Making the Right Call in Sisseton

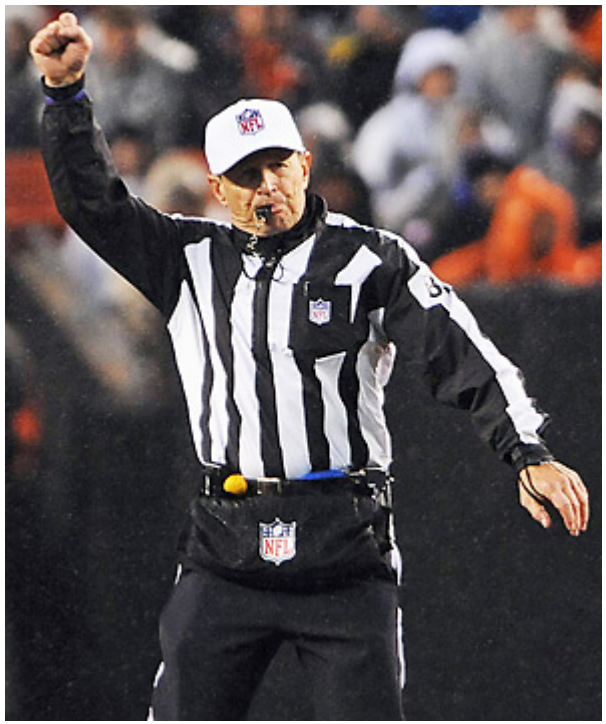
Mark Malone, PE
SD DOT

Why are we here again?

- Review past meetings

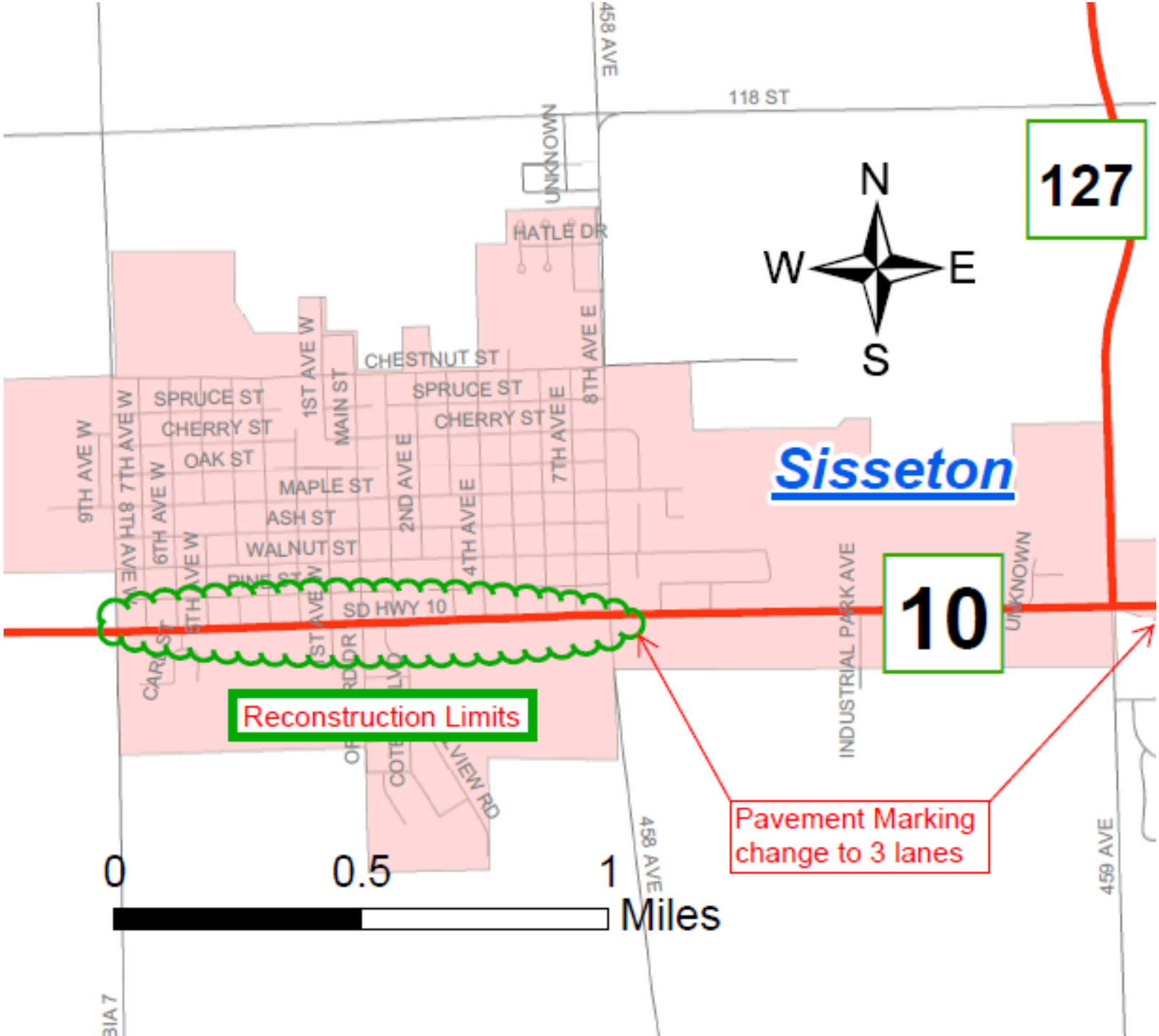
- Discuss
  Comments
  SDDOT received

- How has SDDOT addressed the public's concerns



- Options to move forward with

- Gather additional comments


458 AVE
118 ST
UNKNOWN
HATLE DR
127
N
W
E
S
CHESTNUT ST
SPRUCE ST
CHERRY ST
OAK ST
MAPLE ST
ASH ST
WALNUT ST
PINE ST
1ST AVE W
MAIN ST
2ND AVE E
4TH AVE E
7TH AVE E
8TH AVE E
9TH AVE W
7TH AVE W
6TH AVE W
5TH AVE W
Sisseton
SD HWY 10
10
INDUSTRIAL PARK AVE
UNKNOWN
Reconstruction Limits
Pavement Marking
change to 3 lanes
0
0.5
1
Miles
459 AVE

- Public Meeting April 15, 2013
  - 67 people in attendance
  - Received 33 comments
    - 12 of the 33 had attended the public meeting

- City Council Meeting May 13, 2013
  - Received 2 additional comments

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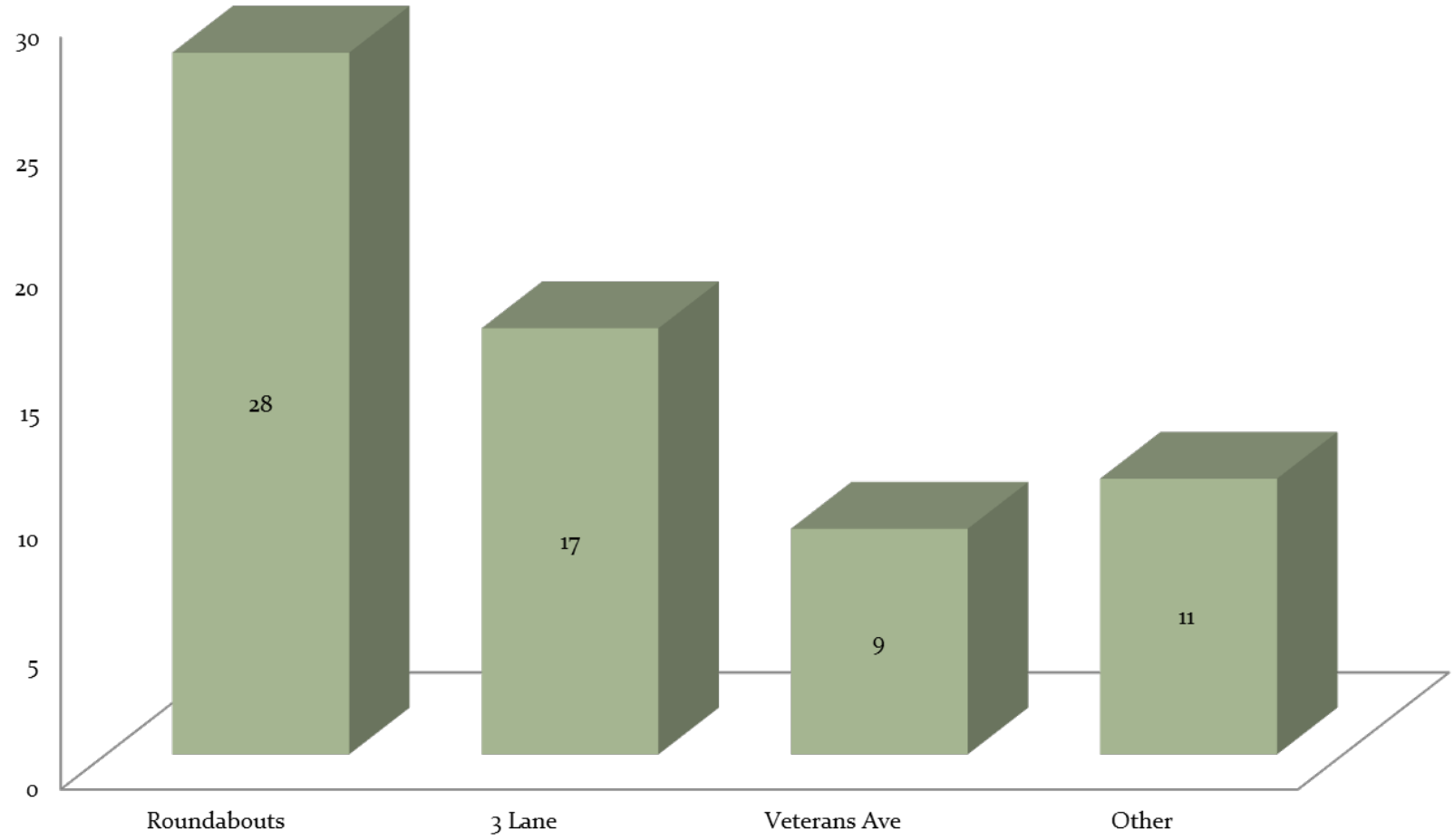
Comments (33)



