

Joint Workshop Prior Lake City Council Scott County Board

April 3, 2017



Agenda

Introductions

Collaborative Project Approach

Understanding the Need for the Project

The CSAH 21/Main Avenue Dilemma

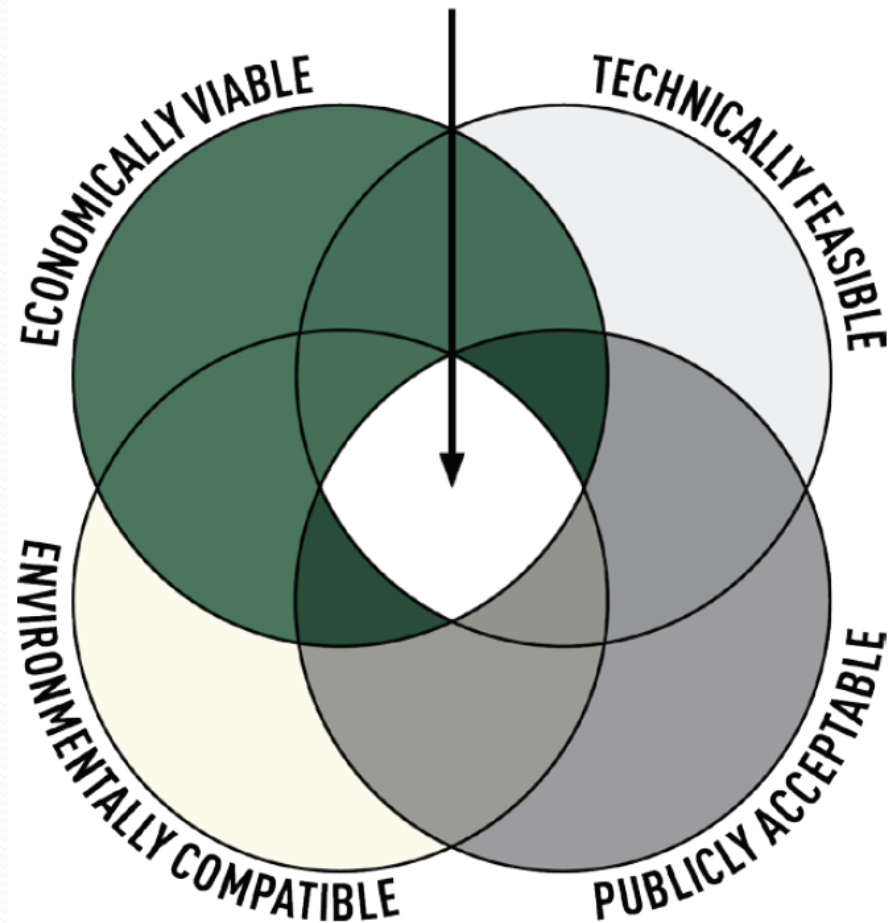
Public Engagement Process

Next Steps

Public Comment

Collaborative Project Approach

- Define the Problem
- Establish Goals and Objectives
- Develop Alternatives
- Evaluate and Provide Recommendations
- Develop Implementation Plan / Report



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Collaborative Project Approach

3 Major Steps in Project Development and Delivery

1. Preliminary Design (Defining WHAT will be constructed)
 - May → December 2017
2. Final Design (Defining HOW it will be constructed)
 - January → December 2018
3. Construction
 - May → October 2019

Understanding the Need

TH 13/CH 21 Intersection

Existing Daily Traffic Volumes



Understanding the Need

TH 13/CH 21 Intersection

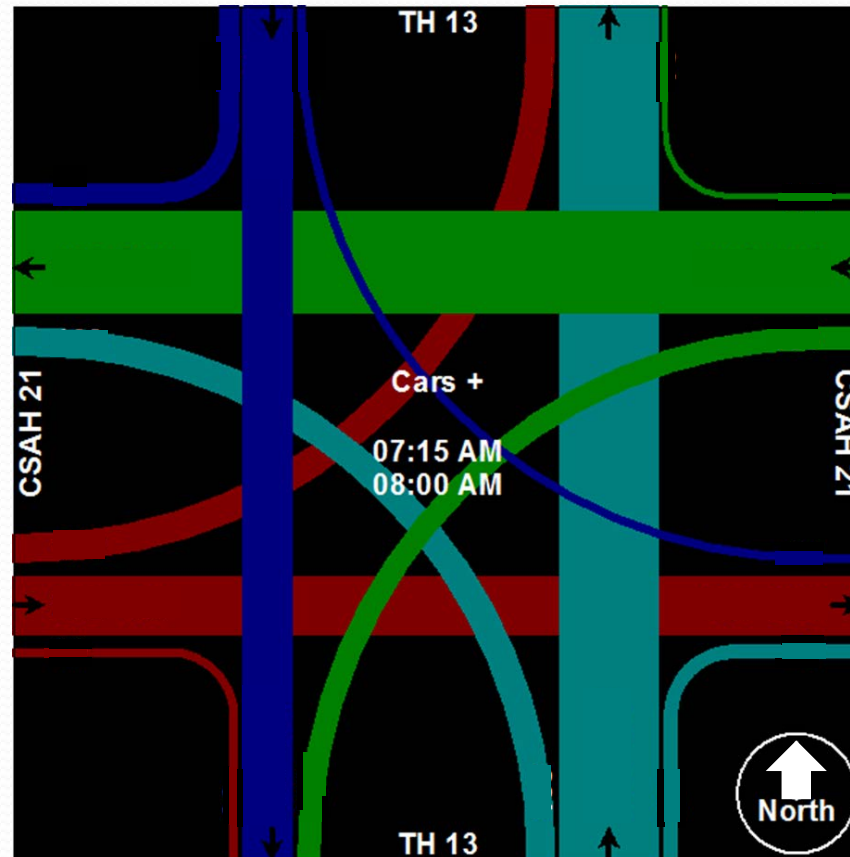
1. Current Conditions
 - Traffic Volumes
 - Signal Green Time
 - Vehicle Delays
 - Traffic Safety
2. Future Conditions



Understanding the Need

TH 13/CH 21 Intersection

Current Traffic Patterns and Demands

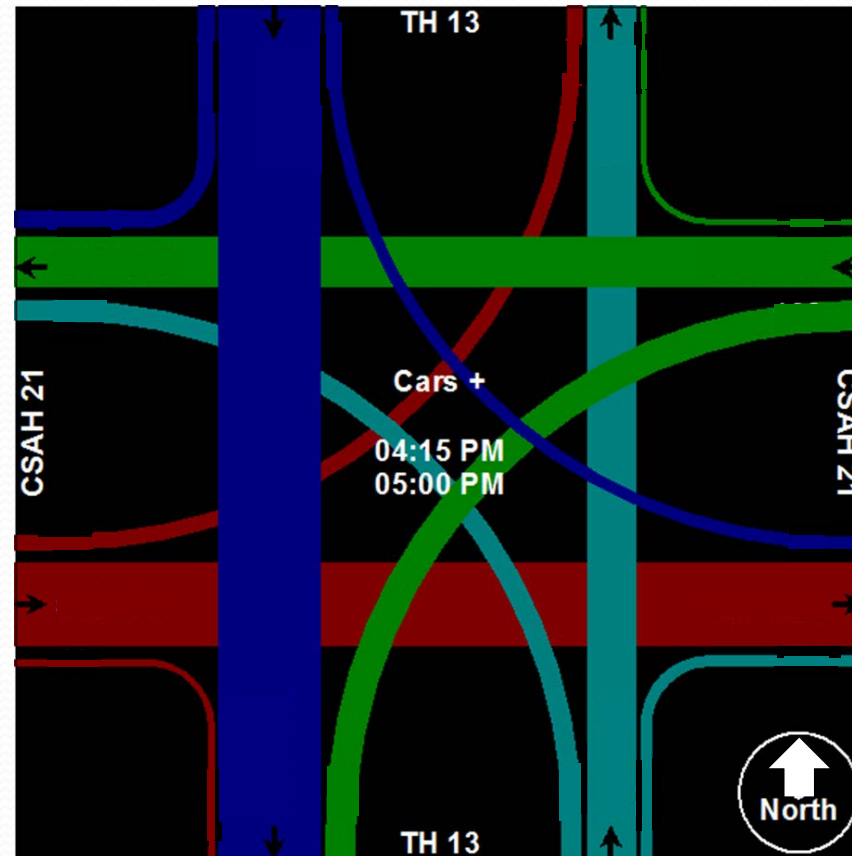


AM PEAK HOUR

Understanding the Need

TH 13/CH 21 Intersection

Current Traffic Patterns and Demands



PM PEAK HOUR

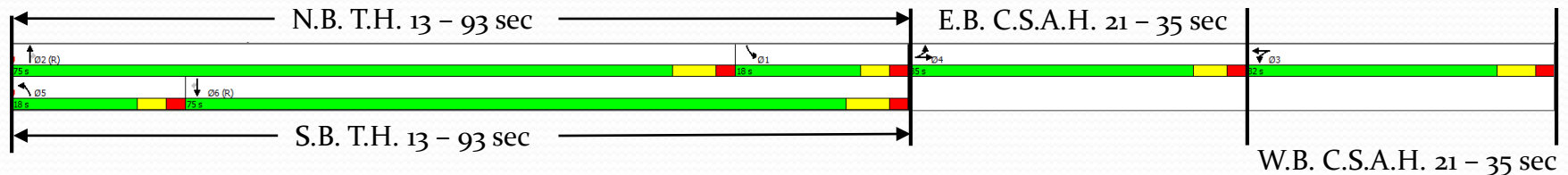
Understanding the Need

TH 13/CH 21 Intersection

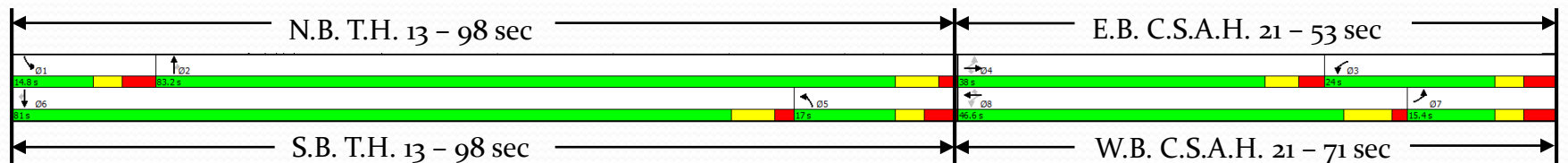
Traffic Signal Timings

2016 PM Peak Hour (160 Sec. Cycle Length)

Split Phasing



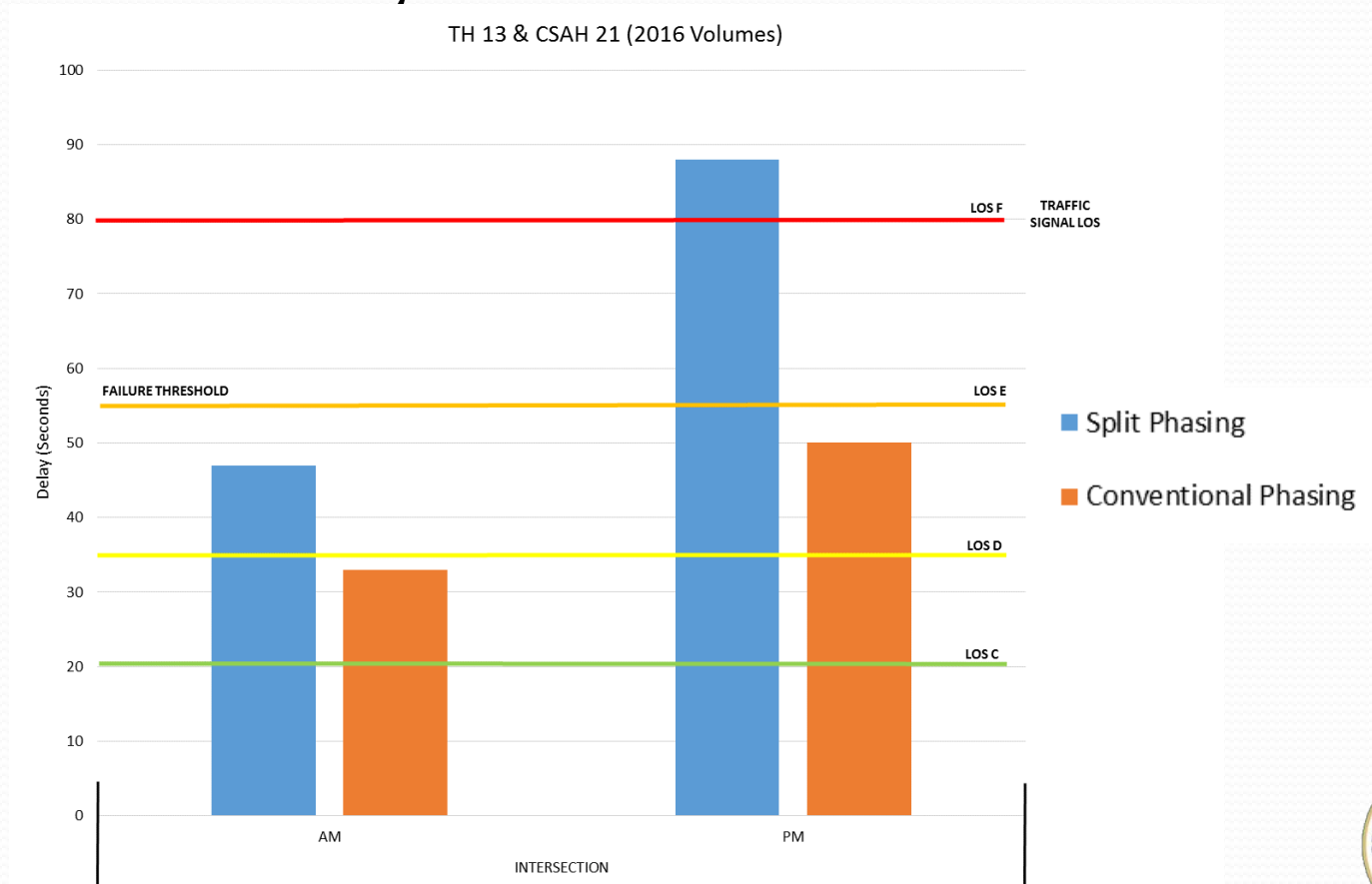
Conventional Phasing



Understanding the Need

TH 13/CH 21 Intersection

Current Traffic Delays



Understanding the Need

TH 13/CH 21 Intersection

Current Traffic Delays (PM Peak Hour)

