



COLORADO

Department of Transportation

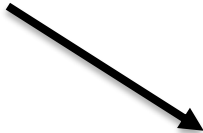
Crash Data Processing

Data Uniforming
Geolocating
Real-world Application

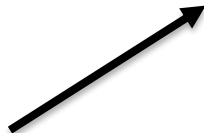
Crash Data Workflow



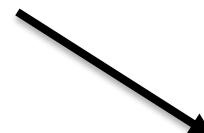
Crash Occurs



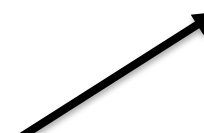
Law enforcement fills
out crash form



CDOR collects
crash reports



CDOT reviews and
cleans crash data



CDOT publishes
crash data



Uniforming Data

Export to Excel

CUID	City	County	Latitude	Longitude	Location 1	Link	Location 2	Location	Road Description	First HE	MHE	Crash Type
294231		ARAPAHOE	39.57224	-104.87364	I25 SB	X	I25 SB COUNTY LINE OFF RAMP/DRY CREEK I25 SB ON RAMP	On Roadway		Side to Side-Same Direction	Side to Side-Same Direction	Sideswipe Same Direction
325381		ARAPAHOE	39.63675	-104.98778	S BROADWAY	X	E RADCLIFF AVE					
328970		ARAPAHOE			UNIT BLOCK W. DARTMOUTH	X	SO. BROADWAY					
342464		ARAPAHOE	39.65104	-104.98059	E JEFFERSON AVE	X	E HAMPDEN BYP/S PEARL ST	On Roadway		Front to Side	Front to Side	
296604		ARAPAHOE	39.61392	-104.99952	S HICKORY ST	00191FN	W LITTLETON BLVD	On Roadway	Alley Related	Light Pole/Utility Pole	Light Pole/Utility Pole	
341095	AURORA	ARAPAHOE			E COLFAX AVE	AT	I225	On Roadway	At Intersection	Front to Side	Front to Side	Approach Turn
341089	CENTENNIAL	ARAPAHOE	39.59487	-104.86917	10300 E ARAPAHOE RD	AT	S GALENA ST	On Roadway	At Intersection	Front to Rear	Front to Rear	Rear-End
240083		ARAPAHOE	39.59501	-104.77782	18100 E ARAPAHOE RD	X		On Roadway	At Intersection	Front to Side	Front to Side	
276873		ARAPAHOE			E COLFAX AVE		N MOLINE ST	On Roadway	At Intersection	Other Non-Collision	Front to Front	

1 2 3 4 5 ...

