

Technical Memo 1

Date: Wednesday, March 01, 2017

Project: Northeast Pierre Transportation Plan

To: Steve Gramm, Study Advisory Team

From: Rick Laughlin

Subject: Safety analysis

This Technical Memorandum presents an analysis of crash records and safety issues within the study area for the Northeast Pierre Transportation Plan. Information from this analysis will be used to help determine transportation needs and plan transportation improvements within the study area.

Crash records were provided by SDDOT for the years 2011-2015, the most recent five-year period for which complete records are available. The records were reviewed and analyzed to determine if any statistical trends exist.

Comments were also received from state and local officials and the public regarding potential safety problems within the study area. Both the crash record analysis and comments will be used to identify safety improvement needs.

Study Area Characteristics

The study area comprises a large portion of northeast Pierre, SD, and the adjacent land planned for future development. The following arterial routes are contained in the study area and have received detailed safety review:

- US 14/US 83 (Euclid Avenue)
- US 14B/US 83B (Garfield Avenue)
- SD 1804
- 4th Street/Airport Rd.

These arterial routes carry commuter traffic, local commercial traffic, and cross-country traffic, including a significant truck component. The study area includes a portion of the Pierre urbanized area and the adjacent urbanizing rural area, served by collector and local streets. Traffic conditions vary from slightly congested, low-speed urban routes to high-speed rural routes with little or no congestion.

Crash locations within the study area are shown in **Figure 1 – Study Area Crash Locations**.

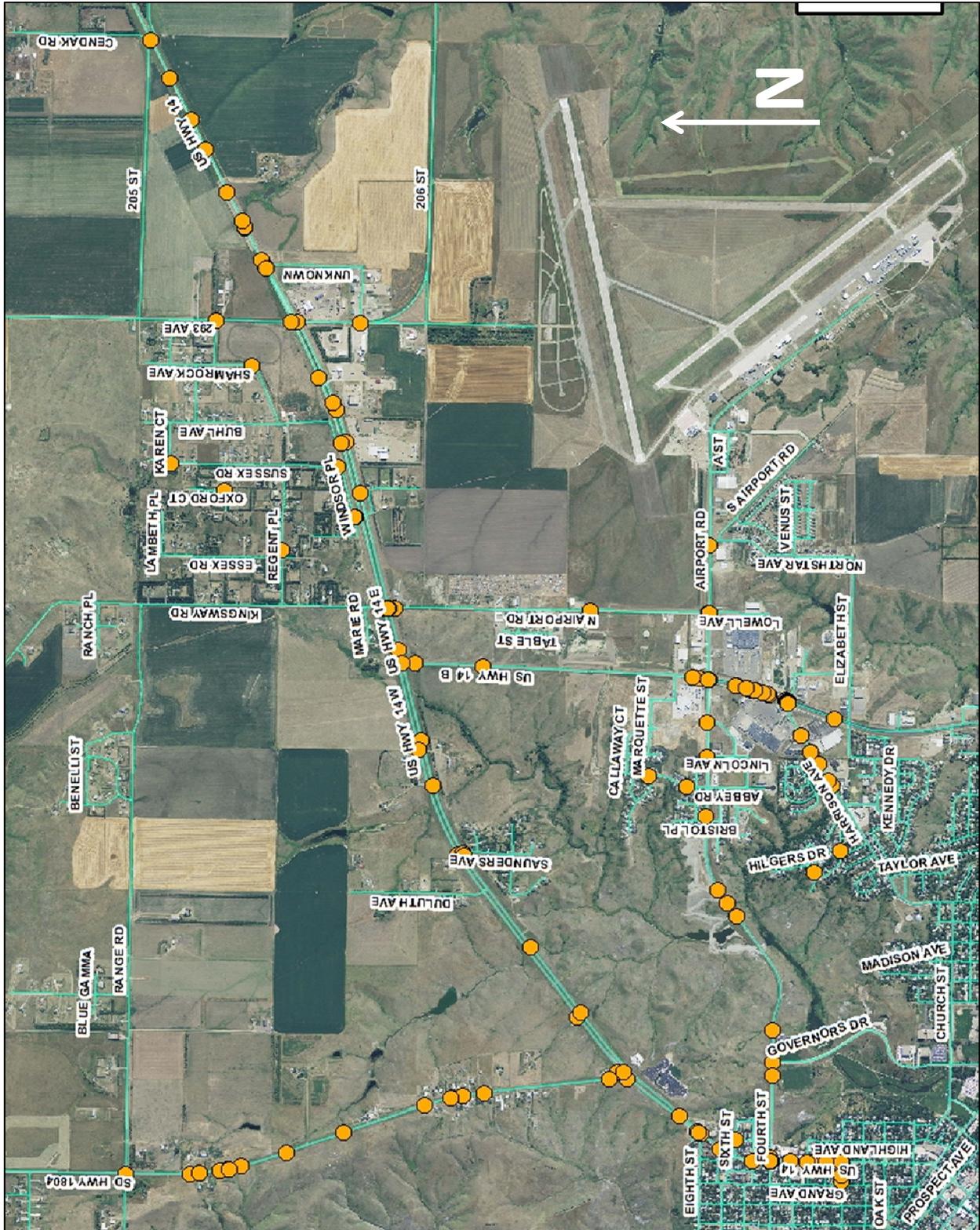


Figure 1 – Study Area Crash Locations

Signalized Intersection Analysis

The signalized intersections within the study area were analyzed using the Critical Rate technique specified in the *Highway Safety Manual* (American Association of State Highway and Transportation Officials, 2010). The results of the critical rate analysis, displayed in Table 1, show that one intersection, US 14B/US 83B/Garfield Avenue at 4th Street/Airport Road, exceeded its critical crash rate during the analysis time period.

Review of the crash records for this intersection indicated that 73% of the crashes occurred in 2011 and 2012 and were mostly angle crashes where a left-turning driver was cited for failure to yield. When a large number of crashes with similar characteristics occur at one location within a short time frame, but the crash rate and frequency is not seen in subsequent years, the period of elevated crash frequency is usually due to a temporary condition, such as roadway construction. In this case, no action is recommended, but crash trends should continue to be monitored in the future.

The remaining signalized intersections had low crash numbers and sub-critical crash rates.

**TABLE 1 - CRITICAL CRASH RATE EVALUATION - SIGNALIZED INTERSECTIONS
NORTHEAST PIERRE TRANSPORTATION PLAN**

INTERSECTION	DAILY TEV	NUMBER OF CRASHES	MEV	CRASH RATE	CRITICAL CRASH RATE	RATIO INTERSECTION CRASH RATE TO CRITICAL CRASH RATE
EUCLID/ELIZABETH	8800	2	16.1	0.12	0.54	0.23
GARFIELD/HARRISON	15000	5	27.4	0.18	0.47	0.39
GARFIELD/4TH	13600	15	24.8	0.60	0.48	1.26
GARFIELD/BROOKSTONE	4900	0	8.9	0.00	0.63	0.00
WEIGHTED AVERAGE CRASH RATE				0.28		

Stop-controlled Intersection Analysis

The stop-controlled intersections within the study area were characterized by wide varieties of traffic volumes and operating conditions and did not represent a coherent dataset for critical rate analysis. Most intersections had 0-3 crashes within the five year period, a level usually considered too low to provide useful data for trend analysis. Three intersections, though, had higher crash numbers and are reviewed separately below:

- US 14/US 83 (Euclid Avenue) at 4th Street, 7 crashes – 57% of the crashes were angle-type, several with a driver cited for failure to yield. Low peak hour levels of service with significant delays have been identified on the stop-controlled 4th Street approaches. This location is being considered for signalization or conversion to a roundabout.

- US 14/US 83 at US 14B/US 83B (Garfield Avenue), 10 crashes – 70% of the crashes were angle-type, several with a driver cited for failure to yield. The intersection has a relatively large volume of traffic turning from westbound US 14/US 83 onto the truck bypass (Garfield Avenue). Sight distance is generally good, but some drivers may be misjudging the amount of clearance available for turning in front of an oncoming vehicle. This location is programmed for reconfiguration in 2017 and will be considered for further long-term improvement as part of this study.
- US 14/US 83 at North Airport Road/Kingsway Road, 8 crashes – 75% of the crashes were angle-type, most with a driver cited for failure to yield. The intersection has a relatively large volume of traffic turning from US 14/US 83 onto North Airport Road or Kingsway Road. Sight distance is generally good, but some drivers may be misjudging the amount of clearance available for turning in front of an oncoming vehicle. This location is programmed for reconfiguration in 2017 and will be considered for further long-term improvement as part of this study.

Segment Analysis

The arterial roadway segments between the analyzed intersections were reviewed for crash characteristics. The review produced the following findings:

- The rate of crashes in urbanized areas was related to the number of access points in the segment, with a mixture of rear-end and angle crashes.
- The rate of crashes in non-urbanized areas varied, but crashes were most typically animal hits or run-off-road events.

Local Knowledge

Input from the public and local officials provided the following additional insights related to safety:

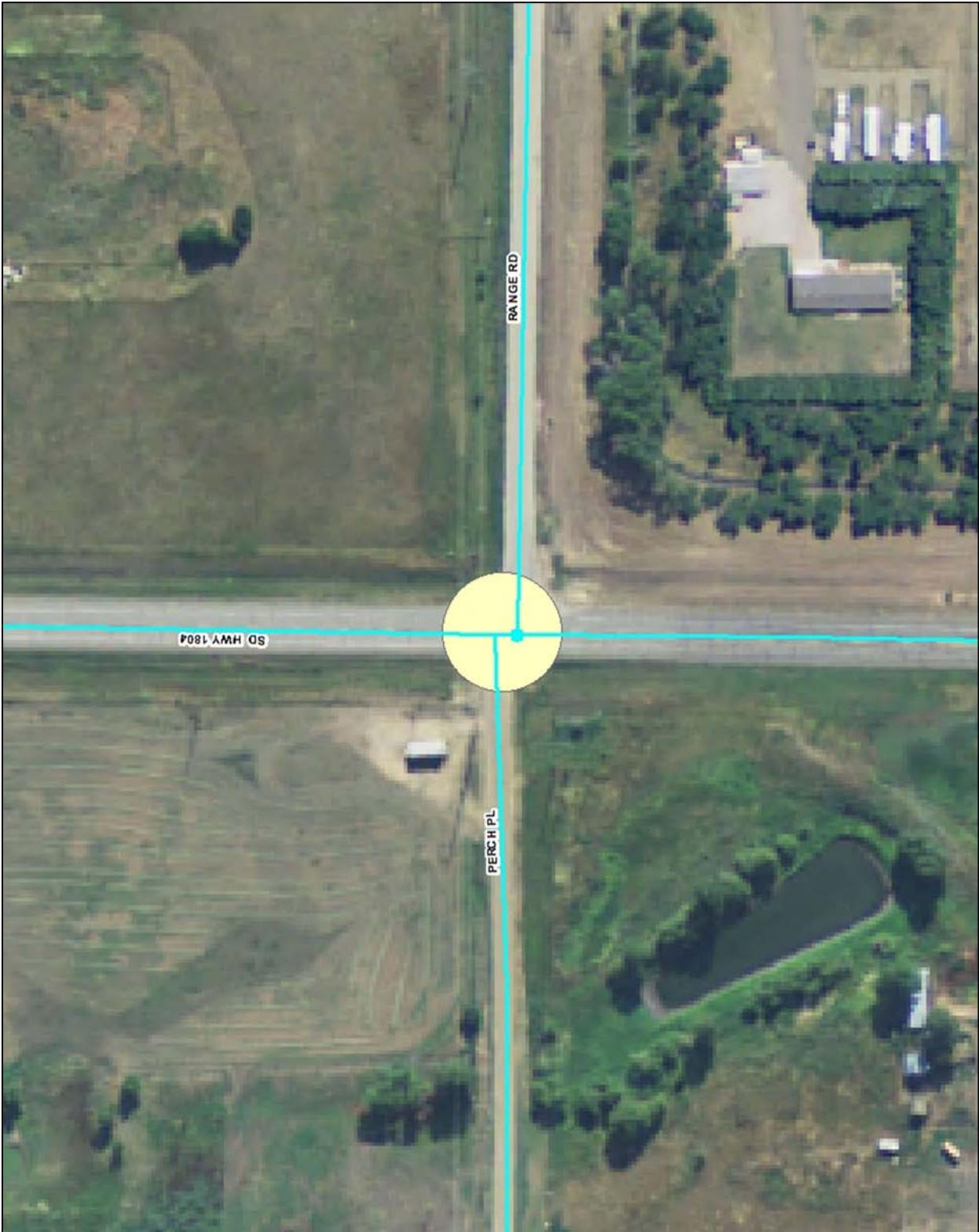
- The public perceives the US 14/US 83 at North Airport Road/Kingsway Road intersection as a safety problem. Public comments called for addition of turn lanes on US 14/US 83 and reduction of the speed limit. Turn lanes were also requested at other intersections along the rural portion of US 14/US 83.
- Bicyclists use these routes, particularly SD 1804 and US 14/US 83. Facilities should be provided for safe bicycle operation.
- Some people view the southbound right-turn movement at US 14/US 83 at SD 1804 as a problem, citing failure-to-yield incidents.

Maps and Reports

Maps and crash reports for intersections and roadway segments in the study area are contained in the appendix to this memorandum.

APPENDIX

Intersection and Segment Crash Maps and Crash Reports



Crash Map – SD 1804/Range Rd.



SD 1804/Range Rd. Crashes

AccidentDateTi	VehicleManeuver	RoadCondDesc	FirstHarmfulEven	InjurySeverity	MannerOfCollision	LightCondition	DriverContribCirc
7/3/2013 3:51:00 PM	Overtaking/passing, Turning left	Dry	Motor vehicle in transport	Non-incapacitating	Angle	Daylight	Exceeded posted speed limit; Improper passing; None
12/23/2014 12:18:00 PM	Straight ahead	Snow	Motor vehicle in transport	No injury	Angle	Daylight	Driving too fast for conditions; None



Crash Map – Euclid Ave./Elizabeth St.



