Crash Trees

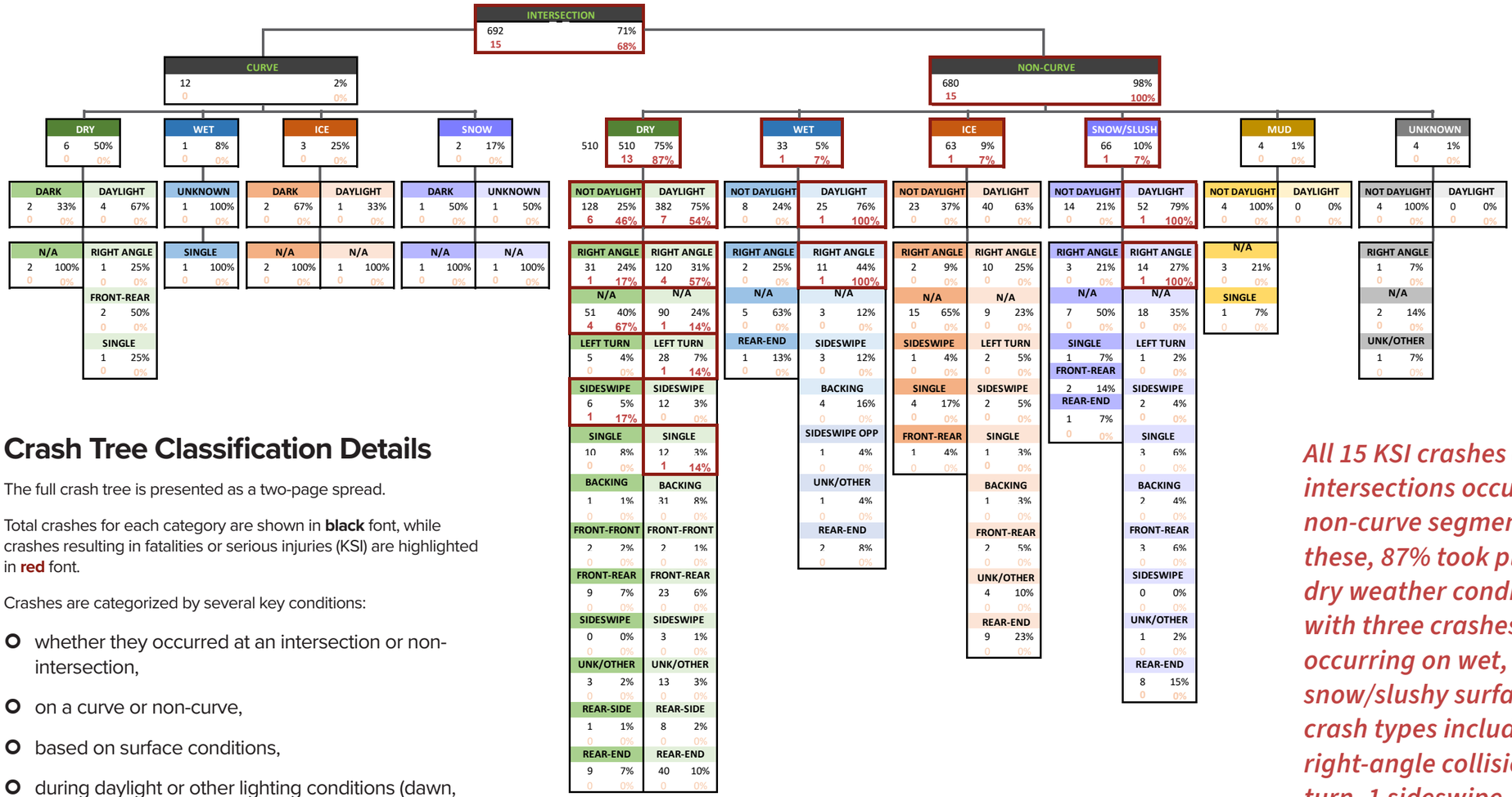
This appendix presents the results of a systemic safety analysis using crash tree diagrams to identify common patterns and contributing factors in fatal and serious injury (KSI) crashes across Sidney. These diagrams classify crashes by key characteristics—such as user behavior, time of day, roadway environment, and contributing violations—to reveal recurring trends that may not be confined to a single location. This analysis supports proactive, citywide safety strategies that address the underlying causes of severe crashes.

For a geographic view of where these crashes are most concentrated, refer to the Crash Map Appendix, which highlights the highest-risk intersections and corridors in Sidney based on spatial crash data.

The **Crash Tree Appendix** provides crash trees that visually represent the hierarchical breakdown of key factors involved in a crash, including weather conditions at the time of impact, lighting conditions, crash method, and the first object struck. In our crash trees, KSI (Killed or Seriously Injured) crashes and pedestrian/pedal-cycle incidents are highlighted in red, as they pose the highest risk of harm.

Additionally, pie charts provide a more detailed analysis, illustrating collision types, crash severity levels, and harmful events, offering deeper insight into crash trends and contributing factors.

Crash Tree: All Crashes (2014-2023)



Crash Tree Classification Details

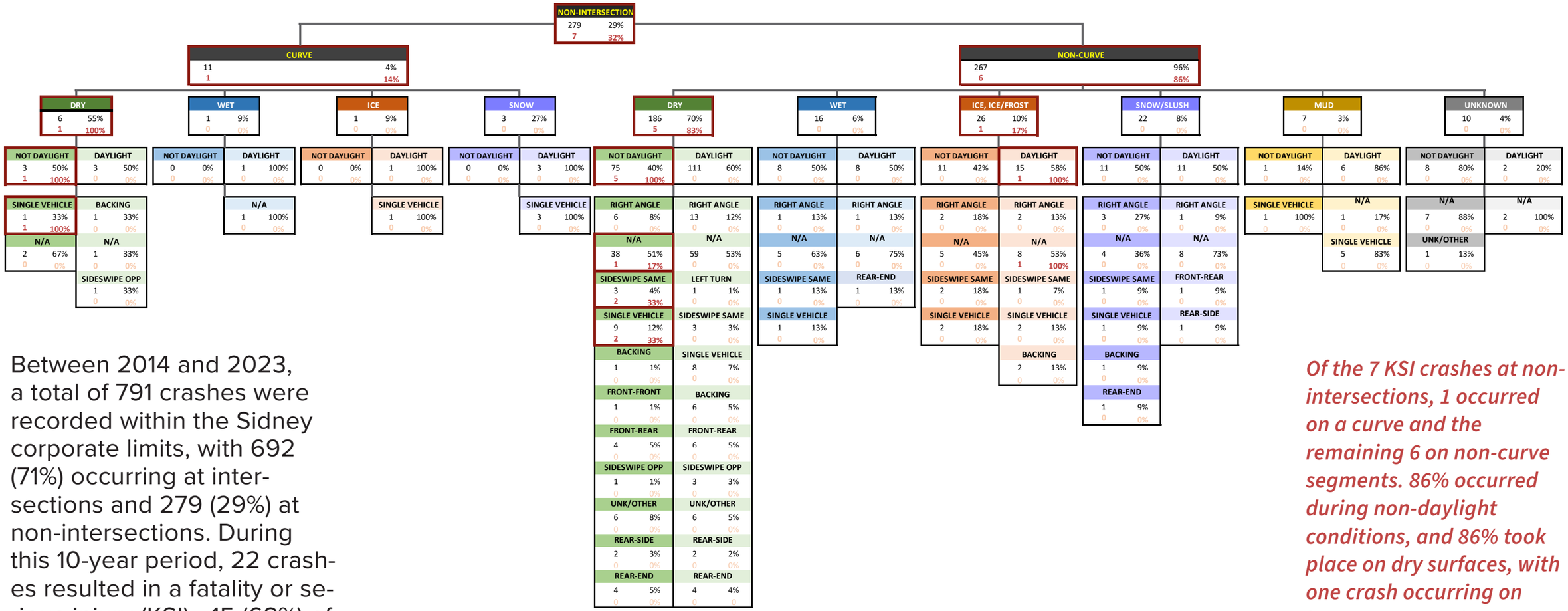
The full crash tree is presented as a two-page spread.

Total crashes for each category are shown in **black** font, while crashes resulting in fatalities or serious injuries (KSI) are highlighted in **red** font.

Crashes are categorized by several key conditions:

- whether they occurred at an intersection or non-intersection,
- on a curve or non-curve,
- based on surface conditions,
- during daylight or other lighting conditions (dawn, dusk, dark, or dark but lit), and
- by crash type.

All 15 KSI crashes at intersections occurred on non-curve segments. Of these, 87% took place during dry weather conditions, with three crashes each occurring on wet, icy, or snow/slushy surfaces. The crash types included 7 right-angle collisions, 1 left-turn, 1 sideswipe, 1 single-vehicle, and 5 crashes with unspecified types.

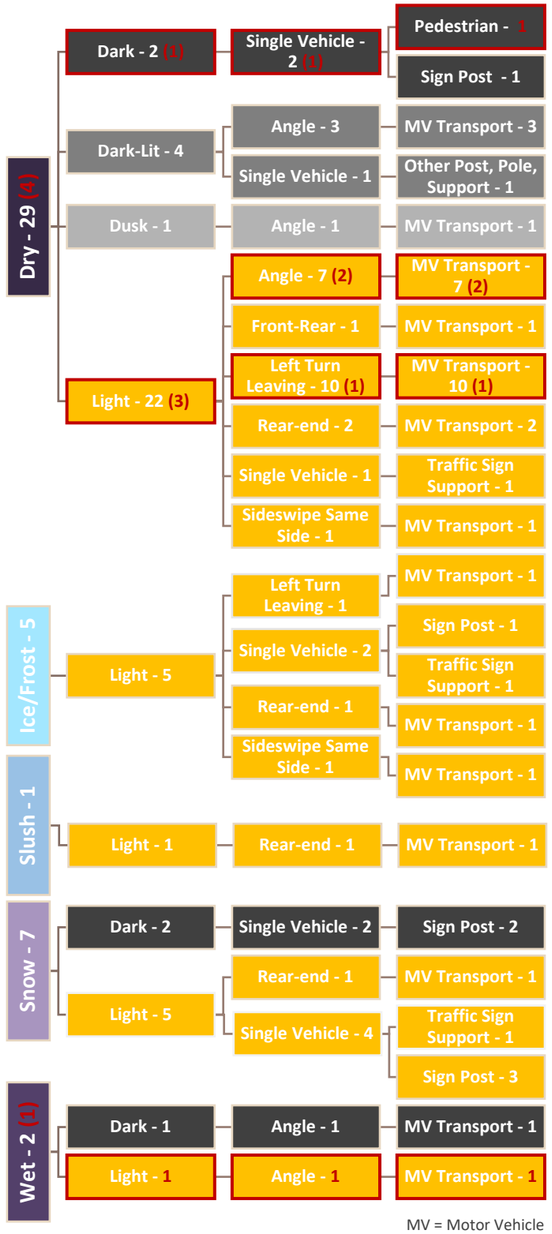


Between 2014 and 2023, a total of 791 crashes were recorded within the Sidney corporate limits, with 692 (71%) occurring at intersections and 279 (29%) at non-intersections. During this 10-year period, 22 crashes resulted in a fatality or serious injury (KSI)—15 (68%) of these occurred at intersections, while 7 (32%) occurred at non-intersections.

