Town of Superior Neighborhood Traffic Calming Program (NTCP) Checklist: DRAFT June 3rd, 2019

Step 1: Project Initiation

Resident request: Complete NTCP application form with signatures of residents from 5 different households on affected street

Town initiated project: identified by staff.

Step 2: Data Collection

Traffic speed: Staff will collect traffic speed data. 85th percentile speed, 5 MPH over posted limit, will be noted.

Traffic volume: Staff will collect traffic volume data.

Accident history: Staff will review crash reports.

Amount of cut through traffic: Staff will review traffic volume data to determine cut through traffic levels.

Presence of school crossings: Staff will identify all school crossings in the area.

Presence of nearby pedestrian generators: Staff will identify all pedestrian trip generators in the area.

Number of affected households: Staff will identify households that could be impacted by speeding traffic and households that could experience changes from the proposed traffic calming tools.

Step 3: Eligibility Review

Review data: Transportation & Safety Committee reviews data and staff report.

Project eligible for design alternatives: If the Transportation Safety & Committee determines the project is eligible for traffic calming, it proceeds to step 4.

Affected Neighborhood: The Transportation & Safety Committee determines the affected neighborhood.

Step 4: Community Outreach

Neighborhood charrette: A neighborhood design charette is conducted with Staff to provide a summary of the existing conditions data and evaluates how, where and when the traffic calming tools could be applied.

Identify design alternatives: Staff summarizes input from the neighborhood design charette and prepares design alternatives utilizing the traffic calming tools.

Neighborhood input on design alternatives: Staff issues a survey on the proposed alternatives. The survey requires 50% of affected households to respond for the project to continue to step 5.

Step 5: TSC Final review

TSC final review: Transportation & Safety Committee reviews neighborhood design charrette input and survey results.

Project approved for Town Board consideration: If the Transportation Safety Committee determines the project has 65% approval (from survey responses) and is in the best interest of the Town, it will be recommended for Town Board review. If approved by the Town Board the project proceeds to construction.

Project not approved: If the Transportation & Safety Committee or Town Board do not approve the project it is not eligible for traffic mitigation for a period of two years.

NTCP Program Objectives Reminder

- Define the process and criteria for designing & implementing traffic-calming measures.
- Direct traffic-calming expenditures to projects identified as priorities.
- Foster a collaborative relationship between residents & staff in implementing traffic-calming measures.
- Encourage residents' involvement in maintaining the safety & livability of their neighborhoods.

Neighborhood Traffic Calming Tools

- Chicanes, Closures, Combination Devices Diagonal Diverters Medians, Mid-block Chokers, Neckdowns, Neighborhood Identification Islands, Pedestrian Refuge Islands, Permanent Speed Display Units, Raised Crosswalks, Raised Intersections, Speed Humps, Street Striping/Pavement Markings, Street Trees & Vegetation, Traffic Circles, Turn Prohibitions, Directed Police Patrols, Neighborhood Speed Campaign, "Please Slow Down" yard signs, and Radar Speed Trailer.

Memorandum

TO: Transportation & Safety Committee

FROM: Alex Ariniello, Public Works & Utilities Director

DATE: June 3, 2019

RE: 2011-18 Crash Data

Crash Data

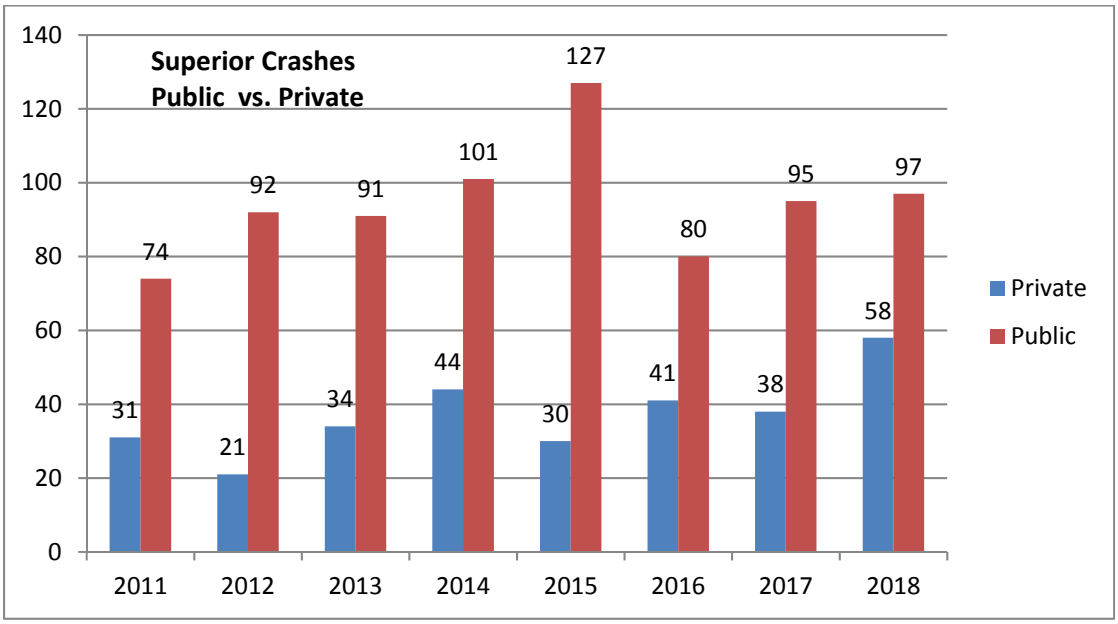
The Boulder County Sheriff's Office responds to reports of traffic crashes within the Town of Superior. The attached graphs, tables and figures display and summarize reported crashes that occurred during the 2011-18 time period:

Graph 1:	Crashes on Public Streets vs Private Property
Graph 2:	Injury vs. Total Crashes
Graph 3:	Intersection vs. Non-Intersection Crashes
Graph 4:	US 36/McCaslin DDI Crashes
Graph 5:	US 36/McCaslin DDI Crash Breakdown by Intersections
Table 1:	Intersections Ranked by Eight-Year Total Crashes
Figure 1:	2018 Crashes
Figure 2:	2011-18 Crash Summary
Figure 3:	2011-18 Crashes on Residential Streets

