



Memorandum

TO: Transportation & Safety Committee

FROM: Alex Ariniello, Public Works & Utilities Director

DATE: June 4, 2018

RE: Lowering Residential Speed Limits to 20 MPH

At the request of Trustee Ryan, staff has prepared this memo regarding lowering the speed limit on residential streets in Superior to 20 MPH. It addresses legal issues, current design standards, crash and speed data, implementation costs and public outreach suggestions.

Background

There is a growing movement internationally to make 20 MPH the default speed limit on residential and urban streets. The goal is to improve safety and livability in residential neighborhoods by decreasing vehicle speeds. Many communities in Europe and Canada have adopted this program and a few, notably Portland and Seattle, in the US have adopted the program or are considering it. Aspen, Telluride and other jurisdictions in Colorado, mostly small mountain communities, have also adopted 15 MPH or 20 MPH speed limits on residential streets.

Applicable Statutes

Sec. 8-1-10 of the Superior Municipal Code adopted the 2010 Model Traffic Code:

“Pursuant to Parts 1 and 2 of [Article 16](#) of Title 31 and Part [4](#) of [Article 15](#) of Title 30, C.R.S., there is hereby adopted by reference the 2010 edition of the Model Traffic Code promulgated and published by the Colorado Department of Transportation, Safety and Traffic Engineering Branch, 4201 East Arkansas Avenue, EP 700., Denver, CO 80222, as modified in [Section 8-1-20](#).”

Section 1101 (2) (c) of the 2010 Model Traffic Code provides for a speed limit of

“Thirty miles per hour in any residence district, as defined in section 42-1-102 (11) CRS”

Section 1102 (2) of the 2010 Model Traffic Code provides for Altering of speed limits:

“Whenever county or municipal authorities within their respective jurisdictions determine upon the basis of a traffic investigation or survey, *or upon the basis of appropriate design standards and projected traffic volumes* in the case of newly constructed highways or segments thereof, that any speed specified or established under sections 1101 to 1104 is greater or less than is reasonable or safe under the road and traffic conditions at any intersection or other place or upon any part of a street or highway in its jurisdiction, said local authority shall determine and declare a reasonable and safe speed limit thereat which shall be effective when appropriate signs giving notice thereof are erected at such intersection or other place or upon the approaches thereto.”

Note: HB 18-1191 was recently enacted changing this law to add:

“For residential neighborhoods, after additional optional consideration of road characteristics, current and future development, environmental factors, parking practices, pedestrian and bicycle activity in the vicinity, and crash statistics from the most recent year...the local authority shall determine and declare a reasonable and safe speed limit that is effective when appropriate signs giving notice thereof are erected...”

Sec. 8-1-20 of the Superior Municipal Code includes Modifications of the 2010 Model Traffic Code include:

“Pursuant to Section 1101(7) of the Model Traffic Code, the Town adopts the following maximum lawful speed limits:

- a. Residential districts not posted: twenty-five (25) miles per hour.
- b. Nonresidential districts not posted: thirty-five (35) miles per hour.
- c. The speed posted on standard signs erected by the Town.
- d. Except when a special hazard exists that requires lower speed than set forth in this Section, the foregoing speed limits are reasonable and prima facie speed limits.”

These modifications were presumably based on design standards. The Superior Municipal Code includes Sec. 16-17-10. - Street plan and *specifications*.

“The arrangements, classification, extent, width, grade and location of all streets shall be designed in relation to existing and planned streets, topographical conditions, public convenience and safety and the proposed uses of the land to be served by such streets. Street construction specifications have been adopted as the Town of Superior Roadway Design Criteria and Standards, and this document is available from the Town. Streets shall be constructed according to these specifications and, where standards in this Chapter conflict with the standards of the Town's Roadway Design Criteria and Standards, the Town's Roadway Design Criteria and Standards shall govern.”

Superior’s *Roadway Design Criteria and Standards* include various classifications of streets, each with a distinguishing set of design characteristics such as number of lanes, curve radius, grades, width, etc. For residential areas, classifications include “Local” and Minor Collector”. For “Local” streets, the Posted and Design Speeds are the same at 25 mph.

Superior’s *Roadway Design Criteria and Standards* also include guidelines for **Traffic Calming**:

“The Town of Superior’s street standards recognize the need to balance safety, efficiency of service, livability and economy. A hierarchy of street classifications has been established, with the higher classification (major and minor arterials and major collectors) designed to carry higher volumes and higher speeds and the lower classifications (minor collector and local streets) designed primarily to provide land access with expected lower volumes and lower speeds. In identifying streets that may be candidates for traffic calming measures, traffic volume and unimpeded street length should be considered. Unimpeded street length is the distance between speed impediments, i.e. Stop signs, traffic signals, sharp turns, cul-de-sacs, etc. Streets that generally will require implementation of traffic calming measures are listed in Table 1.8 along with minimum criteria to qualify for Traffic Calming.”

