

APPENDIX E

Traffic Analysis

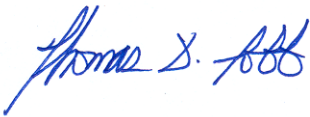
Memorandum

Date: April 25, 2018

To: Mr. Tom Mason, Director, MPO

CC: Ms. Nancy Olson, Project Manager, MPO

From: Thomas D. Cobb, PE, Project Manager



Subject: **Whitney Road Corridor Study (AVI Project No. 3987.16) related to Traffic Impact Study Whitney Ranch completed by Kimley-Horn**

The MPO and City of Cheyenne were in the process of reviewing the final *Traffic Impact Study Whitney Ranch Cheyenne, Wyoming December 21, 2017* (TIS) completed by Kimley-Horn (KM-H). AVI believes that the study has now been accepted by the City of Cheyenne. This detailed traffic impact study prompted discussion during the Whitney Ranch Steering Committee Meetings that scope alterations may be prudent related to Professional Traffic Engineering on the Whitney Road Corridor Study. Consequently, as you were aware, we instructed our sub-consultant Sustainable Traffic Solutions (STS) to hold completion of the Whitney Road traffic analysis until a final determination was made.

Discussions at the time for the traffic impact study were specifically related to 2040 projected traffic volumes for Whitney Road (from Storey Blvd to U.S. 30) and Dell Range Blvd (from VanBuren Avenue to U.S. 30). Consequently, in order to complete our work for the Whitney Road Corridor Study, we respectfully request a formal response from the MPO regarding the following questions:

1. Has the MPO accepted the 2040 projected volumes for traffic and intersections related to the Whitney Road Corridor Study in the final Whitney Ranch *Traffic Impact Study for Whitney Ranch* developed by Kimley-Horn dated December 21, 2017?



2. If accepted, should STS and AVI utilize all the information within the KM-H TIS traffic impact study to complete the Whitney Road Corridor Study (i.e. Projected 2040 projected corridor volumes, Intersection directional volumes, Signal warrant analysis, Level of service analysis)?

Our recommendation would be to only utilize the 2040 projected land use and background volumes and have our sub-consultant review directional volumes, signal warrant analysis, and level of service of Whitney Road and Dell Range Blvd within our project area to confirm analysis.

The reduction of the traffic scope would then be applied to the Second Open House Public Meeting you have requested of the team.

Highway Safety Intersection Crash History Report

Intersection ID: 14886

County:LARAMIE

City:CHEYENNE

Years 2014 to 2014

Facility Type: UrXx3

Area Type:U

Marked Crosswalk at Intersection

Number of Legs:3

Leg	Date	Time	Report#	# Inj	# Killed	Lighting	Junction Relation	First Harmful Event	Manner of Collision	Grid Cell
2014										
WHITNEY RD	03/24/14	1304	04433	0	0	Daylight	03	Motor Vehicle in Transport on Roadway	Rear End (Front to Rear)	Sideswipe Straight North Parking Vehicle North

Highway Safety Intersection Report

WHITNEY RD | CR 129-1@BECKLE RD | CR 212-3

Intersection ID: 14886 County:LARAMIE City:CHEYENNE Years:2014 to 2018
Facility Type:UrXx3 Area Type:U Marked Crosswalk at Intersection Number of Legs:3