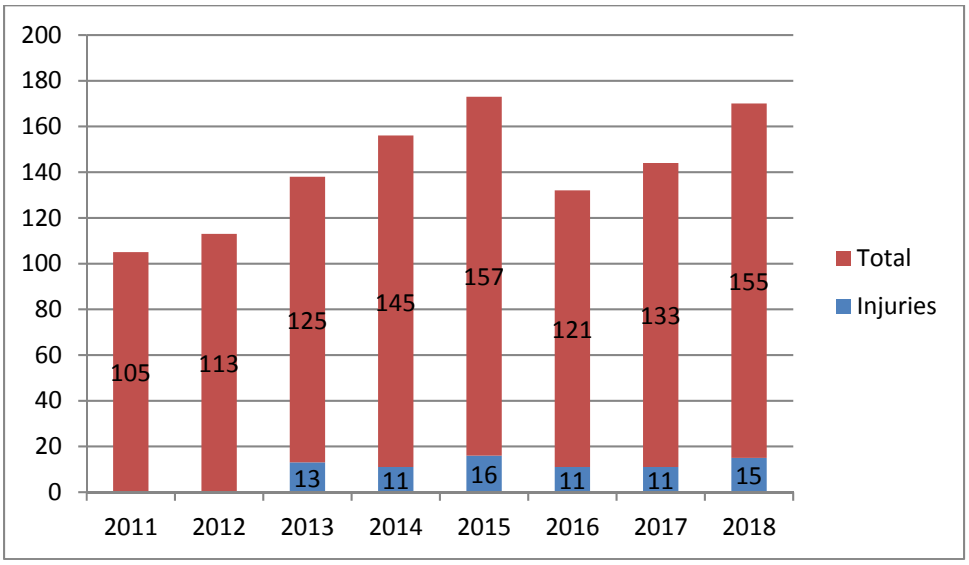
Total crashes increased by almost 12% (133 to 155 crashes) in 2018 but most of the increase (38 to 58 crashes) occurred in private parking lots. Crashes resulting in injuries increased by 36% (11 to 15 crashes) but remain a small proportion of total accidents.

During the eight-year period 2011-18, there was one pedestrian/vehicle crash, 3 crashes involving bicycles, one crash involving a deer, three DUI crashes and two fatal crashes (both on SH 128).

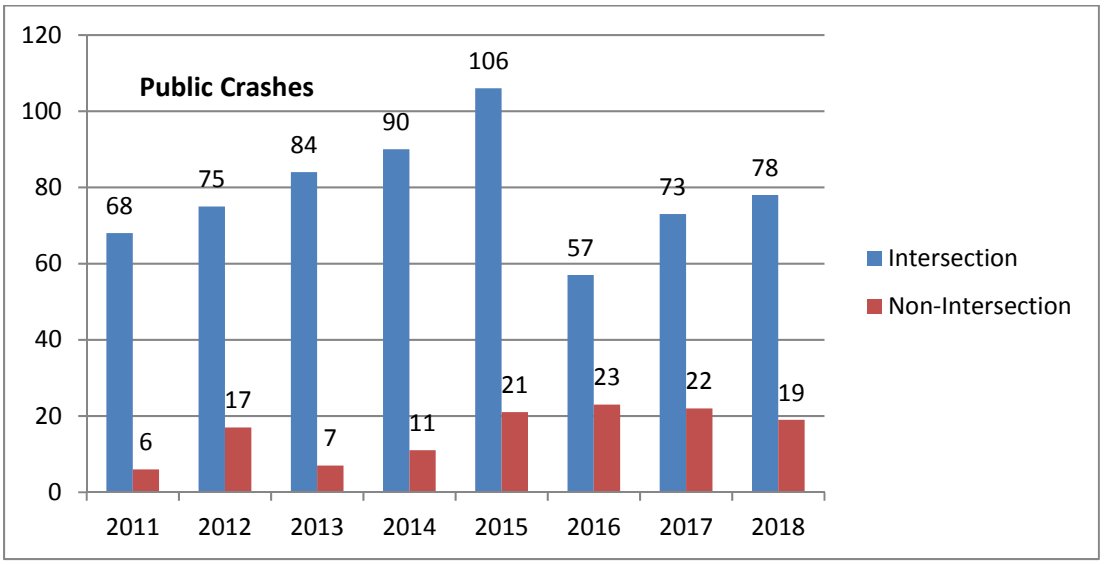
Graph 1
Crashes on Public Streets vs. Private Property