**TABLE 1.8
MINIMUM CRITERIA FOR TRAFFIC CALMING**

| Classification | Unimpeded Street Length | Traffic Volume |
|-----------------------|--------------------------------|-----------------------|
| Local Street | > 1,200 feet | < 500 vpd |
| Local Street | > 900 feet | 500 – 2,000 vpd |
| Minor Collector | > 900 feet | > 2,000 vpd |

vpd = vehicles per day

“There are many types of traffic calming measures that could be used on streets predicted to have higher than desired speeds or traffic volumes. The Institute of Transportation Engineers (ITE) has published several reports describing traffic calming measures and their effectiveness, that can be found at <http://www.ite.org/traffic/index.asp>. These resources should be consulted to identify and design appropriate traffic calming measures Applicable for new development.

Crash and Speed Data

Most of the Town’s residential streets have been constructed within the last thirty-five years in accordance with the *Roadway Design Criteria and Standards* and 25 MPH design speed for local streets. The Traffic Calming standards were only adopted in 2003. Coal Creek Crossing and Downtown Superior incorporate these traffic calming concepts. Crash data for 2017 and for the

period 2011-2017 are displayed in the attached graphics. During the last five years, there has been an average of one injury accident per year on residential streets (non-intersection).

Speed data is occasionally collected on residential streets. Table 1 below lists the 85th percentile speeds at various residential locations throughout Town where speed data has been collected.

Applicable Streets

Staff has developed the attached map showing which streets would be subject to the 20 MPH speed limit. These are generally local streets in residential areas. Collectors with no back-out driveways are excluded along with arterial streets. Private streets are also excluded.

Implementation Costs

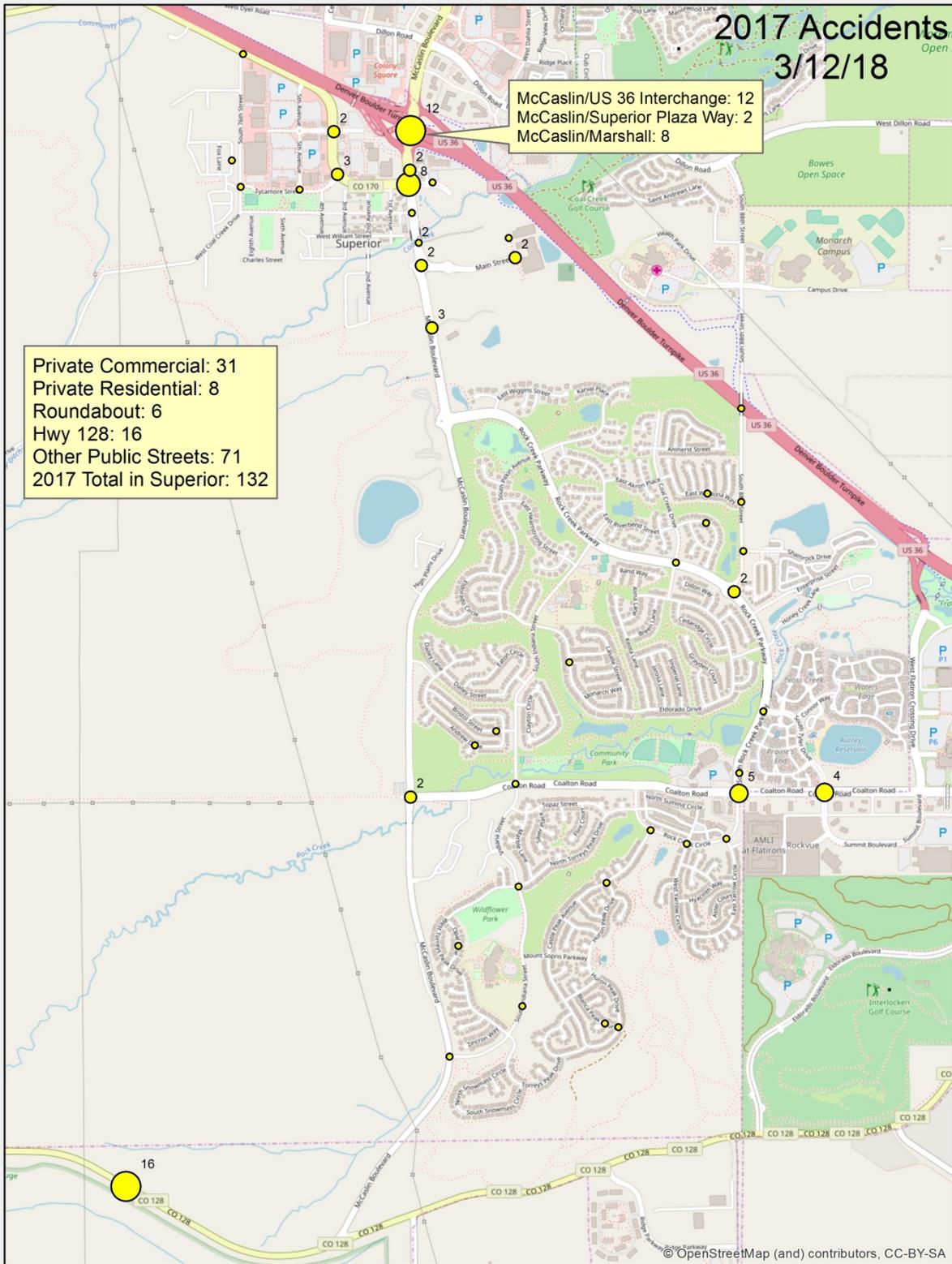
Staff estimates 200 to 250 speed limit regulatory signs would need to be replaced. Costs to implement this program include:

- Public Outreach Costs - \$2,000 (postcard survey, yard signs, informational video?)
- Sign Installation (250 signs x \$100 per sign) = \$25,000

Public Outreach

In order to implement this change an ordinance amending the Town's Code will have to be adopted after the Town's noticing and public hearing process is completed. Since the 20 MPH limit will be applied to all residential streets in Town affecting a majority of residents a more extensive public input process may be needed. Some suggestions include:

- Web page on the Town's website with informational material
- Articles in the newsletter
- Notices mailed to all Town residents
- E-blasts
- Survey Monkey Questionnaire Posted for 2 weeks
 - Question: Are you in favor of reducing the Speed Limit on all residential streets in the Town of Superior to 20 MPH?
- Additional TSC Meeting (s) to present program details and solicit public comment
- Town Board Public Hearing on ordinance change



2011-2017 Accident Summary

Superior Traffic Accident Analysis
Created by Alex Bullen
March 12, 2017

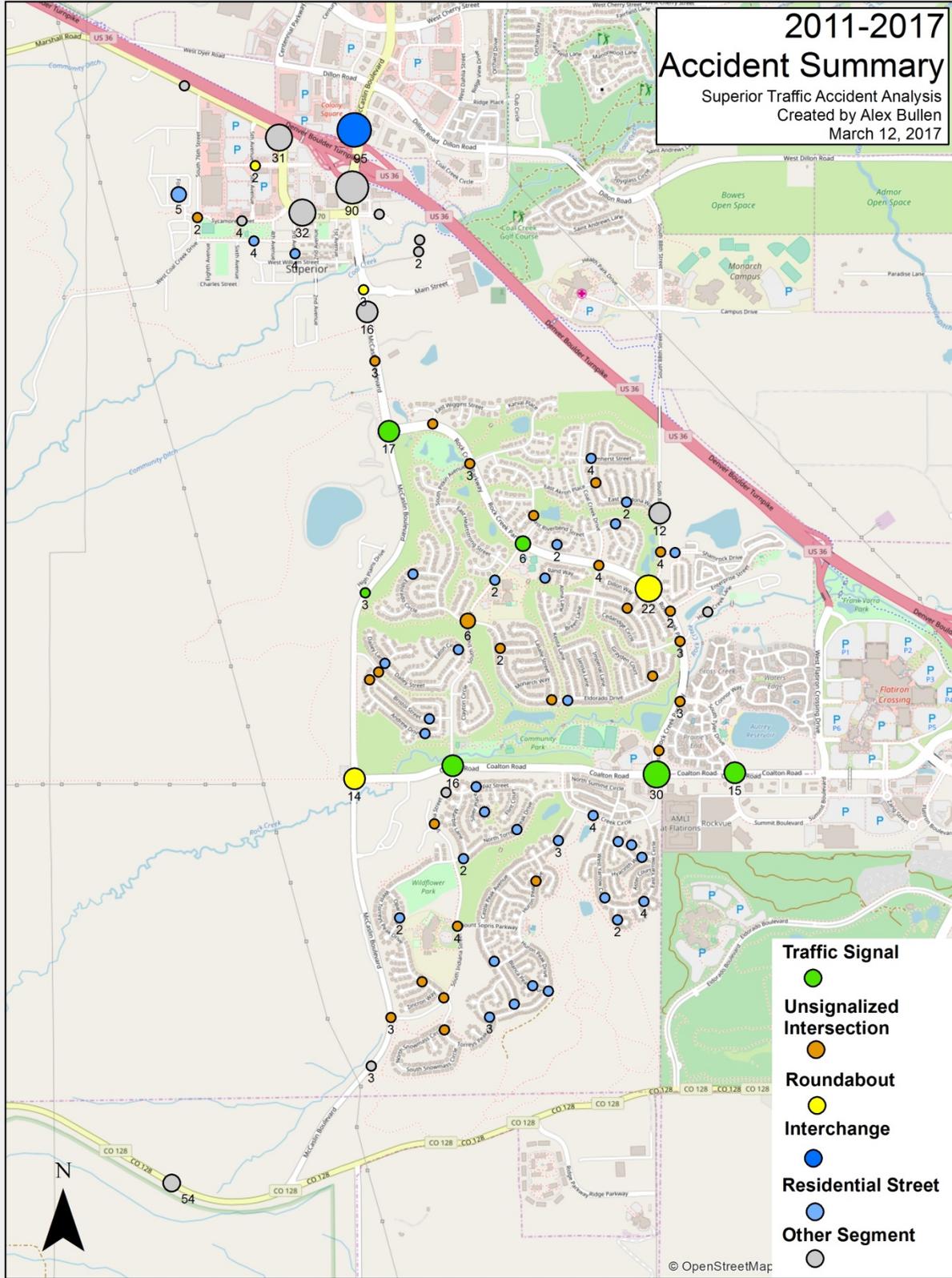
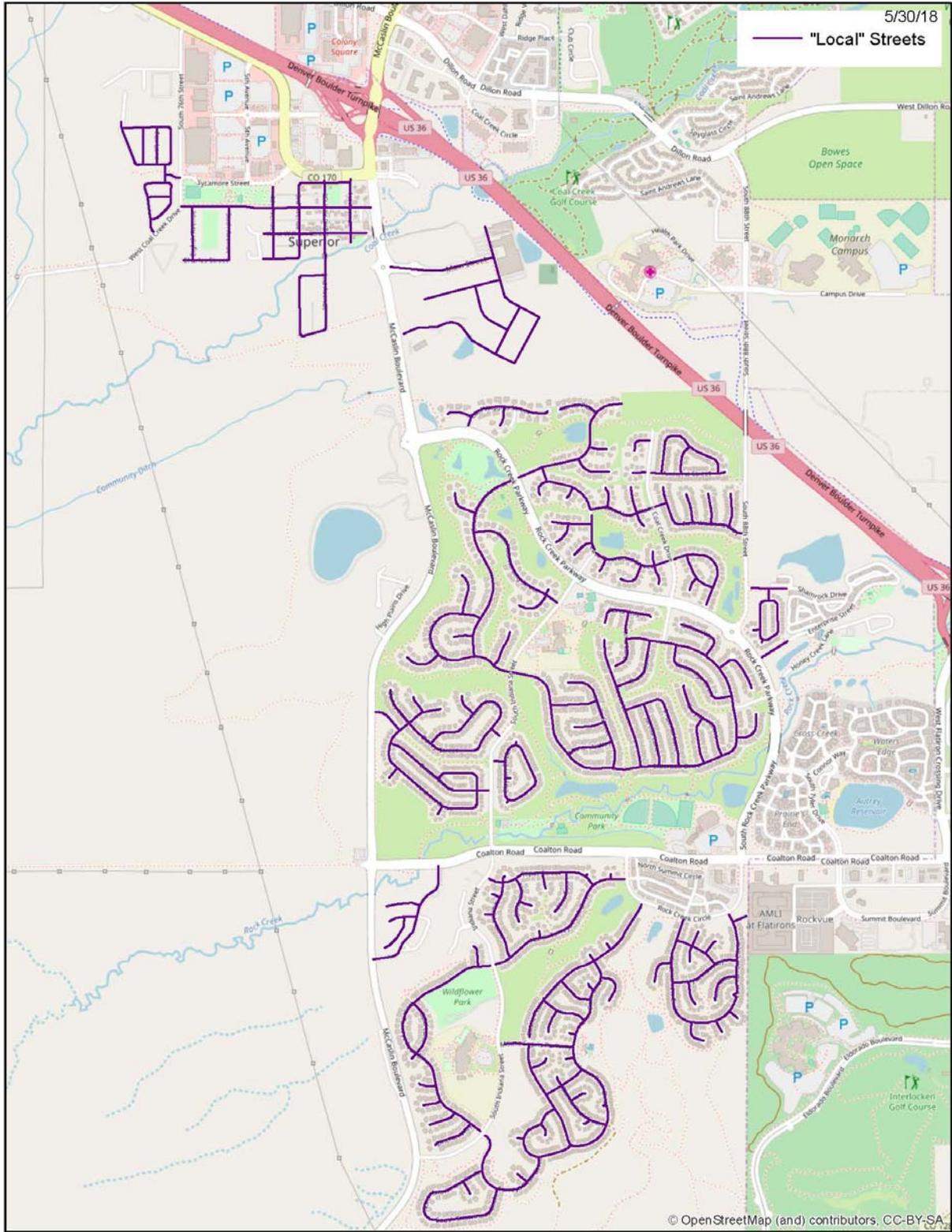


