I-29 Exit 77 (41st Street) Crossroad Corridor Study

Public Meeting/Open House #3

March 14, 2012

Comment and questions after presentation.
Who has attended previous meetings?

Study Advisory Team

South Dakota DOT Connecting South Dakota and the Nation

CITY OF SIOUX FALLS PUBLIC WORKS Providing a Better Quality of Life for You!

HDR

CONFLUENCE

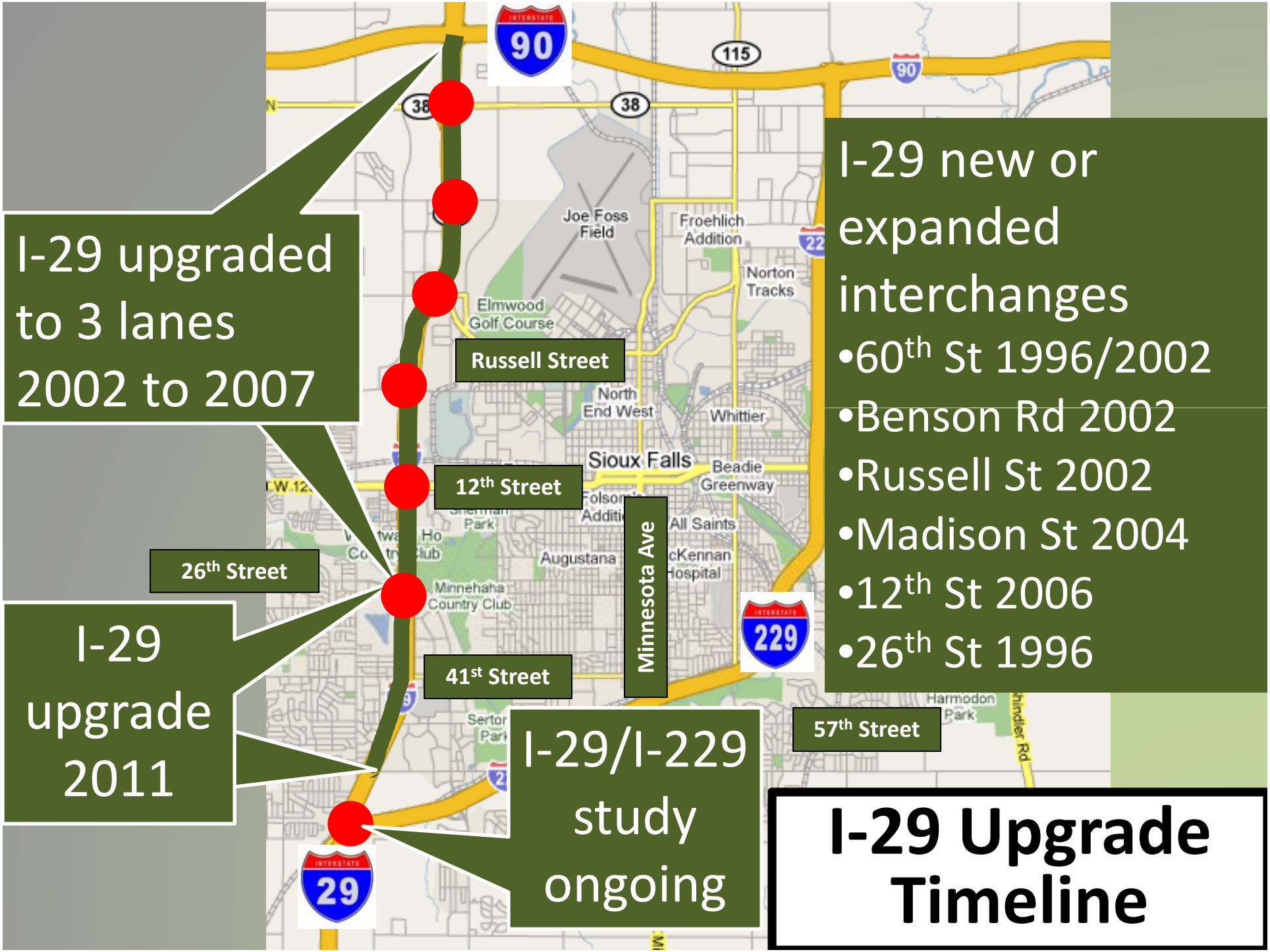
SIOUX FALLS MPO METROPOLITAN PLANNING ORGANIZATION SOUTH DAKOTA

U.S. Department of Transportation Federal Highway Administration

Study Area
12th Street
41st Street
Minnesota Ave
2 miles
Project Area
90
115
38
29
229
42
11
Joe Foss Field
Froehlich Addition
Great Bear Park
Norton Tracks
Elmwood Golf Course
North End West
Whittier
Sioux Falls
Beadie Greenway
E 10th St
E SD Hwy 42
Westward Ho Country Club
Sherman Park
Folsom Addition
All Saints
Augustana
McKennan Hospital
Minnehaha Country Club
Harmodon Park
Shindler Rd
Yankton Trail Park
Prairie Green Golf Course

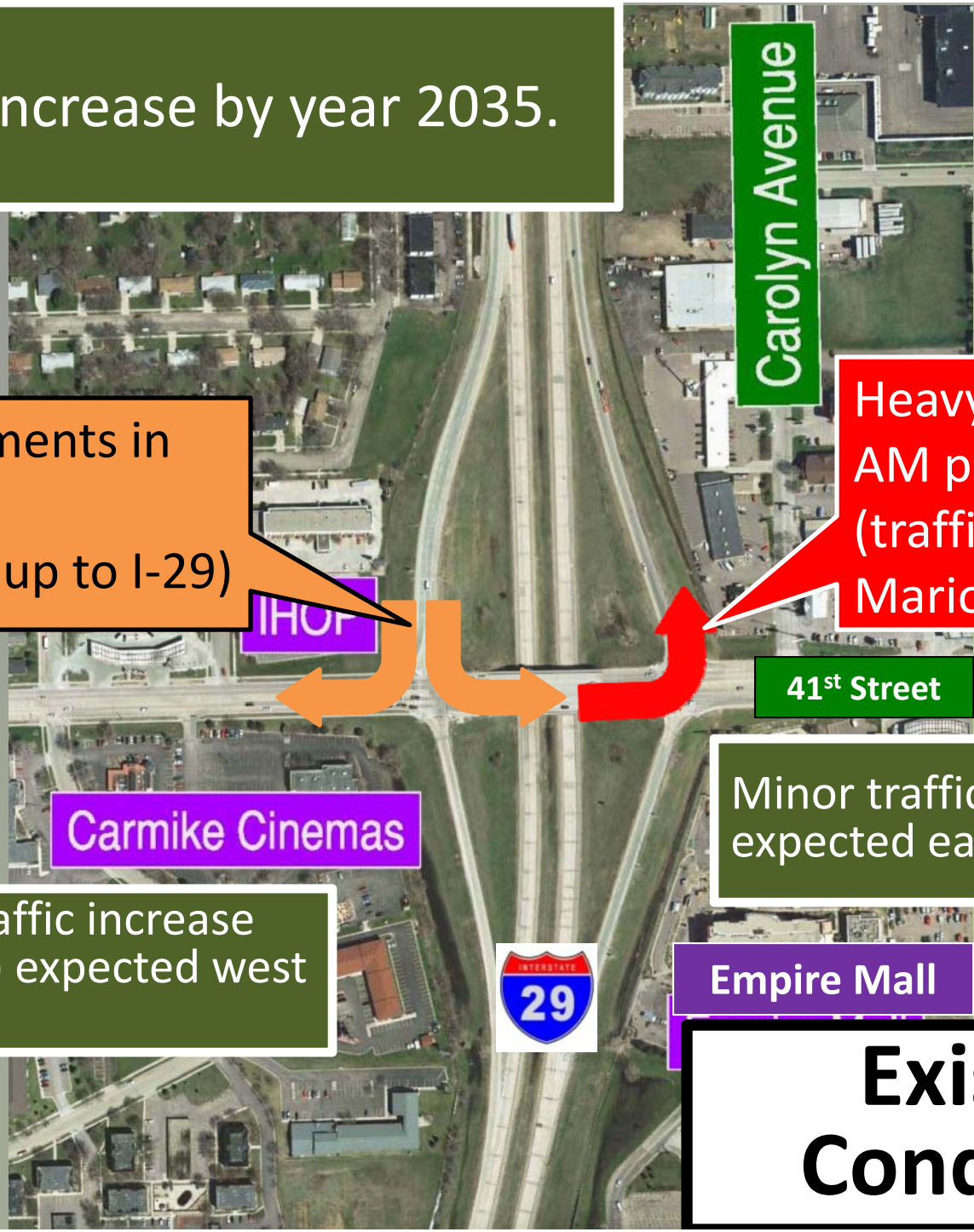
Study Roadway

Project Area



I-29 Upgrade Timeline

Traffic will increase by year 2035.



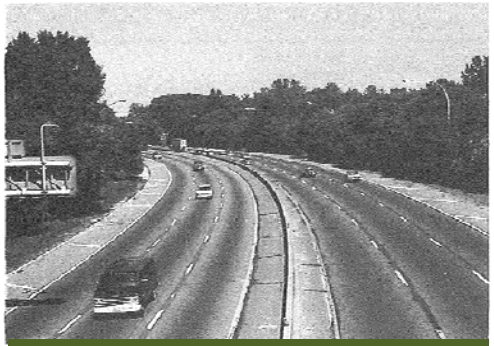
Heavy movements in PM peak (traffic backs up to I-29)

Heavy movement in AM peak (traffic backs up to Marion Road)

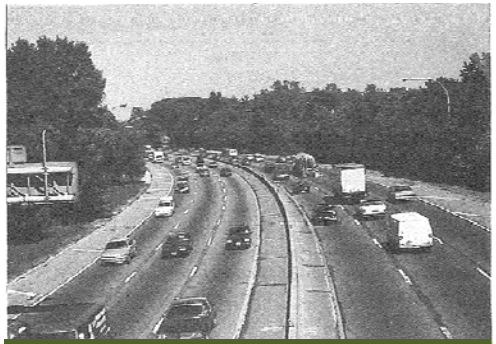
Minor traffic increase (10%) expected east of I-29.