Intersection Crash Types Statistics

Grid Cell	Crash Type	Count
K13	Sideswipe Straight North Parking Vehicle North	1

Intersection Crash Summaries

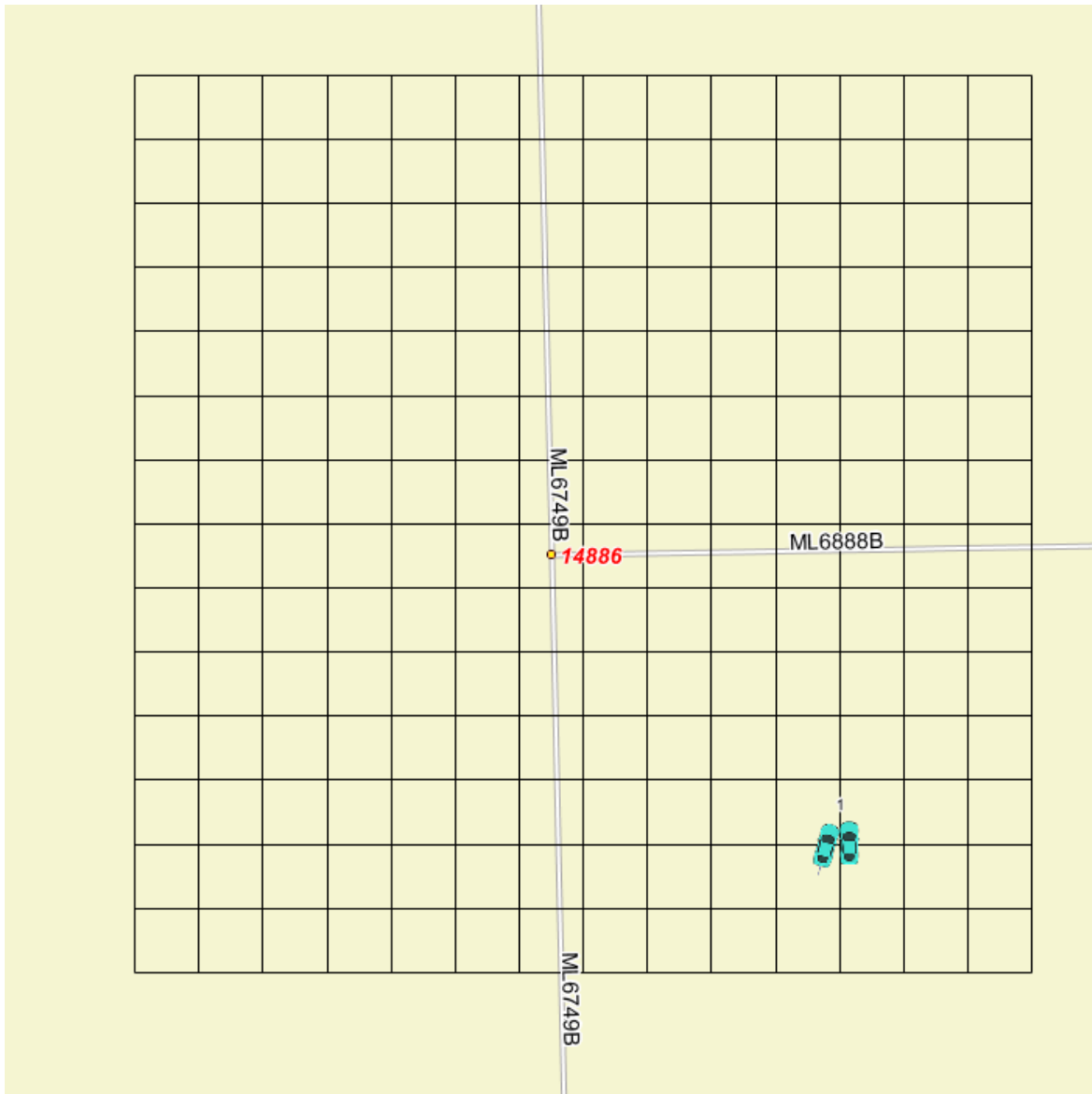
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SERIOUS_CRASHES	0
DAMAGE_CRASHES	1
TOTAL_CRASHES	1
PERSONS_INJURED	0
PERSONS_KILLED	0