Euclid Ave./Elizabeth St. Crashes

AccidentDateTi	VehicleManeuver	RoadCondDesc	FirstHarmfulEven	InjurySeverity	MannerOfCollision	LightCondition	DriverContribCirc
7/21/2012 5:57:00 PM	Straight ahead	Dry	Motor vehicle in transport	No injury	Angle	Daylight	Disregarded traffic signs or signals; None
4/11/2013 9:05:00 AM	Straight ahead	Ice	Motor vehicle in transport	Incapacitating	Angle	Daylight	Driving too fast for conditions; None

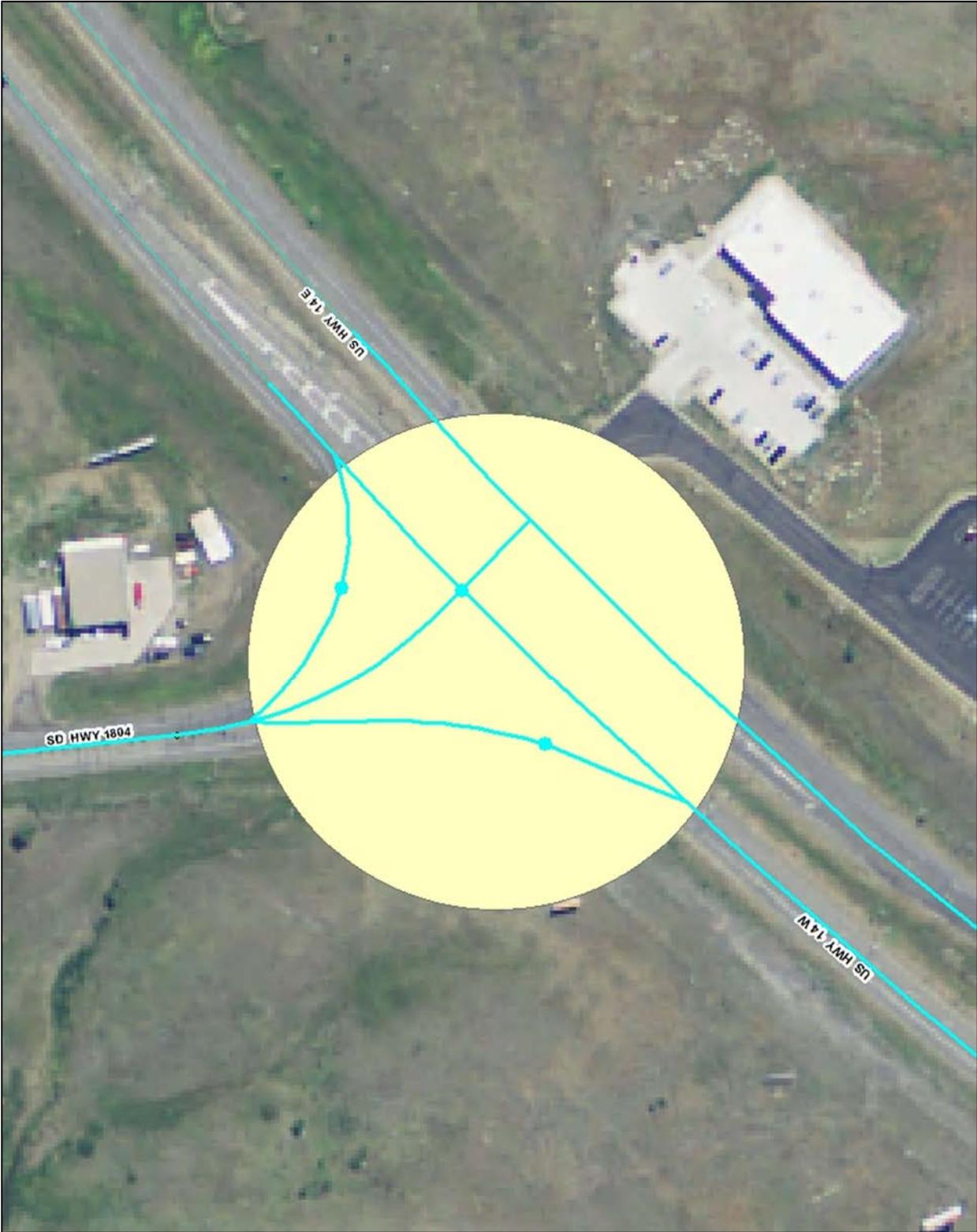


Crash Map – Euclid Ave./4th St.



Euclid Ave./4th St. Crashes

AccidentDateTi	VehicleManeuver	RoadCondDesc	FirstHarmfulEven	InjurySeverity	MannerOfCollision	LightCondition	DriverContribCirc
10/24/2012 2:36:00 PM	Straight ahead	Wet	Motor vehicle in transport	Possible	Angle	Daylight	Failed to yield to vehicle; None
2/28/2014 8:04:00 AM	Stopped in traffic lane, Straight ahead, Turning left	Snow	Motor vehicle in transport	Possible	Angle	Daylight	Failed to yield to vehicle; None
8/6/2014 1:51:00 PM	Stopped in traffic lane, Straight ahead	Dry	Motor vehicle in transport	Non-incapacitating	Rear-end (front to rear)	Daylight	Disregarded traffic signs or signals; Failed to yield to vehicle; None
9/12/2014 7:41:00 AM	Straight ahead, Turning left	Dry	Motor vehicle in transport	No injury	Angle	Daylight	None
11/14/2014 7:50:00 AM	Straight ahead	Ice	Motor vehicle in transport	No injury	Angle	Dawn	None; Unknown
1/21/2015 7:53:00 AM	Stopped in traffic lane, Straight ahead	Wet	Motor vehicle in transport	No injury	Rear-end (front to rear)	Dark - lighted roadway	Driving too fast for conditions; None
7/14/2015 2:08:00 PM	Slowing in traffic lane, Straight ahead	Dry	Motor vehicle in transport	Possible	Sideswipe, same direction	Daylight	Distracted (list distraction in narrative); None



Crash Map – US 14/SD 1804



US 14/SD 1804 Crashes

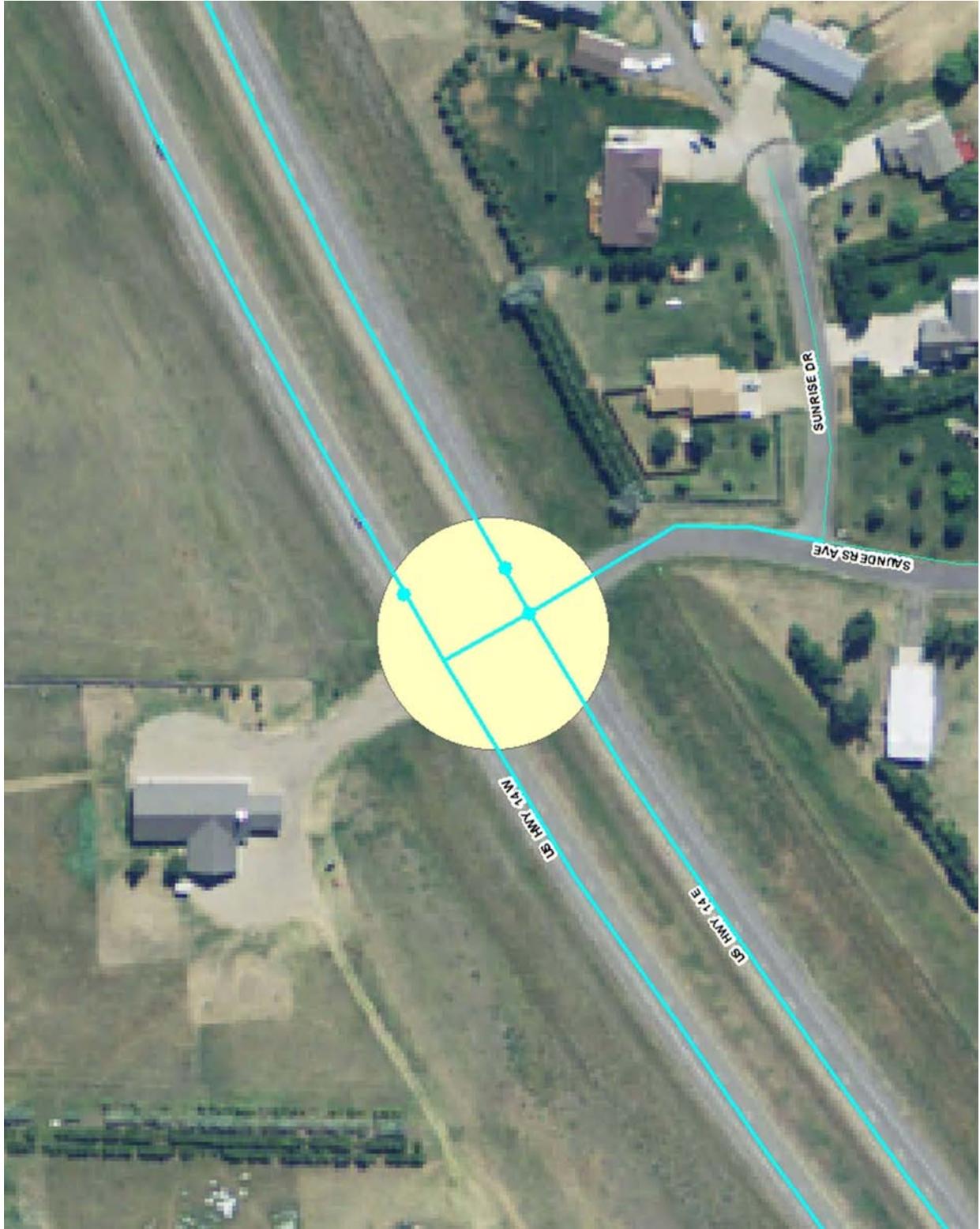
AccidentDateTi	VehicleManeuver	RoadCondDesc	FirstHarmfulEven	InjurySeverity	MannerOfCollision	LightCondition	DriverContribCirc
7/15/2012 5:00:00 PM	Straight ahead	Dry	Light/luminaire support	No injury	No collision between 2 MV in transport	Daylight	None; Running off road
4/11/2014 7:40:00 AM	Straight ahead	Dry	Motor vehicle in transport	No injury	Rear-end (front to rear)	Daylight	Followed too closely; None
4/26/2014 9:02:00 PM	Straight ahead, Turning left	Dry	Motor vehicle in transport	No injury	Angle	Dark - lighted roadway	Failed to yield to vehicle; None



Crash Map – US 14/Duluth Ave.



No crashes recorded at this location
during the 2011-2015 time period

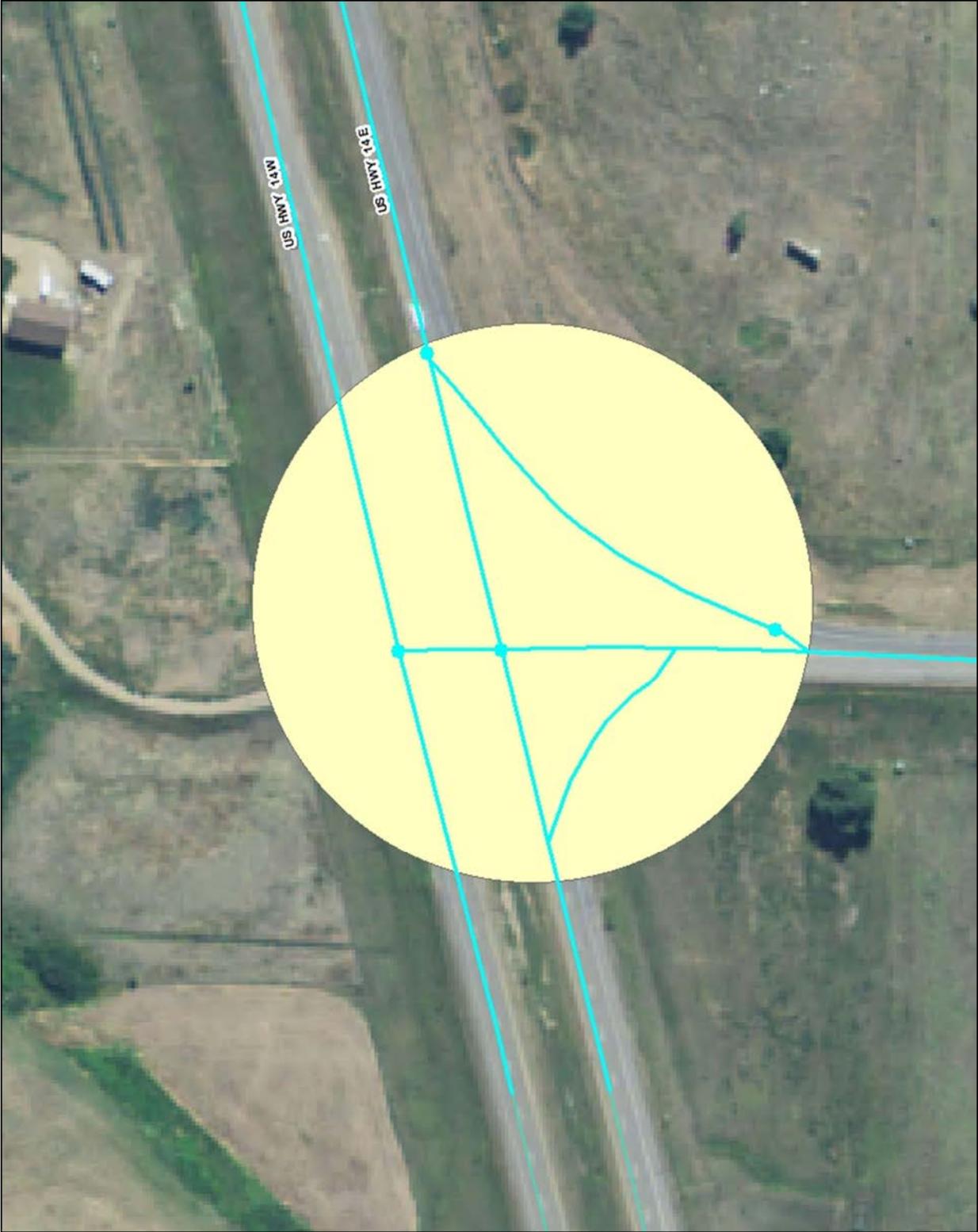


Crash Map – US 14/Saunders Ave.