Of the 7 KSI crashes at non-intersections, 1 occurred on a curve and the remaining 6 on non-curve segments. 86% occurred during non-daylight conditions, and 86% took place on dry surfaces, with one crash occurring on ice. Crash types included 2 sideswipes, 3 single-vehicle crashes, and 2 with unspecified types.

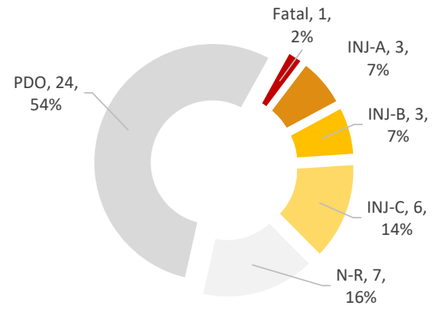
Crash Trees

Old Post Road Intersection (1)



MV = Motor Vehicle

CRASH SEVERITY



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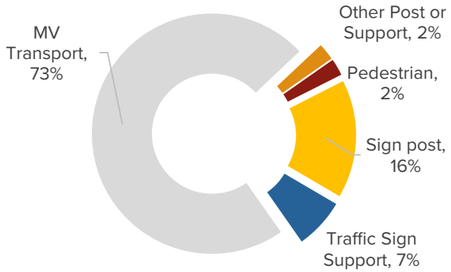
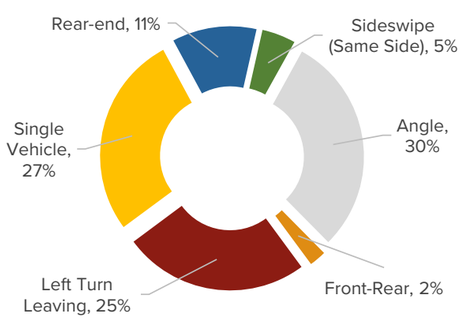
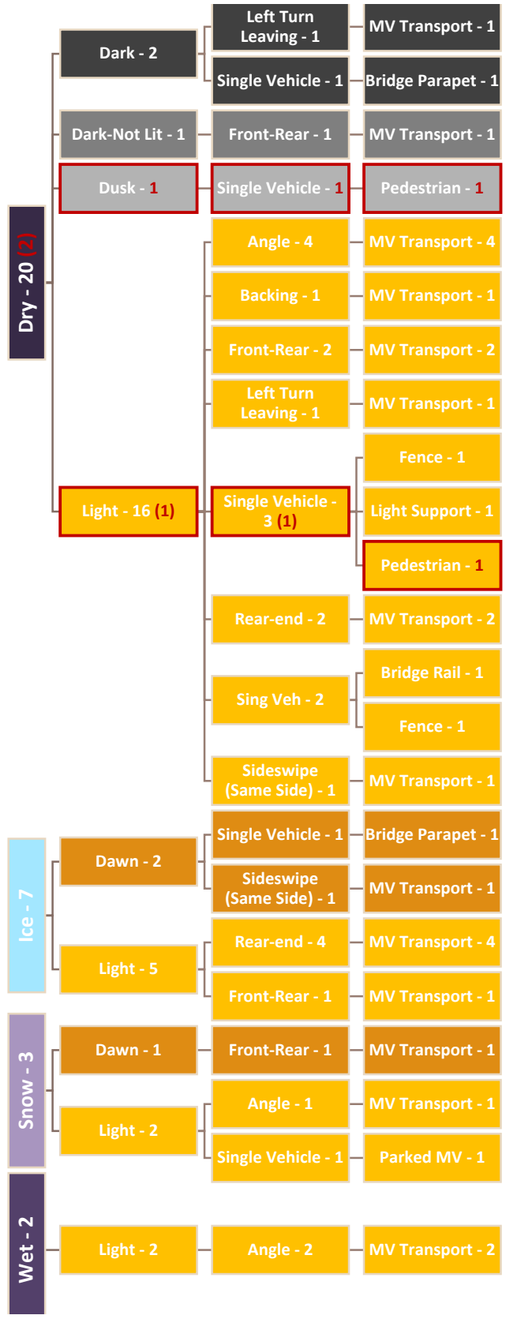


COLLISION TYPE



13th Avenue Pedestrian Underpass (2)



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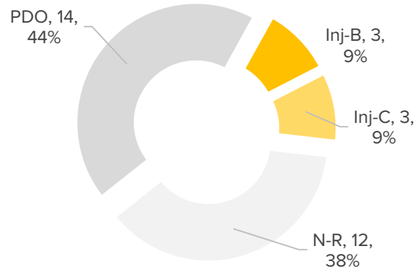

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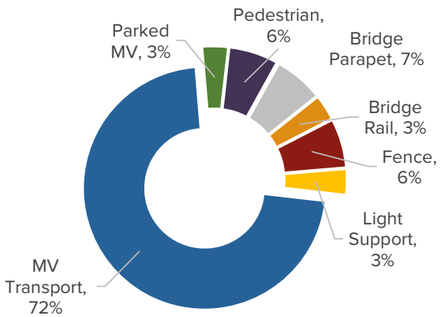
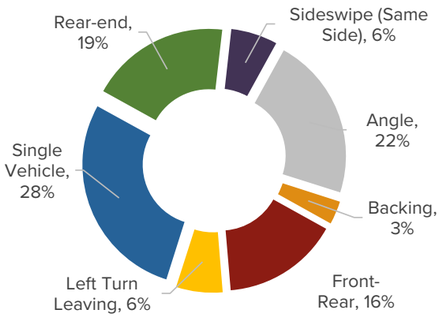
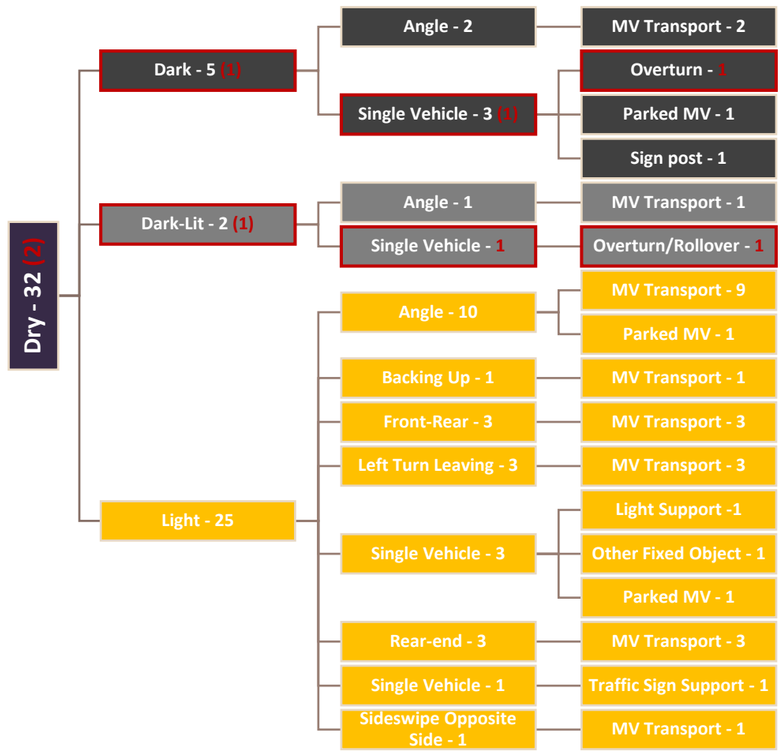


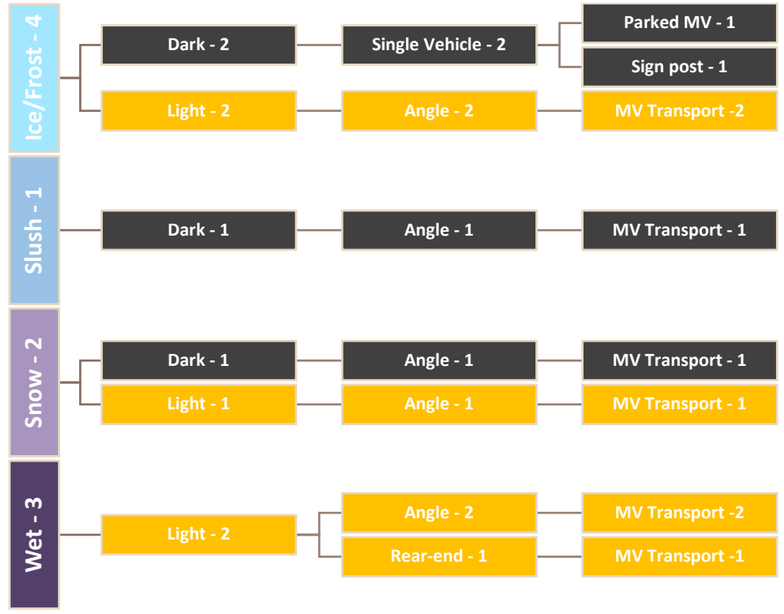
COLLISION TYPES



Crash Trees

All Pathway Connections (3)





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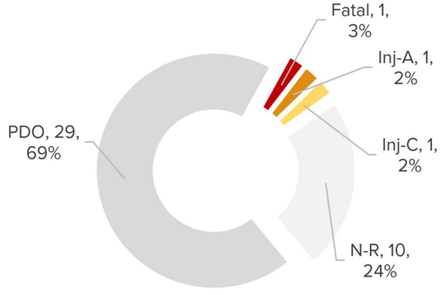

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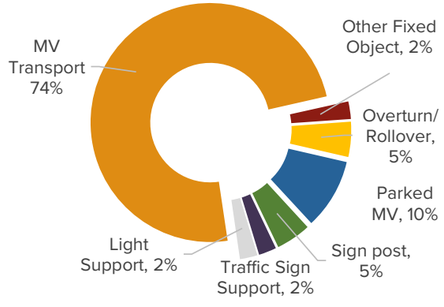

