Population Range

Table: CRASH   **Column:** POP_RNG_CD   **Data Type:** char   **Length:** 1

Code	Description
0	1 to 500
1	501 to 1,000
2	1,001 to 2,500
3	2,501 to 5,000
4	5,001 to 10,000
5	10,001 to 25,000
6	25,001 to 50,000
7	50,001 to 100,000
8	100,001 to 200,000
9	Over 200,000

Description:

Population Range is a system-generated code that represents the estimated number of persons living in the incorporated area in which the crash occurred. This field is only populated for crashes that occur in incorporated cities.

Codes are based on annual estimates published by Portland State University.

Road Control

Table: CRASH   **Column:** RD_CNTL_CD   **Data Type:** char   **Length:** 1

Code	Description
1	Portland city street
2	Portland highway system
3	Urban city street outside of Portland
4	Urban highway system outside of Portland city limits
5	Rural highway system
6	Rural county road
7	Rural city street
8	Sub-urban highway system
9	Sub-urban road

Description:

Road Control is a system-generated value that identifies the governmental jurisdiction over the road on which the crash occurred. Urban areas are based on Federal Aid Urban Transportation Boundaries (FAUB), which is typically updated every 10 years after the national census reports are published.

Code "1" is generated for crashes on city streets inside Portland city limits.

Code "2" is generated for crashes on state highways located inside Portland city limits.

Code "3" is generated for crashes on city streets that are inside city limits (other than Portland) and FAUB. Both conditions must be met.

Code "4" is generated for crashes on state highways located inside city limits (other than Portland) and FAUB. Both conditions must be met.

Code "5" is generated for crashes on state highways located outside FAUB.

Code "6" is generated for crashes on streets under county jurisdiction that are outside city limits and outside FAUB. Both conditions must be met.

Code "7" is generated for crashes on streets that are inside incorporated city limits but outside FAUB.

Code "8" is generated for crashes on state highways located outside city limits but inside FAUB.

Code "9" is generated for crashes on county roads that are outside city limits but inside FAUB.

Route Type/Route Number

EDW

Table: CRASH	**Column:** RTE_TYP_CD	**Data Type:** char	**Length:** 2
Table: CRASH	**Column:** RTE_ID	**Data Type:** char	**Length:** 5

Code	Description
IS xxx	Interstate route, followed by the number on the shield
OR xxx	Oregon route, followed by the number on the shield
US xxx	US route, followed by the number on the shield

Description:

Route Number is a system-generated value representing the route type (IS, OR, or US) and posted shield number for the state highway on which the crash occurred.

This field is populated according to values contained in TransInfo, and is only applicable for crashes that occur on the state highway system.

ODOT Region

Table: CRASH   **Column:** REG_ID   **Data Type:** char   **Length:** 1

Code	Description
1	Region 1 – Portland /Metro; Clackamas and Hood River Counties
2	Region 2 – Willamette Valley and Coast
3	Region 3 – Southwestern Oregon
4	Region 4 – Central Oregon
5	Region 5 – Eastern Oregon

Description:

The Oregon Department of Transportation divides its highway operations into five geographical regions. Each region is responsible for developing and managing the construction of highway projects, plus the maintenance of state, federal, and interstate highways within its boundaries.

Figure 69. ODOT Regions
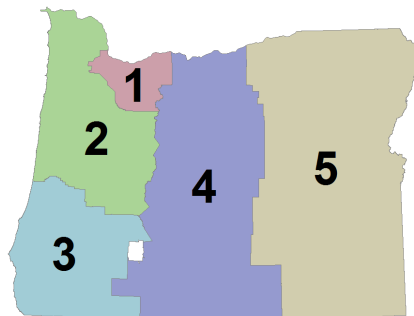
Region maps can be found at: http://www.oregon.gov/odot/data/pages/maps.aspx

Region 1 includes the Eastern portion of Washington County, Multnomah County, Clackamas County and most of Hood River County.

Region 2 includes Clatsop County, Columbia County, Tillamook County, the Western portion of Washington County, Yamhill County, Polk County, Marion County, Lincoln County, Benton County, Linn County, and Lane County.

Region 3 includes Coos County, Douglas County, Curry County, Josephine County, most of Jackson County and a small portion of Klamath County.

Region 4 includes a small portion of Hood River County, Wasco County, Sherman County, Gilliam County, Jefferson County, Wheeler County, Crook County, Deschutes County, a small portion of Jackson County, most of Klamath County, and Lake County.

Region 5 includes Morrow County, Umatilla County, Union County, Wallowa County, Grant County, Baker County, Harney County, and Malheur County.

Data for this field is available for years 2007 and later.

ODOT District

Table: CRASH   **Column:** DIST_ID   **Data Type:** char   **Length:** 3

Code	Description
01	District 1
02B	District 2B
02C	District 2C
03	District 3
04	District 4
05	District 5
07	District 7
08	District 8
09	District 9
10	District 10
11	District 11
12	District 12
13	District 13
14	District 14

Description:

There are 14 ODOT Maintenance Districts across the state. Each District is responsible for the day to day maintenance and operation of the state highways in their geographic area.

Figure 70. ODOT Districts
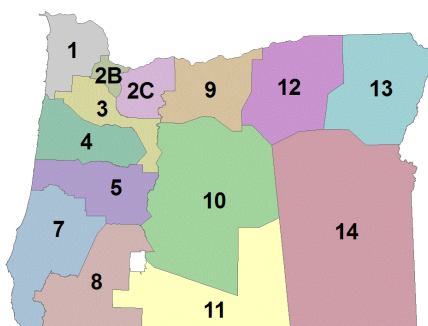
District maps can be found at: http://www.oregon.gov/odot/data/pages/maps.aspx

District 1 includes all or portions of Clatsop County, Columbia County, Tillamook County and the Western portion of Washington County.

District 2B includes all or portions of Washington County, Multnomah County and a portion of Clackamas County.

District 2C includes all or portions of Multnomah County, Hood River County and Clackamas County.

District 3 includes all or portions of Yamhill County, Polk County, Marion County, Linn County and Lane County.

District 4 includes all or portions of Tillamook County, Polk County, Lincoln County, Benton County and Linn County.

District 5 includes all or portions of Linn County, Lane County, and Klamath County.

District 7 includes all or portions of Douglas County, Coos County, and Curry County.

District 8 includes all or portions of Douglas County, Josephine County, Jackson County, and Klamath County.

District 9 includes all or portions of Wasco County, Sherman County, Gilliam County, Morrow County, and Wheeler County.

District 10 includes all or portions of Jefferson County, Wheeler County, Deschutes County, Crook County, Harney County, Klamath County and Lake County.

District 11 includes portions of Jackson County, Klamath County, Lake County, and Harney County.

District 12 includes all or portions of Morrow County, Umatilla County, Union County, Gilliam County, Wheeler County, and Grant County.

District 13 includes all or portions of Umatilla County, Wallowa County, Union County, Grant County, and Baker County.

District 14 includes all or portions of Grant County, Baker County, Harney County, and Malheur County.

Data for this field is available for year 2007 and later.

Segment Marker ID

**Table:** CRASH   **Column:** SEG_MRK_ID   **Data Type:** varchar   **Length:** 30

Code	Description
Varies	A unique road segment identifier

Description:

Segment Marker ID is a unique identifier assigned to an individual road segment in OR-Trans and is used to relate a crash to that segment. It is used in conjunction with Segment Point LRS Measure in GIS applications to enforce the co-incidence of a crash point and its specific location on a road segment line, in order to maintain the crash point at that location when linework is adjusted for correction or improvement.

The value for this field is automatically loaded into the Crash Data Entry Screen from the Crash Locator Tool (CLT) when the CLT is used to import crash location data.

Data for this field is available for year 2007 and later.

Segment Point LRS Measure

Table: CRASH   **Column:** SEG_PT_LRS_MEAS   **Data Type:** float   **Precision:** 53

Code	Description
Varies	The measure in feet of a highway or road in relation to the beginning of the road

Description:

Segment Point LRS Measure* is a measure, expressed in feet, along an individual road segment that specifies the location of a crash on the segment. It is used in conjunction with Segment Marker ID in GIS applications to enforce the co-incidence of a crash point and the specific location on a road segment line, in order to maintain the crash point at that location in case linework is adjusted at a future date.

The values for this field are calculated and supplied by a GIS analyst, and uploaded to the Crash table via a batch process.

*Data for this field was collected for years 2007 through 2020. The field is retained in the CRASH table schema so that data extracts can display historic data, but remains null for non-active years. The field was removed from the CDS Data Entry Screen as of the implementation of the re-written Crash Locator Tool (CLT), October 2022.

Striking Vehicle Flag

Table: VHCL   **Column:** STRIKG_VHCL_FLG   **Data Type:** bit   **Length:** not null

Code	Description
0	No
1	Yes

Description:

The Striking Vehicle Flag is a system-generated value assigned to the <u>first vehicle record</u> entered into the Data Entry screen for a given crash.

The term "striking vehicle" refers to the vehicle that initially impacted a second vehicle, an object, pedestrian, or pedal-cyclist. However, that occurrence may have been precipitated by another vehicle's operation, or other event. Therefore, the striking vehicle is not always the vehicle that was in error.

Striking Participant Flag

Table: PARTIC   **Column:** STRIKG_PARTIC_FLG   **Data Type:** bit   **Length:** not null

Code	Description
0	No
1	Yes

Description:

The Striking Participant Flag is a system-generated value assigned to a Participant non-motorist record (pedestrians, pedalcyclists, or other non-occupants) when, *as the first harmful event*, the non-motorist struck a vehicle.

The term "striking participant" refers to the <u>non-motorist</u> that impacted a vehicle. However, that occurrence may have been precipitated by the vehicle's operation, or other circumstance. Therefore, the striking participant may not have been the person who was in error.

Crash Level Summary Fields

Table: CRASH   **Column:** Varies   **Data Type:** integer   **Precision:** 10

Code	Description
xxx	Total occurrences in a given crash

Description:

The following fields are populated automatically based on the codes, vehicle records, and participant records entered for a given crash. Values are computed and stored after the Crash Data Technician presses the "Save/Validate" button on the Data Entry screen.

The fields are computed and stored in the CRASH table to simplify querying and enhance the response time during reporting.

Total Vehicle Count: CRASH.TOT_VHCL_CNT

The number of vehicles involved in this crash, excluding phantom or other non-contact vehicles. This derived field is calculated based on the number of vehicle records entered for this crash.

Total Fatality Count: CRASH.TOT_FATAL_CNT

The number of **people killed** as a result of this crash. This derived field is calculated based on the number of participant records with a Participant Injury Severity value of 1.

Total Serious Injury Count: CRASH_TOT_INJ_LVL_A_CNT

The number of people who were seriously injured (but not killed) in this crash. This derived field is calculated based on the number of participant records with a Participant Injury Severity value of 2.

Total Moderate Injury Count: CRASH.TOT_INJ_LVL_B_CNT

The number of people who were moderately injured in this crash. This derived field is calculated based on the number of participant records with a Participant Injury Severity value of 3.

Total Minor Injury Count: CRASH.TOT_INJ_LVL_C_CNT

The number of people who received minor injuries in this crash. This derived field is calculated based on the number of participant records with a Participant Injury Severity value of 4.

Total Non-Fatal Injury Count: CRASH.TOT_INJ_CNT

The number of people who were injured in the crash (not fatally). This derived field is calculated based on the number of participant records with a Participant Injury Severity value of 2 (Serious Injury), 3. (Moderate Injury), or 4 (Minor/Possible Injury).

Total Count of Un-Injured Children Age 00-04:   CRASH.TOT_UNINJD_AGE00-04_CNT

The number of children, newborn to age 4, who were involved in the crash but were not injured. This derived field is calculated based on the number of participant records where Age is between 01 and 04 and Injury Severity = 7.   *(Note: Un-injured children age 0 to 4 are no longer entered into CDS as of the 2018 crash data file.)*

Total Un-Injured Persons Count: CRASH.TOT_UNINJD_PER_CNT

The number of all persons involved in the crash who were not injured. This derived field is calculated based on the total number of persons involved (**TOT_PER_INVLV_CNT**), minus the number of persons injured (**TOT_INJ_CNT**) and killed (**TOT_FATAL_CNT**).

Total Pedestrian Count: CRASH.TOT_PED_CNT

The number of pedestrians involved in this crash. This derived field is calculated based on the number of participant records where Participant Type is 3, 4 or 5.

Total Pedestrian Fatality Count: CRASH.TOT_PED_FATAL_CNT

The number of pedestrians killed as a result of this crash. This derived field is calculated based on the number of pedestrians (Participant Type = 3, 4 or 5.) in the crash that had a Participant Injury Severity value of 1 (Fatality).

Total Pedestrian Non-Fatal Injury Count: CRASH.TOT_PED_INJ_CNT

The number of pedestrians who were non-fatally injured in this crash. This derived field is calculated based on the number of pedestrians (Participant Type = 3, 4 or 5.) in the crash that had a Participant Injury Severity value of 2 (Major Injury), 3 (Intermediate Injury), or 4 (Minor Injury).

Total Pedal-cyclist Count: CRASH.TOT_PEDCYCL_CNT

The number of participants in a crash that were pedal-cyclists. This derived field is calculated based on the number of participants in the crash that have a Participant Type of 6 or 7.

Total Pedal-cyclist Fatality Count: CRASH.TOT_PEDCYCL_FATAL_CNT

The number of pedalcyclists killed as a result of the crash.