Split Phasing



Conventional Phasing

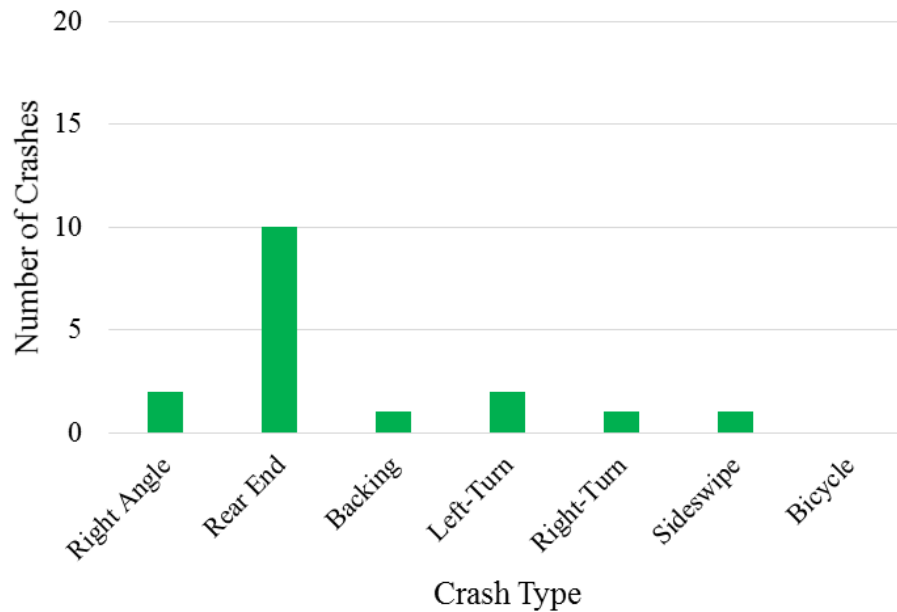


Understanding the Need

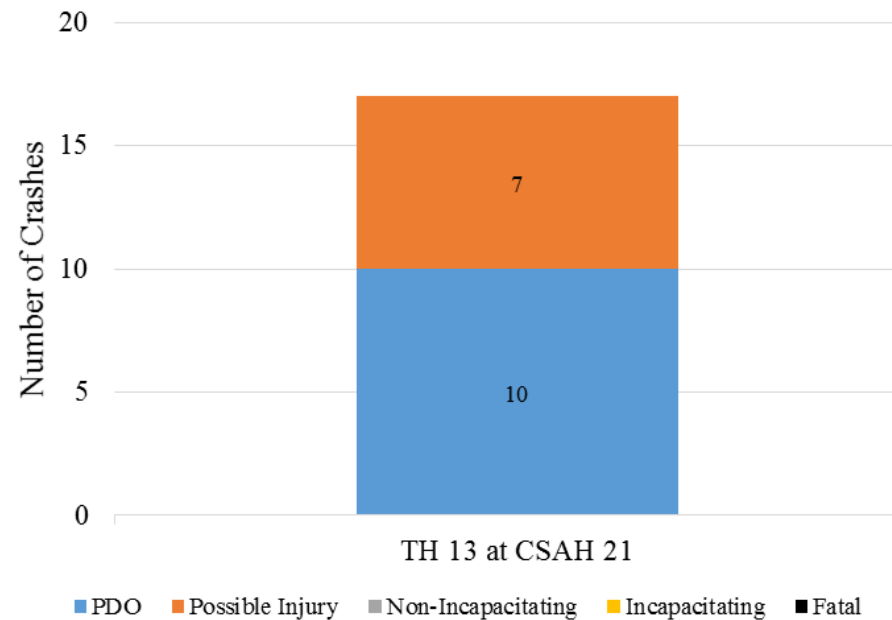
TH 13/CH 21 Intersection

Traffic Safety – 5 year crash history

TH13/CSAH 21 Study Area Crash Types
(2011-2015)



TH 13/CSAH 21 Study Area Crash Severity
(2011-2015)

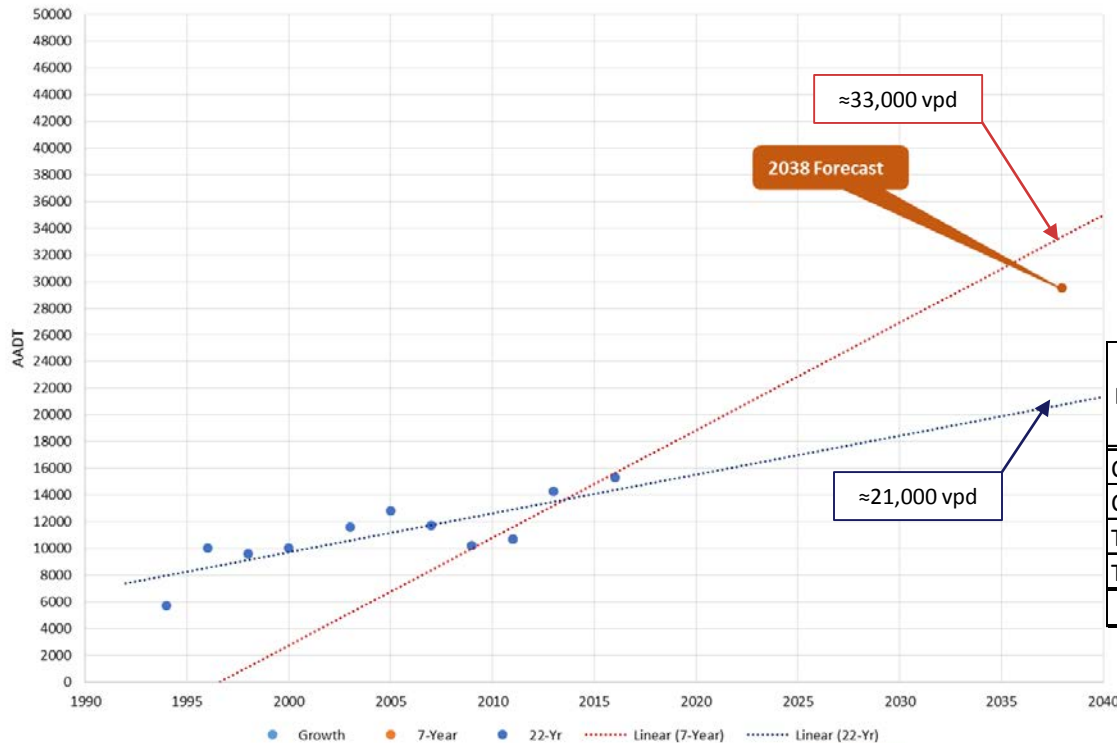


Understanding the Need

CH 21 between Duluth Ave and TH 13

Historic Traffic Volume Trends & Forecasts

CSAH 21, Duluth Ave to TH 13
Traffic Volume Trends and Forecasts

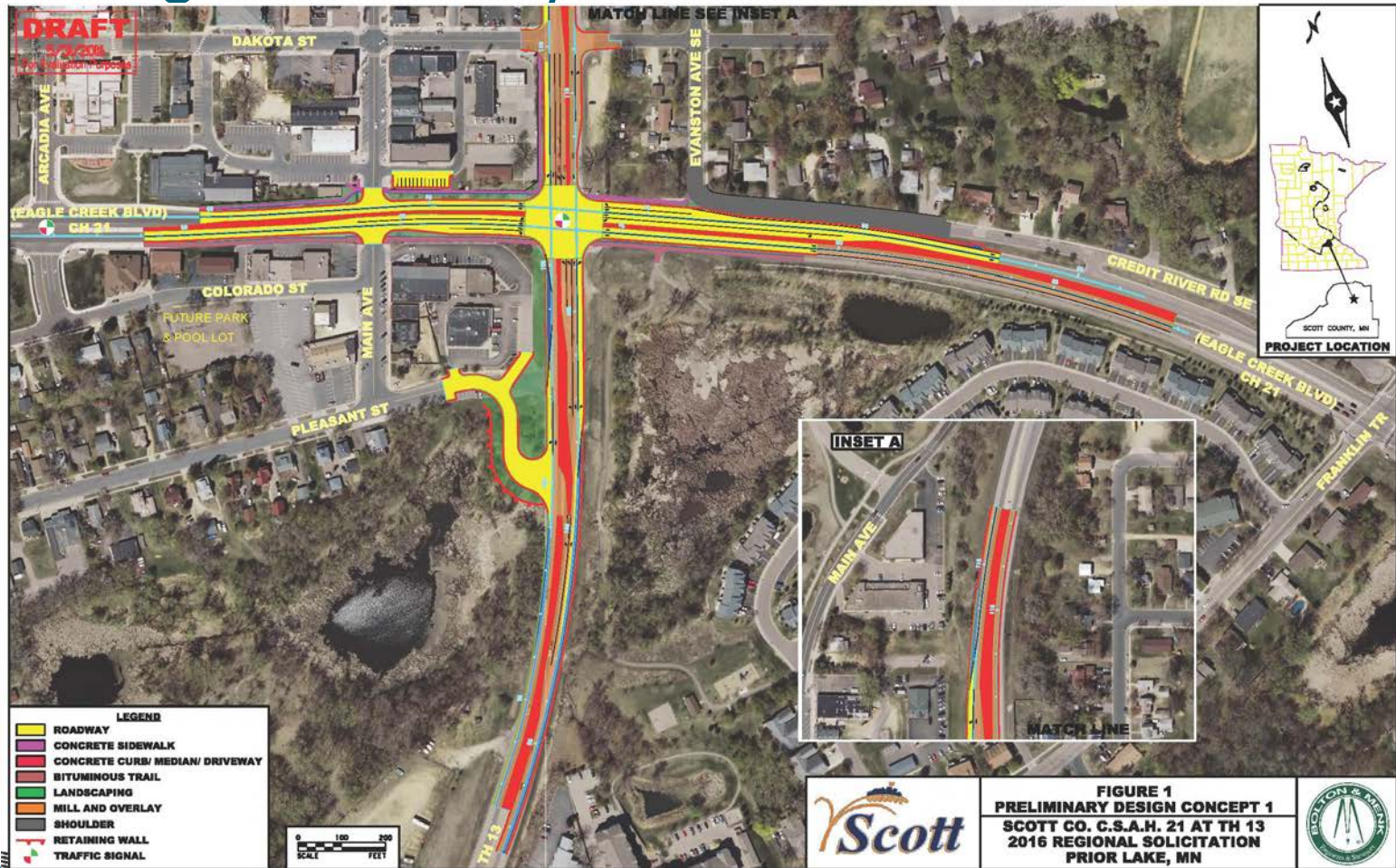


Roadway	Segment	Growth Rate	
		20-Yr Historical	7-Yr Historical
CSAH 21	West of TH 13	2.1%	6.0%
CSAH 21	East of TH 13	4.9%	3.4%
TH 13	North of CSAH 21	-0.6%	-3.3%
TH 13	South of CSAH 21	0.6%	-1.3%
Intersection		1.3%	1.1%

Roadway	Segment	Growth Rate		
		2030 Forecasted	2050 Forecasted	2038 Forecasted
CSAH 21	West of TH 13	3.4%	2.3%	3.0%
CSAH 21	East of TH 13	4.6%	3.3%	3.0%
TH 13	North of CSAH 21	1.3%	2.2%	1.0%
TH 13	South of CSAH 21	1.1%	1.7%	1.0%
Intersection		2.7%	2.4%	2.1%

The CH 21/Main Ave Dilemma

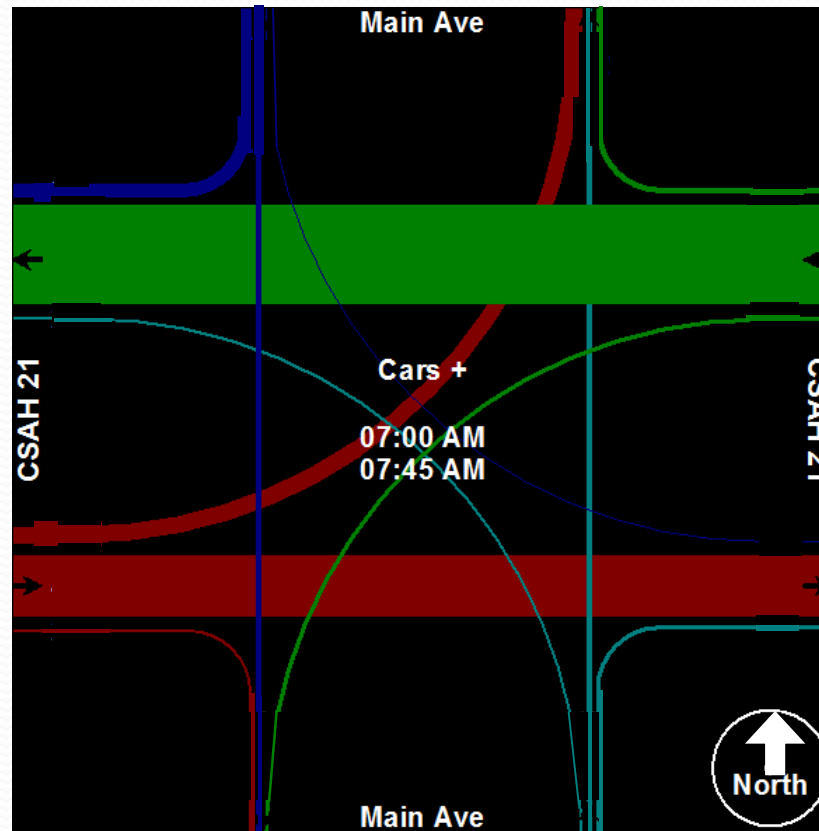
Why a change is necessary?



