

# Technical Memo

Date: June 21, 2017

Project: I-29 Exit 77 (41<sup>st</sup> Street) Interchange and Environmental Study  
Project # PL0100(84) 3616P, PCN 05MH; IM0293(A6)77 3014N, PCN 03RA

To: Study Advisory Team

From: HDR














Subject: Public Involvement Summary – April and May 2017

## 1. Purpose

The purpose of this memo is to document the final phase of public involvement for the I-29 Exit 77 (41<sup>st</sup> Street) interchange and environmental study.

## 2. Documents Released

The documents below were placed on the project web site ([www.41ststudy.com/](http://www.41ststudy.com/)) on April 12, 2017. Landowners were notified of the availability of these documents via invitation letters and postcards for the landowner group meetings and public meeting.

-  Mtg Notes Carolyn Ave Gustafson I-29 Exit 77 11 17 16.pdf
-  Mtg Notes I-29 to Marion Rd Landowners I-29 Exit 77 09 28 16.pdf
-  Mtg Notes Carolyn Ave Landowners I-29 Exit 77 08 30 16.pdf
-  Noise Report I-29 Exit 77 04 12 2017.pdf
-  Purpose and Need Memo I-29 Exit 77 04 12 2017.pdf
-  Technical Memo 1 Existing Traffic Conditions I-29 Exit 77 04 12 2017.pdf
-  Technical Memo 2 Crash Analysis I-29 Exit 77 04 12 2017.pdf
-  Technical Memo 3 Future Traffic Conditions I-29 Exit 77 04 12 2017.pdf
-  Technical Memo 4 Predictive Crash Analysis I-29 Exit 77 04 12 2017.pdf
-  Technical Memo 5 Carolyn Ave Alts Evaluation I-29 Exit 77 04 12 2017.pdf
-  Technical Memo 6 Interchange Alts Evaluation I-29 Exit 77 04 12 2017.pdf
-  Technical Memo 7 41st west of I-29 Alts Evaluation I-29 Exit 77 04 12 2017.pdf
-  Technical Memo 8 41st east of I-29 Alts Evaluation I-29 Exit 77 04 12 2017.pdf

## 3. Landowner Group Meetings

- 3.1 April 24 – 41<sup>st</sup> Street from I-29 to Marion Road
  - 37 invitation letters were sent out on April 14, 2017.
  - Meeting was attended by 9 landowners/representatives.
  - Meeting notes are include in **Appendix A**.
  - Meeting display materials are included in **Appendix G**
- 3.2 April 25 – 41<sup>st</sup> Street from I-29 to Shirley Avenue and Carolyn Avenue
  - 23 invitation letters were sent out on April 14, 2017.
  - Meeting was attended by 10 landowners/representatives.
  - Meeting notes are include in **Appendix B**.
  - Meeting display materials are included in **Appendix G**

#### **4. Individual Landowner Meetings**

Several landowners were unable to attend the landowner group meetings so meetings were held with individual landowners or small groups of landowners. These meetings included:

- 4.1 May 9 – Perkins Restaurant representatives (see **Appendix C** for notes)
- 4.2 May 10 – Gas Stop representatives (see **Appendix D** for notes)
- 4.3 May 18 – Mount Marty College, Godfather's Pizza, Black Diamond Casino representatives (see **Appendix E** for notes)
- 4.4 May 30 – Red Rock Inn representative (see **Appendix F** for notes)

The notes for each meeting document resolution of issues and consensus reached.

#### **5. Public Meeting**

- 5.1 Notifications were:
  - 98 postcard invitations were sent out on April 27.
  - Notices were placed in the Sioux Falls Argus Leader on April 24 and May 1.
  - SDDOT issued a press release on May 8.
  - The City of Sioux Falls placed portable message signs along 41<sup>st</sup> Street for approximately one week prior to the public meeting.
- 5.2 Display boards are provided in **Appendix G**.
- 5.3 Presentation slides are provided in **Appendix H**.
- 5.4 Approximately 20 members of the public attended the meeting. Sign in sheets are provided in **Appendix I**.
- 5.5 Written comments from the public meeting are included in **Appendix J**.

#### **6. Comments and Responses**

The various meeting notes document comments raised at the meeting(s) and the applicable resolution and/or concurrence.

Additional comments received via email or comment cards are provided in **Appendix J**. Responses to the comments are also provided.

## 7. Recommended Alternatives

Recommended alternatives following the April/May public involvement are listed below (blue text indicates revision from the April 12, 2017 technical memos):

### 7.1 Carolyn Avenue

Alternatives recommended to be carried forward for further consideration:

Alternative	Description	Main reason(s) for carrying forward
4	West Side Carolyn Avenue Cul-de-sac	<ul style="list-style-type: none"> <li>Meets traffic, safety, and design criteria</li> <li>Maintains connection to Carolyn Avenue from Fryn' Pan/King's Mart properties</li> <li>Anticipated initial ROW acquisition cost is \$0.7M vs. \$2.2M for Alternative 5.</li> <li>Pizza Hut property will be vacated as of September 2017 and the landowner has indicated a desire to sell the property.</li> <li>Pizza Hut property could be utilized to install drainage facilities to reduce flooding.</li> </ul>

Alternatives recommended to be eliminated from further consideration:

Alternative	Description	Main reason(s) for elimination
1	Right-in / Right-out at Existing Carolyn Avenue Alignment	<ul style="list-style-type: none"> <li>Intersection will remain within the 41<sup>st</sup> Street right turn lane therefore SDDOT spacing criteria is not met.</li> </ul>
2	Right-in / Right-out at Realigned Carolyn Avenue	<ul style="list-style-type: none"> <li>Intersection will remain within the 41<sup>st</sup> Street right turn lane therefore SDDOT spacing criteria is not met.</li> </ul>
3	Right-in Only at Existing Carolyn Avenue Alignment	<ul style="list-style-type: none"> <li>Intersection will remain within the 41<sup>st</sup> Street right turn lane therefore SDDOT spacing criteria is not met.</li> </ul>
5	East Side Carolyn Avenue Cul-de-sac	<ul style="list-style-type: none"> <li>Anticipated initial ROW acquisition cost is \$2.2M vs. \$0.7M for Alternative 4.</li> <li>Red Rock Inn owner does not prefer to sell the property.</li> </ul>
6	Realigned Carolyn Avenue to Empire Mall Entrance	<ul style="list-style-type: none"> <li>Requires purchase of three commercial properties</li> <li>Potential environmental impact with contaminated materials at Kings Mart convenience store/gas station</li> </ul>

## 7.2 I-29 Interchange

Alternatives recommended to be carried forward for further consideration:

Alternative	Main reason(s) for carrying forward
Diverging Diamond Interchange	<ul style="list-style-type: none"> <li>Significantly lower construction cost than SPI (regardless of treatment of the existing bridge)</li> <li>Allows for better maintenance of traffic during construction than SPI</li> <li>Lower predictive crash rate than SPI</li> </ul>

Alternatives recommended to be eliminated from further consideration:

Alternative	Main reason(s) for elimination
Single Point Interchange	<ul style="list-style-type: none"> <li>Significantly higher construction cost than DDI</li> <li>Difficulty in maintaining traffic during construction</li> <li>Higher predictive crash rate than DDI</li> </ul>

## 7.3 41<sup>st</sup> Street from I-29 to Marion Road

Alternatives recommended to be carried forward:

Alternative	Description	Main reason(s) for carrying forward
B1	Raise center median with 3/4 access at 41 <sup>st</sup> St /Madelyn Lane/Gateway Blvd	<ul style="list-style-type: none"> <li>Provides safety benefits of raised median</li> <li>Meets SDDOT and City design policies</li> <li>Provides reasonable access to properties</li> </ul>

Alternatives recommended to be eliminated from further consideration:

Alternative	Description	Main reason(s) for elimination
A	Raise center median with full access only at signalized intersections	<ul style="list-style-type: none"> <li>Landowner opposition to perceived access restrictions</li> <li>Alternative B1 addresses access concerns</li> </ul>
B2	Raise center median with 3/4 access at 41 <sup>st</sup> St /Madelyn Lane/Gateway Blvd <u>and</u> 3/4 access at Godfathers/Mount Marty College entrance	<ul style="list-style-type: none"> <li>Eliminates up to 8 Black Diamond Casino parking spaces.</li> <li>Eliminates at least 6 Godfather's Pizza parking spaces.</li> <li>Eliminates at least 4 Mount Marty College parking spaces.</li> <li>Eliminates Godfather's Pizza drive-through lane.</li> <li>City policy is to provide the 3/4 access configurations at street intersections or at a combination of multiple driveways.</li> </ul>
C	Center two-way left turn lane	<ul style="list-style-type: none"> <li>Does not provide safety improvements.</li> <li>SDDOT and City design policies for application of raised medians are not met.</li> </ul>



#### 7.4 41<sup>st</sup> Street from I-29 to Shirley Avenue

Alternatives recommended to be carried forward for further consideration:

Alternative	Description	Main reason(s) for carrying forward
A	Raise center median with 3/4 access at W Empire Place and two-way mall access at Shirley Avenue	<ul style="list-style-type: none"> <li>Provides safety benefits of raised median</li> <li>Meets SDDOT and City design policies</li> <li>Provides reasonable access to properties</li> <li>3/4 access raised median configuration serves multiple businesses via the Empire Mall entrance road.</li> </ul>

Alternatives recommended to be eliminated from further consideration:

Alternative	Description	Main reason(s) for elimination
B	Raise center median with 3/4 access at W Empire Place and one-way mall access at Shirley Avenue	<ul style="list-style-type: none"> <li>One-way mall access road is not desired by the property owner (Empire Mall); the City of Sioux Falls concurs with the property owner.</li> </ul>
C	Center two-way left turn lane	<ul style="list-style-type: none"> <li>Does not provide safety improvements.</li> <li>SDDOT and City design policies for application of raised medians are not met.</li> </ul>



# Meeting Minutes

Project: I-29 Exit 77 (41<sup>st</sup> Street) Interchange and Environmental Study

Subject: I-29 to Marion Road Landowners

Date: Monday, April 24, 2017

Location: Kuehn Community Center

Attendees:	Andy Wall, M. Isaak, Jim Mash, Mitch Evertse – SF Fire and Rescue Jim Welch – Lewis Drug Tom Walsh – Burger King Terry Nielsen – Nielsen Building	Greg Heine – Mount Marty College Vick Patel – Flowerama Shannon Ausen – City of Sioux Falls Travis Dressen - SDDOT Jason Kjenstad, James Unruh (HDR) (see <b>Attachment 2</b> for sign-in sheet)
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## 1. Invitations

- 1.1 37 invitation letters were sent out on April 14 to landowners along 41<sup>st</sup> Street and Marion Road within the project vicinity.

## 2. PowerPoint slides reviewed by Jason Kjenstad (see Attachment 1)

## 3. Display boards of alternatives and comparison matrices

- 3.1 See 5/10/17 Public Meeting display items

## 4. Discussion items

- 2.1 Sioux Falls Fire and Rescue – The mountable section of 41<sup>st</sup> Street raised median for Alternatives A, B1, and B2 meets SFFR access requirements.
- 2.2 Mount Marty College (MMC)
  - Greg Heine requested a more detailed analysis of the parking and Godfather's Pizza drive-through lane impacts for Alternative B2 than was provided at the meeting.
  - *Follow-up: HDR will attempt to set up a meeting with MMC, Godfather's Pizza site, and Black Diamond Casino site representatives to more closely review the impacts of the various alternatives.*
- 2.3 Perkins Restaurant
  - No representatives were able to attend due to an unexpected conflict.
  - *Follow-up: A separate meeting will be held with Perkins representatives.*



**I-29 Exit 77 (41<sup>st</sup> Street)  
Interchange & Environmental Study**

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IM0293(A6)77 3014 N, PCN 03RA  
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IM0293(A6)77 3145 N, PCN 03RA

**Landowner Meeting  
41<sup>st</sup> Street  
I-29 to Marion Road  
April 24<sup>th</sup>, 2017**

U.S. Department of Transportation  
Federal Highway Administration

MPO

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

SD DOT  
Connecting South Dakota and the Nation

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**Attending Today – April 24<sup>th</sup>, 2017**

**Responsible Agencies**

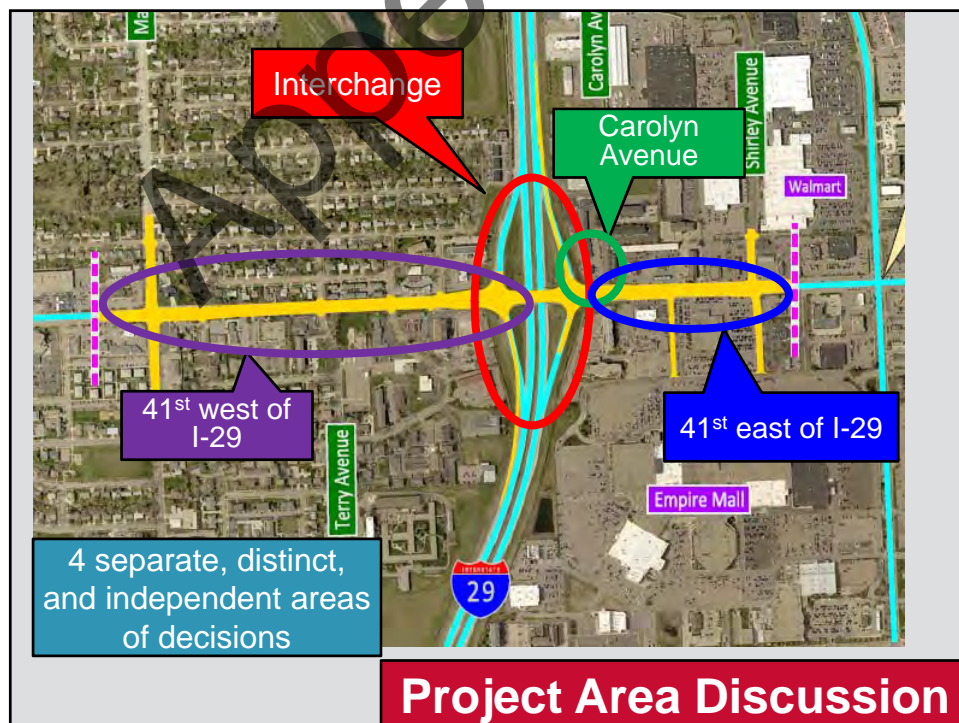
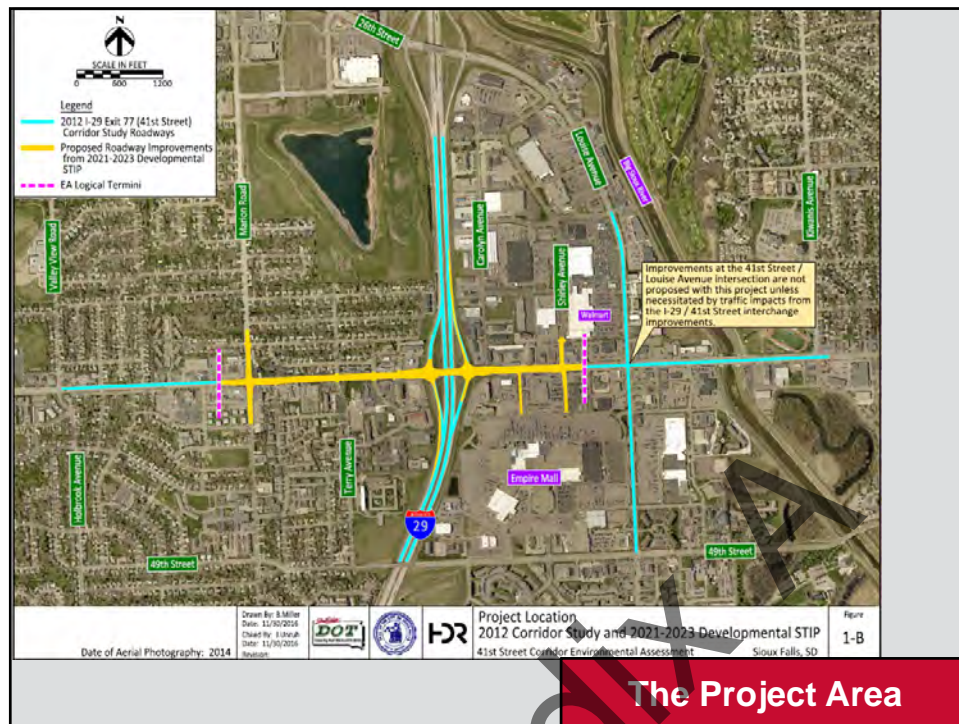
- City of Sioux Falls
- South Dakota Department of Transportation
- Federal Highway Administration
- Metropolitan Planning Organization