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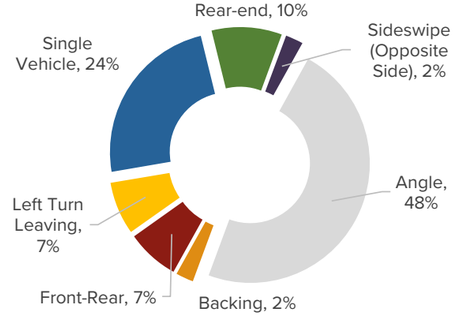
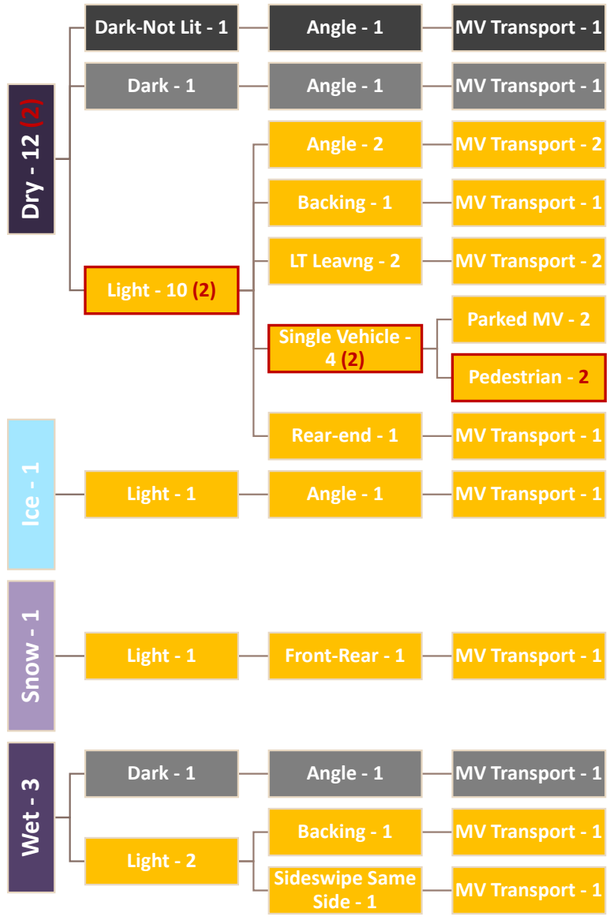


Crash Trees

US30 5th to 8th Avenue (4.1)



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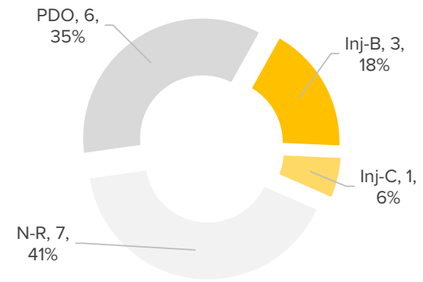

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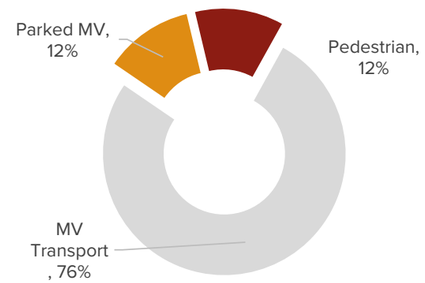

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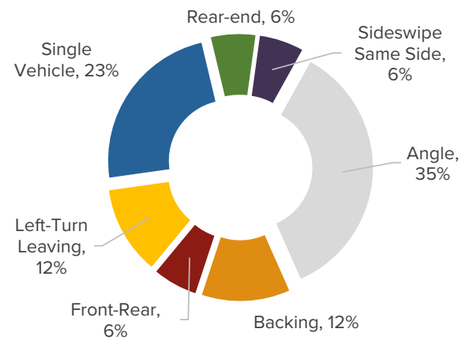
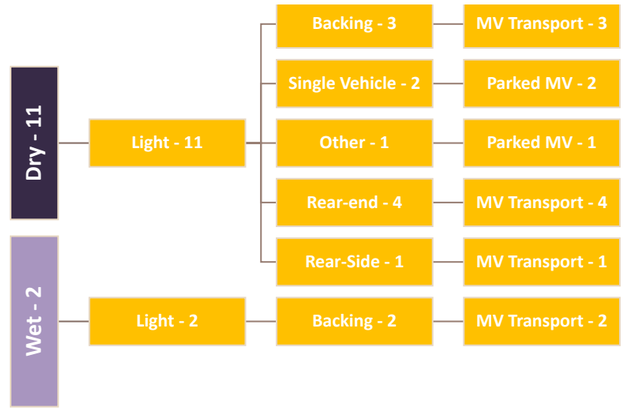


US30 9th Avenue (4.2)



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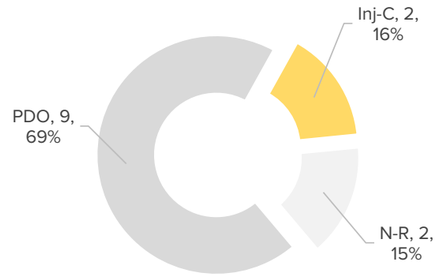

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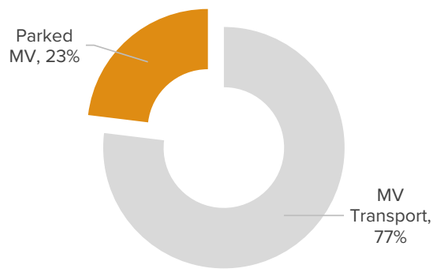

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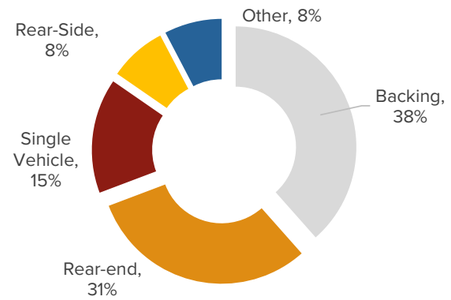
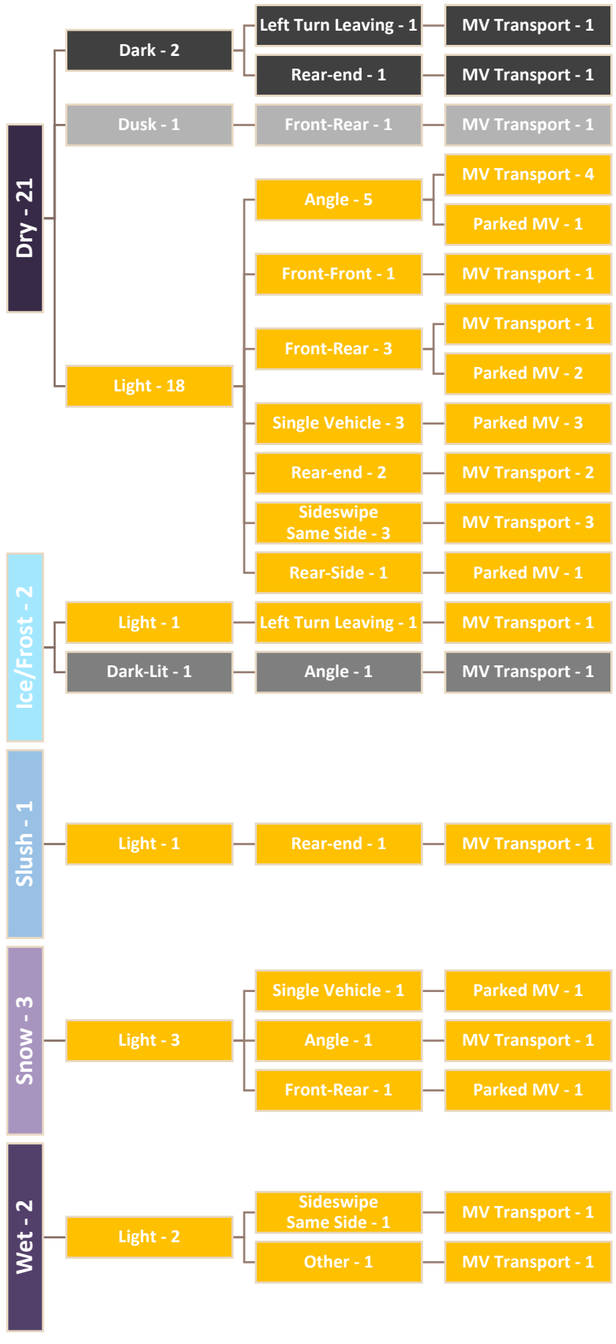


Crash Trees

US30 and 10th (4.3)



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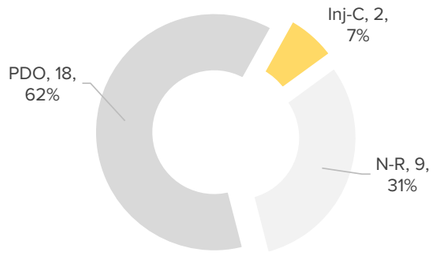

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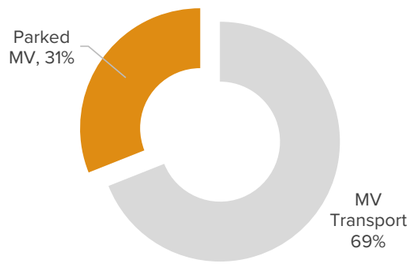

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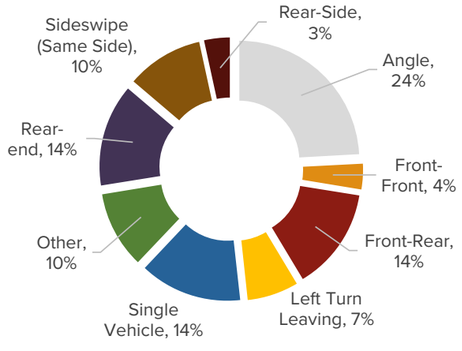
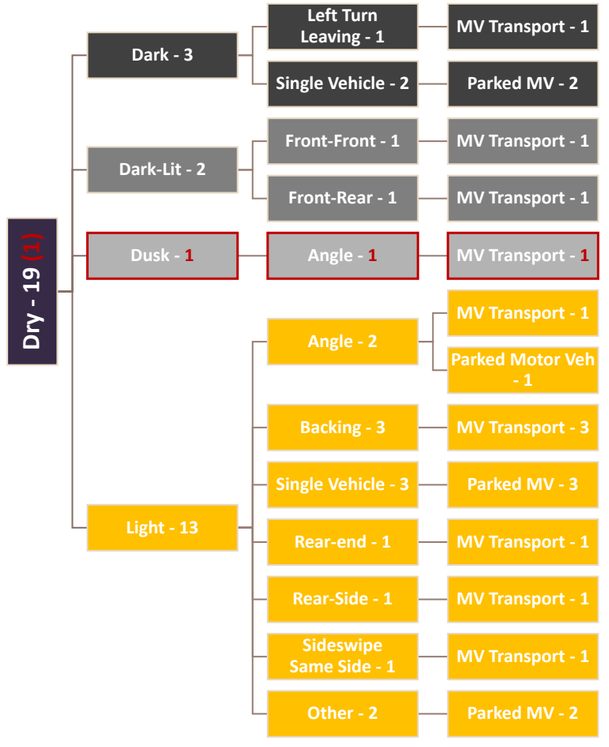