Understanding the Need

CH 21/Main Avenue Intersection

Current Traffic Patterns and Demands

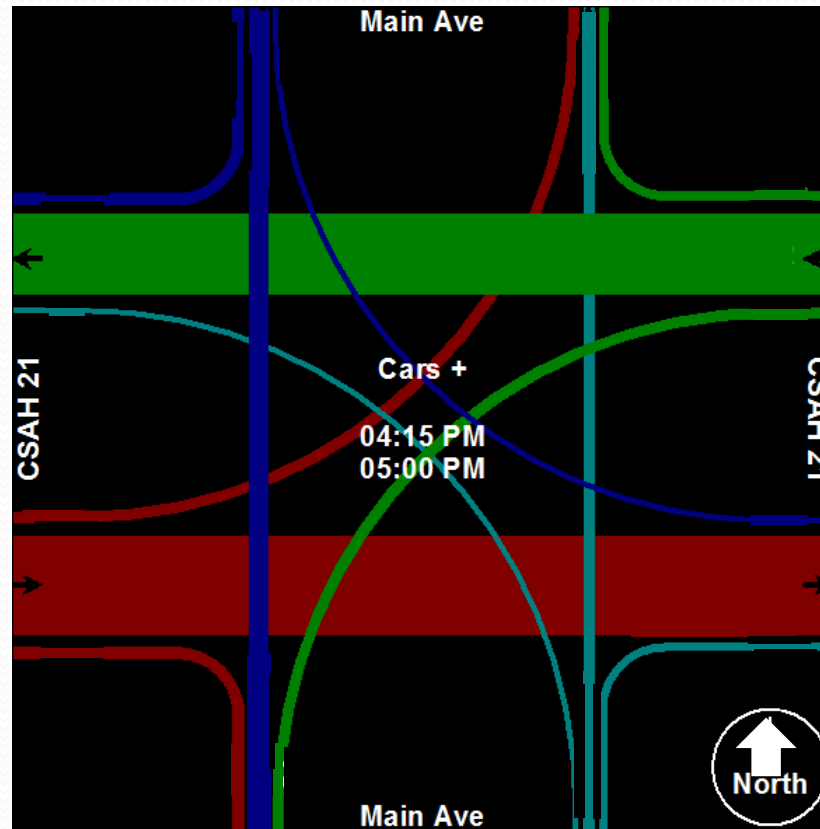


AM PEAK HOUR

Understanding the Need

CH 21/Main Avenue Intersection

Current Traffic Patterns and Demands



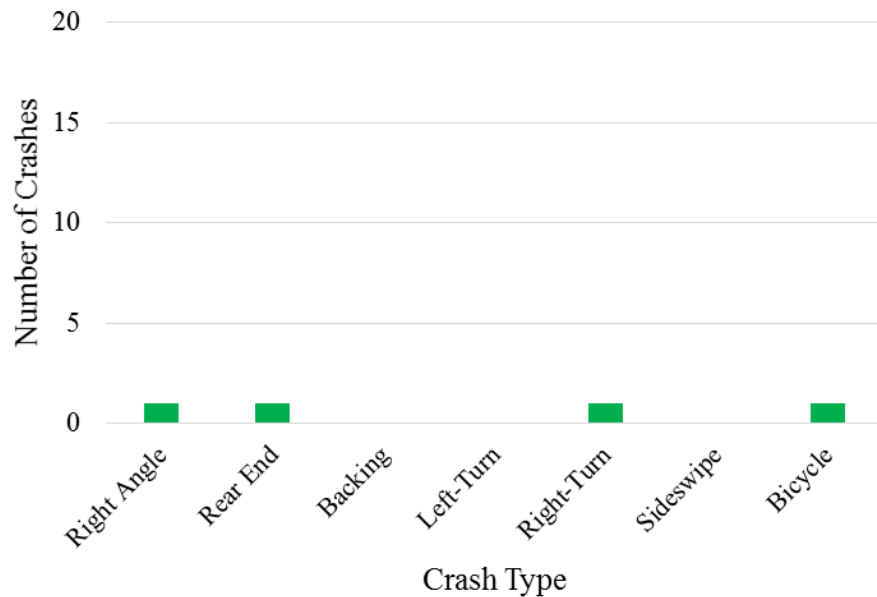
PM PEAK HOUR

The CH 21/Main Ave Dilemma

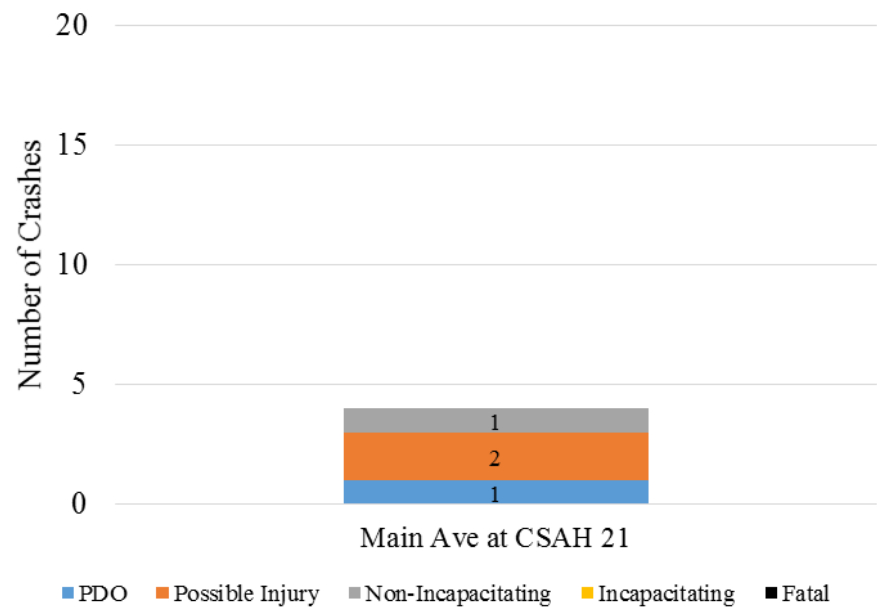
CH 21 at Main Avenue Intersection

Traffic Safety – 5 year crash history

CSAH 21/Main Ave. Study Area Crash Types
(2011-2015)



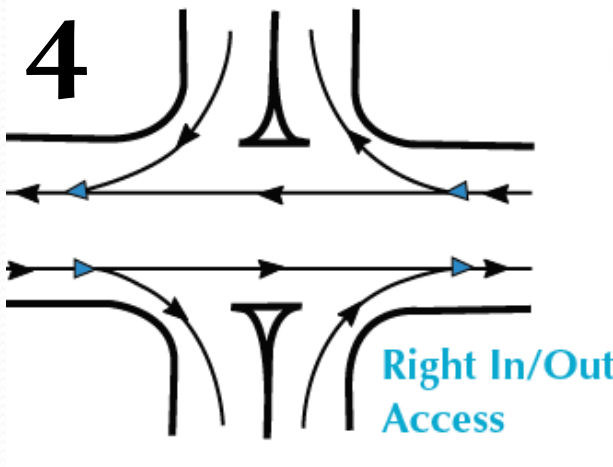
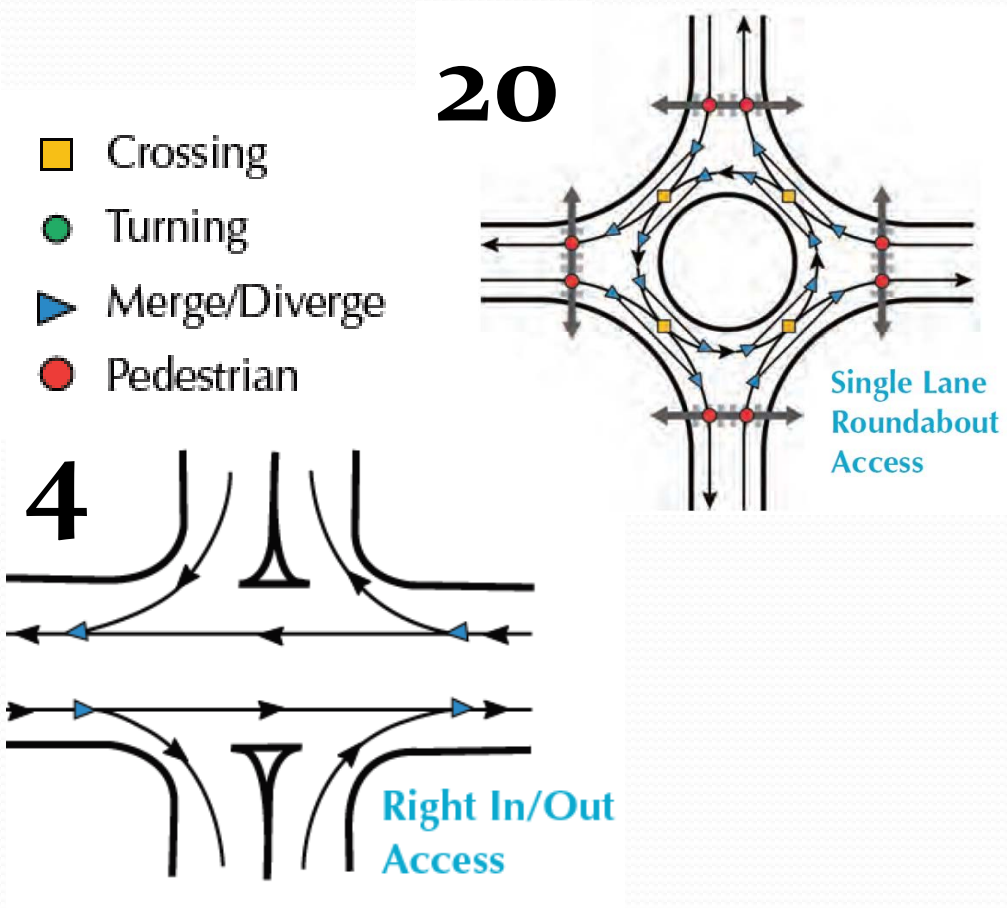
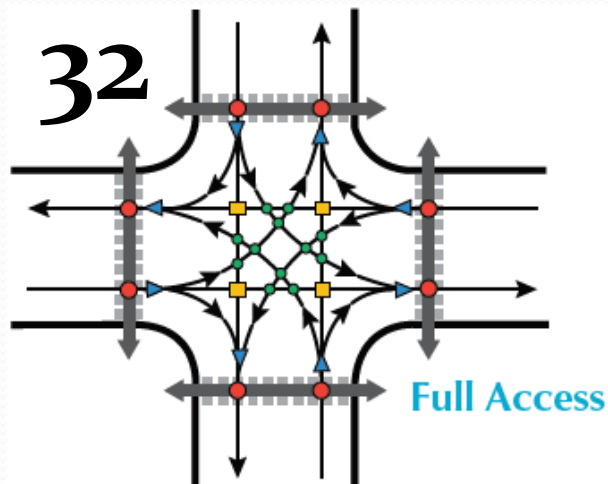
CSAH 21/Main Ave. Study Area Crash Severity
(2011-2015)