Significant traffic increase (25% to 50%) expected west of I-29.

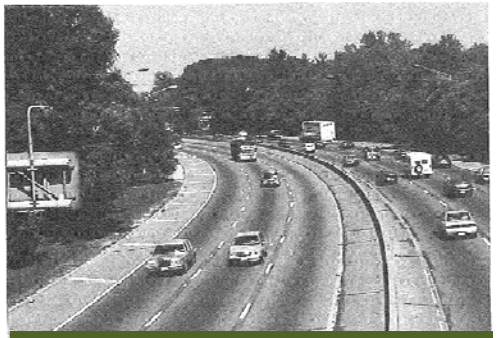
Existing Conditions



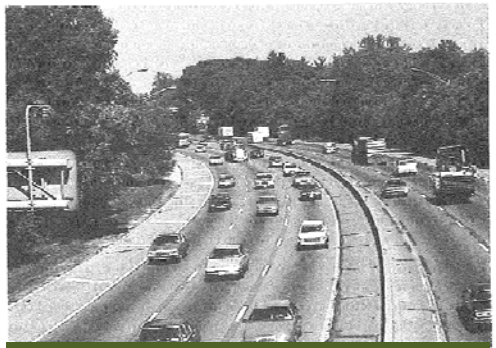
A – Normal speeds, large gaps between vehicles



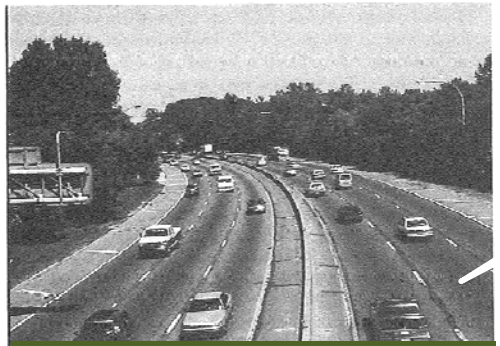
D – Slightly reduced vehicle speeds, minor delays



B – Normal speeds, smaller gaps between vehicles



E – Reduced vehicle speeds, moderate delays



C – Normal speeds, no delays

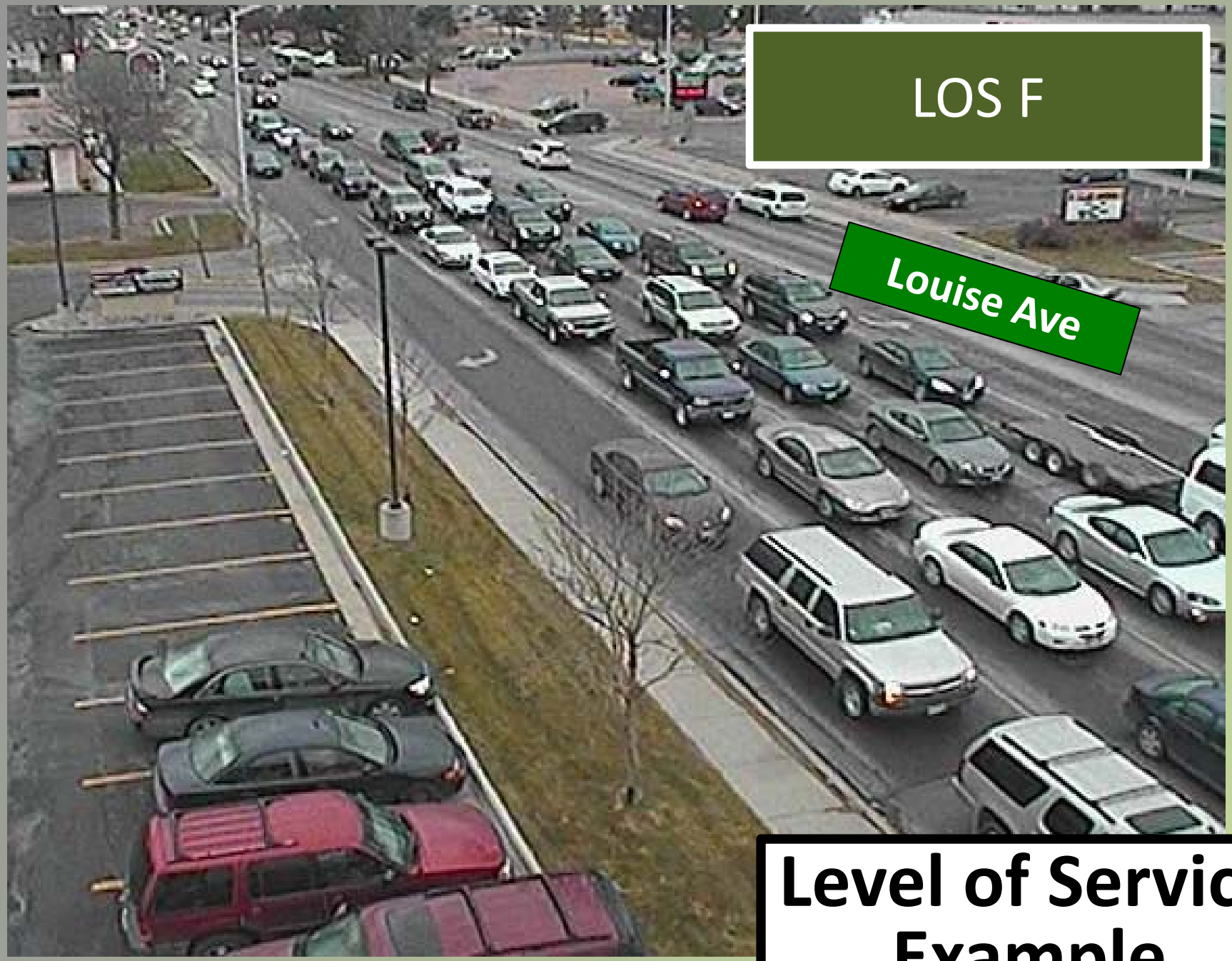
F – Stop and go conditions, long delays

Design goal for urban areas = LOS D or better

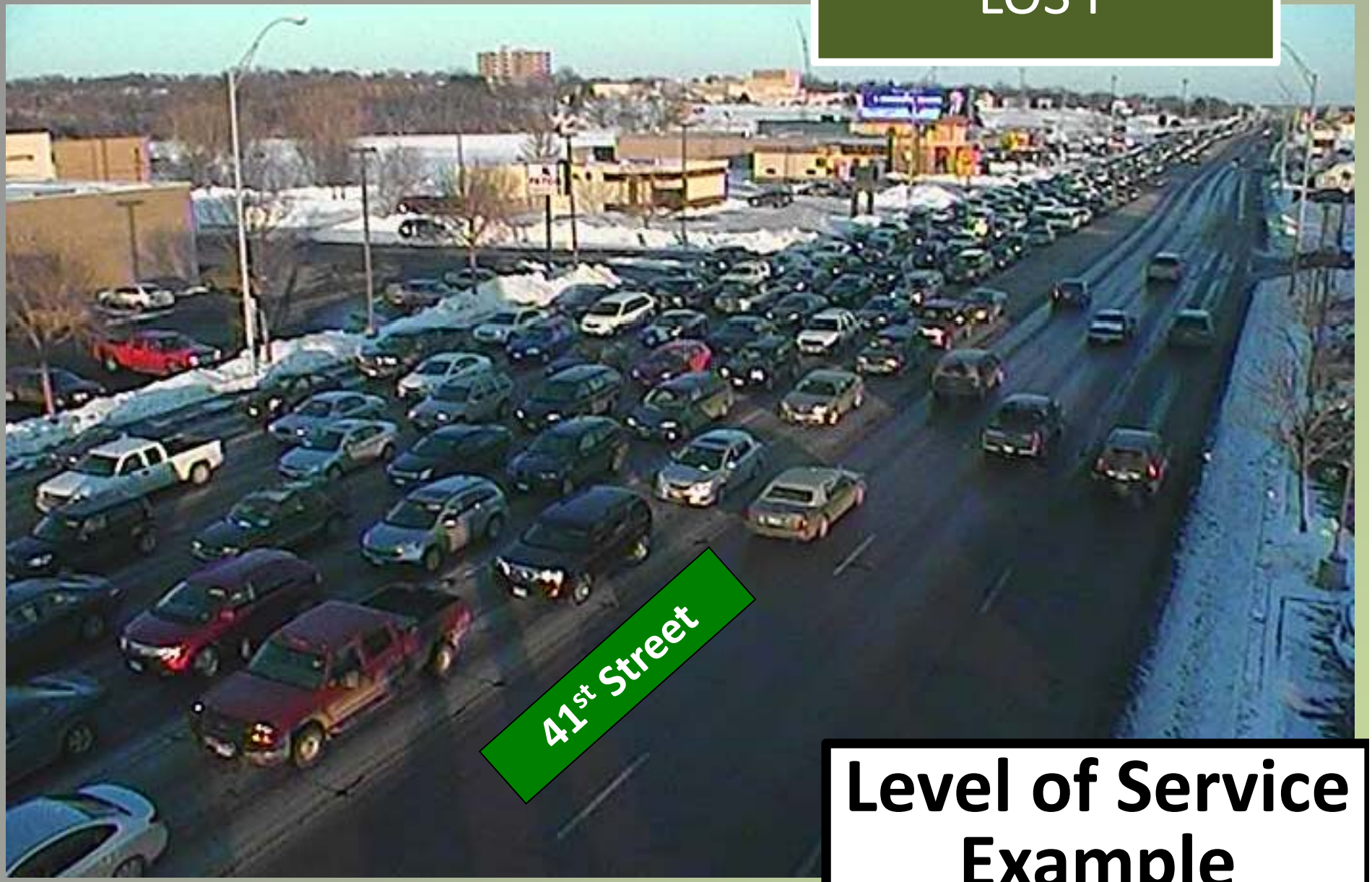
Design goal for rural areas = LOS C or better