Table 1
Speed Data on Local Residential Streets in Superior

| Date of Data Collection | Street | Location | Comment | 85th Percentile Speed |
|-------------------------|---------------|-----------------------|------------------------|-----------------------|
| | Eldorado | s/o Northern | | 27.8 |
| | Pitkin | s/o Heartstrong | near speed hump | 28.2 |
| | | | | |
| October, 2017 | Weldona | e/o Idalia Ct | before speed humps | 26 |
| November, 2017 | Weldona | e/o Idalia Ct | after speed humps | 20 |
| | | | | |
| January, 2017 | Coal Creek Dr | e/o Fourth Ave | Stop Signs & bulb outs | 24 |
| January, 2017 | Coal Creek Dr | e/o Eight Ave | | 29 |
| | | | | |
| December, 2017 | Castle Peak | s/o Rock Creek Circle | before speed humps | 28.5 |
| May, 2018 | Castle Peak | s/o Rock Creek Circle | after speed humps | 21 |
| December, 2017 | Castle Peak | n/o Grays Peak | before speed humps | 25.5 |
| May, 2018 | Castle Peak | n/o Grays Peak | after speed humps | 23.5 |
| | | | | |
| December, 2017 | Castle Peak | n/o Windom Peak | | 25.5 |
| December, 2017 | Castle Peak | n/o Maroon Peak | | 27 |
| | | | | |
| December, 2017 | Huron Peak | e/o Maroon Peak | | 23 |
| December, 2017 | Huron Peak | s/o Windom Peak | | 24.5 |
| December, 2017 | Huron Peak | s/o Shavano Peak | | 25 |
| | | | | |
| October, 2014 | Torreys Peak | w/o Indiana | | 29 |
| May, 2017 | Torreys Peak | n/o Snowmass | | 26 |
| | | | | |
| July, 2017 | Bristol St | e/o Briggs | | 26 |



An Act

HOUSE BILL 18-1191

BY REPRESENTATIVE(S) Winter, Becker K., Coleman, Esgar, Ginal, Hamner, Hansen, Herod, McLachlan, Melton, Michaelson Jenet, Roberts, Valdez, Young, Duran, Arndt, Jackson, Kraft-Tharp, Pabon, Pettersen, Rosenthal;
also SENATOR(S) Martinez Humenik and Kefalas.