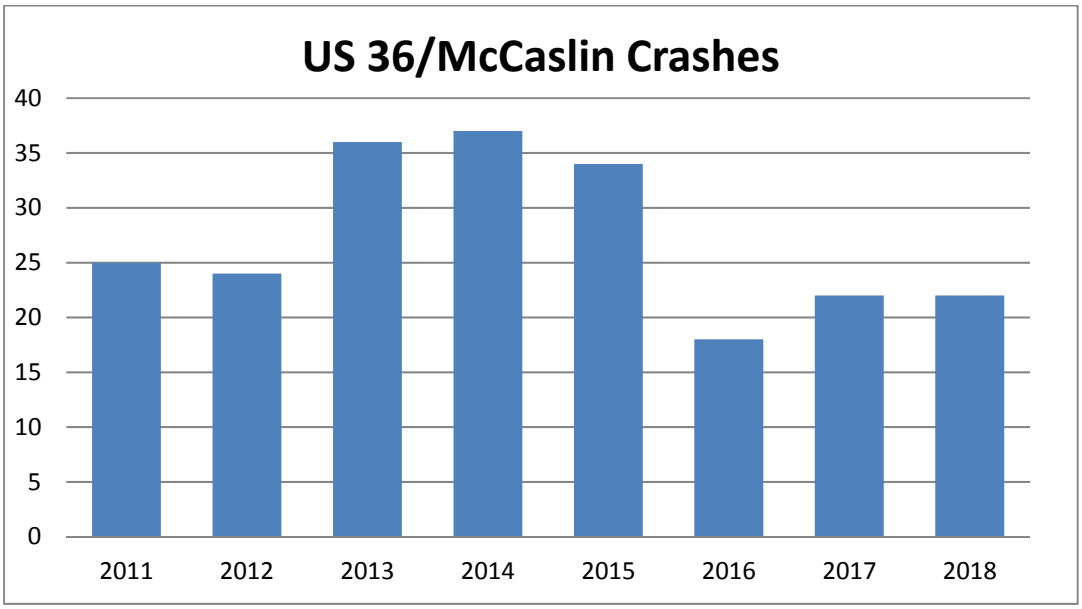
Graph 2
Injury vs. Total Crashes



Graph 3
Intersection vs. Non-Intersection Crashes

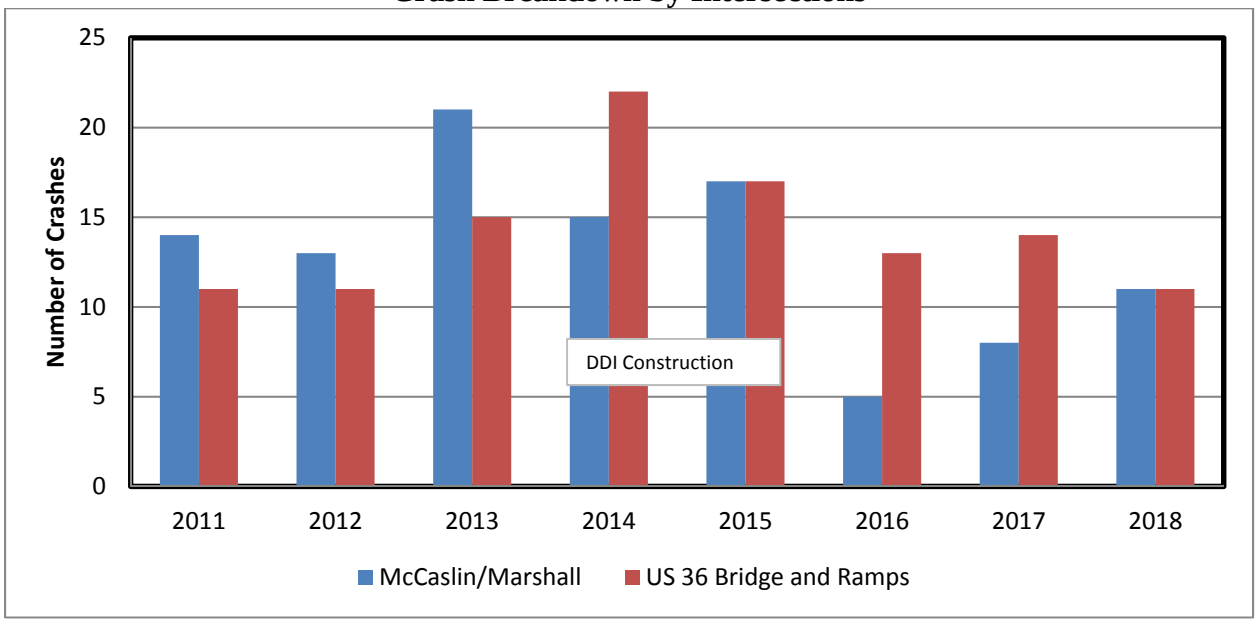


Graph 4
US 36/McCaslin DDI Crashes



Total of DDI and McCaslin/Marshall Intersection

Graph 5
US 36/McCaslin DDI
Crash Breakdown by Intersections



- No injury crashes in 2016
- 2 injury crashes in 2017
- No injury crashes in 2018

Table 1
Intersections Ranked By Seven-Year Total Crashes

Intersection	Traffic Control	2011	2012	2013	2014	2015	2016	2017	Total
McCaslin/US 36 (1)	Traffic Signals	11	11	15	22	17	13	12	**101**
McCaslin/Marshall (2)	Traffic Signal	14	13	21	15	17	5	8	**93**
Marshall/Sycamore	Traffic Signal	6	8	3	6	2	3	4	**32**
Rock Creek/Coalton (3)	Traffic Signal	3		4	5	9	5	4	**30**
Rock Creek/88th	Roundabout	4	3	3	3	6	3	2	**24**
Marshall/Center Dr	Traffic Signal	4	3	1	4	5	2	2	**21**
SH128/McCaslin	Traffic Signal	1	2		4	6	3	5	**21**
McCaslin/Coalton	Roundabout	4	3	2	4	4		2	**19**
SH128/Indiana	Traffic Signal	1	1	3	3	4	2	5	**19**
Coalton/Tyler Dr	Traffic Signal	2	1	1	3	4	1	4	**16**
McCaslin/Rock Creek	Traffic Signal	1	7	2	2	3			**15**
McCaslin/Discovery	Minor Street Stop Control		1	3	4	1	1	3	**13**
88th/Shamrock Dr	Minor Street Stop Control	2	1	2		2		1	**8**
88th/Weldona	Minor Street Stop Control	1	2	1		1	2	1	**8**
McCaslin/Coal Creek	3/4 Intersection	1		2		1	3	1	**8**
Rock Creek/Indiana	Traffic Signal	1	1	1	1	3			**7**
McCaslin/Superior Plaza	Minor Street Stop Control		1		1	1	1	2	**6**
Coalton/Indiana	Traffic Signal	2		1		1		1	**5**
Rock Creek/Coal Creek	Minor Street Stop Control	1					2	1	**4**
Rock Creek/Tyler Dr	Minor Street Stop Control			1	2			1	**4**
76th/Sycamore	Minor Street Stop Control				1		1	1	**3**
Center Dr/5th	Roundabout	1				1	1		**3**
McCaslin/High Plains (4)	Traffic Signal				1	1	1		**3**
McCaslin/Indiana	Minor Street Stop Control		1		1			1	**3**
Rock Creek/Enterprise	Minor Street Stop Control				1	2			**3**
Rock Creek/Pitkin	Minor Street Stop Control		1	2					**3**
Marshall/76th St	Minor Street Stop Control		1		1				**2**
McCaslin/Main St	Roundabout							2	**2**
Rock Creek/Coal Ridge	Minor Street Stop Control			1		1			**2**
		60	61	68	84	91	49	73	476

Notes:
(1) DDI under construction in 2014-15 and open in 2016
(2) DDI under construction in 2014-15. Eastbound triple-left opened in 2015
(3) Southbound double-left implemented in 2015
(4) Traffic signal installed in 2014