**Lead Design Consultant**

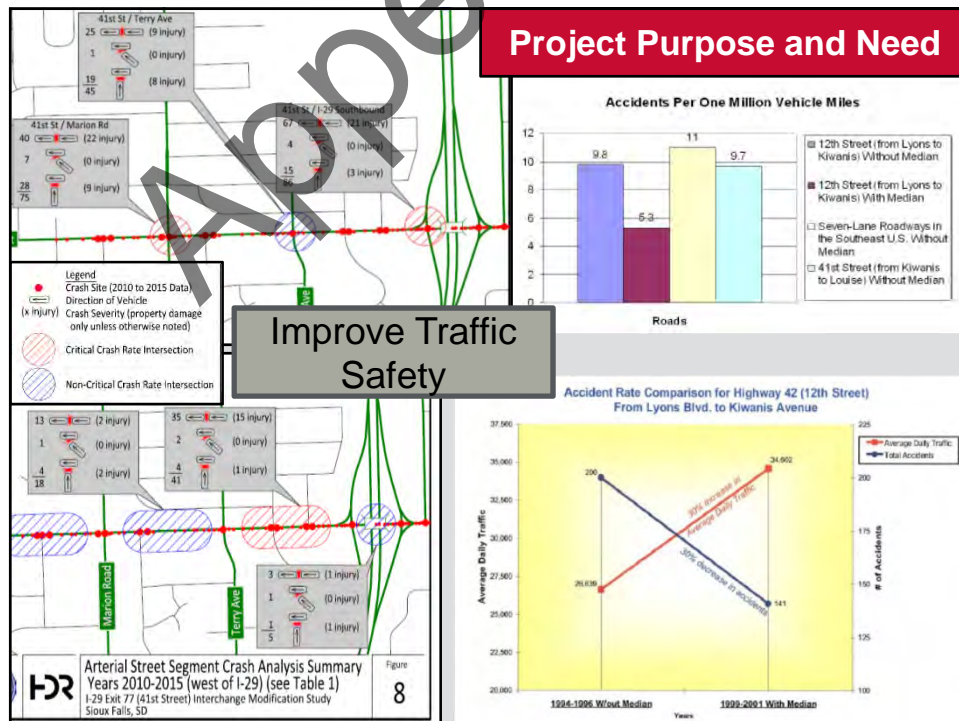
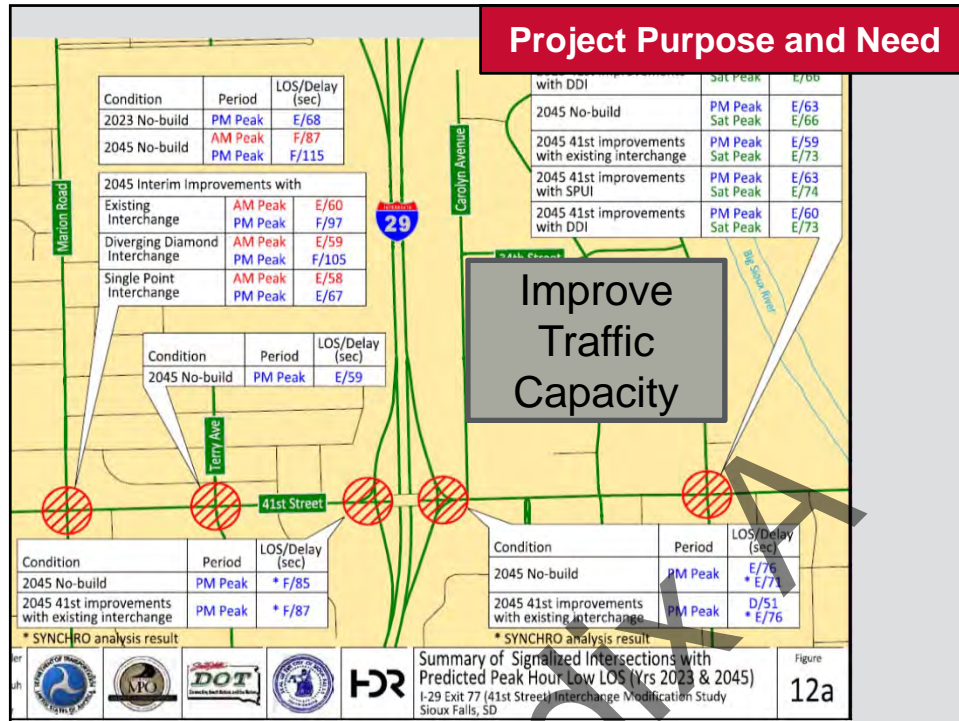
- HDR

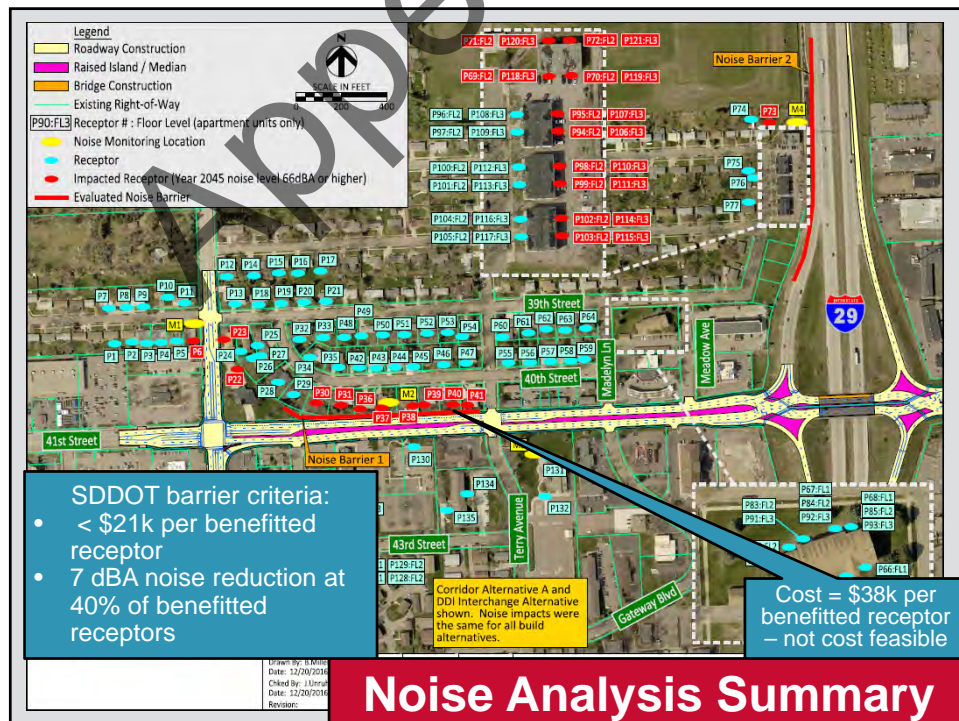
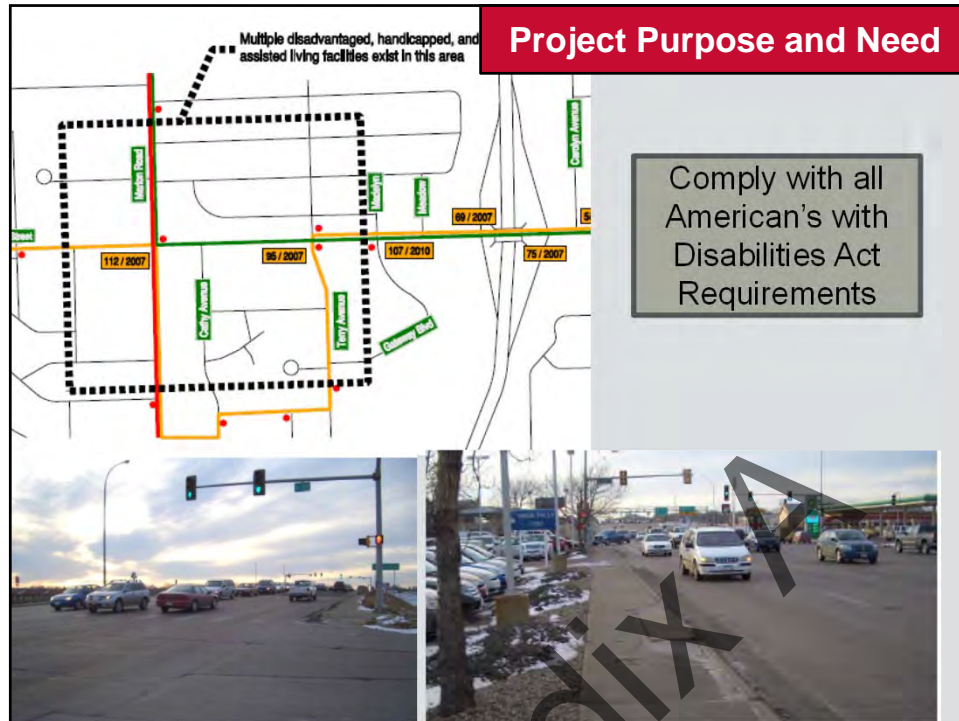
**James Unruh – HDR**  
**Jason Kjenstad – HDR**  
**Travis Dressen – SDDOT**  
**Shannon Ausen – City**

**Project Team**

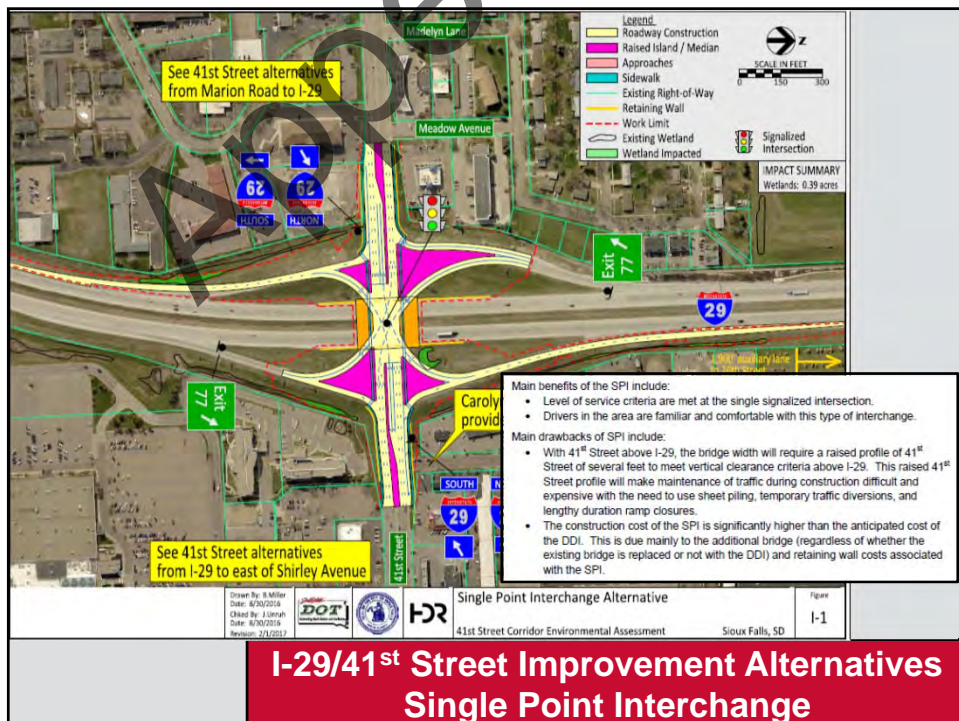












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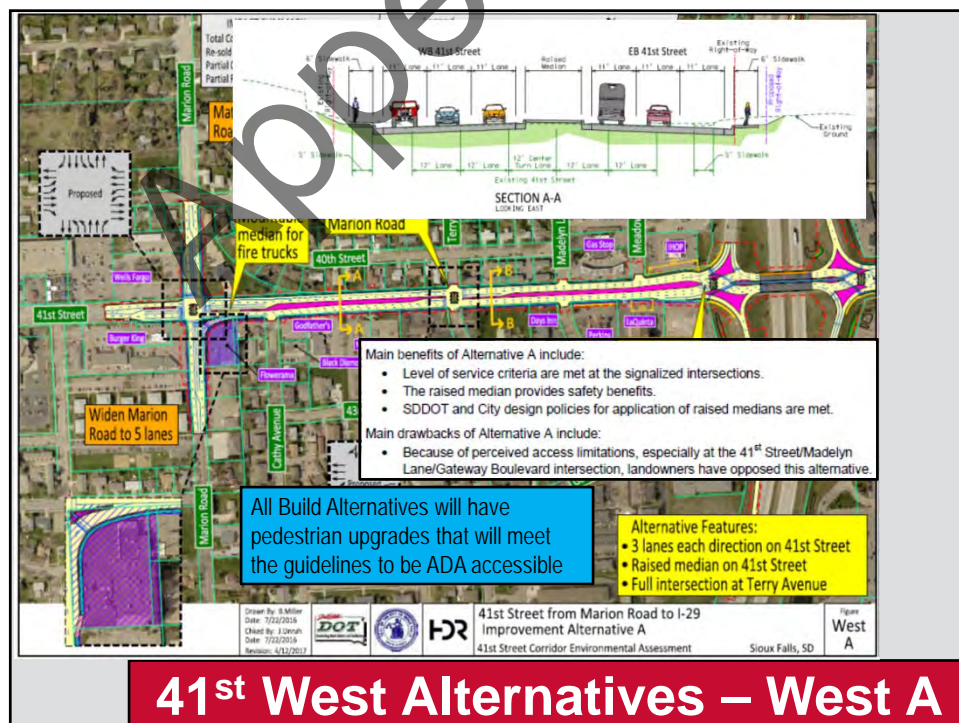