Total Pedal-cyclist Non-Fatal Injury Count: CRASH.TOT_PEDCYCL_INJ_CNT

The number of persons with a Participant Type = 6 or 7 (Pedal-cyclist) that were injured in this crash. This derived field is calculated based on the number of Pedal-cyclists (Participant Type = 6 or 7) in the crash that had a Participant Injury Severity value of 2 (Major Injury), 3 (Intermediate Injury), or 4 (Minor Injury).

Total Unknown Non-Motorist Count: CRASH.TOT_UNKNWN_CNT

The number of participants in a crash that were an unknown type of non-motorist. This derived field is calculated based on the number of participants in the crash that have a Participant Type of 9.

Total Unknown Non-Motorist Fatality Count: CRASH.TOT_UNKNWN_FATAL_CNT

The number of other or unknown non-motorist fatalities that occurred in this crash. This derived field is calculated based on the number of participant records where (Participant Type = 9) in the crash that had a Participant Injury Severity value of 1 (Fatality).

Total Unknown Non-Motorist Injury Count: CRASH.TOT_UNKNWN_INJ_CNT

The number of persons with a Participant Type = 9 (unknown non-motorist) who were injured in this crash. This derived field is calculated based on the number of Unknown Non-motorists (Participant Type = 9) in the crash that had a Participant Injury Severity value of 2 (Major Injury), 3 (Intermediate Injury), or 4 (Minor Injury).

Total Vehicle Occupant Count: CRASH.TOT_OCCUP_CNT

The number of vehicle occupants involved in a given crash. This derived field sums all "Vehicle Occupant Count" values for all vehicle records in a given crash. Those values are, in turn, derived from the sum of vehicle occupants who were using or not using safety equipment, and for whom safety equipment use was unknown. *These counts <u>include uninjured occupants</u>.*

Note: No uninjured passengers are coded at the Participant level; therefore, we can't sum Participant driver and passenger records to get the total number of vehicle occupants. Instead, we rely on the values that the crash technician entered into the Vehicle level "Safety Equipment Used", "Unused", and "Use Unknown" fields, and the resulting "Vehicle Occupant Count" field. These fields are a tally of vehicle occupants, and include uninjured occupants who are not represented in the Participant table.

Total Count of Persons Involved: CRASH.TOT_PER_INVLV_CNT

The number of persons involved in the crash, including un-injured persons for whom no "participant" record is created. This derived value is computed based on the sum of the Total Pedestrian Count + Total Pedalcyclist Count + Total Unknown Count + Total Vehicle Occupant Count.

Total Occupants Using Safety Equipment: CRASH.TOT_SFTY_EQUIP_USED_QTY
(formerly "Total Persons Using Safety Equipment"; database change was implemented in 2010.)

The number of vehicle occupants in a crash who were using available safety equipment. This derived field sums "Vehicle Safety Equipment Used Quantity" values for all vehicles coded to a given crash.

Note: No uninjured passengers are coded at the Participant level; therefore, we can't sum Participant driver and passenger records to get the total number of vehicle occupants. Instead, we rely on the values that the crash technician entered into the Vehicle level "Safety Equipment Used", "Unused", and "Use Unknown" fields, and the resulting "Vehicle Occupant Count" field. These fields are a tally of vehicle occupants, and include uninjured occupants who are not represented in the Participant table.

Total Occupants Not Using Safety Equipment: CRASH.TOT_SFTY_EQUIP_UNUSED_QTY
(formerly "Total Persons Using Safety Equipment"; database change was implemented in 2010.)

The total number of vehicle occupants for whom safety equipment was available at the time of the crash, but was not used. This derived field is calculated from the sum of the "Vehicle Safety Equipment Unused Quantity " for all vehicles coded to a given crash.

Note: *No uninjured passengers are coded at the Participant level; therefore, we can't sum Participant driver and passenger records to get the total number of vehicle occupants. Instead, we rely on the values that the crash technician entered into the Vehicle level "Safety Equipment Used", "Unused", and "Use Unknown" fields, and the resulting "Vehicle Occupant Count" field. These fields are a tally of vehicle occupants, and include uninjured occupants who are not represented in the Participant table.*

Total Occupants Safety Equipment Use Unknown: CRASH.TOT_SFTY_EQUIP_USE_UNKNWN_QTY
(formerly "Total Persons Using Safety Equipment"; database change was implemented in 2010.)

The total number of vehicle occupants for whom it is not known if safety equipment was used. This derived field is calculated from the sum of the "Vehicle Safety Equipment Use Unknown Quantity" for all vehicles coded to a given crash.

Note: *No uninjured passengers are coded at the Participant level; therefore, we can't sum Participant driver and passenger records to get the total number of vehicle occupants. Instead, we rely on the values that the crash technician entered into the Vehicle level "Safety Equipment Used", "Unused", and "Use Unknown" fields, and the resulting "Vehicle Occupant Count" field. These fields are a tally of vehicle occupants, and include uninjured occupants who are not represented in the Participant table.*

*Effective for 2016 crash data entry, when Crash Severity is "Property Damage Only", participant records are created only for drivers. The Participant Level "Safety Equipment Use" field is defaulted to code '9' (unknown). However, all vehicle occupants' safety equipment usage type ("used", "unused", "unkown if used") are tallied on the Vehicle Level.

Also, effective for 2018 crash data entry, Participant records are no longer created for uninjured children ages 0 to 4. Participant Level records are, therefore, no longer created for uninjured passengers of any age.

(Page intentionally left blank)
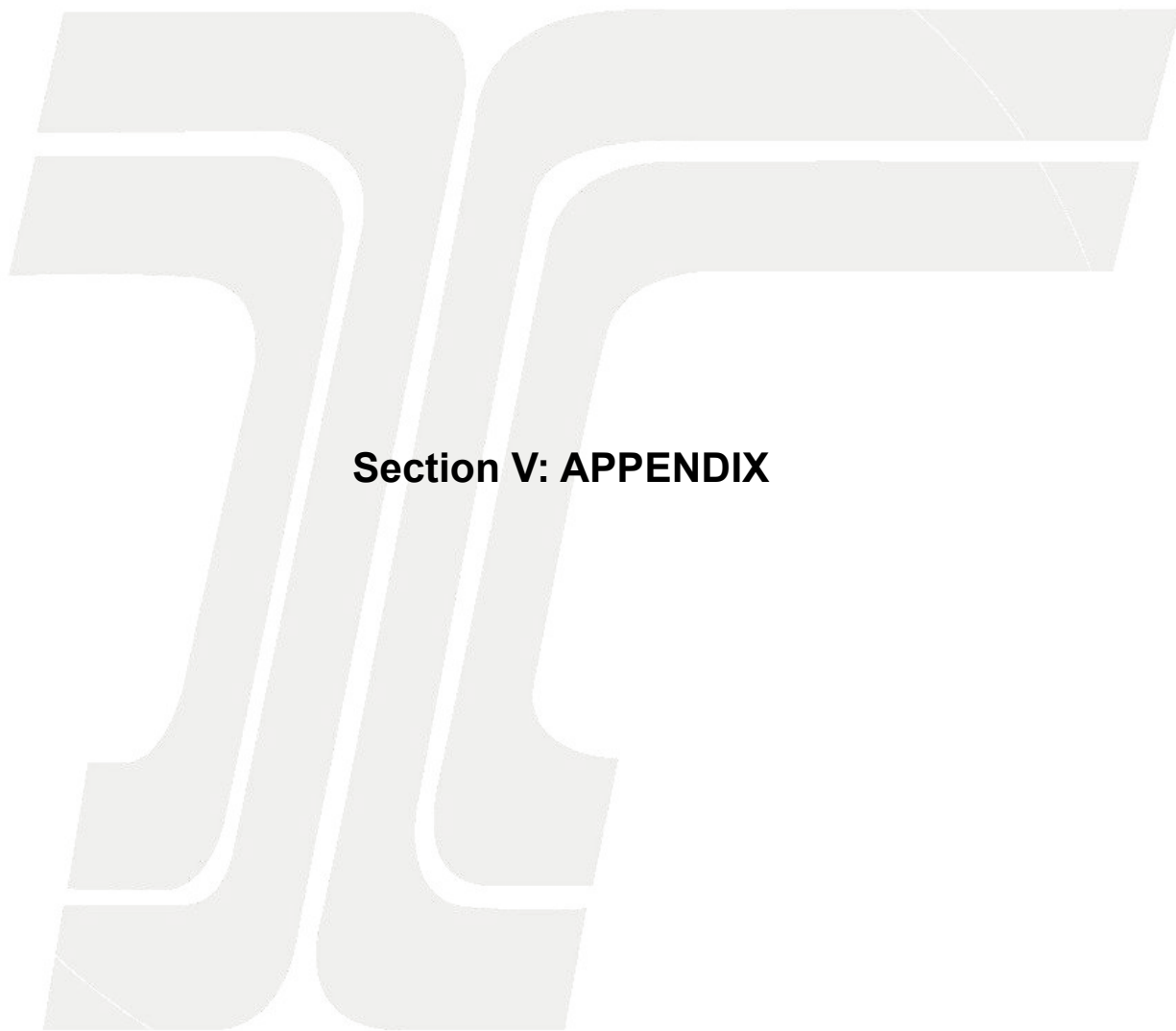
Section V: APPENDIX

(Page intentionally left blank)

Glossary

A selection of terms that appear in this publication are listed below, with the definitions in use by the Crash Analysis and Reporting (CAR) Unit data technicians. The CAR Unit makes no assertion that these definitions are officially recognized or are to be relied upon as standard definitions for persons or entities outside this unit. For information on national standards for motor vehicle traffic crash classification, please refer to the American National Standard Institute's (ANSI) D16.1-2007 Manual on Classification of Motor Vehicle Traffic Accidents.

Active Participant – A crash participant who has a measure of control over the crash circumstances, such as a driver, pedestrian, pedalcyclist, or other non-motorist who is not a being pushed or towed on a conveyance.

Add Mileage –The term "add-mileage" generally applies when milepoints have increasing values in the direction of travel. The Pacific Highway 1, Interstate 5, is the only exception in that the add-mileage is accumulated in the direction of decreasing milepoints.

Advanced Roadside Impaired Driving Enforcement (ARIDE) – was created to address the gap in training between the Standardized Field Sobriety Testing (SFST) and the Drug Evaluation and Classification (DEC) Program. ARIDE is intended to bridge the gap between these two programs by providing officers with general knowledge related to drug impairment and by promoting the use of DREs in states that have the DEC Program.

Aggressive driving is defined by NHTSA as *"…when an individual commits a combination of moving traffic offenses so as to endanger other persons or property." (USDOT, National Highway Traffic Safety Administration, retrieved from https://one.nhtsa.gov/Driving-Safety/Aggressive-Driving)*

Alignment means the horizontal and vertical design of a section of roadway.

Angle Collision – An angle collision results when a vehicles collide while traveling on crossing paths. An angle collision involves one vehicle ON a roadway (i.e. North to south) and another vehicle From another roadway, open access or driveway. (i.e. East to West). In other words, a cross-movement on one street must be attempted by a vehicle traveling on the intersecting street in order for the type to be classed as angle.

Arterials –provide mobility, typically carrying high traffic volumes on a continuous network with no stub routes but provide very little direct land access. A stub route is when a roadway classification stops midway through the road. Arterials must connect from roadway to roadway.

At-intersection crash – An at-intersection crash in a traffic crash in which the first harmful event occurs within the limits of an intersection *(see ANSI D16.1-2007, definition 2.7.3).*

Backing Collision – A backing collision results when a vehicle is backing in a traffic lane and strikes another vehicle also in a traffic lane. This type will not include backing during a parking maneuver.

Channelization – A method or several methods or devices in which traffic is deliberately directed or diverted to another roadway or lane.

Channelization – A method or several methods or devices in which traffic is deliberately directed or diverted to another roadway or lane.

Collectors – Provide both mobility and land access gathering trips from localized areas and feed them onto the arterial network.

Connection – A street or road, open to vehicular travel, which joins a road from the state highway system to any other road, entity, or to another state-owned road. A connection is usually much shorter than a spur or frontage road.

Couplet – The two roadways of a divided highway, often named differently, approximately parallel with traffic flow in opposite directions and separated by accessible land uses. Examples of couplets include:
- Marion Street bridge and Center Street Bridge on Hwy 030 in Salem
- Liberty Rd and Commercial Street on Hwy 072 in Salem
- Vista Ridge Tunnels of Sunset Hwy on Hwy 047 in the Portland area. (Sunset Hwy couplet carries only one name.).

Crash –A crash is an unstabilized situation that includes at least one harmful event. It begins with the unstabilized situation and ends when control is regained or, in the absence of control, when all involved vehicles and persons come to rest. A "motor vehicle traffic crash" is a crash involving at least one motor vehicle that is "in transport", "on a trafficway that is open to the public by right or custom", which cannot be classified as an aircraft or watercraft accident, and "does not include any harmful event involving a railway train prior to involvement of a motor vehicle in transport". See the ANSI D16.1-2017 section on Characteristics of Motor Vehicle Traffic Accidents.

Divided Highway – A two-way highway with the directions separated by more than 4 feet. (This includes most of the Interstate System.)

Drug Recognition Expert (DRE – A law enforcement officer trained to identify people whose driving is impaired by drugs other than, or in addition to, alcohol. DREs often testify in court, where the term "expert" has important legal implications.

Fatal Crash – Any motor vehicle or other road vehicle crash that results in fatal injuries to one or more persons.