US 14/Saunders Ave. Crashes

AccidentDateTi	VehicleManeuver	RoadCondDesc	FirstHarmfulEven	InjurySeverity	MannerOfCollision	LightCondition	DriverContribCirc
9/19/2012 8:35:00 PM	<null>	Dry	Animal - wild	Wild animal hit	Wild animal hit - damage only	Dark - roadway not lighted	Wild animal hit - damage only
2/20/2013 6:30:00 PM	<null>	Dry	Animal - wild	Wild animal hit	Wild animal hit - damage only	Dusk	Wild animal hit - damage only
6/23/2014 12:34:00 PM	Straight ahead	Dry	Motor vehicle in transport	Incapacitating	Angle	Daylight	Failed to yield to vehicle; None



Crash Map – US 14/Garfield Ave.



US 14/Garfield Ave. Crashes

AccidentDateTi	VehicleManeuver	RoadCondDesc	FirstHarmfulEven	InjurySeverity	MannerOfCollision	LightCondition	DriverContribCirc
6/24/2011 11:14:00 PM	Straight ahead, Turning left	Wet	Motor vehicle in transport	No injury	Angle	Dark - lighted roadway	Drinking; None; Wrong side or wrong way
9/2/2011 4:00:00 PM	Straight ahead	Dry	Motor vehicle in transport	Possible	Rear-end (front to rear)	Daylight	Followed too closely; None
5/10/2012 10:42:00 AM	Straight ahead	Dry	Motor vehicle in transport	Non-incapacitating	Angle	Daylight	Failed to yield to vehicle; None
5/24/2012 7:24:00 AM	Straight ahead	Dry	Light/luminaire support	No injury	No collision between 2 MV in transport	Daylight	None
7/30/2012 5:46:00 PM	Straight ahead, Turning left	Dry	Motor vehicle in transport	Possible	Angle	Daylight	Failed to yield to vehicle; None
3/25/2013 4:10:00 PM	Straight ahead	Dry	Motor vehicle in transport	Incapacitating	Angle	Daylight	Disregarded traffic signs or signals; None
5/23/2014 10:40:00 AM	Straight ahead	Dry	Motor vehicle in transport	Possible	Angle	Daylight	Failed to yield to vehicle; None
3/14/2015 5:25:00 PM	Straight ahead	Dry	Overturn/rollover	Incapacitating	No collision between 2 MV in transport	Daylight	Drinking; Over- correcting/over- steering
4/9/2015 11:03:00 AM	Straight ahead	Wet	Motor vehicle in transport	Possible	Angle	Daylight	Failed to yield to vehicle; None
5/5/2015 7:48:00 AM	Straight ahead, Turning left	Dry	Motor vehicle in transport	Incapacitating	Angle	Daylight	Failed to yield to vehicle; None

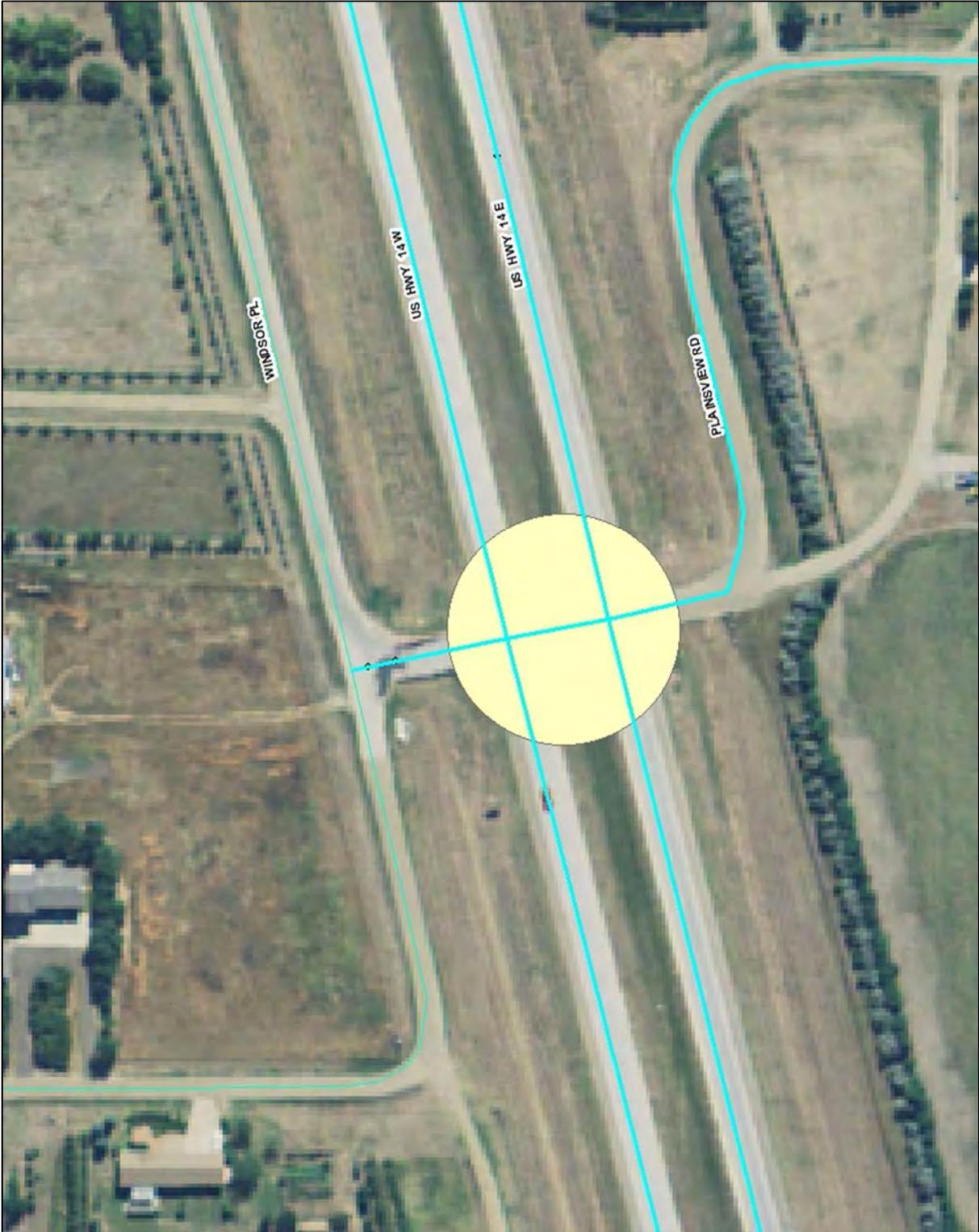


Crash Map – US 14/N. Airport/Kingsway



US 14/N. Airport Rd. Crashes

AccidentDateTi	VehicleManeuver	RoadCondDesc	FirstHarmfulEven	InjurySeverity	MannerOfCollision	LightCondition	DriverContribCirc
9/21/2011 10:07:00 AM	Straight ahead	Dry	Motor vehicle in transport	No injury	Angle	Daylight	None
2/7/2012 4:38:00 PM	Straight ahead	Dry	Motor vehicle in transport	No injury	Angle	Daylight	Failed to yield to vehicle; None
7/25/2012 1:15:00 PM	Stopped in traffic lane, Straight ahead	Dry	Motor vehicle in transport	No injury	Angle	Daylight	Failed to yield to vehicle; None
10/18/2013 11:33:00 AM	Straight ahead	Dry	Motor vehicle in transport	Non-incapacitating	Angle	Daylight	Failed to yield to vehicle; None
2/24/2014 2:00:00 PM	Straight ahead	Snow	Motor vehicle in transport	No injury	Angle	Daylight	Failed to yield to vehicle; None
10/20/2014 7:00:00 PM	Turning right	Dry	Mailbox	No injury	No collision between 2 MV in transport	Dusk	Running off road; Wrong side or wrong way
4/24/2015 4:39:00 PM	Backing, Stopped in traffic lane	Dry	Motor vehicle in transport	No injury	Rear-end (front to rear)	Daylight	Improper backing; None
10/6/2015 11:56:00 AM	Straight ahead	Dry	Motor vehicle in transport	No injury	Angle	Daylight	Failed to yield to vehicle; None



Crash Map – US 14/Plainsview



No crashes recorded at this location
during the 2011-2015 time period



Crash Map – US 14/Buhl



US 14/Buhl Ave. Crashes

AccidentDateTi	VehicleManeuver	RoadCondDesc	FirstHarmfulEven	InjurySeverity	MannerOfCollision	LightCondition	DriverContribCirc
7/22/2011 7:25:00 PM	Straight ahead	Dry	Motor vehicle in transport	Non-incapacitating	Angle	Daylight	Failed to yield to vehicle; None
4/23/2014 4:02:00 PM	Straight ahead	Dry	Motor vehicle in transport	Incapacitating	Angle	Daylight	Failed to yield to vehicle; None



Crash Map – US 14/Triple M



No crashes recorded at this location
during the 2011-2015 time period



Crash Map – US 14/293rd



US 14/293rd Ave. Crashes

AccidentDateTi	VehicleManeuver	RoadCondDesc	FirstHarmfulEven	InjurySeverity	MannerOfCollision	LightCondition	DriverContribCirc
7/10/2015 2:29:00 PM	Straight ahead, Turning left	Dry	Motor vehicle in transport	Incapacitating	Angle	Daylight	Failed to yield to vehicle; None
10/2/2015 8:14:00 AM	Straight ahead	Dry	Motor vehicle in transport	Possible	Angle	Daylight	Failed to yield to vehicle; None



Crash Map – US 14/Grace



US 14/Grace Ave. Crashes

AccidentDateTi	VehicleManeuver	RoadCondDesc	FirstHarmfulEven	InjurySeverity	MannerOfCollision	LightCondition	DriverContribCirc
7/1/2012 3:16:00 PM	Straight ahead	Dry	Overturn/rollover	No injury	No collision between 2 MV in transport	Daylight	Distracted (list distraction in narrative); Over-correcting/over-steering
6/20/2015 12:19:00 AM	Straight ahead	Wet	Ditch	No injury	No collision between 2 MV in transport	Dark - roadway not lighted	Driving too fast for conditions; Running off road



Crash Map – US 14/205th



US 14/205th St. Crashes

AccidentDateTi	VehicleManeuver	RoadCondDesc	FirstHarmfulEven	InjurySeverity	MannerOfCollision	LightCondition	DriverContribCirc
11/18/2011 8:58:00 PM	<null>	Dry	Animal - wild	Wild animal hit	Wild animal hit - damage only	Dark - roadway not lighted	Wild animal hit - damage only
1/29/2014 7:12:00 PM	<null>	Dry	Animal - wild	Wild animal hit	No collision between 2 MV in transport	Dark - roadway not lighted	Wild animal hit - damage only



Crash Map – Garfield/Elizabeth



No crashes recorded at this location
during the 2011-2015 time period

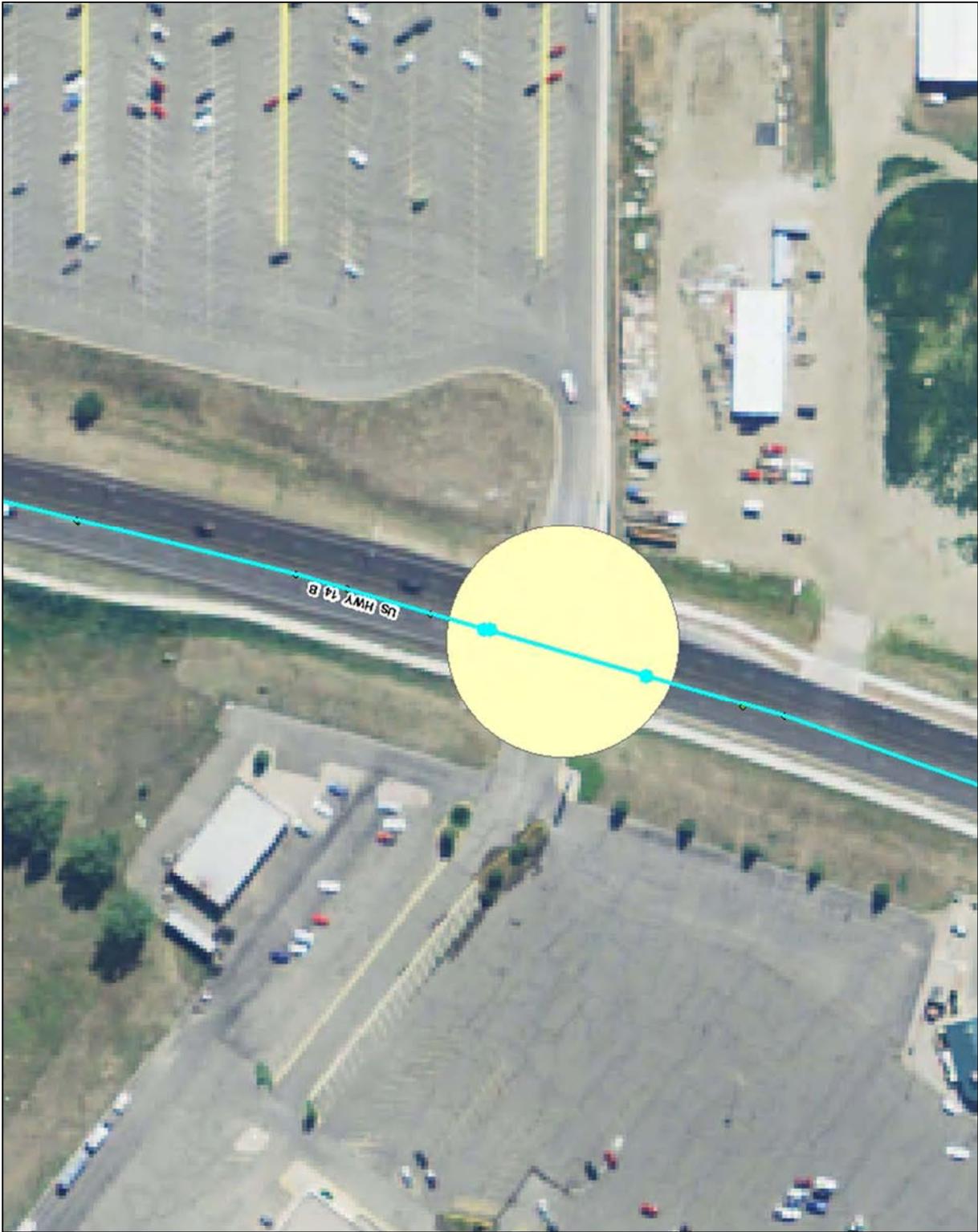


Crash Map – Garfield/Harrison



Garfield Ave./Harrison Ave. Crashes

AccidentDateTi	VehicleManeuver	RoadCondDesc	FirstHarmfulEven	InjurySeverity	MannerOfCollision	LightCondition	DriverContribCirc
2/8/2011 12:20:00 PM	Straight ahead, Turning left	Dry	Motor vehicle in transport	No injury	Angle	Daylight	Failed to yield to vehicle; None
2/26/2011 2:23:00 PM	Straight ahead, Turning left	Snow	Motor vehicle in transport	No injury	Angle	Daylight	Failed to yield to vehicle; None
9/26/2012 12:36:00 PM	Straight ahead, Turning left	Dry	Motor vehicle in transport	Non-incapacitating	Angle	Daylight	Failed to yield to vehicle; None
1/27/2013 3:50:00 PM	Slowing in traffic lane, Straight ahead	Dry	Motor vehicle in transport	Possible	Rear-end (front to rear)	Daylight	Drinking; None
12/7/2015 5:19:00 PM	Straight ahead, Turning left	Dry	Motor vehicle in transport	No injury	Angle	Dark - lighted roadway	Failed to yield to vehicle; None