Figure 1

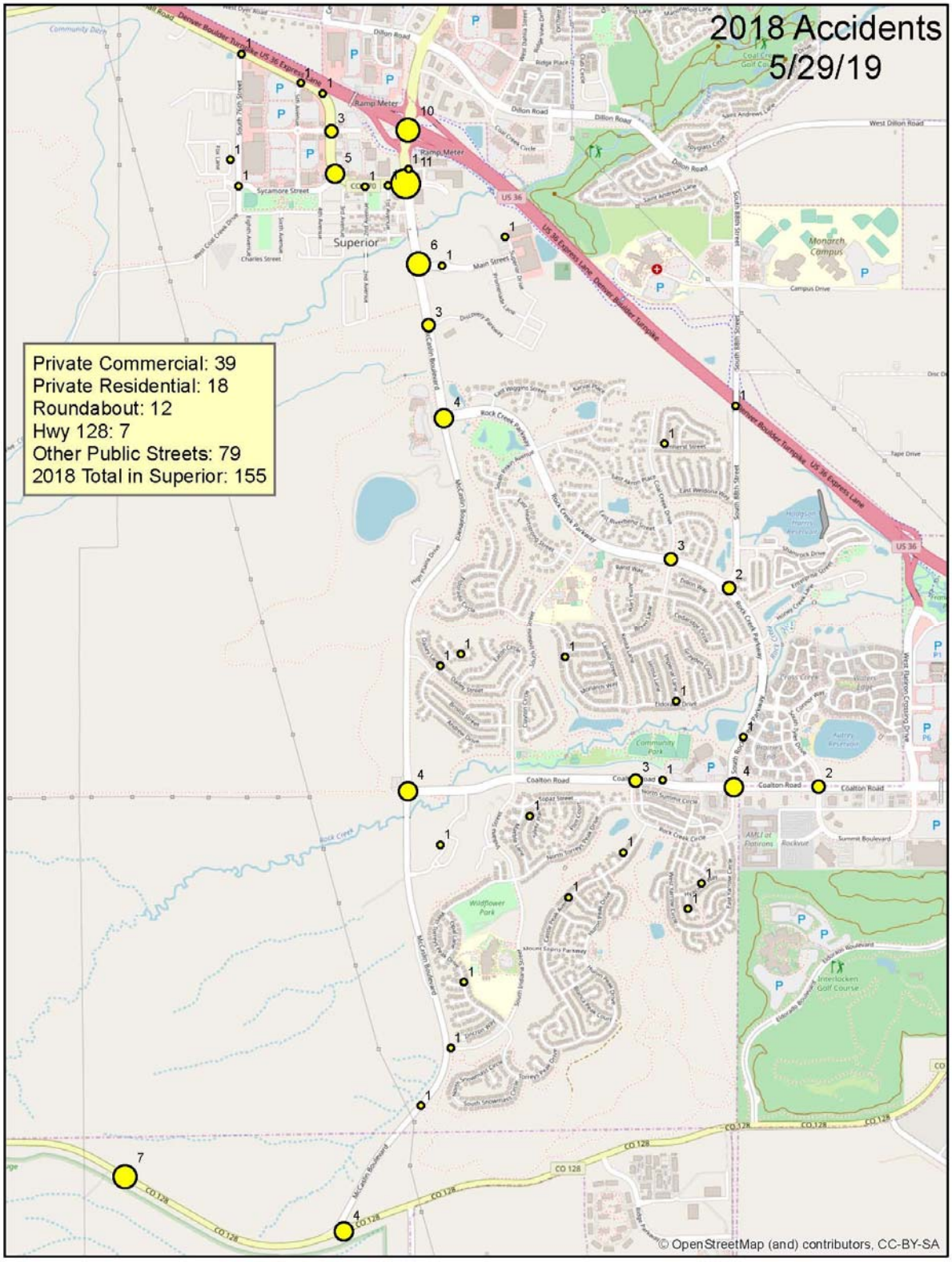

2018 Accidents
5/29/19
Private Commercial: 39
Private Residential: 18
Roundabout: 12
Hwy 128: 7
Other Public Streets: 79
2018 Total in Superior: 155
Superior
Ramp Meter
Dillon Road
Coalton Road
US 36
CO 128
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Figure 2

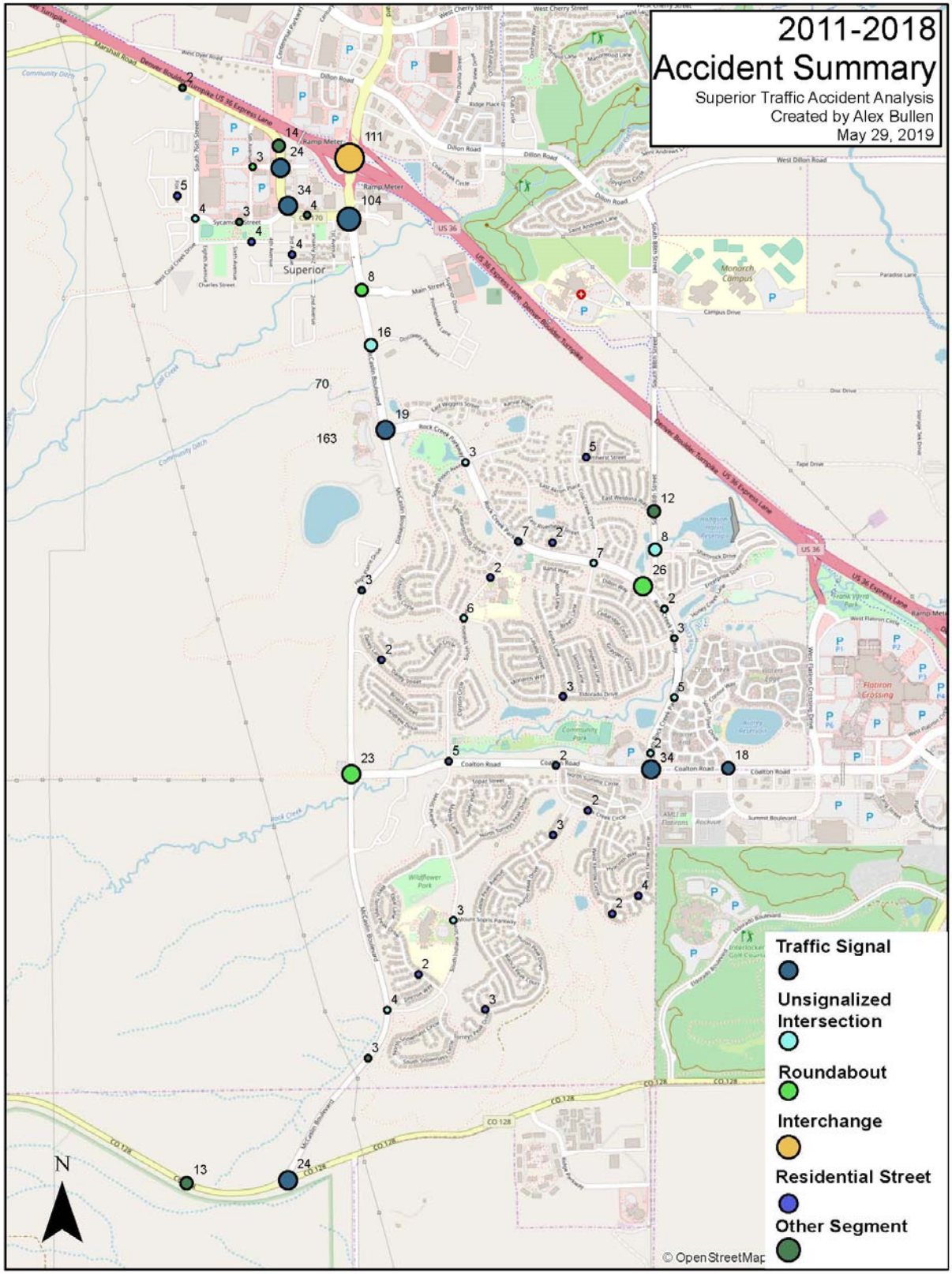
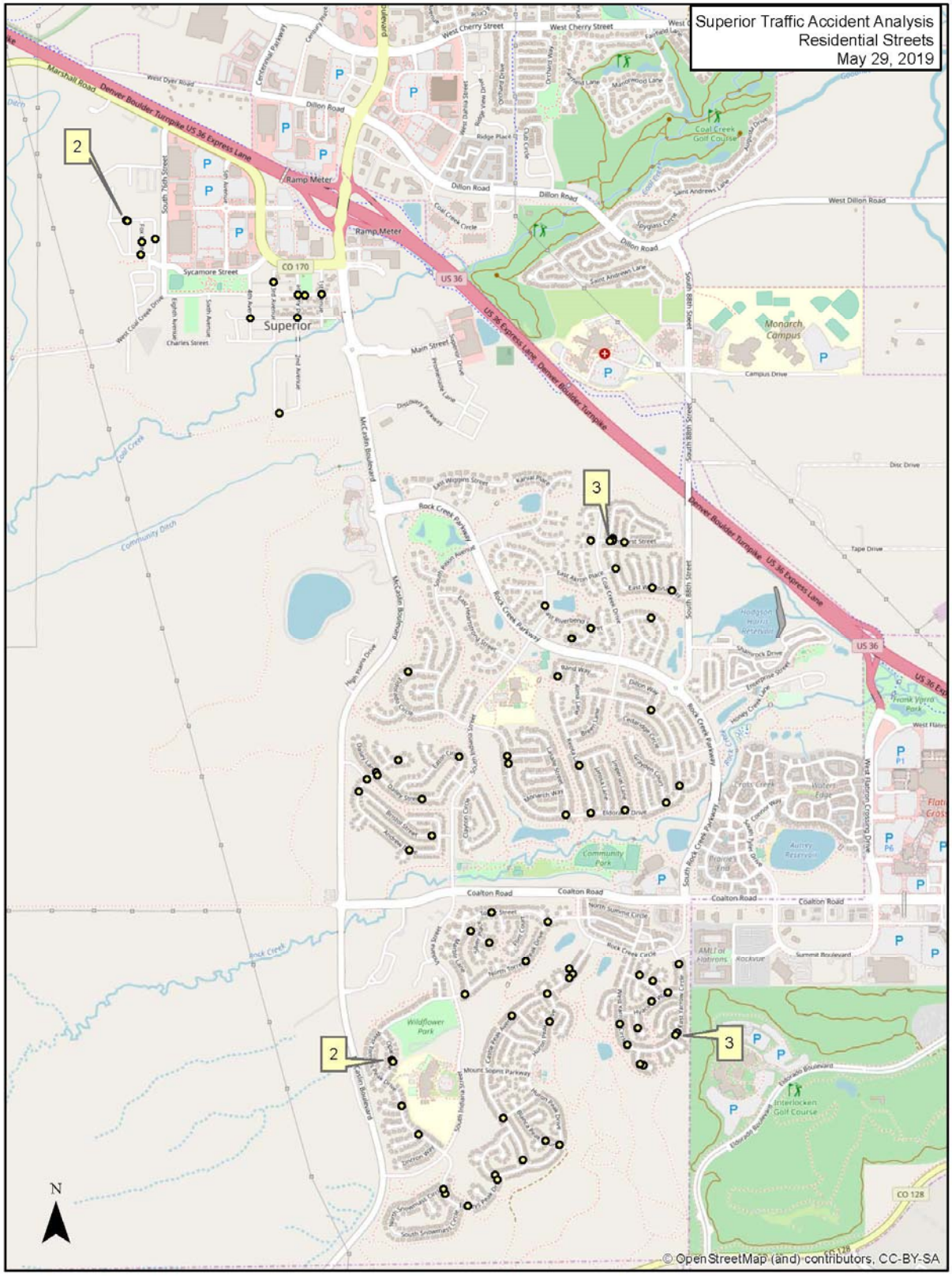