Conflict Points at Intersections

Traffic Safety Discussion

Conflict Points



Influence Areas of Intersections

Traffic Safety Discussion

Physical and Functional Area of Intersection

30 mph Design Speed

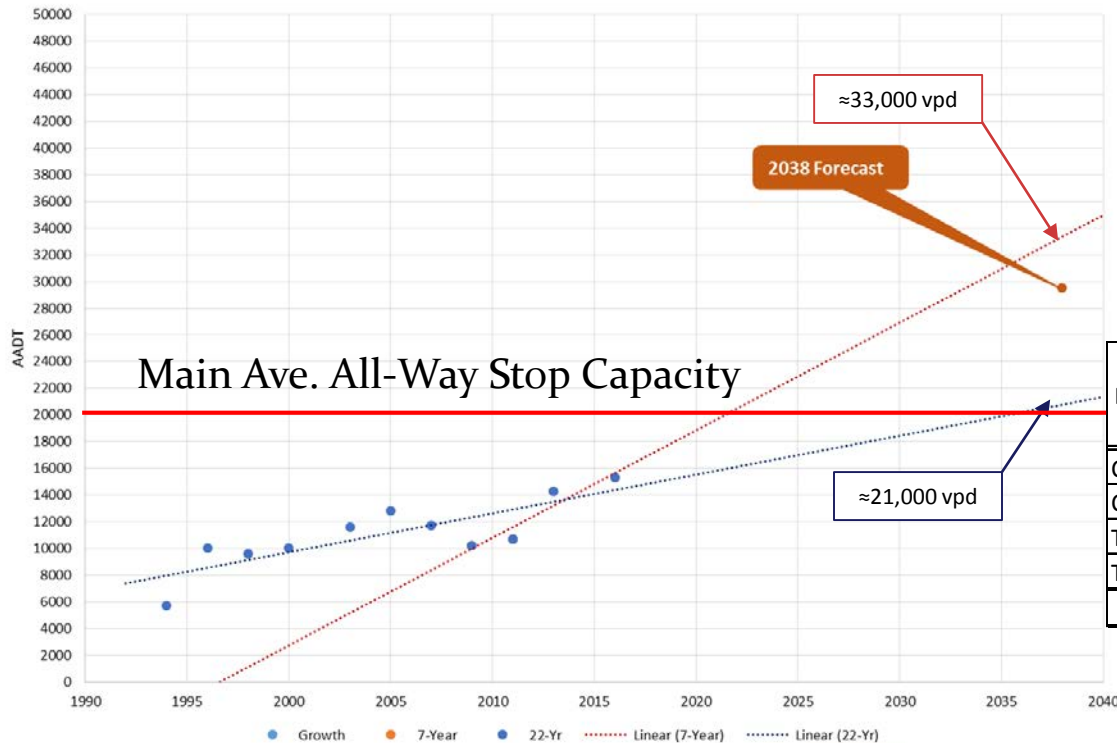


The CH 21/Main Ave Dilemma

All-Way Stop Capacity Limitation

Historic Traffic Volume Trends & Forecasts

CSAH 21, Duluth Ave to TH 13
Traffic Volume Trends and Forecasts



Roadway	Segment	Growth Rate	
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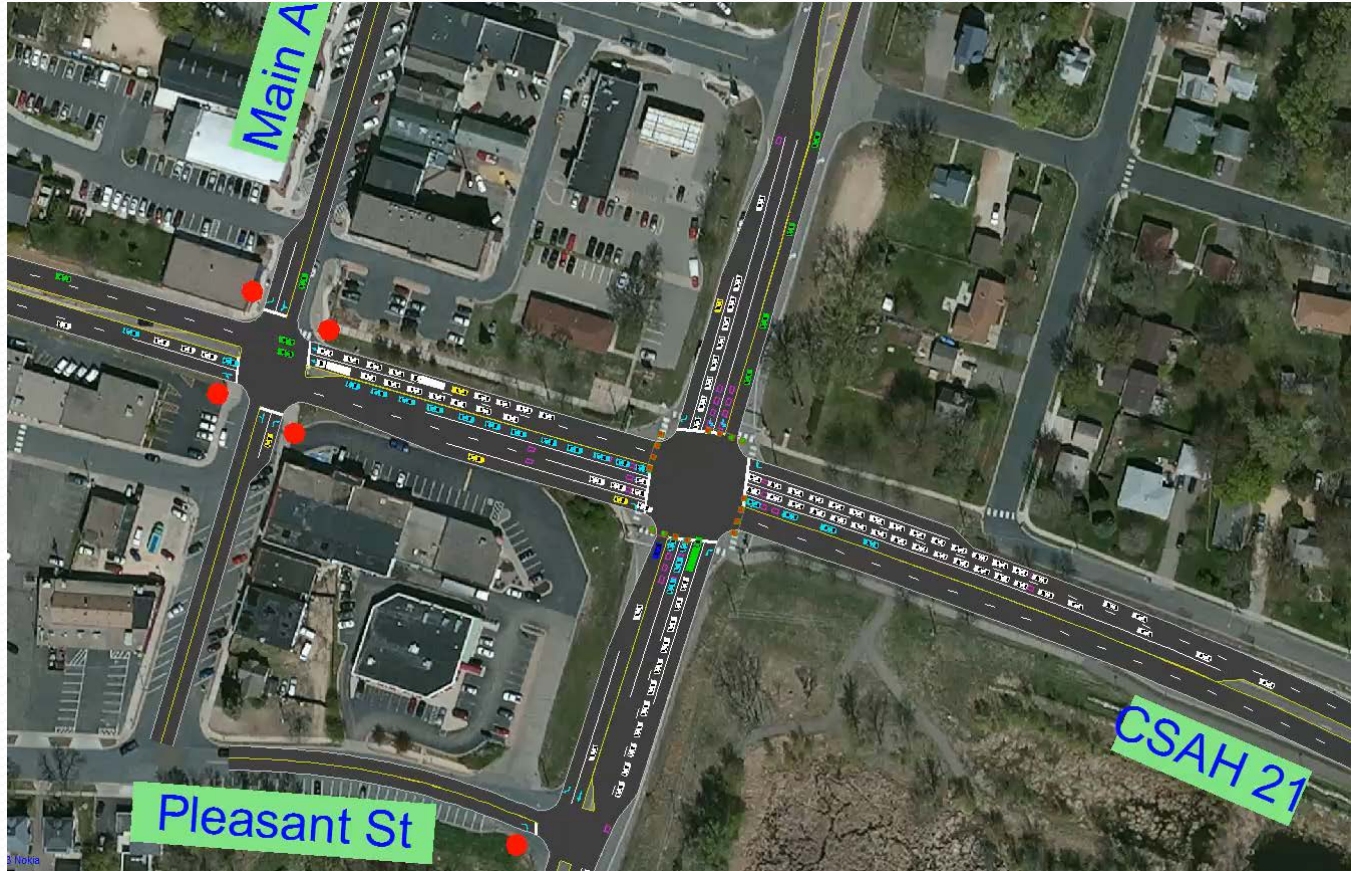
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The CH 21/Main Ave Dilemma

All-Way Stop Control – Future Conditions

Traffic Simulation with Expected Traffic Growth

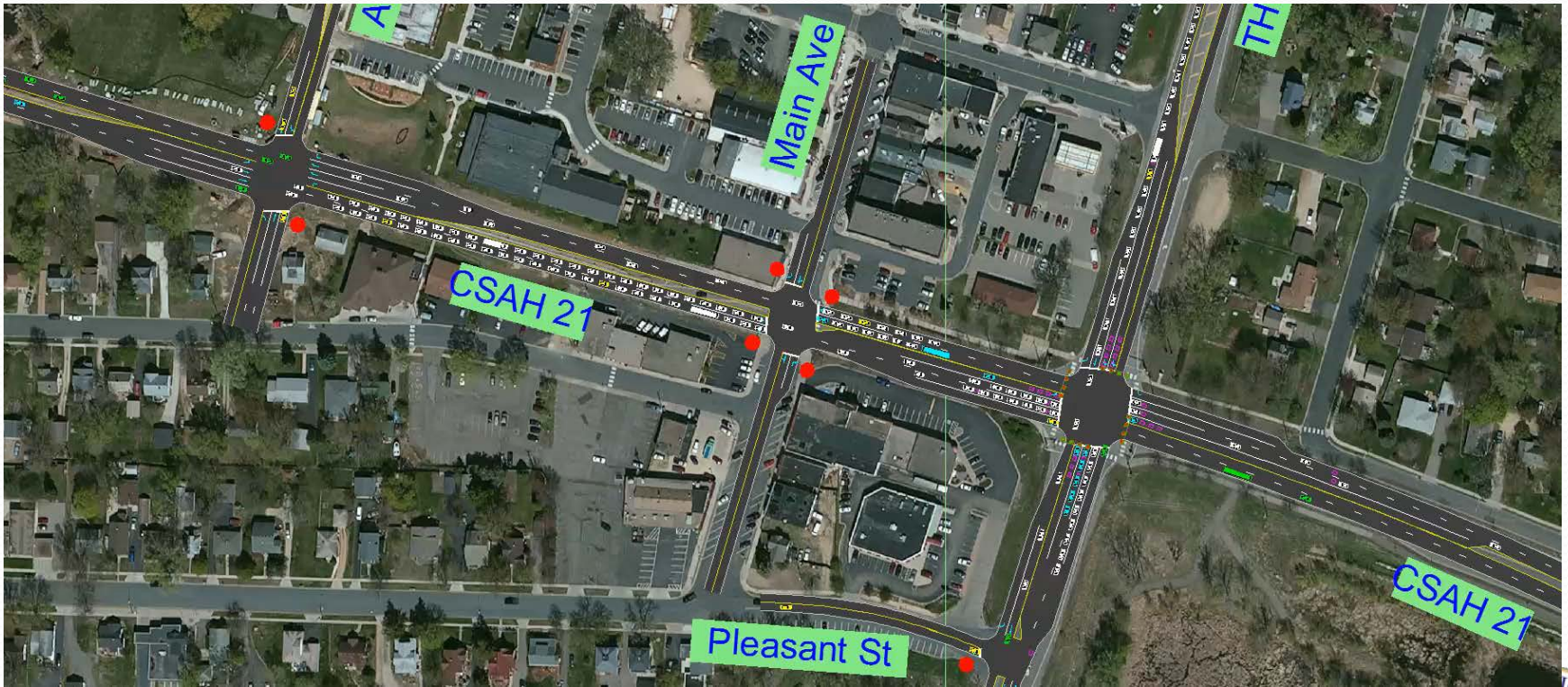
AM
Peak Hour



The CH 21/Main Ave Dilemma

All-Way Stop Control – Future Conditions

Traffic Simulation with Expected Traffic Growth

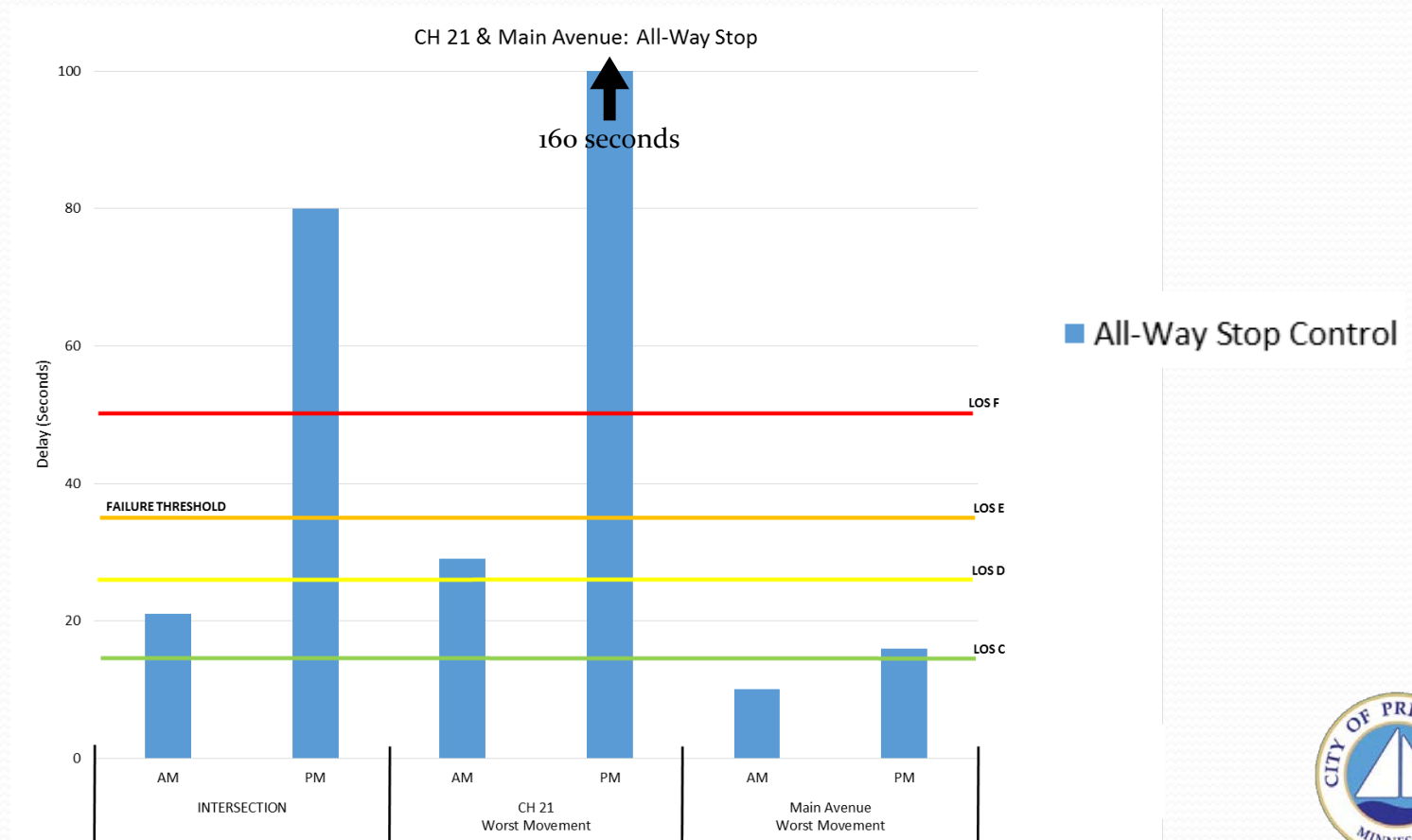


PM Peak Hour

The CH 21/Main Ave Dilemma

All-Way Stop Control – Future Conditions

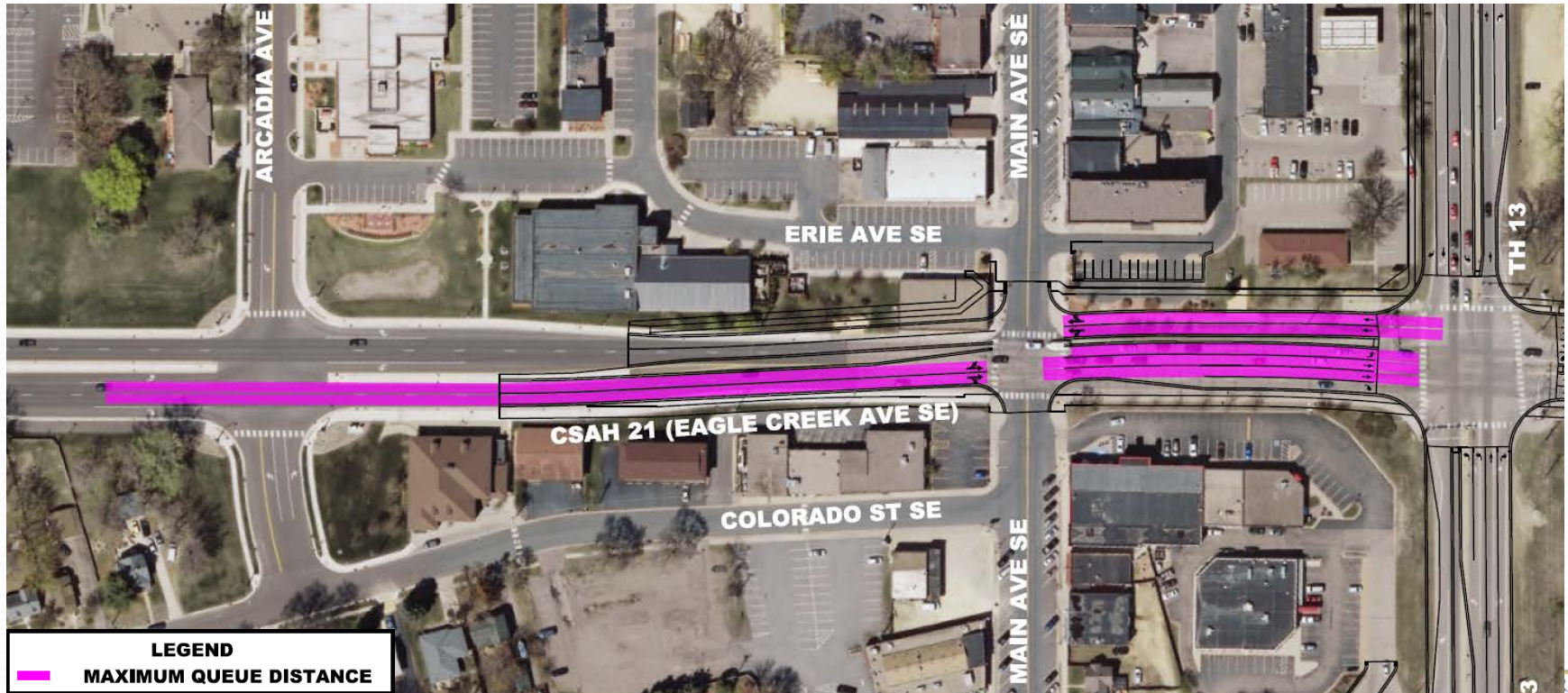
Average Delay per Vehicle during Peak Hours