Source: Highway Capacity Manual

Level of Service (LOS) Summary



Level of Service Example



LOS F

Level of Service Example

Study Roadway

Existing and Year 2035 No-Build Traffic Conditions PM Peak Hour

Develop improvement options to address:

Capacity goal:
Level of Service D or better for year 2035 traffic

Improve Safety

Maintain Access

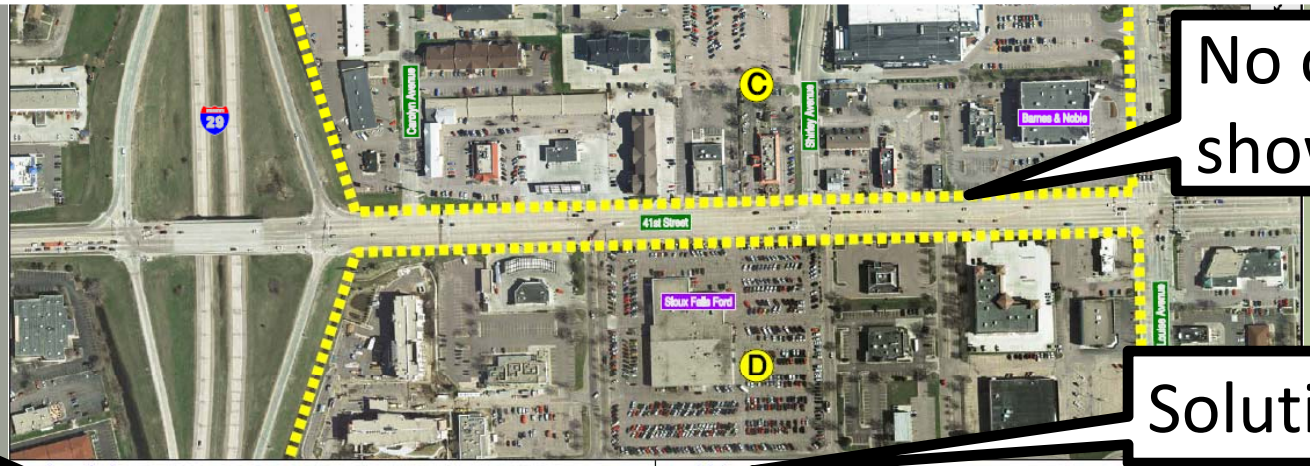
Improve Pedestrian Facilities

Minimize Property Impacts

Project Goal

Study Process

Example Comment Sheet from April 2011



No options shown

Issues/ Needs

Solutions

Issues/Needs

Traffic Capacity

Put in a diverging diamond at interstate.
No median at Carolyn Avenue.
Yes to median at Carolyn Avenue.

Safety

EB 41st Street traffic does a lot of merging from the middle lane to the outside lane. Everyone is trying to get to the mall via W. Empire Place.

Access

Create a mall entrance off I-29 like at Mall of America in MN.

Pedestrians/Bicyclists

Aesthetics

Solutions

Traffic Capacity

If there is a median at Carolyn Avenue, Shirley Avenue would need to be improved.

Safety

Utilize the two SB lanes on W. Empire Place by allowing both the middle and outside 41st Street EB lanes to turn right into W. Empire Place.

Access

Turning movement for SB Shirley Avenue to WB W. Swenson Drive should be improved. (Maybe just a flatter radius at the intersection corner.)

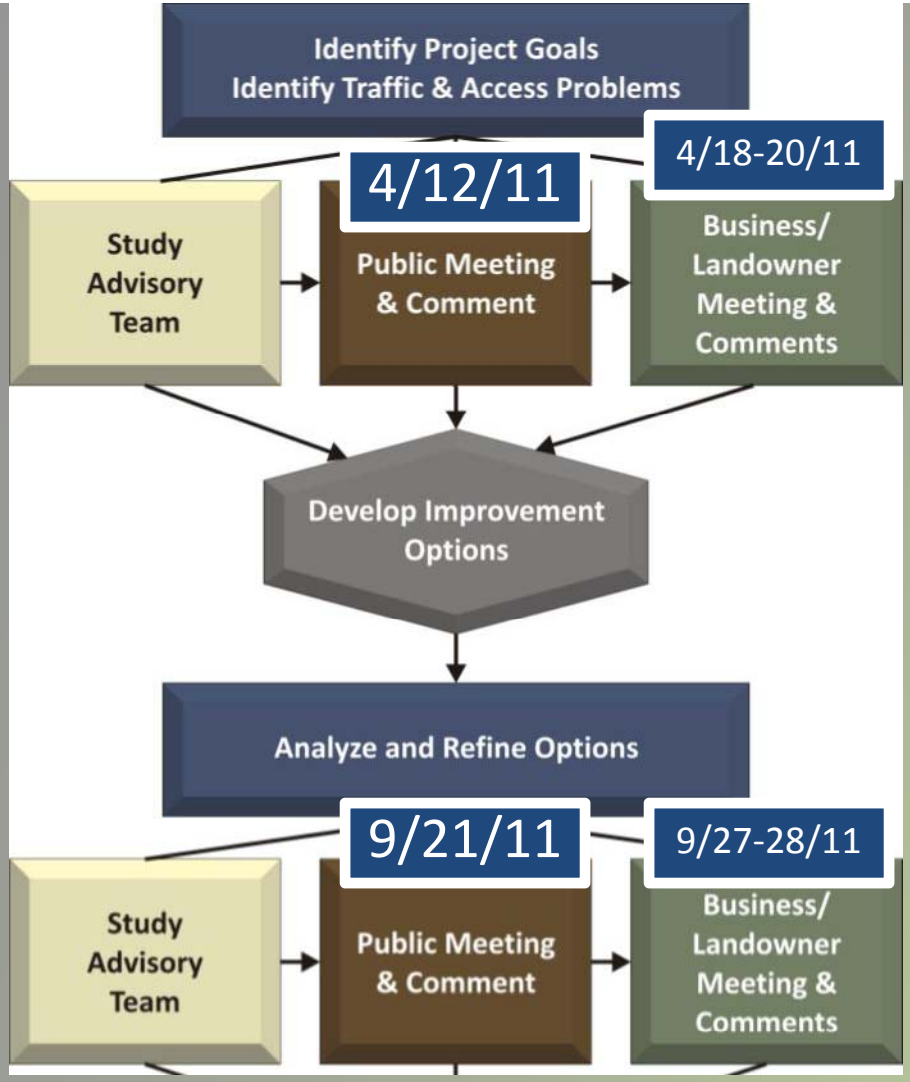
Pedestrians/Bicyclists

Aesthetics

U.S. Department of Transportation
Federal Highway Administration

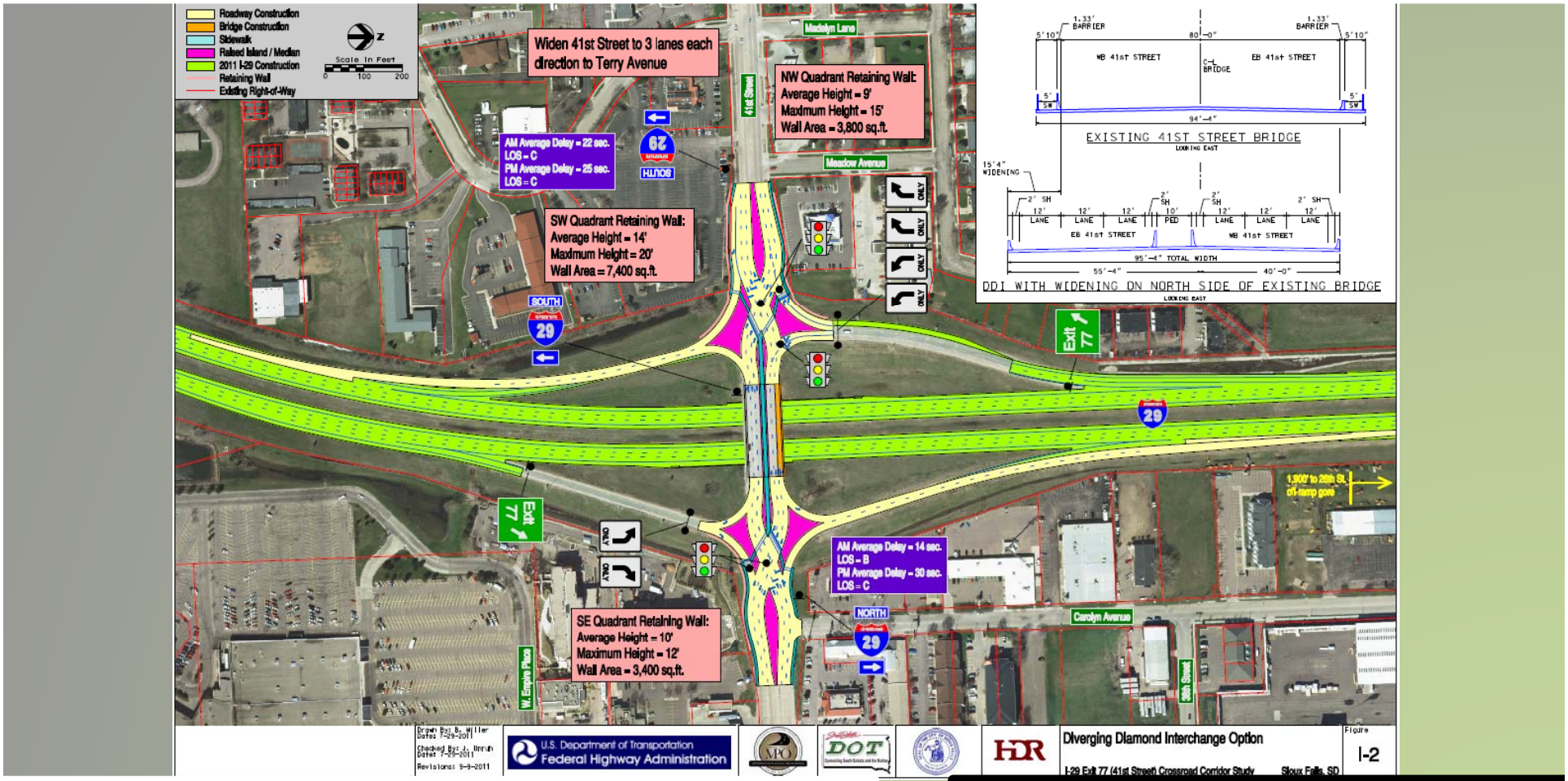
Comment Sheet Records
41st Street from I-29 to Louise Avenue
I-29 Exit 77 (41st Street) Crossroad Corridor Study Sioux Falls, SD