CONCERNING A LOCAL AUTHORITY'S ABILITY TO ALTER SPEED LIMITS WITHIN
THE LOCAL AUTHORITY'S JURISDICTION.

Be it enacted by the General Assembly of the State of Colorado:

SECTION 1. In Colorado Revised Statutes, 42-4-1102, **amend** (2); and **add** (9) as follows:

42-4-1102. Altering of speed limits. (2) Whenever county or municipal authorities, within their respective jurisdictions, determine upon the basis of a traffic investigation or survey AND, FOR RESIDENTIAL NEIGHBORHOODS, AFTER ADDITIONAL OPTIONAL CONSIDERATION OF ROAD CHARACTERISTICS, CURRENT AND FUTURE DEVELOPMENT, ENVIRONMENTAL FACTORS, PARKING PRACTICES, PEDESTRIAN AND BICYCLE ACTIVITY IN THE VICINITY, AND CRASH STATISTICS FROM THE MOST RECENT YEAR, or upon the basis of appropriate design standards and projected traffic volumes in the case of newly constructed highways or segments thereof, that any speed

Capital letters or bold & italic numbers indicate new material added to existing statutes; dashes through words indicate deletions from existing statutes and such material not part of act.

specified or established as authorized under sections 42-4-1101 to 42-4-1104 is greater or less than is reasonable or safe under the road and traffic conditions at ~~any~~ AN intersection or other place or upon any part of a street or highway in its jurisdiction, ~~said~~ THE local authority shall determine and declare a reasonable and safe speed limit ~~thereat which shall be~~ THAT IS effective when appropriate signs giving notice thereof are erected at ~~such~~ THE intersection or other place or upon the approaches thereto. ~~No such~~ A local authority shall ~~have the power to~~ NOT alter the basic rules set forth in section 42-4-1101 (1) or ~~in any event~~ to authorize by resolution or ordinance a speed in excess of seventy-five miles per hour.

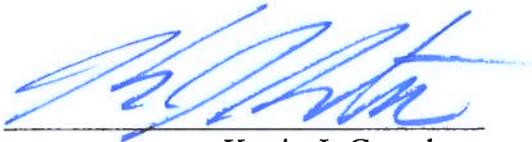
(9) FOR PURPOSES OF THIS SECTION, "RESIDENTIAL NEIGHBORHOOD" HAS THE SAME MEANING AS SET FORTH IN SECTION 42-4-110.5 (2)(g)(II).

SECTION 2. Act subject to petition - effective date. This act takes effect at 12:01 a.m. on the day following the expiration of the ninety-day period after final adjournment of the general assembly (August 8, 2018, if adjournment sine die is on May 9, 2018); except that, if a referendum petition is filed pursuant to section 1 (3) of article V of the state constitution against this act or an item, section, or part of this act within such period, then the act, item, section, or part will not take effect unless approved by the people at the general election to be held in November 2018

and, in such case, will take effect on the date of the official declaration of the vote thereon by the governor.



Crisanta Duran
SPEAKER OF THE HOUSE
OF REPRESENTATIVES



Kevin J. Grantham
PRESIDENT OF
THE SENATE



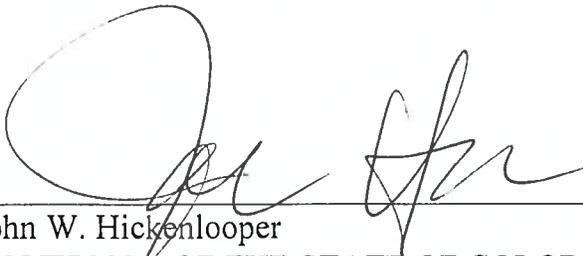
Marilyn Eddins
CHIEF CLERK OF THE HOUSE
OF REPRESENTATIVES



Effie Ameen
SECRETARY OF
THE SENATE

APPROVED

3:46 PM 4/23/18



John W. Hickenlooper
GOVERNOR OF THE STATE OF COLORADO

Transportation & Safety Committee

June 4, 2018



Agenda

- Items from the Public not on the Agenda
- Update on Effectiveness of
 - Weldon Speed Humps
 - Castle Peak Speed Humps
- New Speed Hump Requests
- Lowering Residential Speed Limit to 20 mph