The CH 21/Main Ave Dilemma

All-Way Stop Control – Future Conditions

Functional Area of Intersections Overlap



The CH 21/Main Avenue Dilemma

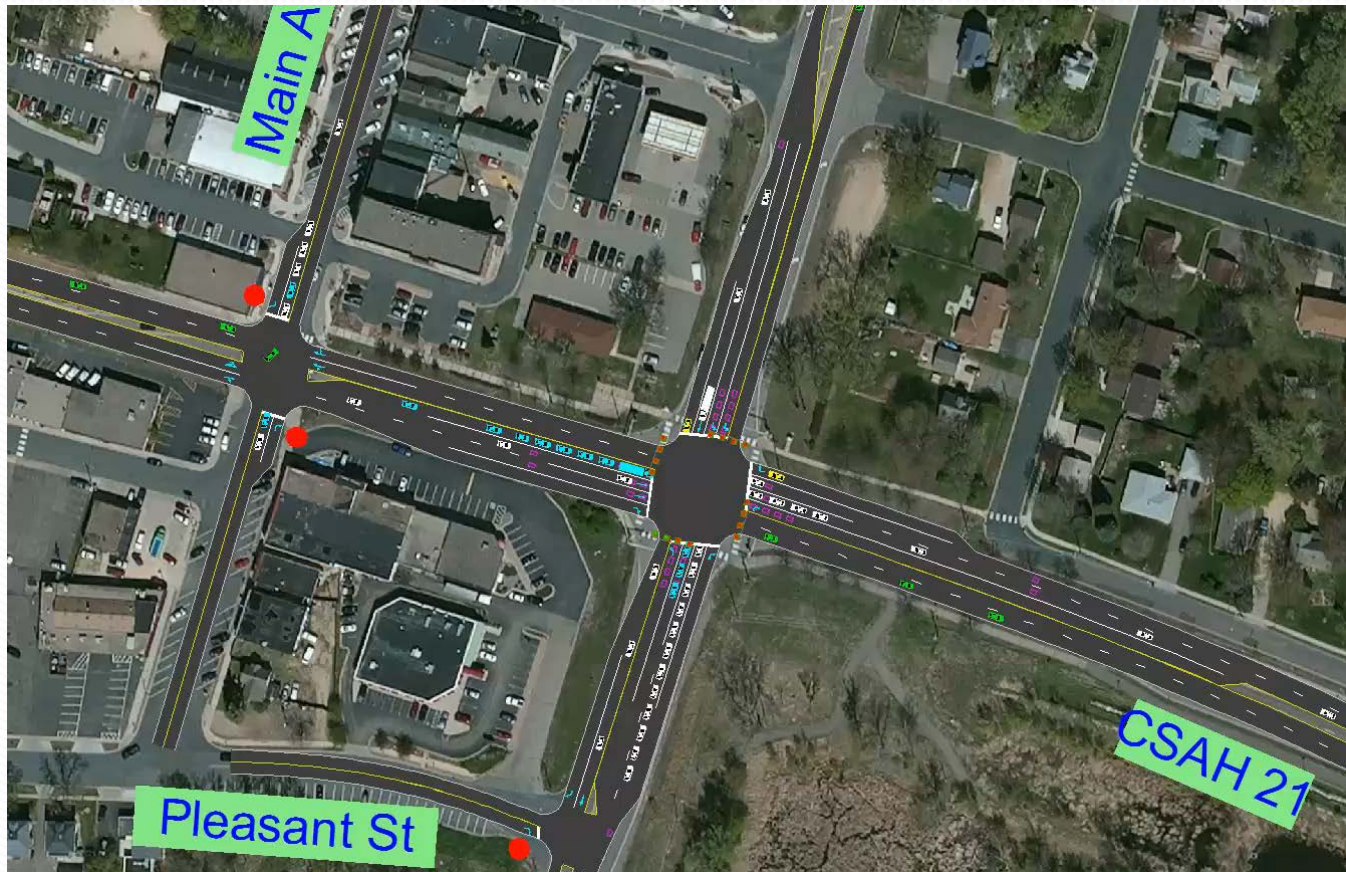


The CH 21/Main Ave Dilemma

Two-Way Stop Control Scenario

Traffic Simulation with Expected Traffic Growth

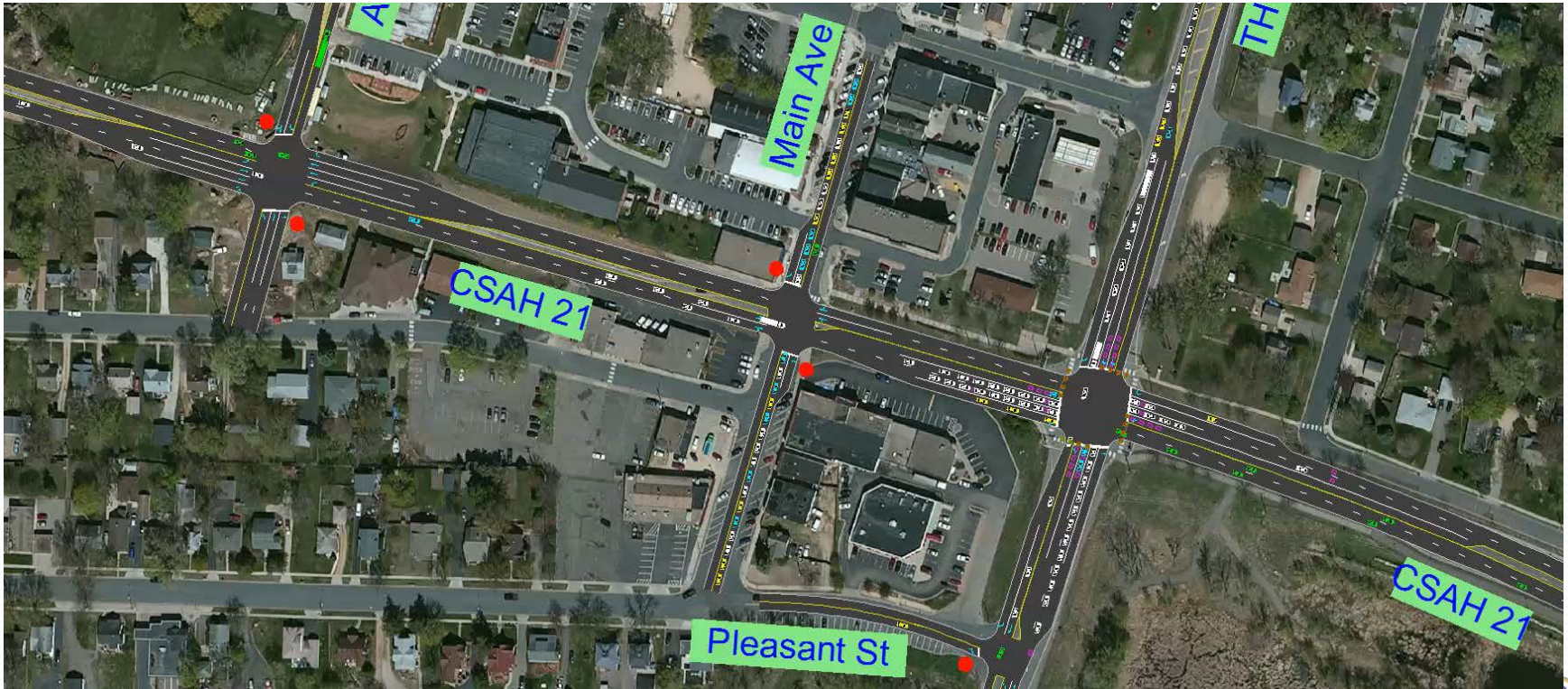
AM
Peak Hour



The CH 21/Main Ave Dilemma

Two-Way Stop Control Scenario

Traffic Simulation with Expected Traffic Growth

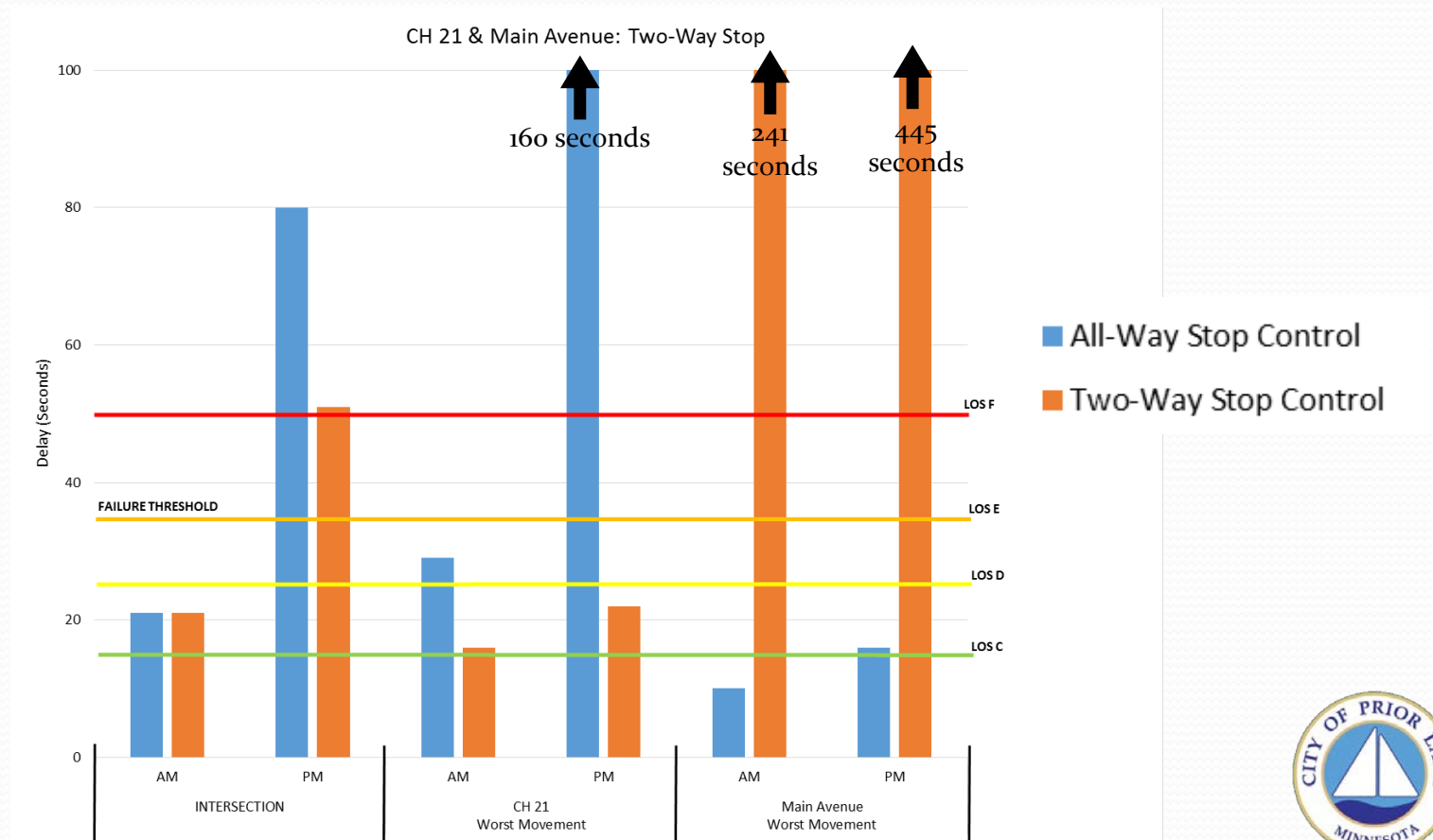


PM Peak Hour

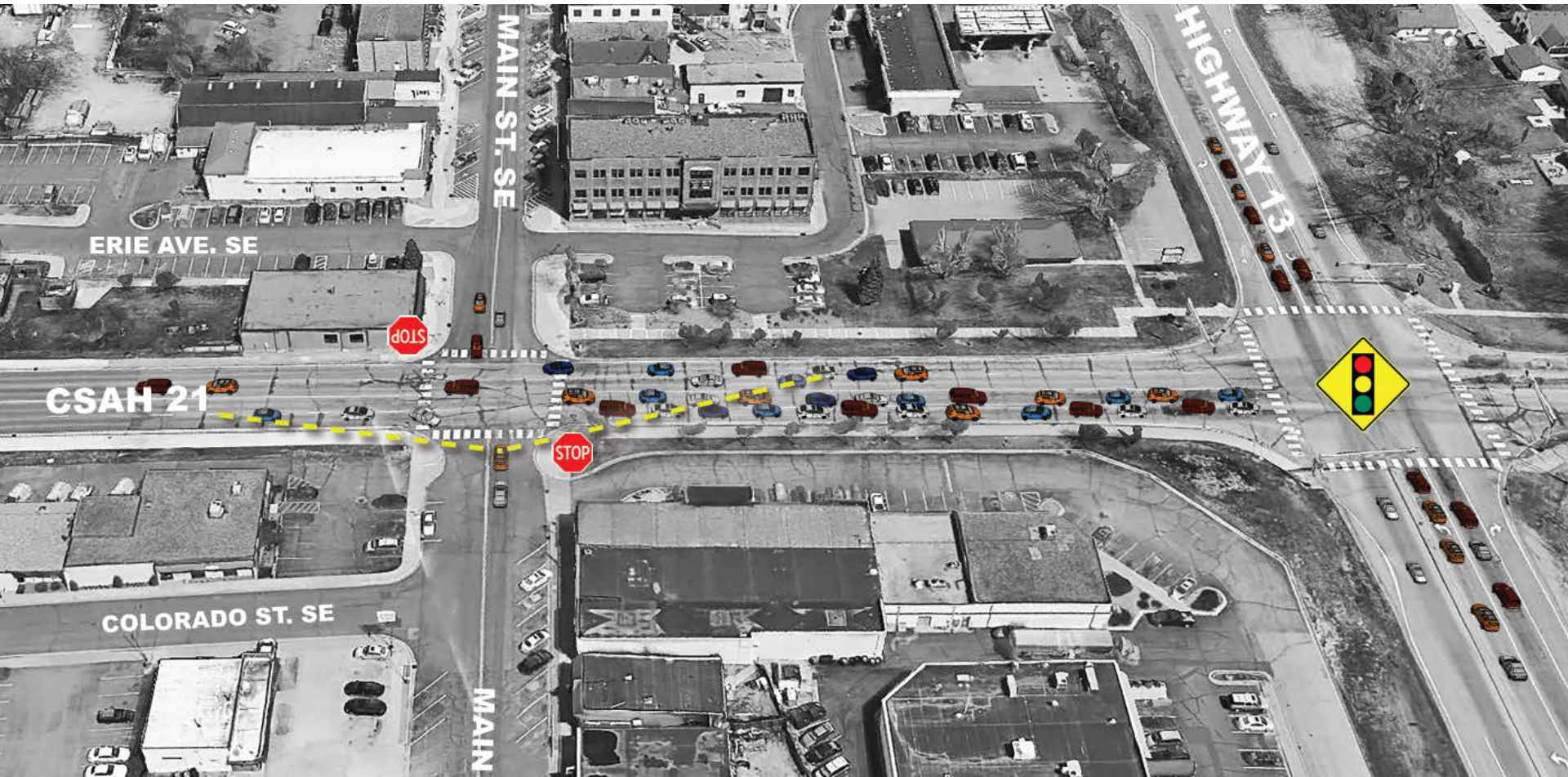
The CH 21/Main Ave Dilemma