US30 and 11th (4.4)



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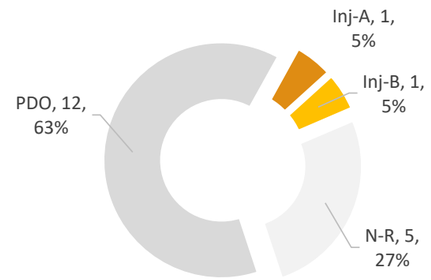
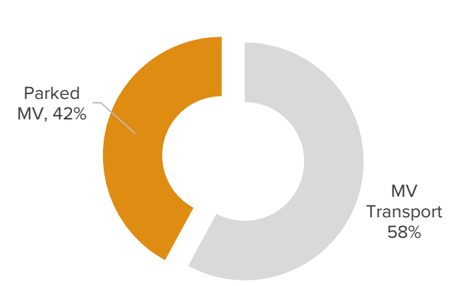


FIRST HARMFUL EVENT



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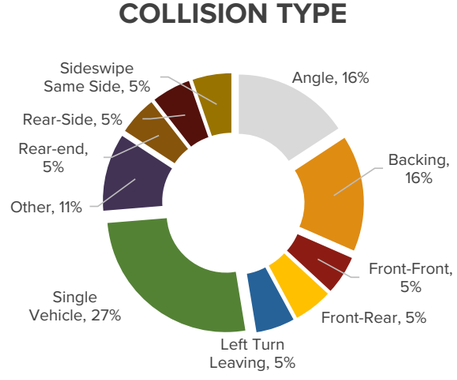
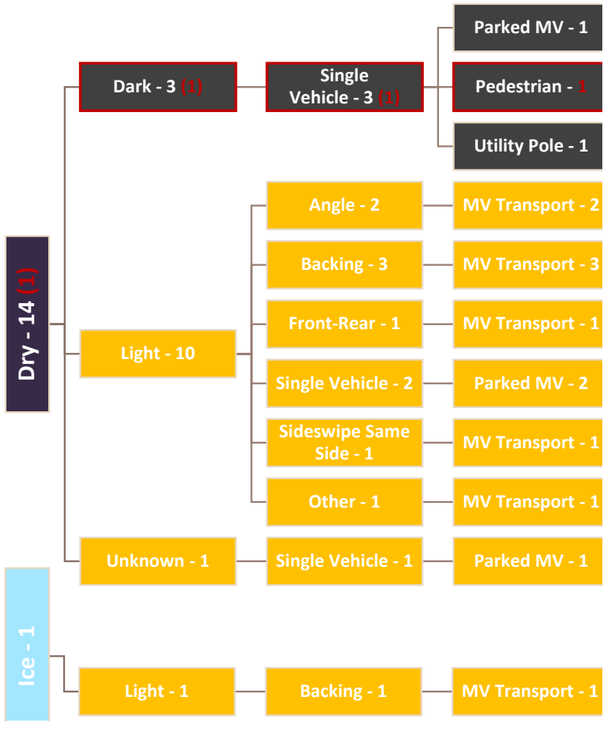


Crash Trees

US30 and 12th (4.5)



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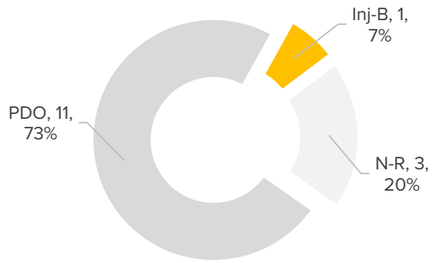

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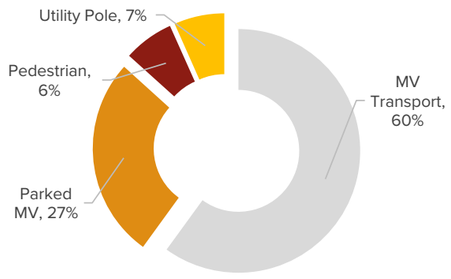

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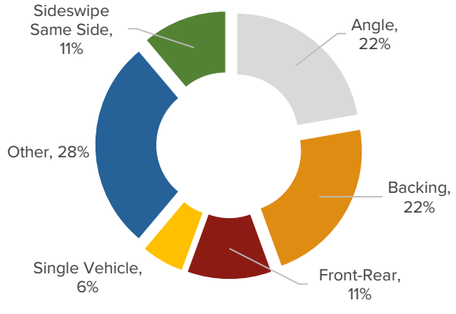
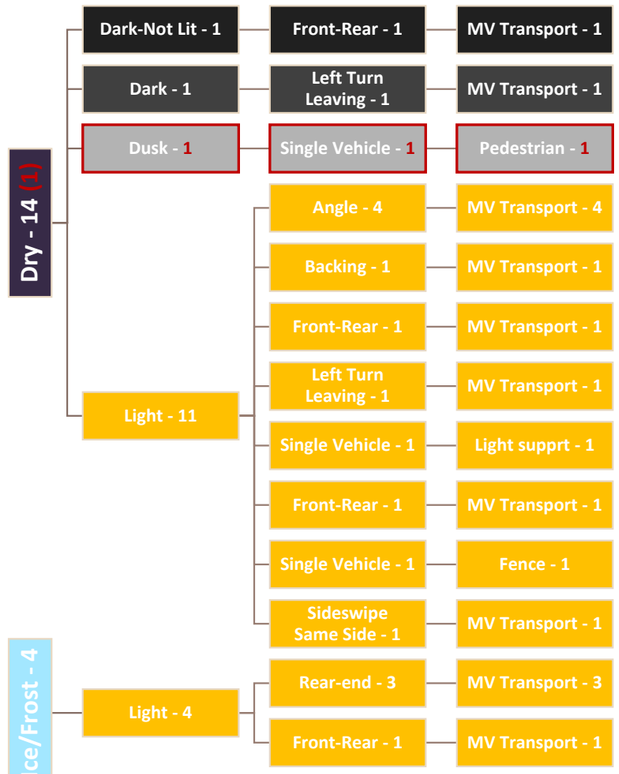


US30 and 13th (4.6)



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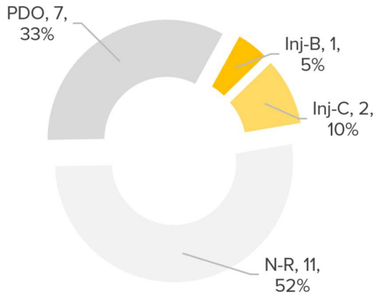

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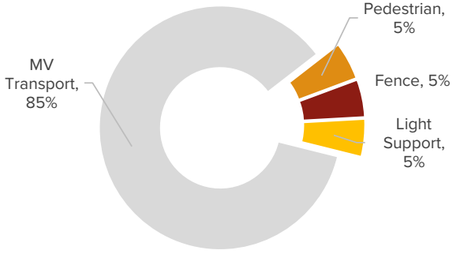

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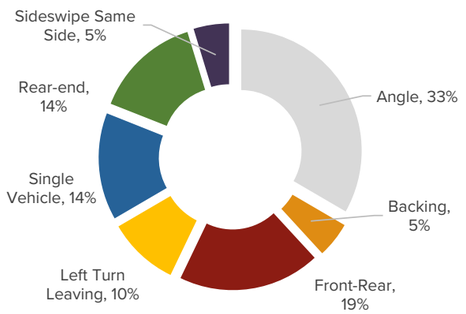
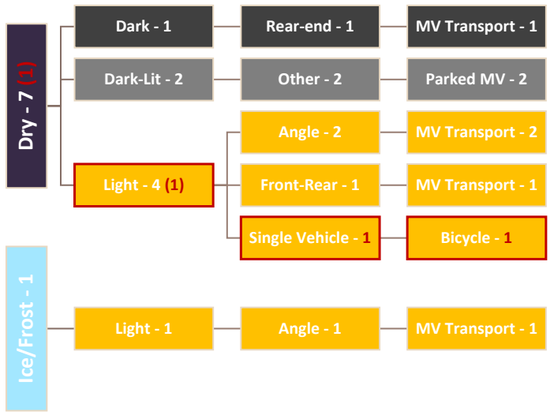


Crash Trees

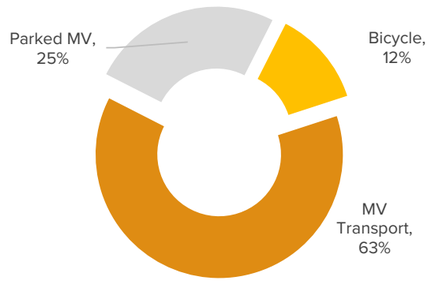
Jackson and 13th (4.7)



CRASH SEVERITY



FIRST HARMFUL EVENT



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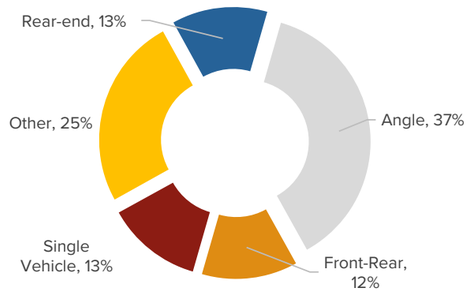
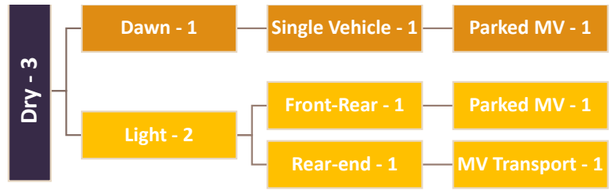


Jackson and 12th (4.8)