Collision Diagram

Intersection ID:14886

Intersection Names:WHITNEY RD | CR 129-1@BECKLE RD | CR

Crash types are based on a grid format and are not indicative of crash location



Severity Diagram

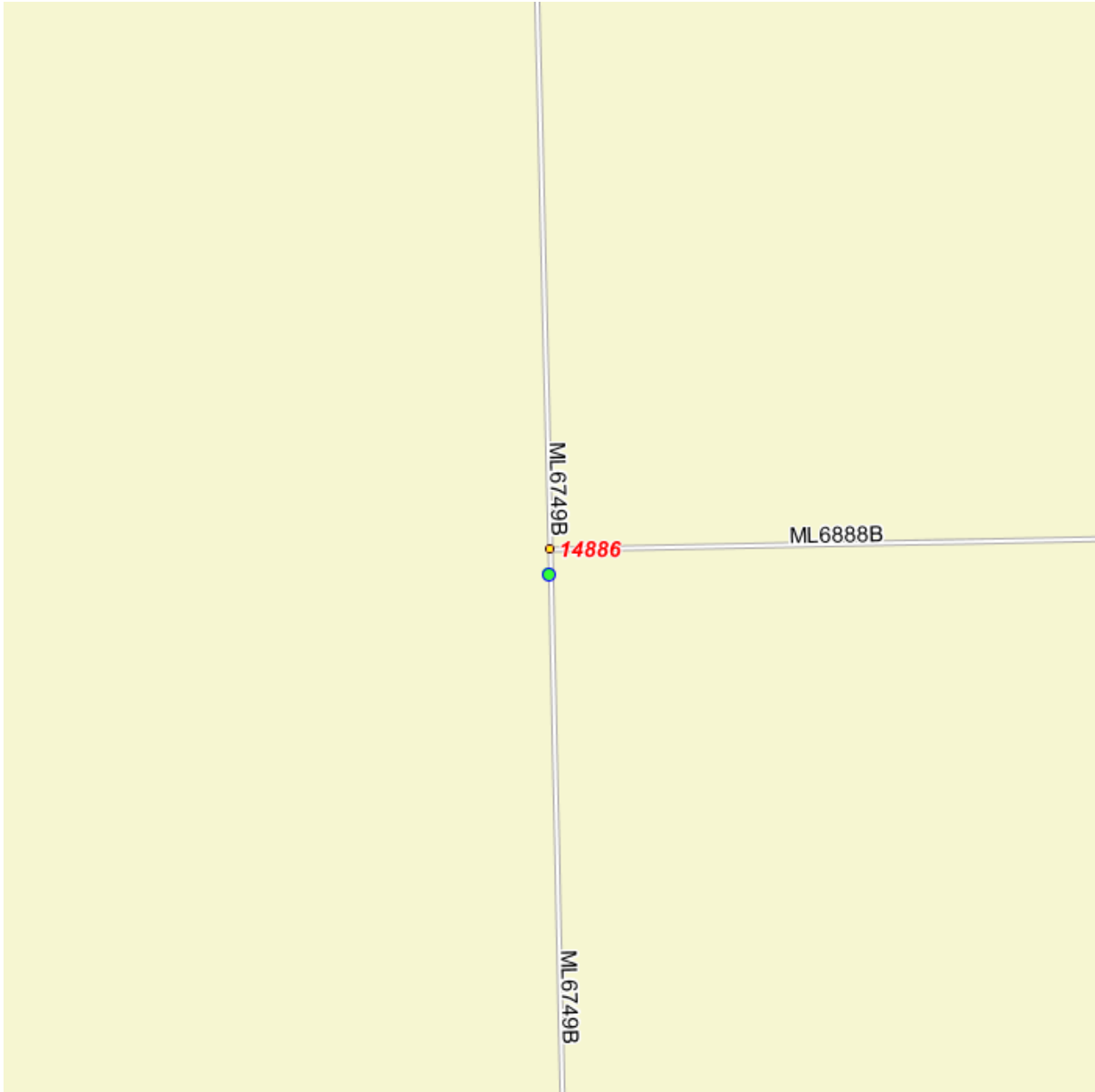
INTERSECTION_ID 14886

INTERSECTION_ROUTES:ML6749B|ML6888B

Locations displayed on Severity Diagram are based on longitude and latitude. Discrepancy between Latitude/Longitude and Route/MP may result in points not appearing on diagram.

LRS Intersection: ML6749B|ML6888B

Intersection Name: WHITNEY RD | CR 129-1@BECKLE RD | CR 212-3



LRS Intersection: ML6749B|ML6888B

Intersection Name: WHITNEY RD | CR 129-1@BECKLE RD | CR 212-3

Highway Safety Intersection Crash History Report

Intersection ID: 13343

County:LARAMIE

City:CHEYENNE

Years 2014 to 2018

Facility Type: UrXx4

Area Type:U

Intersection w/o Marked Crosswalk

Number of Legs:4

Leg	Date	Time	Report#	# Inj	# Killed	Lighting	Junction Relation	First Harmful Event	Manner of Collision	Grid Cell
2014										
WHITNEY RD	12/28/14	0848	17590	0	0	Daylight	01	Other Fixed Object	Not a Collision w/2 Vehicles in Transport	Unknown
DELL RANGE BLVD	07/25/14	1658	10018	0	0	Daylight	02	Motor Vehicle in Transport on Roadway	Angle Right (Front to Side, includes Broadside)	Angle Right South Straight West
2016										
WHITNEY RD	08/25/16	0747	10155	0	0	Daylight	02	Motor Vehicle in Transport on Roadway	Angle Right (Front to Side, includes Broadside)	Angle Straight East Left North
DELL RANGE BLVD	08/04/16	1144	10421	1	1	Daylight	02	Motor Vehicle in Transport on Roadway	Angle Right (Front to Side, includes Broadside)	Unknown
DELL RANGE BLVD	10/26/16	1904	12997	2	0	Darkness Lighted	02	Motor Vehicle in Transport on Roadway	Angle Right (Front to Side, includes Broadside)	Angle Straight East Right North
2017										
DELL RANGE BLVD	12/05/17	1301	15129	1	0	Daylight	02	Motor Vehicle in Transport on Roadway	Angle Right (Front to Side, includes Broadside)	Angle Straight West Right North
DELL RANGE BLVD	07/27/17	0840	08859	0	0	Daylight	02	Motor Vehicle in Transport on Roadway	Angle (Front to Side), Opposing Direction	Angle Straight East Straight North
2018										
DELL RANGE BLVD	10/20/18	2108	12619	2	0	Darkness Lighted	02	Motor Vehicle in Transport on Roadway	Angle Right (Front to Side, includes Broadside)	Angle Right South Straight West