Two-Way Stop Control Scenario

Average Delay per Vehicle during Peak Hours



The CH 21/Main Avenue Dilemma



The CH 21/Main Ave Dilemma

Two-Way Stop Control Scenario

Line of Sight blocked by Vehicle Queues



The CH 21/Main Ave Dilemma

Roundabout Scenario

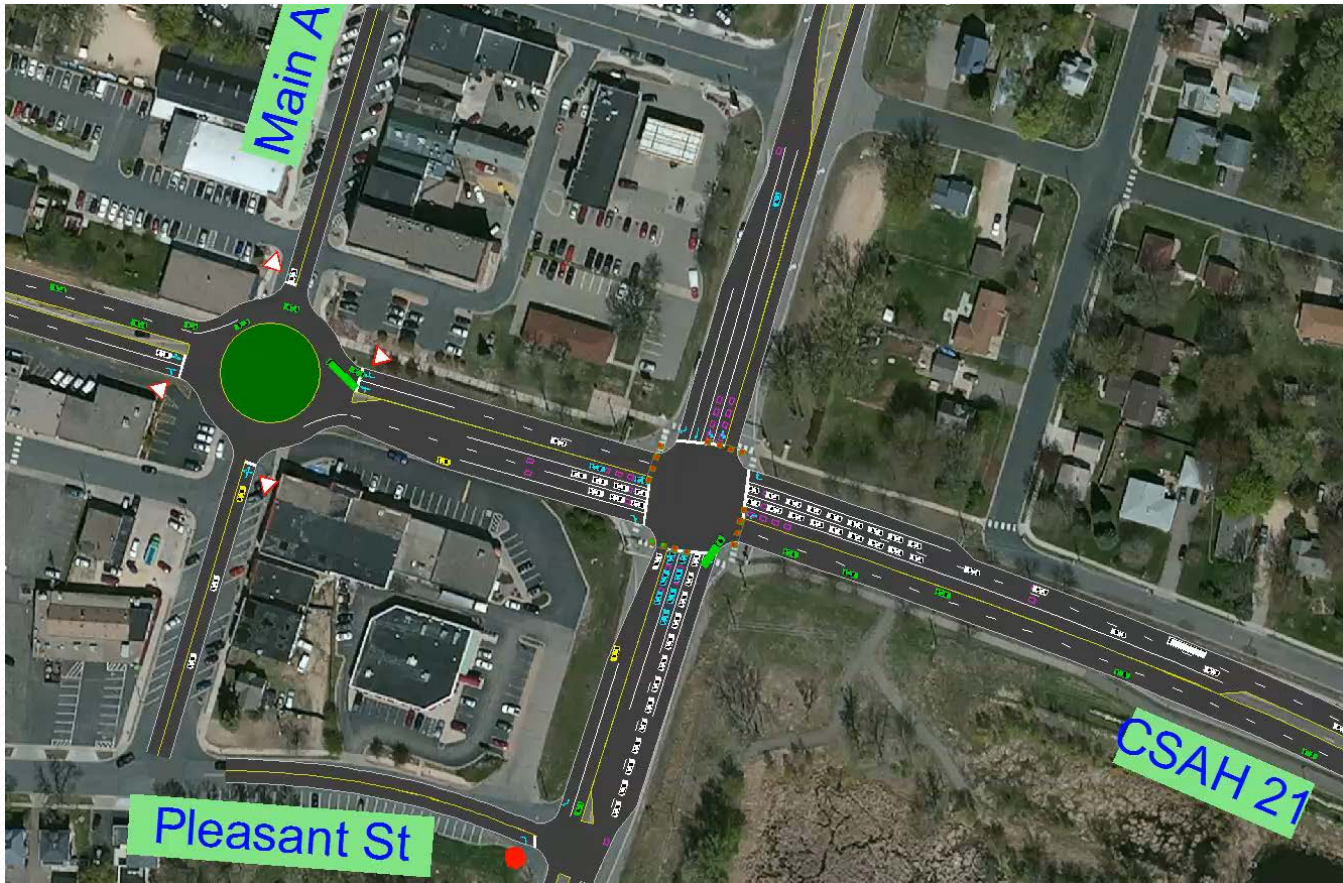


The CH 21/Main Ave Dilemma

Roundabout Scenario

Traffic Simulation with Expected Traffic Growth

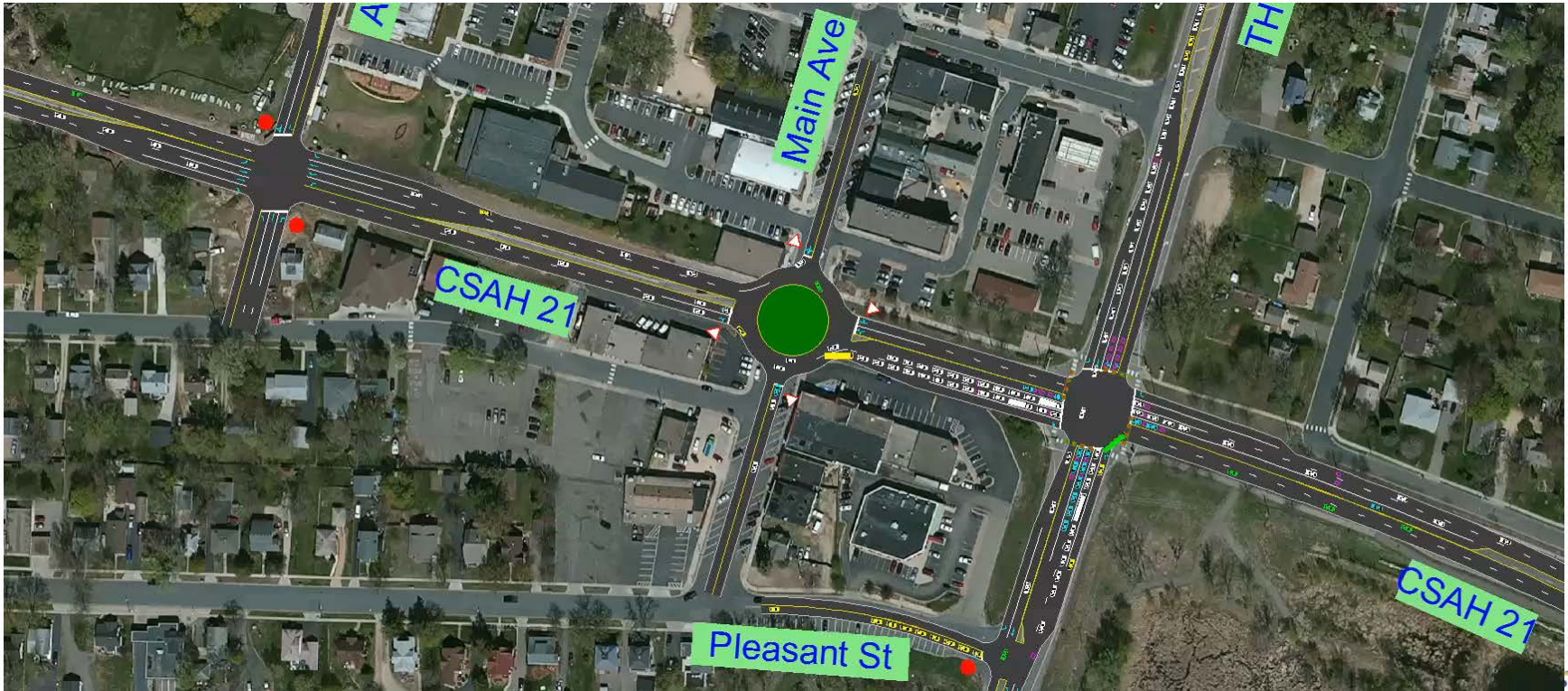
AM
Peak Hour



The CH 21/Main Ave Dilemma

Roundabout Scenario

Traffic Simulation with Expected Traffic Growth

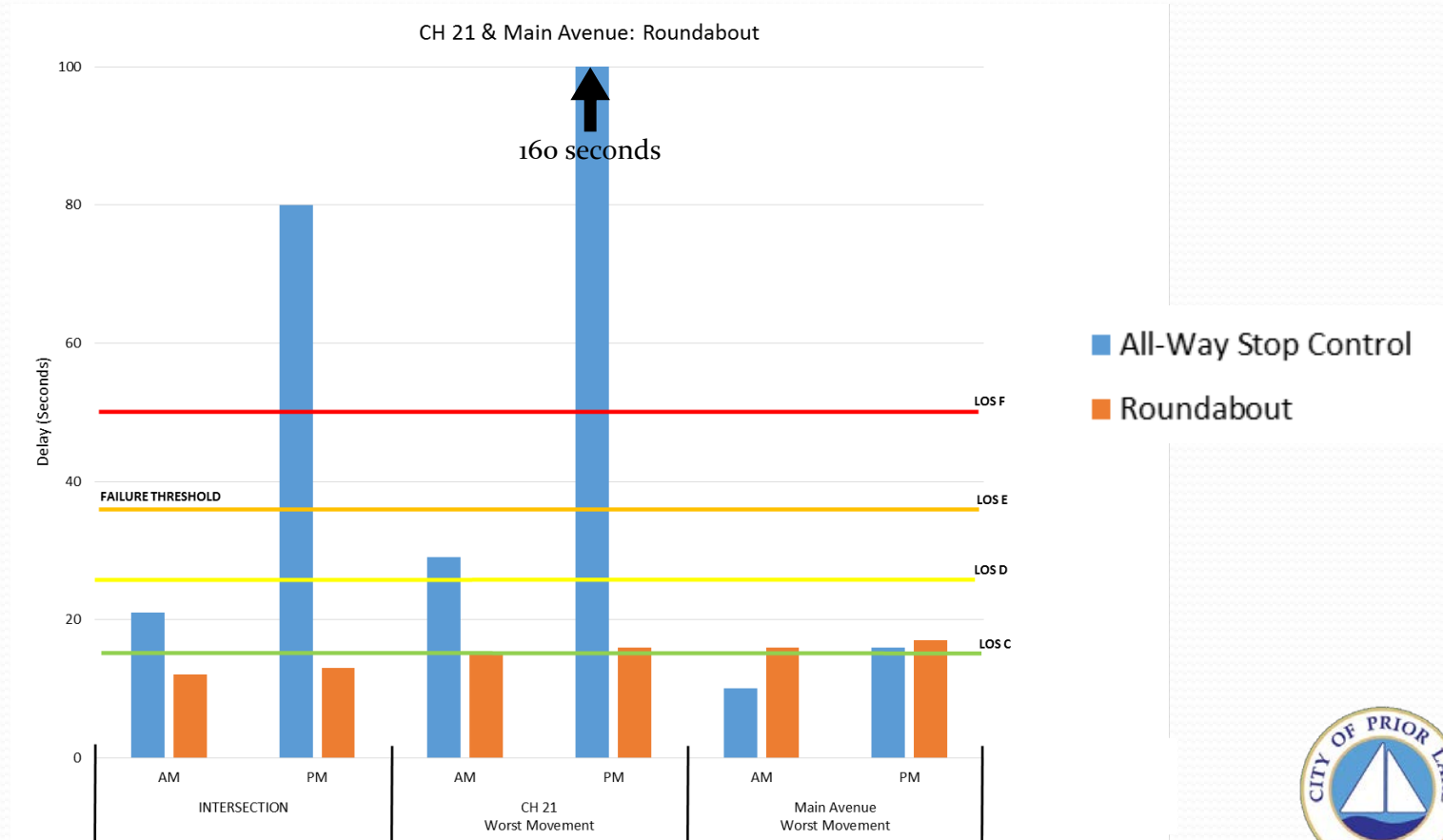