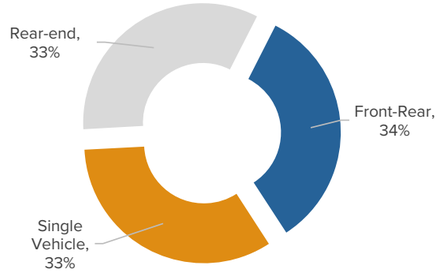
CRASH SEVERITY



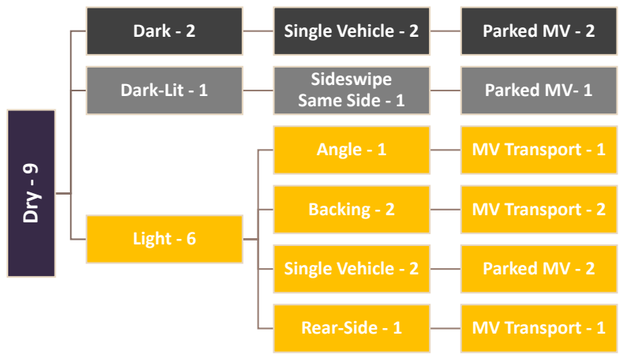
FIRST HARMFUL EVENT



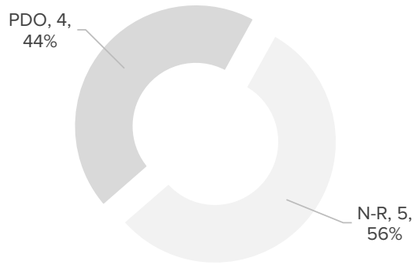
COLLISION TYPE



Jackson and 11th (4.9)



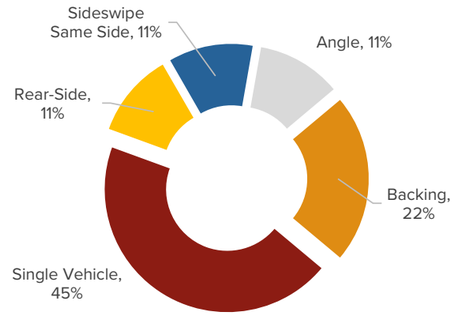
CRASH SEVERITY



FIRST HARMFUL EVENT

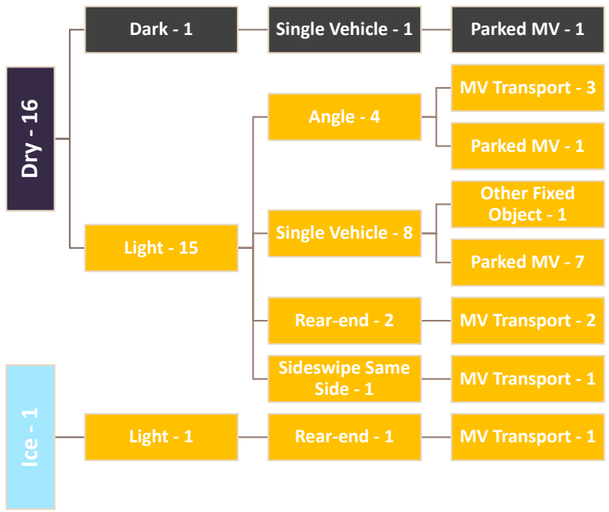


COLLISION TYPE

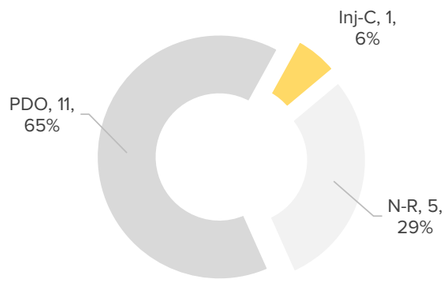


Crash Trees

Jackson and 10th (4.10)



CRASH SEVERITY



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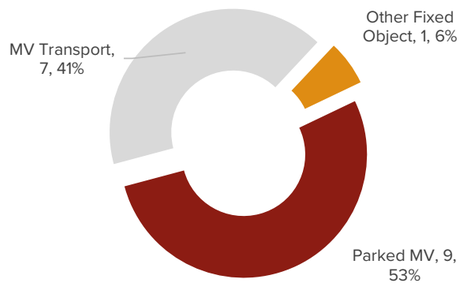

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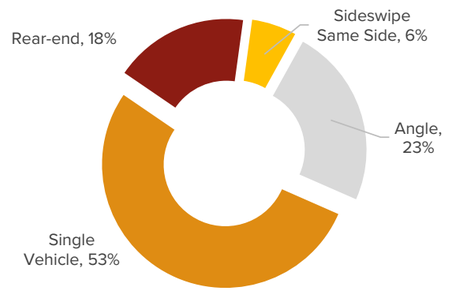
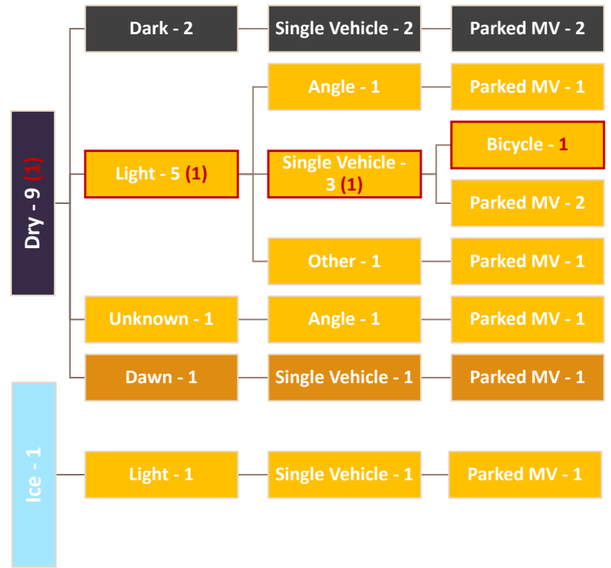


Jackson and 9th (4.11)



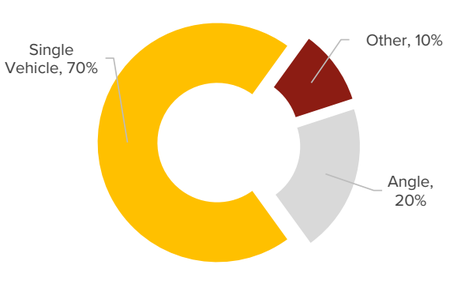
CRASH SEVERITY



FIRST HARMFUL EVENT

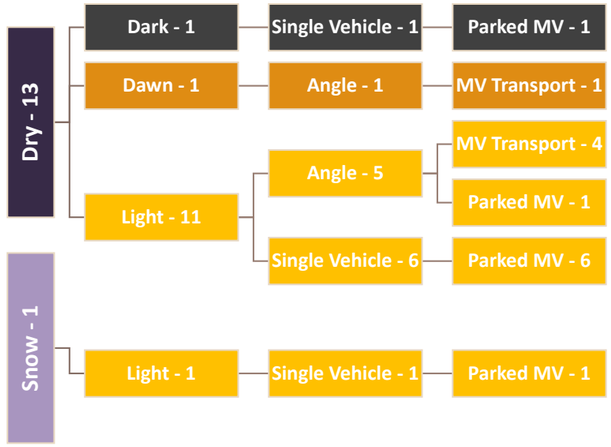


COLLISION TYPE



Crash Trees

South Ward Elementary (5.1)



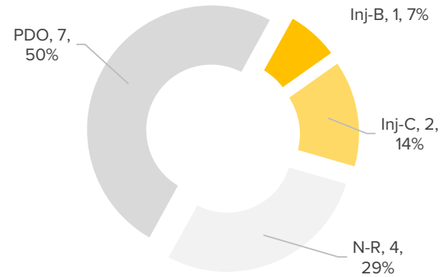
COLLISION TYPE



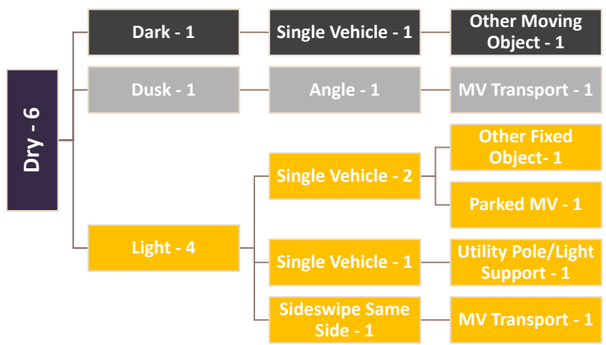
FIRST HARMFUL EVENT



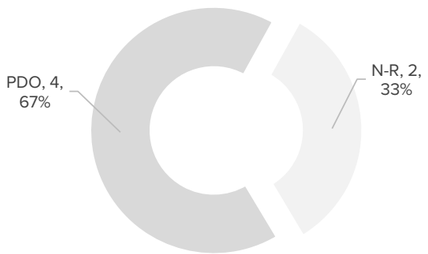
CRASH SEVERITY



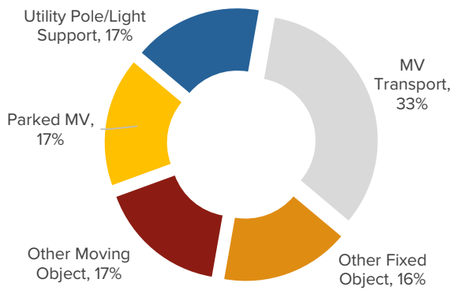
West Ward Elementary (5.3)



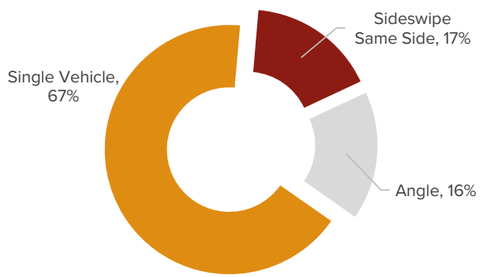
CRASH SEVERITY



FIRST HARMFUL EVENT

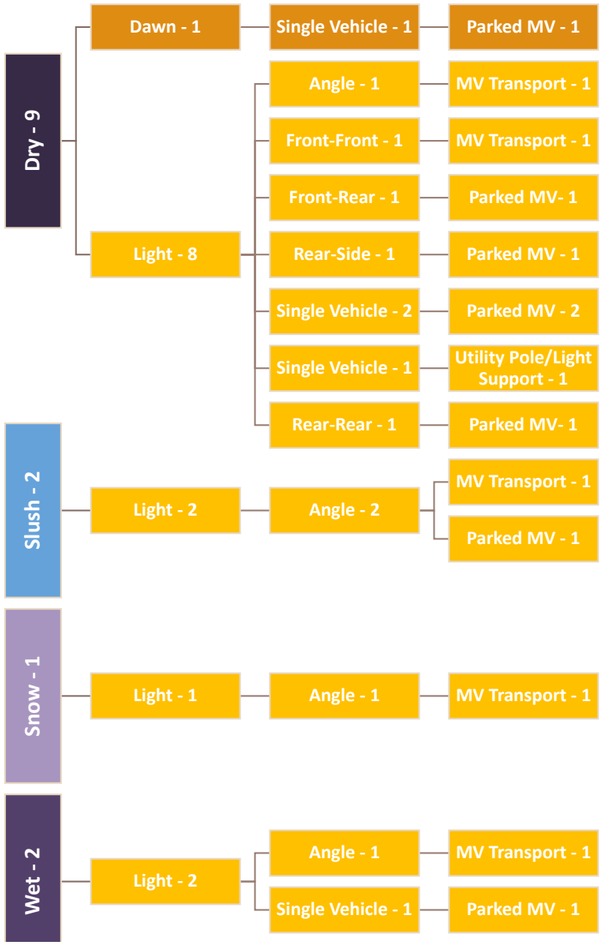


COLLISION TYPE



Crash Trees

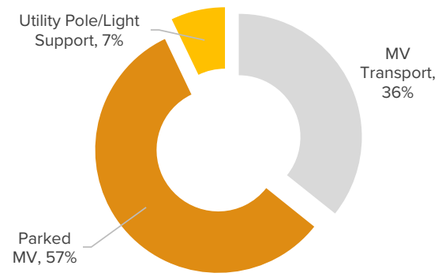
Central Ward Elementary (5.2)