Study Process



Study Process

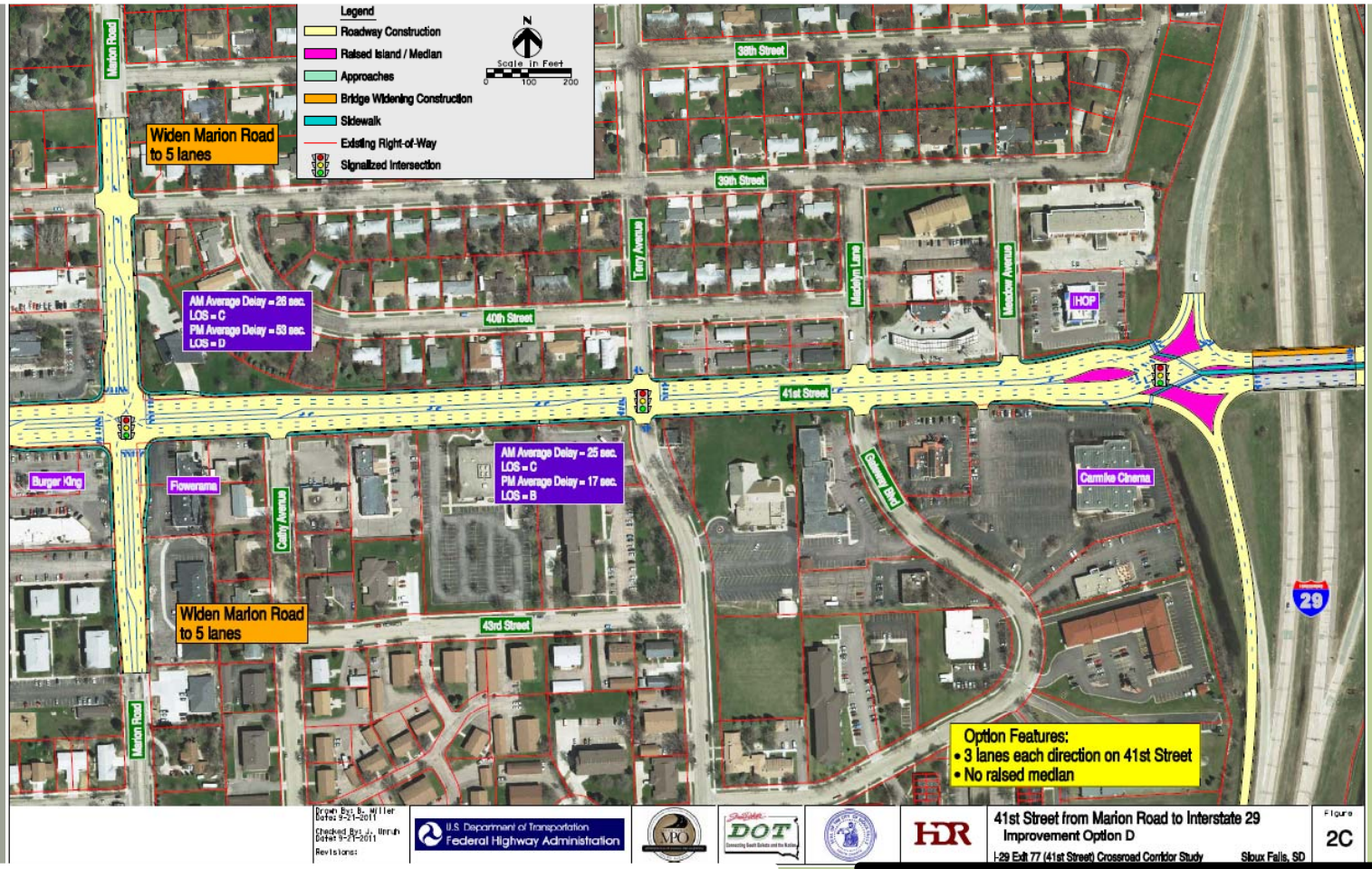
Example Interchange Option from Sept. 2011