PM Peak Hour

The CH 21/Main Ave Dilemma

Roundabout Scenario

Average Delay per Vehicle during Peak Hours

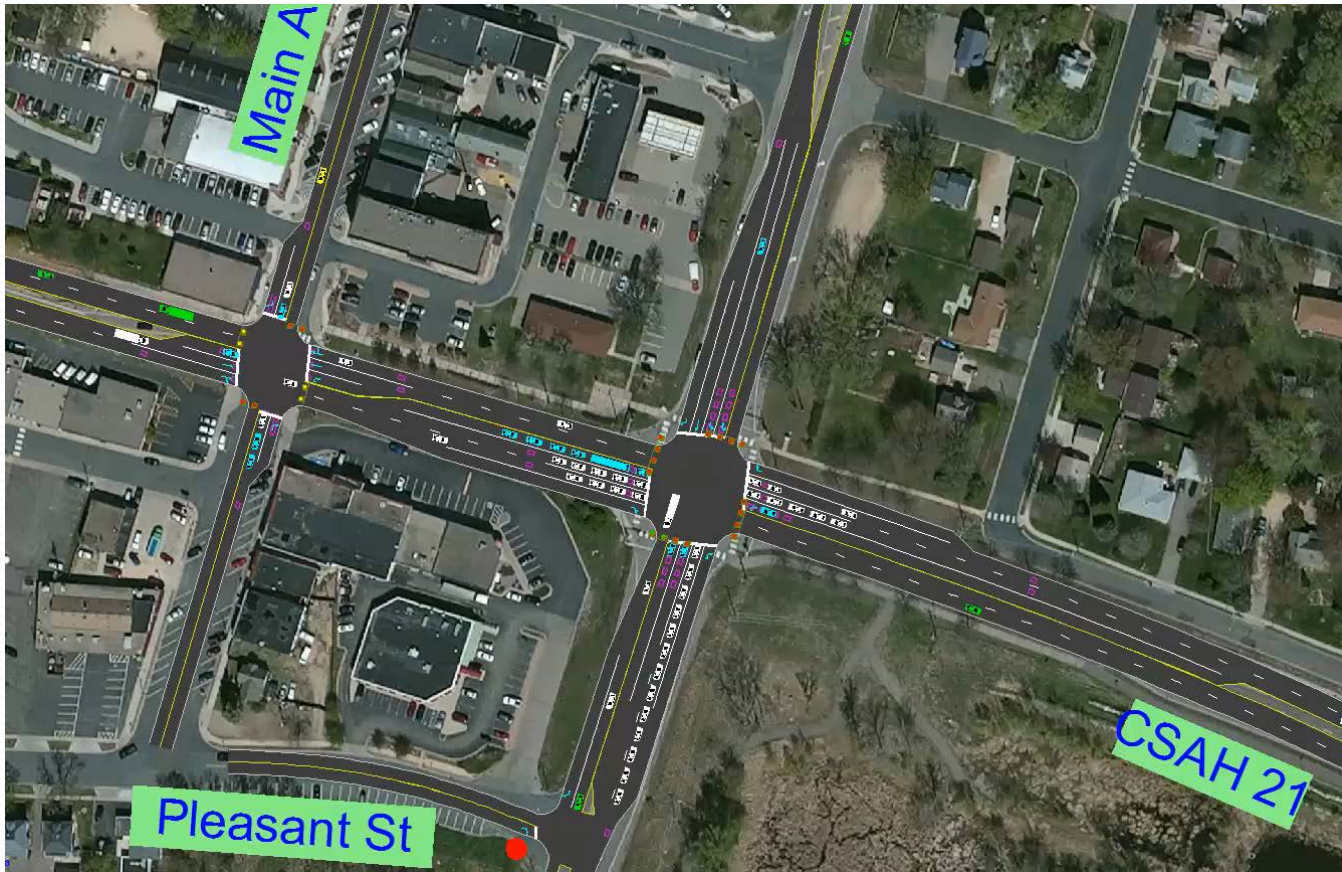


The CH 21/Main Ave Dilemma

Traffic Signal Scenario

Traffic Simulation with Expected Traffic Growth

AM
Peak Hour



The CH 21/Main Ave Dilemma

Traffic Signal Scenario

Traffic Simulation with Expected Traffic Growth

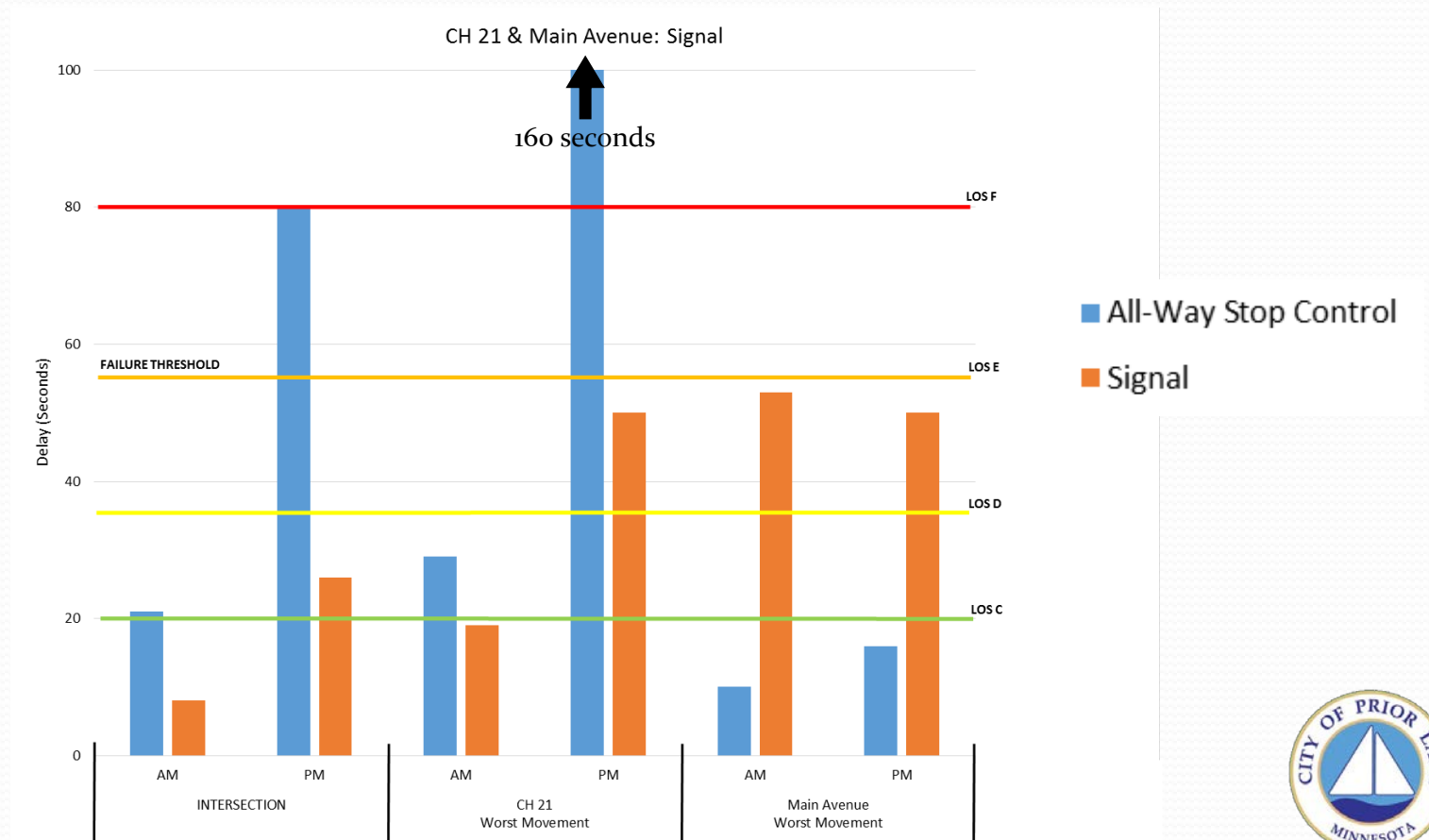


PM Peak Hour

The CH 21/Main Ave Dilemma

Traffic Signal Scenario

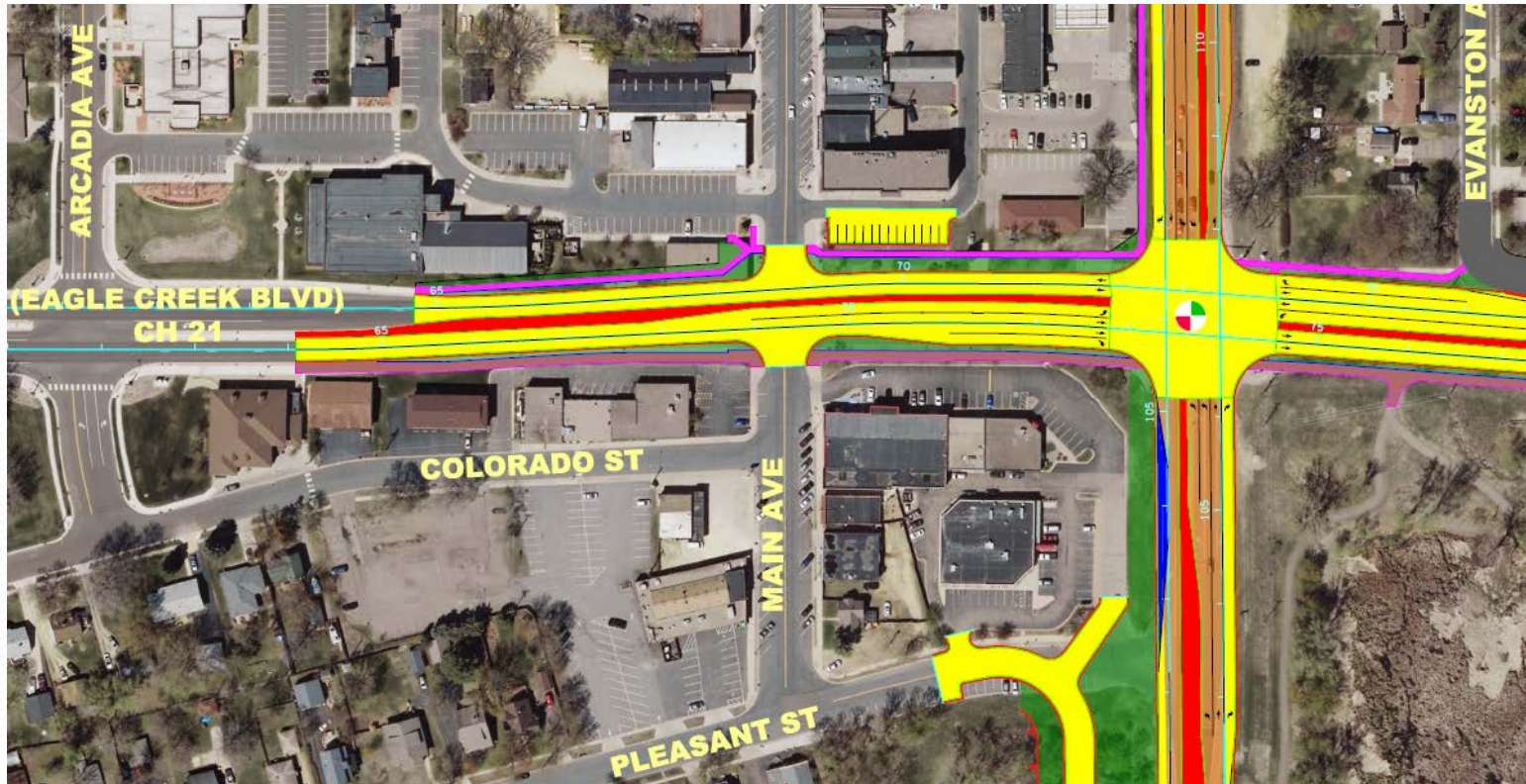
Average Delay per Vehicle during Peak Hours