FAUB – (Federal-Aid Urban Boundary) the line that divides Urban Area from Rural Area.

Fixed Object or Other Object Collision – A fixed or other object collision results when one vehicle strikes a fixed or other object on the roadway or off roadway. An event code should be coded describing what was hit.

Frontage road – A road, secondary to and generally parallel to a highway, providing service to abutting property and adjacent areas for control of access. A frontage road may or may not be connected to the highway it services.

Glossary

Gore – A gore is the area inside the triangular space that divides a ramp exit or entrance from the mainline roadway. Its purpose is to provide recovery room for a vehicle and it will also be where one would find an impact attenuating device.

Head-On Collision – A head-on type of collision results when the drivers of two vehicles traveling in opposite directions on parallel paths attempt to occupy the same position at the same time and find their forward movement impeded. It is not necessary for the vehicles to collide head-on; that is, for each to be struck perpendicularly to the front of the car. It is the alteration of the intended path of travel that defines the type of collision. To conform with the definition, any attempted maneuver to avoid the collision is inconsequential to the complete crash.

Impact attenuator – You may see a plastic barrel filled with water referred to as a "water bumper" as an attenuation device. They are what is now referred to as "crash cushions". Their intent is to divert and decelerate impacts of vehicles from striking more rigid objects, to reduce the crash severity of hitting other objects, Hence a kind of "crash cushion". They are meant to prevent heavy impacts with guardrail ends or concrete median ends which do not move and cause much more severe damage to a vehicle.

Incorporated City – One that has been approved by an election, held in accordance with Statute (ORS Chapter 221).

Jiggle bar – This refers to a raised generally painted channelization barrier. i.e., (raised ////////////) in the roadway that is intended to distinctly separate traffic without the construction of a solid traffic island or solid median barrier. They appear as a series or group of painted bumps placed in a line or v-formation, separating roadways hence channelizing traffic onto or away from another roadway.

Lane splitting – Lane splitting occurs when a when a motorcycle is ridden between two lanes of traffic that is moving in the same direction at regular speeds. *Lane splitting is illegal in Oregon.* It differs from lane "filtering", which is maneuvering between rows of stopped or slowly moving vehicles at a similarly slow speed.

Local Roads – Lower volume roadways that provide direct land access but are not designed to serve through-traffic needs; focusing on land access and relatively short trips and include all other public roads.

Mainline – The mainline portion of the highway refers to all roadways for a highway, excluding connections, frontage roads, and couplets. (This is a slight variation to the way mainline is defined by ODOT terms and definitions, for the purposes of coding for the Crash Analysis and Reporting Unit (CAR)).

Miscellaneous Collisions – Miscellaneous collisions include all animal crashes except animals drawing vehicles, and all crashes *not* classifiable under the above types. Typical crashes included – hitting a wild or domestic animal, lost load, or drive shaft fell from vehicle.

Glossary

(Continued)

Motor Vehicle in Transport –When applied to motor vehicles, "in transport" means on a roadway, or in motion within *or outside* the trafficway. This includes driverless motor vehicles that are in motion, motionless motor vehicles that are within the travel portion of the roadway, disabled vehicles on a roadway, and others. See ANSI D16.2017, definition 2.2.34.

Motor Vehicle Traffic Crash – A crash that involves a motor vehicle that is "in transport" and "on a trafficway". See ANSI D16.2017 definitions 2.2.1 and 2.2.34.

Non-Collision – A non-collision crash is one in which only one vehicle is involved and is not classifiable as another collision; i.e. rollover, etc.

Non-Fatal Injury Crash – A motor vehicle crash that results in any injury, not resulting in death, to one or more persons.

Overlapping Mileage – A new overlapping length of roadway on an already existing milepointed section of road. This occurs when a road must be lengthened, other than at the end, and additional mileage has been added.

Parking Maneuver Collision – A parking maneuver collision results when a vehicle in the act of entering or leaving a parked position is involved in a collision. A parking maneuver continues until the vehicle has completely cleared the parked position and is moving in the traffic lane. The reverse is true for a vehicle entering a parked position.

Participant – A person involved in the crash who was a driver, injured passenger *(un-injured child passengers age 0 to 4 are no longer included, as of the 2018 crash data file),* or a non-motorist who was struck, such as a pedestrian, pedal-cyclist, occupant of a non-motorized transport device etc. Records are not created in the Crash Data System for un-injured passengers or non-motorists who were involved in the crash occurrence but not struck.

Pedestrian Collision – A pedestrian collision results when the first harmful event is any impact between a motor vehicle in traffic and a pedestrian. Does not include any crash where a pedestrian is injured after the initial vehicle impact. In this case, the first harmful event would be the collision type (i.e. rear-end collision) with the pedestrian being coded as a supplemental event to the crash.

Per PAR – When this phrase is used, it means that the officer is stating his or her opinion and not just documenting a witness statement.

Posted Speed – The maximum speed that you may travel on the road. It begins where a black on white speed sign is posted and ends where a different black on white speed sign is posted.

Property Damage Only Collision – Any motor vehicle crash in which there is no injury to any person, but only damage to a motor vehicle or other road vehicle or to other property, including injury to domestic animals.

Rear-End Collision – A rear end collision results when a vehicle traveling in the same direction or parallel on the same path as another vehicle, collides with the rear end or a second vehicle. In this type, the direction of travel was parallel but continuous.

Regular Mileage – The majority of the highway system is coded as regular mileage. This means that the roadway is "normal".

Reverse Direction (non-add) – The opposite of add mileage where the direction of travel in which mileposts decrease. The Pacific Highway 1, Interstate 5, is the only exception in that the non-add mileage is accumulated in the direction of increasing milepoints.

Road – The section within a trafficway that's comprised of both the **roadway** and the **shoulder**(s) alongside the roadway. Multiple "roads" may exist within the trafficway right-of-way. Refer to ANSI D16 definition 2.2.33

Road rage is defined as *"an assault with a motor vehicle or other dangerous weapon by the operator or passenger(s) of another motor vehicle, or an assault precipitated by an incident that occurred on a roadway." (USDOT, NHTSA)*

Roadside - the property that exists on both sides of the trafficway, from the property line inward to the edge of the road. See page…..Refer to ANSI D16.1 definition 2.2.31

Roadway – The part of a trafficway designed, improved, and ordinarily used for vehicular travel. Separate roadways may be provided for opposite directions of travel. The Crash Data Technician considers the boundary lines to be the lateral limits of the traffic lanes. Thus, parking lanes and shoulders are NOT part of the roadway. Also, a parking lane ceases to exist and is considered a traffic lane when parking along a street is prohibited continuously, or during hours the parking lane is required to be clear for traffic.

Rural Major Collectors – A link county seats and communities not served by arterials but have an intra-county rather than statewide focus.

Rural Minor Arterials – Also focus on mobility but typically link smaller cities and towns and other statewide traffic generators, such as resorts that are not served by principal arterials.

Rural Minor Collectors – Collect traffic from local roads and smaller communities.

Rural Principal Arterials – Focus on statewide and interstate mobility and typically include the Interstate System and other rural freeways that serve longer distance high-volume corridors.

Separator - differs from a median. It is the property that exists between roads that provide travel in the same direction, or between a main road and a frontage road. See diagram on page……Refer to ANSI D16.1 definition 2.2.30

Sideswipe-Meeting Collision – A side swipe meeting collision results when vehicles traveling in opposite directions on parallel paths collide. The side of at least one of the vehicles must be involved.

Glossary

(Continued)

Split roadways – Alignments (lanes) that run parallel to regular "add" and "non-add" alignments on a state highway, which are part of the same highway, but are separated by a physical divider. This roadway type was terminated from the TransInfo highway inventory as of 01/01/2010.

Spur Mileage – A spur is an off shoot of the "normal" highway alignment. It may be a two-way or one-way roadway. An example of a spur is Grants Pass Parkway in the City of Grants Pass. This spur runs eastbound off the "normal" route for OR 99, Highway 25.

State Highway – A land-based public way designated by the Oregon Transportation Commission as a highway for the purpose of vehicular travel. The State of Oregon commonly has, but may not have all, right, title, interest, jurisdiction, maintenance and control of the entire area with the highway right-of-way.

Temporary Mileage – A highway route that is a temporary alignment at the time. These alignments will be identified in the highway references and they have no distinguishing difference from a "normal" route other than their expected length of service.

Trafficway – A trafficway is any land way open to the public as a matter of right or custom for moving persons or property from one place to another. See ANSI D16-2017 definition 2.2.1.

TransInfo – The ODOT Roadway Inventory and Classification Services unit's highway data system. It is the official ODOT data source for the state highway network, and is used to tabulate the official state mileage.

Turning Leg – A configuration recognized in crash coding, is a travel lane for channelizing traffic at right-angles most commonly found at an intersection. (Not to be mistaken for a right turn lane.) A common form of turning leg is noted by a triangular shaped island, raised curb, or painted, that separates right-turning traffic from through traffic at an intersection.

Turning Movement Collision – A turning movement collision results when one or more vehicles in the act of a turning maneuver is involved in a collision with another vehicle.

Two-way Highway – Both directions of travel on the same roadway are separated by 4 feet or less.

Urban Collectors – Focus on mobility and land access by serving both intra-urban and local trips that take travelers to arterials.

Urban Minor Arterials – Focus on mobility but serve shorter trips between traffic generators within urban areas.

Urban Principal Arterials – Focus on mobility by serving trips through urban areas and long distance trips between traffic generators within an urban area.

Deliberate Intent

Do not code crashes that result from deliberate intent, when injury or damage is greater than what was intended.

According to the ANSI D16.1-2007 *Manual on Classification of Motor Vehicle Traffic Accidents,* definition 2.4.2., deliberate intent is "the classification given to the cause of an event which occurs when a person acts deliberately to cause the event or deliberately refrains from prudent acts which would prevent occurrence of the event."

Inclusions:
- Suicide
- Self-inflicted injury
- Homicide
- Injury or damage purposely inflicted
- And others

Exclusions:
- Injury or damage beyond that which was intended
- And others

Examples of Deliberate Intent:

1. When a driver intentionally kills or injures himself with a motor vehicle, by driving it against a fixed object or into a body of water.
2. When a driver intentionally kills or injures another person with a motor vehicle, by running into a pedestrian.
3. When a driver intentionally causes damage with a motor vehicle, by ramming another vehicle.

When to code crashes involving Deliberate Intent:

If an intentional act to cause injury or damage results in injury or damage beyond that reasonably expected from the act, the unexpected injury or damage is not the result of deliberate intent. Therefore, the resulting crash should be coded.

Examples of injury or damage beyond what was intended:

1. A driver intentionally drives his vehicle over the side of a bridge, plunging to the highway below and lands on another vehicle. Do not code the first incident, but do code the collateral crash involving the second vehicle.

2. A driver tries to deliberately run another vehicle off the road, and loses control of his own vehicle, crashing into the ditch.

Legal Intervention

According to the ANSI D16.1-2007 *Manual on Classification of Motor Vehicle Traffic Accidents,* definition 2.4.3., legal intervention is "a category of deliberate intent in which the person who acts or refrains from acting is a law-enforcing agent or other official".

Examples:

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

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

3. If during the course of the pursuit, the police vehicle strikes a road vehicle other than the subject of the pursuit, a non-motorist, or property, then that harmful event is not legal intervention.

When to code crashes involving Legal Intervention:

- A driver other than a lawbreaker unintentionally crashes into a roadblock
- A lawbreaker, while eluding the police, loses control of his vehicle and crashes into another vehicle
- A police car skids and crashes while chasing a lawbreaker
- And others

Unstabilized Situation

According to the *ANSI D.16.1-2007 Manual on Classification of Motor Vehicle Traffic Accidents, definition 2.4.4.*, an unstabilized situation is *"a set of events not under human control. It originates when control is lost and terminates when control is regained or, in the absence of persons who are able to regain control, when all persons and property are at rest".*

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

Refer to the current ANSI D.16 manual for examples of unstabilized situations, and situations that are excluded: https://crashstats.nhtsa.dot.gov/Api/Public/ViewPublication/07D16

(Page intentionally left blank)

Validation Rules

Notes on validation messages:

Standard messages are frequently used, with substitutions made as needed, to display the data entry screen field names (in the case of missing data), database table and column names (in the case of database lookups that don't find a match), and specific field values. When a message includes a screen field name such as "SerialNumber", "CrashDay", "CrashYear", etc., the screen field name is what is being displayed. These are not spelling errors. Field names cannot contain spaces.

When a message shown in this document includes a value such as **"99"**, the actual input value is substituted in the message in place of the "99" to give the user as much information as possible on the exact error condition encountered.

Rule Sequence

Rules are presented in the same general order as the fields are entered on the screen. However, error and warning messages do not display until the crash is validated.