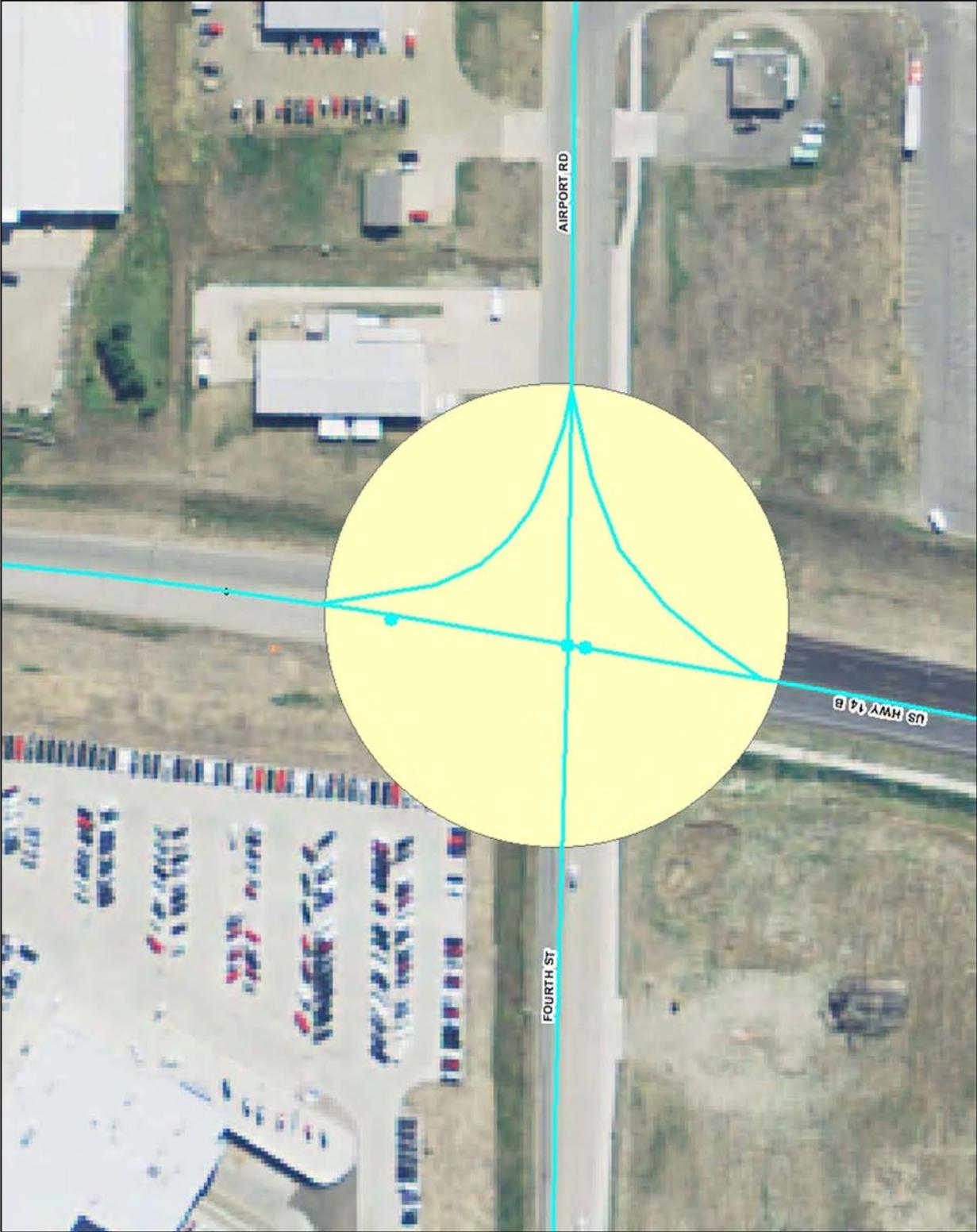


Crash Map – Garfield/Wal-Mart



Garfield Ave./Wal-Mart Crashes

AccidentDateTi	VehicleManeuver	RoadCondDesc	FirstHarmfulEven	InjurySeverity	MannerOfCollision	LightCondition	DriverContribCirc
10/11/2011 3:26:00 PM	Straight ahead	Dry	Motor vehicle in transport	No injury	Angle	Daylight	Failed to yield to vehicle; None
7/20/2013 9:51:00 AM	Straight ahead	Dry	Motor vehicle in transport	No injury	Angle	Daylight	Failed to yield to vehicle; None
7/8/2014 4:57:00 PM	Straight ahead, Turning left	Dry	Motor vehicle in transport	Possible	Angle	Daylight	Failed to yield to vehicle; None



Crash Map – Garfield/4th/Airport



Garfield Ave./4th St. Crashes

AccidentDateTi	VehicleManeuver	RoadCondDesc	FirstHarmfulEven	InjurySeverity	MannerOfCollision	LightCondition	DriverContribCirc
1/14/2011 11:11:00 PM	Straight ahead	Snow	Motor vehicle in transport	Possible	Angle	Dark - lighted roadway	Failed to yield to vehicle; None
6/3/2011 5:13:00 PM	Straight ahead, Turning left	Dry	Motor vehicle in transport	No injury	Angle	Daylight	Failed to yield to vehicle; None
7/7/2011 6:56:00 AM	Straight ahead, Turning left	Dry	Motor vehicle in transport	No injury	Angle	Dawn	Disregarded traffic signs or signals; Failed to yield to vehicle; None
8/9/2011 1:04:00 PM	Straight ahead, Turning left	Dry	Motor vehicle in transport	No injury	Angle	Daylight	Failed to yield to vehicle; None
9/2/2011 4:30:00 PM	Straight ahead, Turning left	Dry	Motor vehicle in transport	Non-incapacitating	Angle	Daylight	Failed to yield to vehicle; None
1/26/2012 4:22:00 PM	Stopped in traffic lane, Straight ahead	Dry	Motor vehicle in transport	No injury	Rear-end (front to rear)	Daylight	Drinking; None
3/14/2012 3:31:00 PM	Straight ahead, Turning left	Dry	Motor vehicle in transport	Non-incapacitating	Angle	Daylight	Exceeded posted speed limit; Failed to yield to vehicle; None
5/30/2012 12:58:00 PM	Stopped in traffic lane, Straight ahead	Wet	Motor vehicle in transport	No injury	Angle	Daylight	Disregarded traffic signs or signals; None
6/3/2012 3:00:00 PM	Straight ahead	Dry	Motor vehicle in transport	No injury	Angle	Daylight	Failed to yield to vehicle; None
8/16/2012 11:25:00 PM	Straight ahead	Dry	Motor vehicle in transport	No injury	Angle	Dark - lighted roadway	Disregarded traffic signs or signals; Failed to yield to vehicle; None
12/23/2012 9:02:00 PM	Straight ahead	Ice	Motor vehicle in transport	Possible	Angle	Dark - lighted roadway	Disregarded traffic signs or signals; Distracted (list distraction in narrative); None
8/1/2013 6:40:00 PM	Straight ahead, Turning left	Dry	Motor vehicle in transport	No injury	Angle	Daylight	Failed to yield to vehicle; None
8/26/2014 8:44:00 PM	Straight ahead	Dry	Motor vehicle in transport	No injury	Angle	Dark - lighted roadway	Disregarded traffic signs or signals;

AccidentDateTi	VehicleManeuver	RoadCondDesc	FirstHarmfulEven	InjurySeverity	MannerOfCollision	LightCondition	DriverContribCirc
3/30/2015 9:11:00 AM	Straight ahead, Turning left	Dry	Motor vehicle in transport	No injury	Angle	Daylight	None Disregarded traffic signs or signals; None
8/7/2015 12:33:00 PM	Straight ahead, Turning left	Dry	Motor vehicle in transport	No injury	Angle	Daylight	Failed to yield to vehicle; None