The CH 21/Main Ave Dilemma

Median Scenario with Traffic Signal at Arcadia Ave

Current Funded Alternative



The CH 21/Main Ave Dilemma

Median Scenario with Traffic Signal at Arcadia Ave

Traffic Simulation with Expected Traffic Growth

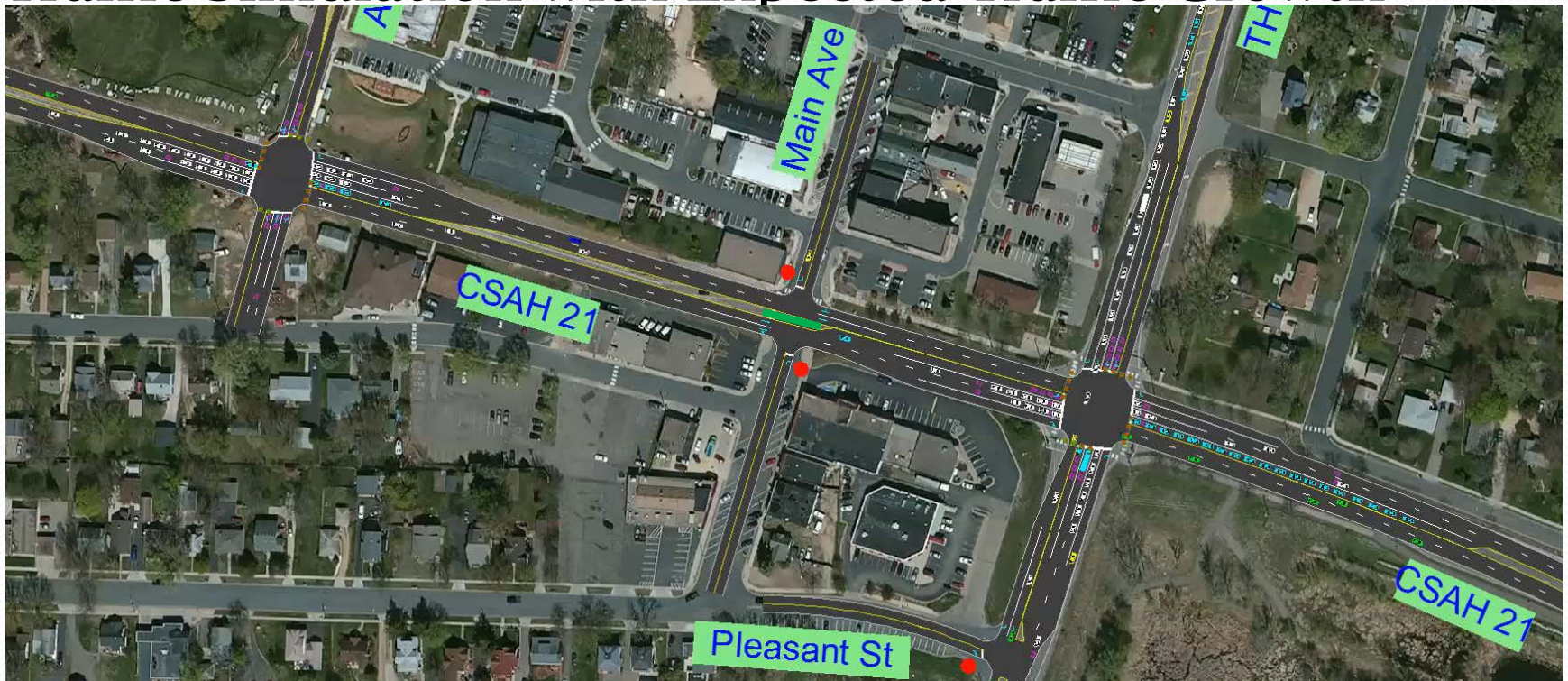


AM Peak Hour

The CH 21/Main Ave Dilemma

Median Scenario with Traffic Signal at Arcadia Ave

Traffic Simulation with Expected Traffic Growth

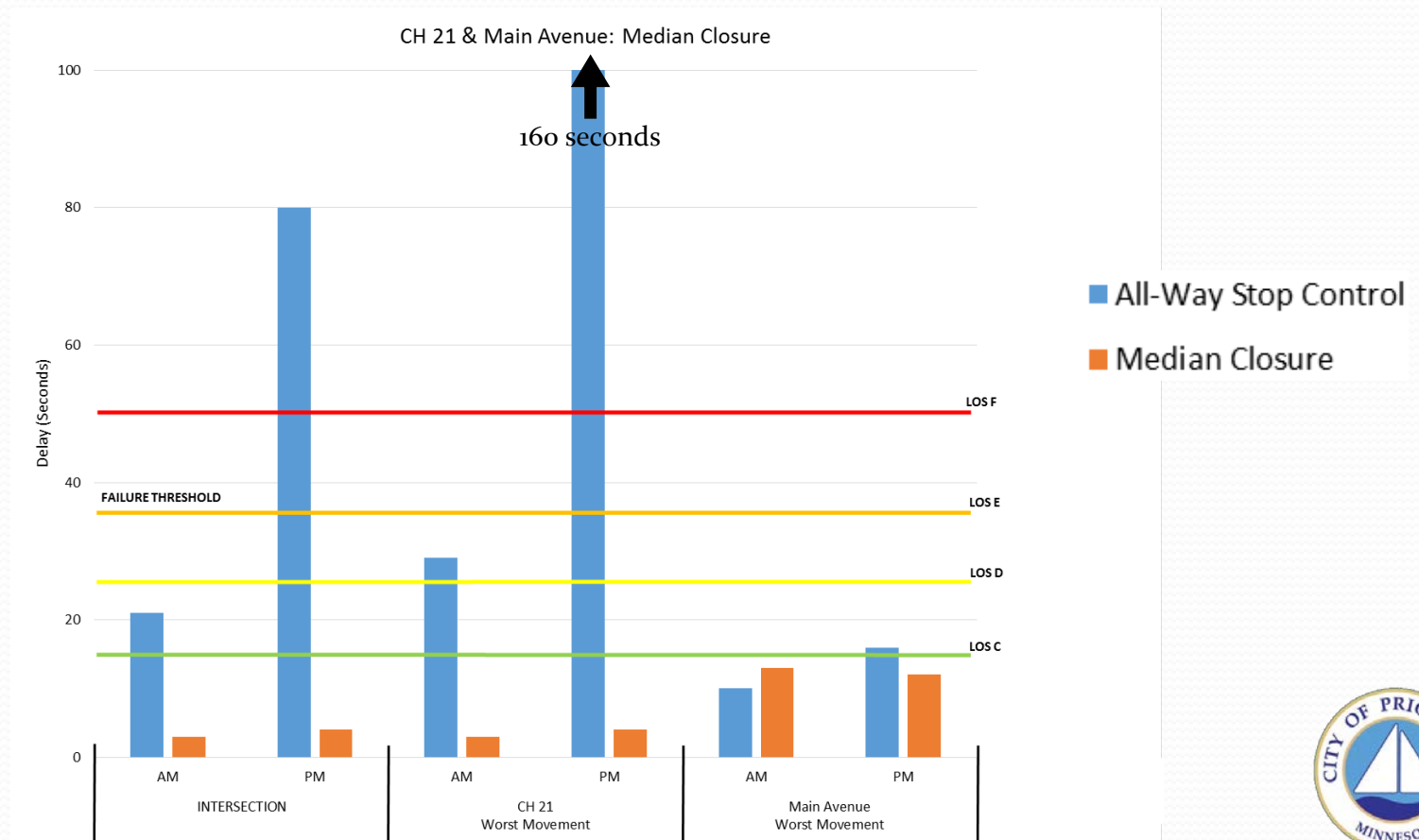


PM Peak Hour

The CH 21/Main Ave Dilemma

Median Scenario with Traffic Signal at Arcadia Ave

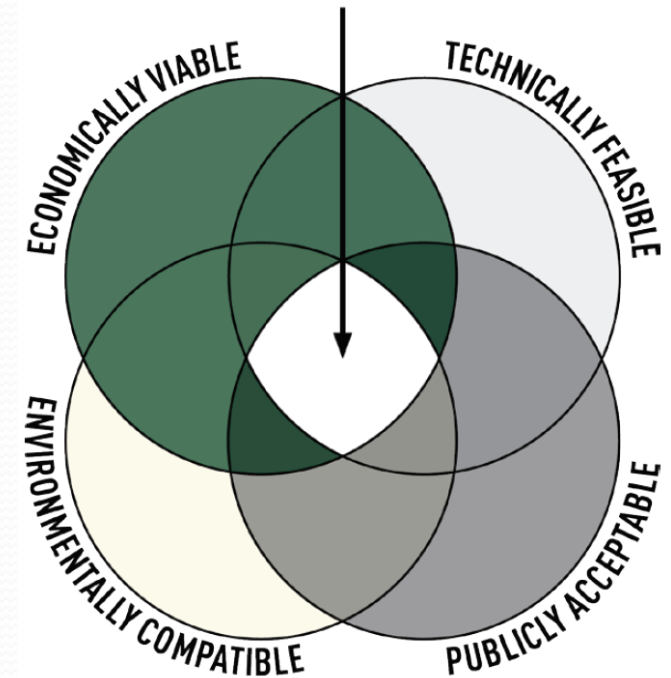
Average Delay per Vehicle during Peak Hours



The CH 21/Main Ave Dilemma

Additional Considerations Needed

- Pedestrians and Other Modes
- Private Property Impacts
- Project Costs and Risks
- Existing Business Access and Visibility
- Public Input, Understanding, and Acceptance



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Public Engagement Process

A comprehensive approach to hear every voice

- Listen and Understand Individual and Collective Interests
- Communicate Collaborative Project Approach
- Find a Solution that is:
 - Technically Feasible
 - Economically Viable
 - Environmentally Compatible
 - Publically Acceptable
- Keep Public Informed on “Why”

Public Engagement Approach

- Face-to-face
 - Understand specific concerns
 - Inform choice of alternatives
- Online
 - Provide broader outreach efficiently
 - Connect with online conversations



Key Stakeholder Discussions

- Identify key stakeholders
 - Businesses/EDA
 - Community residents
 - Adjacent property owners
 - Others?
- One on one and small group interviews
 - What are your concerns?
 - What would success look like?
- Summary memo to City and County Elected Officials



Open Houses

- Inform about planned project and alternatives
- Present options that are open for input
 - Intersection options, streetscape, signage, etc.
 - Interactive Polling by participants
- Summary memo to City and County Elected Officials



Pop-Up Meetings

- Attend community events where people are gathered
- Provide additional opportunity for input
 - How do you use the corridor?
 - What are top priorities for this corridor?
- Summary memo to City and County elected officials



Lakefront Days 2016
August 4, 5, 6 www.PriorLakeChamber.com/LakefrontDays

Medallion Hunt
 Clues begin July 16

THURSDAY, AUG 4 6:30-9pm
 Business Expo, Wine-Beer Tasting**
 Silent Auction, Kelly's Umbrellas
 Doors open at 6 pm; Must be 21, bring ID
 \$15 Advanced tix @ Viking Liquor \$20/door
 SOBER CAB sponsored by *Accel's tested*

FRIDAY, AUG 5
 11am Beach Party @Watzl's Beach
 Lakefront Park opens at NOON
 Carnival(s) Inflatables(s) Food(s)
 Vendors-Kelly's Umbrellas-Beverages(s)
 GaminRide-Bean Bag-Human Foosball
 2,3,4 or 5 Princess Parties** (ages 10-12)

SATURDAY, AUG 6
 7:30am Silly Hilly 5k**
 10am Parade (starts @ St. Miles to Lakefront)
 10am Carnival(s) Inflatables(s) Food(s)
 12pm Games-Vendors-GaminRide
 Water Balloons(s) Dunk Tank(s)
 1pm Meet PLHS LAX State Champions
 1pm Bean Bag Toss Tourney**
 Human Foosball Tourney**
 1pm @ Watzl's Beach: Paddle Boards
 Kayak-Pontoon Rides

Presale Carnival Tickets
 Pre-sale Ride Tickets sold @Chamber,
 Eileen's Cookies & Viking Liquor
 FIVE ride tickets \$10
 Savings of \$5-\$15 per 5 rides

CITY OF PRIOR LAKE
 MINNESOTA
 PRIOR LAKE AREA
 CHAMBER OF COMMERCE

CARNIVAL

Online Engagement

- Project newsletter
 - Electronic or mailed out
- Online updates
 - Project website
 - City social media
- Online open house materials



Proposed Engagement Timeline

Task	Time
Stakeholder Meetings: Initial Conversations	April/May 2017
Open House #1: Issues and Goals, Project Overview	June 2017
Pop Up Meetings/Online Outreach	July-August 2017
Open House #2: Project Alternatives and Options	September 2017
Stakeholder Meetings: Alternatives; Online Outreach	October 2017
Open House #3: Recommended Alternative	November 2017
Open House #4: Preparation for Construction	Mid-2018 (?)
Meetings with Project Management Team, City/County Leadership	As Needed

Next Steps

- The CH 21/Main Ave Dilemma
- Corridor Context – CH 82 to Franklin Trail
- Downtown Prior Lake Context
- TH 13/CH 21 Intersection Alternatives
- Background Activities Regardless of Alternative

Next Steps: Corridor Context

- CH 82 to Franklin Trail
- Land use compatibility
 - Business and residential
- Traffic control, speed, and safety
 - Balancing access and mobility
 - Balancing pedestrian and auto
 - Optimize use of space



Next Steps: Downtown Context

- Business Access and Visibility
- Pedestrian Safety
 - Ped crosswalks and connections
- Visual Quality and Brand
- Economic competitiveness
 - Business district vitality
 - Redevelopment options
 - Character, streetscape, public realm



Next Steps: TH 13/CH 21 Options

- Funded Alternative
 - Left turn addition
 - Revised signal operations
- Multilane Roundabout consideration
- Others



Next Steps: Other Activities

- Topographic and Right-of-Way Survey
- Traffic Data Collection
- Geotechnical Analysis
- Environmental Considerations



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CH 21 Project Manager

Scott County Transportation Services

Chris Chromy, P.E., PTOE

Principal Transportation Engineer

Bolton & Menk, Inc.