- Many responses discussed multiple issues

Reconstruction

- Pavement Condition
  - Originally constructed in 1961
  - Last resurfaced in 1989
- Safety
  - Concerns with existing roadway section and intersections
- Capacity
  - No capacity concerns with highway, only a few intersections

Quick Review: Crash Data

2010-2012

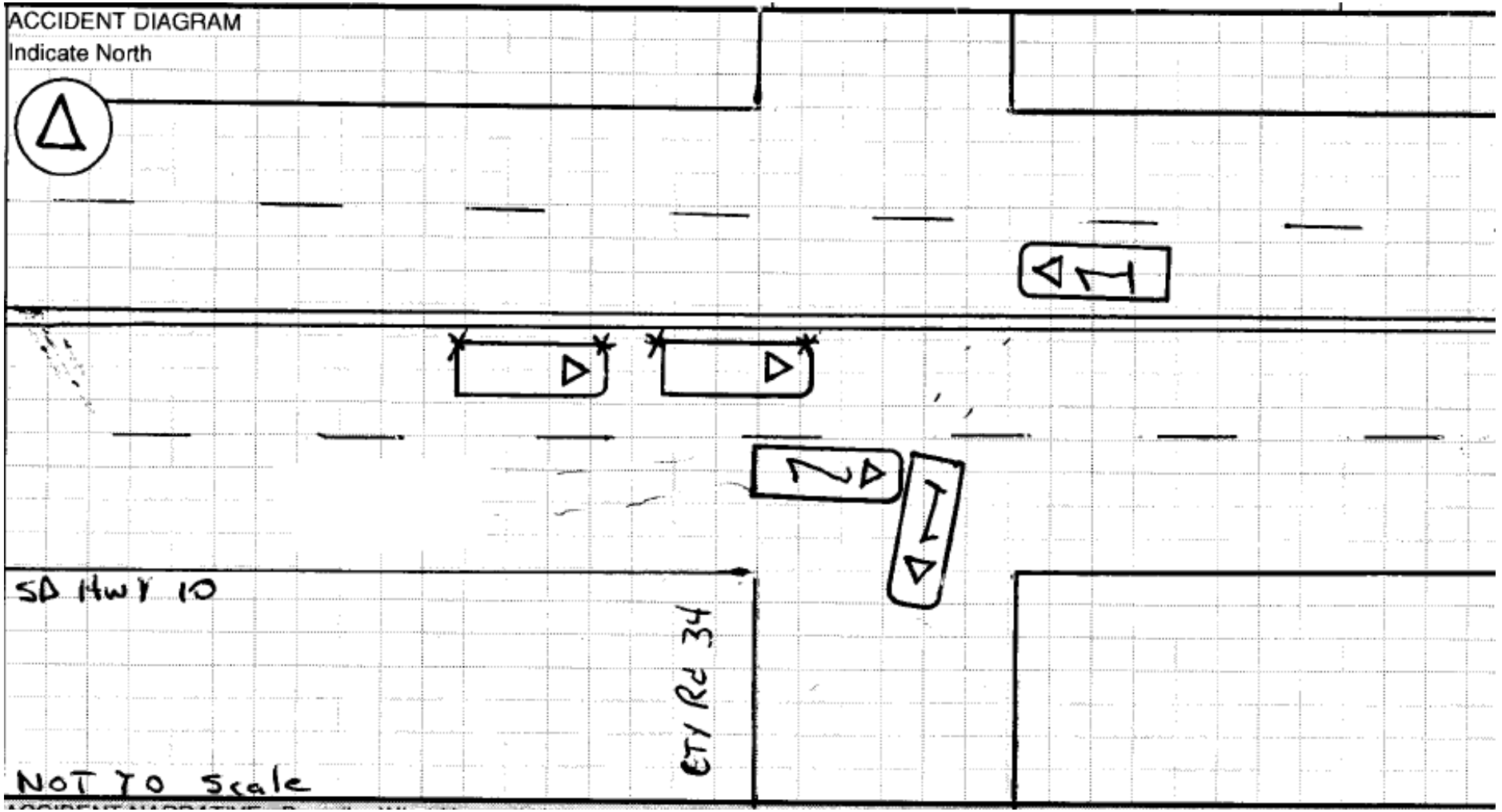
- 36 crashes
  - 11 Injury

- Accident Rate over 3 times state average
- At a minimum, 16/36 could be avoided with a 3 lane roadway