Showed 3 Interchange Options

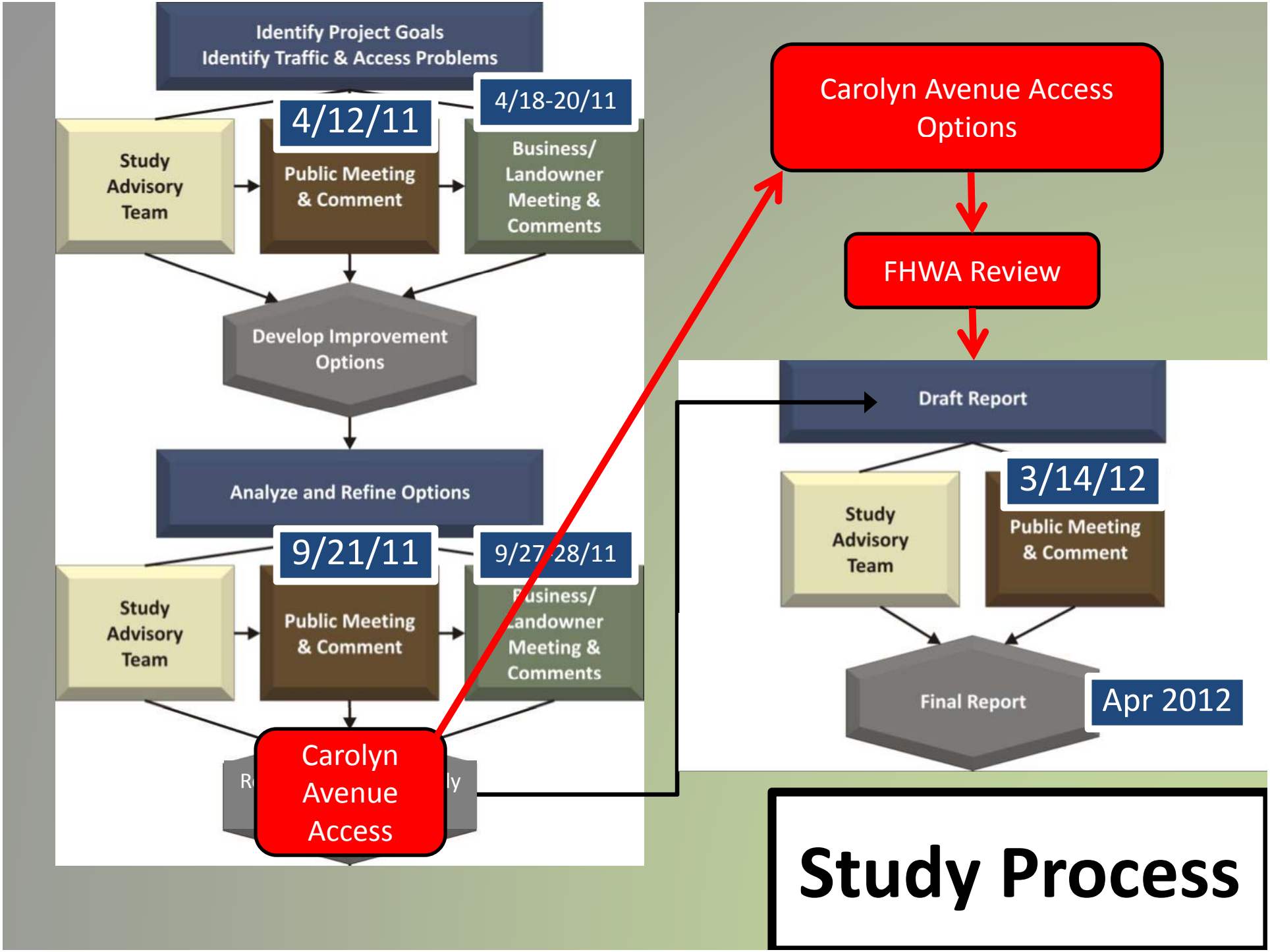
Study Process

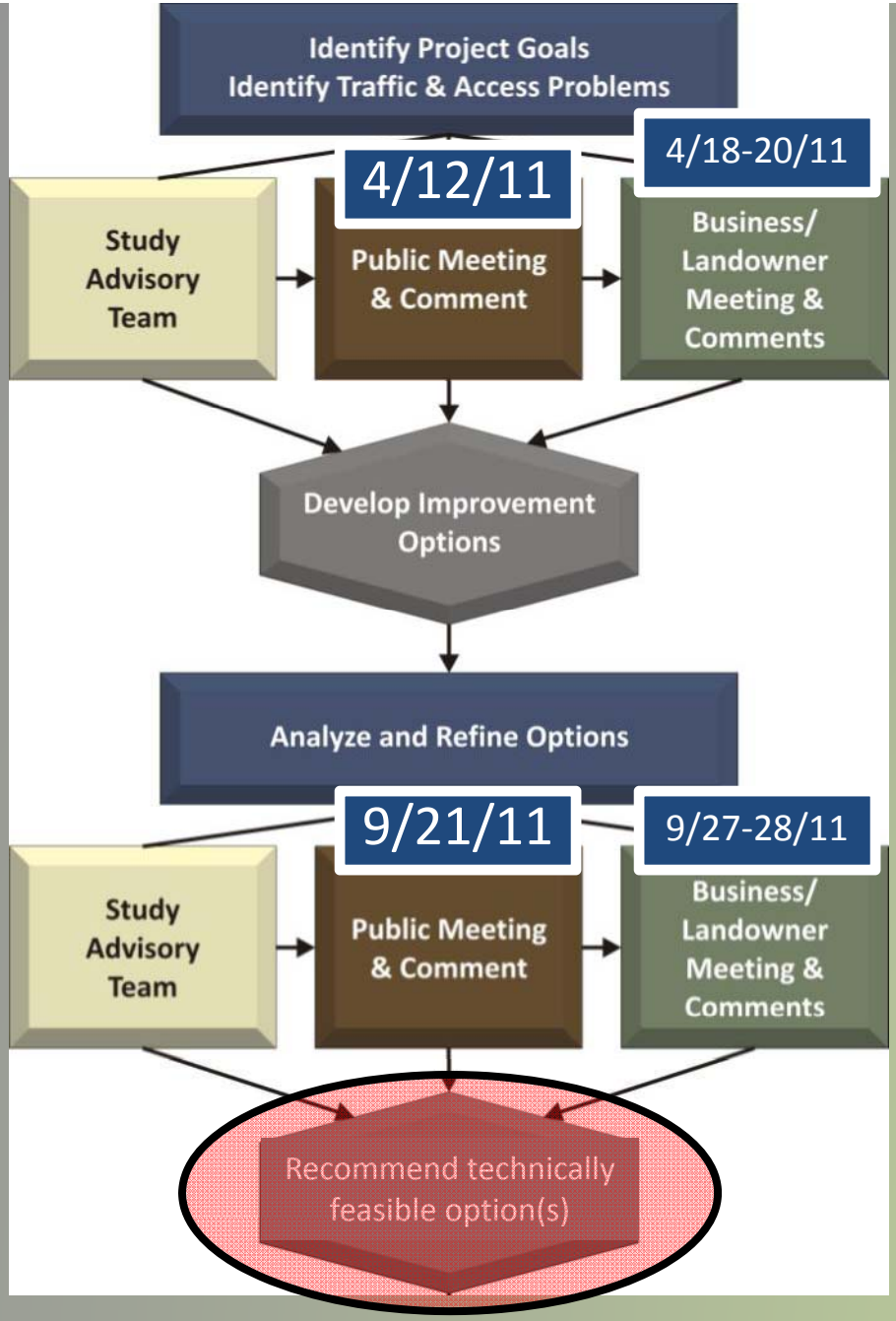
Example Corridor Option from Sept. 2011



Showed 19 Corridor Options

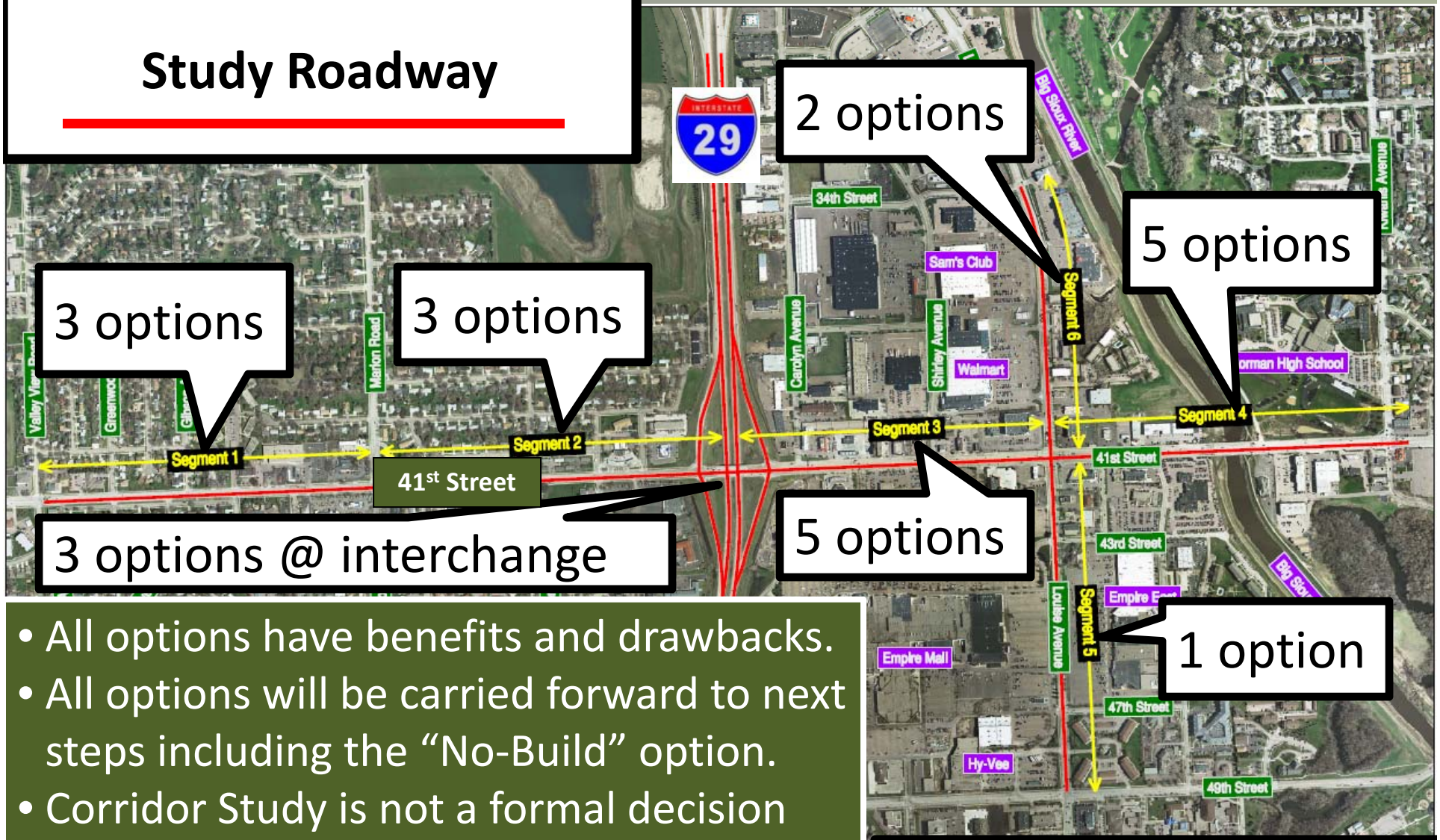
Study Process


Identify Project Goals
Identify Traffic & Access Problems
4/12/11
4/18-20/11
Study Advisory Team
Public Meeting & Comment
Business/ Landowner Meeting & Comments
Develop Improvement Options
Analyze and Refine Options
9/21/11
9/27-28/11
Study Advisory Team
Public Meeting & Comment
Business/ Landowner Meeting & Comments
Carolyn Avenue Access
Carolyn Avenue Access Options
FHWA Review
Draft Report
3/14/12
Study Advisory Team
Public Meeting & Comment
Final Report
Apr 2012
Study Process



Technically Feasible Options

Study Roadway



- All options have benefits and drawbacks.
- All options will be carried forward to next steps including the "No-Build" option.
- Corridor Study is not a formal decision document.
- Corridor Study identified issues and options.