Crash Map – Garfield/Brookstone



No crashes recorded at this location
during the 2011-2015 time period

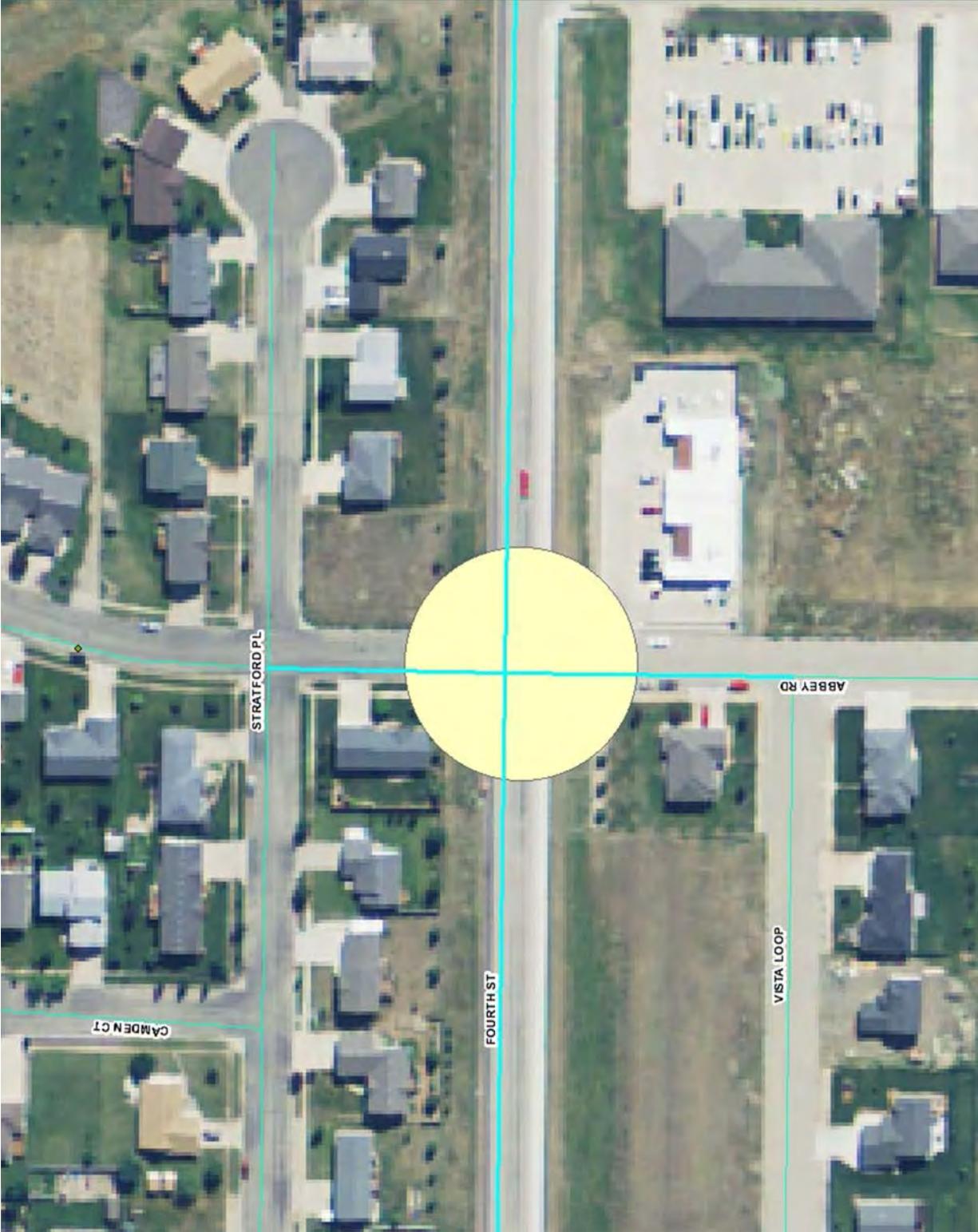


Crash Map – 4th/Governor's



4th St./Governor's Dr. Crashes

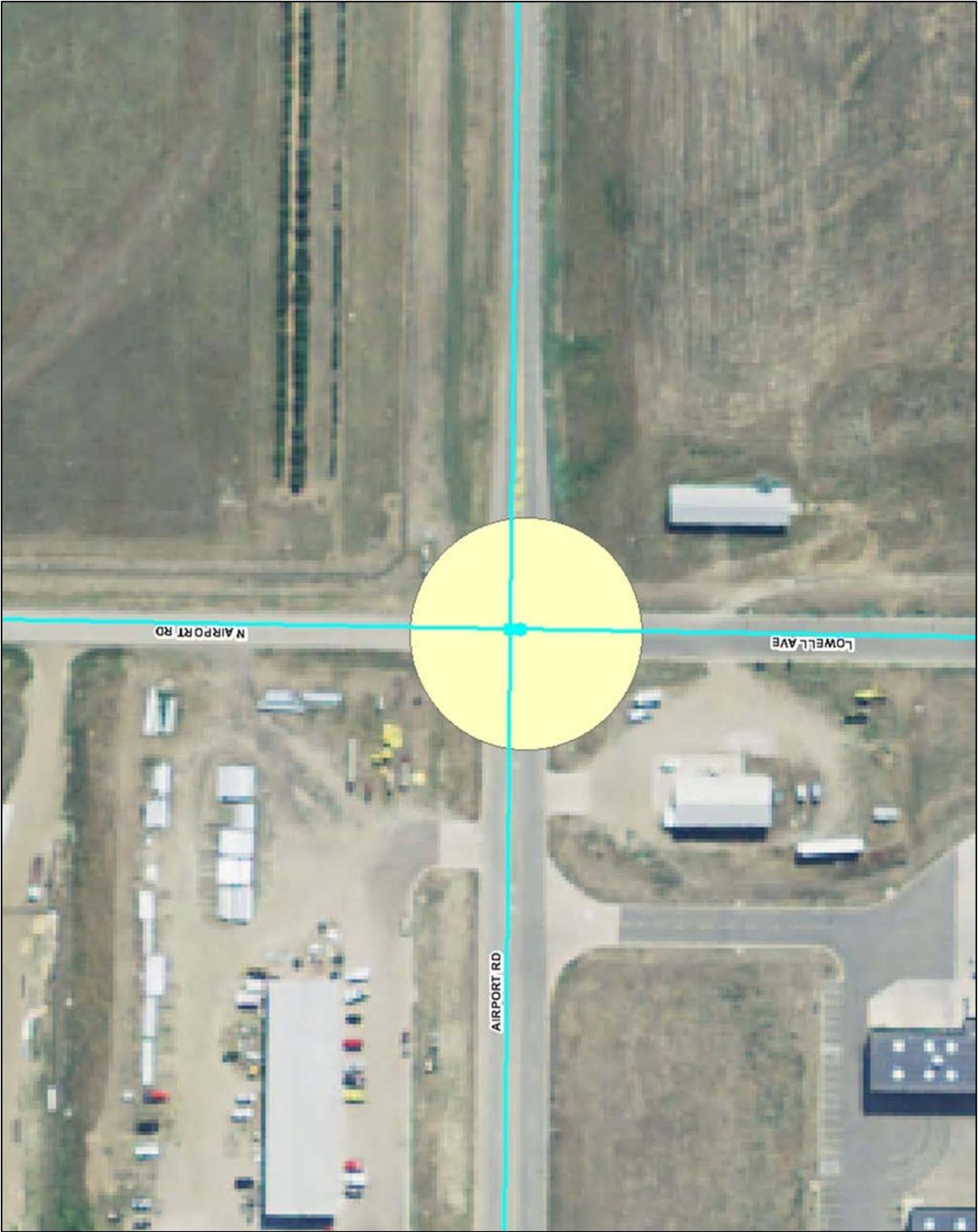
AccidentDateTi	VehicleManeuver	RoadCondDesc	FirstHarmfulEven	InjurySeverity	MannerOfCollision	LightCondition	DriverContribCirc
6/23/2011 12:08:00 PM	Making U-turn, Straight ahead	Dry	Motor vehicle in transport	No injury	Angle	Daylight	None



Crash Map – 4th/Abbey



No crashes recorded at this location
during the 2011-2015 time period



Crash Map – Airport/N. Airport



Airport Rd./N. Airport Rd. Crashes

AccidentDateTi	VehicleManeuver	RoadCondDesc	FirstHarmfulEven	InjurySeverity	MannerOfCollision	LightCondition	DriverContribCirc
9/14/2013 8:51:00 PM	Straight ahead	Dry	Motor vehicle in transport	Possible	Angle	Dark - lighted roadway	Disregarded traffic signs or signals; None
12/9/2013 12:39:00 PM	Stopped in traffic lane, Turning right	Ice	Motor vehicle in transport	No injury	Angle	Daylight	Driving too fast for conditions; None



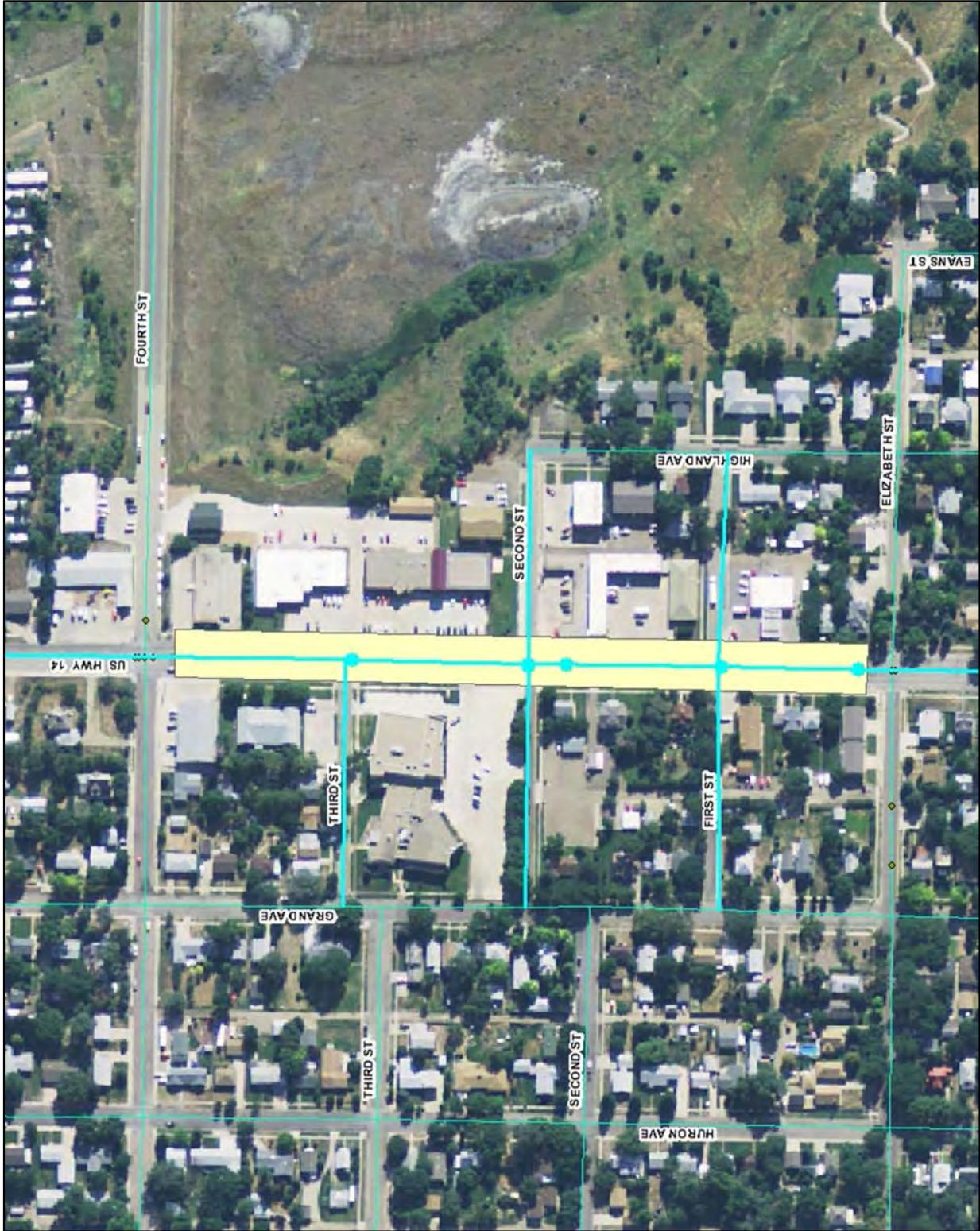
Crash Map – SD 1804, Range to US 14



SD 1804 - Range Rd. to US 14 Crashes

AccidentDateTi	VehicleManeuver	RoadCondDesc	FirstHarmfulEven	InjurySeverity	MannerOfCollision	LightCondition	DriverContribCirc
9/10/2011 10:30:00 PM	<null>	Dry	Animal - wild	Wild animal hit	Wild animal hit - damage only	Dark - roadway not lighted	Wild animal hit - damage only
9/25/2012 8:24:00 PM	<null>	Dry	Animal - wild	Wild animal hit	Wild animal hit - damage only	Dark - roadway not lighted	Wild animal hit - damage only
10/19/2012 9:00:00 PM	<null>	Dry	Animal - wild	Wild animal hit	Wild animal hit - damage only	Dark - roadway not lighted	Wild animal hit - damage only
11/8/2012 5:45:00 PM	<null>	Dry	Animal - wild	Wild animal hit	Wild animal hit - damage only	Dark - roadway not lighted	Wild animal hit - damage only
2/10/2013 10:29:00 PM	Straight ahead	Ice	Other fixed object (wall, building, tunnel, etc.)	No injury	No collision between 2 MV in transport	Dark - roadway not lighted	Driving too fast for conditions; None
6/20/2013 10:00:00 PM	<null>	Dry	Animal - wild	Wild animal hit	Wild animal hit - damage only	Dark - roadway not lighted	Wild animal hit - damage only
8/27/2013 1:15:00 PM	Backing, Straight ahead	Dry	Motor vehicle in transport	No injury	Rear-end (front to rear)	Daylight	Improper backing; None
5/24/2014 8:00:00 PM	<null>	Wet	Animal - wild	Wild animal hit	No collision between 2 MV in transport	Daylight	Wild animal hit - damage only
10/11/2014 7:55:00 AM	<null>	Dry	Animal - wild	Wild animal hit	Wild animal hit - damage only	Dark - roadway not lighted	Wild animal hit - damage only
10/17/2014 9:30:00 PM	<null>	Dry	Animal - wild	Wild animal hit	No collision between 2 MV in transport	Dark - roadway not lighted	Wild animal hit - damage only
10/21/2014 7:40:00 AM	<null>	Dry	Animal - wild	Wild animal hit	No collision between 2 MV in transport	Dawn	Wild animal hit - damage only
11/25/2014 9:59:00 PM	<null>	Dry	Animal - wild	Wild animal hit	No collision between 2 MV in transport	Dark - roadway not lighted	Wild animal hit - damage only
12/12/2014 5:52:00 PM	<null>	Dry	Animal - wild	Wild animal hit	No collision between 2 MV in transport	Dark - roadway not lighted	Wild animal hit - damage only
12/18/2014 7:38:00 PM	<null>	Wet	Animal - wild	Wild animal hit	No collision between 2 MV in transport	Dark - roadway not lighted	Wild animal hit - damage only
11/20/2015 7:40:00 PM	<null>	Dry	Animal - wild	Wild animal hit	No collision between 2 MV in	Dark - roadway not lighted	Wild animal hit - damage only

AccidentDateTi	VehicleManeuver	RoadCondDesc	FirstHarmfulEven	InjurySeverity	MannerOfCollision	LightCondition	DriverContribCirc
					transport		



Crash Map – Euclid, Elizabeth to 4th



Euclid Ave. - Elizabeth St. to 4th St. Crashes

AccidentDateTi	VehicleManeuver	RoadCondDesc	FirstHarmfulEven	InjurySeverity	MannerOfCollision	LightCondition	DriverContribCirc
1/21/2011 7:52:00 AM	Turning left	Ice	Other non-collision	No injury	No collision between 2 MV in transport	Daylight	None
3/29/2011 8:59:00 AM	Straight ahead	Slush	Motor vehicle in transport	No injury	Angle	Daylight	Driving too fast for conditions; None
11/9/2011 8:03:00 AM	Straight ahead, Turning left	Dry	Motor vehicle in transport	No injury	Angle	Daylight	Failed to yield to vehicle; None
12/2/2011 10:22:00 AM	Stopped in traffic lane, Straight ahead	Dry	Motor vehicle in transport	No injury	Rear-end (front to rear)	Daylight	Distracted (list distraction in narrative); None
1/11/2012 3:52:00 PM	Straight ahead	Ice	Motor vehicle in transport	No injury	Rear-end (front to rear)	Daylight	Failed to yield to vehicle; None
8/16/2013 9:18:00 AM	Straight ahead, Turning left	Dry	Motor vehicle in transport	Possible	Angle	Daylight	Failed to yield to vehicle; None
10/31/2014 8:01:00 AM	Stopped in traffic lane, Straight ahead	Dry	Motor vehicle in transport	No injury	Rear-end (front to rear)	Dawn	Failed to yield to vehicle; None
3/23/2015 5:08:00 PM	Straight ahead, Turning left	Dry	Motor vehicle in transport	No injury	Angle	Daylight	Failed to yield to vehicle; None



Crash Map – US 14, 4th to SD 1804



US 14/4th St. to SD 1804 Crashes

AccidentDateTi	VehicleManeuver	RoadCondDesc	FirstHarmfulEven	InjurySeverity	MannerOfCollision	LightCondition	DriverContribCirc
4/17/2012 7:40:00 AM	Parked, Straight ahead	Dry	Parked motor vehicle	No injury	No collision between 2 MV in transport	Daylight	Distracted (list distraction in narrative); None; Not applicable
8/24/2014 12:31:00 PM	Stopped in traffic lane, Straight ahead	Dry	Motor vehicle in transport	No injury	Rear-end (front to rear)	Daylight	Fatigued/asleep; None
9/12/2014 7:59:00 AM	<null>	Dry	Animal - wild	Wild animal hit	No collision between 2 MV in transport	Daylight	Wild animal hit - damage only
10/18/2014 9:01:00 PM	<null>	Dry	Animal - wild	Wild animal hit	No collision between 2 MV in transport	Dusk	Wild animal hit - damage only
11/10/2014 7:48:00 AM	Slowing in traffic lane, Straight ahead	Snow	Motor vehicle in transport	No injury	Rear-end (front to rear)	Dawn	Driving too fast for conditions; None
11/11/2014 6:05:00 PM	Straight ahead	Snow	Motor vehicle in transport	No injury	Sideswipe, opposite direction	Dark - lighted roadway	Driving too fast for conditions; None
11/25/2015 5:48:00 PM	<null>	Dry	Animal - wild	Wild animal hit	No collision between 2 MV in transport	Dark - lighted roadway	Wild animal hit - damage only