100 items per page

1 - 100 of 1766



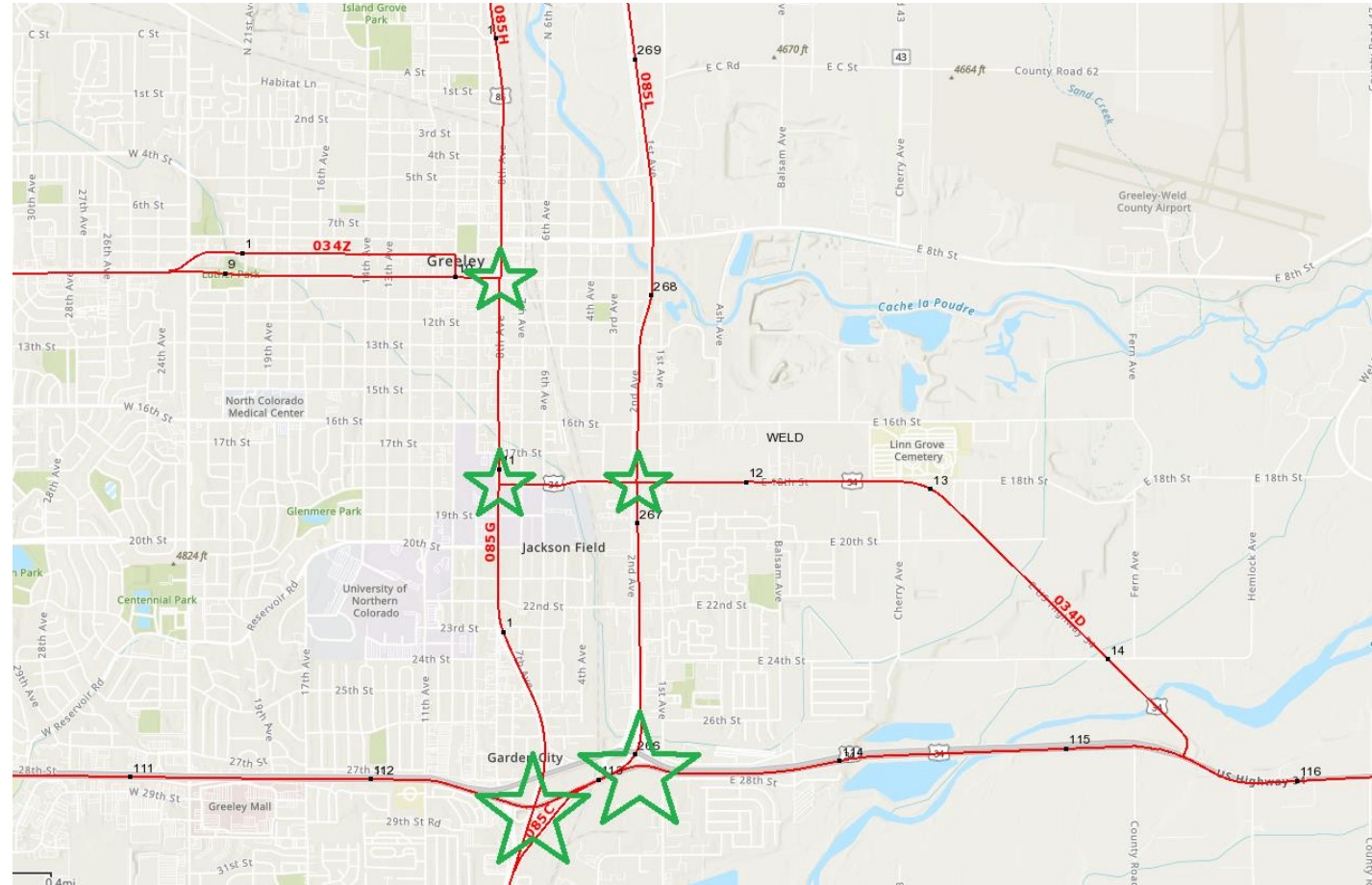
Uniforming Data

CUID	System Code ↑ 1	Rd_Number ↑ 2	Rd_Section ↑ 3	City_Street	Road Description	City	County	Location 1	Link	Location 2	Location	Crash Type	MHE	File
285175	2	040C	306.661		At Intersection	AURORA	ARAPAHOE	E COLFAX AVE	AT	N SABLE BLVD	On Roadway	Sideswipe Same Direction	Front to Side	Fr
284295	2	040C	307.135		Driveway Access Related	AURORA	ARAPAHOE	N CHAMBERS RD	AT	E COLFAX AVE	On Roadway	Broadside	Front to Side	Fr
285441	2	083A	64.800		At Intersection	AURORA	ARAPAHOE	S PARKER RD	AT	S CHAMBERS WAY	On Roadway	Approach Turn	Front to Side	Fr
283424	2	083A	70.081		Non-Intersection	AURORA	ARAPAHOE	S PARKER RD	AT	S VAUGHN WY	On Roadway	Sideswipe Same Direction	Front to Side	Fr
284232	2	083A	71.811		Driveway Access Related	AURORA	ARAPAHOE	S PARKER RD	AT	E YALE AVE	On Roadway	Approach Turn	Curb	Fr
284677	2	083A	71.811		At Intersection	AURORA	ARAPAHOE	S PARKER RD	AT	E YALE AVE	On Roadway	Broadside	Front to Side	Fr
285423	7	0055	ABILE	ALAME	At Intersection	AURORA	ARAPAHOE	S ABILENE ST	AT	E ALAMEDA AVE	On Roadway	Rear-End	Front to Rear	Fr
283349	7	0055	ALAME	MOLIN	At Intersection	AURORA	ARAPAHOE	E ALAMEDA AVE	AT	S MOLINE ST	On Roadway	Approach Turn	Front to Side	Fr
283505	7	0055	ALAME	SABLE	At Intersection	AURORA	ARAPAHOE	E ALAMEDA AVE	AT	S SABLE BLVD	On Roadway	Rear-End	Front to Rear	Fr
283327	7	0055	ARAPA	LEWIS	At Intersection	AURORA	ARAPAHOE	E ARAPAHOE RD	AT	S LEWISTON WAY	Ran off left side	Curb	Curb	Cu
283384	7	0055	AUROR	ORCHA	At Intersection	AURORA	ARAPAHOE	S AURORA PKWY	AT	E ORCHARD RD	On Roadway	Broadside	Front to Side	Fr
284275	7	0055	BLACK	HARVA	Intersection Related	AURORA	ARAPAHOE	S BLACKHAWK ST	AT	E HARVARD AVE	On Roadway	Broadside	Front to Side	Fr
283577	7	0055	BOSTO	THAVE	Non-Intersection	AURORA	ARAPAHOE	N BOSTON ST	00045EN	E 12TH AVE	On Roadway	Parked Motor Vehicle	Parked Motor Vehicle	Pa