Technically Feasible Options

1. Identify projects and timeframes
2. Fund project in State or City 5-year Improvement Program
3. Prepare Interchange Modification Report (I-29/41st)
4. Prepare environmental document for each project
5. Select preferred option for each project

Next Steps

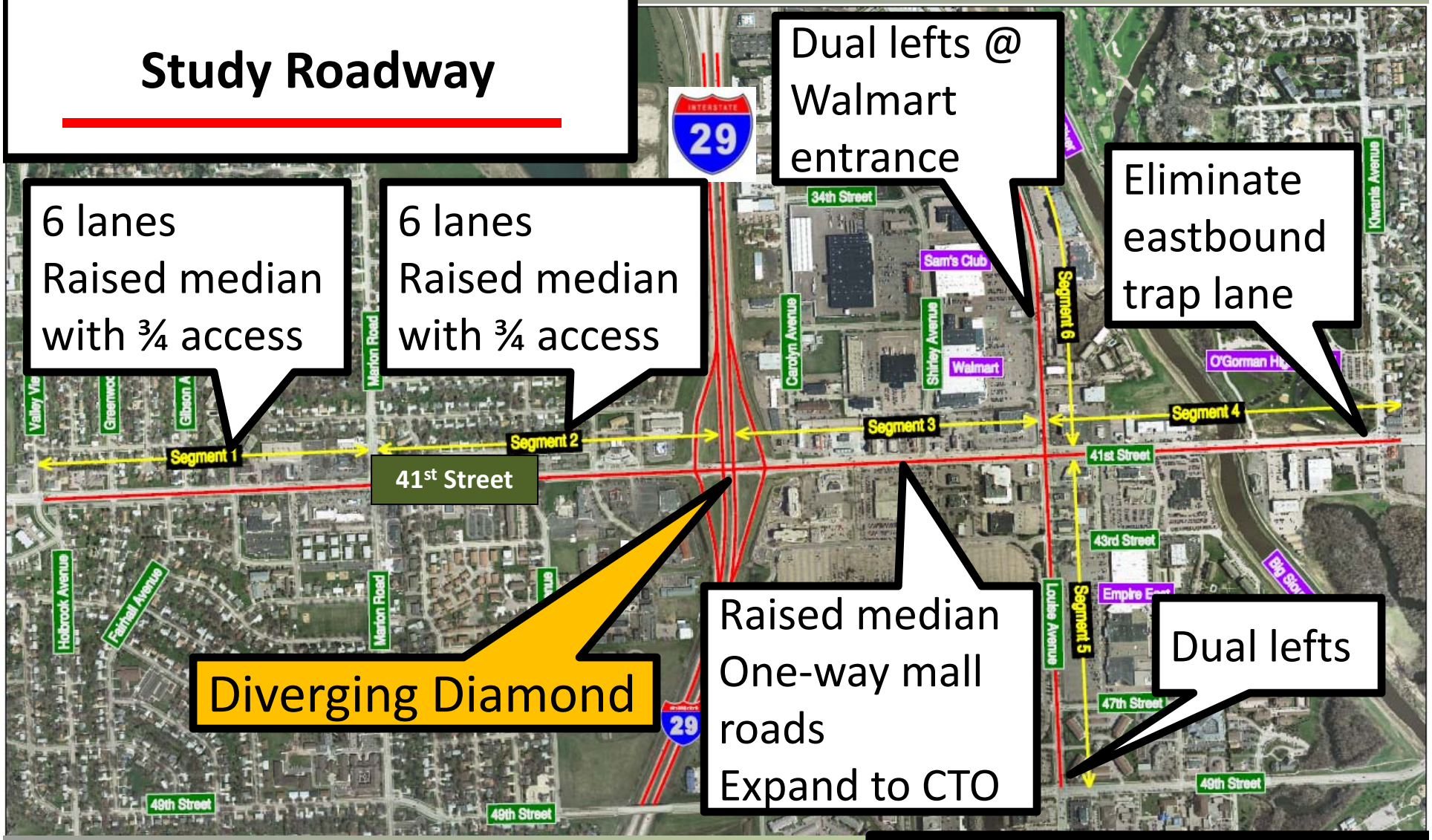
Options for each project will be reviewed in accordance with the National Environmental Policy Act (NEPA) when funding is allocated for the project via the SDDOT or City of Sioux Falls 5-year Improvement Program.

The NEPA process will identify a "Preferred Option."

6. Acquire right-of-way (if necessary)
7. Design
8. Construct

Next Steps

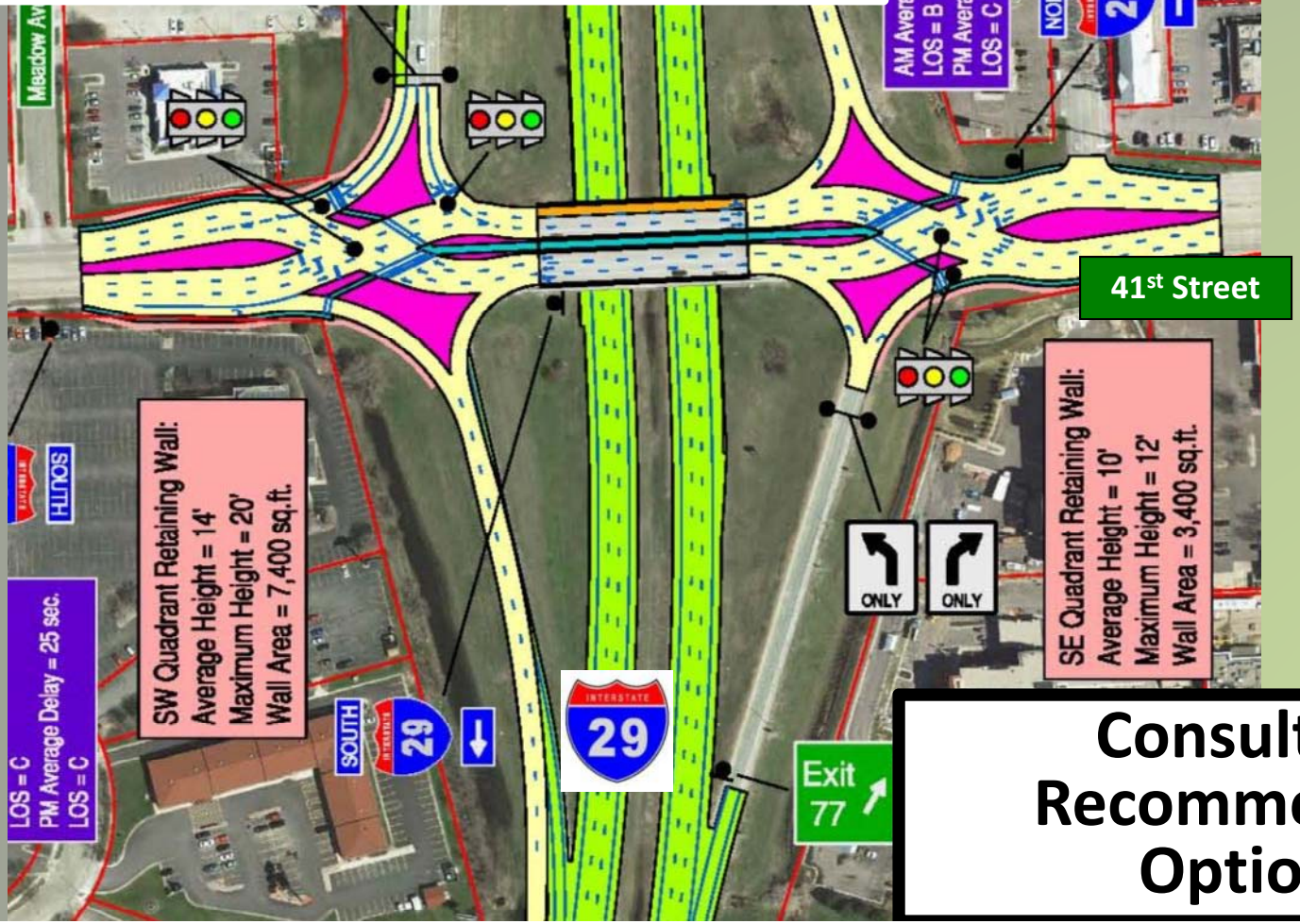
Study Roadway



Consultant Recommended Options

Diverging Diamond Interchange

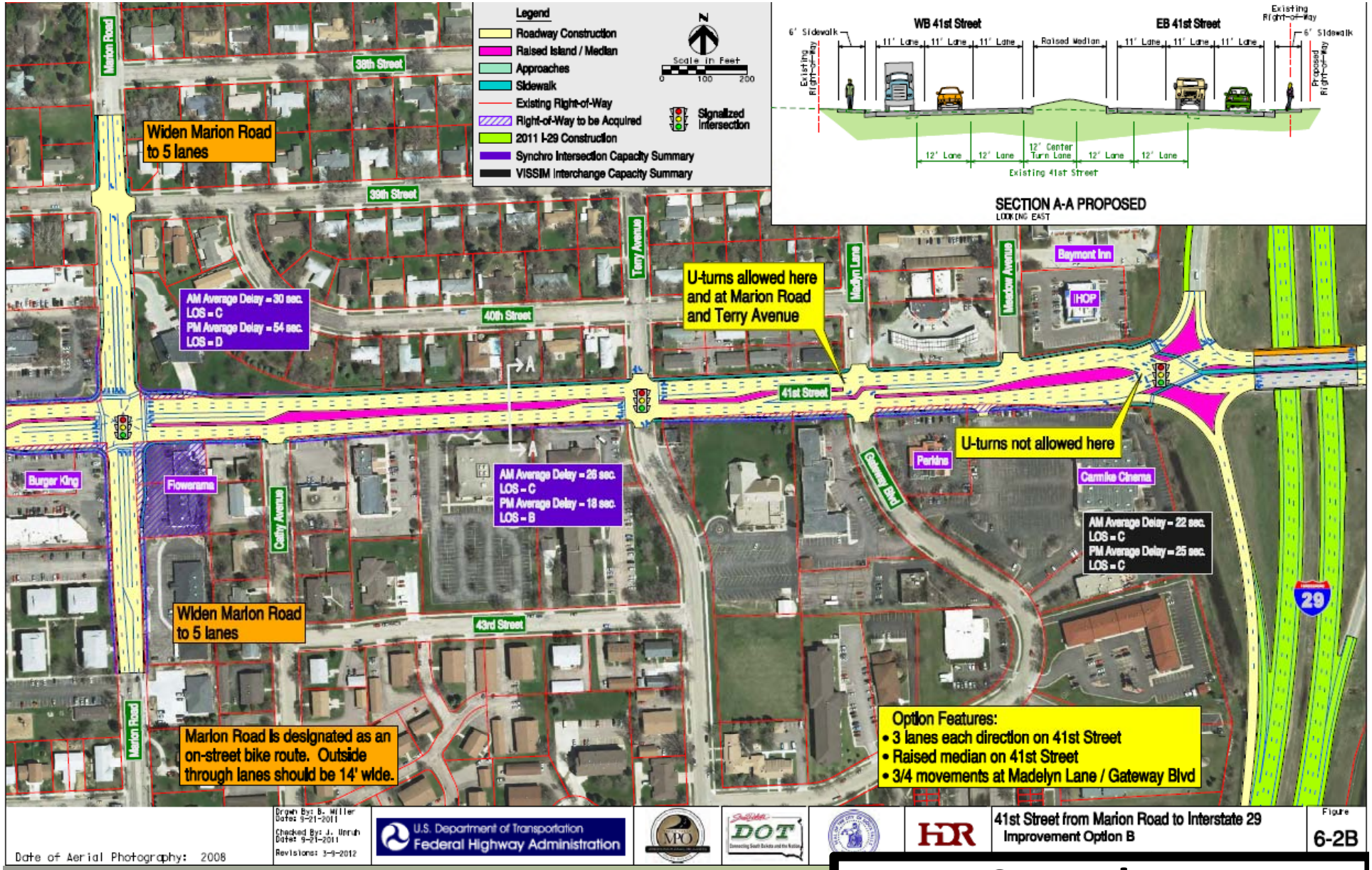
- Fits in available area (with retaining walls)
- Operates at LOS B or C
- Reasonable cost ($5 million+/-)
- Opportunities for landscaping
- 5 completed in US