Weldona Speed Humps

- Three Speed Humps Installed in October, 2017



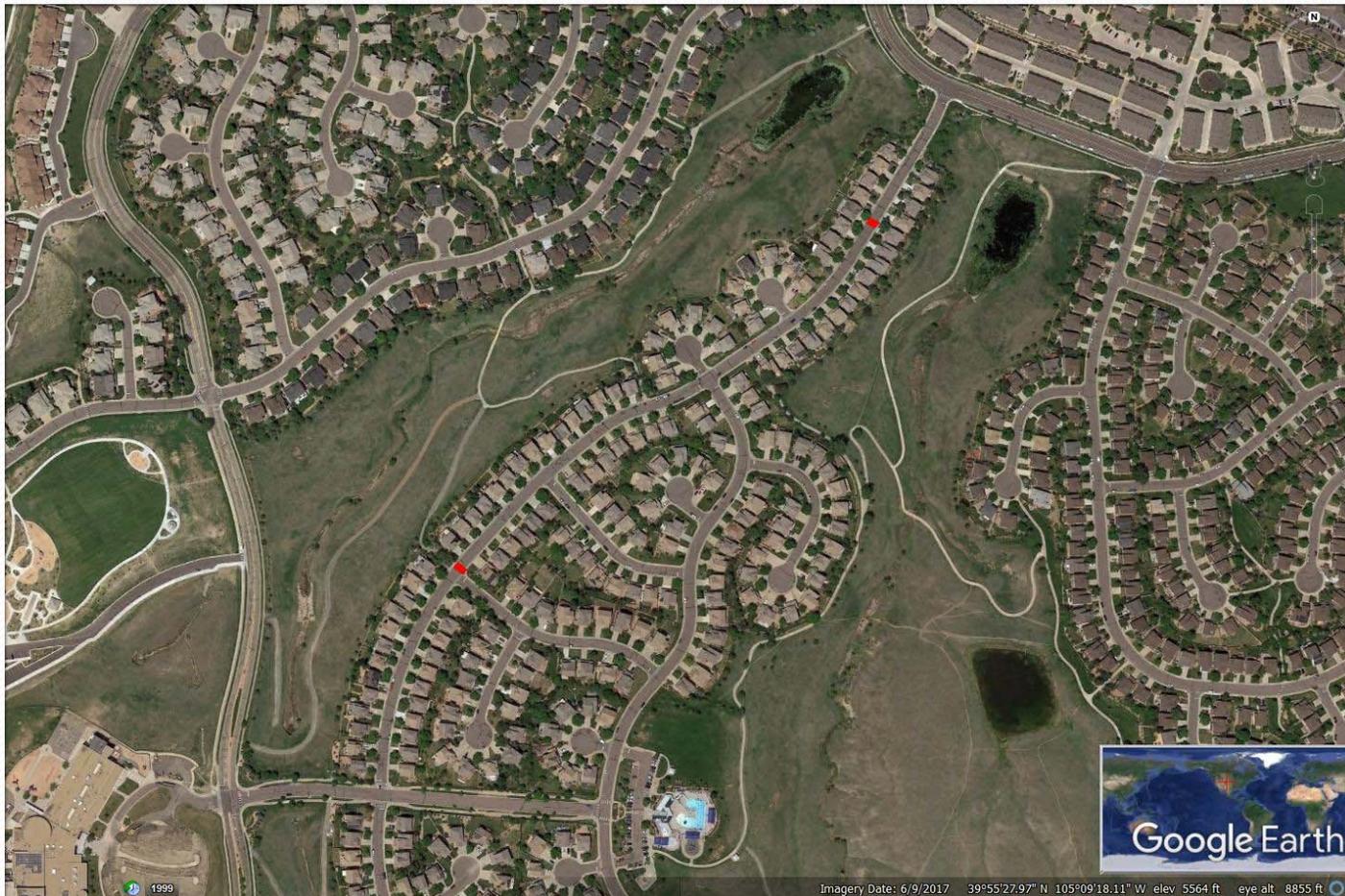
Weldona Speed Humps

- Three Speed Humps Installed in October, 2017

| Street | Location | Before | | After |
|---------|------------------------|----------------------|-----------|----------|
| | | 15-Aug-17 | 13-Sep-17 | 8-Nov-17 |
| | | <u>Daily Traffic</u> | | |
| Weldona | West of 88th | 1368 | 1402 | 1534 |
| Weldona | East of Idalia | 595 | 623 | 567 |
| Akron | East of Coal Creek Dr | 980 | 1012 | 962 |
| | | <u>85% Speed</u> | | |
| Weldona | East of Idalia-Tubes | 18.5 | 18.5 | 17.5 |
| Weldona | East End-Speed Trailer | | 26 | 20 |

Castle Peak Speed Humps

- Two Speed Humps Installed in May, 2018



Castle Peak Speed Humps

- Two Speed Humps Installed in May, 2018

| Castle Peak Speed/Volume Data | | | | | |
|-------------------------------|-----------------------|--|-----------------------|-----------------------------------|-----------------------|
| | | Before Speed Humps 12/7/17 & 4/11-12/18 | | After Speed Humps 5/23-24/2018 | |
| Street | Location | Daily Traffic | 85th Percentile Speed | Daily Traffic | 85th Percentile Speed |
| Castle Peak | s/o Rock Creek Circle | 2511 | 28.5 | 3151 | 21 |
| Castle Peak | n/o Shavano Peak | 1460 | 25.5 | 1730 | 24 |
| Castle Peak | n/o Grays Peak | 1132 | 25.5 | 1403 | 23.5 |
| Indiana St | s/o Coalton | 3471 | | 4234 | |
| Indiana St | s/o Torreys Peak | 2069 | | 2673 | |
| Torreys Peak Dr | e/o Indiana | 790 | | 1040 | |
| Torreys Peak Dr | w/o Rock Creek Circle | 1170 | | 1750 | |
| Mt Sopris Pkwy | e/o Indiana | 1406 | | 1963 | |