2011-2018
Accident Summary
Superior Traffic Accident Analysis
Created by Alex Bullen
May 29, 2019
Traffic Signal
Unsignalized Intersection
Roundabout
Interchange
Residential Street
Other Segment
N
© OpenStreetMap

Figure 3


Superior Traffic Accident Analysis
Residential Streets
May 29, 2019
2
3
2
3
Superior
Ramp Meter
Dillon Road
West Dillon Road
Coal Creek Golf Course
Monarch Campus
Coalton Road
Community Park
Wildflower Park
Interlocken Golf Course
Rock Creek Parkway
McCaslin Boulevard
South 88th Street
Denver Boulder Turnpike US 36 Express Lane
US 36
CO 170
CO 128
N
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Memorandum

TO: Transportation & Safety Committee

FROM: Alex Ariniello, Public Works & Utilities Director

DATE: June 3, 2019

RE: South Coal Creek Drive

Background

South Coal Creek Drive was built in the early-1990's as a major collector, 56 feet wide, accommodating 4 travel lanes and a center turn lane. In the mid 2000's it was restriped for two travel lanes, a center turn lane and on street bike lanes. It is posted at 35 mph northbound just north of Rock Creek Parkway. There is currently no speed limit sign in the southbound direction.

The *Superior Transportation Plan, 2014 Update* contains the following discussion of South Coal Creek Drive:

> "Located east of McCaslin Boulevard in Rock Creek, Coal Creek Drive presently extends north from Rock Creek Parkway to a stub end. This street was originally intended to proceed north and then west to intersect with either Coal Creek Drive in Original Superior or Marshall Road. Thus, this street was so named during the early platting of the northern filings in Rock Creek. This street is currently proposed to extend north and west to connect with Superior Town Center. It is intended to serve a minor collector street function with a bicycle/pedestrian way along its entire length. On land north of Rock Creek, the roadway will be designed to discourage high speed short-cut access through this part of the community through the use of traffic calming, roundabouts, and other techniques. Since the current street has an 80-foot ROW, the number of through lanes can be kept to two with the development of a landscaped median, bicycle lanes and pedestrian paths. These design options can be utilized to focus on a pedestrian/bicycle link between Rock Creek and Original Superior as a major function of this street while de-emphasizing through vehicle traffic."

Speed Data

Staff collected speed and traffic volume data on South Coal Creek Drive during the week of April 3 to 11, 2019. The locations were just south of Riverbend Street and just south of Akron Place. The data printouts are attached. Relevant statistics include.