Crash Data

Rule #	Beg. Year	Rule Invoked When:	Rule	Message Displayed when Rule Violated*	Field(s) Highlighted when Rule Violated
001	1985	Serial Number is "null"	Field required	Required field Serial Number missing	Serial Number
098	1985	Serial Number is not "null"	Value entered must be numeric	When entered, Serial Number must be numeric	Serial Number
2001	1985	Serial Number is not null AND County ID is not null AND Crash Year is not "null" AND you are working in a Preliminary Crash table (on either the primary or the local database)	Combination of Serial Number / County / Year must not be the same as the values in another crash in the Preliminary Crash table on whichever database you are currently using (Primary or Local)	A crash already exists with this serial number, county and year value	Serial Number Crash Year County ID

Rule #	Beg. Year	Rule Invoked When:	Rule	Message Displayed when Rule Violated*	Field(s) Highlighted when Rule Violated
2002	1985	Serial Number is not "null" AND County ID is not "null" AND Crash Year is not "null" AND you are working in the primary database	Combination of Serial Number / County / Year must not be the same as the values in another Crash in the Reportable Crash table in the Primary database	A crash already exists with this serial number, county and year value	Serial Number Crash Year County ID
004	1985	Crash Month is "null"	Field required	Required field Crash Month missing	Crash Month
006	1985	Crash Month is not "null"	Value must be in list: "01-12"	Crash month must be a valid month number (01-12)	Crash Month
003	1985	Crash Day is "null"	Field required	Required field Crash Day missing	Crash Day
005	1985	Crash Year is "null"	Field required	Required field Crash Year missing	Crash Year
008	1985	Crash Year is not "null"	Value must be >= "1985"	Year value must be at least 1985	Crash Year
007	1985	Crash Month is not "null" AND Crash Day is not "null "AND Crash Year is not "null"	Combination of three fields must be a valid date	Combination of month, day and year do not represent a valid date	Crash Month Crash Day Crash Year
009	1985	Crash Month is not "null" AND Crash Day is not "null "AND Crash Year is not "null"	Combination of three fields must be a date that is <= "current date"	Future date value invalid	Crash Month Crash Day Crash Year
082	1985	Road Character Code <> "9" AND Crash Hour is not "null" AND Light Condition Code is not "null" AND Crash Month is not "null"	Combination of Crash Hour, Light Condition and Crash Month must be in the Crash Hour - Light Condition cross-reference table where the entry is valid as of the crash date	Combination of Crash Hour, Light Condition and Crash Month not found on the cross-reference table	Crash Month Crash Hour Light Condition

Rule #	Beg. Year	Rule Invoked When:	Rule	Message Displayed when Rule Violated*	Field(s) Highlighted when Rule Violated
083	1985	Road Character Code <> "9" AND Crash Hour is not "null" AND Light Condition Code is not "null" AND Crash Month is not "null"	Combination of Crash Hour, Light Condition and Crash Month must be in the Crash Hour - Light Condition cross-reference table where the entry is valid as of the crash date and the Validity Indicator on the entry is "W".	Warning - please review combination of Crash Hour, Light Condition and Crash Month	Crash Month Crash Hour Light Condition
099	1985	Crash Hour is "null"	Field required	Required field CrashHourNo missing	Crash Hour
100	1985	Crash Hour is not "null"	Value entered must be on Crash Hour lookup table where the entry is valid as of the crash date.	CRASH_HR_NO = "99" was not found in CRASH_HR or is not valid as of the crash date	Crash Hour
010	1985	County ID is "null"	Field required	Required field County ID missing	County
011	1985	County ID is not "null"	Value entered must be on County lookup table, where the entry is valid as of the crash date	CNTY_ID = "99" was not found in CNTY or is not valid as of the crash date	County
024	2003	Crash Year is not "null" AND Highway Number is not "null" AND Roadway Number is not "null" AND Mileage Type is not "null" AND Milepoint Number is not "null" AND County ID is not "null"	County value entered must match County value on HWY_SEG_HIST table for this highway segment for the Crash Year	County value entered doesn't match County value for this highway / milepoint for this year in TransInfo	County
012	1985	City Section ID is not "null"	Value entered must be in City lookup table, where the entry is valid as of the crash date.	CITY_SECT_ID = "999" was not found in CITY_SECT or is not valid as of the crash date	City

Rule #	Beg. Year	Rule Invoked When:	Rule	Message Displayed when Rule Violated*	Field(s) Highlighted when Rule Violated
101	2003	Crash Year is not "null" AND Highway Number is not "null" AND Roadway Number is not "null" AND Mileage Type is not "null" AND Milepoint Number is not "null"	City value entered must match City value on HWY_SEG_HIST table for this highway segment for the crash year	City value entered doesn't match City value for this highway / milepoint for this year in TransInfo	City
013	1985	City Section ID is not "null" AND County ID is not "null"	Combination of City Section ID and County ID must exist on City-County Xref table, where the entry is valid as of the crash date	Combination of CITY_SECT_ID = '999' and CNTY_ID = "99" not valid in the CITY_SECT__CNTY cross-reference table	City County
143	1985	City Section ID = "0"	City Section ID must not = "0"	When entered, City must be > 0	City
014	1985	Urban Area Code is not "null"	Value must be in Urban Area lookup table, where the entry is valid as of the crash date	URB_AREA_CD = "99" was not found in URB_AREA or is not valid as of the crash date	Urban Area
017	2003	Crash Year is not "null" AND Highway Number is not "null" AND Roadway Number is not "null" AND Mileage Type is not "null" AND Milepoint Number is not "null"	Urban Area value entered must match Urban Area value on HWY_SEG_HIST table for this highway segment for the Crash Year	Urban area value entered doesn't match urban area value for this highway / milepoint for this year in TransInfo	Urban Area
015	1985	Urban Area Code is not "null" AND County ID is not "null"	Combination of Urban Area Code and County ID must exist on Urban Area – County XREF table, where the entry is valid as of the crash date	Combination of CNTY_ID = "99" and URB_AREA_CD = "99" not valid in URB_AREA__CNTY cross-reference table	Urban Area County

Rule #	Beg. Year	Rule Invoked When:	Rule	Message Displayed when Rule Violated*	Field(s) Highlighted when Rule Violated
016	1985	Urban Area Code is not "null" AND City Section ID is not "null"	Combination of Urban Area Code and City Section ID must exist on Urban Area – City Section XREF table, where the entry is valid as of the crash date.	Combination of CITY_SECT_ID = "999" and URB_AREA_CD = "99" not valid in the URB_AREA__CITY_SECT cross-reference table	Urban Area City
018	1997	Functional Class is "null"	Field Required	Required field FunctionalClassificationId missing	Functional Class
019	1985	Functional Class is not "null"	Value must be in Functional Class lookup table where the entry is valid as of the crash date	Functional Class not in lookup table or not valid as of crash date.	Functional Class
020	2003	Crash Year is not "null" AND Highway Number is not "null" AND Roadway Number is not "null" AND Mileage Type is not "null" AND Milepoint Number is not "null" AND Functional Class is not "null"	Functional Class value entered must match Functional Class value on HWY_SEG_HIST table for this highway segment for the Crash Year	Functional Class value entered doesn't match functional class value for this highway / milepoint for this year in TransInfo	Functional Class
095	1997	Functional Classification Code is < "10"	Urban Area Code must be "null"	Urban Area value indicates urban area but Functional Class value indicates rural area	Functional Class Urban Area
096	1997	Functional Classification Code is > "09" and Urban Area Code is "null"	Urban Area Code is required	Urban Area value indicates rural area but Functional Class value indicates urban area	Functional Class Urban Area

Rule #	Beg. Year	Rule Invoked When:	Rule	Message Displayed when Rule Violated*	Field(s) Highlighted when Rule Violated
022	2003	Crash Year is not "null" AND Highway Number is not "null" AND Roadway Number is not "null" AND Mileage Type is not "null" AND Milepoint Number is not "null"	NHS value entered must match NHS value on HWY_SEG_HIST table for this highway segment for this year	NHS value entered doesn't match NHS value for this highway / milepoint for this year in TransInfo	NHS Flag
115	1985	NHS Flag is not "null"	Value entered must be "0" or "1"	NationalHwySystemFlag value must be "1" for Yes or "0" for No	NHS Flag
023	1985	Highway Number is not "null"	Highway Number value entered must be in the Highway History lookup table where the entry is valid as of the crash date	HWY_NO = "999" was not found in HWY_HIST or is not valid as of the crash date	Highway Number
136	1985	Highway Number, Street Number, and Recreational Road Number are blank	Must Exist	Either a Highway, Street or Recreational Road must be specified	Highway Number, Street Number, Recreational Road
142	2003	Lower priority Highway is entered	Highest priority Highway in Common Alignment must be entered	A different Highway in Common Alignment has a higher priority	Highway Number
025	1985	Roadway Number is not "null"	Roadway Number value entered must be in the Roadway lookup table where the entry is valid as of the crash date	RDWY_NO = "9" was not found in RDWY_NO or is not valid as of the crash date	Roadway Number
026	1985	Highway Number is "null"	Roadway Number must be "null"	Roadway Number must be "null" when the Highway Number is "null"	Roadway Number
102	1985	Highway Number is not "null"	Roadway Number is required	Roadway Number is required when Highway Number is entered	Roadway Number

Rule #	Beg. Year	Rule Invoked When:	Rule	Message Displayed when Rule Violated*	Field(s) Highlighted when Rule Violated
027	1985	Highway Component Code is not "null"	Value entered must be in the Highway Component lookup table where the entry is valid as of the crash date	HWY_COMPNT_CD = "9" was not found in HWY_COMPNT or is not valid as of the crash date	Highway Component
028	1985	Highway Number is "null"	Highway Component must be "null"	Highway Component Code must be null when the Highway Number is "null"	Highway Component
033	1985	Road Connection Number is not "null"	Highway Component must equal "6"	Highway Component must be "6" if a Road Connection value is specified	Highway Component
138	1985	Highway Component Code = "6" and Road Connection Number is null, not numeric, or <= "0"	Invalid Road Connection Number value	Highway Component = "6"	Highway Component; Road Connection
103	1985	Highway Number is not "null"	Highway Component is required	Highway Component is required when Highway Number is entered	Highway Component
146	2003	Highway Component <> '1' and Highway Inventory table for this year indicates couplet exists at coded milepoint	Mismatch between Highway Component value and Lookup Table	Highway Couplet begins or ends at this milepoint. Please confirm whether crash occurred on or off the couplet, and confirm Highway Component field value	Highway Component; Mile Point
029	1985	Mileage Type Code is not "null"	Value entered must be in the Mileage Type lookup table where the entry is valid as of the crash date	MLGE_TYP_CD = "9" was not found in MLGE_TYP or is not valid as of the crash date	Mileage Type
030	1985	Highway Number is "null"	Mileage Type Code must be "null"	Mileage Type Code must be "null" when the Highway Number is "null"	Mileage Type

Rule #	Beg. Year	Rule Invoked When:	Rule	Message Displayed when Rule Violated*	Field(s) Highlighted when Rule Violated
031	2003	Crash Year is not "null" AND Highway Number is not "null" AND Roadway Number is not "null" AND Mileage Type is not "null" AND Milepoint Number is not "null"	Mileage Type value entered must match Mileage Type value on HWY_SEG_HIST table for this highway segment for the Crash Year	Mileage Type value entered doesn't match Mileage Type value for this highway / milepoint for this year in TransInfo	Mileage Type
104	1985	Highway Number is not "null"	Mileage Type Code is required	Mileage Type Code is required when Highway Number is entered	Mileage Type
032	1985	Road Connection Number is not "null"	Value must be numeric	When entered, Road Connection Number must be numeric	Connection Number
139	2007	Highway Number is null and LRS Value is not null	LRS Value must be null when Highway Number is null	Warning - the LRS value is not blank. Please check value entered.	LRS, Highway Number
105	1985	Latitude Degrees is not "null"	Value entered must be between "41" and "47" inclusive	When entered, Latitude Degrees must be a whole number between "41" and "47", inclusive	Latitude Degrees
106	1985	Latitude Minutes is not "null"	Value entered must be between "0" and "60" inclusive	When entered, Latitude Minutes must be a whole number between "0" and "60", inclusive	Latitude Minutes
125	1985	Latitude Degrees is "null"	Latitude Minutes must be "null"	Latitude Minutes must be "null" when Latitude Degrees is "null"	Latitude Minutes
107	1985	Latitude Seconds is not "null"	Value entered must be between "0.00" and "60.00" inclusive.	When entered, Latitude Seconds must be a numeric value between "0.00" and "60.00", inclusive	Latitude Seconds
126	1985	Latitude Degrees is "null"	Latitude Seconds must be "null"	Latitude Seconds must be "null" when Latitude Degrees is "null"	Latitude Seconds

Rule #	Beg. Year	Rule Invoked When:	Rule	Message Displayed when Rule Violated*	Field(s) Highlighted when Rule Violated
108	1985	Longitude Degrees is not "null"	Value entered must be between "-123" and "-117" inclusive. (Note: positive values entered are automatically converted to negative before value is stored.)	When entered, Longitude Degrees must be a whole number between "123" and "117" inclusive, or between "-123" and "-117" inclusive	Longitude Degrees
109	1985	Longitude Minutes is not "null"	Value entered must be between "0" and "60" inclusive	When entered, Longitude Minutes must be a whole number between "0" and "60", inclusive	Longitude Minutes
127	1985	Longitude Degrees is "null"	Longitude Minutes must be "null"	Longitude Minutes must be "null" when Longitude Degrees is "null"	Longitude Minutes
110	1985	Longitude Seconds is not "null"	Value entered must be between "0.00" and "60.00" inclusive.	When entered, Longitude Seconds must be a numeric value between "0.00" and "60.00", inclusive	Longitude Seconds
128	1985	Longitude Degrees is "null"	Longitude Seconds must be "null"	Longitude Seconds must be "null" when Longitude Degrees is "null"	Longitude Seconds
034	1985	Special Jurisdiction ID is not "null"	Value entered must be in the Special Jurisdiction lookup table where the entry is valid as of the crash date	SPECL_JRSDCT_ID = "99" was not found in SPECL_JRSDCT or is not valid as of the crash date	Special Jurisdiction
137	1985	County is not blank and Special Jurisdiction is not "blank"	The combination of County ID and Special Jurisdiction ID must be in the cross-reference table	Combination of CNTY_ID = "99" and SPECL_JRSDCT_ID = "99" not valid in the SPECL_JRSDCT__CNTY cross-reference table	Special Jurisdiction County