Highway Safety Intersection Report

WHITNEY RD | CR 129-1@DELL RANGE BLVD | CR 211-1

Intersection ID: 13343 County:LARAMIE City:CHEYENNE Years:2014 to 2018
Facility Type:UrXx4 Area Type:U Intersection w/o Marked Crosswalk Number of Legs:4

Intersection Crash Types Statistics

Grid Cell	Crash Type	Count
A1	Unknown	2
D5	Angle Right South Straight West	2
H10	Angle Straight East Left North	1
K8	Angle Straight East Straight North	1
M8	Angle Straight West Right North	1
K10	Angle Straight East Right North	1

Intersection Crash Summaries

CRITICAL_CRASHES	2
SERIOUS_CRASHES	2
DAMAGE_CRASHES	4
TOTAL_CRASHES	8
PERSONS_INJURED	6
PERSONS_KILLED	1

Collision Diagram

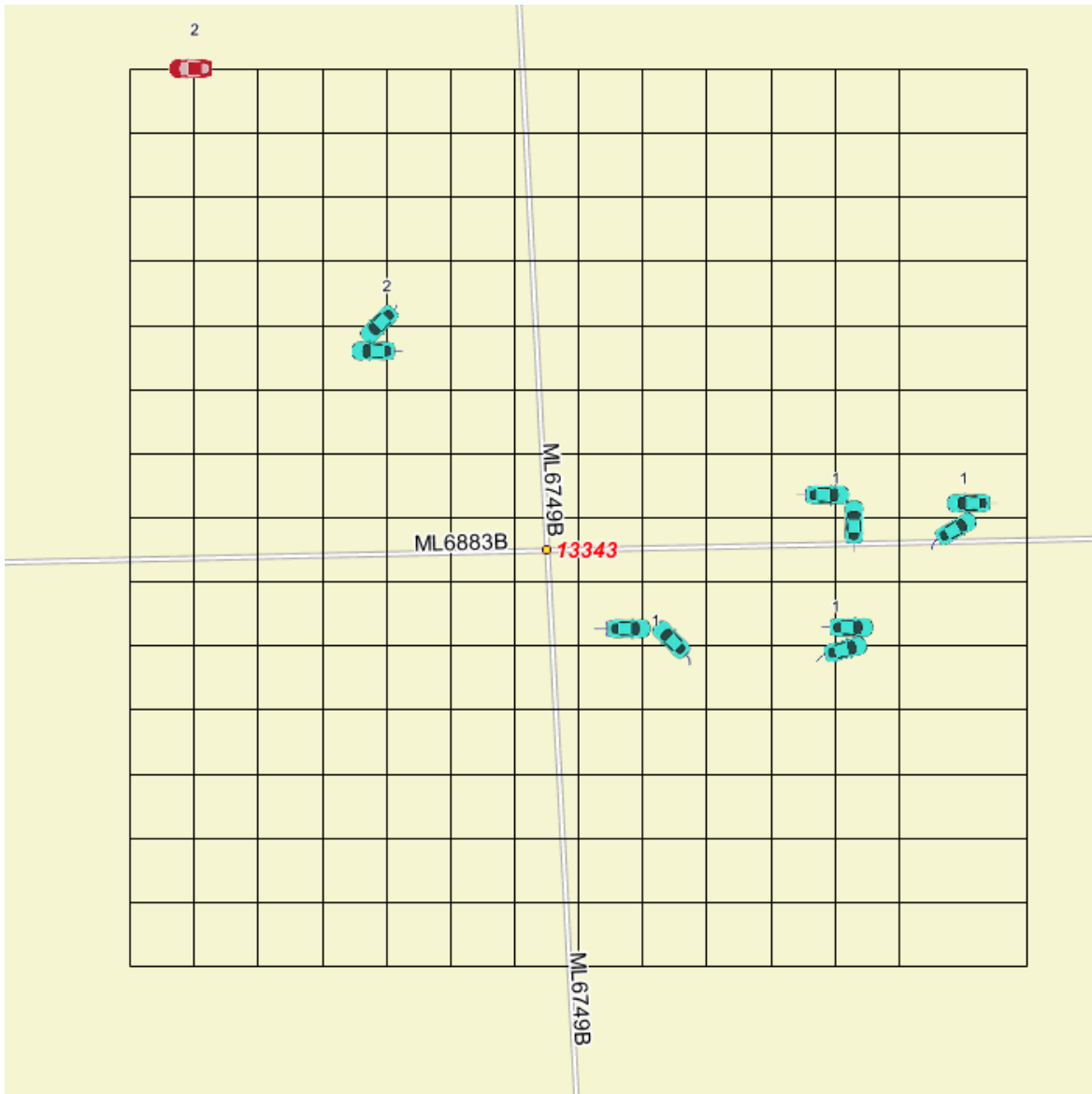
Intersection ID:13343

Intersection Names:WHITNEY RD | CR 129-1@DELL RANGE

Crash types are based on a grid format are are not indicative of crash location

LRS Intersection: ML6749B|ML6883B

Intersection Name: WHITNEY RD | CR 129-1@DELL RANGE BLVD | CR 211-1



Severity Diagram

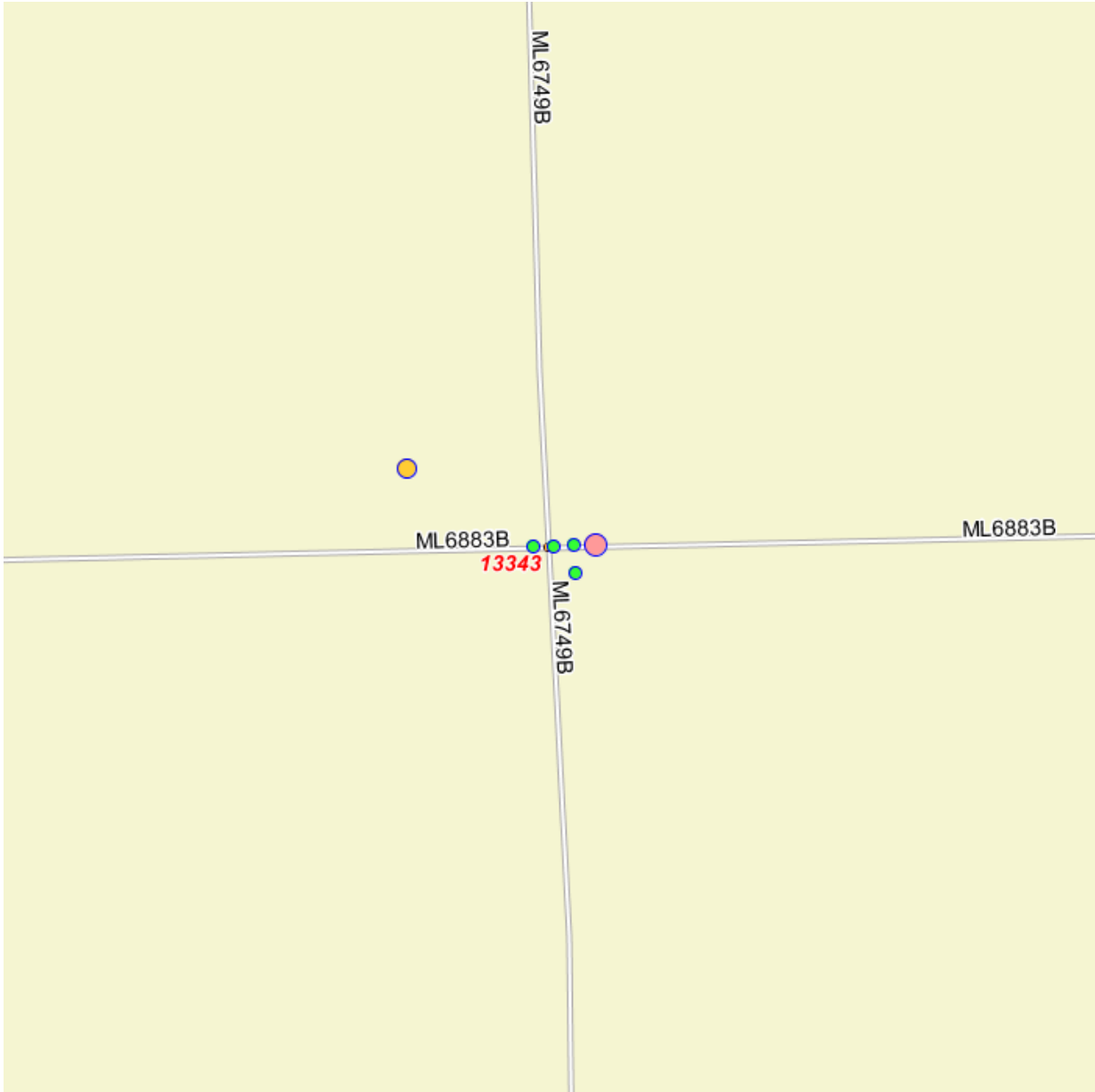
INTERSECTION_ID 13343

INTERSECTION_ROUTES:ML6749B|ML6883B

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LRS Intersection: ML6749B|ML6883B