<div>100 items</div> <div>100 items</div> <div>100 items</div> <div>100 items</div> <div>100 items</div> <div>100 items</div> <div>100 items</div> <div>12 items</div> <div>60 items</div> <div>50 items</div>														



Current Challenges

- Fewer crashes with diagrams
- Location information
- Interchanges - Highway 34 and Highway 85 have 5 different interchanges in Greeley area
- Missing direction, movement, etc for hit and runs
- Block numbers





Geolocating and Interchanges

CUID	Latitude	Longitude	System Code ↑	Rd_Number	Rd_Section	City_Street	Road Description	City	County	Location 1	Link	Location 2
286017	39.62375	-104.90217	2	088A	14.710		Non-Intersection	GREENWOOD VILLAGE	ARAPAHOE	E BELLEVIEW AVE	99999FW	I-25 NB RAMP
286224	39.71089	-104.22341	2	036D	100.937		At Intersection		ARAPAHOE	HWY 36	AT	HWY 40
286962	39.59564	-104.80345	2	083A	65.381	D	At Intersection		ARAPAHOE	PARKER RD SB OFF RAMP	AT	ARAPAHOE RD
287223	39.74023	-104.87523	2	040C	304.107		At Intersection	AURORA	ARAPAHOE	N DAYTON ST	AT	E COLFAX AVE
287611	39.73458	-104.71739	2	470B	20.148	I	Ramp		ARAPAHOE	E-470	AT	MM 20.148
289331	39.65311	-104.96768	2	285D	261.275		At Intersection	CHERRY HILLS VILLAGE	ARAPAHOE	E HAMPDEN AVE	AT	S GILPIN ST
289384	39.65296	-104.94536	2	285D	262.450		Non-Intersection	CHERRY HILLS VILLAGE	ARAPAHOE	E HAMPDEN AVE	AT	S MONROE ST



Geolocating and Interchanges

Save

Mark Coded ☒

Form Type: DR3447

Crash Header

Narrative

All Involved

Traffic Unit 1

Traffic Unit 2

Other Crash Fields

Add Motorist TU

Add Non-Motorist TU

Collapse

Record Navigation: [Next Uncoded](#) [>Next](#) [Previous](#) [Project Records](#)

Crash Identifier: 286962

Record Status: Coded

Project Info: 4/7/2023 - Arapahoe County - (15/100)

Last Update: 4/27/2023 19:37

Case Number: [REDACTED]