Rule #	Beg. Year	Rule Invoked When:	Rule	Message Displayed when Rule Violated*	Field(s) Highlighted when Rule Violated
159	2005	City Section, Highway Number and Recreational Road Name are null but Special Jurisdiction is not null	Recreational Road Name must be entered	First Street must not be blank or 00000 for non-system crashes that occur outside city limits	Recreational Road Name
136	1985	Highway is "blank" and Street is "blank" and Recreational Road is "blank"	Street or Highway or Recreational Road must be present	Either a Highway, Street or Recreational Road must be specified	Street Number
149	2006	City Section ID is not "null" and Special Jurisdiction ID is null	Street Number must be present	First Street must not be blank or '00000' for crashes that occur within city limits	Street Number
150	2006	City Section ID is not "null" and Special Jurisdiction ID is null	Street Number is not in List	First Street must not be blank or '00000' for crashes that occur within city limits	Street Number
154	2006	Street Number value is wrong length	Violation of required String Length	When entered, Street Number must be five digits	Street Number
157	1985	Multnomah or Washington county road number doesn't exist in Lookup Table	Invalid Street Number	Street Number value not found in Lookup Table or not valid as of the crash date	Street Number
151	2005	City Section ID, Highway Number and Special Jurisdiction ID are null	Street Number must be present	First Street must not be blank or '00000' for non-system crashes that occur outside city limits	Street Number, City Section
152	2006	City Section ID, Highway Number and Special Jurisdiction ID are null	Street Number is not in List	First Street must not be blank or '00000' for non-system crashes that occur outside city limits	Street Number, City Section

Rule #	Beg. Year	Rule Invoked When:	Rule	Message Displayed when Rule Violated*	Field(s) Highlighted when Rule Violated
036	2002	(County <> "26" or City < "241") AND Road Character = "1" AND Highway Component <> "6" AND Street <> "" AND Intersecting Street <> "" AND Intersecting Street <> "00000" AND Street <= "99999" AND Intersecting Street <= "99999"	Street # must be < = Intersecting St #	First street number must be less than the intersecting street number	Street Number Intersecting Street
038	1985	Road Character <> "1" AND Compass Direction Code <> "0" AND Milepoint Number is null	Distance from Intersection must be greater than "zero"	Distance from Intersection must be > "0" when Road Character <> "1", Compass Direction Code <> "0", and Milepoint is not provided	Distance from Intersection
039	1985	Road Character = "1" AND Milepoint Number is null	Distance from Intersection must be "zero"	Distance from Intersection must = "0" when Road Character = "1"	Distance from Intersection
144	2006	Highway Number is not null and Distance From Nearest Intersection is not null	Distance from Intersection must be null	Distance From Nearest Intersection must be blank if crash occurred on State Highway System	Distance from Intersection
040	1985	Compass Direction Code is "null"	Value required	Required field Compass Direction Code missing	Direction from Intersection
041	1985	Compass Direction Code is not "null"	Value entered must be in Compass Direction lookup table where the entry is valid as of the crash date	CMPSS_DIR_CD was not found in CMPSS_DRCT or is not valid as of the crash date	Direction from Intersection
042	1985	Road Character = "1" AND Impact Location Code <= "04"	Direction from Intersection must = "9"	When Road Character = "1" and Impact Location Code <="04" then Direction from Intersection must = "9"	Direction from Intersection

Rule #	Beg. Year	Rule Invoked When:	Rule	Message Displayed when Rule Violated*	Field(s) Highlighted when Rule Violated
043	1985	Highway Number is "null" AND City Section ID is not "null" AND Impact Location Code > "04"	Direction from Intersection must be < "9"	When Impact Location Code > "04" and Highway No. is "null" and City ID is not "null", then Direction from Intersection must be < "9"	Direction from Intersection
048	1985	Road Character = 1 and Turning Leg Qty = "0" and Location of Impact = 07, 08 or 09	If Road Character = "1", then Location of Impact must be 01,02,03,04,05, or 06	Location of Impact must be 01,02,03,04,05,06 when Road Character = 1	Location of Impact, Road Character, Turning Legs
044	1985	Milepoint Number is not "null"	Milepoint Number must be numeric.	When entered, Milepoint Number must be numeric	Milepoint
131	1985	Milepoint Number is not "null"	Milepoint Number must be <= "999.99"	When entered, the milepoint value must be <= "999.99"	Milepoint
133	1985	Highway Number is not "null"	Milepoint Number must be present	Milepoint is required when Highway Number is entered	Milepoint
130	2003	Crash Year is not "null" AND Highway Number is not "null" AND Milepoint Number is not "null"	Milepoint value entered must exist on HWY_SEG_HIST table for this highway for the Crash Year	Milepoint value not valid for the specified Highway in the specified Crash Year according to TransInfo	Milepoint
045	1985	Posted Speed Limit Value is not "null"	Value must be <= "70"	When entered, Posted Speed Limit value must be < "70"	Posted Speed Limit
046	1985	Road Character Code is "null"	Field Required	Required field Road Character Code missing	Road Character
120	2016	Crash Year = 2016 and Crash Month < "03"	Posted Speed must not be greater than 65 prior to March 2016	For this Crash Date, valid Posted Speeds are: 5, 10, 15, 20, 25, 30, 35, 40, 45, 50, 55, 60, 65	Posted Speed
122	2016	Crash Year < 2016	Posted Speed must not be greater than 65 prior to 2016	For this Crash Date, valid Posted Speeds are: 5, 10, 15, 20, 25, 30, 35, 40, 45, 50, 55, 60, 65	Posted Speed

Rule #	Beg. Year	Rule Invoked When:	Rule	Message Displayed when Rule Violated*	Field(s) Highlighted when Rule Violated
121	2016	Posted Speed > "65" and Highway Number <> 002, 006, 070, or 456	Posted Speed must not be greater than 65 for this Highway	For this Highway, valid Posted Speeds are: 5, 10, 15, 20, 25, 30, 35, 40, 45, 50, 55, 60, 65	Posted Speed
047	1985	Road Character Code is not "null"	Value entered must be in Road Character lookup table where the entry is valid as of the crash date	RD_CHAR_CD = "9" was not found in RD_CHAR or is not valid as of the crash date	Road Character
049	1985	Off Roadway Flag is not "null"	Value entered must be "0" or "1".	Off Roadway Flag value must be "1" for Yes or "0" for No	Off Road Flag
113	1985	Off Roadway Flag is "null"	Field Required	Required field [field name] missing	Off Road Flag
147	1985	Crash Type = Fixed Object and Collision Type = Fixed Object and Off Roadway Flag is "null" and Event Code is not in required list	Off Roadway Flag	This is a rare occurrence. Please verify whether this "fixed object crash" occurred on or off the roadway	Off Road Flag
050	1985	Intersection Type Code is not "null"	Value entered must be in the Intersection Type lookup table where the entry is valid as of the crash date	ISECT_TYP_CD = "9" was not found in ISECT or is not valid as of the crash date	Intersection Type
051	1985	Road Character Code <> "1"	Intersection Type must be null	Intersection Type Code must be null when the Road Character does not indicate Intersection ("1")	Intersection Type
053	1985	Road Character Code = "1"	Intersection Related Flag must = "0"	Intersection Related Flag must be "0" when Road Character = "1"	Intersection Related Flag
116	1985	Intersection Related Flag is not "null"	Value entered must be "0" or "1"	Intersection Related Flag value must be "1" for Yes or "0" for No	Intersection Related Flag
117	1985	Roundabout Flag is not "null"	Value entered must be "0" or "1"	Roud About Flag value must be "1" for Yes or "0" for No	Roundabout Flag

Rule #	Beg. Year	Rule Invoked When:	Rule	Message Displayed when Rule Violated*	Field(s) Highlighted when Rule Violated
118	1985	Driveway Involved Flag is not "null"	Value entered must be "0" or "1"	DrivewayRelatedFlag value must be "1" for Yes or "0" for No	Driveway Involved Flag
056	1985	Road Character Code = "1"	Number of Lanes must be "null"	Number of Lanes must be "null" when Road Character indicates Intersection (1)	Number of Lanes
057	1985	Road Character Code <> "1"	Number of Lanes must be numeric	Number of Lanes must be specified (numeric value) when Road Character is something other than Intersection (1)	Number of Lanes
059	1985	Road Character Code = "1" and Driveway Related Flag <>"1"	Number of Turning Legs must be numeric	Number of Legs must be numeric when Road Character is Intersection (1)	Number of Turning Legs
114	1985	Road Character Code <> "1" AND Turning Legs Quantity is not "null" AND Turning Legs Quantity <> "0"	Number of Turning Legs must be "null"	Number of Legs must be "null" or "zero" when Road Character is something other than Intersection (1)	Number of Turning Legs
060	1985	Road Character Code = "1"	Median Type Code must be "null"	Median Type Code must be "null" when Road Character indicates Intersection (1)	Median Type
061	1985	Median Type Code is not null AND Road Character Code <> "1"	Value entered must be in Median Type lookup table and must be valid as of the crash date	MEDN_TYP_CD = "9" was not found in MEDN_TYP or is not valid as of the crash date	Median Type
129	1985	Road Character Code <> "1" AND Median Type is null	Median Type is required	Median Type Code is required when Road Character <> "1" (Intersection)	Median Type
062	1985	Impact Location Code is not "null"	Value entered must be in the lookup table where the entry is valid as of the crash date	IMPCT_LOC_CD = "99" was not found in IMPCT_LOC or is not valid as of the crash date	Location of Impact

Rule #	Beg. Year	Rule Invoked When:	Rule	Message Displayed when Rule Violated*	Field(s) Highlighted when Rule Violated
063	1985	Highway Number is not "null"	Impact Location Code must be <= "14"	When Highway Number is entered, Impact Location Code must be a numeric value <="14"	Location of Impact
064	1985	Highway Number is not "null" AND City Section ID is not "null" AND City Section ID > "0"	Impact Location Code must be <= "9"	When Highway Number is not entered but City Identifier is entered, Impact Location code must be a numeric value <="9"	Location of Impact
065	1985	(City Section ID is null or City Section ID = "0") AND Highway Number is null AND Road Character Code <> "1"	Impact Location Code must <=" 7"	When Highway Number is not entered and City Identifier is not entered, Impact Location code must be a numeric value <="7"	Location of Impact
134	1985	City Section ID is "null" AND Highway Number is "null" AND Road Character Code = "1" AND Turning Legs Quantity = "0"	Impact Location must be <= "7"	When not on a highway and not in a city, and not at an intersection with turning legs, Impact Location code must be <="7"	Location of Impact
135	1985	City Section ID is "null" AND Highway Number is "null" AND Road Character Code = "1" AND Turning Legs Quantity > 0	Impact Location must be <= "9"	When not on a highway and not in a city, but it is at an intersection with turning legs, Impact Location Code must be <="9"	Location of Impact
066	1985	Crash Type Code is "null"	Field required	Required field Crash Type Code missing	Crash Type
067	1985	Crash Type Code is not "null"	Value entered must be in the Crash Type lookup table where the entry is valid as of the crash date	CRASH_TYP_CD = "9" was not found in CRASH_TYP or is not valid as of the crash date	Crash Type

Rule #	Beg. Year	Rule Invoked When:	Rule	Message Displayed when Rule Violated*	Field(s) Highlighted when Rule Violated
089	2002	Crash Type Code = "4"	One of Crash-level Event code values must be "15" or "16"	When Crash Type Code = "4" (Train), one of Crash-level Event code values must be "15" or "16"	Crash Type
090	2002	Crash Type Code = "4"	At least one Vehicle on this Crash must have a Vehicle-level Event Code value of "17", "18", or "19"	If Crash Type Code = "4" (Train), at least one vehicle on this crash must have a Vehicle-level Event Code value of "17", "18", or "19"	Crash Type
091	1985	Crash Type Code = "8"	At least one Vehicle on this Crash must have a Vehicle-level Event Code value that is between "37" and "66", or between "77" and "79", or be = "88", or be = "100"	When Crash Type Code = "8" (Fixed Object), at least one Vehicle on this crash must have a Vehicle-level Event Code value that is between "37" and "66", or between "77" and "79", or be = "88", or be = "100"	Crash Type
132	1985	Count of Vehicles Coded < "2"	At least two vehicles must be coded when the crash type indicates a multiple-vehicle crash	At least two vehicles must be coded when the crash type is "1, 2, A, B, C, D, E, F, G, H, I or J"	Crash Type
148	2006	Crash Type Code = "H" and Highway Number is not null and Highway Component = "0" or "1"	Not in List	Crash Type code 'H' is not valid for crashes coded to mainline Interstate highway	Crash Type
649	1985	Crash Type Code = "3"	None of the Participant Event Codes can be "05" (sub-ped)	If Crash Type Code = "3" (Pedestrian) then none of the Participant Event Codes can be "05" (sub-ped)	Crash Type [Participant Event]
068	1985	Collision Type Code is "null"	Field Required	Required field Collision Type Code missing	Collision Type
069	1985	Collision Type Code is not "null"	Value entered must be in the Collision Type lookup table where the entry is valid as of the crash date	COLLIS_TYP_CD = "9" was not found in COLLIS_TYP or is not valid as of the crash date	Collision Type