Crash Map – US 14, SD 1804 to Duluth



US 14/1804 to Duluth Ave. Crashes

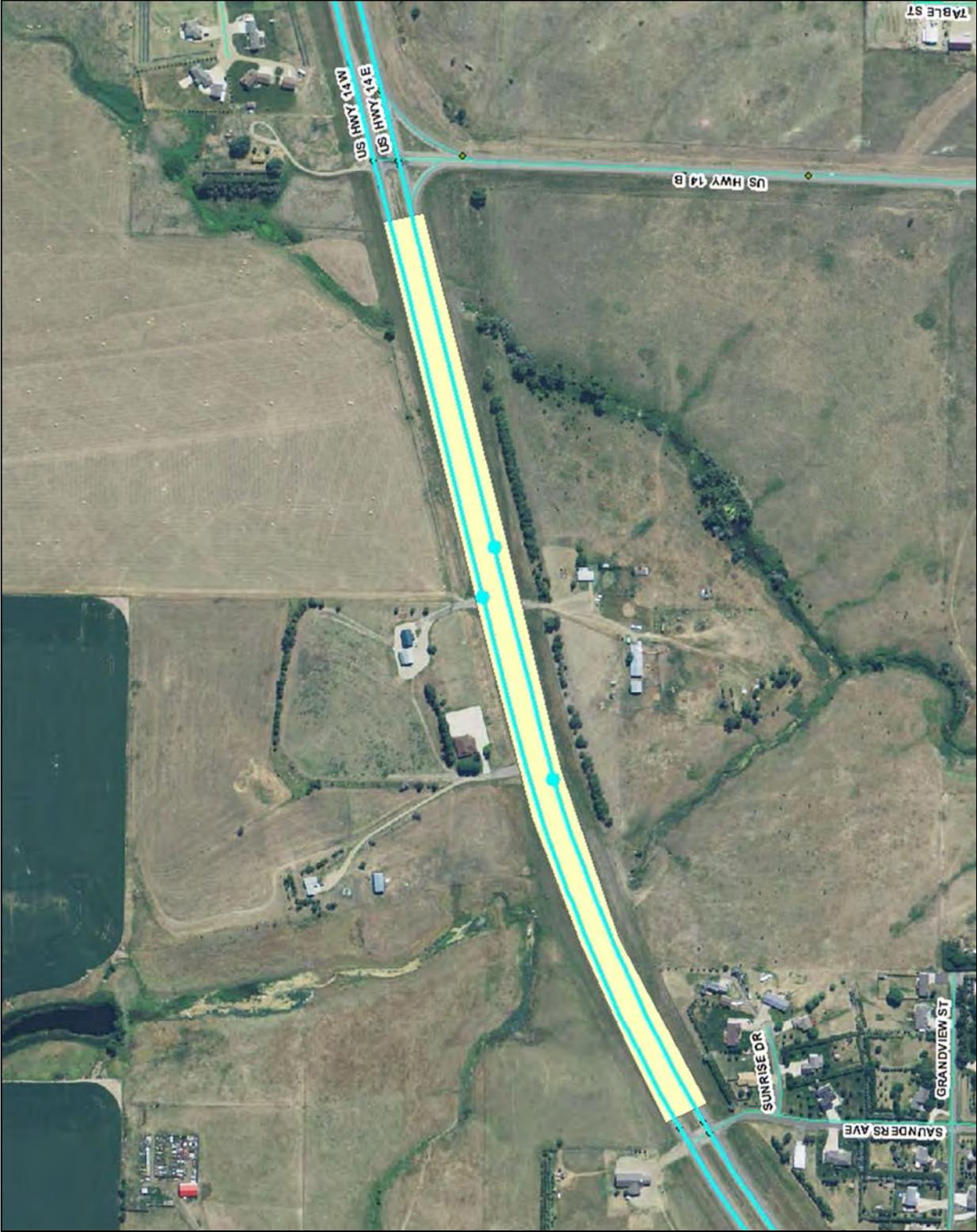
AccidentDateTi	VehicleManeuver	RoadCondDesc	FirstHarmfulEven	InjurySeverity	MannerOfCollision	LightCondition	DriverContribCirc
11/8/2011 6:50:00 AM	<null>	Dry	Animal - wild	Wild animal hit	Wild animal hit - damage only	Dawn	Wild animal hit - damage only
12/10/2012 6:58:00 PM	Stopped in traffic lane, Straight ahead	Dry	Motor vehicle in transport	No injury	Rear-end (front to rear)	Dark - roadway not lighted	Distracted (list distraction in narrative); None; Not applicable
11/21/2013 5:40:00 PM	<null>	Dry	Animal - wild	Wild animal hit	No collision between 2 MV in transport	Dark - roadway not lighted	Wild animal hit - damage only



Crash Map – US 14, Duluth to Saunders



No crashes recorded at this location
during the 2011-2015 time period



Crash Map – US 14, Saunders to Garfield



US 14/Saunders Ave. to Garfield Ave. Crashes

AccidentDateTi	VehicleManeuver	RoadCondDesc	FirstHarmfulEven	InjurySeverity	MannerOfCollision	LightCondition	DriverContribCirc
5/29/2011 10:10:00 PM	<null>	Dry	Animal - wild	Wild animal hit	Wild animal hit - damage only	Dark - roadway not lighted	Wild animal hit - damage only
11/24/2011 7:40:00 PM	<null>	Dry	Animal - wild	Wild animal hit	Wild animal hit - damage only	Dark - roadway not lighted	Wild animal hit - damage only
3/4/2012 7:20:00 PM	<null>	Dry	Animal - wild	Wild animal hit	Wild animal hit - damage only	Dark - roadway not lighted	Wild animal hit - damage only



Crash Map – US 14, Garfield to Kingsway



No crashes recorded at this location
during the 2011-2015 time period



Crash Map – US 14, Kingsway to Plainsview



No crashes recorded at this location
during the 2011-2015 time period

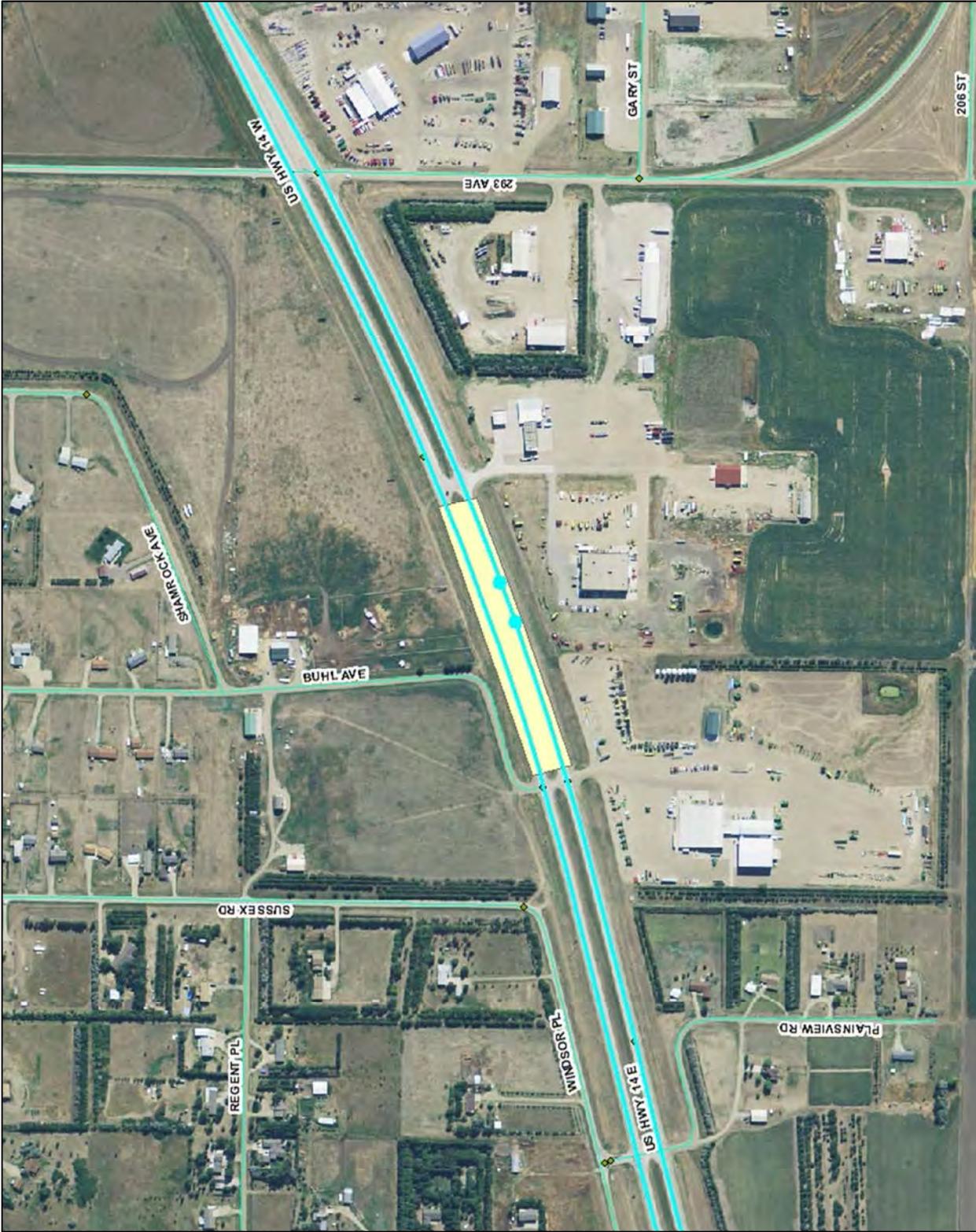


Crash Map – US 14, Plainsview to Buhl



US 14/Plainsview Rd. to Buhl Ave. Crashes

AccidentDateTi	VehicleManeuver	RoadCondDesc	FirstHarmfulEven	InjurySeverity	MannerOfCollision	LightCondition	DriverContribCirc
12/26/2012 7:05:00 PM	<null>	Dry	Animal - wild	Wild animal hit	Wild animal hit - damage only	Dark - roadway not lighted	Wild animal hit - damage only



Crash Map – US 14, Buhl to Triple M



US 14/Buhl Ave. to Triple M Crashes

AccidentDateTi	VehicleManeuver	RoadCondDesc	FirstHarmfulEven	InjurySeverity	MannerOfCollision	LightCondition	DriverContribCirc
3/14/2012 4:50:00 PM	Straight ahead	Dry	Motor vehicle in transport	No injury	Angle	Daylight	Failed to yield to vehicle; None
5/21/2015 12:42:00 PM	Parked, Turning right	Dry	Parked motor vehicle	No injury	No collision between 2 MV in transport	Daylight	Improper turn; None; Not applicable



Crash Map – US 14, Triple M to 293rd



US 14/Triple M to 293rd Ave. Crashes

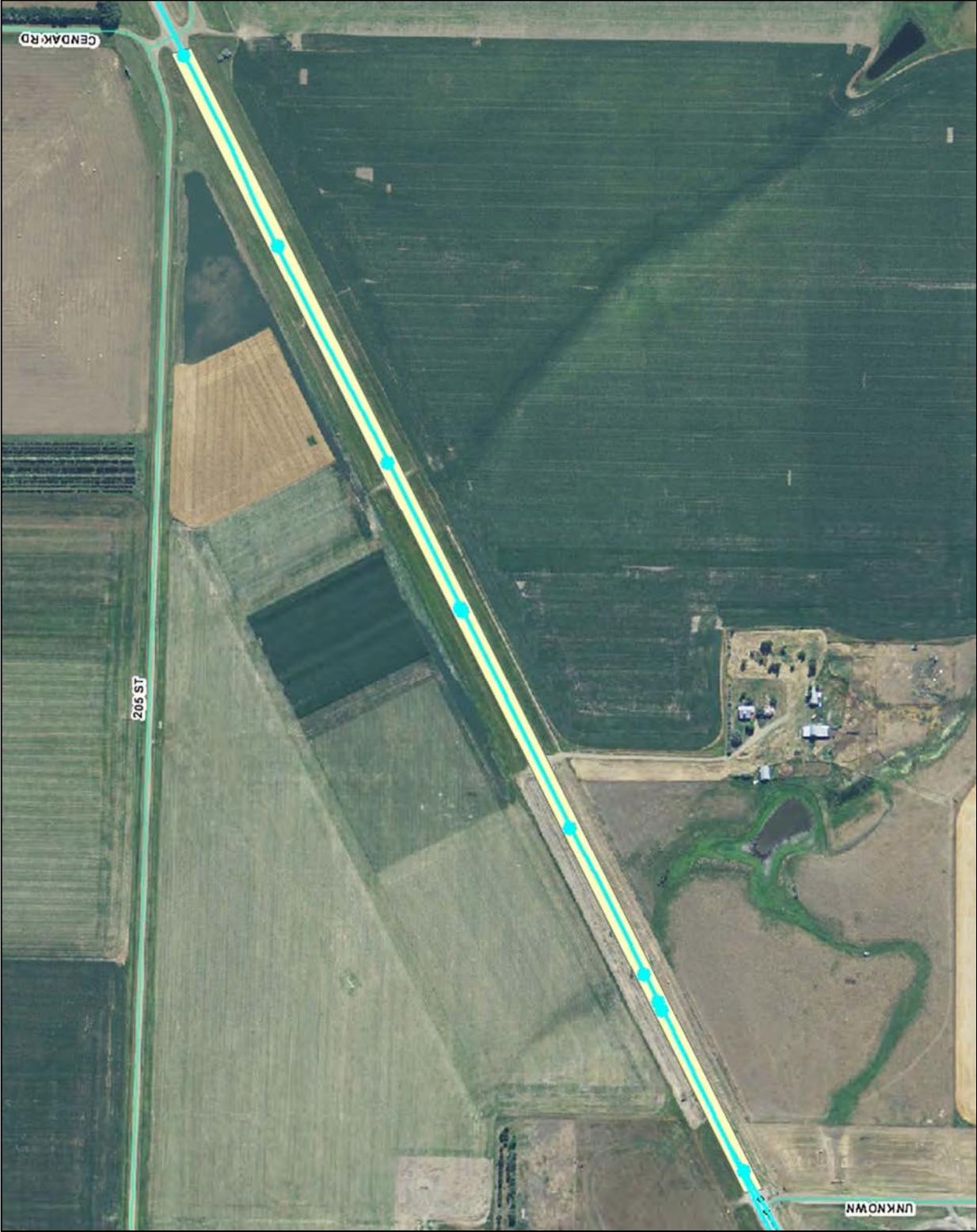
AccidentDateTi	VehicleManeuver	RoadCondDesc	FirstHarmfulEven	InjurySeverity	MannerOfCollision	LightCondition	DriverContribCirc
12/9/2012 9:10:00 PM	<null>	Dry	Animal - wild	Wild animal hit	Wild animal hit - damage only	Dark - roadway not lighted	Wild animal hit - damage only