Intersection Name: WHITNEY RD | CR 129-1@DELL RANGE BLVD | CR 211-1



LRS Intersection: ML6749B|ML6883B

Intersection Name: WHITNEY RD | CR 129-1@DELL RANGE BLVD | CR 211-1

Highway Safety Intersection Crash History Report

Intersection ID: 14459

County:LARAMIE

City:CHEYENNE

Years 2015 to 2018

Facility Type: UrUn4

Area Type:U

Intersection w/o Marked Crosswalk

Number of Legs:4

Leg	Date	Time	Report#	# Inj	# Killed	Lighting	Junction Relation	First Harmful Event	Manner of Collision	Grid Cell
2015										
US 30	05/31/15	0113	06266	1	0	Darkness Unlighted	03	Earth Embankment/Berm	Not a Collision w/2 Vehicles in Transport	Unknown
US 30	07/05/15	1110	09117	0	0	Daylight	02	Motor Vehicle in Transport on Roadway	Angle Right (Front to Side, includes Broadside)	Unknown South
WHITNEY RD	02/05/15	0810	01430	0	0	Daylight	03	Traffic Sign Support	Not a Collision w/2 Vehicles in Transport	Unknown
WHITNEY RD	02/03/15	0748	01590	0	0	Daylight	03	Motor Vehicle in Transport on Roadway	Rear End (Front to Rear)	Sideswipe Straight South Parked Vehicle South
WHITNEY RD	11/05/15	0800	13726	0	0	Daylight	03	Motor Vehicle in Transport on Roadway	Rear End (Front to Rear)	Rear End Straight North Straight North
2016										
US 30	03/02/16	1927	03018	1	0	Darkness Unlighted	02	Motor Vehicle in Transport on Roadway	Angle Right (Front to Side, includes Broadside)	Angle Right South Straight West
US 30	01/18/16	1838	00552	0	0	Darkness Lighted	02	Motor Vehicle in Transport on Roadway	Angle Right (Front to Side, includes Broadside)	Angle Straight East Right North
US 30	02/18/16	1552	02196	0	0	Daylight	02	Motor Vehicle in Transport on Roadway	Angle Right (Front to Side, includes Broadside)	Angle Straight West Right North
US 30	12/02/16	1515	16890	0	0	Daylight	02	Raised Median or Curb	Not a Collision w/2 Vehicles in Transport	Unknown
2018										
US 30	10/20/18	1946	12925	2	0	Darkness Lighted	02	Motor Vehicle in Transport on Roadway	Angle Right (Front to Side, includes Broadside)	Angle Straight East Right North
US 30	10/20/18	1012	12338	5	1	Daylight	02	Motor Vehicle in Transport on Roadway	Angle Right (Front to Side, includes Broadside)	Angle Straight East Right North

Highway Safety Intersection Crash History Report

Intersection ID: 14459

County:LARAMIE

City:CHEYENNE

Years 2015 to 2018

Facility Type: UrUn4

Area Type:U

Marked Crosswalk at Intersection

Number of Legs:4

Leg	Date	Time	Report#	# Inj	# Killed	Lighting	Junction Relation	First Harmful Event	Manner of Collision	Grid Cell
US 30	07/26/18	0553	08220	0	0	Dawn	02	Motor Vehicle in Transport on Roadway	Angle Right (Front to Side, includes Broadside)	Angle Straight South Right East
US 30	02/23/18	1407	02236	0	0	Daylight	03	Utility Pole/Light Support	Not a Collision w/2 Vehicles in Transport	Unknown
US 30	09/04/18	1649	10771	0	1	Daylight	02	Motor Vehicle in Transport on Roadway	Angle Right (Front to Side, includes Broadside)	Angle Straight East Right North
US 30	02/13/18	0753	01683	5	0	Daylight	02	Motor Vehicle in Transport on Roadway	Angle Right (Front to Side, includes Broadside)	Angle Right South Straight West
US 30	11/03/18	1829	12991	0	0	Darkness Unlighted	02	Motor Vehicle in Transport on Roadway	Angle (Front to Side), Opposing Direction	Angle Straight East Left North
WHITNEY RD	04/14/18	1221	04022	0	0	Daylight	02	Motor Vehicle in Transport on Roadway	Angle Right (Front to Side, includes Broadside)	Angle Right South Straight West