Rule #	Beg. Year	Rule Invoked When:	Rule	Message Displayed when Rule Violated*	Field(s) Highlighted when Rule Violated
070	1985	Collision Type Code is not "null" AND Crash Type Code is not "null"	Combination of Collision Type Code and Crash Type Code must be in the Collision Type - Crash Type cross-reference table where the entry is valid as of the crash date	Combination of COLLIS_TYP_CD = "9" and CRASH_TYP_CD = "9" not valid in the CRASH_COLLIS_TYP_XREF cross-reference table	Collision Type Crash Type
071	1985	Collision Type Code is not "null "AND Crash Type Code is not "null"	Combination of Collision Type Code and Crash Type Code exists in the Collision Type - Crash Type cross-reference table where the entry is valid as of the crash date and the Validity Indicator on the entry is "W"	Warning – combination of COLLIS_TYP_CD = "9" and CRASH_TYP_CD = "9" must be confirmed, please review	Collision Type Crash Type
072	1985	Crash Severity Code is "null"	Field required	Required field Crash Severity Code missing	Crash Severity
073	1985	Crash Severity Code is not "null"	Value entered must be in the Crash Severity lookup table where the entry is valid as of the crash date	CRASH_SVRTY_CD = "9" was not found in CRASH_SVRTY or is not valid as of the crash date	Crash Severity
627	1985	Crash Severity Code = "2"	At least one Participant must be coded with an Injury Severity Code Value of "1"	Crash Severity indicates Fatal Crash, but no Participant was coded with a fatal injury	Crash Severity
629	1985	Crash Severity Code = "4"	At least one Participant must be coded with an Injury Severity Code Value of ("2", "3", or "4")	Crash Severity indicates at least one Participant was injured, but no Participant was coded with an injury	Crash Severity
074	1985	Weather Condition Code is "null"	Field required	Required field Weather Condition Code missing	Weather Condition
075	1985	Weather Condition Code is not "null"	Value entered must be in the Weather Condition lookup table where the entry is valid as of the crash date	WTHR_COND_CD = "9" was not found in WTHR_COND or is not valid as of the crash date	Weather Condition

Rule #	Beg. Year	Rule Invoked When:	Rule	Message Displayed when Rule Violated*	Field(s) Highlighted when Rule Violated
076	1985	Road Surface Condition Code is "null"	Field required	Required field Road Surface Condition Code missing	Road Surface Condition
077	1985	Road Surface Condition Code is not "null"	Value entered must be in the Road Surface Condition lookup table where the entry is valid as of the crash date	RD_SURF_COND_CD = "9" was not found in RD_SURF_COND or is not valid as of the crash date	Road Surface Condition
078	1985	Weather Condition Code is not "null" AND Road Surface Condition Code is not "null"	Combination of Weather Condition Code and Road Surface Condition Code must be in the Weather Condition - Road Surface Condition cross-reference table where the entry is valid as of the crash date	Combination of WTHR_COND_CD = "9" and RD_SURF_COND_CD = "9" not valid in the RD_SURF_WTHR_COND_XREF cross-reference table	Road Surface Condition Weather Condition
079	1985	Weather Condition Code is not "null" AND Road Surface Condition Code is not "null"	Combination of Weather Condition Code and Road Surface Condition Code must be in the Weather Condition - Road Surface Condition cross-reference table where the entry is valid as of the crash date and the Validity Indicator on the entry is "W"	Warning – combination of WTHR_COND_CD = "9" and RD_SURF_COND_CD = "9" must be confirmed. Please review	Road Surface Condition Weather Condition
080	1985	Light Condition Code is "null"	Field Required	Required field Light Condition Code missing	Light Condition
081	1985	Light Condition Code is not "null"	Value entered must be in the Light Condition lookup table where the entry is valid as of the crash date	LGT_COND_CD = "9" was not found in LGT_COND or is not valid as of the crash date	Light Condition
084	1985	Traffic Control Device Code is "null"	Field Required	Required field Traffic Control Device Code missing	Traffic Control Device

Rule #	Beg. Year	Rule Invoked When:	Rule	Message Displayed when Rule Violated*	Field(s) Highlighted when Rule Violated
085	1985	Traffic Control Device Code is not "null"	Value entered must be in the Traffic Control Device lookup table where the entry is valid as of the crash date	TRAF_CNTL_DEVICE_CD = "9" was not found in TRAF_CNTL_DEVICE or is not valid as of the crash date	Traffic Control Device
119	1985	Traffic Control Functional Flag is not "null"	Value entered must be "0" or "1"	TrafficControlFunctionalFlag value must be "1" for Yes or "0" for No	Traffic Control Functional Flag
087	1985	Investigating Agency Code is not "null"	Value entered must be in the Investigating Agency lookup table where the entry is valid as of the crash date	INVSTG_AGY_CD = "9" was not found in INVSTG_AGY or is not valid as of the crash date	Investigative Agency
092	1985	At least one Cause Code has been entered at the Crash level	For each Crash-level cause code entered: Value entered must be on the Cause lookup table where the entry is valid as of the crash date and the entry is valid for use at the Crash level	CAUSE_CD = "99" was not found in CAUSE or is not valid for use as of the crash date, or is not valid for use at this level	Crash Cause (1) Crash Cause (2) Crash Cause (3)
088	1985	At least one Event Code has been entered at the Crash level	For each Crash-level event code entered: Value entered must be on the Event lookup table where the entry is valid as of the crash date and the entry is valid for use at the Crash level	EVNT_CD = "999" was not found in EVNT or is not valid for use as of the crash date, or is not valid for use at this level	Crash Event (1) Crash Event (2) Crash Event (3)
093	1985	School Zone Indicator is not "null"	Value entered must be "0", "1", or "9"	School Zone Ind must be blank, "0" (No), "1" (Yes), or "9" (Unknown)	School Zone Indicator
094	1985	Work Zone Indicator is not "null"	Value entered must be "0", "1", or "9"	Work Zone Ind must be blank, "0" (No), "1" (Yes), or "9" (Unknown)	Work Zone Indicator

Vehicle Data

Rule #	Beg. Year	Rule Invoked When:	Rule	Message Displayed when Rule Violated	Field(s) Highlighted when Rule Violated
097	1985	No vehicles entered	At least one vehicle must be entered	No vehicle is coded on crash. At least one vehicle is required	N/A
303	1985	Vehicle Ownership Code is "null"	Field required for each Vehicle	Required field Vehicle Ownership Code missing	Vehicle Ownership
304	1985	Vehicle Ownership Code is not "null"	Value entered must be in the Vehicle Ownership lookup table where the entry is valid as of the crash date	VHCL_OWNSHP_CD = "9" was not found in VHCL_OWNSHP or is not valid as of the crash date	Vehicle Ownership
306	1985	Vehicle Use Code is not "null"	Value entered must be in the Vehicle Use lookup table where the entry is valid as of the crash date	VHCL_USE_CD = "9" was not found in VHCL_USE or is not valid as of the crash date	Vehicle Use
301	1985	Vehicle Type Code is "null"	Field required for each Vehicle	Required field Vehicle Type Code missing	Vehicle Type
302	1985	Vehicle Type Code is not "null"	Value entered must be in the Vehicle Type lookup table where the entry is valid as of the crash date	VHCL_TYP_CD was not found in VHCL_TYP or is not valid as of the crash date	Vehicle Type
307	1985	Vehicle Type Code is not "null" and Vehicle Use Code is not "null"	Combination of Vehicle Type Code and Vehicle Use Code must be in the Vehicle Type - Vehicle Use Cross-Reference Table where the entry is valid as of the crash date	Combination of VHCL_TYP_CD = "99" and VHCL_USE_CD = "9" not valid in the VHCL_USE_VHCL_TYP_XREF cross-reference table	Vehicle Type Vehicle Use

Rule #	Beg. Year	Rule Invoked When:	Rule	Message Displayed when Rule Violated	Field(s) Highlighted when Rule Violated
308	1985	Vehicle Type Code is not "null "and Vehicle Use Code is not "null"	Combination of Vehicle Type Code and Vehicle Use Code must be in the Vehicle Type - Vehicle Use Cross-Reference Table where the entry is valid as of the crash date and the entry has a Validity Indicator value of "W"	Warning – combination of VHCL_TYP_CD = "99" and VHCL_USE_CD = "9" must be confirmed. Please review	Vehicle Type Vehicle Use
334	1985	Emergency Vehicle Use Flag is not "null"	Value entered must be "0" or "1"	EmergencyVehicleUseFlag value must be "1" for Yes or "0" for No	Emergency Vehicle Use Flag
311	1985	Trailer Quantity is not "null"	Value entered must be numeric	When entered, Trailer Quantity must be numeric	Trailer Quantity
339	1985	Vehicle Type Code = "01" and Trailer Quantity is not "null"	Trailer Quantity must be one of the following values: "0","1","8", or "9"	Warning: trailer quantity unusual for Vehicle Type "01", please confirm	Trailer Quantity
340	1985	Vehicle Type Code = "02" and Trailer Quantity is not "null"	Trailer Quantity must be "0"	Warning: trailer quantity unusual for Vehicle Type "02", please confirm	Trailer Quantity
341	1985	Vehicle Type Code = "03" and Trailer Quantity is not "null"	Trailer Quantity must be one of the following values: "0", "1" ,"8" , or "9"	Warning: trailer quantity unusual for Vehicle Type "03", please confirm	Trailer Quantity
342	1985	Vehicle Type Code = "04" and Trailer Quantity is not "null"	Trailer Quantity must be one of the following values: "0", "1", "2", "3", "8" or "9"	Warning: trailer quantity unusual for Vehicle Type "04", please confirm	Trailer Quantity

Rule #	Beg. Year	Rule Invoked When:	Rule	Message Displayed when Rule Violated	Field(s) Highlighted when Rule Violated
343	1985	Vehicle Type Code = "05" and Trailer Quantity is not "null"	Trailer Quantity must be one of the following values: "0", "1", "2", "8" or "9"	Warning: trailer quantity unusual for Vehicle Type "05", please confirm	Trailer Quantity
344	1985	Vehicle Type Code = "06"' and Trailer Quantity is not null	Trailer Quantity must be one of the following values: "0", "1", "2", "8" or "9"	Warning: trailer quantity unusual for Vehicle Type "06". Please confirm	Trailer Quantity
345	1985	Vehicle Type Code = "07" and Trailer Quantity is not "null"	Trailer Quantity must be one of the following values: "0", "1" ,"8" , or "9"	Warning: trailer quantity unusual for Vehicle Type "07", please confirm	Trailer Quantity
346	1985	Vehicle Type Code = "08" and Trailer Quantity is not "null"	Trailer Quantity must be one of the following values: "0", "1" ,"8" , or "9"	Warning: trailer quantity unusual for Vehicle Type "08", please confirm	Trailer Quantity
347	1985	Vehicle Type Code = "09" and Trailer Quantity is not "null"	Trailer Quantity must be one of the following values: "0", "1" ,"8" , or "9"	Warning: trailer quantity unusual for Vehicle Type "09", please confirm	Trailer Quantity
348	1985	Vehicle Type Code = "10" and Trailer Quantity is not "null"	Trailer Quantity must be one of the following values: "0", "1" ,"8" , or "9"	Warning: trailer quantity unusual for Vehicle Type "10, please confirm	Trailer Quantity
349	1985	Vehicle Type Code = "11" and Trailer Quantity is not "null"	Trailer Quantity must be one of the following values: "0", "1" ,"8" , or "9"	Warning: trailer quantity unusual for Vehicle Type "11", please confirm	Trailer Quantity
350	1985	Vehicle Type Code = "13" and Trailer Quantity is not null	Trailer Quantity must be one of the following values: "0", "1" ,"8" , or "9"	Warning: trailer quantity unusual for Vehicle Type "13", please confirm	Trailer Quantity
351	1985	Vehicle Type Code = "14" and Trailer Quantity is not "null"	Trailer Quantity must be one of the following values: "0", "1" ,"8" , or "9"	Warning: trailer quantity unusual for Vehicle Type "14", please confirm	Trailer Quantity

Rule #	Beg. Year	Rule Invoked When:	Rule	Message Displayed when Rule Violated	Field(s) Highlighted when Rule Violated
352	1985	Vehicle Type Code = "15" and Trailer Quantity is not "null"	Trailer Quantity must be one of the following values: "0", "1" ,"8" , or "9"	Warning: trailer quantity unusual for Vehicle Type "15", please confirm.	Trailer Quantity
353	1985	Vehicle Type Code = "99" and Trailer Quantity is not "null"	Trailer Quantity must be one of the following values: "0", "1", "2", "8" or "9"	Warning: trailer quantity unusual for Vehicle Type "99", please confirm.	Trailer Quantity
332	1985	Vehicle Movement is "null"	Field Required	Required field Movement Code missing	Vehicle Movement
333	1985	Vehicle Movement Code is not "null"	Value entered must be in the Movement lookup table where the entry is valid as of the crash date	MVMNT_CD was not found in MVMNT or is not valid as of the crash date	Vehicle Movement
312	1985	Vehicle Compass Direction From Code is "null"	Field required	Required field Compass Direction From Code missing	Vehicle Compass Dir. From
313	1985	Vehicle Compass Direction From Code is not "null"	Value entered must be in the Compass Direction lookup table where the entry is valid as of the crash date	CMPSS_DIR_CD = "9" was not found in CMPSS_DIR or is not valid as of the crash date	Vehicle Compass Dir. From
314	1985	Vehicle Compass Direction To Code is "null"	Field required	Required field CompassDirectionToCode missing	Vehicle Compass Direction To
315	1985	Vehicle Compass Direction To Code is not "null"	Value entered must be in the Compass Direction lookup table where the entry is valid as of the crash date	CMPSS_DIR_CD = "9" was not found in CMPSS_DIR or is not valid as of the crash date	Vehicle Compass Direction To