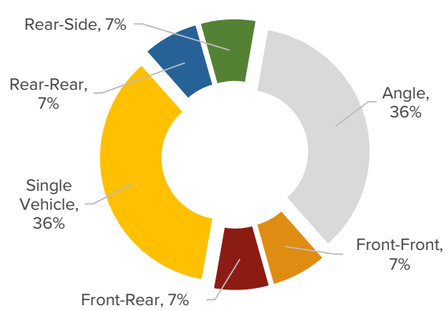
CRASH SEVERITY



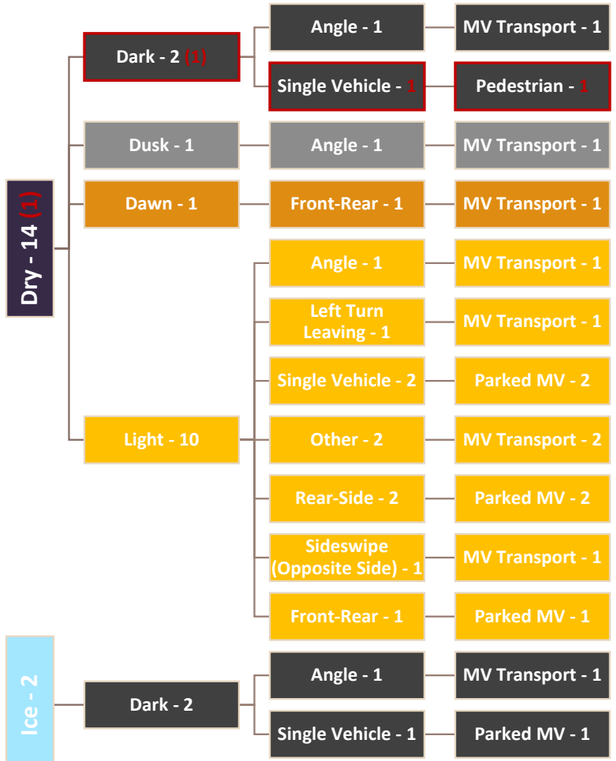
FIRST HARMFUL EVENT



COLLISION TYPE



Junior/Senior High School (5.4)



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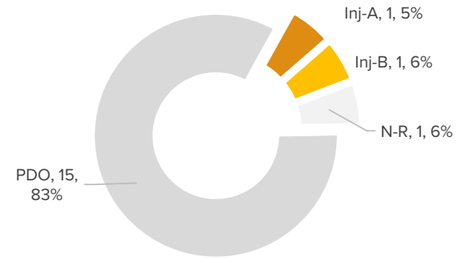
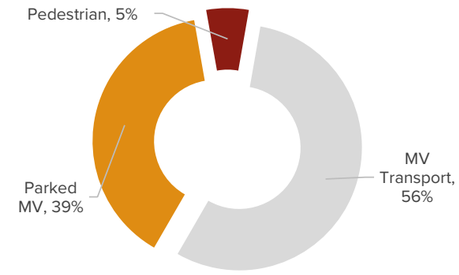


FIRST HARMFUL EVENT



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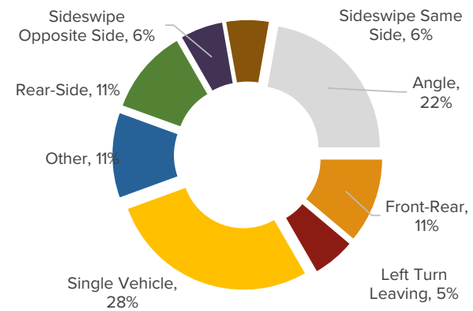
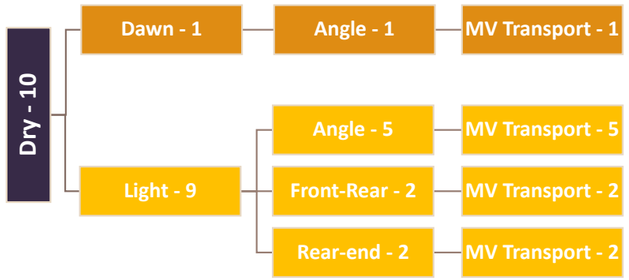


Crash Trees

Pole Creek Crossing/ Fort Sidney Road (6)



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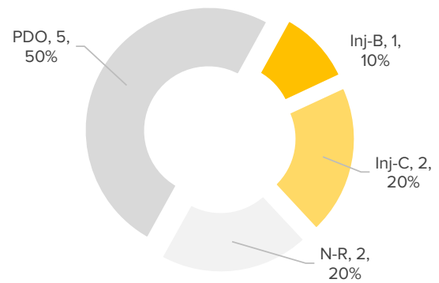
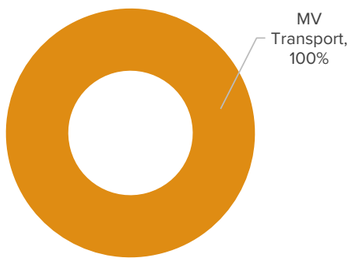
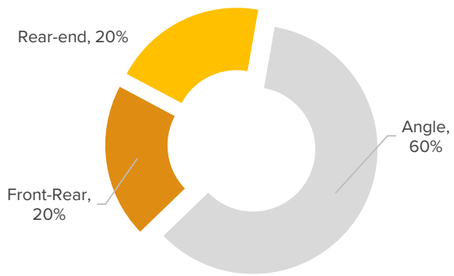


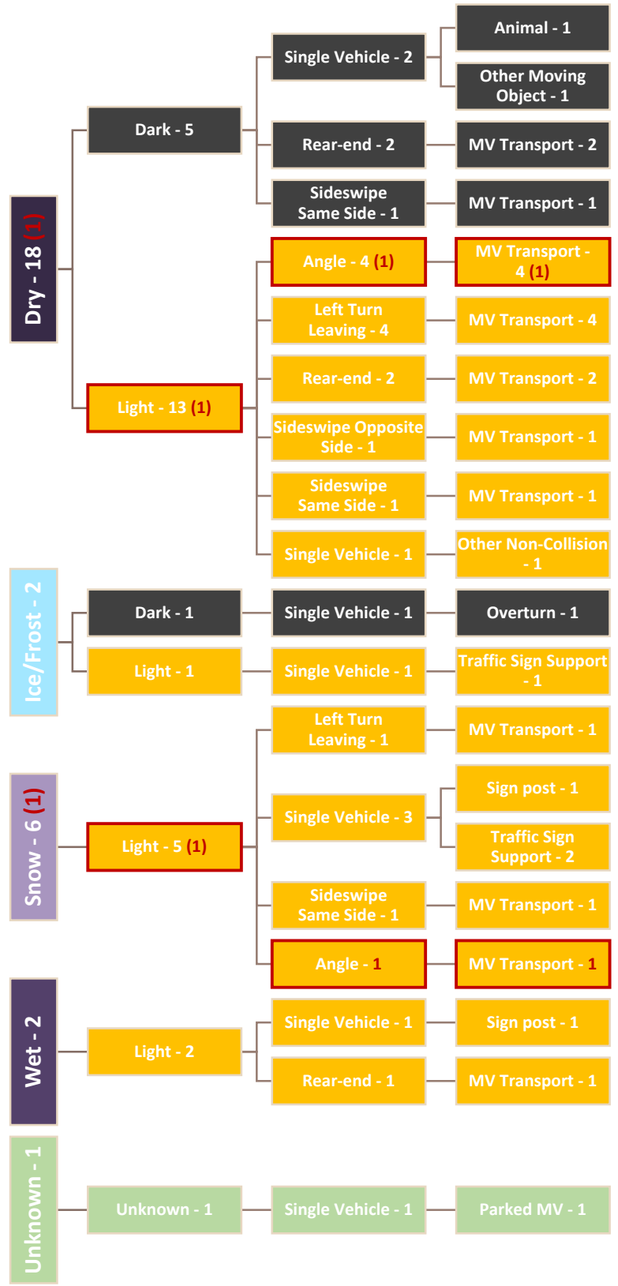
FIRST HARMFUL EVENT



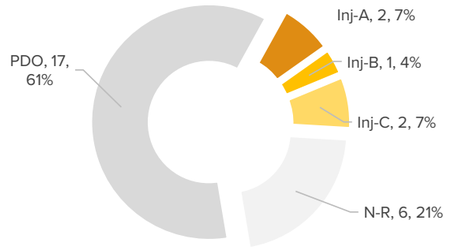
COLLISION TYPE



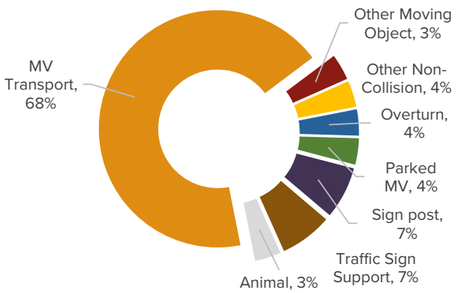
US30 and L17J (7)