Speed Hump Requests

- Andrews Drive
- Yarrow Circle



Twenty is Plenty

Proposal to Lower speed limits on residential streets to 20 mph

- Growing movement in Europe & Canada
- Portland & Seattle
- Aspen & Telluride



Applicable Statutes

- Model Traffic Code
 - Prima Facie Speed limit in any residential district is 30 mph
- “Pursuant to Section 1101(7) of the Model Traffic Code, the Town adopts the following maximum lawful speed limits:
 - a. Residential districts not posted: twenty-five (25) miles per hour.
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Roadway Design Criteria & Standards

- Adopted by the Superior Municipal Code
- Includes various classifications of streets, each with a distinguishing set of design characteristics such as number of lanes, curve radius, grades, width, etc.
- For residential areas, classifications include “Local” and Minor Collector”.
- For “Local” streets, the Posted and Design Speeds are the same at 25 mph.

Roadway Design Criteria & Standards

- Traffic Calming Guidelines
 - Minor collectors or local streets should be designed with traffic calming in mind.
 - In identifying streets that may be candidates for traffic calming measures, traffic volume and unimpeded street length should be considered.

Roadway Design Criteria & Standards

MINIMUM CRITERIA FOR TRAFFIC CALMING

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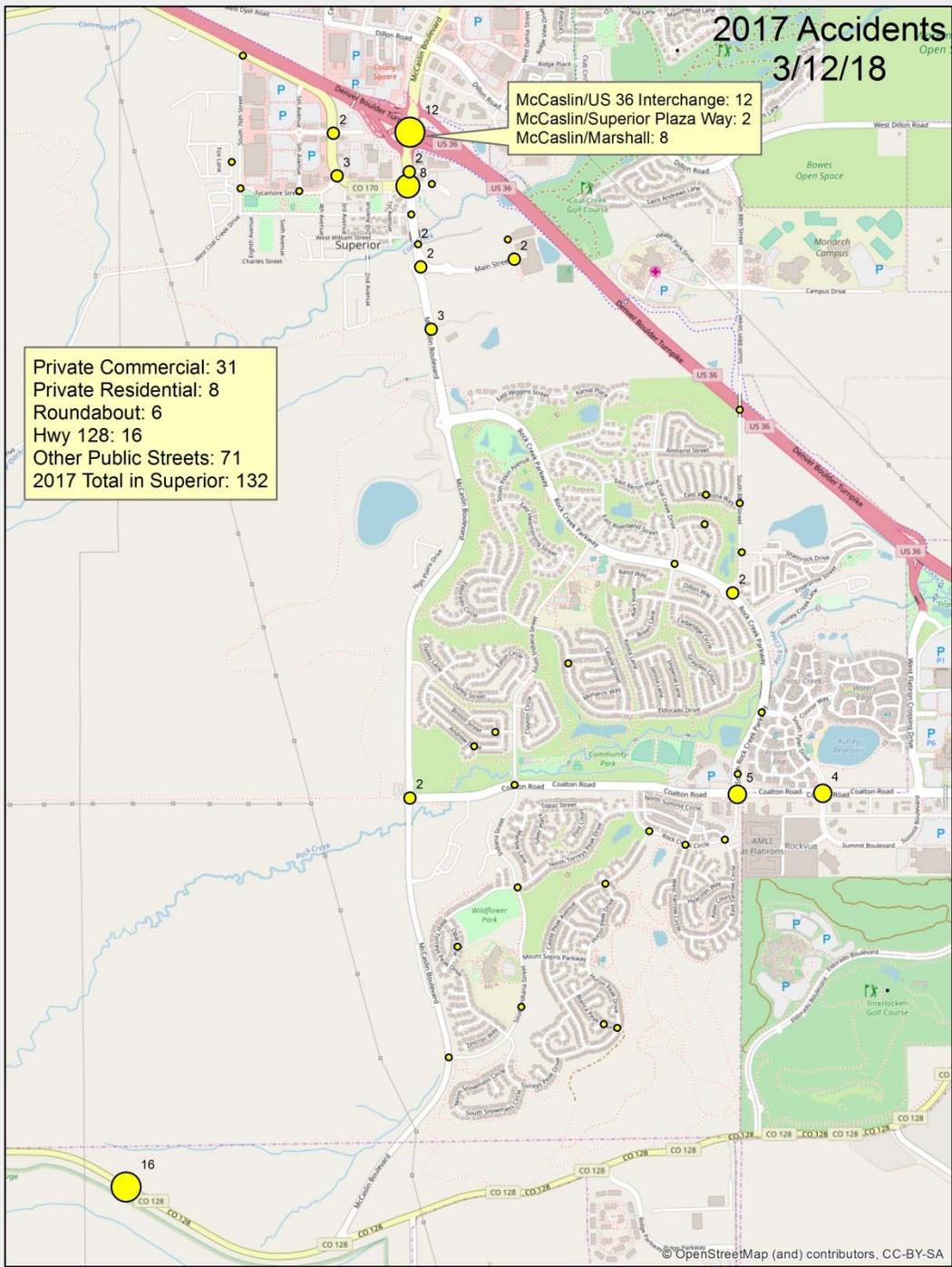
Crash Data