# Interchange Alternatives Summary

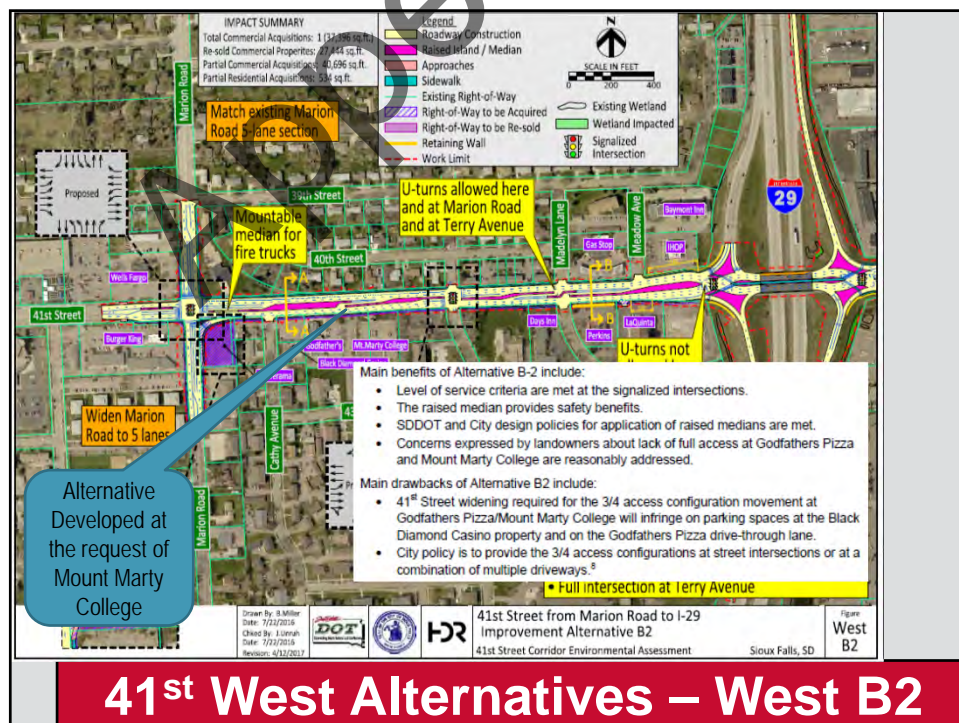
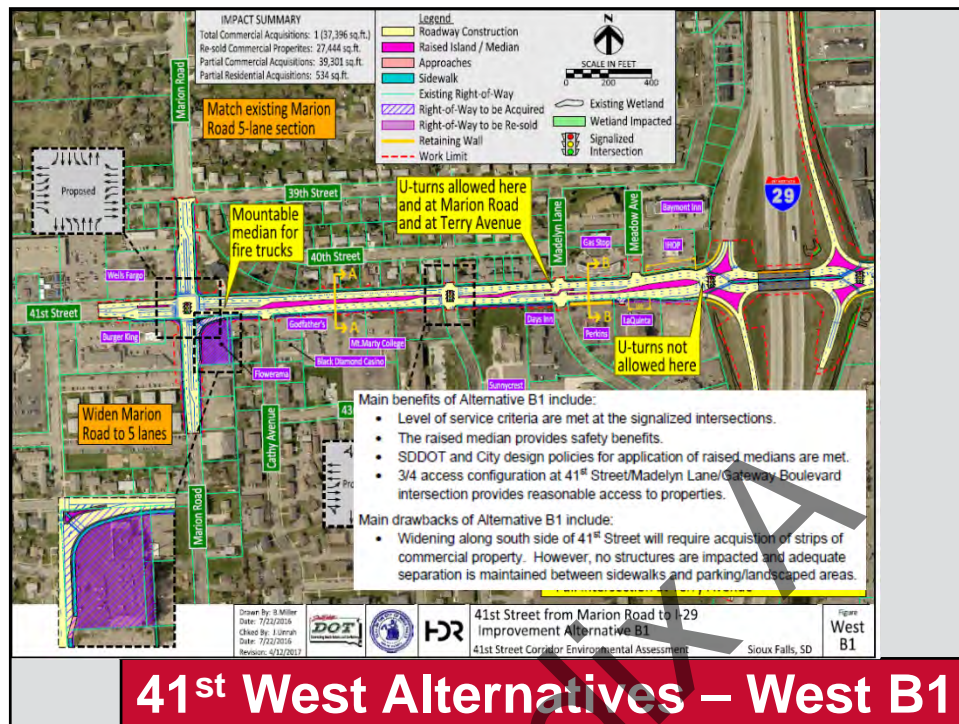
Purpose and Need		Year 2045 Traffic Operations		Safety	Driver/ Public Perception	Construction Impacts	Comparative Costs (\$)	Applicable Env. Impacts											
Alternatives recommended to be carried forward for further consideration:																			
Alternative		Main reason(s) for carrying forward																	
Diverging Diamond Interchange		<ul style="list-style-type: none"> <li>Significantly lower construction cost than SPI (regardless of treatment of the existing bridge)</li> <li>Allows for better maintenance of traffic during construction than SPI</li> <li>Lower predictive crash rate than SPI</li> </ul>																	
Single Point Interchange		<ul style="list-style-type: none"> <li>Significantly higher construction cost than DDI</li> <li>Difficulty in maintaining traffic during construction</li> <li>Higher predictive crash rate than DDI</li> </ul>																	
No-Build																			
Alternatives recommended to be eliminated from further consideration:																			
Alternative		Main reason(s) for elimination																	
Single Point Interchange		<ul style="list-style-type: none"> <li>Significantly higher construction cost than DDI</li> <li>Difficulty in maintaining traffic during construction</li> <li>Higher predictive crash rate than DDI</li> </ul>																	
No-Build																			
NA: Not Applicable																			
(1) SDDOT policy requires a minimum 100' separation from an interstate ramp junction/turn lane to the nearest access point.																			
(2) LOS and Delay applies to the single intersection associated with the SPI.																			
(3) While the DDI would be a new configuration for this area, drivers have become well-adapted to DDI interchanges where they have been implemented in other locations.																			
(4) Interchange alternatives are designed to fit within the existing I-29 ROW.																			
(5) 41st Street construction cost limits are based on estimated final Control of Access limits (per direction from SDDOT).																			
(6) Determination of bridge treatment with DDI alternative will be made during the final design process																			
Options recommended for elimination from further evaluation																			



## 41<sup>st</sup> West Alternatives







4/24/17 I-29 to Marion Road Landowner Mtg  
Attachment 1



Alternative	Description	Purpose and Need		Traffic Operations (2)		Property Impacts										Costs		Applicable Environmental Impacts																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												
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## 41<sup>st</sup> West Alternatives – Summary

### STUDY INFORMATION

### PUBLIC MEETING

May 10<sup>th</sup>, 2017

Sioux Falls Convention  
Center

5:30 pm to 7:00 pm

## NEXT STEPS

- **I-29 to Shirley Avenue Meeting 04/25/17**
- **Fill out Comment Card**
- **Compile, Revise, and Address Comments**
- **Finalize Environmental Study with selected Alternative**
- **Begin Next Phase of Project**
  - Preliminary Design
  - ROW Acquisitions
- **Construction Scheduled to begin 2023**

## STUDY INFORMATION

### 41<sup>ST</sup> STREET PROJECT

SDDOT Project Manager  
 Steve Gramm, PE  
 Project Development, Data Analysis Engineer  
[Steve.gramm@state.sd.us](mailto:Steve.gramm@state.sd.us)  
 Phone: 605-773-6641

Study Website  
[www.41ststudy.com](http://www.41ststudy.com)

City of Sioux Falls Project Manager  
 Shannon Ausen, PE  
 Traffic Engineering Division  
[sausen@siouxfalls.org](mailto:sausen@siouxfalls.org)  
 Phone: 605-367-8607

CONSULTANT Team Project Manager  
 James Unruh, PE  
 HDR Engineering, Sioux Falls  
[James.Unruh@hdrinc.com](mailto:James.Unruh@hdrinc.com)  
 Phone: 605-977-7740



# I-29 Exit 77 (41<sup>st</sup> Street) Environmental Study

## I-29 to Marion Road Landowner Meeting

April 24<sup>th</sup>, 2017

Kuehn Community Center

### Sign-in Sheet (Please Print)

#	Name	Property/Business Name and Location	Mailing Address	Phone #
1	Jason Kjestad	HDR	6805. Old Village Pl. SF, SD	605-977-7740
2	James Unruh	HDR	6800 S. Old Village Pl SF, SD.	605-977-7740
3	Shannon Ausen	CSF	224 W. 9 <sup>th</sup> St SF SD	605-367-8607
4	Terry Nielsen	Nielsen Office Building	4809 W. 41 <sup>st</sup> St. SF	605-361-8831
5	Greg Heine	Mount Marty College	81165 west 8 <sup>th</sup> st SD state	605-668-1562
6	Tom Unruh	FF Pump	3800 U. 53 <sup>rd</sup> St 57106	3601711
7	Jim Hauer	SFFR		362-2815
8	Mitch Evertse	SFFR		362-2815
9	Travis Dressen	SDDOT		
10	Vicki PMA	Flowerama		376-3183

# I-29 Exit 77 (41<sup>st</sup> Street) Environmental Study

## I-29 to Marion Road Landowner Meeting

April 24<sup>th</sup>, 2017

Kuehn Community Center

### Sign-in Sheet (Please Print)

#	Name	Property/Business Name and Location	Mailing Address	Phone #
1	Jim Welch	Lewis Drug	2701 S. Min. Ave	605-367-2800
2				
3				
4				
5				
6				
7				
8				
9				
10				



# I-29 Exit 77 (41<sup>st</sup> Street) Environmental Study

## **I-29 to Marion Road Landowner Meeting**

April 24<sup>th</sup>, 2017

Kuehn Community Center

### **Sign-in Sheet** (Please Print)

#	Name	Property/Business Name and Location	Mailing Address	Phone #
1	Andy Wall	SFFR		362-3636
2	M. Isaak	SFFR		362-3636
3				
4				
5				
6				
7				
8				
9				
10				



# Meeting Minutes

Project: I-29 Exit 77 (41<sup>st</sup> Street) Interchange and Environmental Study

Subject: I-29 to Shirley Avenue Landowners

Date: Tuesday, April 25, 2017

Location: Kuehn Community Center

Attendees: Rick Weisser, Stan Mitzel, Bob Fischer, Kim Blackburn, Dave Stukel – Fryn' Pan  
Katie Seitz – My Place Hotel  
Chuck Gustafson – Pizza Hut  
Sue Wang (and 2 additional representatives) – King's Mart  
Shannon Ausen – City of Sioux Falls  
Darin Johnson – SDDOT  
Jason Kjenstad, James Unruh (HDR)  
(see **Attachment 2** for sign-in sheet)

## 1. Invitations

- 1.1 23 invitation letters were sent out on April 14 to landowners along Carolyn Avenue and along 41<sup>st</sup> Street from I-29 to Shirley Avenue within the project vicinity.

## 2. PowerPoint slides reviewed by Jason Kjenstad (see Attachment 1)

## 3. Display boards of alternatives and comparison matrices

- 3.1 See 5/10/17 Public Meeting display items

## 4. Discussion items

- 2.1 My Place Hotel – Because of the safety issues at the 41<sup>st</sup> Street/Carolyn Avenue intersection, they generally encourage their patrons to use 38<sup>th</sup> Street and Shirley Avenue to get to and from 41<sup>st</sup> Street.
- 2.2 Pizza Hut
  - Have court cases relating to property access at the I-90/Cliff Avenue interchange affected recommendations for the Carolyn Avenue alternatives?
  - Kjenstad responded that some of the court cases for the I-90/Cliff Avenue interchange are still on-going and it is not known yet if any of those cases would directly or indirectly apply to the Carolyn Avenue alternatives.
- 2.3 Fryn' Pan Restaurant
  - Recommended cul-de-sac Alternatives 4 and 5 would likely result in cut-through traffic from 41<sup>st</sup> Street to Carolyn Avenue within their property. The only way to eliminate cut-through traffic would be to close off the driveway to Carolyn Avenue. However, that would stop drivers from getting to eastbound 41<sup>st</sup> Street via Carolyn Avenue/38<sup>th</sup> Street/Shirley Avenue.
  - Fryn' Pan's west driveway was added several years after they moved to the current site. Removal of that driveway as proposed with recommended Alternatives 4 and 5 is not desirable but may be necessary.
- 2.4 King's Mart and Fryn' Pan Restaurant
  - The proposed 3/4 access raised median configuration on 41<sup>st</sup> Street reduced many of the access concerns of these landowners. They would still prefer Alternative C (no raised median on 41<sup>st</sup> Street) but could understand the benefits of 41<sup>st</sup> Street recommended Alternative A.



**I-29 Exit 77 (41<sup>st</sup> Street)  
Interchange &  
Environmental Study**

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IM0293(A6)77 3011 N, PCN 03RA  
IM0293(A6)77 3145 N, PCN 03RA



**Landowner Meeting  
41<sup>st</sup> Street  
I-29 to Shirley Avenue  
April 25<sup>th</sup>, 2017**





HDR

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**Attending Today – April 25<sup>th</sup>, 2017**

**Responsible Agencies**

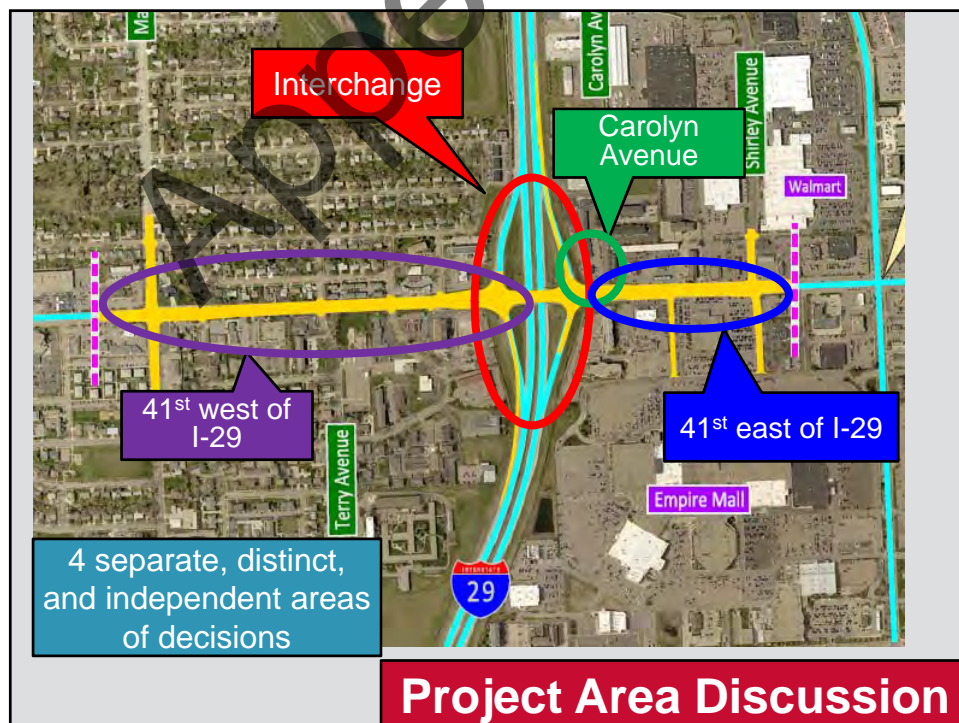
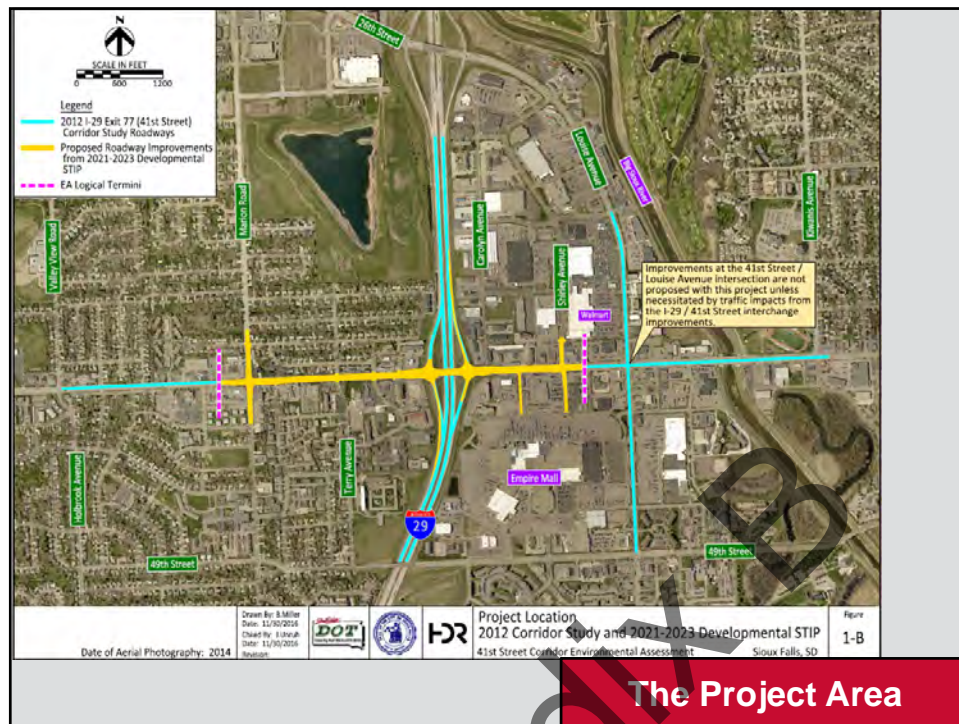
- City of Sioux Falls
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**Lead Design Consultant**