Rule #	Beg. Year	Rule Invoked When:	Rule	Message Displayed when Rule Violated	Field(s) Highlighted when Rule Violated
316	1985	Vehicle Movement Code is not ("1" or "2" or "3" or "4") AND Vehicle Compass Direction From Code <> "0" AND Vehicle Compass Direction To Code <> "0"	Combination of Movement Code, Direction From Code and Direction to Code must be valid per formula below	Discrepancy exists between Movement and From or To Direction	Vehicle Movement Vehicle Compass Dir. From Vehicle Compass Dir. To
317	2002	Vehicle Action Code is "null"	Field required	Required field Action Code missing	Vehicle Action
318	1985	Vehicle Action Code is "not" null	Value entered must be in Action lookup table where the entry is valid as of the crash date	ACTN_CD = "999" was not found in ACTN or is not valid for use as of the crash date, or is not valid for use at this level	Vehicle Action
319	1985	Vehicle Movement Code = "6"	Vehicle Action Code must = "11", "12", "13" or "23"	If Vehicle Movement Code = "6" then Vehicle Action Code must = "11", "12", "13" or "23"	Vehicle Action
320	1985	Vehicle Movement Code = "7" or "8"	Vehicle Action Code must = "08", "09", "21", "23" or "32"	If Vehicle Movement Code = "7" or "8" then Vehicle Action Code must = "08", "09", "21", "23" or "32"	Vehicle Action
321	1985	Vehicle Movement Code = "9"	Vehicle Action Code must = "08" or "09"	If Vehicle Movement Code = "9" then Vehicle Action Code must = "08" or "09"	Vehicle Action
323	1985	Any Cause Codes have been entered for a given vehicle	For each Cause Code entered for a vehicle: Value must be on the Cause lookup table where the entry is valid as of the crash date and the entry is valid for use at the Vehicle Level	CAUSE_CD = "99" was not found in CAUSE or is not valid for use as of the crash date, or is not valid for use at this level	Vehicle Cause (1) Vehicle Cause (2) Vehicle Cause (3)

Rule #	Beg. Year	Rule Invoked When:	Rule	Message Displayed when Rule Violated	Field(s) Highlighted when Rule Violated
324	1985	Any Event Codes have been entered for a given vehicle	For each Event Code entered for a vehicle: Value must be on the Event lookup table where the entry is valid as of the crash date and the entry is valid for use at the Vehicle Level	EVNT_CD = "999" was not found in EVNT or is not valid for use as of the crash date, or is not valid for use at this level	Vehicle Event (1) Vehicle Event (2) Vehicle Event (3)
325	1985	Speed Involved Flag is not "null"	Value must be "0" or "1"	SpeedInvolvedFlag value must be 1 for Yes or 0 for No	Vehicle Speed Involved Flag
327	1985	Hit and Run Flag is not "null"	Value must be "0" or "1"	Vehicle Hit And Run Flag value must be "1" for Yes or "0" for No	Vehicle Hit / Run Fag
329	1985	Safety Equipment Used Quantity is not null	Value must be numeric	When entered, Safety Equip Used Qty must be numeric	Safety Equipment Used Quantity
330	1985	Safety Equipment Unused Quantity is not "null"	Value must be numeric	When entered, Vehicle Safety Equip Unused Qty must be numeric	Safety Equipment Unused Quantity
331	1985	Safety Equipment Use Unknown Quantity is not "null"	Value must be numeric	When entered, Vehicle Safety Equip Use Unknwn Qty must be numeric	Safety Equipment Use Unknown Quantity

Participant Data

Rule #	Beg. Year	Rule Invoked When:	Rule	Message Displayed when Rule Violated	Field(s) Highlighted when Rule Violated
653	1985	Participant Type Code is ("0", "1", "2" or "8")	Vehicle Number must be > "00"	When the Participant Type is "0", "1", "2" or "8" a valid Participant Vehicle Number is required	Participant Vehicle Number
661	1985	Participant Type Code is ("3", "4", "5", "6", "7" or "9")	Vehicle Number must be "null"	When the Participant Type is "3", "4", "5", "6", "7" or "9" the Participant Vehicle Number must be "null"	Participant Vehicle Number
601	1985	Participant Type Code is "null"	Field required	Required field Participant Type Code missing	Participant Type
602	1985	Participant Type Code is not "null"	Value entered must be in the Participant Type lookup table where the entry is valid as of the crash date	PARTIC_TYP_CD was not found in PARTIC_TYP or is not valid as of the crash date	Participant Type
604	1985	Crash Type Code = "3"	At least one Participant must have a Participant Type Code value of "3", "4", or "5"	Crash type indicates Pedestrian, but no pedestrian was coded	Participant Type
605	1985	Crash Type Code = "6"	At least one Participant must have a Participant Type Code value of "6" or "7"	Crash type indicates Pedal-cyclist, but no pedal-cyclist was coded	Participant Type
335	1985		There can only be a maximum of one driver (Participant Type Code = "1") per vehicle	More than one driver has been entered for vehicle "99"	Participant Type
680	1985	Participant Type Code = "1"	PVS Number must = "1"	When Participant Type is "1" (Driver), the PVS value must be "01". Resequence participants if necessary	Participant Type

Rule #	Beg. Year	Rule Invoked When:	Rule	Message Displayed when Rule Violated	Field(s) Highlighted when Rule Violated
610	1985	Participant Hit and Run Flag is not "null"	Value must be "0" or "1"	Participant Hit And Run Flag value must be "1" for Yes or "0" for No	Participant Hit / Run Flag
611	1985	Public Employee Flag is not "null"	Value must be "0" or "1"	Public Employee Flag value must be "1" for Yes or "0" for No	Public Employee Flag
614	1985	Sex Code is "null"	Field required	Required field Sex Code missing	Sex
615	1985	Sex Code is not "null"	Value entered must be in the Sex lookup table with an entry that is valid as of the crash date	SEX_CD = "9" was not found in SEX or is not valid as of the crash date	Sex
616	1985	Age is "null"	Field required	Required field Age Value missing	Age
617	1985	Age is not "null"	Value entered must be between "00" and "99" inclusive	Age must be numeric between "00" and "99" inclusive	Age
618	1985	Participant Type Code = "1"	Field Driver License Status required when the Participant Type = "1"	Required field Driver License Status Code missing	Driver License Status
619	1985	Driver License Status Code is not "null"	Value entered must be in the Driver License Status lookup table with an entry that is valid as of the crash date	DRVR_LIC_STAT_CD = "9" was not found in DRVR_LIC_STAT or is not valid as of the crash date	Driver License Status
620	1985	Participant Type Code = "1"	Field Driver Residence Status required when the Participant Type = "1"	Required field Driver Residence Status Code missing	Driver Residence Status

Rule #	Beg. Year	Rule Invoked When:	Rule	Message Displayed when Rule Violated	Field(s) Highlighted when Rule Violated
621	1985	Driver Residence Status Code is not "null"	Value entered must be in the Driver Residence Status lookup table with an entry that is valid as of the crash date	DRVR_RES_STAT_CD was not found in DRVR_RES_STAT or is not valid as of the crash date	Driver Residence Status
622	1985	Injury Severity Code is "null"	Field required	Required field Injury Severity Code missing	Injury Severity
623	1985	Injury Severity Code is not "null"	Value entered must be in the Injury Severity lookup table with an entry that is valid as of the crash date	INJ_SVRTY_CD was not found in INJ_SVRTY or is not valid as of the crash date	Injury Severity
664	1985	Participant Injury Severity Code = "7"	Participant Age Value must be between "00" and "04"	When the Participant's Injury Severity is "7", the Participant Age must be "00" – "04"	Injury Severity Age
624	1985	Injury Severity Code is not "null"	Combination of Injury Severity code value and Crash Severity code value must be in the Crash Severity - Injury Severity cross-reference table with an entry that is valid as of the crash date	Combination of INJ_SVRTY_CD = "9" and CRASH_SVRTY_CD = "9" not valid in the CRASH_INJ_SVRTY_XREF cross-reference table	Crash Severity Injury Severity

Rule #	Beg. Year	Rule Invoked When:	Rule	Message Displayed when Rule Violated	Field(s) Highlighted when Rule Violated
625	1985	Injury Severity Code is not "null"	Combination of Injury Severity code value and Crash Severity code value appears in the Crash Severity - Injury Severity cross-reference table with an entry that is valid as of the crash date and a Validity Indicator of "W"	Warning – combination of INJ_SVRTY_CD = "9" and CRASH_SVRTY_CD = "9" must be confirmed, please review	Crash Severity Injury Severity
630	1985	Participant Type Code is ("0", "1", "2", "6" or "7")	Field Safety Equipment Use Code is required	Required field Safety Equipment Use Code missing	Safety Equipment Type
631	1985	Participant Type Code is ("3", "4", "5" or "9")	Safety Equipment Use must not be entered	Safety Equipment Use not applicable to this type of Participant	Safety Equipment Type
632	1985	Safety Equipment Use Code is not "null"	Value entered must be in the Safety Equipment Use lookup table where the entry is valid as of the crash date	SFTY_EQUIP_USE_CD was not found in SFTY_EQUIP_USE or is not valid as of the crash date	Safety Equipment Type
679	1985	Participant Type Code = "1"	Participant Safety Equipment Use Code must be in ("0", "1", "2", "5", "6", "8" or "9")	When Participant Type is 1 (Driver), Safety Equipment Type must be "0", "1", "2", "5", "6", "8" or "9"	Safety Equipment Type
663	1985	Participant Type Code = "6" or "7"	Participant Safety Equipment Use Code must be in ("0", "5", "6" or "9")	When the Participant Type is "6" or "7" (Pedalcyclist), Safety Equipment Type must be "0", "5", "6", or "9"	Safety Equipment Type Participant Type Code

Rule #	Beg. Year	Rule Invoked When:	Rule	Message Displayed when Rule Violated	Field(s) Highlighted when Rule Violated
336	1985		The Vehicle Safety Equipment Used Quantity must be >= the number of participants for that vehicle where the Participant Safety Equipment Use Code in ("2", "4" or "8")	More participants in vehicle [vehicle sequence number] show safety equipment use than indicated on the vehicle row	Safety Equipment Type Vehicle Safety Equipment Used Quantity
337	1985		The Vehicle Safety Equipment Unused Quantity must be >= the number of participants for that vehicle where the Participant Safety Equipment Use Code in ("0", "1" or "3")	More participants in vehicle [vehicle sequence number] show safety equipment unused than indicated on the vehicle row	Safety Equipment Type Vehicle Safety Equipment Used Quantity
338	1985		The Vehicle Safety Equipment Use Unknown Quantity must be >= the number of participants for that vehicle where the Participant Safety Equipment Use Code = "9"	More participants in vehicle [vehicle sequence number] show safety equipment use unknown than indicated on the vehicle row	Safety Equipment Type Vehicle Safety Equipment Used Quantity
665	1985	Vehicle Type Code = "01"	Participant Safety Equipment Use Code must be in ("0", "1", "2", "3", "4", "8" or "9")	When Vehicle Type is "01", Partic. Safety Equip Type must be "null", "0", "1", "2", "3", "4", "8" or "9"	Safety Equipment Type
666	1985	Vehicle Type Code = "02"	Participant Safety Equipment Use Code must be in ("0", "1", "2", "3", "4", "8" or "9")	When Vehicle Type is 02, Partic. Safety Equip Type must be "null", "0", "1", "2", "3", "4", "8" or "9"	Safety Equipment Type

Rule #	Beg. Year	Rule Invoked When:	Rule	Message Displayed when Rule Violated	Field(s) Highlighted when Rule Violated
667	1985	Vehicle Type Code = "03"	Participant Safety Equipment Use Code must be in ("0", "1", "2", "8" or "9")	When Vehicle Type is 03, Partic. Safety Equip Type is generally "null", "0", "1", "2", "8" or "9", confirm value	Safety Equipment Type
668	1985	Vehicle Type Code = "04"	Participant Safety Equipment Use Code must be in ("0", "1", "2", "3", "4", "8" or "9")	When Vehicle Type is 04, Partic. Safety Equip Type must be "null", "0", "1", "2", "3", "4", "8" or "9"	Safety Equipment Type
669	1985	Vehicle Type Code = "05"	Participant Safety Equipment Use Code must be in ("0", "1", "2", "3", "4", "8" or "9")	When Vehicle Type is 05, Partic. Safety Equip Type must be "null", "0", "1", "2", "3", "4", "8" or "9"	Safety Equipment Type
670	1985	Vehicle Type Code = "06"	Participant Safety Equipment Use Code must be in ("0", "5", "6", "8" or "9")	When Vehicle Type is 06, Partic. Safety Equip Type is generally "null", "0", "5", "6", "8" or "9", confirm value	Safety Equipment Type
671	1985	Vehicle Type Code = "07"	Participant Safety Equipment Use Code must be in ("0", "1", "2", "3", "4", "8" or "9")	When Vehicle Type is 07, Partic. Safety Equip Type must be "null", "0", "1", "2", "3", "4", "8" or "9"	Safety Equipment Type
672	1985	Vehicle Type Code = "08"	Participant Safety Equipment Use Code must be in ("0", "1", "2", "3", "4", "8" or "9")	When Vehicle Type is 08, Partic. Safety Equip Type must be "null", "0", "1", "2", "3", "4", "8" or "9"	Safety Equipment Type
673	1985	Vehicle Type Code = '09'	Participant Safety Equipment Use Code must be in ("0", "5", "6", "8" or "9")	When Vehicle Type is 09, Partic. Safety Equip Type is generally "null", "0", "5", "6", "8" or "9", confirm value	Safety Equipment Type