CRASH SEVERITY



FIRST HARMFUL EVENT



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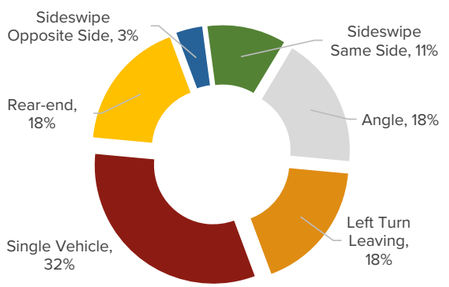
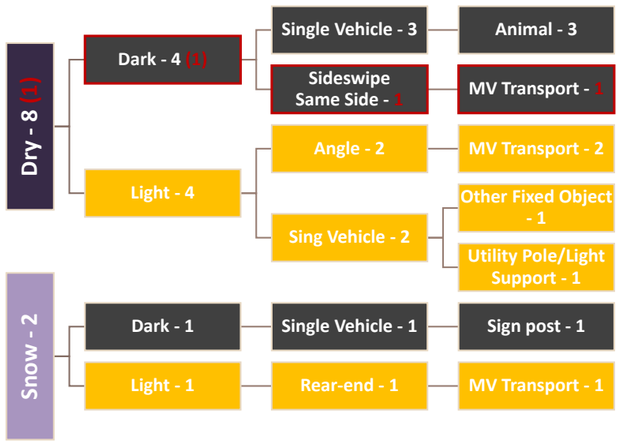


Crash Trees

L17J and Pole Creek Crossing (8)



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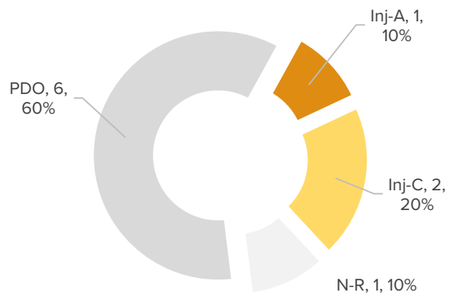
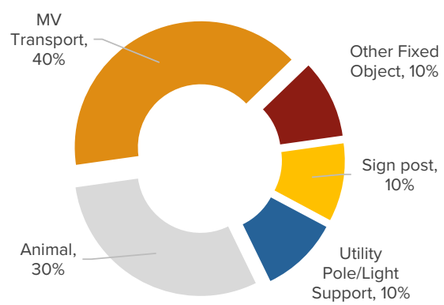


FIRST HARMFUL EVENT



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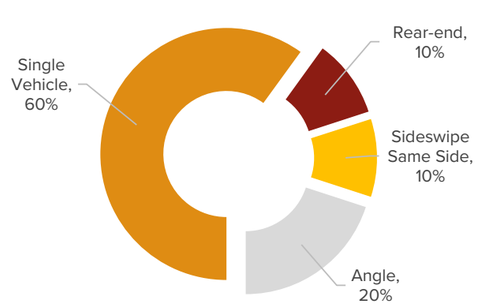
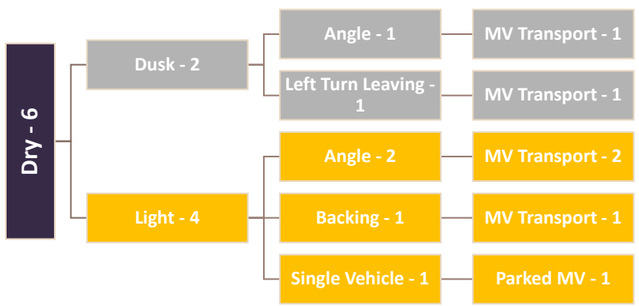


Toledo Street and 10th Avenue (9)



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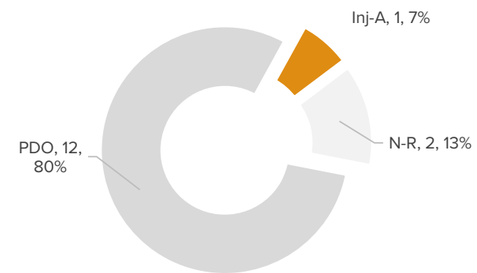
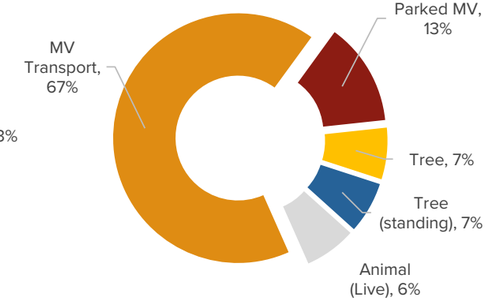


FIRST HARMFUL EVENT



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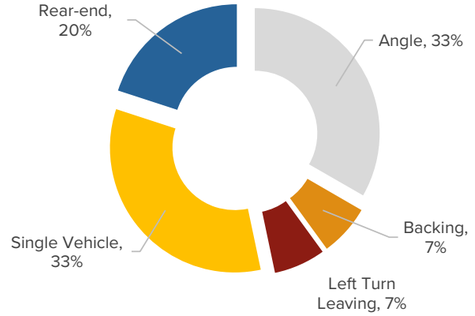
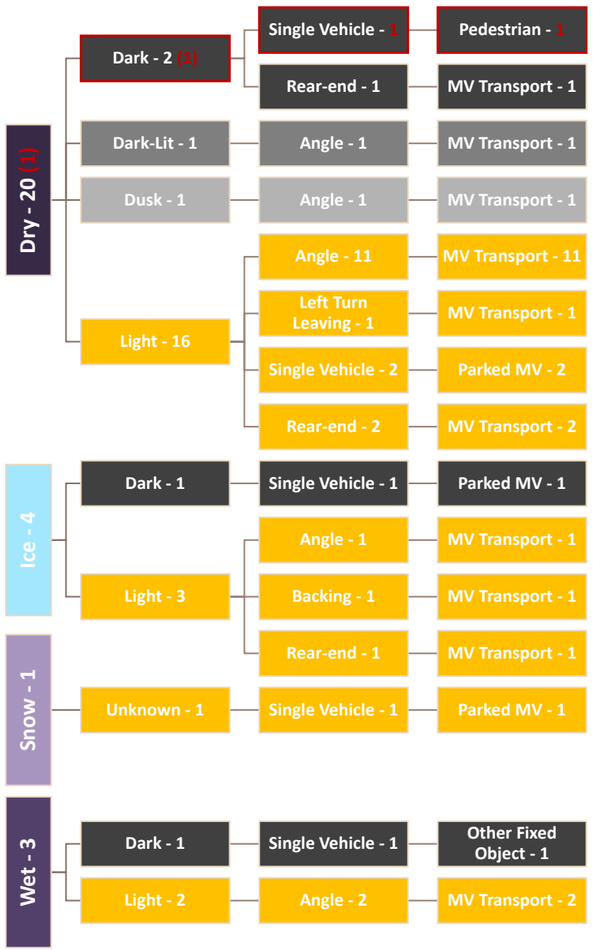


Crash Trees

9th Avenue, Newton and Linden Street (10.1)



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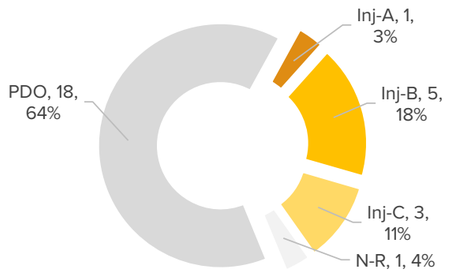
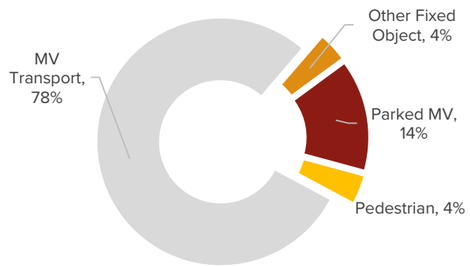


FIRST HARMFUL EVENT



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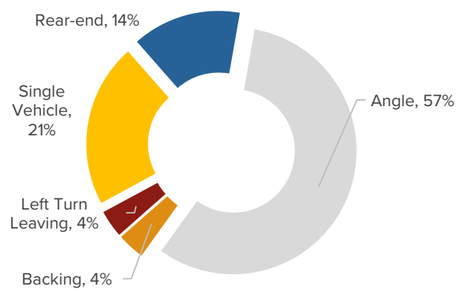
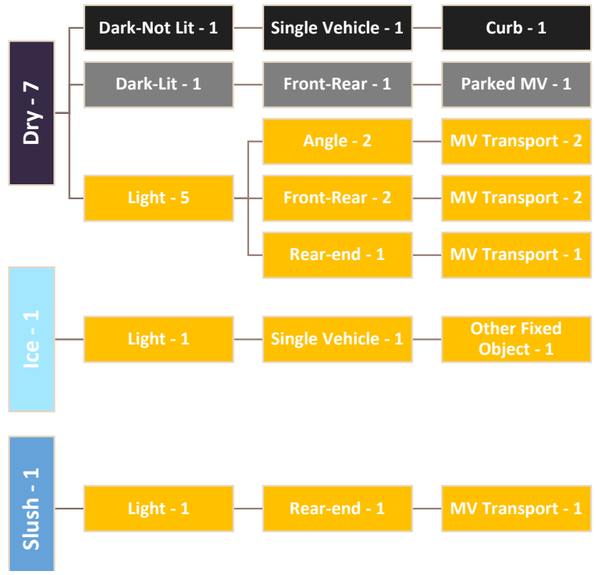


13th Avenue, North of Forrest to Cedar Street (10.2)



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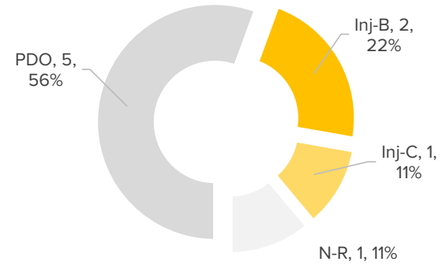
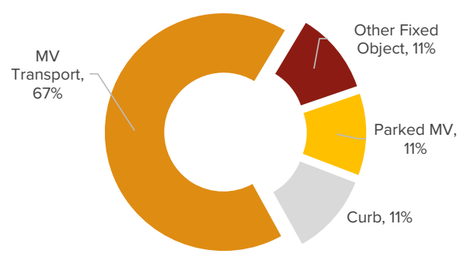
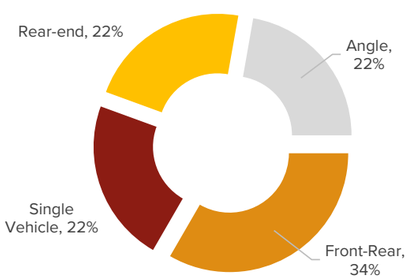