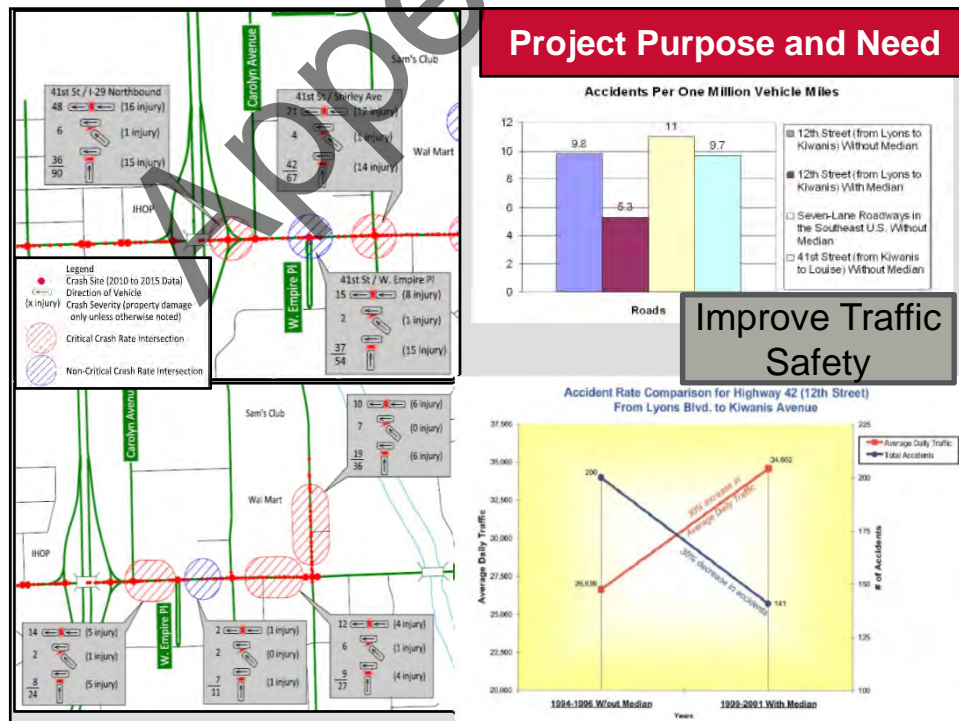
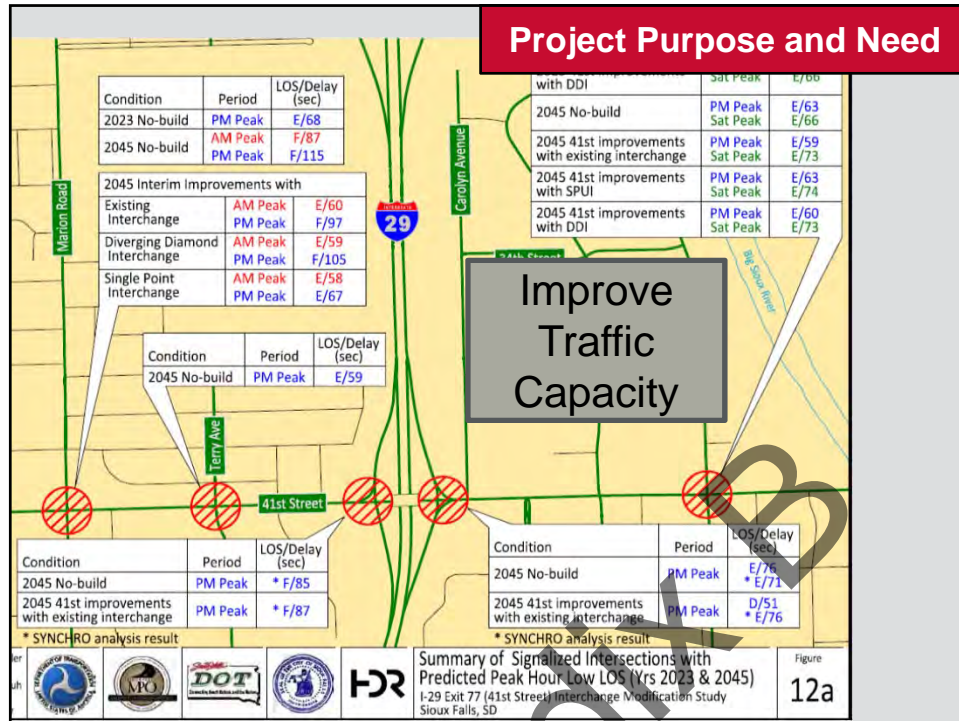
- HDR

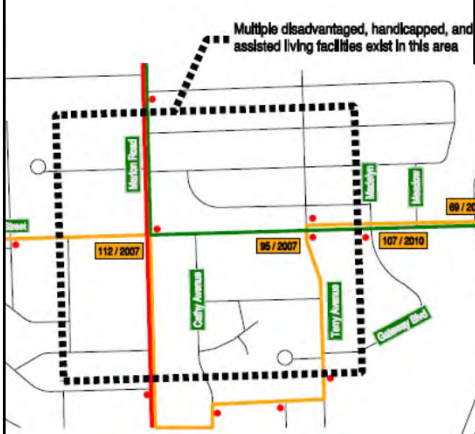
**James Unruh – HDR  
Jason Kjenstad – HDR  
Darin Johnson – SDDOT  
Shannon Ausen – City**

**Project Team**











Multiple disadvantaged, handicapped, and assisted living facilities exist in this area

### Project Purpose and Need

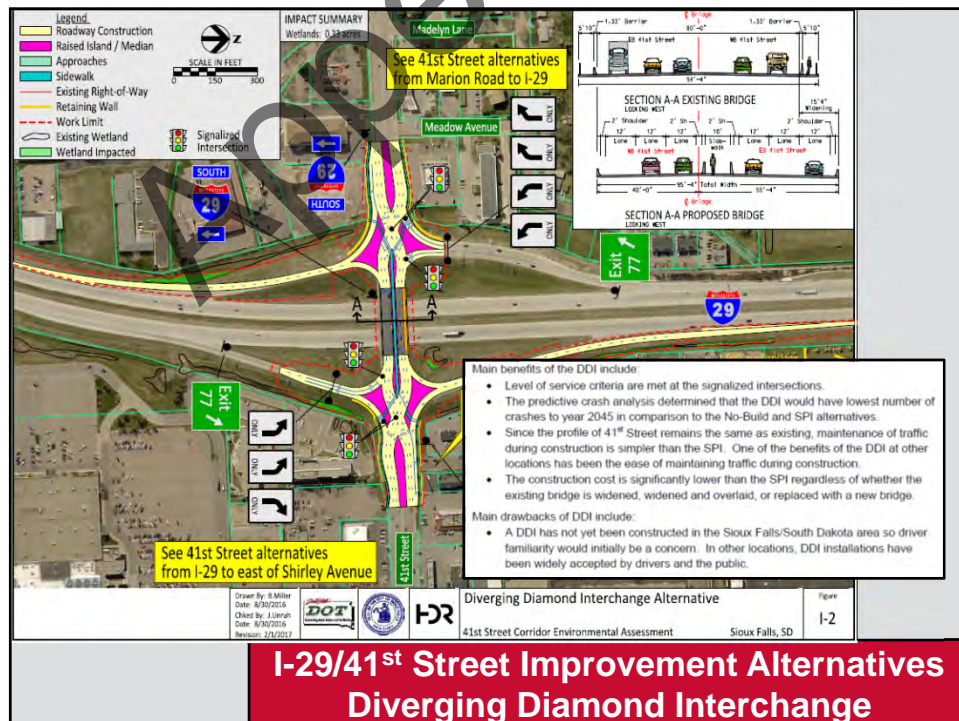
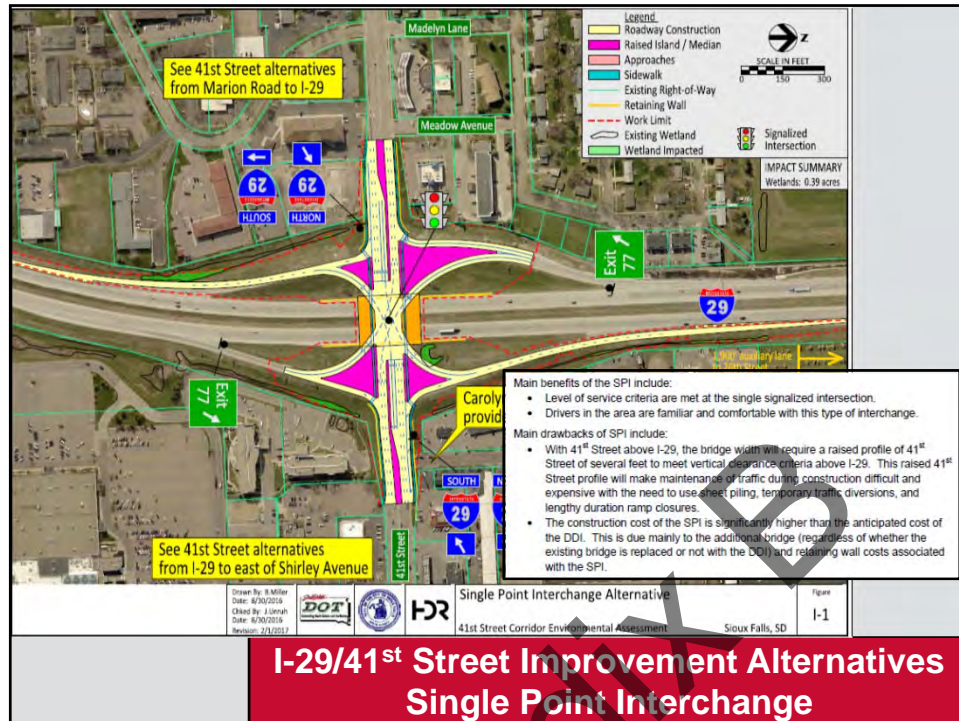
Comply with all American's with Disabilities Act Requirements



### 41<sup>st</sup> Street Improvement Alternatives I-29 Interchange





## Interchange Alternatives Summary

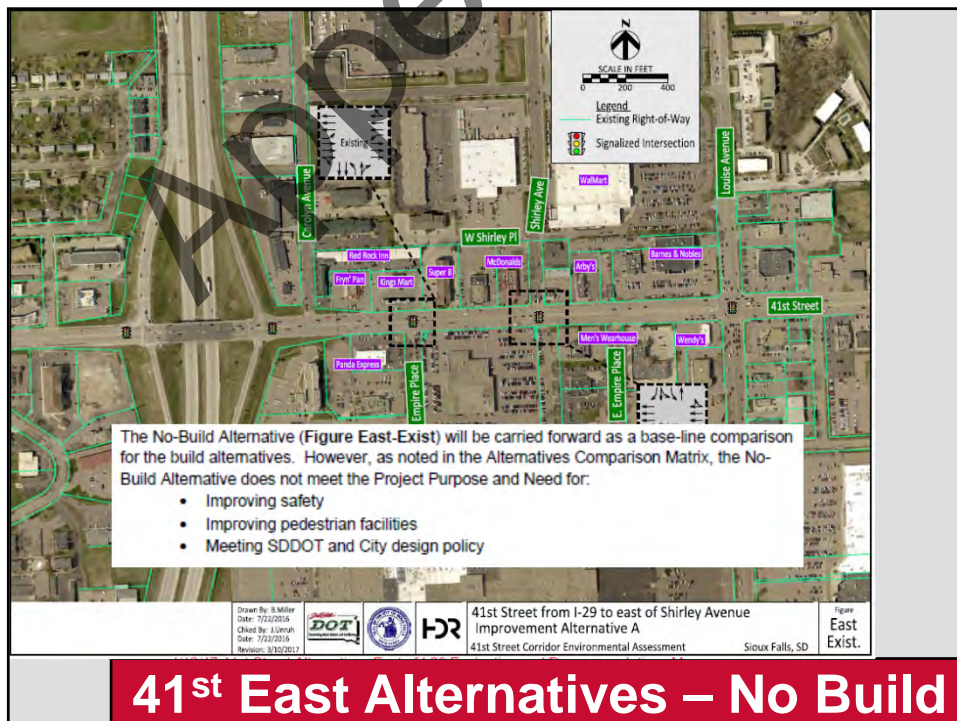
Alternative		Purpose and Need				Year 2045 Traffic Operations						Safety		Driver/ Public Perception	Construction Impacts	Comparative Costs (5)						Applicable Env. Impacts			
		Meets SDDOT and City LOS Criteria	Improves Safety	Improves Pedestrian Facilities	Provides Adequate Separation to Nearest Access (1)	Northbound Ramp Intersection			Southbound Ramp Intersection			Ramps	Mainline Weaving	Predicted Annual Total Crashes Year of opening to 2045	Predicted Annual Fatality and Injury Crashes Year of opening to 2045	Driver familiarity	Maintenance of Traffic during Construction	Allows for Phased Construction	M \$	M \$	M \$	#	#	acres	acres
						Worst LOS AM/PM	Worst Delay AM/PM	Worst LOS AM/PM	Worst Delay AM/PM	Worst LOS AM/PM	Worst Delay AM/PM														
Single Point Interchange (SPI)		yes	yes	yes	yes	B/C (2)	20/24 (2)	(2)	(2)	C/C	C/B	41.2	16.4	good	poor	yes	(4)	7.8	4.1	9.3	21.2	0.39	0		
Diverging Diamond Interchange (DDI)	Widen existing bridge																		1.0			10.7			
	Widen and overlay existing bridge	yes	yes	yes	yes	C/C	26/23	C/C	26/25	C/C	C/B	32.9	11.5	(3)	good	yes	(4)	4.3	2.0	7.7	11.0	0.33	0		
	New bridge																		5.5			15.2			
No-Build		no	no	no	no	C/E	28/76	C/F	34/85	C/C	C/B	57.0	23.1	good	0	NA	0	0	0	0	0	0	0	0	