Crash Map – US 14, 293rd to Grace



No crashes recorded at this location
during the 2011-2015 time period



Crash Map – US 14, Grace to 205th



US 14/Grace Ave. to 205th St. Crashes

AccidentDateTi	VehicleManeuver	RoadCondDesc	FirstHarmfulEven	InjurySeverity	MannerOfCollision	LightCondition	DriverContribCirc
11/18/2011 8:58:00 PM	<null>	Dry	Animal - wild	Wild animal hit	Wild animal hit - damage only	Dark - roadway not lighted	Wild animal hit - damage only
11/22/2011 8:30:00 AM	<null>	Dry	Animal - wild	Wild animal hit	Wild animal hit - damage only	Daylight	Wild animal hit - damage only
1/28/2013 1:25:00 PM	Straight ahead	Ice	Motor vehicle in transport	Possible	Sideswipe, opposite direction	Daylight	Driving too fast for conditions; None
9/13/2013 8:30:00 PM	Straight ahead	Dry	Fence	Non-incapacitating	No collision between 2 MV in transport	Dark - roadway not lighted	Fatigued/asleep; Running off road
9/17/2013 8:33:00 PM	Straight ahead	Dry	Motor vehicle in transport	No injury	Rear-end (front to rear)	Dusk	None
10/10/2013 7:29:00 AM	Overtaking/passin g, Turning right	Dry	Work zone/maintenance equipment	No injury	No collision between 2 MV in transport	Dawn	Improper passing; None
1/14/2014 9:30:00 PM	<null>	Dry	Animal - wild	Wild animal hit	No collision between 2 MV in transport	Dark - roadway not lighted	Wild animal hit - damage only
1/29/2014 7:12:00 PM	<null>	Dry	Animal - wild	Wild animal hit	No collision between 2 MV in transport	Dark - roadway not lighted	Wild animal hit - damage only
11/6/2014 8:10:00 PM	<null>	Dry	Animal - wild	Wild animal hit	No collision between 2 MV in transport	Dark - roadway not lighted	Wild animal hit - damage only
11/20/2014 8:28:00 PM	<null>	Dry	Animal - wild	Wild animal hit	No collision between 2 MV in transport	Dark - roadway not lighted	Wild animal hit - damage only
3/6/2015 5:58:00 AM	<null>	Dry	Animal - wild	Wild animal hit	No collision between 2 MV in transport	Dark - roadway not lighted	Wild animal hit - damage only

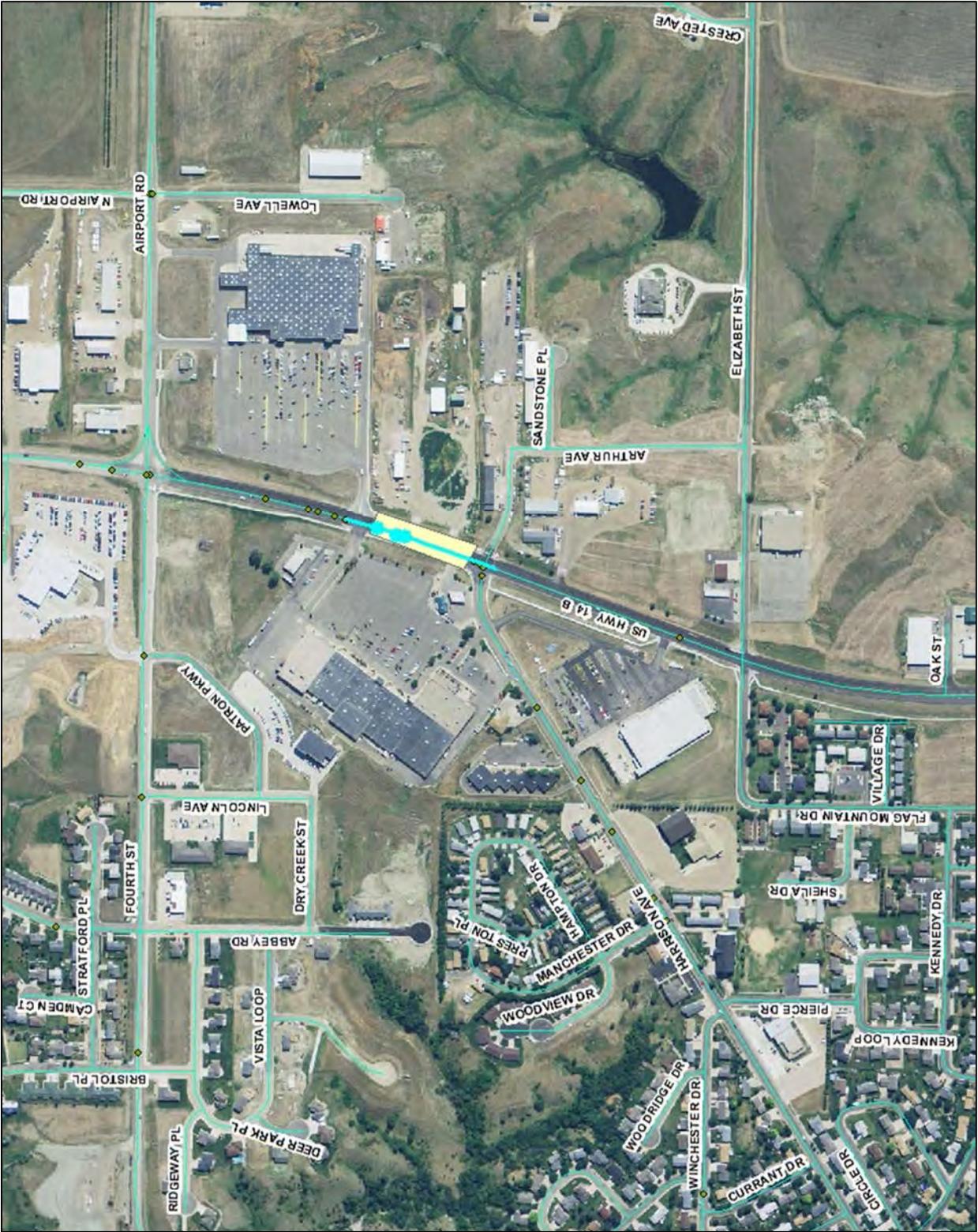


Crash Map – Garfield, Elizabeth to Harrison



Garfield Ave./Elizabeth St. to Harrison Ave. Crashes

AccidentDateTi	VehicleManeuver	RoadCondDesc	FirstHarmfulEven	InjurySeverity	MannerOfCollision	LightCondition	DriverContribCirc
4/27/2013 10:43:00 PM	Straight ahead	Dry	Animal - wild	Non-incapacitating	No collision between 2 MV in transport	Dark - lighted roadway	None



Crash Map – Harrison to Wal-Mart



Garfield Ave./Harrison Ave. to Wal-Mart Crashes

AccidentDateTi	VehicleManeuver	RoadCondDesc	FirstHarmfulEven	InjurySeverity	MannerOfCollision	LightCondition	DriverContribCirc
6/2/2011 1:25:00 PM	Straight ahead	Dry	Overturn/rollover	No injury	No collision between 2 MV in transport	Daylight	None
10/5/2012 5:20:00 PM	Straight ahead	Dry	Motor vehicle in transport	No injury	Angle	Daylight	Failed to yield to vehicle; None
7/20/2013 9:51:00 AM	Straight ahead	Dry	Motor vehicle in transport	No injury	Angle	Daylight	Failed to yield to vehicle; None



Crash Map – Wal-Mart to 4th



Garfield Ave./Walmart to 4th Crashes

AccidentDateTi	VehicleManeuver	RoadCondDesc	FirstHarmfulEven	InjurySeverity	MannerOfCollision	LightCondition	DriverContribCirc
1/3/2011 2:43:00 PM	Straight ahead, Turning left	Wet	Motor vehicle in transport	No injury	Angle	Daylight	Failed to yield to vehicle; None
4/17/2011 4:35:00 PM	Straight ahead, Turning left	Wet	Motor vehicle in transport	Possible	Angle	Daylight	Failed to yield to vehicle; None
7/31/2011 5:24:00 PM	Straight ahead, Turning left	Dry	Motor vehicle in transport	Non-incapacitating	Angle	Daylight	Disregarded traffic signs or signals; Failed to yield to vehicle; None
11/23/2011 7:03:00 PM	Straight ahead, Turning left	Dry	Motor vehicle in transport	Possible	Angle	Dark - lighted roadway	Disregarded traffic signs or signals; Failed to yield to vehicle; None
12/20/2011 11:32:00 AM	Changing lanes, Straight ahead	Dry	Motor vehicle in transport	Incapacitating	Angle	Daylight	None
7/25/2015 9:39:00 AM	Straight ahead, Turning left	Dry	Motor vehicle in transport	No injury	Angle	Daylight	Failed to yield to vehicle; None

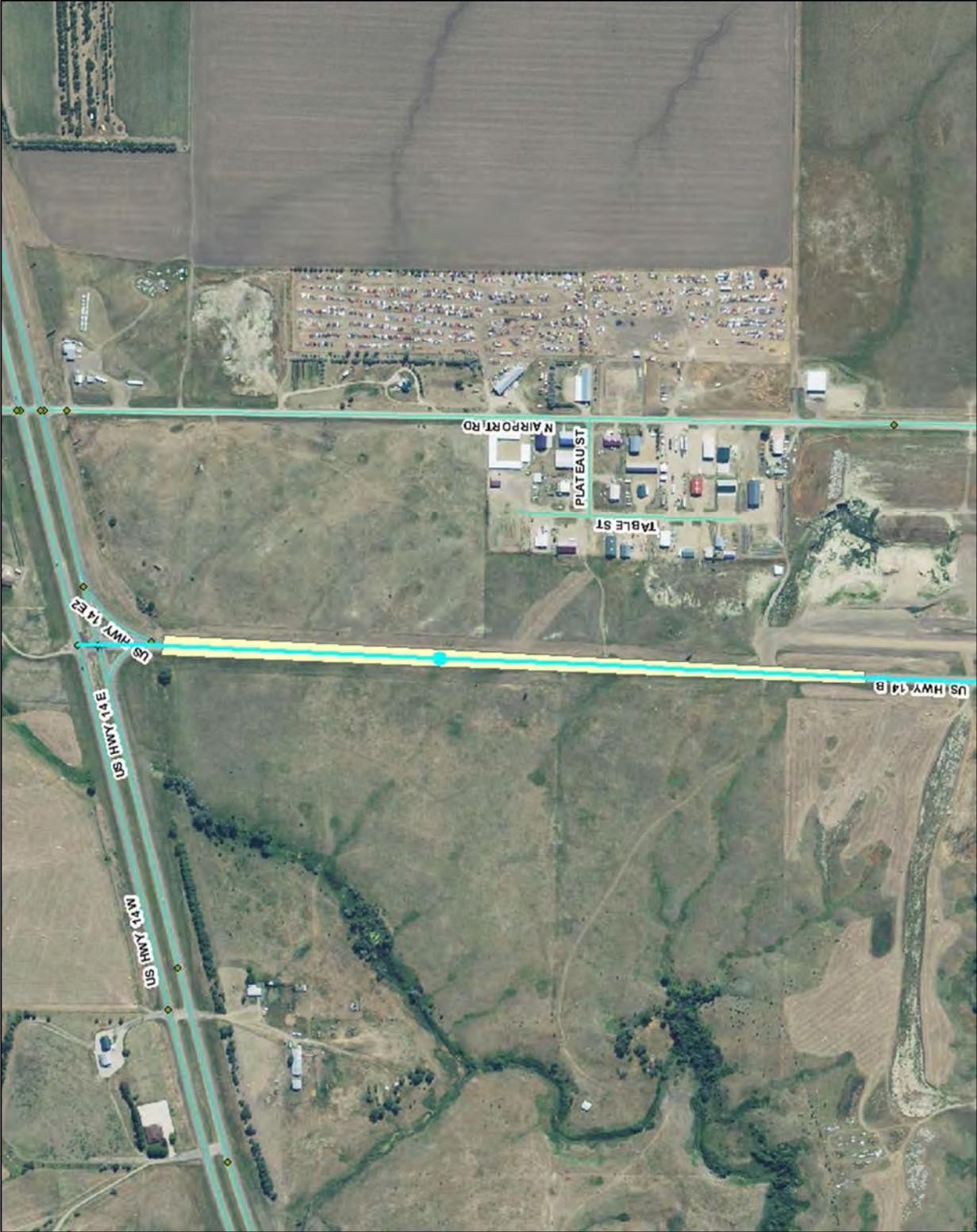


Crash Map – Garfield, 4th to Brookstone



Garfield Ave./4th St. to Brookstone Lp. Crashes

AccidentDateTi	VehicleManeuver	RoadCondDesc	FirstHarmfulEven	InjurySeverity	MannerOfCollision	LightCondition	DriverContribCirc
10/27/2015 2:44:00 PM	Straight ahead	Dry	Highway traffic sign post/sign	No injury	No collision between 2 MV in transport	Daylight	Failure to keep in proper lane; Running off road