Rule #	Beg. Year	Rule Invoked When:	Rule	Message Displayed when Rule Violated	Field(s) Highlighted when Rule Violated
674	1985	Vehicle Type Code = "10"	Participant Safety Equipment Use Code must be in ("0", "1", "2", "8" or "9")	When Vehicle Type is 10, Partic. Safety Equip Type is generally "null", "0", "1", "2", "8" or "9", confirm value	Safety Equipment Type
675	1985	Vehicle Type Code = "11"	Participant Safety Equipment Use Code must be in ("0", "1", "2", "3", "4", "8" or "9")	When Vehicle Type is 11, Partic. Safety Equip Type must be "null", "0", "1", "2", "3", "4", "8" or "9"	Safety Equipment Type
676	1985	Vehicle Type Code = "13"	Participant Safety Equipment Use Code must be in ("0", "5", "6", "8", or "9")	When Vehicle Type is 13, Partic. Safety Equip Type is generally "null", "0", "5", "6", "8", or "9", confirm value	Safety Equipment Type
677	1985	Vehicle Type Code = "14"	Participant Safety Equipment Use Code must be in ("0", "5", "6", "8", or "9")	When Vehicle Type is 14, Partic. Safety Equip Type is generally "null", "0", "5", "6", "8", or "9", confirm value	Safety Equipment Type
678	1985	Vehicle Type Code = "15"	Participant Safety Equipment Use Code must be in ("0", "5", "6", "8", or "9")	When Vehicle Type is 15, Partic. Safety Equip Type is generally "null", "0", "5", "6", "8", or "9", confirm value	Safety Equipment Type
659	1985	Participant Type Code is ("0", "1", "2", or "8") and Airbag Deployed Indicator is not null	Value entered must be "0", "1" or "9".	AirbagDeployIndicator must be "blank", "0" (No), "1" (Yes), or "9" (Unknown)	Airbag Deployed Indicator
660	1985	Participant Type Code is not ("0", "1", "2", or "8") and Airbag Deployed Indicator is not "null"	Airbag Deployed Indicator must be "null"	When Participant is a Pedestrian or Pedalcyclist, the Airbag Deployed Indicator must be "null"	Airbag Deployed Indicator

Rule #	Beg. Year	Rule Invoked When:	Rule	Message Displayed when Rule Violated	Field(s) Highlighted when Rule Violated
634	1985	Participant Type Code = ("3" or "4" or "5") and Participant Movement Code is not "null"	Participant Movement Code value entered must = "0" or "1"	Participant Movement Code must be "0" or "1" when Participant is a pedestrian	Participant Movement
635	1985	Participant Type Code = ("6" or "7" or "9") and Participant Movement Code is not "null"	Participant Movement Code value entered must be on the Movement lookup table and the entry must be valid as of the Crash Date	MVMNT_CD = "9" was not found in MVMNT or is not valid as of the crash date	Participant Movement
654	1985	Participant Type Code is ("3", "4", "5", "6", "7" or "9") AND Participant Movement Code is "null"	Participant Movement code is required	Participant Movement Code is required when Participant is a pedestrian, pedalcyclist, or unknown non-motorist	Participant Movement
636	1985	Participant Type Code is not ("3", "4", "5", "6", "7" or "9") AND Participant Movement Code is not "null"	Participant Movement Code must be "null"	Participant Movement Code must be null when participant is a vehicle occupant	Participant Movement
656	1985	Participant Type Code is ("3", "4", "5", "6", "7" or "9") AND Participant Compass Direction From Code is "null"	Participant Compass Direction From Code is required	A valid Participant Direction From value is required when Participant is not a vehicle occupant	Participant Compass Direction From
637	1985	Participant Type Code is ("3", "4", "5", "6", "7" or "9") AND Participant Compass Direction From Code is not "null"	Participant Compass Direction From Code must be in Compass Direction lookup table and the entry must be valid as of the Crash date.	A valid Participant Direction From value is required when Participant is not a vehicle occupant	Participant Compass Direction From

Rule #	Beg. Year	Rule Invoked When:	Rule	Message Displayed when Rule Violated	Field(s) Highlighted when Rule Violated
639	1985	Participant Type Code is not ("3", "4", "5", "6", "7" or "9") and Participant Compass Direction From Code is not "null"	Participant Compass Direction From Code must be "null"	Participant Direction From value must be "null" when Participant is a vehicle occupant	Participant Compass Direction From
657	1985	Participant Type Code is ("3", "4", "5", "6", "7" or "9") AND Participant Compass Direction To Code is "null"	Participant Compass Direction To Code is required	A valid Participant Direction To value is required when Participant is not a vehicle occupant	Participant Compass Direction To
638	1985	Participant Type Code is ("3", "4", "5", "6", "7" or "9") AND Participant Compass Direction To Code is not null	Participant Compass Direction To Code must be in Compass Direction lookup table and the entry must be valid as of the Crash date.	A valid Participant Direction To value is required when Participant is not a vehicle occupant	Participant Compass Direction To
640	1985	Participant Type Code is not ("3", "4", "5", "6", "7" or "9") and Participant Compass Direction To Code is not "null"	Participant Compass Direction To Code must be "null"	Participant Direction To value must be null when Participant is a vehicle occupant	Participant Compass Direction To

Rule #	Beg. Year	Rule Invoked When:	Rule	Message Displayed when Rule Violated	Field(s) Highlighted when Rule Violated
662	1985	Participant Movement Code is not blank and is between "0" and "5", AND Compass Direction From Code is not "blank" and is not "0" AND Compass Direction To Code is not "blank" and is not "0" AND Participant Type Code is ("3", "4", "5", "6", "7" or "9")	Combination of Movement Code, Direction From Code and Direction to Code must be valid per formula below.	Discrepancy exists between Movement and From or To Direction	Participant Movement Code, Participant Compass Direction From Code, Participant Compass Direction To Code
641	1985	Participant Type Code is ("3" or "4" or "5") AND Pedestrian Location Code is not "null"	Pedestrian Location value entered must be in Pedestrian Location lookup table and the entry must be valid as of the crash date	When the Participant is a pedestrian, a valid Pedestrian Location value must be entered	Pedestrian Location
658	1985	Participant Type Code is ("3" or "4" or "5") AND Pedestrian Location Code is "null"	Pedestrian Location Code is required	When the Participant is a pedestrian, a valid Pedestrian Location value must be entered	Pedestrian Location
642	1985	Pedestrian Type Code is not ("3" or "4" or "5") AND Pedestrian Location Code is not "null"	Pedestrian Location Code must be "null"	When the Participant is not a pedestrian, the Pedestrian Location value must be "null"	Pedestrian Location

Rule #	Beg. Year	Rule Invoked When:	Rule	Message Displayed when Rule Violated	Field(s) Highlighted when Rule Violated
643	2002	Participant Type Code is ("3", "4", "5", "6", "7" or "9") and Participant Action Code is "null"	Participant Action Code is required	When Participant is not a vehicle occupant, a Participant Action code is required	Participant Action
644	1985	Participant Action Code is not "null"	Value entered must be on the Action lookup table and the entry must be valid as of the crash date and the value must be valid for use at the Participant level	ACTN_CD = "99" was not found in ACTN or is not valid for use as of the crash date, or is not valid for use at this level	Participant Action
645	1985	Participant Type Code = ("3", "4", "5", "6", "7" or "9") AND no Error Codes were entered at the Crash level	At least one Participant Error Code must be entered	When Participant is not a vehicle occupant, a Participant Error Code is required if no Crash-level error has been specified	Participant Error (1)
646	1985	At least one Error code was entered for this Participant	For each Participant Error Code: The Error Code must be on the Error lookup table, must be valid on the crash date and must be valid for use at the Participant level.	CRASH_ERR_CD = "99" was not found in ERR or is not valid for use as of the crash date, or is not valid for use at this level	Participant Error (1) Participant Error (2) Participant Error (3)
647	1985	At least one Cause code was entered for this Participant	For each Participant Cause Code: The Cause Code must be on the Cause lookup table, must be valid on the crash date and must be valid for use at the Participant level	CAUSE_CD = "99" was not found in CAUSE or is not valid for use as of the crash date, or is not valid for use at this level	Participant Cause (1) Participant Cause (2) Participant Cause (3)

Rule #	Beg. Year	Rule Invoked When:	Rule	Message Displayed when Rule Violated	Field(s) Highlighted when Rule Violated
648	1985	At least one Event code was entered for this Participant	For each Participant Event Code: The Event Code must be on the Event lookup table, must be valid on the crash date and must be valid for use at the Participant level	EVNT_CD = "999" was not found in EVNT or is not valid for use as of the crash date, or is not valid for use at this level	Participant Event (1) Participant Event (2) Participant Event (3)
649	1985	Crash Type Code = "3"	None of the Participant Event Codes can be "05" (sub-ped)	If Crash Type Code = 3 (Pedestrian) then none of the Participant Event Codes can be 05 (sub-ped)	Crash Type [Participant Event]
650	1985	BAC Value is not "null"	Value entered must be between "00-79", or be "80", "84", "85", "86" or "87"	When entered, BAC Value must be between "00-79", or be "80", "84", "85", "86" or "87"	BAC Value
651	1985	Alcohol Use Reported Indicator is not "null"	Value entered must be "0", "1" or "9"	Alcohol Use Reported Indicator must be "blank", "0", "1", or "9"	Alcohol Use Reported Indicator
652	1985	Drug Use Reported Indicator is not "null"	Value entered must be "0", "1" or "9"	Drug Use Reported Indicator must be "blank", "0", "1", or "9"	Drug Use Reported Indicator

Vehicle and Participant Movement / Compass Direction Formula
(Per rules 316 and 662):

When Movement Code = '1'
      If cmpss_dir_from_cd = '1' then cmpss_dir_to_cd must = '5'
      If cmpss_dir_from_cd = '2' then cmpss_dir_to_cd must = '6'
      If cmpss_dir_from_cd = '3' then cmpss_dir_to_cd must = '7'
      If cmpss_dir_from_cd = '4' then cmpss_dir_to_cd must = '8'
      If cmpss_dir_from_cd = '5' then cmpss_dir_to_cd must = '1'
      If cmpss_dir_from_cd = '6' then cmpss_dir_to_cd must = '2'
      If cmpss_dir_from_cd = '7' then cmpss_dir_to_cd must = '3'
      If cmpss_dir_from_cd = '8' then cmpss_dir_to_cd must = '4'

When Movement Code = '2'
      If cmpss_dir_from_cd = '1' then cmpss_dir_to_cd must be in (6, 7, 8)
      If cmpss_dir_from_cd = '2' then cmpss_dir_to_cd must be in (7, 8, 1)
      If cmpss_dir_from_cd = '3' then cmpss_dir_to_cd must be in (8, 1, 2)
      If cmpss_dir_from_cd = '4' then cmpss_dir_to_cd must be in (1, 2, 3)
      If cmpss_dir_from_cd = '5' then cmpss_dir_to_cd must be in (2, 3, 4)
      If cmpss_dir_from_cd = '6' then cmpss_dir_to_cd must be in (3, 4, 5)
      If cmpss_dir_from_cd = '7' then cmpss_dir_to_cd must be in (4, 5, 6)
   If cmpss_dir_from_cd = '8' then cmpss_dir_to_cd must be in (5, 6, 7)

When Movement Code = '3'
      If cmpss_dir_from_cd = '1' then cmpss_dir_to_cd must be in (2, 3, 4)
      If cmpss_dir_from_cd = '2' then cmpss_dir_to_cd must be in (3, 4, 5)
      If cmpss_dir_from_cd = '3' then cmpss_dir_to_cd must be in (4, 5, 6)
      If cmpss_dir_from_cd = '4' then cmpss_dir_to_cd must be in (5, 6, 7)
      If cmpss_dir_from_cd = '5' then cmpss_dir_to_cd must be in (6, 7, 8)
      If cmpss_dir_from_cd = '6' then cmpss_dir_to_cd must be in (7, 8, 1)
      If cmpss_dir_from_cd = '7' then cmpss_dir_to_cd must be in (8, 1, 2)
      If cmpss_dir_from_cd = '8' then cmpss_dir_to_cd must be in (1, 2, 3)

When Movement Code = '4' and cmpss_dir_from_cd <> cmpss_dir_to_cd))

(Page intentionally left blank)
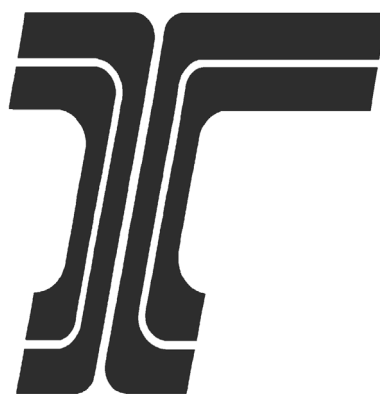
Oregon Department of Transportation

Crash Analysis and Reporting Unit
355 Capitol St NE, MS42
Salem, OR 97301