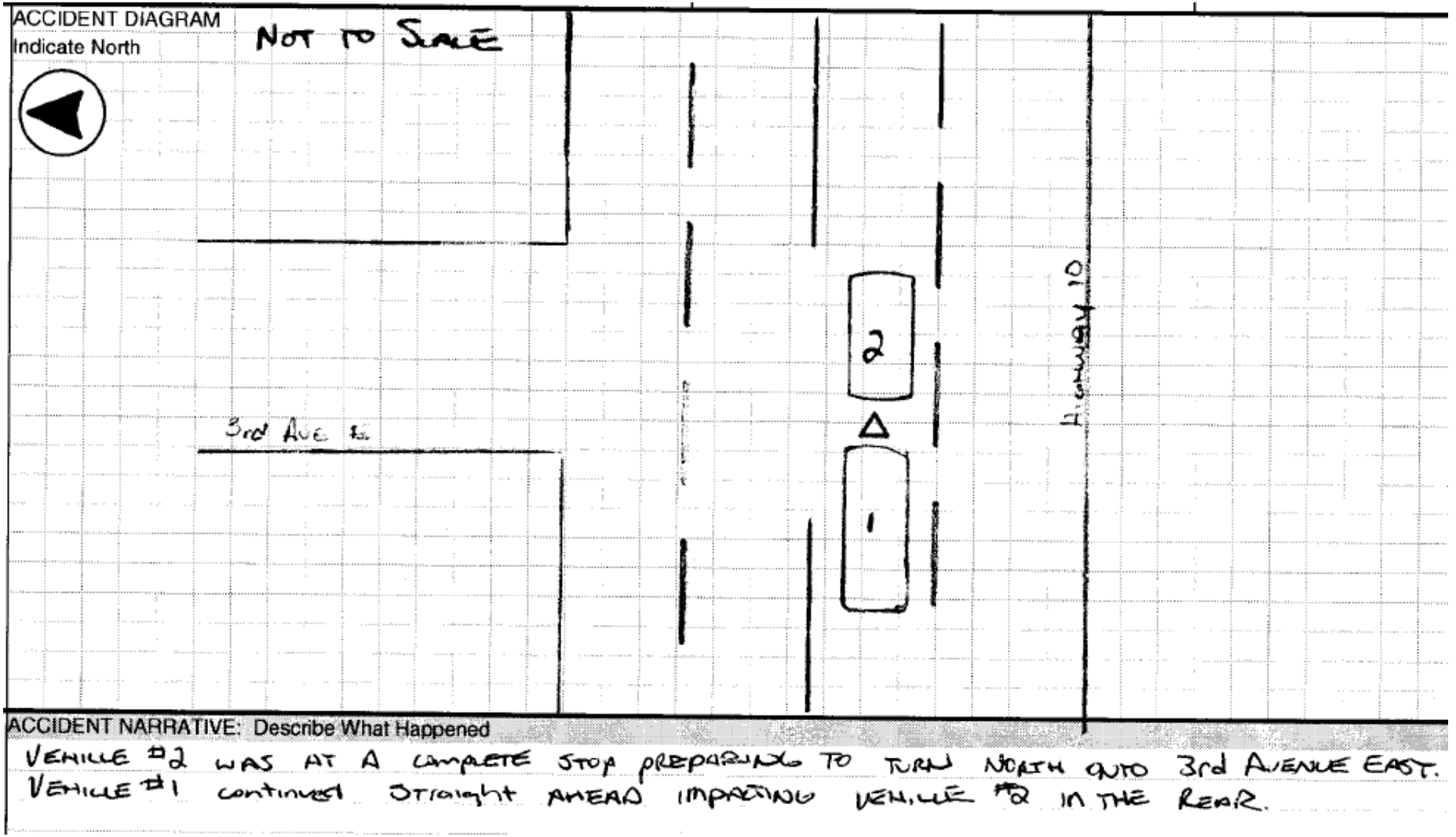
types Sisseton

You don’t want to get hit, but…

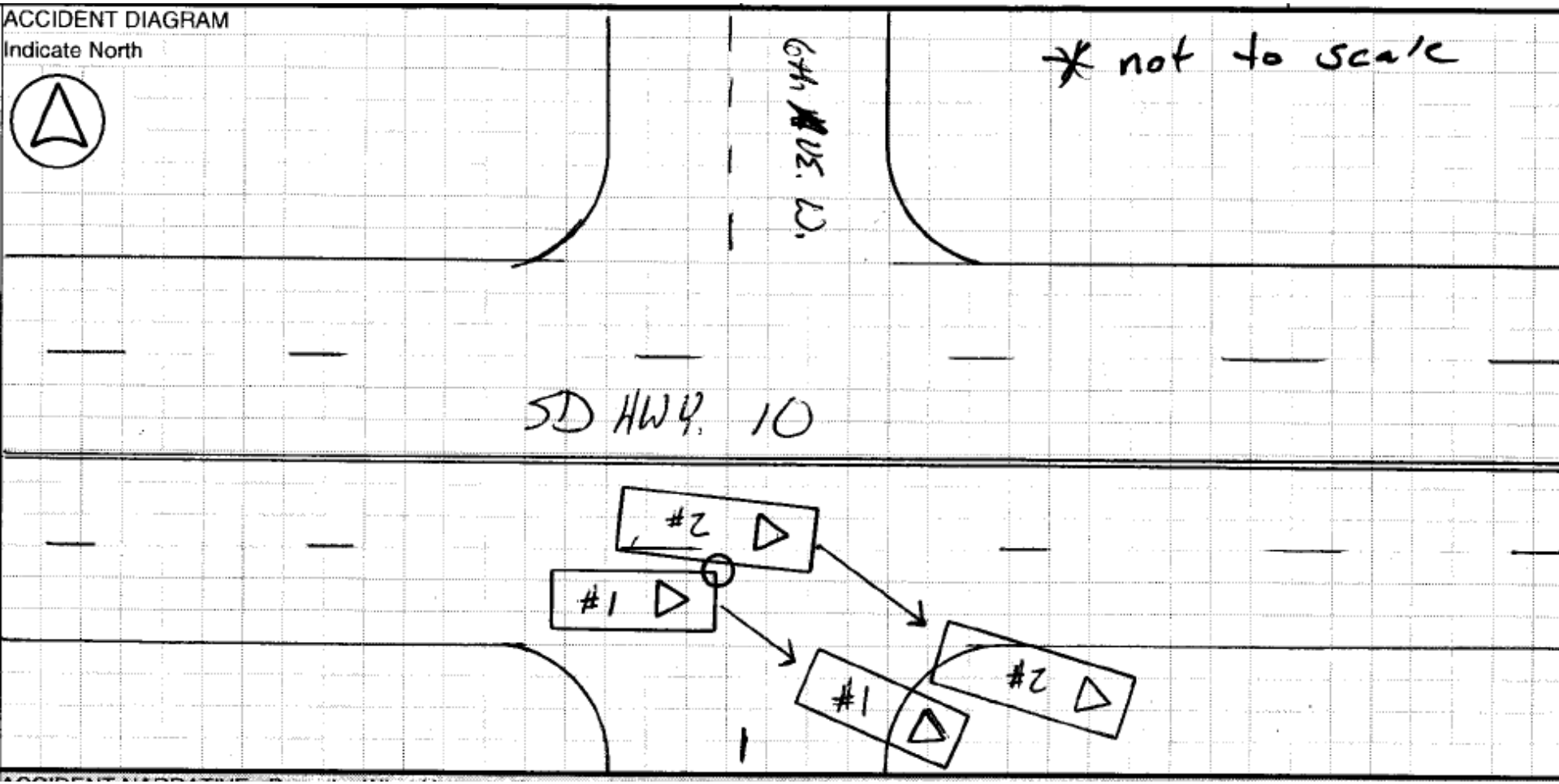
- Hidden vehicle in far lane
  - 3 times