Processing Status: Completed

Assigned Name: Alyssa Herrin

Version: 3

Location / Road Coding

Case Number

System Code

Rd_Number

Rd_Section / Mile Marker

City_Street / Ramp Code

Open RDF

Location 1

Link

Location 2

Swap

Latitude

Longitude

Find on Map

Copy

City

County

Agency

Road Location

Road Description

TU-1 Direction

TU-2 Direction

TU-3 Direction

TU-1 Movement

TU-2 Movement

TU-3 Movement

Approach/ Overtaking Turn

Harmful Event Sequence

First

Second

Third

Fourth

MHE

Crash Type

Wild Animal

Narrative / Diagram

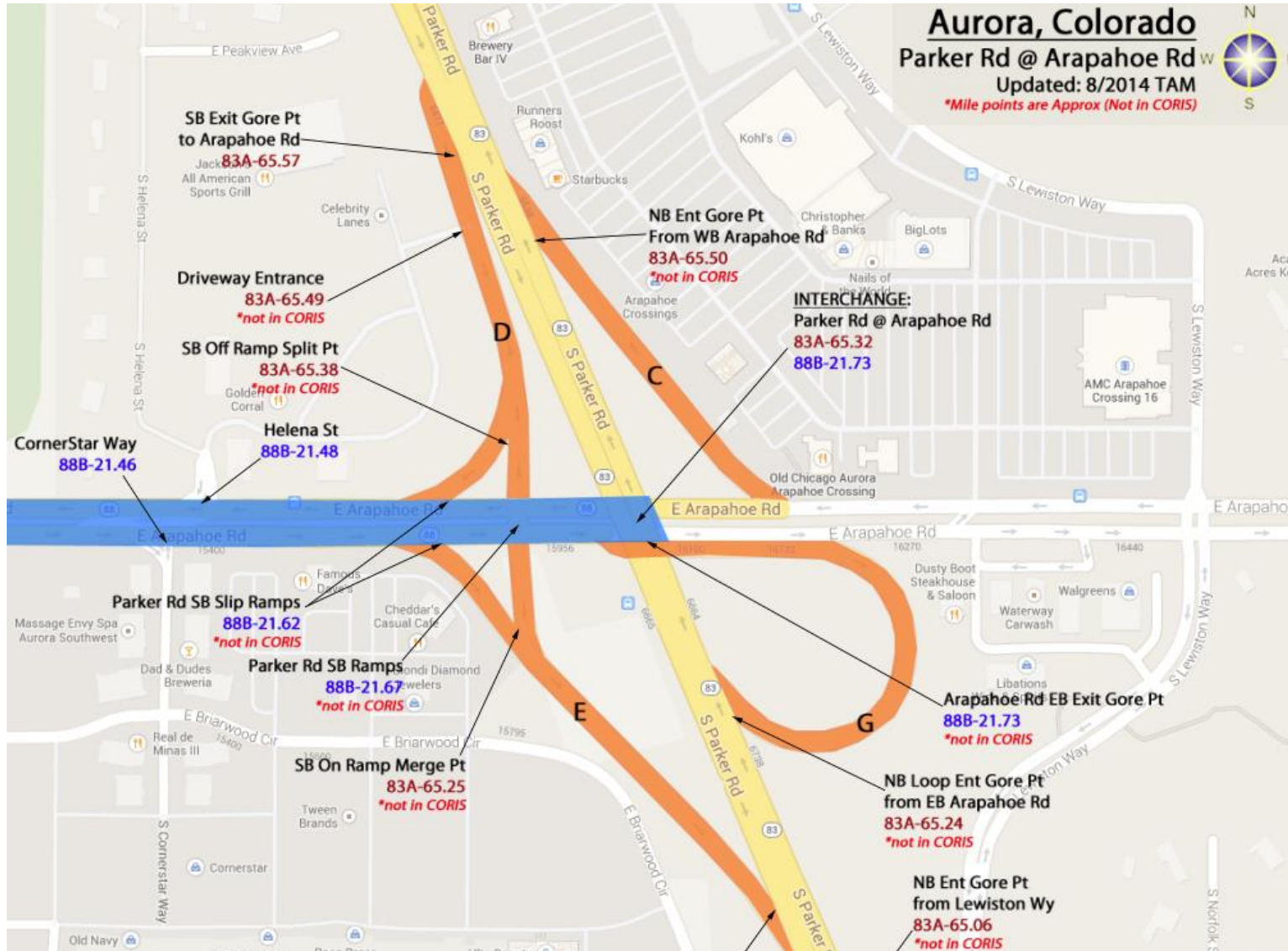
Narrative

V2 was stopped at the stop light for approximately 30 seconds when V1 ran into the back of V2. Both drivers exited their vehicles and agreed to get out of traffic where it would be safer to exchange information. The driver of V2 pulled onto S. Helena Street off of E. Arapahoe Road. V1 fled the scene without exchanging information. Driver of V2 provided the license plate of V1. I went to the address listed on the registration and contacted the driver of V1 [REDACTED]. [REDACTED] admitted to driving the vehicle today at the intersection involved, denied being in an accident. She stated she could not provide her drivers license but when asked if it was suspended stated no. While trying to read the drivers statement provided by [REDACTED] I could not read her birthdate. When asked she stated her birth date was [REDACTED] I had her repeat it several times. The damage to both vehicles is very minor.