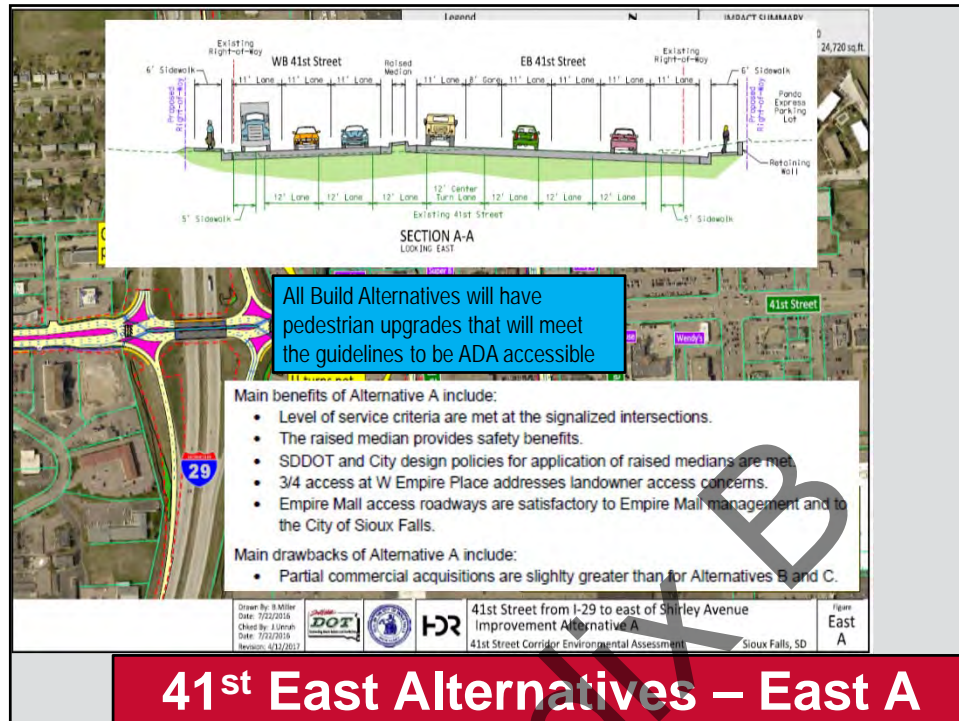
NA: Not Applicable  
(1) SDDOT policy requires a minimum 100' separation from an interstate ramp junction/turn lane to the nearest access point.  
(2) LOS and Delay applies to the single intersection associated with the SPI.  
(3) While the DDI would be a new configuration for this area, drivers have become well-adapted to DDI interchanges where they have been implemented in other locations.  
(4) Interchange alternatives are designed to fit within the existing I-29 ROW.  
(5) 41st Street construction cost limits are based on estimated final Control of Access limits (per direction from SDDOT).  
(6) Determination of bridge treatment with DDI alternative will be made during the final design process  
Options recommended for elimination from further evaluation

## Interchange Alternatives Summary

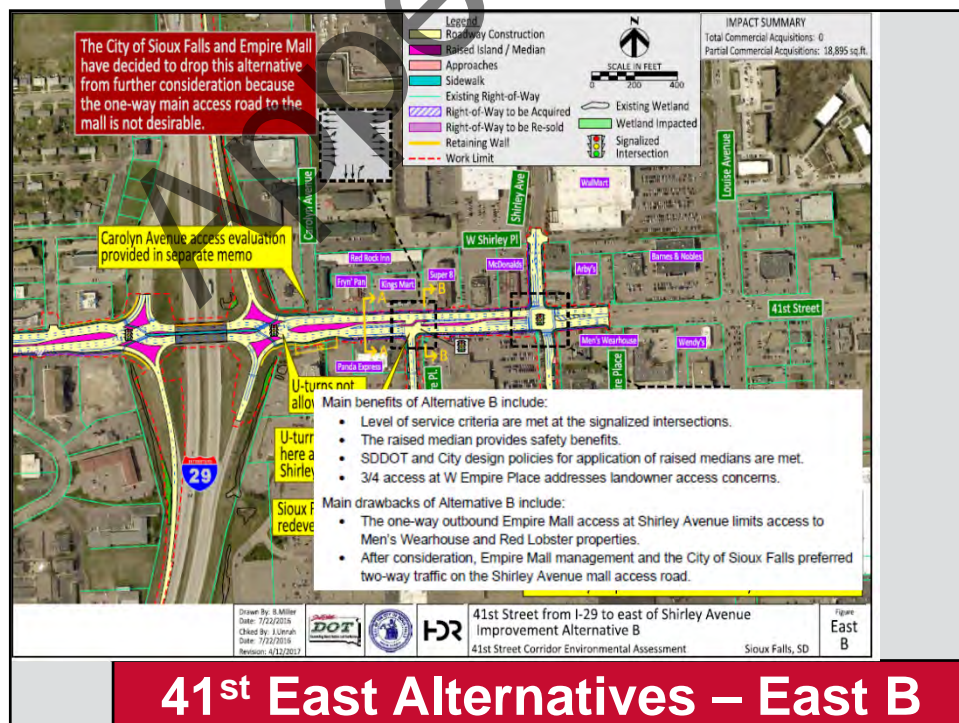
Purpose and Need		Year 2045 Traffic Operations				Safety	Driver/ Public Perception	Construction Impacts	Comparative Costs (\$)		Applicable Env. Impacts		
Alternatives recommended to be carried forward for further consideration:												Wetlands acres	Floodplain acres
Alternative		Main reason(s) for carrying forward											
Diverging Diamond Interchange		<ul style="list-style-type: none"><li>Significantly lower construction cost than SPI (regardless of treatment of the existing bridge)</li><li>Allows for better maintenance of traffic during construction than SPI</li><li>Lower predictive crash rate than SPI</li></ul>											
Alternative													
Alternatives recommended to be eliminated from further consideration:												Wetlands acres	Floodplain acres
Alternative		Main reason(s) for elimination											
Single Point Interchange		<ul style="list-style-type: none"><li>Significantly higher construction cost than DDI</li><li>Difficulty in maintaining traffic during construction</li><li>Higher predictive crash rate than DDI</li></ul>											
Alternative													
NA: Not Applicable												Wetlands acres	Floodplain acres
(1) SDDOT policy requires a minimum 100' separation from an Interstate ramp junction/turn lane to the nearest access point.													
(2) LOS and Delay applies to the single intersection associated with the SPI.													
(3) While the DDI would be a new configuration for this area, drivers have become well-adapted to DDI interchanges where they have been implemented in other locations.													
(4) Interchange alternatives are designed to fit within the existing I-29 ROW.												Wetlands acres	Floodplain acres
(5) 41st Street construction cost limits are based on estimated final Control of Access limits (per direction from SDDOT).													
(6) Determination of bridge treatment with DDI alternative will be made during the final design process													
Options recommended for elimination from further evaluation													





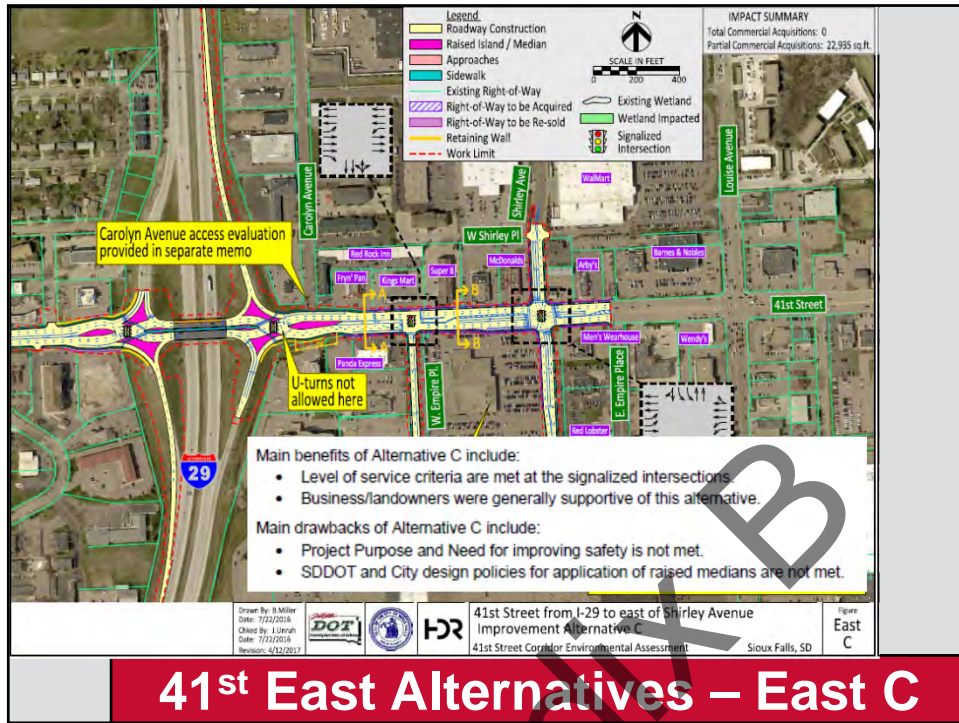


## 41<sup>st</sup> East Alternatives – East A



## 41<sup>st</sup> East Alternatives – East B





Alternative	Description	Purpose and Need		Traffic Operations (2)								Property Impacts		Costs			Applicable Environmental Impacts				
				Year 2023				Year 2045									Section 4(f) Properties	Environmental Justice	Contaminated Materials		
		Meets City LOS Criteria	Safety Improvement	Pedestrian Facilities Improvement	Meets SDDOT and City Design Policy	41st S/W Empire Pl Intersection	41st S/Shirley Ave Intersection	41st S/Louise Ave Intersection (3)	41st S/W Empire Pl Intersection	41st S/Shirley Ave Intersection	41st S/W Louise Intersection (3)	#	sq ft	Empire Mail Access Circulation	Affected Business / landowner Acceptance for Access and Impacts	M/S	M/S	M/S	#	#	#
A	Raised median with 3/4 access at W Empire Place and 2 thru lanes on Shirley Ave and mail entrance	yes (1)	yes	yes	yes	A/A/A	B/D/D	C/D/E	A/A/A	C/D/D	C/E/E	0	24,720	good	moderate	0.8	6.2	7.0	0	0	(5)
B	Raised median with 3/4 access at W Empire Place and one-way outbound at Shirley Ave mail entrance	yes (1)	yes	yes	yes	A/A/B	B/D/D	C/D/E	A/A/B	B/D/D	C/D/E	0	18,895	poor (4)	poor (4)	0.6	5.7	6.3	0	0	(5)
C	Center two-way left turn lane with signalized intersections at W Empire Place and Shirley Ave	yes (1)	no	yes	no	A/A/B	A/D/D	C/D/E	A/A/B	B/D/D	C/D/E	0	22,935	good	good	0.7	6.1	6.8	0	0	(5)
NB	No-Build	yes	no	no	no	A/B/C	A/B/B	C/D/E	A/B/C	A/B/B	D/E/E	0	0	good	good	NA	NA	NA	0	0	0

NA: Not Applicable

(1) LOS criteria at an un-improved 41st/Louise intersection are not met for any scenario; however, 41st St improvements do not result in worse LOS at the 41st/Louise intersection.

(2) LOS for Build Alternatives is with the Diverging Diamond Interchange at I-29; LOS with Single Point Interchange at I-29 is similar.

(3) Improvements at 41st/Louise intersection are not proposed with this project.

(4) One-way outbound mail access at Shirley Avenue is not desired by the property owner (Empire Mall); the City of Sioux Falls concurs with the property owner.

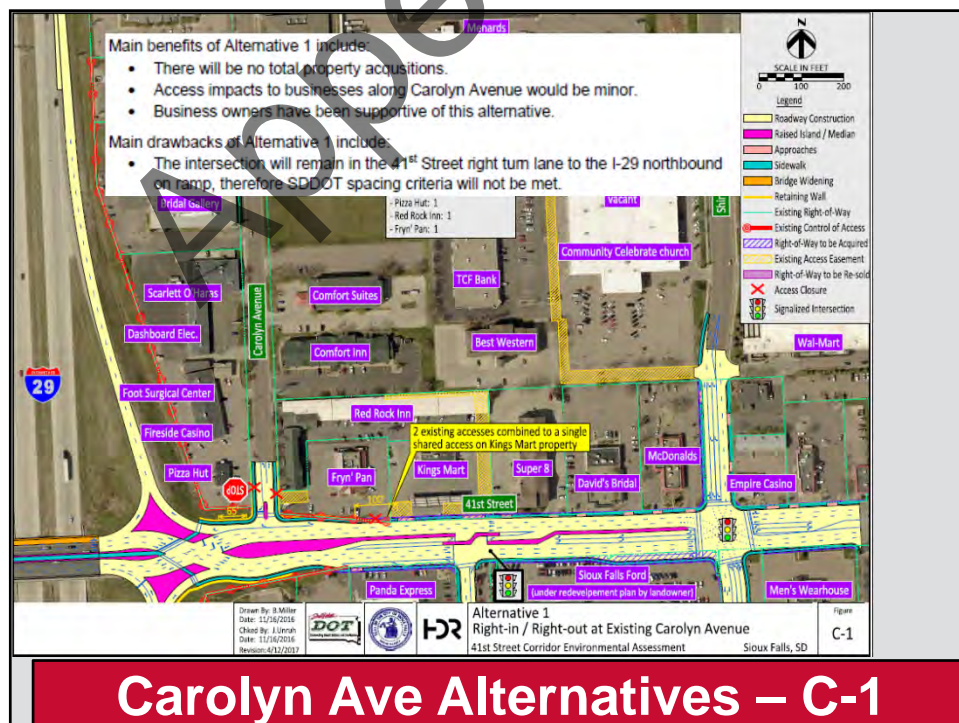
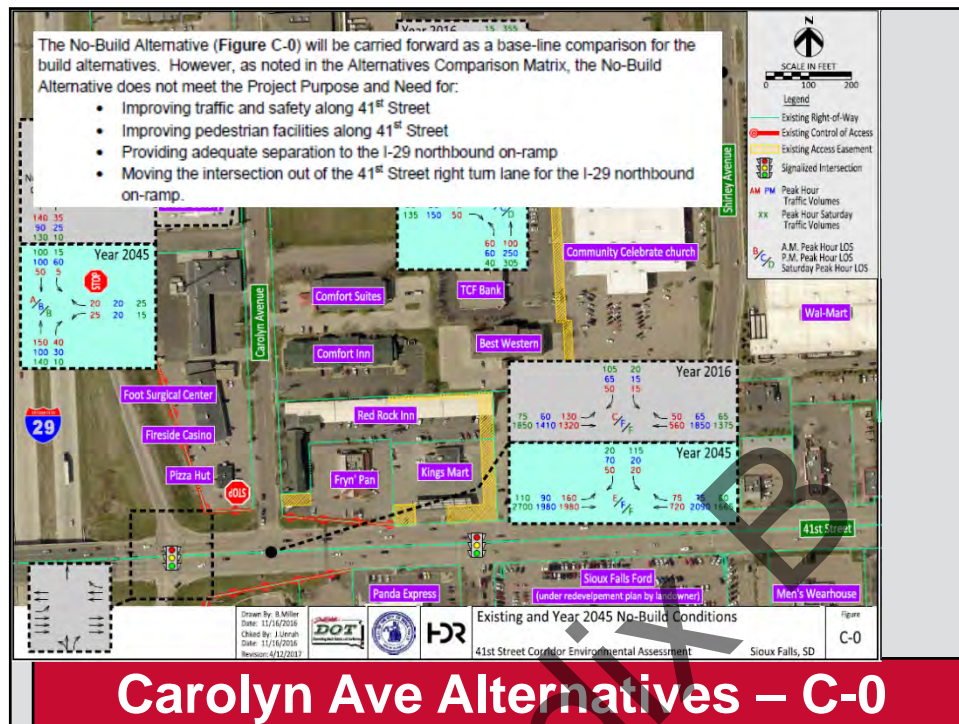
(5) Panda Express strip mall has been evaluated for Phase I Environmental Site Assessment due to past use as gas station. Underground storage tanks have been removed and previous contaminated materials cases have been closed.