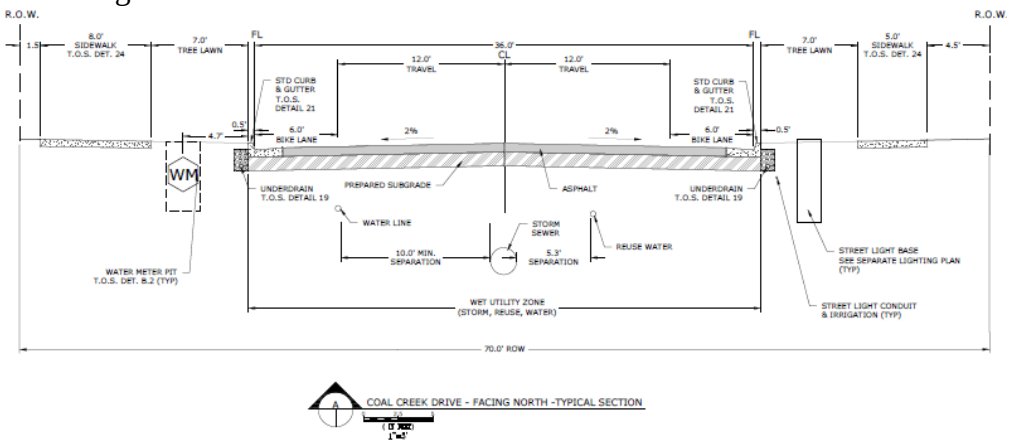
South Coal Creel Drive

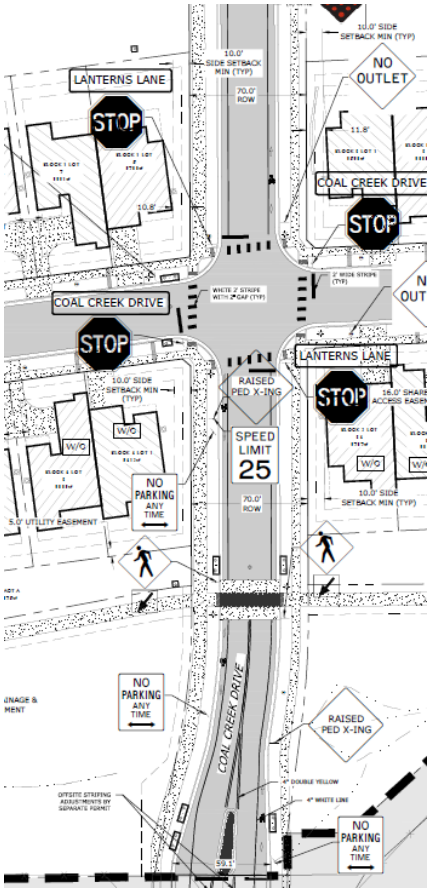
	South of Riverbend Street	South of Akron Place
Average Daily Traffic Volume	2,075	1,652
Average Vehicle Speed	28.8	26.2
85% Percentile Speed	34	34
% Over the Speed Limit of 35 MPH	9.4%	9.4%
10 MPH Pace	24-33	22-31

The 85% percentile speed is just under the posted speed. While reducing the speeds is a desirable goal and in keeping with the Transportation Plan, posting a lower speed limit will have negligible impact on actual speeds unless physical measures are implemented which are designed to discourage speeding.

Planned Improvements By Lanterns

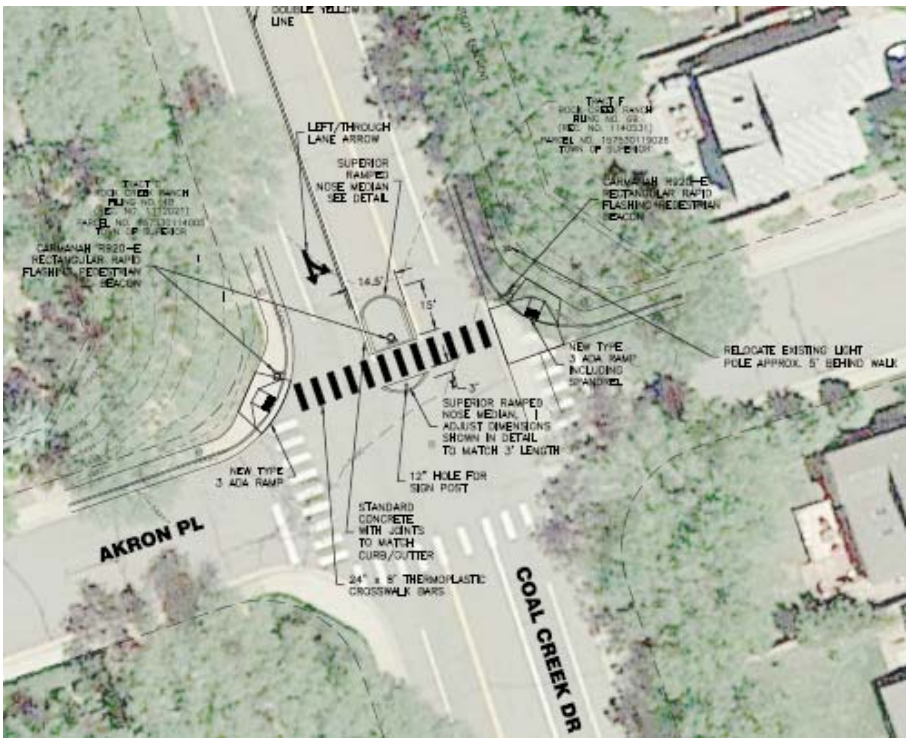
The approved FDP for the Lanterns development, located at the north end of South Coal Creek Drive, includes plans to extend Coal Creek Drive by transitioning from the existing 56 foot wide cross section to 36 feet, providng for two travel lanes and on-street bike lanes. A raised trail crossing is planned along with a four-stop controlled intersection at Coal Creek Drive and Lanterns Lane. With these design controls a 25 MPH posted speed was approved for this segment.

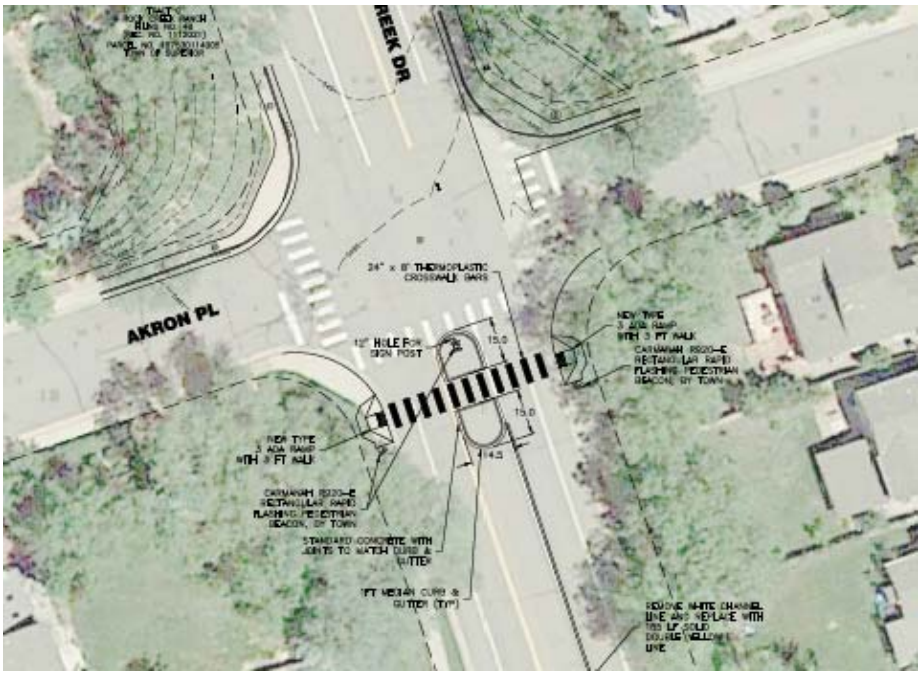




Proposed Improvements

With the Weldona Way Closure at 88th Street, school buses can no longer circulate within the Weldona neighborhood and students must walk to bus stops located on Coal Creek Drive near Akron Place. This means students must cross Coal Creek Drive at least once. To improve pedestrian protection, staff has been working on a plan to add a center pedestrian refuge protected by raised median islands (eliminating the left-turn lane). Rectangular Rapid Flashing Beacons (RRFBs) and signing could be added to increase pedestrian protection. The initial plan had the median islands north of Akron, but issues with providing ADA ramps and an adequate median island in front of the ped crossing led to a change to the south side. Staff has contacted BVSD and they are supportive of the south pedestrian crossing.





Additional Traffic Calming Measures

The Town in the past has made commitments to implementing traffic calming measures on Coal Creek in conjunction with the connection to Downtown Superior.

DRCOG has recently announced a new funding program for small infrastructure projects. One of the project categories is "traffic calming, road diets and complete street improvements. The Town could apply for traffic calming on South Coal Creek Drive.