Geolocating and Interchanges





Correcting a Crash Report

Save

Mark Coded

Record Navigation: [Next Uncoded](#) [>Next](#) [Previous](#) [Project Records](#)

Form Type: DR3447

Crash Header

Narrative

All Involved

Traffic Unit 1

Traffic Unit 2

Other Crash Fields

Add Motorist TU

Add Non-Motorist TU

Collapse

Crash Identifier: 296187

Record Status: New

Project Info: 4/7/2023 - Arapahoe County - (15/100)

Last Update: 4/17/2023 17:6

Case Number: [REDACTED]

Processing Status: Normalized

Assigned Name: Alyssa Herrin

Version: 3

Location / Road Coding

Case Number

System Code

Rd_Number

Rd_Section / Mile Marker

City_Street / Ramp Code

Open RDF

Location 1

Link

Location 2

Swap

Latitude

Longitude

Find on Map

Copy

City

County

Agency

Road Location

Road Description

TU-1 Direction

TU-2 Direction

TU-3 Direction

TU-1 Movement

TU-2 Movement

TU-3 Movement

Approach/ Overtaking Turn

Harmful Event Sequence

First

Second

Third

Fourth

MHE

Crash Type

Wild Animal

Narrative / Diagram

Narrative

Open Diagram

Download Diagram



Correcting a Crash Report

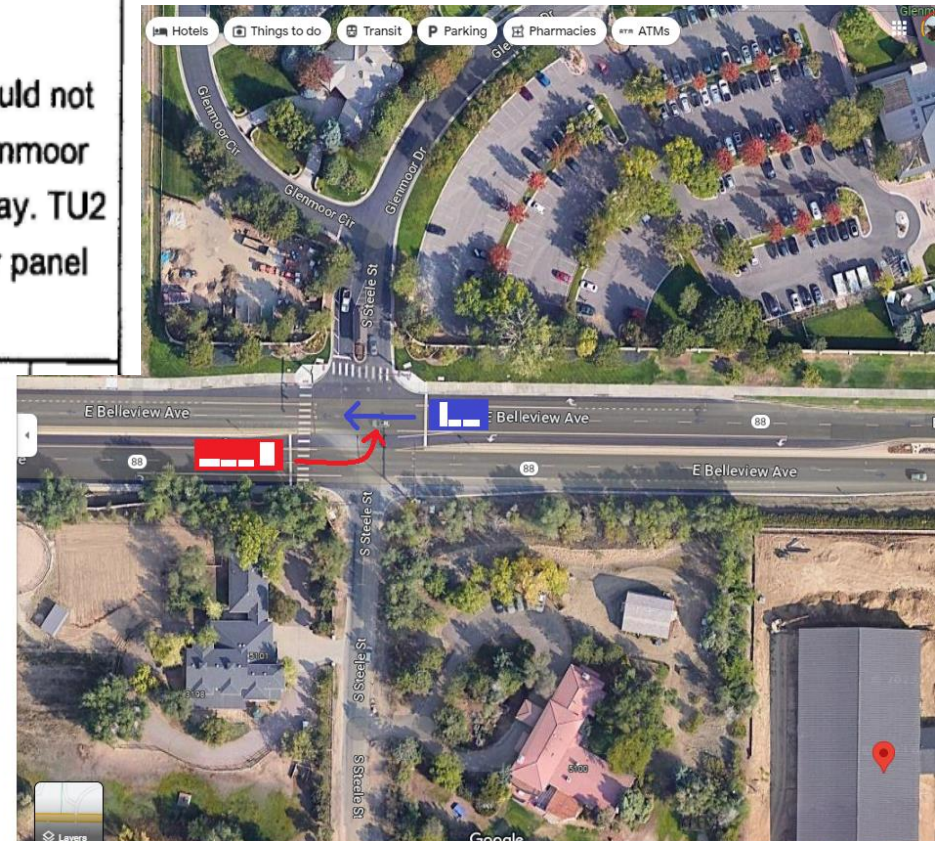
DR 3447 (10/02/20)