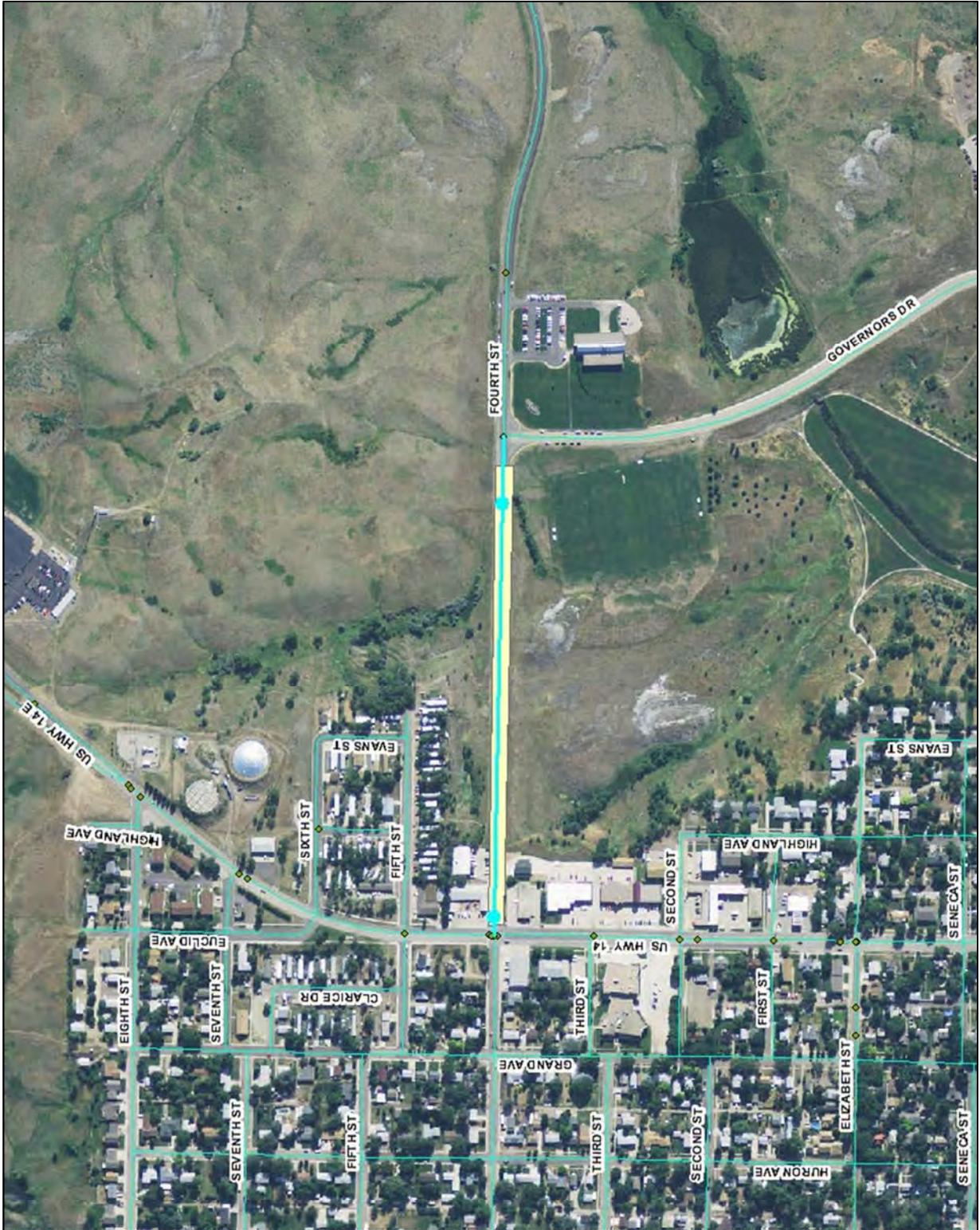


Crash Map – Garfield, Brookstone to US 14



Garfield Ave./Brookstone Lp. to US 14 Crashes

AccidentDateTi	VehicleManeuver	RoadCondDesc	FirstHarmfulEven	InjurySeverity	MannerOfCollision	LightCondition	DriverContribCirc
1/20/2015 7:17:00 AM	<null>	Dry	Animal - wild	Wild animal hit	No collision between 2 MV in transport	Dark - roadway not lighted	Wild animal hit - damage only

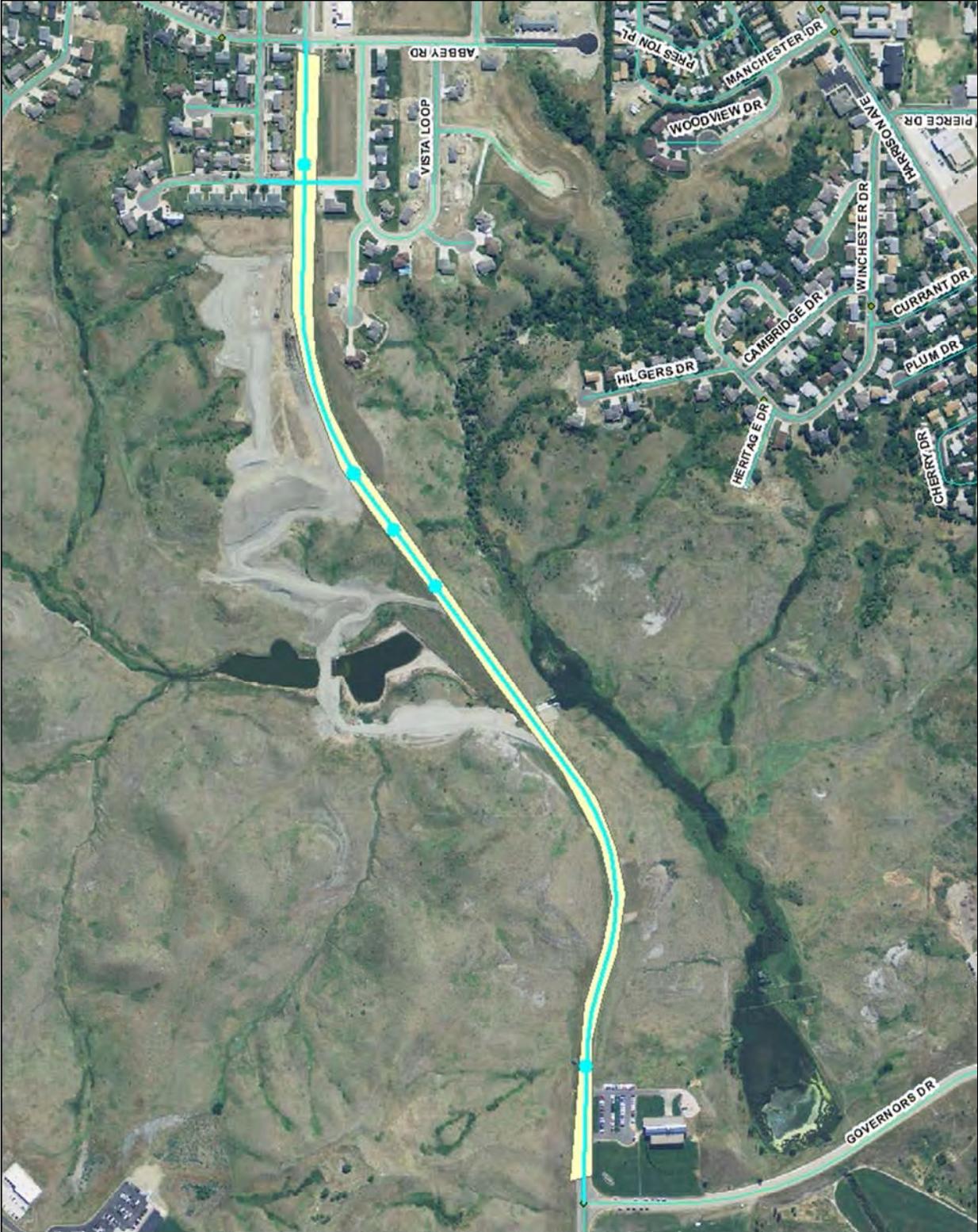


Crash Map – 4th, Euclid to Governor's



4th St./Euclid Ave. to Governor's Dr. Crashes

AccidentDateTi	VehicleManeuver	RoadCondDesc	FirstHarmfulEven	InjurySeverity	MannerOfCollision	LightCondition	DriverContribCirc
8/25/2011 8:52:00 AM	Parked, Straight ahead	Dry	Parked motor vehicle	No injury	No collision between 2 MV in transport	Daylight	Distracted (list distraction in narrative); None; Not applicable
12/31/2014 5:57:00 AM	<null>	Dry	Animal - wild	Wild animal hit	No collision between 2 MV in transport	Dark - roadway not lighted	Wild animal hit - damage only



Crash Map – 4th, Governor’s to Abbey



4th St./Governor's Dr. to Abbey Rd. Crashes

AccidentDateTi	VehicleManeuver	RoadCondDesc	FirstHarmfulEven	InjurySeverity	MannerOfCollision	LightCondition	DriverContribCirc
4/2/2011 2:31:00 AM	Straight ahead	Dry	Ditch	Possible	No collision between 2 MV in transport	Dark - lighted roadway	Drinking; Driving too fast for conditions
1/11/2012 2:37:00 PM	Straight ahead	Ice	Motor vehicle in transport	Non-incapacitating	Angle	Daylight	None
8/23/2012 5:06:00 PM	Stopped in traffic lane, Straight ahead	Dry	Motor vehicle in transport	Possible	Rear-end (front to rear)	Daylight	Followed too closely; None
10/18/2012 9:39:00 AM	Straight ahead	Dry	Overturn/rollover	No injury	No collision between 2 MV in transport	Daylight	None
9/10/2013 8:44:00 PM	<null>	Dry	Animal - wild	Wild animal hit	No collision between 2 MV in transport	Dark - lighted roadway	Wild animal hit - damage only
11/8/2013 4:27:00 PM	<null>	Dry	Animal - wild	Wild animal hit	No collision between 2 MV in transport	Daylight	Wild animal hit - damage only

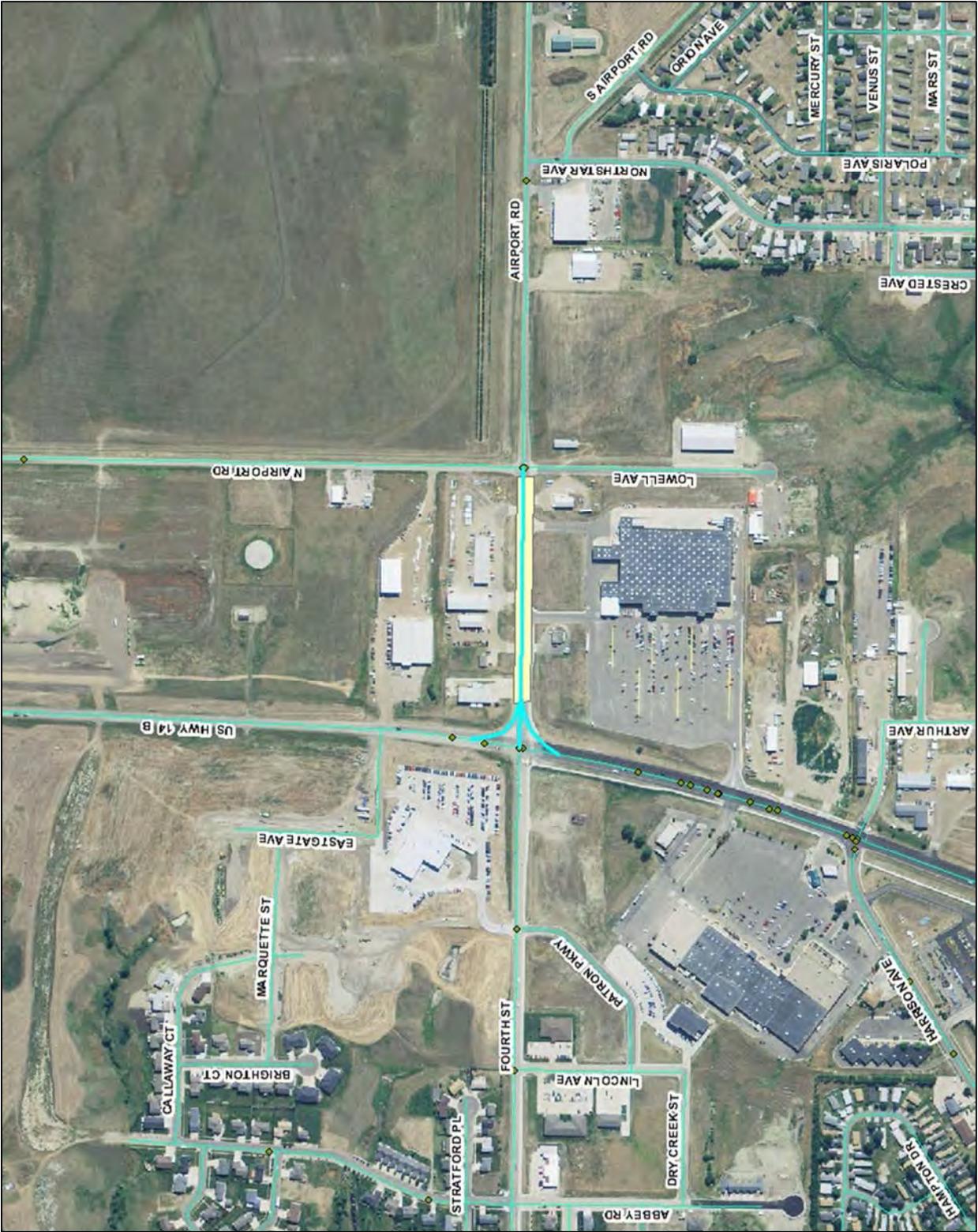


Crash Map – 4th, Abbey to Garfield



4th St./Abbey Rd. to Garfield Ave. Crashes

AccidentDateTi	VehicleManeuver	RoadCondDesc	FirstHarmfulEven	InjurySeverity	MannerOfCollision	LightCondition	DriverContribCirc
2/3/2012 7:58:00 AM	Stopped in traffic lane, Straight ahead	Frost	Motor vehicle in transport	No injury	Rear-end (front to rear)	Daylight	Failed to yield to vehicle; None
11/2/2012 8:42:00 AM	Stopped in traffic lane, Straight ahead	Dry	Motor vehicle in transport	Possible	Rear-end (front to rear)	Daylight	Distracted (list distraction in narrative); None



Crash Map – Airport, Garfield to N. Airport



No crashes recorded at this location
during the 2011-2015 time period