Meeting Summary

76th/Sycamore Neighborhood Meeting
April 4, 2019
5:30-7:00 PM
BOARD ROOM, TOWN HALL

Agenda

- Introductions and review agenda (5:30 PM)
- Neighborhood Traffic Calming Program overview (5:35 PM)
- Group mapping exercise for 76th an Sycamore area (5:45 PM)
- Review traffic calming toolbox options for 76th an Sycamore (6:15 PM)
- Identify preferred option for the TSC to consider at June meeting (6:30 PM)
- Summarize meeting and next steps (6:55 PM)
- Adjourn neighborhood meeting (7:00 PM)

Staff Present

- Alex Ariniello
- Carlos Hernandez, FTH

Neighborhood Present

- Alie Hopper
- 10 residents

Summary of existing conditions input from neighborhood

- The area has increased traffic, congestion and speed thru the intersection
- No forced yield or stop for pedestrians
- No signage for crosswalks
- Very wide roads lead to difficultly with pedestrian visibility
- No pedestrian islands or refuges
- People driving cars abide by or see the school bus stop sign when picking up or dropping off children for/from school
- Speed limit is too high and there's not stop signs warring for potential pedestrians

- Car driving on 76th Street wouldn't slow down to stop for the pedestrian waiting for crossing the intersection
- Cars driving too fast and sometimes not stopping for pedestrians in the crosswalk
- Cars disregards the stop sign on the school bus
- Visibility?
- Signs for bus stops?
- Pedestrian crossings lights/signs not there
- Traffic on 76th too fast
- People NOT stopping at crossing
- Cars driving too fast zooming past the cross intersection with no traffic light nor stop sign to slow them down The cross section at south 76th and South Sycamore Street is too wide for pedestrians to cross safely without worrying about speedy cars mentioned above
- Safety concerns about the crosswalk and the amount of kids that are crossing daily with cars that fly through there without paying any regard to pedestrians
- Only having 2 stop signs is problematic because a car may stop but speeds through to beat another car coming knowing that other cars will not stop
- Also, a driver with 2 way stop and bikers flying through without them stopping
- Speed of cars/vehicles on S. 76th Street especially through the intersection with Sycamore St.
- Cars passing stopped school busses while bus is loading/unloading
- Crossing S. 76th St. to reach the park when vehicles are flying down the road.
- Baking safety into the design such that a 4-year old can safely cross the street. This means reducing vehicle speeds at the intersection to 25 MPH or less (85th percentile)
- Encourage yielding behavior beyond just the regulatory signs/crosswalks
- Paint is worn in some crosswalks and cannot be seen
- West leg crosswalk is difficult to see due to the drain pan depressed location

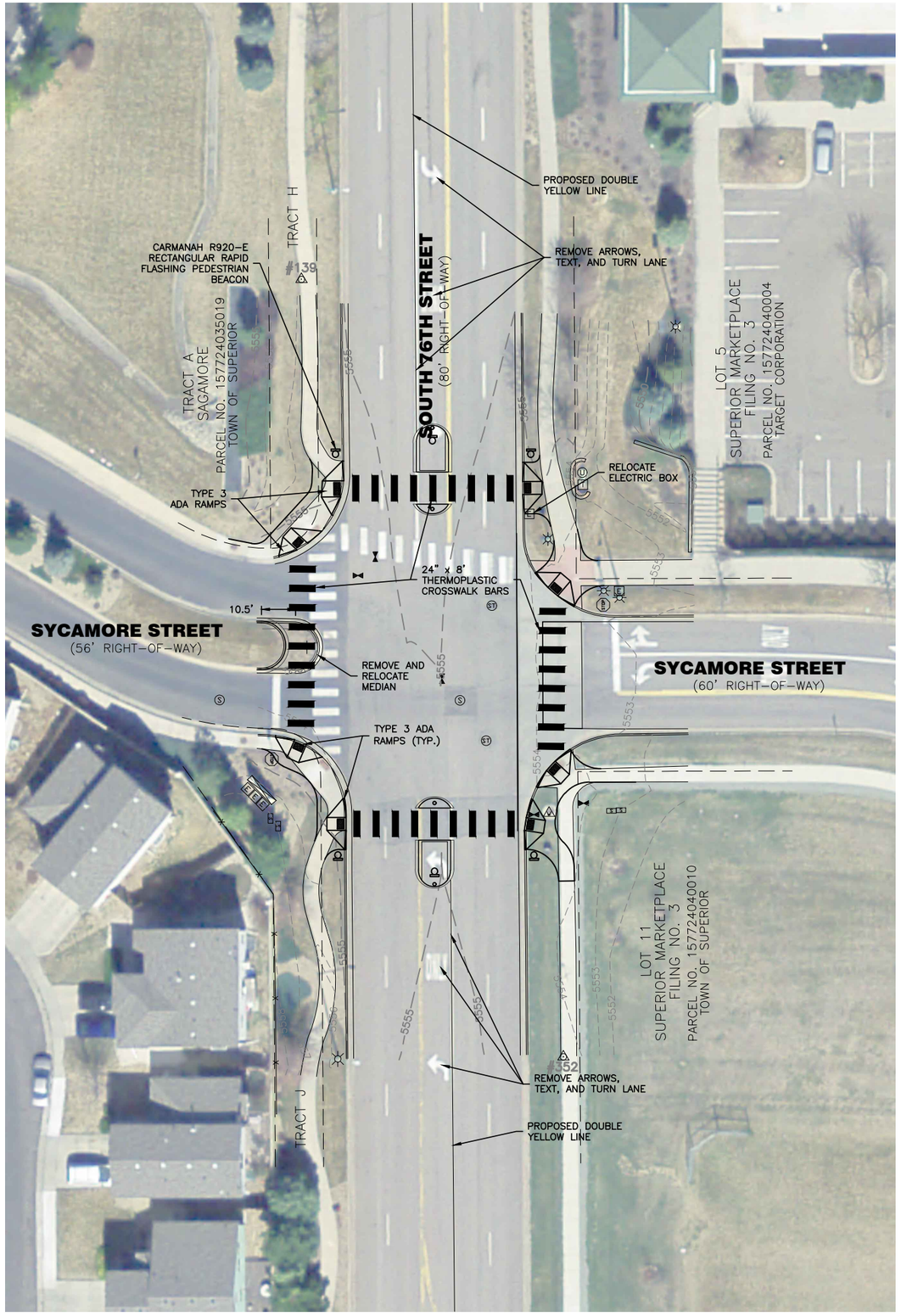
<u>Summary of toolbox options discussed with neighborhood</u>

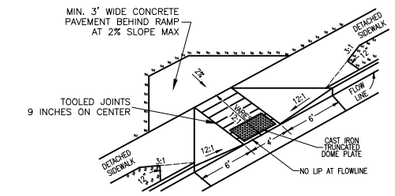
- Pedestrian refuge islands at Sycamore and 76th intersection
- Speed feedback signs on 76th north of Sycamore intersection
- Speed humps on 76th north of Sycamore intersection
- Travel lane width reduction
- Turn lane removal
- MUTCD pedestrian crossing signage
- Repaint crosswalks
- Rumble strips
- 4-way stop (if warrants are met)
- On-street bike lanes