Consultant Recommended Options

Diverging Diamond Animation – yr 2035

Consultant Recommended Options



Segment 2 Example

Consultant Recommended Options

Consultant recommended option

Segment 2 Concept Options Comparison

Option	A – Raised median	B – Raised median w/ ¾ movement	C – Center two-way left turn lane
Year 2035 Traffic Operations (PM Peak hour)			
Marion Road intersection			
Level of Service (LOS)	D	D	D
Avg. Delay (seconds)	54	54	54
Terry Avenue intersection			
Level of Service	B	B	B
Avg. Delay (seconds)	18	18	18
I-29 SB off-ramp intersection			
Level of Service	C	C	C
Avg. Delay (seconds)	25	25	25
Roadway Safety	Good	Good	Poor
Right-of-Way Impacts	[illegible]	Moderate	Minimal
Construction Cost	Moderate	Moderate	Moderate
Ease of Construction	Moderate	Moderate	Moderate
Traffic Impacts during Construction	Moderate	Moderate	Moderate
Business/landowner Acceptance	[illegible]	Moderate	Good
Driver Acceptance	Moderate	Good	Good
Meets design guidelines	Yes	Yes	No
Pedestrian benefits	Good	Good	Moderate

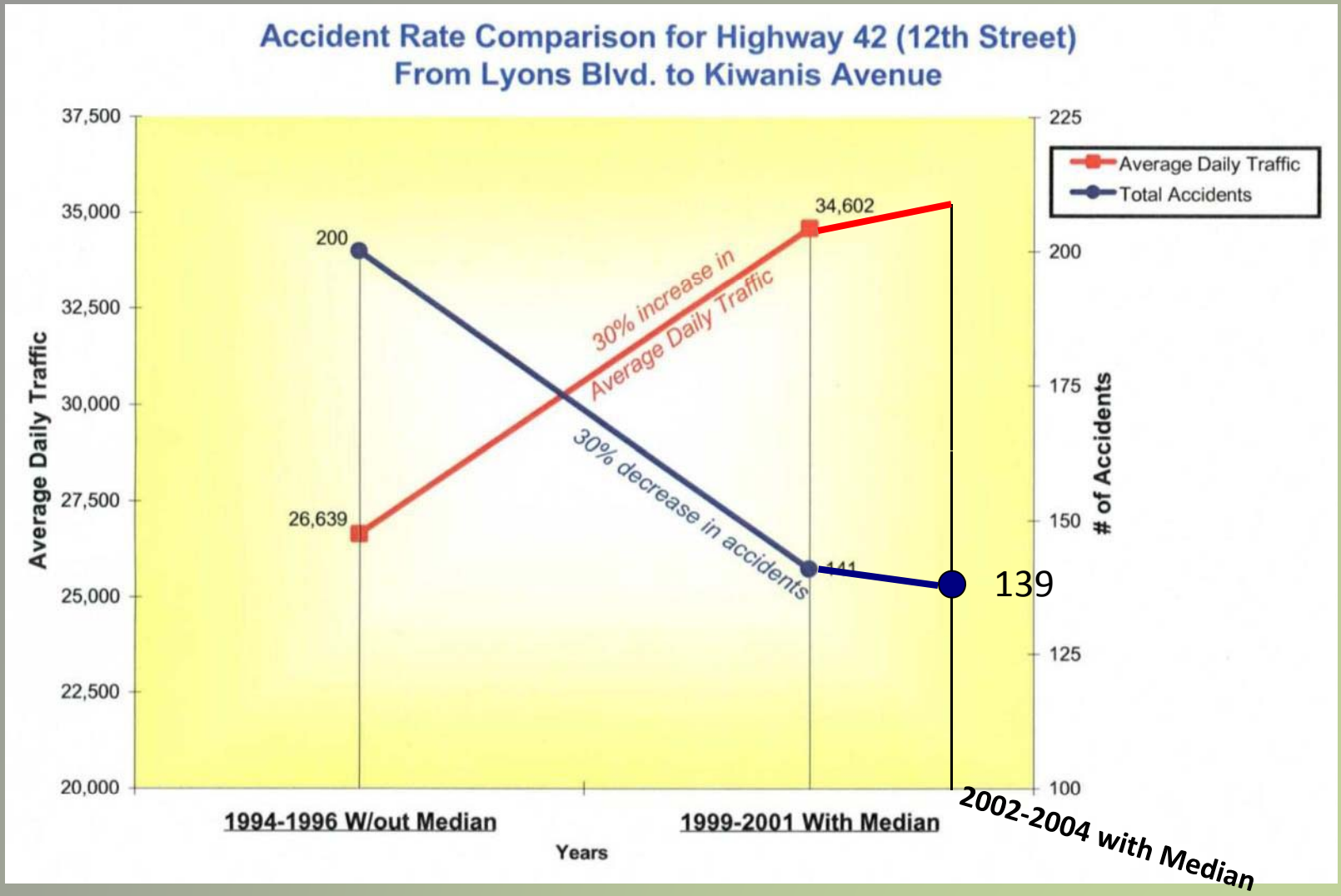
Main factors

Example Options Comparison by Displays

Consultant Recommended Options

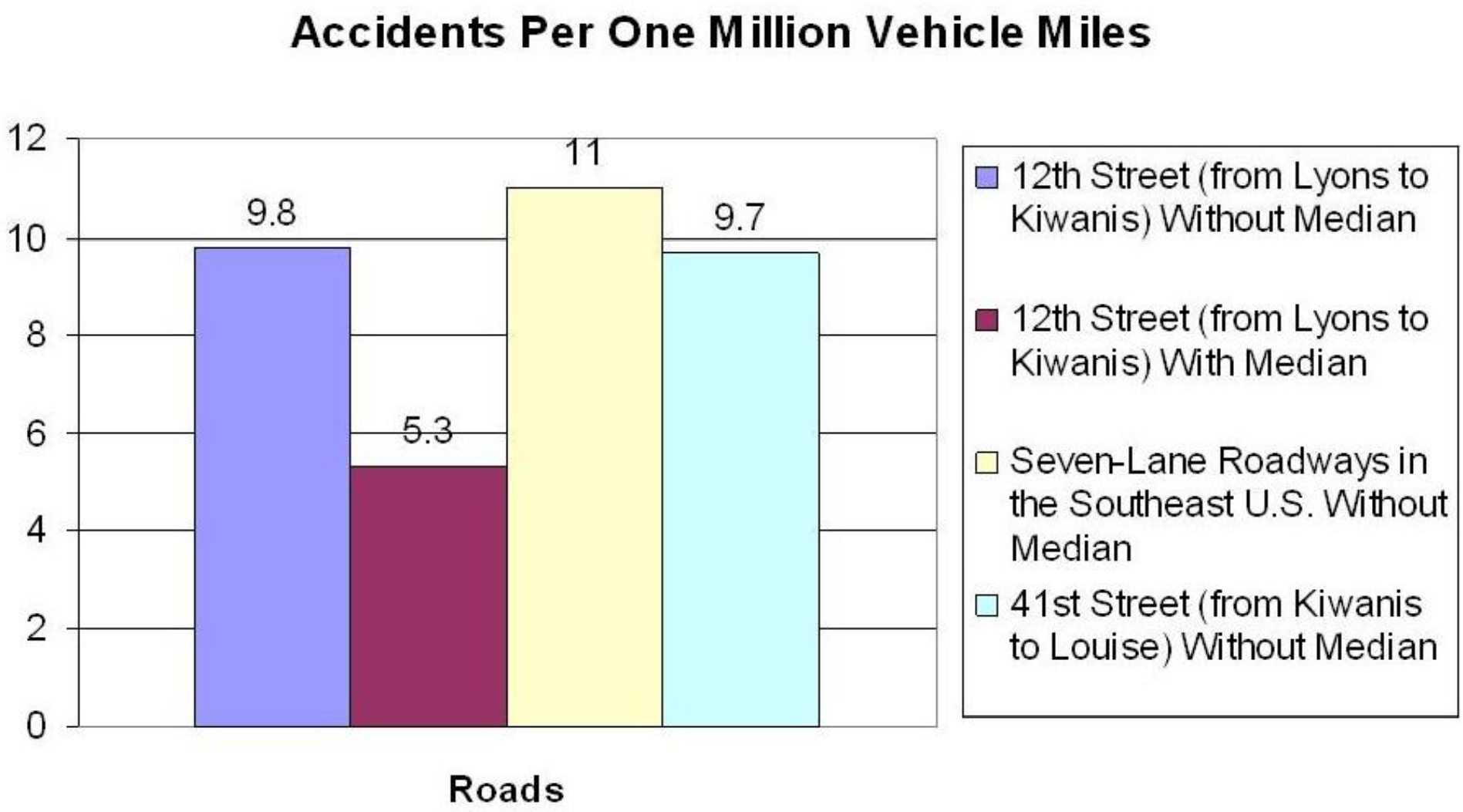
Median Safety Benefit

Consultant Recommended Options



Median Safety Benefit

Consultant Recommended Options

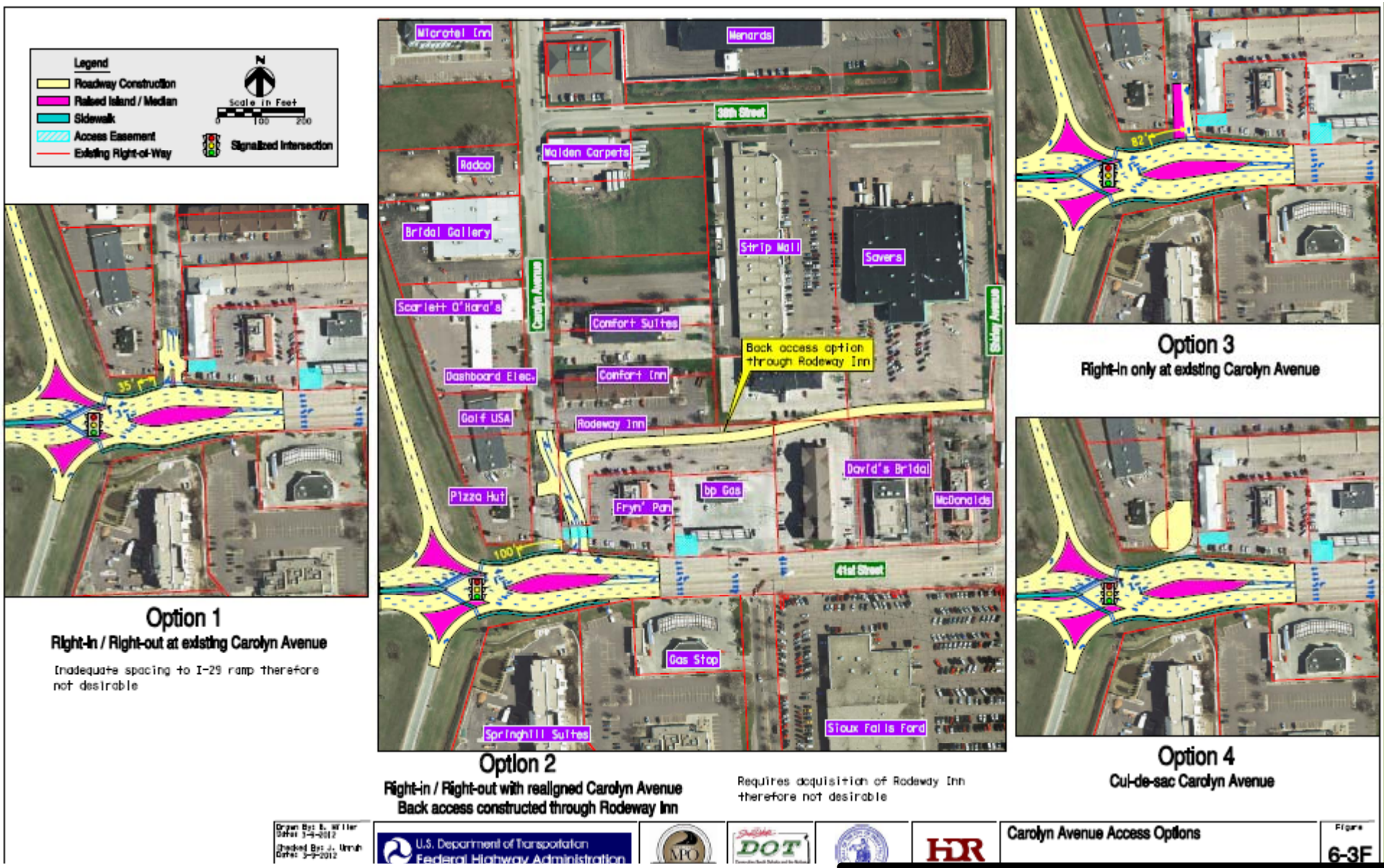


Median Safety Benefit

Consultant Recommended Options

41st from I-29 to Louise animation – yr 2035

Consultant Recommended Options



See Display

Carolyn Avenue Access

Information Sheet

Future input

Web site

Handout

CITY OF SIOUX FALLS
PUBLIC WORKS
Providing a Better Quality of Life for You!

DOT

U.S. Department of Transportation
Federal Highway Administration

MPO

HDR

Information Sheet for Public Information Open House

April 12, 2011; revised September 21, 2011 & March 14, 2012

Questions and Answers

Question: What was the purpose of the study?

Answer: The I-29 Exit 77 (41st Street) Crossroad Corridor Study will be a guidebook for roadway and access improvements over the next 5 to 20 years for 41st Street, Louise Avenue, and the I-29/41st Street interchange.

[illegible] the existing I-29 interchange at [illegible]

Answer: In the morning rush hour, eastbound 41st Street traffic often backs up to Marion Road. In the evening rush hour, the I-29 southbound off-ramp traffic often backs up onto I-29. These conditions lead to unacceptable delays and safety concerns for drivers. As traffic levels continue to increase, the traffic concerns at the 41st Street/I-29 ramp intersections will continue to worsen.

Question: How can you improve the I-29/41st Street [illegible]

[illegible] types of interchanges were developed and analyzed: Diverging Diamond, Single Point, and Partial Cloverleaf. The Diverging Diamond interchange was found to best handle future traffic volumes without excessive cost or property impacts. All of the interchange options impact Carolyn Avenue access.

Question: What kinds of improvements can be made on 41st Street and Louise Avenue?

Answer: West of I-29, 41st Street will need to be expanded to 3 lanes in each direction. Options were developed with and without a center raised median on 41st Street. The intersection at Marion Road will need to [illegible] expanded.