- Rear ending a left turning vehicle
  - 4 times



- Sideswipe vehicle in blind spot
  - 7 times



Milbank - 2005

Milbank 4 Lanes

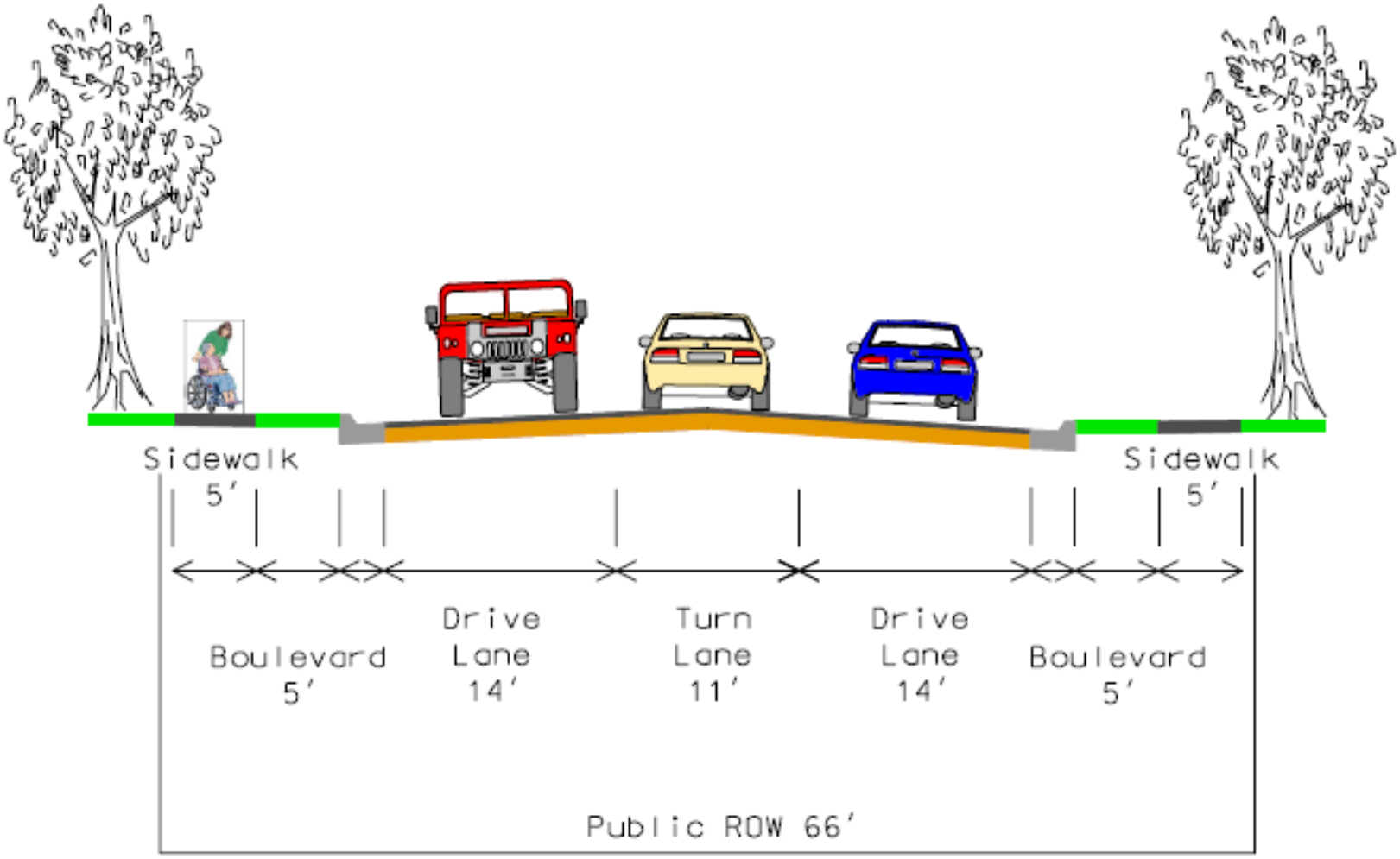
99 crashes from 2000-2002

Milbank 3 lanes

37 crashes from 2006-2008 (63% reduction)

Typical section

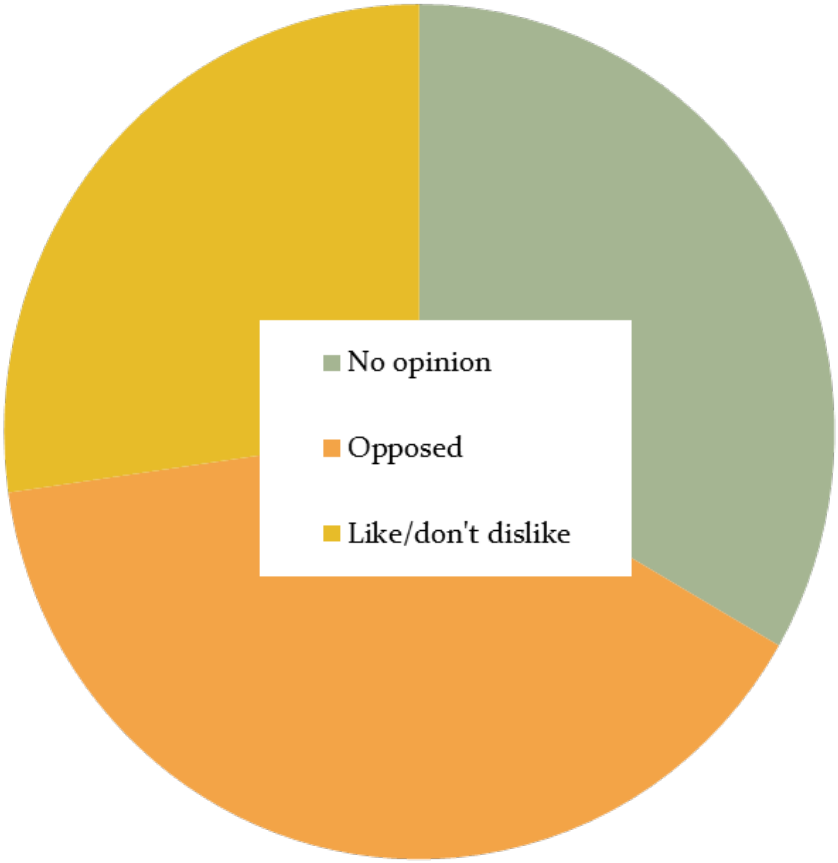
Highway 10 Roadway



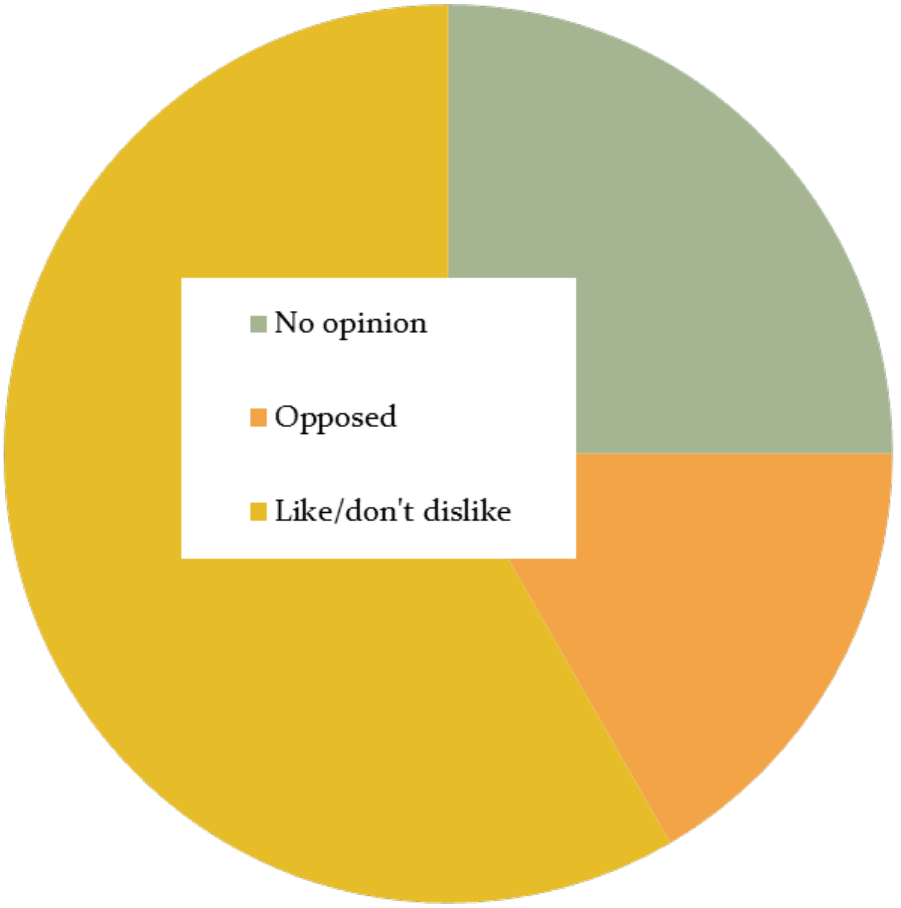
Comments on 3 Lane?

Throwing the challenge flag!

Nice Game!