<u>Proposed toolbox options to discuss with Transportation Safety Committee at the June 1, 2019 meeting:</u>

- Pedestrian refuge islands at Sycamore and 76th intersection (phase 1)

- On-street bike lanes (phase 1)
- Turn lane removal (phase 1)
- Travel lane width reduction (phase 1)
- MUTCD pedestrian crossing signage (phase 1)
- Repaint crosswalks (phase 1)
- Speed feedback signs on 76th north of Sycamore intersection (phase 2)
- Speed humps on 76th north of Sycamore intersection (phase 2)





TYPE 3

NOTES:

1. RAMP IS FOR USE WHERE THE SIDEWALK EXTENDS TO THE CURB OR CAN BE EASILY TRANSITIONED TO PERMIT WHEELCHAIR ACCESS TO THE RAMP FROM THE SIDE. TYPE 3 CAN BE USED ANYWHERE IN THE BLOCK, AS WELL AS AT INTERSECTIONS.
2. CONCRETE TO BE CDOT CLASS B/D 4,500 PSI

THESE DETAILS ARE PROVIDED FOR STANDARDIZATION PURPOSES ONLY. THIS DETAIL REPRESENTS MINIMUM DESIGN STANDARDS WHICH MAY REQUIRE UPGRADING FOR SPECIFIC APPLICATIONS. N.T.S.

Town of Superior — Gateway to Boulder Valley

TYPE 3 HANDICAP RAMP

DATE: JANUARY 2019 | SHEET 800-13

20 10 0 20 40 60

SCALE IN FEET

J&T Consulting, Inc.
305 Denver Avenue - Suite D
Fort Lupton, CO 80621
Ph: 303-857-6222 Fax: 303-857-6224
www.j-tconsulting.com

Sycamore St & 76 th Improvements

Ramps Only

Site Plan

Town of Superior

REVISIONS

No	Date	By	Chk	Description

Job #	19122
Date	
Drawn By	WSS
Designed By	TPY
Checked By	JCY
File	JT-Sycamore site
Scale	1" = 20'

Sheet: 1 Of: 1

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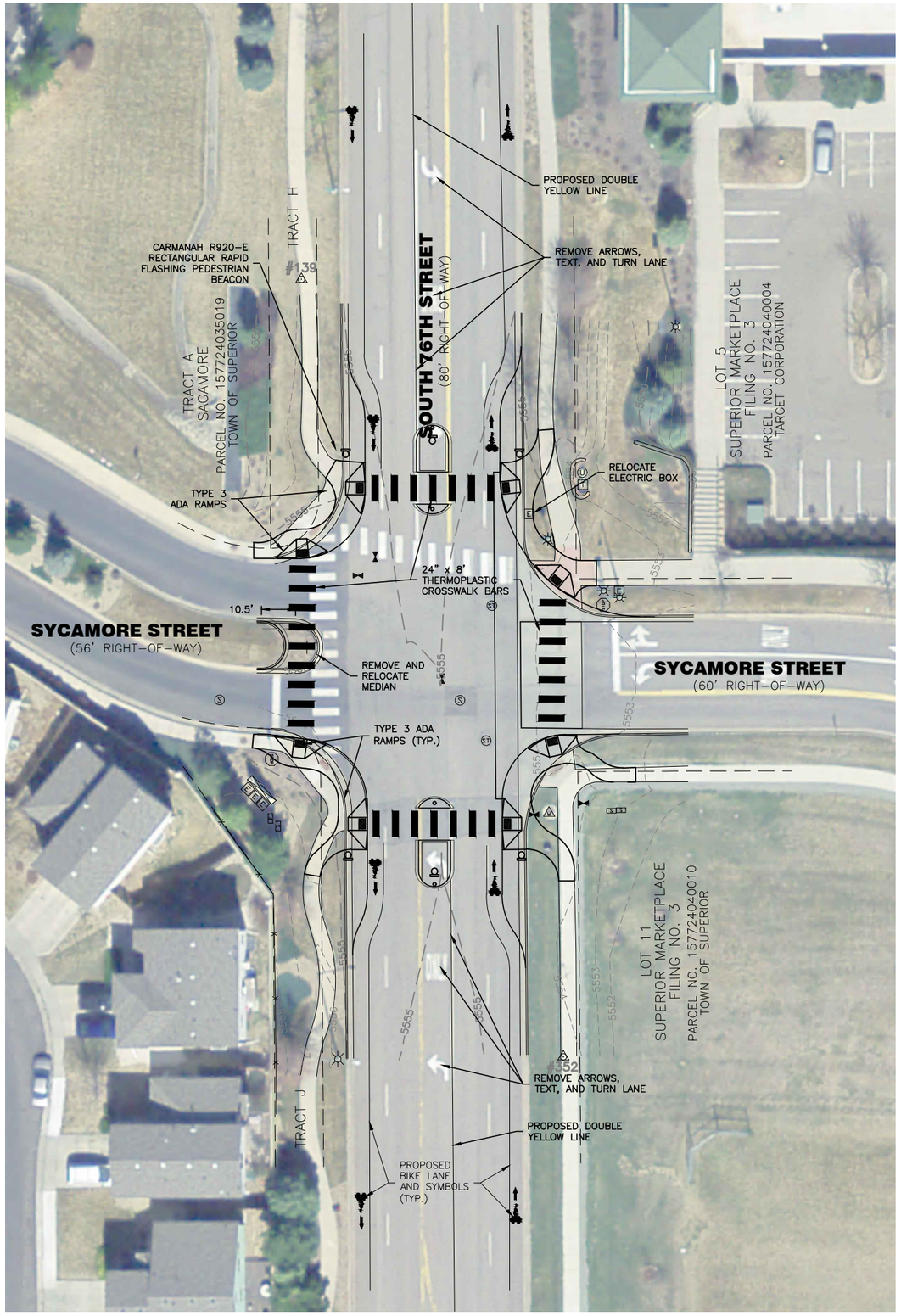

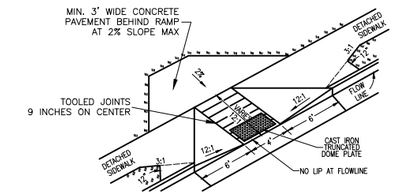

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Town of Superior — Gateway to Boulder Valley

TYPE 3 HANDICAP RAMP

DATE: JANUARY 2019 | SHEET 800-13

N

20 10 0 20 40 60

SCALE IN FEET

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www.j-tconsulting.com

Sycamore St & 76 th Improvements

Bulbouts

Site Plan

Town of Superior

REVISIONS

No	Date	By	Chk	Description

Job #	19122
Date	
Drawn By	WSS
Designed By	TPY
Checked By	JCY
File	JT-Sycamore site
Scale	1" = 20'

Sheet: 1 Of: 1

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