FIRST HARMFUL EVENT

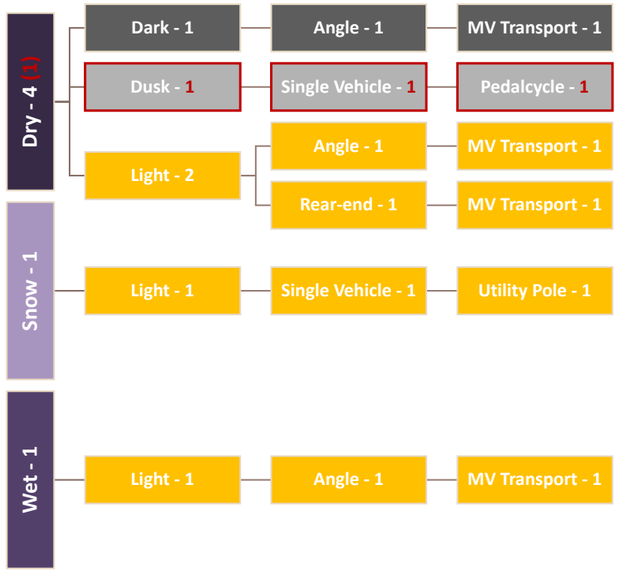


COLLISION TYPE



Crash Trees

19th Avenue, Dodge and Cedar Streets (10.3)



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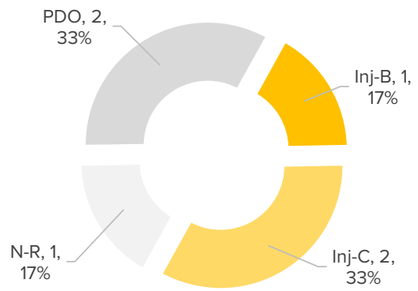
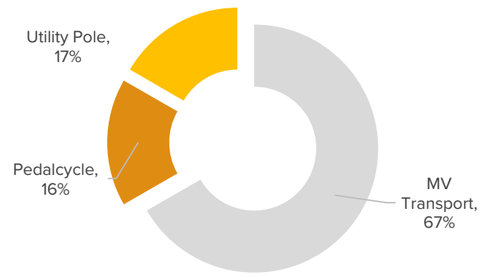


FIRST HARMFUL EVENT



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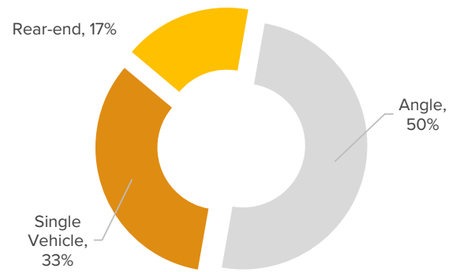
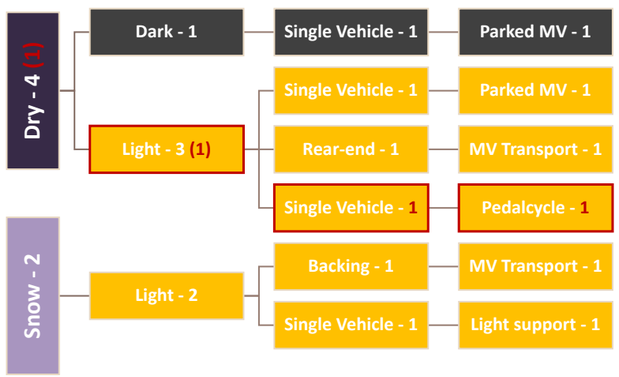


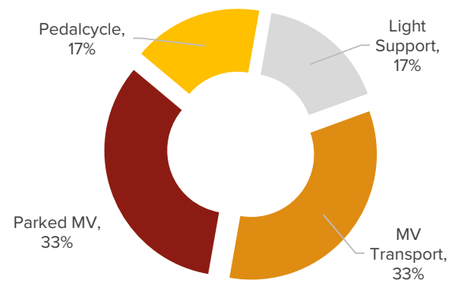
Forrest Street, West of 13th to 19th Avenue (10.4)



CRASH SEVERITY



FIRST HARMFUL EVENT



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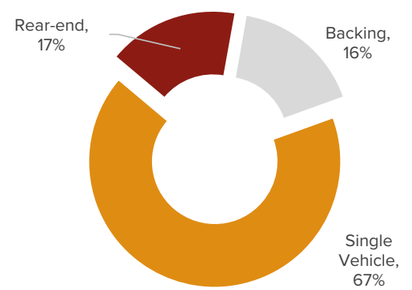
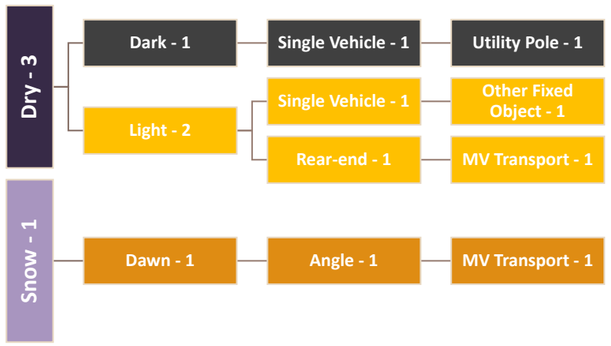
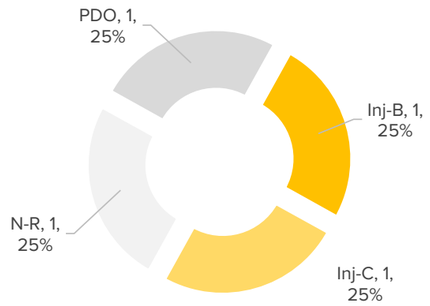


Crash Trees

13th Avenue Railroad Crossing (10.5)



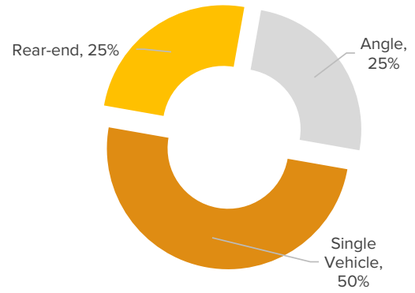
CRASH SEVERITY



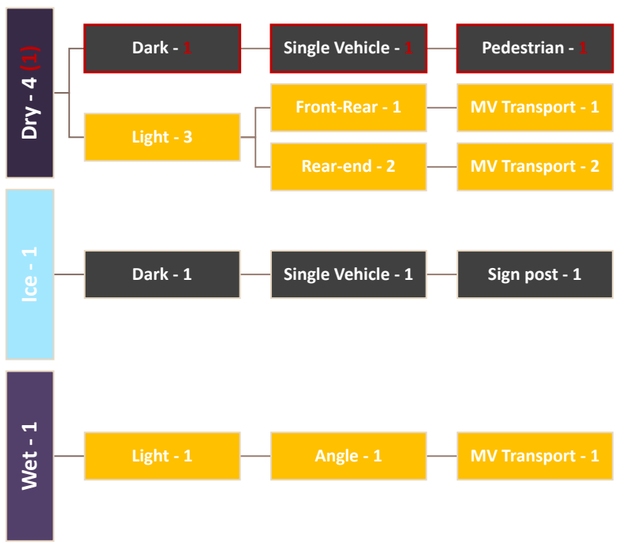
FIRST HARMFUL EVENT



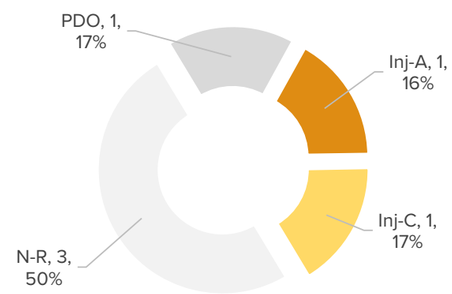
COLLISION TYPE



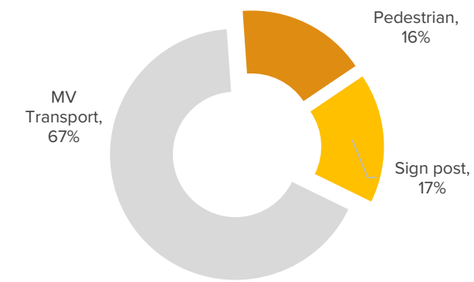
10th Avenue Railroad Crossing (10.6)



CRASH SEVERITY



FIRST HARMFUL EVENT



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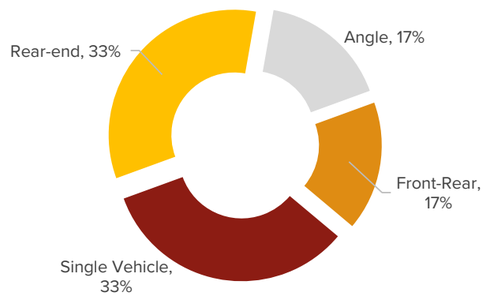
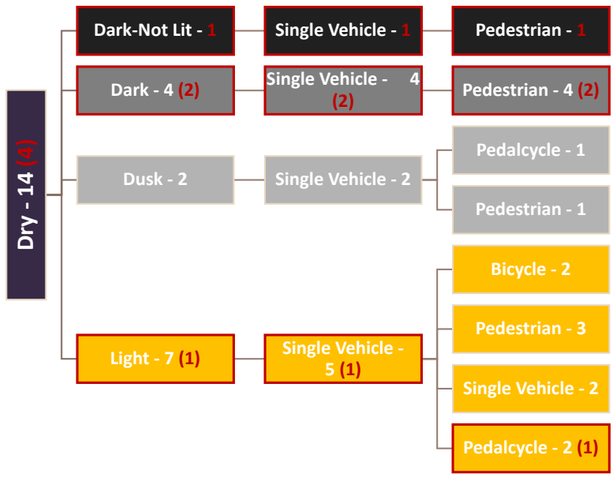


Crash Trees

Pedestrian and Bicycle Collisions



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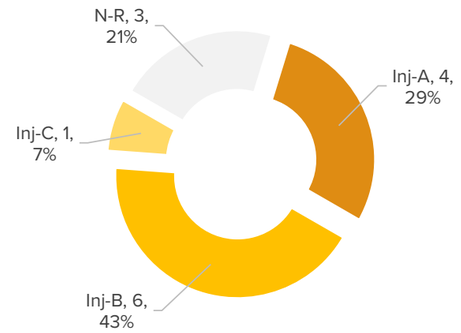
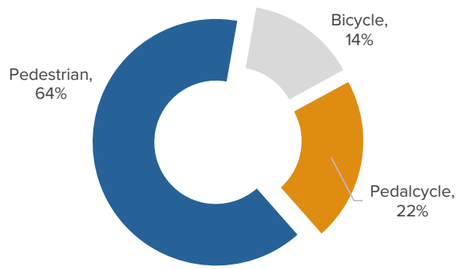


FIRST HARMFUL EVENT



COLLISION TYPE