All Comments - 33



Attended Meeting - 12

Concerns

Capacity

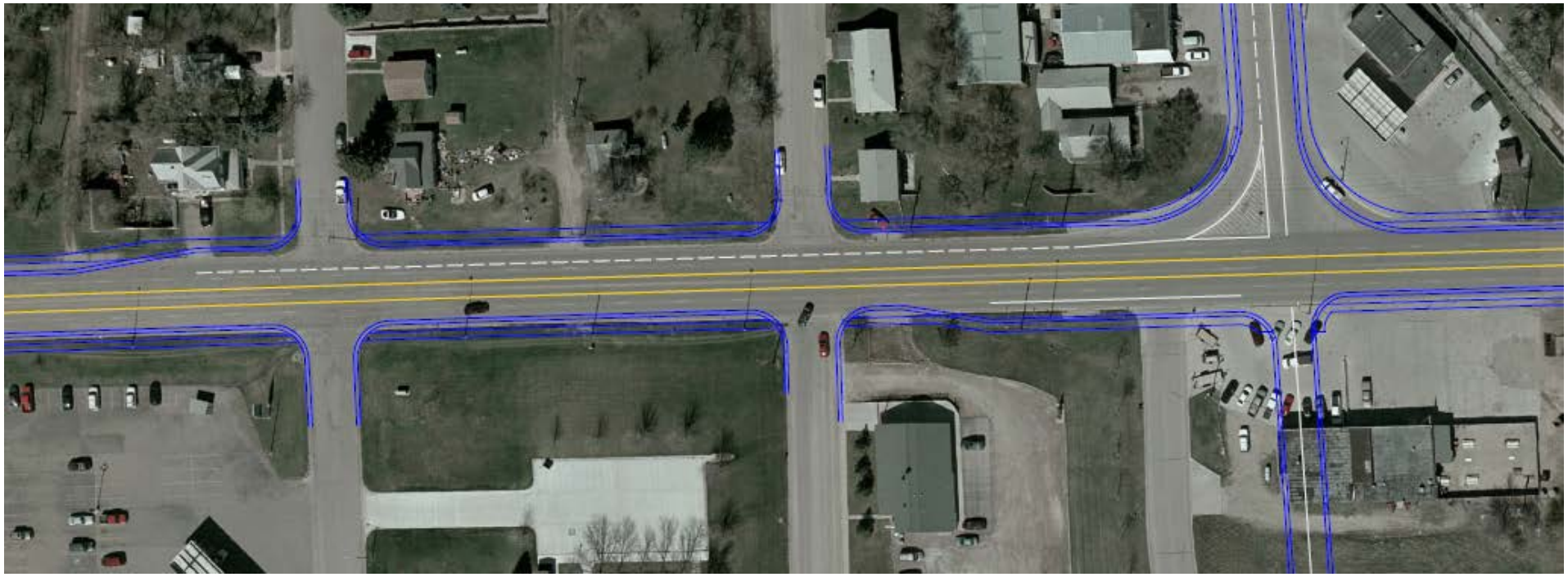
- 3 Lane Section can be safe and efficient up to 20,000+ vehicles/day
  - US12 in Milbank – 8000 ADT
  - Melgaard Rd from 5th St to Dakota St in Aberdeen – 8,000 ADT
  - Roosevelt St from 6th Ave to 8th Ave in Aberdeen – 8,200 ADT
  - 18th St in Sioux Falls in front of Sanford – 18,000 ADT

- Sisseton – 20 year projected ADT – 8,225

The Hill

- Veterans Ave area
  - Hill to west of Veterans Ave
  - Coteau Blvd turn lane for hospital entrance
  - Intersection warrants a signal
  - Conflicting left turns

Veterans Ave



- Coteau realigned
- Right turn lane to Coteau
- Added lane to go up the hill from Veterans Ave

rndbts

Traffic Needs – 8th Ave E & 8th Ave W

- Traffic Counts warrant a controlled intersection
  - Roundabout
    - ✓Meets traffic demands
  - Signal
    - ✓Meets traffic demands
  - 4 way stop
    - ❖Does not meet traffic demands
  - 2 way stop (as currently exists)
    - ❖Does not meet traffic demands

8th Ave E Crash Analysis

- Crash Averages
  - 1.7 crashes/yr
  - 1.0 crashes/yr (8th Ave W)
- Predictions
  - Roundabout
    - 1 crash/year
  - Signal
    - 3.5 crashes/year

Roundabout Safety facts

- According to Federal Highway Intersection Statistics
  - 90% reduction in fatalities
  - 76% reduction in injuries
  - 35% reduction in all crashes

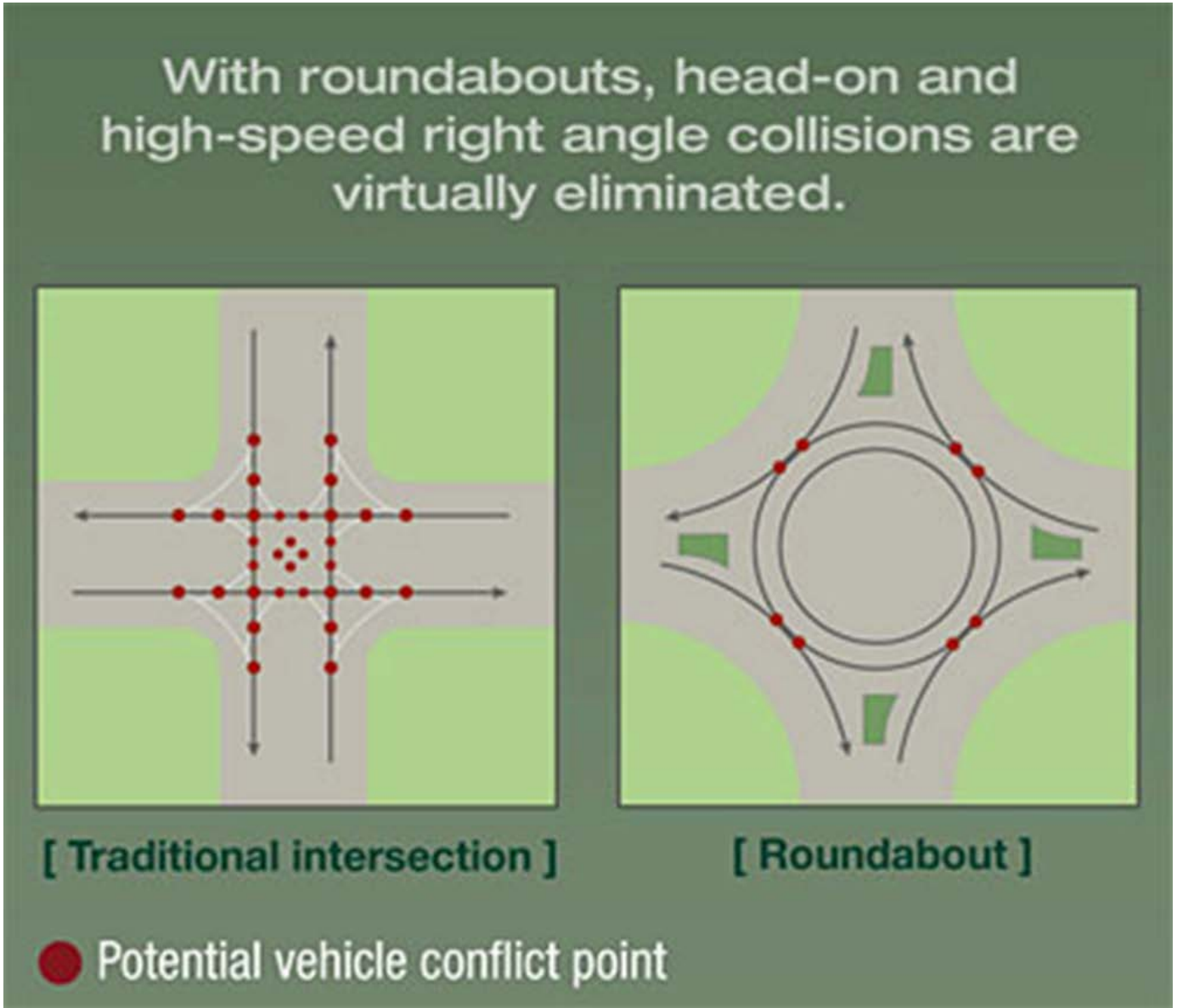
FACT:

- A Single Lane Roundabouts is the safest at-grade intersection possible

Conflict pts

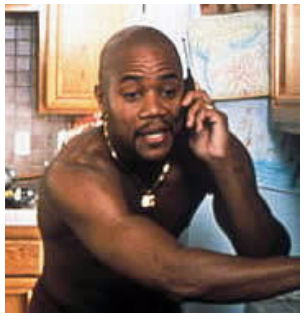
32 conflict points

8 conflict points



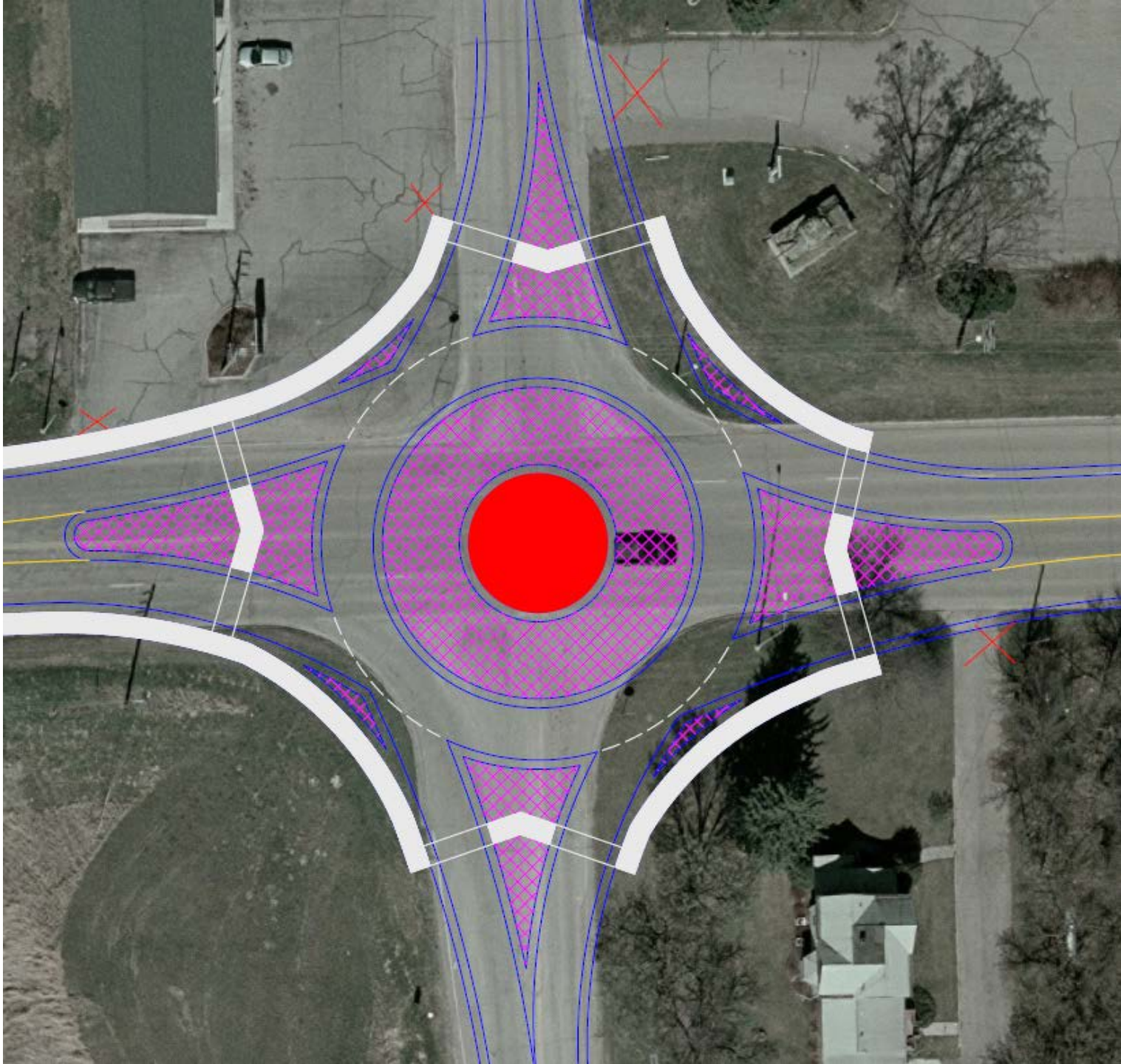
Roundabout Advantages

- Roundabout easier for able-bodied pedestrians
- Lower Speeds in Roundabout
  - Rarely stopped
  - always moving

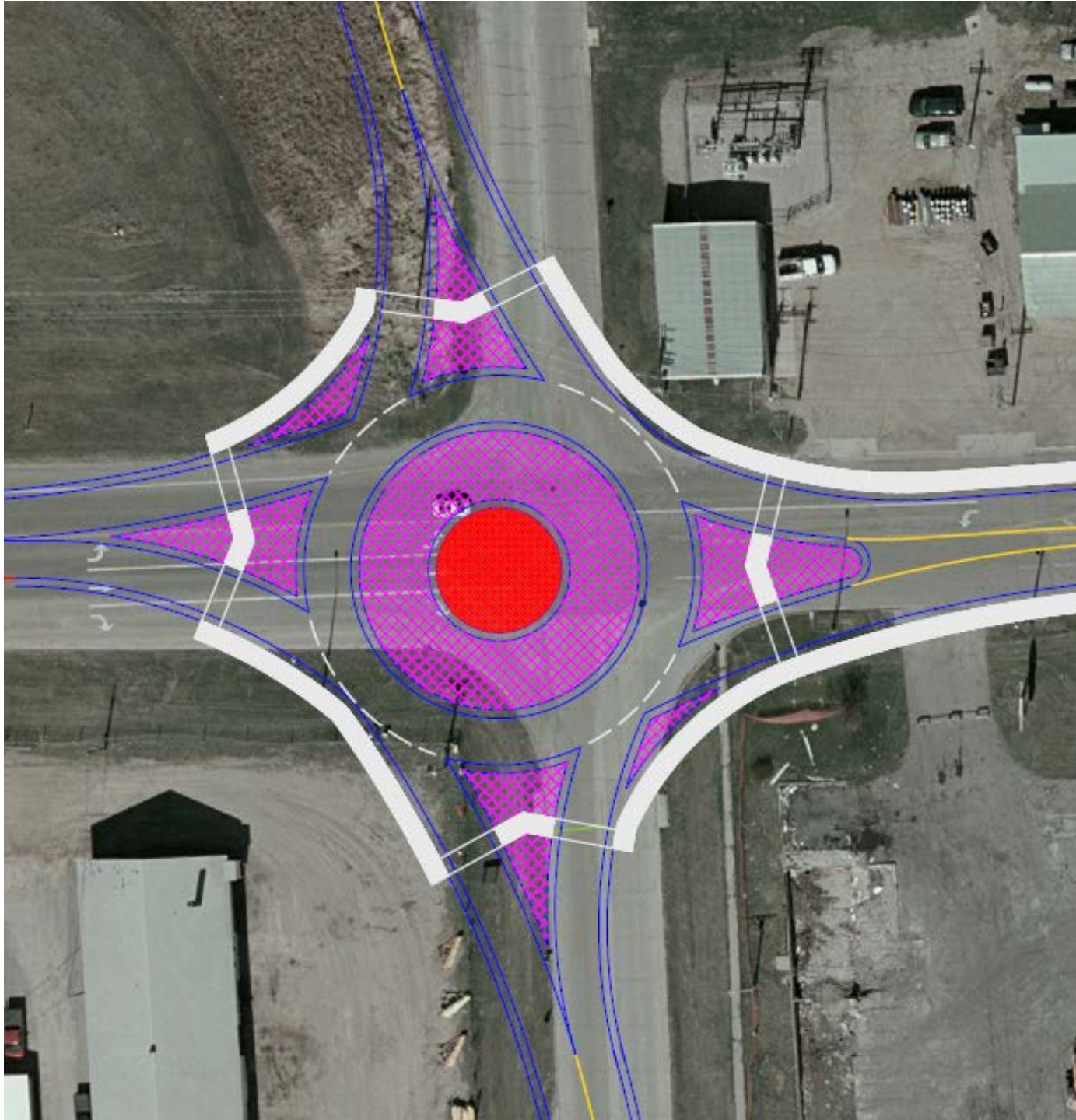


- Less Delay than signal
  - 2,652 hrs/yr
  - User Costs - $45,933/yr
- City Maintenance Costs
  - $3,000 - $5,000 per year for signal