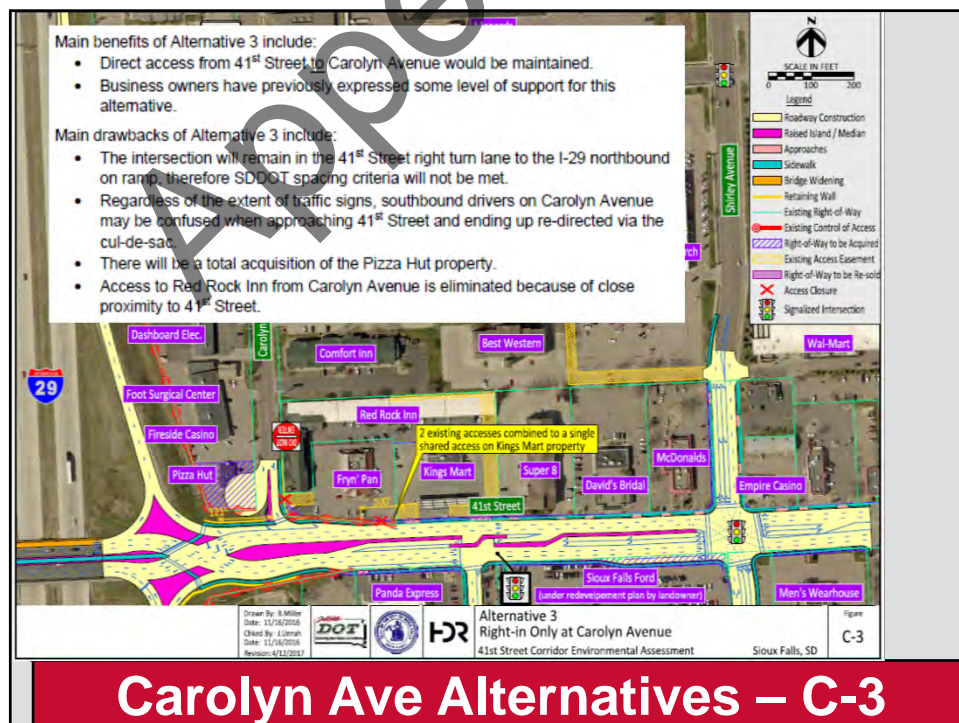
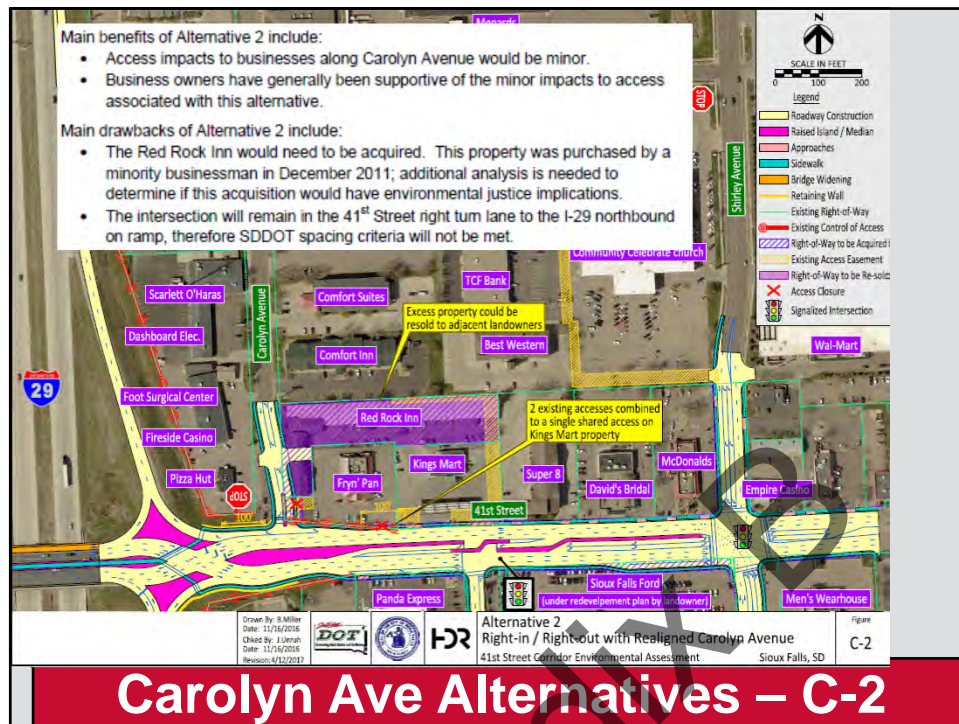
Options recommended for elimination from further evaluation

41<sup>st</sup> East Alternatives – Summary

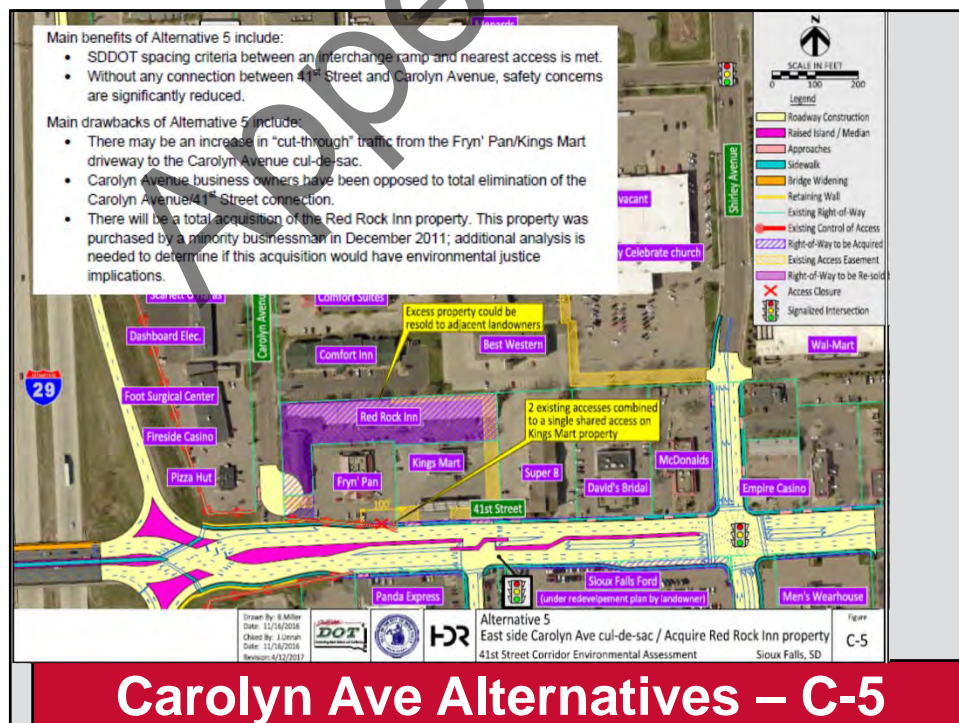
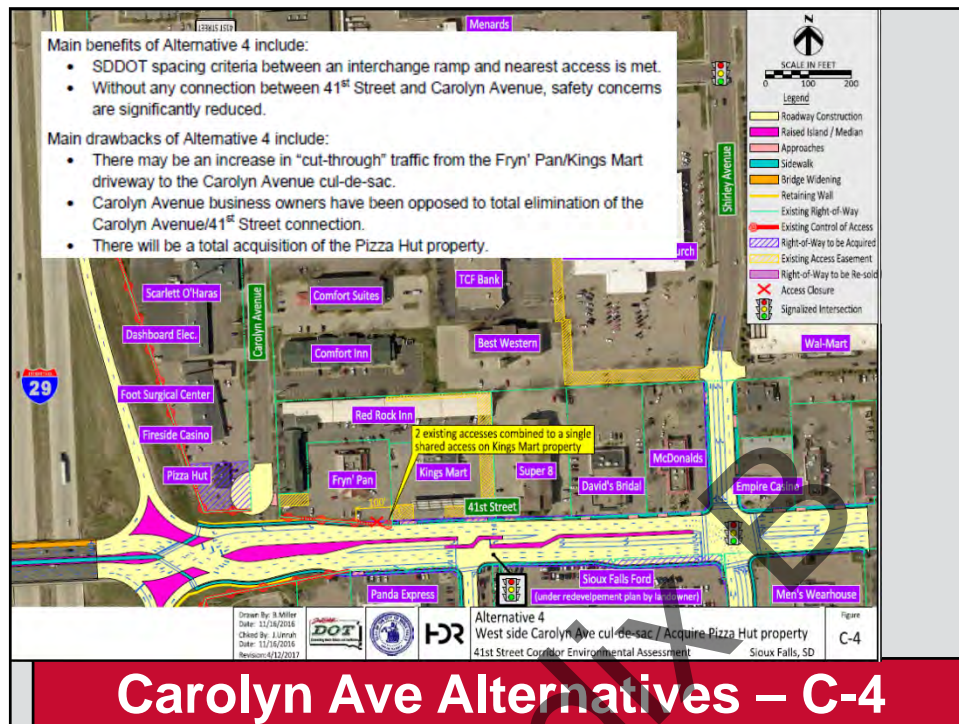


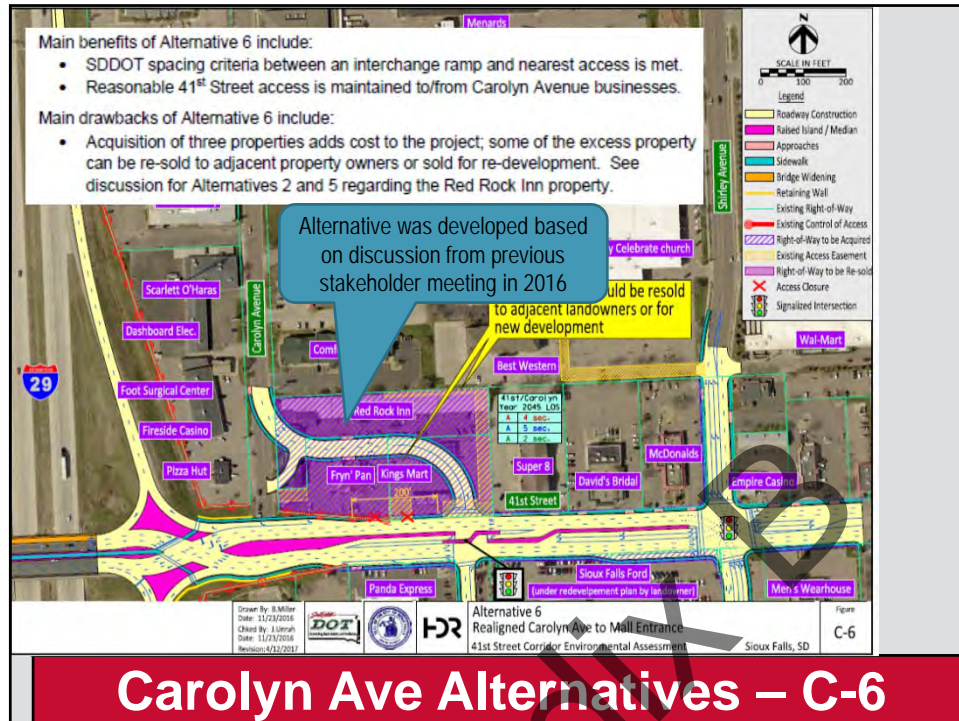












Alternative	Description	Purpose and Need			Traffic Operations			Property Impacts				Costs				Applicable Environmental Impacts			
		41 <sup>st</sup> Street Intersection	Shirley Avenue Intersection	Red Rock Inn Property	Advisory Separation from I-29 ramp	Intersection	Intersection	Partial Commercial Acquisitions	Partial Commercial Acquisitions	Partial Commercial Acquisitions	Partial Commercial Acquisitions	Construction	Construction	Construction	Construction	Section 4(f) Properties	Section 4(f) Properties	Section 4(f) Properties	Section 4(f) Properties
1	Right-in / Right-out at Existing Carolyn Avenue	moderate	moderate	moderate	no	minimal	F/F	0	0	5,482	0	5,482	minor	good	0.2	0.2	0.6	0.8	0.9
2	Right-in / Right-out with Realigned Carolyn Avenue	moderate	moderate	moderate	no	minimal	F/F	1	60,252	5,755	57,353	8,654	minor	good	2.1	0.9	0.7	2.8	1.6
3	Right-in Only at Carolyn Avenue	moderate	moderate	moderate	no	minimal	NA	1	14,224	4,162	0	18,386	moderate	moderate	0.7	0.7	0.8	1.1	1.5
4	West side Carolyn Avenue Cul-de-sac	good	good	good	yes	moderate	(2)	NA	1	14,224	3,436	0	17,660	moderate	poor	0.7	0.7	0.9	1.8
5	East side Carolyn Avenue Cul-de-sac	good	good	good	yes	moderate	(2)	NA	1	60,252	7,308	57,814	9,844	moderate	poor	2.2	1.0	0.9	3.1
6	Realigned Carolyn Avenue to Mail Entrance	good	good	good	yes	minimal	A/A	3	145,744	0	103,171	42,573	minor	unknown	(4)	4.4	2.3	1.1	5.5
NB	No-Build	poor	poor	poor	no	none	F/F	0	0	0	0	0	0	none	good	NA	NA	NA	NA

NA: Not Applicable

(1) SDDOT design criteria requires a minimum 300' separation from an interstate ramp junction/turn lane to the nearest access point.

(2) Requires future signalization of 38<sup>th</sup> Street/Shirley Ave intersection. Cost estimates include this signal.

(3) Properties maintain access to Carolyn Avenue with these alternatives.

(4) This alternative has not been presented to a stable group of affected business/landowners.

(5) Environmental justice impact not evaluated; see discussion for Alternatives 2, 3, and 6 evaluation.

(6) Kings Mart convenience store has been evaluated for Phase I Environmental Site Assessment due to part use as gas station; see discussion for Alternative 6 evaluation.

Options recommended for elimination from further evaluation

**Carolyn Ave Alternatives – Summary**



Alternative	Description	Alternatives recommended to be carried forward for further consideration:		Applicable environmental impacts				
		Alternative	Description	Main reason(s) for carrying forward	Section 4(f) Properties	Environmental Justice	Contaminated Materials	Wetlands
		4	West Side Carolyn Avenue Cul-de-sac	• Meets traffic, safety, and design criteria				
		5	East Side Carolyn Avenue Cul-de-sac	• Meets traffic, safety, and design criteria				
1	Right-in / Right-out at Existing Carolyn Avenue	Alternatives recommended to be eliminated from further consideration:						
2	Right-in / Right-out with F Carolyn Avenue	Alternative	Description	Main reason(s) for elimination				
3	Right-in Only at Carolyn Avenue	1	Right-in / Right-out at Existing Carolyn Avenue Alignment	• Intersection will remain within the 41 <sup>st</sup> Street right turn lane therefore SDDOT spacing criteria is not met.		(5)	0	0
4	West side Carolyn Avenue	2	Right-in / Right-out at Realigned Carolyn Avenue	• Intersection will remain within the 41 <sup>st</sup> Street right turn lane therefore SDDOT spacing criteria is not met.		0	0	0
5	East side Carolyn Avenue	3	Right-in Only at Existing Carolyn Avenue Alignment	• Intersection will remain within the 41 <sup>st</sup> Street right turn lane therefore SDDOT spacing criteria is not met.		(5)	0	0
6	Realigned Carolyn Avenue Entrance	6	Realigned Carolyn Avenue to Empire Mall Entrance	• Requires purchase of three commercial properties		(5)	(6)	0
NB	No-Build					0	0	0

NA: Not Applicable  
 (1) SDDOT design criteria require  
 (2) Requires future signalization  
 (3) Properties maintain access to  
 (4) This alternative has not been presented to a sizable group of affected business/landowners.  
 (5) Environmental justice impact not evaluated, see discussion for Alternatives 2, 5, and 6 evaluation.  
 (6) King Mart convenience store has been evaluated for Phase I Environmental Site Assessment due to past use as gas station, see discussion for Alternative 6 evaluation.  
 Options recommended for elimination from further evaluation

## Carolyn Ave Alternatives -- Summary

### STUDY INFORMATION

### PUBLIC MEETING

May 10<sup>th</sup>, 2017

Sioux Falls Convention  
Center

5:30 pm to 7:00 pm

## NEXT STEPS

- **Fill out Comment Card**
- **Compile, Revise, and Address Comments**
- **Finalize Environmental Study with selected Alternative**
- **Begin Next Phase of Project**
  - Preliminary Design
  - ROW Acquisitions
- **Construction Scheduled to begin 2023**

## STUDY INFORMATION

### 41<sup>ST</sup> STREET PROJECT

SDDOT Project Manager  
 Steve Gramm, PE  
 Project Development, Data Analysis Engineer  
[Steve.gramm@state.sd.us](mailto:Steve.gramm@state.sd.us)  
 Phone: 605-773-6641