Highway Safety Intersection Report

US 30@WHITNEY RD | CR 129-1

Intersection ID: 14459 County:LARAMIE City:CHEYENNE Years:2014 to 2018
Facility Type:UrUn4 Area Type:U Intersection w/o Marked Crosswalk Number of Legs:4

Intersection Crash Types Statistics

Grid Cell	Crash Type	Count
K10	Angle Straight East Right North	4
A1	Unknown	4
D5	Angle Right South Straight West	3
M8	Angle Straight West Right North	1
D2	Sideswipe Straight South Parked Vehicle South	1
H10	Angle Straight East Left North	1
J13	Rear End Straight North Straight North	1
E11	Angle Straight South Right East	1
A2	Unknown South	1

Intersection Crash Summaries

CRITICAL_CRASHES	2
SERIOUS_CRASHES	4
DAMAGE_CRASHES	11
TOTAL_CRASHES	17
PERSONS_INJURED	14
PERSONS_KILLED	2

Collision Diagram

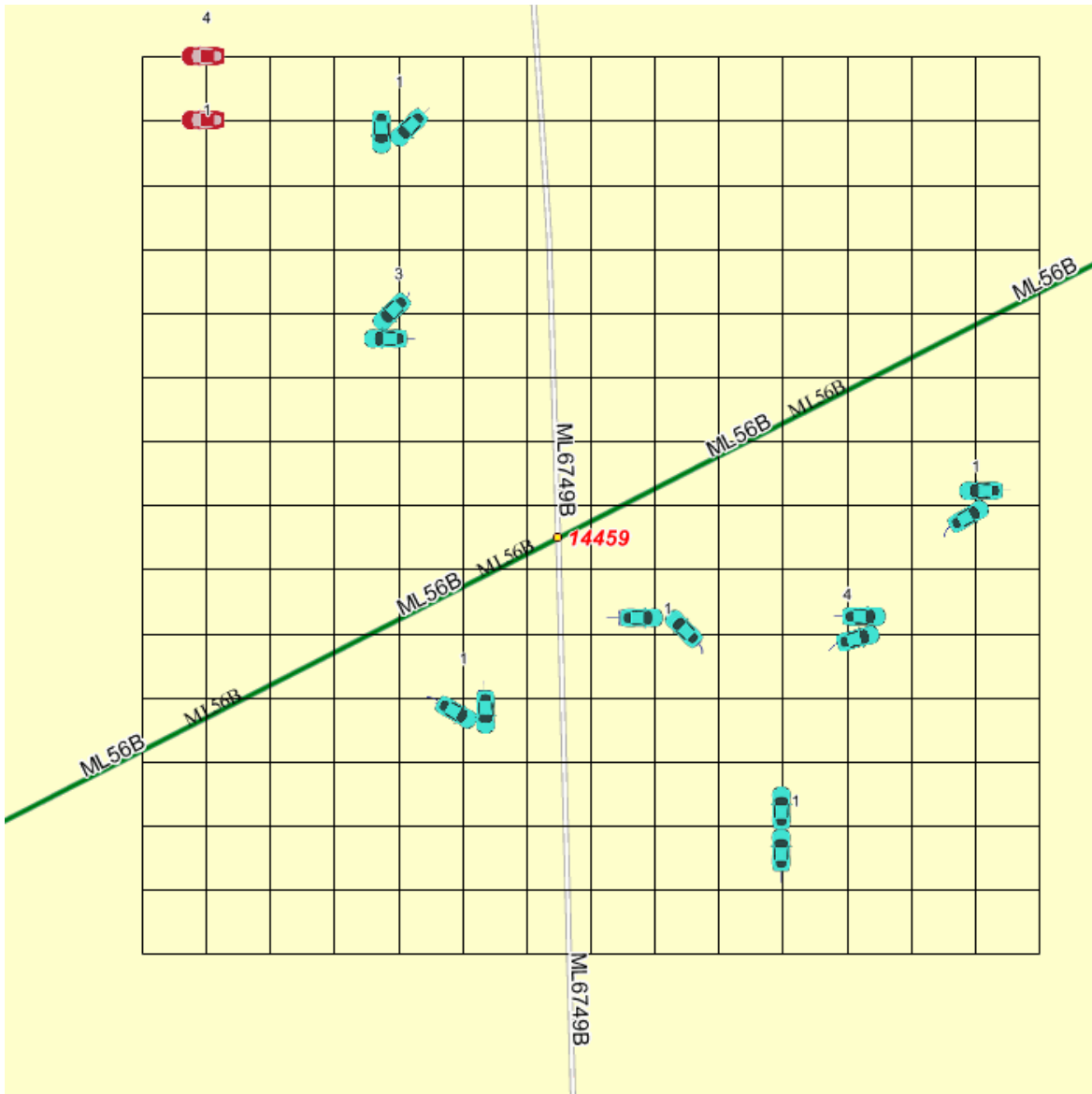
Intersection ID:14459

Intersection Names:US 30@WHITNEY RD | CR 129-1

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LRS Intersection: ML56B|ML6749B