- Residential Street Segments 2012-17
- Non-intersection crashes on residential streets
 - 1 injury crash per year
 - 8-10 property damage crashes per year

2017 Accidents 3/12/18

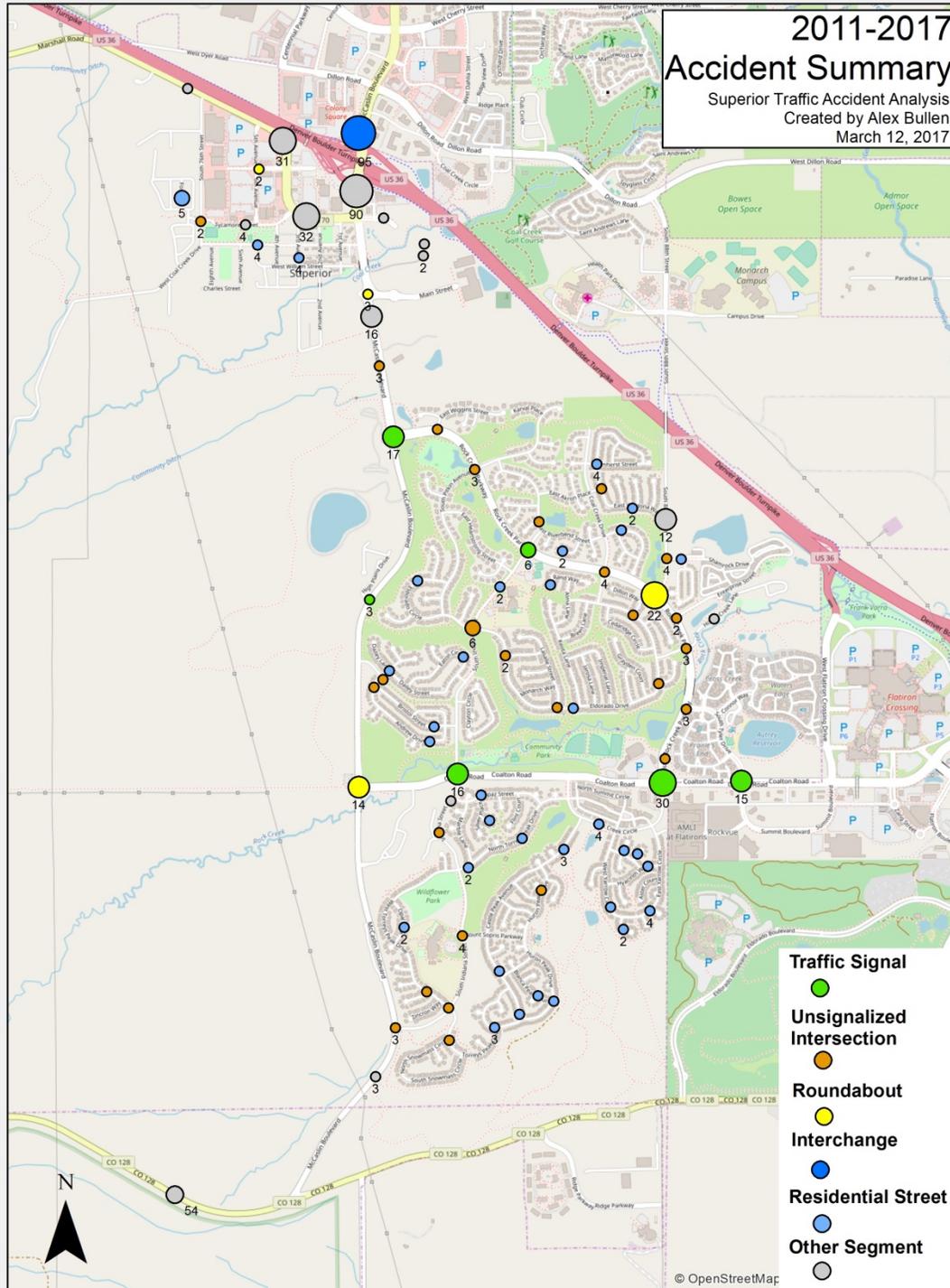
McCaslin/US 36 Interchange: 12
McCaslin/Superior Plaza Way: 2
McCaslin/Marshall: 8

Private Commercial: 31
Private Residential: 8
Roundabout: 6
Hwy 128: 16
Other Public Streets: 71
2017 Total in Superior: 132



2011-2017 Accident Summary

Superior Traffic Accident Analysis
Created by Alex Bullen
March 12, 2017



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Applicable Streets Map

- These are generally local streets in residential areas.
- Collectors with no back-out driveways are excluded along with arterial streets.
- Private streets are also excluded.

5/30/18

— "Local" Streets





Implementation Costs

- Public Outreach - \$2,000
- Sign Installation - \$25,000



Public Outreach Strategies

- Web page on the Town's website with informational material
- Articles in the newsletter
- Notices mailed to all Town residents
- E-blasts
- Survey Monkey
- Additional TSC Meeting (s)
- Town Board Hearings