[illegible]m I-29 to Louise Avenue, 5 different options were [illegible]eloped to improve 41st Street traffic flow and safety. [illegible]e-way roads into and out of the Empire Mall showed [illegible]ost benefit to 41st Street traffic. Widening and [illegible] of Shirley Avenue would also improve [illegible] study also identified a new concept (called a [illegible] Overpass) that could resolve the traffic problems at [illegible] Louise intersection.

At Kiwanis Avenue, 5 differ[illegible]ns were developed to improve the operation and safe[illegible] 41st Street intersection. The most unique was a "fly[illegible]mp" to take traffic from eastbound 41st to northbound Kiw[illegible]

Other improvement options were developed for the 49th and Louise intersection and for the Walmart and Louise intersection.

Question: What were the best options?

Answer: Each of the options had benefits and drawbacks. A preferred option for the various segments of the corridor will be determined from an upcoming environmental evaluation process in accordance with the National Environmental Policy Act.

Question: After the corridor study is completed, what are the next steps?

Answer: Before any additional study or analysis is conducted, the overall corridor will be divided into logical projects and funding will need to be secured for those projects via the SDDOT Statewide Transportation Improvement Program or the City of Sioux Falls Capital Improvements Program. None of the improvements indentified in this corridor study have been included in the either of these 5-year programs. Page 2 of this information sheet illustrates the anticipated projects and the estimated timeframe for construction.

Question: Will I be able to give my input on any of these projects after this corridor study is completed?

Answer: Yes, public input is an integral part of the funding and environmental review process.

Completed Steps and Next Steps

April 2011
- Public and business/landowner group meetings

May to August 2011
- Developed and analyzed improvement options

September 2011
- Public and business/landowner group meetings

December 2011
- Developed Carolyn Avenue access options

January 2012
- Prepared draft corridor study

March 14, 2012
- Public meeting #3

March 28, 2012
- Deadline for comments

April 2012
- Finalize corridor study

More Questions?

Contact:

Steve Gramm, PE	James Unruh, PE	Shannon Ausen, PE
SDDOT	HDR, Inc.	City of Sioux Falls
700 E. Broadway	6300 S Old Village Pl.	PO Box 7402
Pierre, SD 57501	Sioux Falls, SD 57108	Sioux Falls, SD 57117
Phone: 773-6641	Phone: 977-7740	Phone: 367-8601

See also project web site at:
http://www.sddot.com/pe/projdev/planning_ss_I29Exit77.asp

Options for each project will be reviewed in accordance with the National Environmental Policy Act (NEPA) when funding is allocated for the project via the SDDOT or City of Sioux Falls 5-year Improvement Program.

The NEPA process will identify a "Preferred Option."

The "No-Build" option and all build options will be considered at that time.

Drawn By: B. Miller
Date: 3-9-12
Checked By: J. Unruh
Date: 3-9-12
Rev:

Handout

Comment Card

I-29 Exit 77 (41st Street) Crossroad Corridor Study

Public Meeting/Open House #3
March 14, 2012

Comments:

_____

_____

_____

_____

_____

Name: _____ Business/Property: _____

Address: _____ Phone: _____

For your comments to be considered, please return by March 28, 2012.
Comments can also be e-mailed to: james.unruh@hdrinc.com

Return by Mar. 28

From: _____

_____

_____

PLACE POSTAGE HERE

HDR, Inc.
6300 South Old Village Place, Suite 100
Sioux Falls, SD 57108

ATTN: James Unruh

Comment Cards

Questions and Comments

Thanks for your attendance!!!