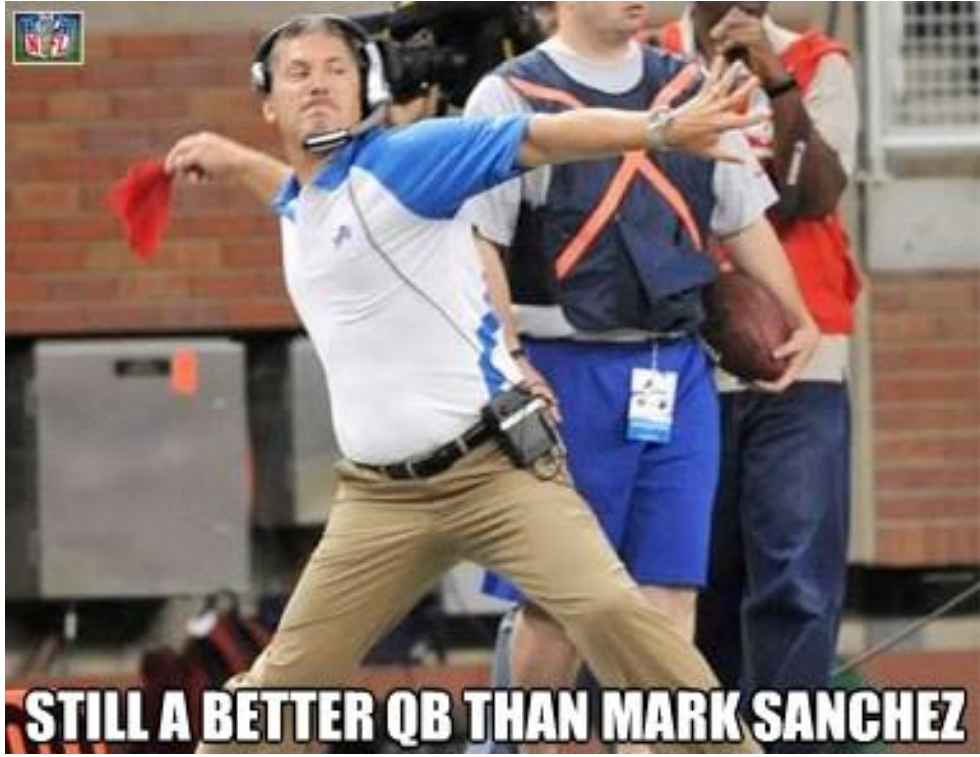
8th Ave E

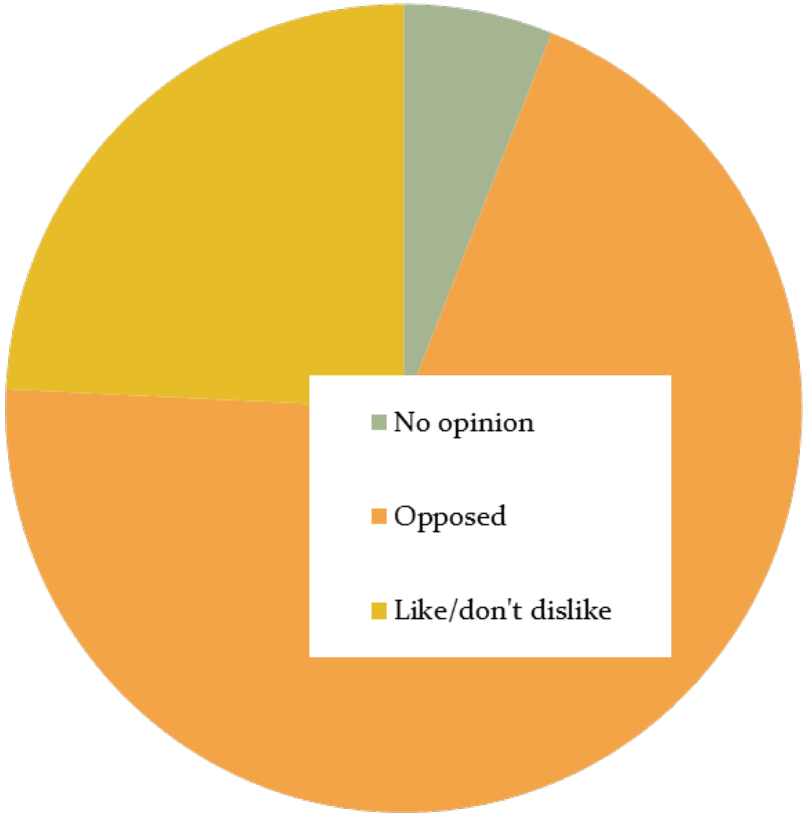


8th Ave W

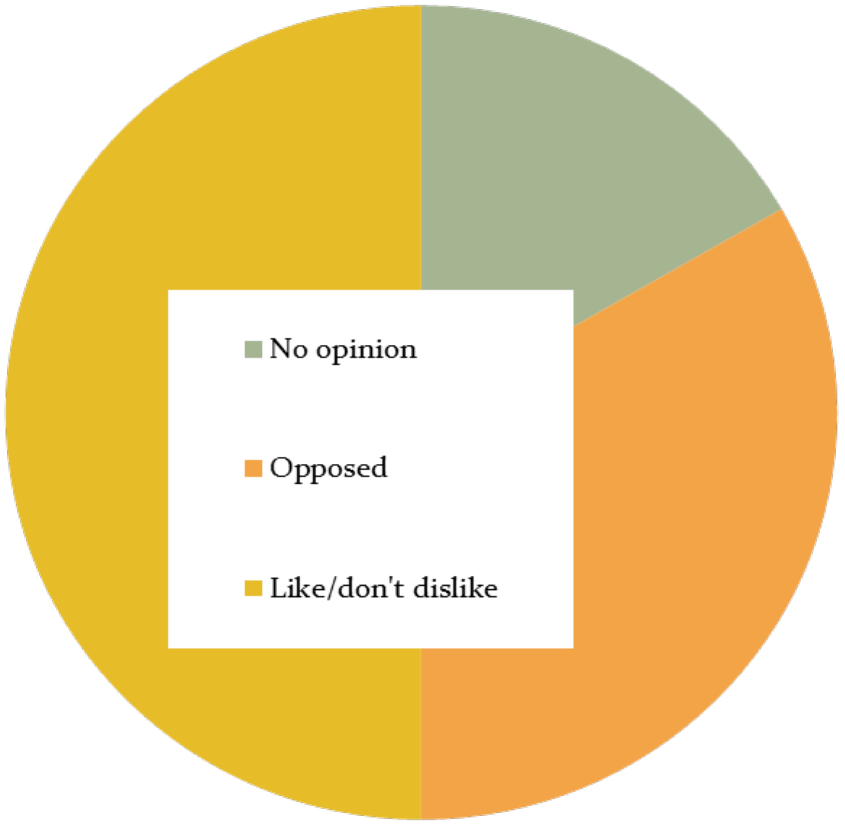


Comments on Roundabouts?





All Comments - 33



Attended Meeting - 12

Concerns

- trucks

Kligerman, Thomas
Roundabout at NY 29&40, Greenwich, NY Eastbound Modular Home Turning Left Recorded August 27, 2004

Confusion

TOUCHDOWN INTERCEPTION

Driver “UN”familiarity

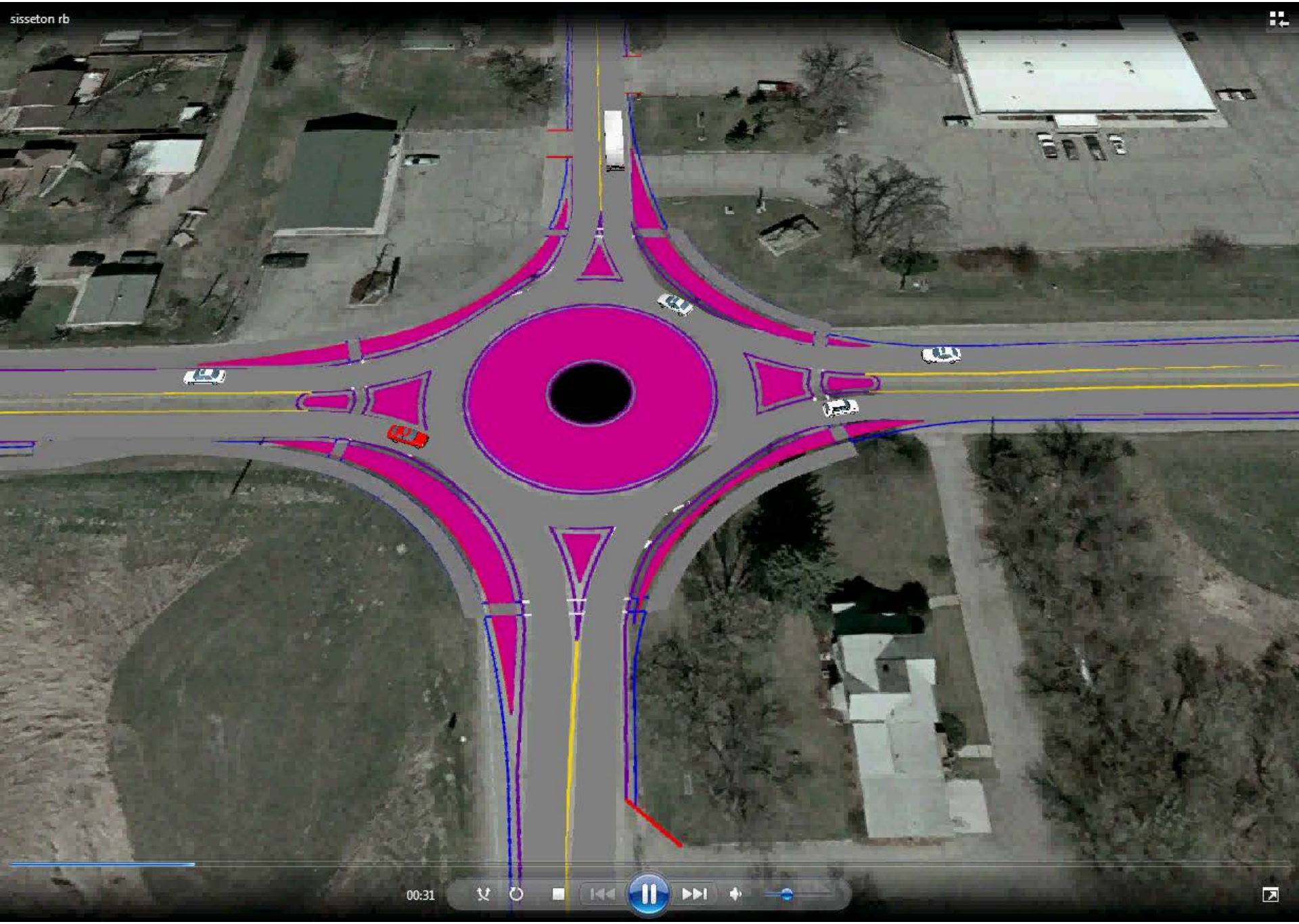
- SDDOT follow up meetings
  - There are opportunities for outreach meetings for education on roundabouts