NARRATIVE/DIAGRAM PAGE 2 OF 6 PAGES

Case # [REDACTED]	Agency ORI [REDACTED]	Agency Name Cherry Hills Village Police Department
Describe Crash ORIGINAL REPORT TU1 [REDACTED] was eastbound, E. Belleview Ave. and turned left onto Glenmoor Drive. TU1 could not complete the turn safely and had to stop in the intersection due to other cars turning onto Glenmoor Drive. TU2 [REDACTED] was westbound in lane number 1 of E. Belleview Ave, with the right-of-way. TU2 attempted to stop to avoid TU1 when the right front corner of TU2 struck the right rear quarter panel of TU1 in a front to side collision.		

- 3200 E Belleview Ave, Greenwood Village, CO 80121
- Suggest an edit on 3200 E Belleview Ave
- Add a missing place
- Add your business
- Add a label

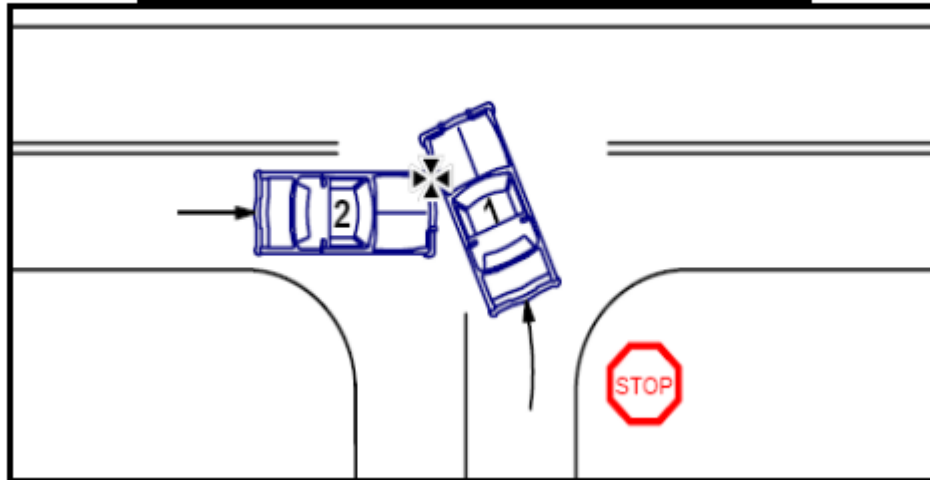
Photos



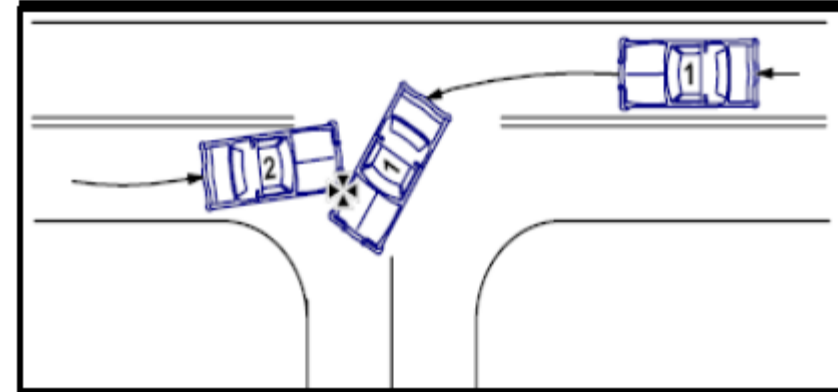


Correcting a Crash Report

BROADSIDE ACCIDENTS



APPROACH TURN ACCIDENTS





Correcting a Crash Report

Save

Mark Coded ☐

Record Navigation: [Next Uncoded](#) [>Next](#) [Previous](#) [Project Records](#)

Form Type: DR3447

Crash Header

Narrative

All Involved

Traffic Unit 1

Traffic Unit 2

Other Crash Fields

Add Motorist TU

Add Non-Motorist TU

Collapse