Intersection Name: US 30@WHITNEY RD | CR 129-1



Severity Diagram

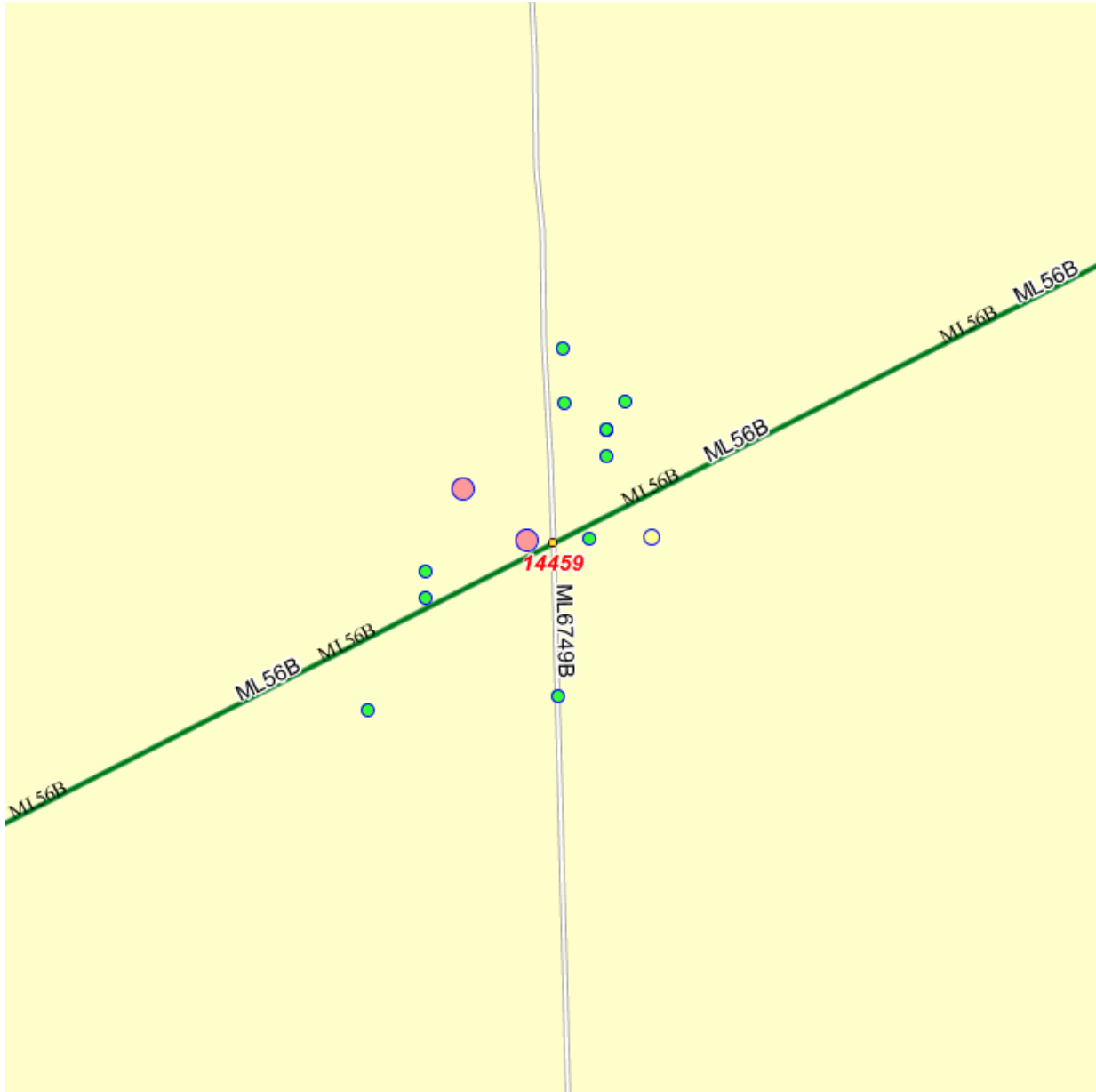
INTERSECTION_ID 14459

INTERSECTION_ROUTES:ML56B|ML6749B

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LRS Intersection: ML56B|ML6749B

Intersection Name: US 30@WHITNEY RD | CR 129-1



LRS Intersection: ML56B|ML6749B

Intersection Name: US 30@WHITNEY RD | CR 129-1