Traffic Engineering

- Art
- Science

- Our experts have performed analysis and models for Sisseton intersections
- Signal and Roundabout both operate well
  - Although it may be hard to believe, a roundabout will truly have less delay than a signal with the volumes that are specific to Sisseton

models


sisseton rb
00:31

Snow

- Visited with MNDOT & NDDOT
  - No Red Flags
- SDDOT will be plowing the roundabouts
- Will look to incorporate this concern in the design to avoid drifting snow

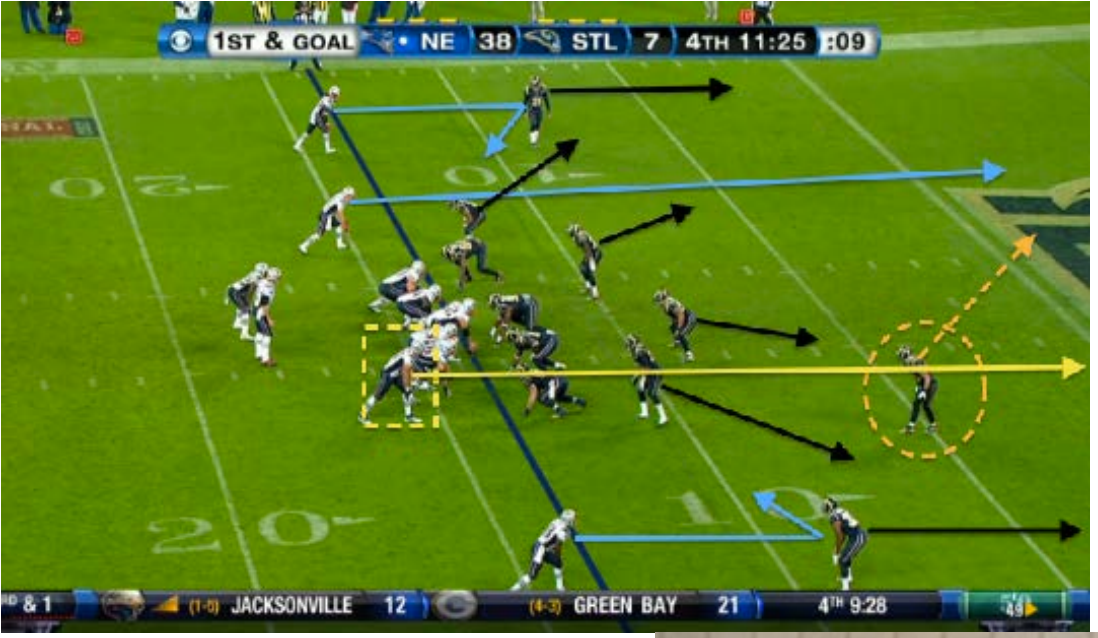
Additional Comments

- 125th Anniversary
  - Move Project from 2017
- Pedestrian Crossings
  - Will analyze pedestrian counts and locations

- Bury Overhead Utilities
  - Reviewed with utility company and it is not reasonable or feasible

Comments Continued

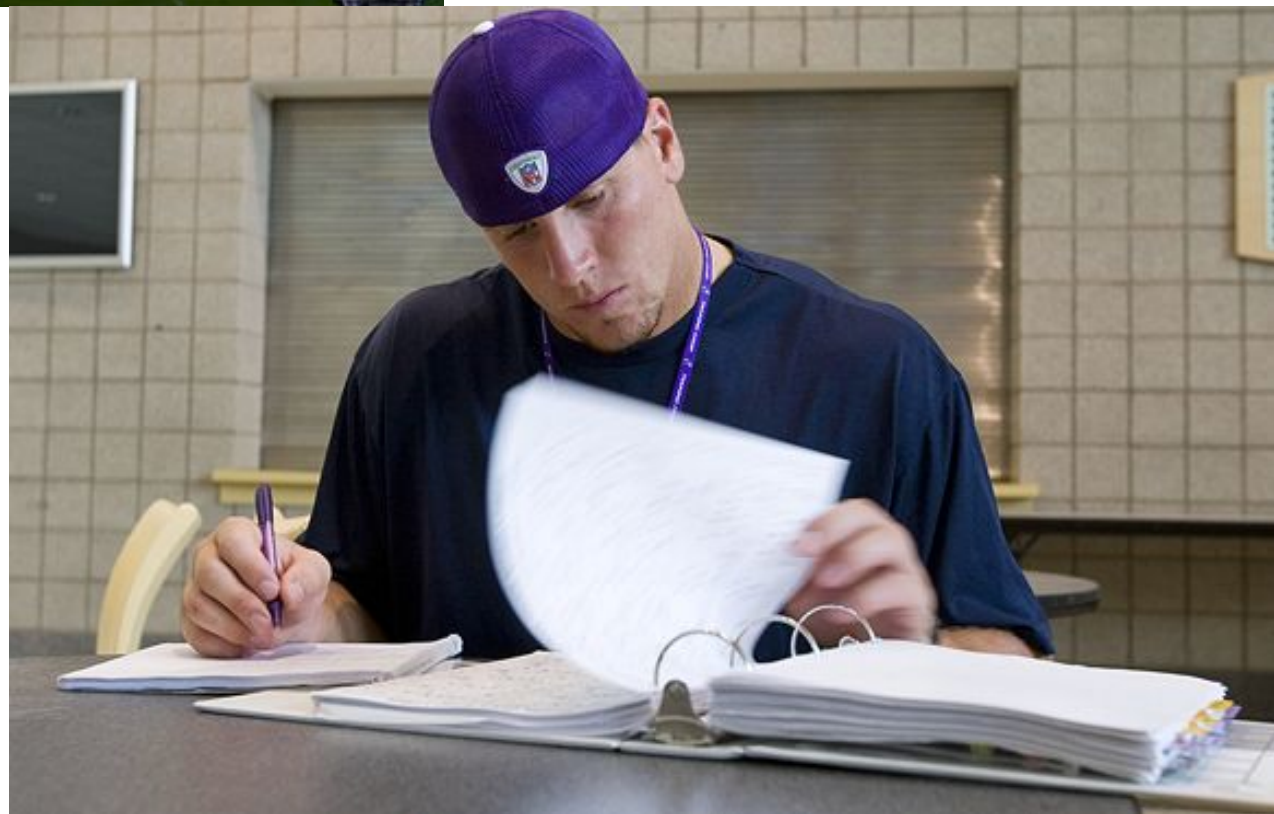
- Sidewalk from 8th Ave E, going east ~ 1 mi
  - Not within this project's limits
  - Transportation Alternatives Program
    - Grant Application
  - We are striping 3 lanes and this leaves a 4.5' shoulder



DOT's Playbook

- 3 Lanes
  - 1 Exception
    - Veterans Ave area

- Roundabouts
  - 8th Ave E
  - 8th Ave W



Comments Due: Fri. **October 4, 2013**

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Here - now

Website:
http://sddot.com/dot/publicmeetings/pubmeet_sd10sisseton.aspx

What's your call?