Crash Identifier: 296187

Record Status: New

Project Info: 4/7/2023 - Arapahoe County - (13/100)

Last Update: 4/17/2023 17:6

Case Number: [REDACTED]

Processing Status: Normalized

Assigned Name: Alyssa Herrin

Version: 3

Location / Road Coding

Case Number

System Code

Rd_Number

Rd_Section / Mile Marker

City_Street / Ramp Code

Open RDF

Location 1

Link

Location 2

Swap

Latitude

Longitude

Find on Map

Copy

City

County

Agency

Road Location

Road Description

TU-1 Direction

TU-2 Direction

TU-3 Direction

TU-1 Movement

TU-2 Movement

TU-3 Movement

Approach/ Overtaking Turn

Harmful Event Sequence

First

Second

Third

Fourth

MHE

Crash Type

Wild Animal

Narrative / Diagram

Narrative

Open Diagram

Download Diagram

01. On Roadway

01. At Intersection

03. East

07. West

05. Making Left Turn

01. Going Straight

01. Approach Turn



Real-world Application: 14th Ave and Lamar St, Lakewood, CO

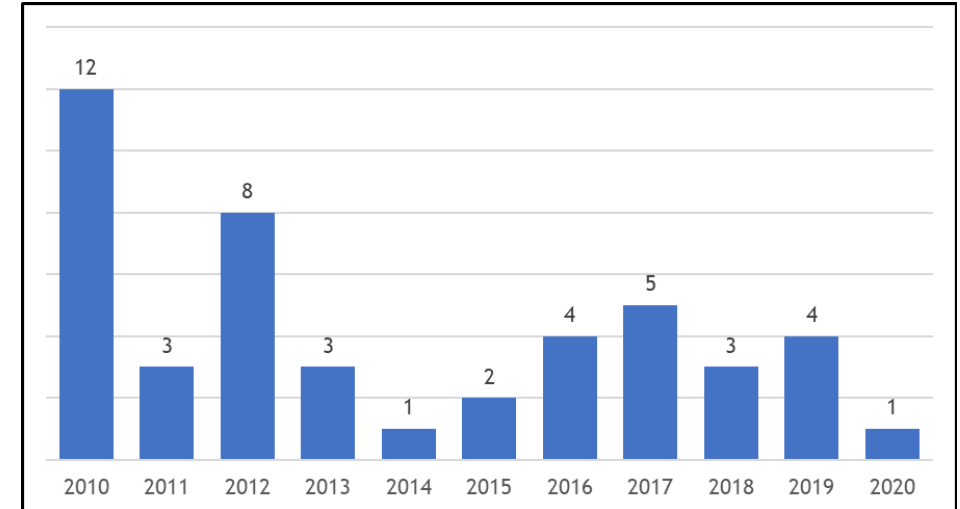
2013



2015



Crashes by Year



Broadside Collisions 2010-2014: 24
Broadside Collisions 2015-2020: 9

Injury Crashes 2010-2014: 14
Injury Crashes 2015-2020: 6



COLORADO

Department of Transportation

Questions

Alyssa Herrin - Alyssa.herrin@state.co.us