Study Website  
[www.41ststudy.com](http://www.41ststudy.com)

City of Sioux Falls Project Manager  
 Shannon Ausen, PE  
 Traffic Engineering Division  
[sausen@siouxfalls.org](mailto:sausen@siouxfalls.org)  
 Phone: 605-367-8607

CONSULTANT Team Project Manager  
 James Unruh, PE  
 HDR Engineering, Sioux Falls  
[James.Unruh@hdrinc.com](mailto:James.Unruh@hdrinc.com)  
 Phone: 605-977-7740



# I-29 Exit 77 (41<sup>st</sup> Street) Environmental Study

## Carolyn Avenue Landowner Meeting

April 25<sup>th</sup>, 2017

Kuehn Community Center

### Sign-in Sheet (Please Print)

#	Name	Property/Business Name and Location	Mailing Address	Phone #
1	Shannon Auser	CSF <del>SD</del> Public Works Eng	224 W. 9th St SF SD 57104	367-8607
2	Darin Johnson	SDDOT - SF Road Design	5316 W. 60th St. N Sioux Falls, SD 57107	367-5680
3	She WANG (3 representatives)	Kings Mart	4500 E 41st S.F. SD 57106	362-6668
4	Bob Fischer	Fryn Pan	3219 S. Gidgen Ave	366-4720
5	James Unruh	HDR	6300 S. Old Village Pl. S.F. SD 57108	977-7740
6	<del>Dean Krenst</del>	<del>HDR</del>	"	"
7	Kim Blackburn	Fryn Pan		
8	Dave Stukel	Fryn Pan	3215 S. Carolyn Ave. SF, SD 57106	605 660-2509
9	<del>FRANK</del>			
10	CHARLES GUSTAFSON	Pizza Hut	705 E RIDGE RD 57105	332-1000



# I-29 Exit 77 (41<sup>st</sup> Street) Environmental Study

## **Carolyn Avenue Landowner Meeting**

April 25<sup>th</sup>, 2017

Kuehn Community Center

### **Sign-in Sheet** (Please Print)

#	Name	Property/Business Name and Location	Mailing Address	Phone #
1	Katie Seitz	My Place Hotel	3005 S. Carolyn Ave	605-271-9988 507-215-4594 Cell
2	Jason Kjenstad	HDR		605-977-7755
3	Rock Weisser	Fryn Pan		
4	STAN MITZEL	Fryn Pan		605-201-5141
5				
6				
7				
8				
9				
10				



# Meeting Minutes

Project: I-29 Exit 77 (41<sup>st</sup> Street) Interchange and Environmental Study

Subject: 41<sup>st</sup> Street West of I-29 Alternatives – Perkins Representatives Meeting

Date: Tuesday, May 09, 2017

Location: HDR Conference Room

Attendees:	Bob Miller (Perkins) Gary Kuhn (Perkins) Mark Meierhenry (Perkins legal representative)	Shannon Ausen (City) Travis Dressen (SDDOT) Jason Kjenstad, James Unruh (HDR) (see <b>Attachment 2</b> for sign-in sheet)
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## 1. Previous landowner meetings

- 1.1 Miller and Kuhn attended the 9/28/16 landowner group meeting.
- 1.2 Perkins did not have a representative at the 4/24/17 landowner group meeting because of a conflict.

## 2. Landowner meeting slides

- 2.1 Jason K. reviewed key slides from recent landowner meetings highlighting:
  - Project Purpose and Need
  - Interchange alternatives
  - 41<sup>st</sup> Street east of I-29 alternatives

## 3. 41<sup>st</sup> Street west of I-29 alternatives (see 5/10/17 Public Meeting display items)

- 3.1 All alternatives propose 3 through lanes in each direction from Marion Road to I-29 to accommodate 41<sup>st</sup> Street traffic.
- 3.2 A raised median on 41<sup>st</sup> Street is proposed for most of the alternatives to reduce accidents. Improving safety is a main purpose and need for the project.
- 3.3 Nearly all of the 41<sup>st</sup> Street widening is on the south side because of the existing houses and apartment buildings on the north side of 41<sup>st</sup> Street. The existing Perkins building and parking lot will not be impacted by 41<sup>st</sup> Street widening for any of the alternatives.
- 3.4 Perkins has made several requests (and continues to request) that the 41<sup>st</sup> Street traffic signal at Terry Avenue be moved to Gateway Boulevard. The City has formally reviewed their requests and does not intend to move the traffic signal because:
  - Terry Avenue is a collector street with higher traffic volumes than Gateway Boulevard.
  - Gateway Boulevard carries only local traffic because it connects back to Terry Avenue just south of 41<sup>st</sup> Street.
  - Terry Avenue is approximately half way between the 41<sup>st</sup> Street signals at Marion Road and the I-29 southbound ramps. This spacing provides for good traffic progression.
  - Gateway Boulevard is too close to the I-29 southbound ramps to allow for optimal 41<sup>st</sup> Street traffic progression through the signals.
- 3.5 Perkins considers Alternative A to be unacceptable because the raised median blocks all left-turning traffic at Gateway Boulevard. Their perception is that this access restriction would result in a substantial loss of business.

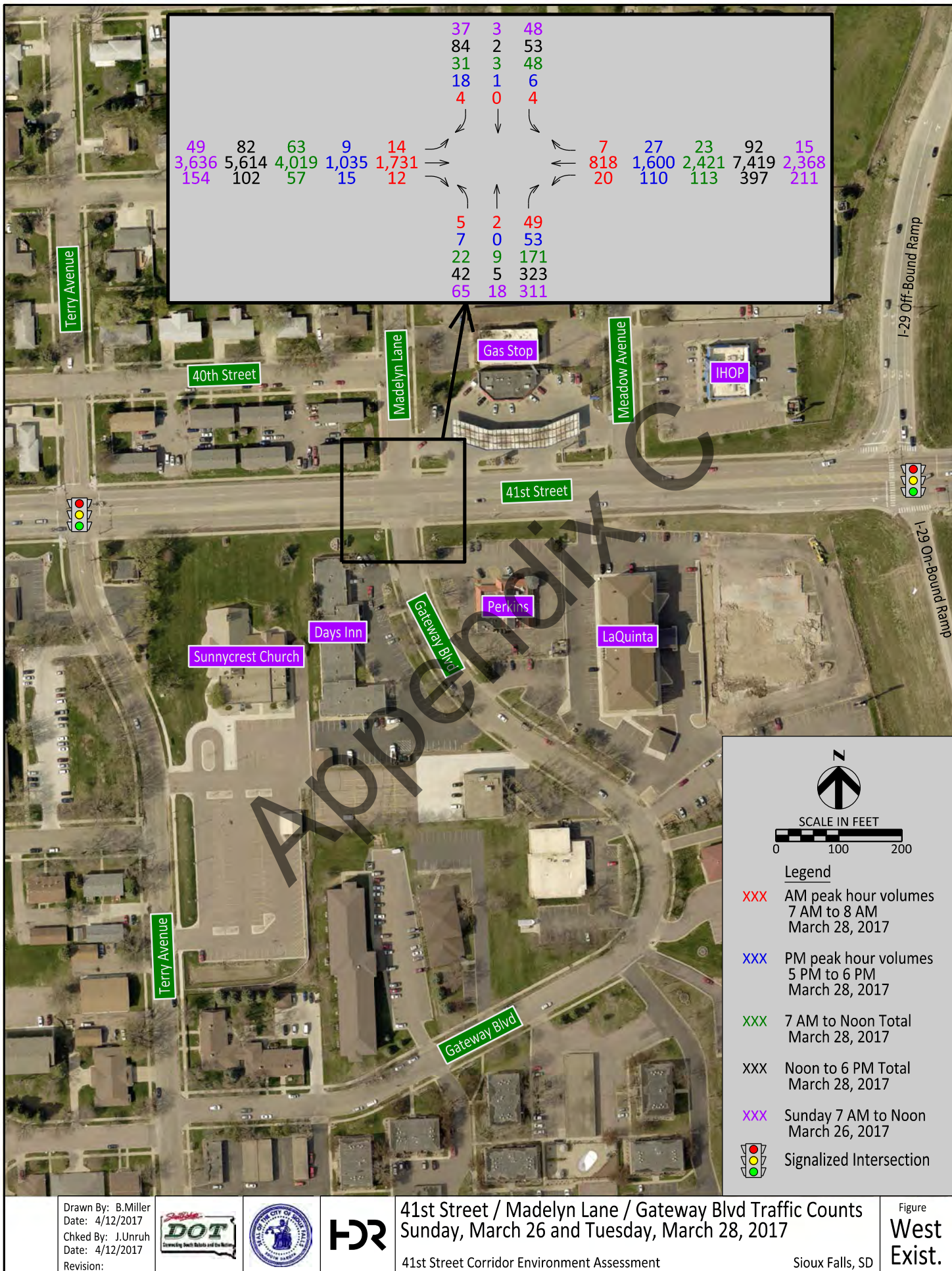
#### **4. Traffic counts at 41<sup>st</sup> Street/Madelyn Lane/Gateway Boulevard intersection (see Attachment 1)**

- 4.1 Traffic counts from March 2017 were reviewed, especially in the context of Alternative B1 which provides a 3/4 access raised median configuration at the 41<sup>st</sup> Street/Gateway Boulevard intersection.
- 4.2 It was noted there is now a relatively large percentage of traffic (83% to 91%) that turns right from Gateway Boulevard to eastbound 41<sup>st</sup> Street during all traffic count periods in comparison to traffic turning left to westbound 41<sup>st</sup> Street. This is shown in Figure West B1&B2 in Attachment 2. This indicates that much of the westbound traffic diverts to the signalized 41<sup>st</sup> Street/Terry Avenue intersection to make the left-turn movement.
- 4.3 The traffic counts showed a relatively high number of vehicles turning left from westbound 41<sup>st</sup> Street to Gateway Boulevard. With Alternative B1, this left-turn movement is still allowed.
- 4.4 Miller noted that the traffic counts helped him better understand the traffic patterns at the 41<sup>st</sup> Street/Gateway Boulevard intersection.
- 4.5 Miller was concerned that drivers would be unfamiliar with the 3/4 access raised median configuration and therefore would avoid making the left turn from westbound 41<sup>st</sup> Street to Gateway Boulevard. Miller was encouraged to look at several existing 3/4 access raised median configurations along 69<sup>th</sup> Street east of Southeastern Avenue. Another 3/4 access configuration has been installed along 26<sup>th</sup> Street just east of Marion Road to address accident problems.
- 4.6 Miller concurred that Alternative B1 and the traffic count analysis reduced his concerns about the raised median on 41<sup>st</sup> Street although his preference would still be Alternative C which does not have a raised median on 41<sup>st</sup> Street.
- 4.7 Printed versions of the traffic count graphics were provided to all three of the Perkins representatives.

#### **5. Next steps**

- 4.1 HDR will continue to recommend that Alternative B1 be carried forward into the final design and right-of-way acquisition phase of the project.
- 4.2 41<sup>st</sup> Street improvements are scheduled to begin in 2023.





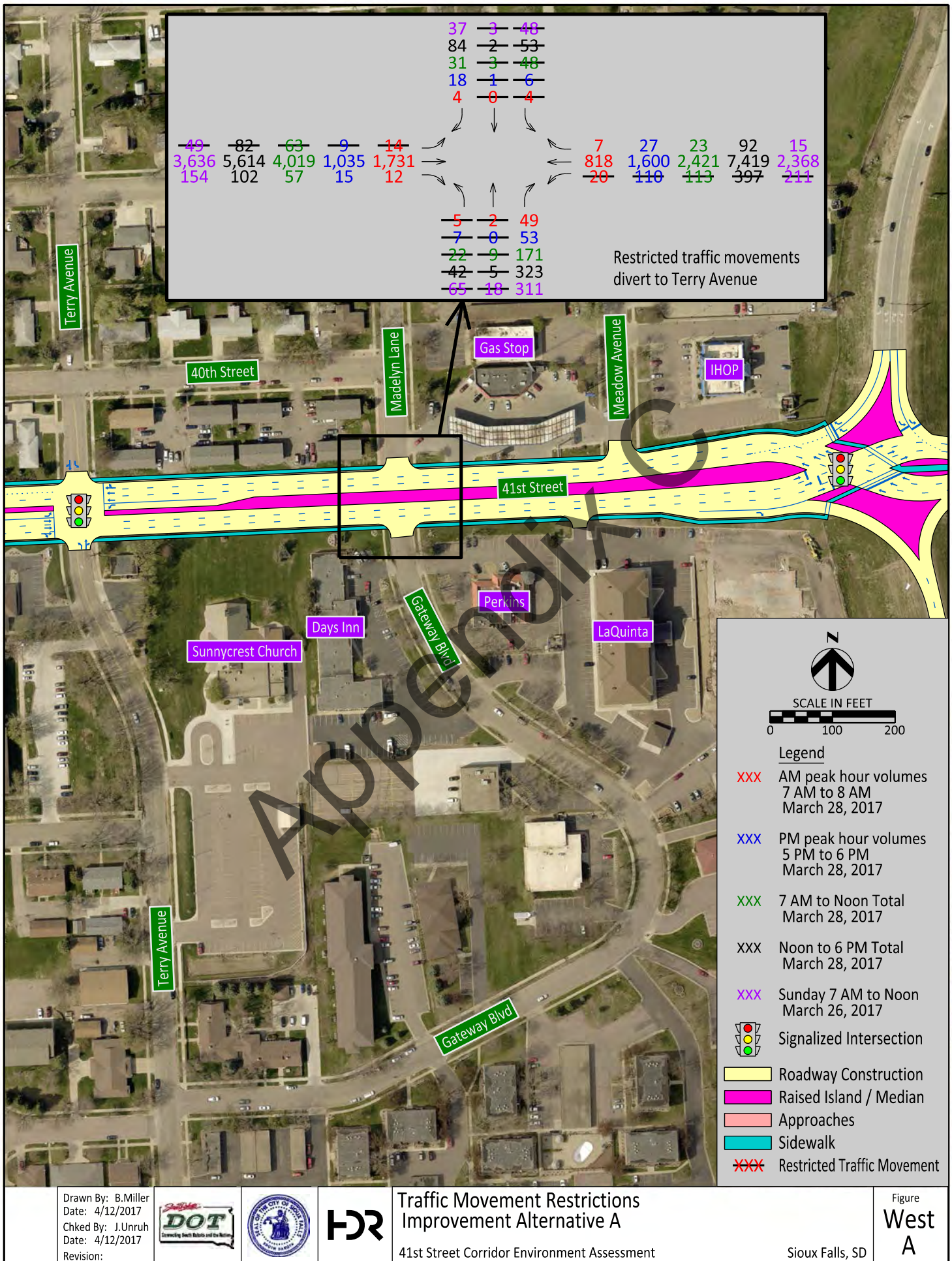
Drawn By: B. Miller  
 Date: 4/12/2017  
 Chkd By: J. Unruh  
 Date: 4/12/2017  
 Revision:



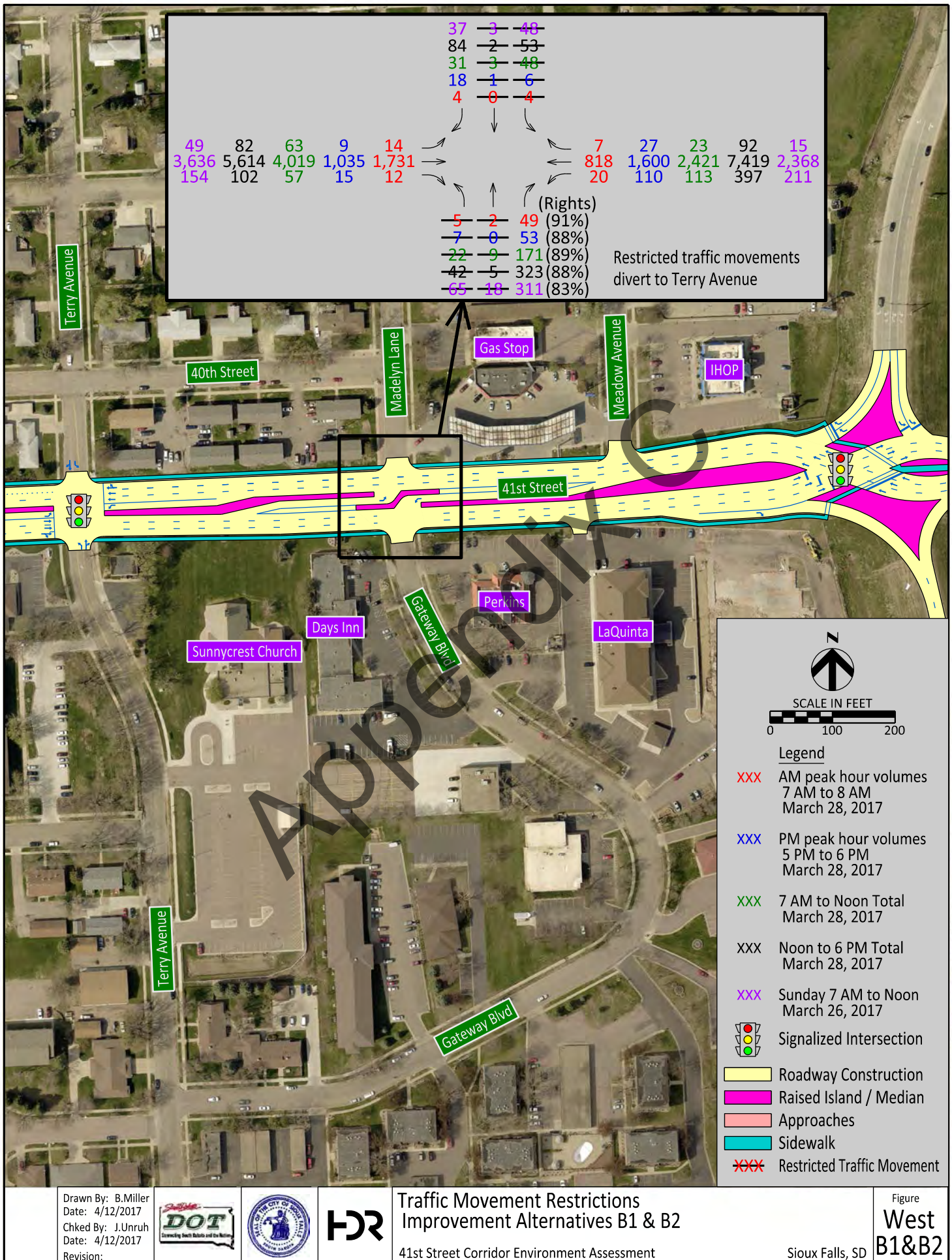
41st Street / Madelyn Lane / Gateway Blvd Traffic Counts  
 Sunday, March 26 and Tuesday, March 28, 2017  
 41st Street Corridor Environment Assessment  
 Sioux Falls, SD

Figure  
**West Exist.**





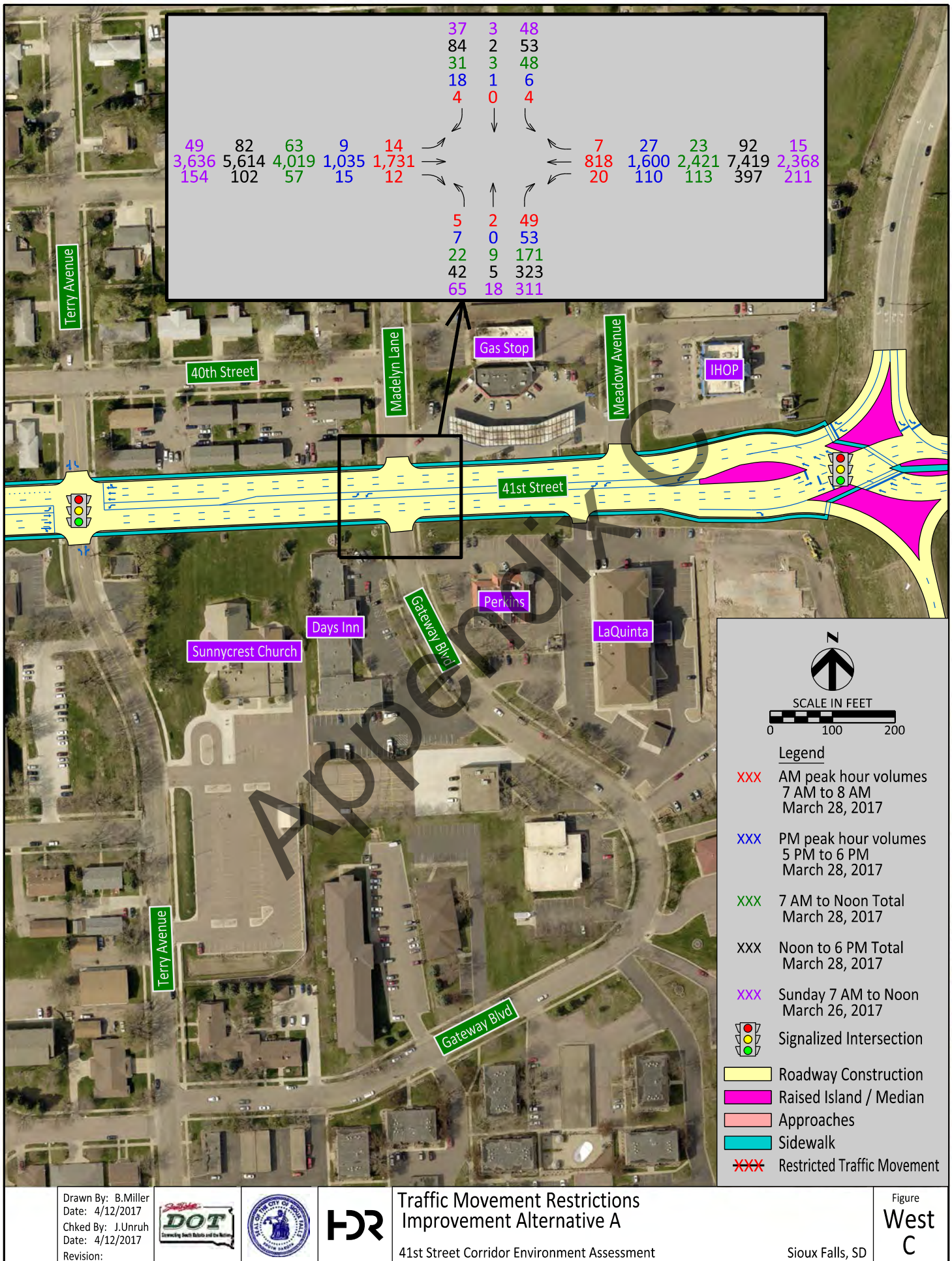




49	82	63	9	14	7	27	23	92	15
3,636	5,614	4,019	1,035	1,731	818	1,600	2,421	7,419	2,368
154	102	57	15	12	20	110	113	397	211
					(Rights)				
					5	2	49	(91%)	
					7	0	53	(88%)	
					22	9	171	(89%)	
					42	5	323	(88%)	
					65	18	311	(83%)	

Restricted traffic movements divert to Terry Avenue





Drawn By: B. Miller  
 Date: 4/12/2017  
 Chkd By: J. Unruh  
 Date: 4/12/2017  
 Revision:



# Traffic Movement Restrictions Improvement Alternative A

41st Street Corridor Environment Assessment

Sioux Falls, SD

Figure  
**West**  
**C**

# I-29 Exit 77 (41<sup>st</sup> Street) IMJR & EA

## I-29 to Marion Road Landowner Meeting

May 9<sup>th</sup>, 2017 – Perkins Meeting

HDR Conference Room

### Sign-in Sheet (Please Print)

#	Name	Property/Business Name and Location	Mailing Address	Phone #
1	Jason Kjewstad	HDR	6300 S. Oak Village Place, Suite 100 SF, SD 5768	605-977-7785
2	James Unruh	HDR	"	605-977-7766
3	Shannon Ausen	CSF	224 W. 9 <sup>th</sup> St Sioux Falls SD	367-8607
4	M. Meierherry	ATT - Perkins	345 S. Phillips Ave	336-3075
5	Greg & Kelm	Perkins		351-9859
6	Britt Miller	Perkins	1912 S. Austin Dr 57105	351-9856
7	Travis Dressen	SDDOT - SF Area	5316 W. 60 <sup>th</sup> St. North	367-5680
8				
9				
10				





# Meeting Minutes

Project: I-29 Exit 77 (41<sup>st</sup> Street) Interchange and Environmental Study

Subject: 41<sup>st</sup> Street West of I-29 Alternatives – Gas Stop/Holiday Meeting

Date: Wednesday, May 10, 2017

Location: HDR Conference Room

Attendees: Tom Howes (Gas Stop/Holiday) Jason Kjenstad, James Unruh (HDR)  
Doug Charlson (Gas Stop/Holiday) (see **Attachment 2** for sign-in sheet)

## 1. Previous landowner meetings

- 1.1 Tom had not attended the 9/28/16 and 4/24/17 landowner group meetings.
- 1.2 Tom had submitted comments about the project during the 2012 Corridor Study.

## 2. Landowner meeting slides

- 2.1 Jason K. reviewed key slides from recent landowner meetings highlighting:
  - Project Purpose and Need
  - Interchange alternatives
  - 41<sup>st</sup> Street east of I-29 alternatives
  - Carolyn Avenue alternatives

## 3. 41<sup>st</sup> Street west of I-29 alternatives (see 5/10/17 Public Meeting display items)

- 3.1 All alternatives propose 3 through lanes in each direction from Marion Road to I-29 to accommodate 41<sup>st</sup> Street traffic.
- 3.2 A raised median on 41<sup>st</sup> Street is proposed for most of the alternatives to reduce accidents. Improving safety is a main purpose and need for the project.
- 3.3 Nearly all of the 41<sup>st</sup> Street widening is on the south side because of the existing houses and apartment buildings on the north side of 41<sup>st</sup> Street. Therefore, little of the Gas Stop property will need to be acquired for sidewalk or roadway widening.
- 3.4 Gas Stop now has 2 driveways to 41<sup>st</sup> Street. All alternatives show elimination of those 41<sup>st</sup> Street driveways since the Gas Stop also has driveways to Madelyn Lane and Meadow Avenue. The final determination for the 41<sup>st</sup> Street driveways will occur when the project moves into the right-of-way/easement acquisition phase.
- 3.5 Concurrence with the raised median on 41<sup>st</sup> Street is critical at this phase of the project. Tom noted that his resistance to raised medians has diminished as they have been installed on roadways at several of his other properties.
- 3.6 With recommended Alternative B1, Tom's concerns with access to/from 41<sup>st</sup> Street are generally alleviated.

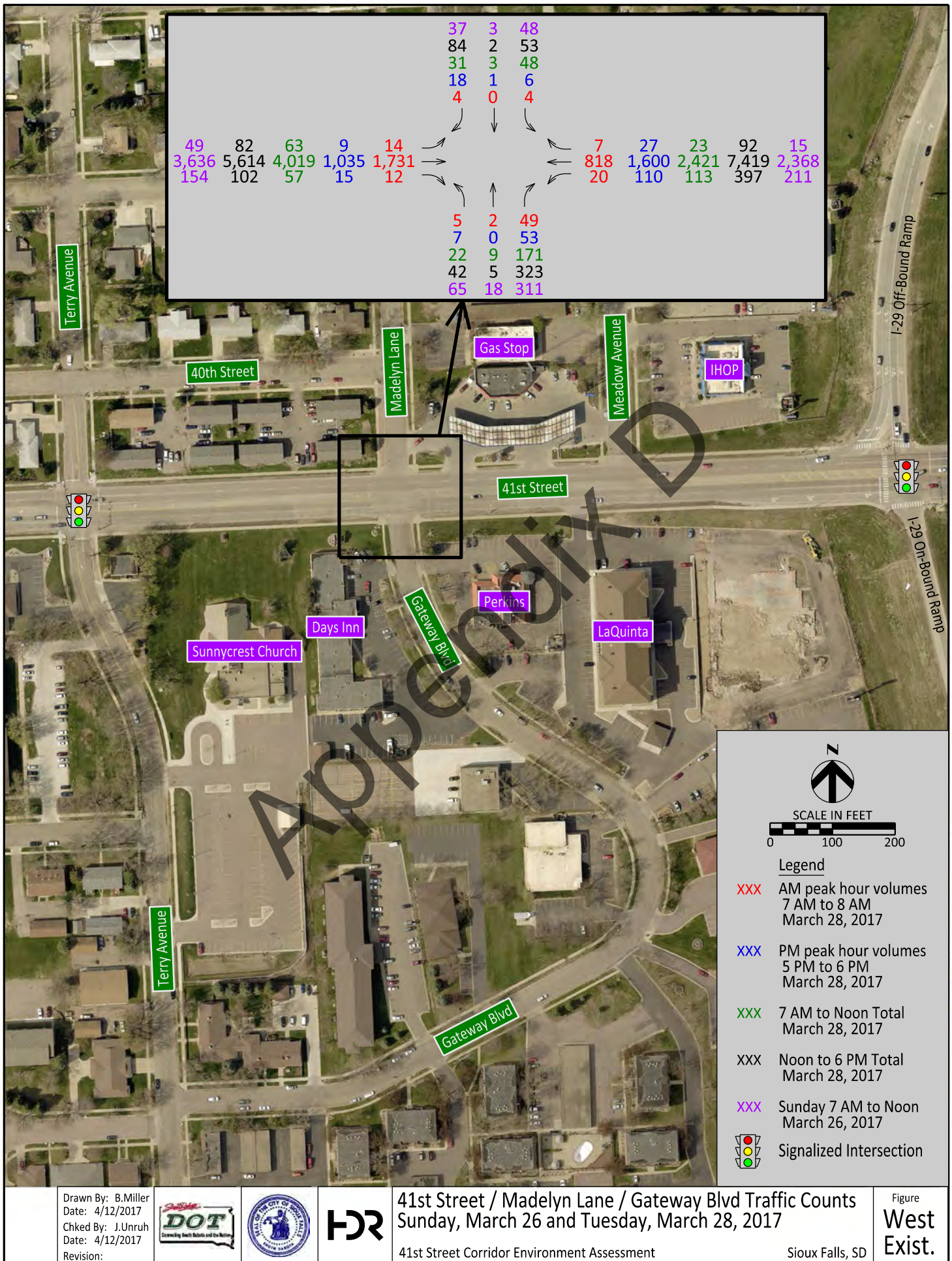
## 4. Traffic counts at 41<sup>st</sup> Street/Madelyn Lane/Gateway Boulevard intersection (see Attachment 1)

- 4.1 Traffic counts from March 2017 were reviewed.
- 4.2 It was noted there is now a relatively large volume of traffic turning left from Madelyn Lane onto 41<sup>st</sup> Street. With Alternative B1, most of this traffic will re-route to Terry Avenue.

## 5. Next steps

- 5.1 HDR will continue to recommend that Alternative B1 be carried forward into the final design and right-of-way acquisition phase of the project.
- 5.2 41<sup>st</sup> Street improvements are scheduled to begin in 2023.





Drawn By: B. Miller  
Date: 4/12/2017  
Chkd By: J. Unruh  
Date: 4/12/2017  
Revision:



41st Street / Madelyn Lane / Gateway Blvd Traffic Counts  
Sunday, March 26 and Tuesday, March 28, 2017

41st Street Corridor Environment Assessment

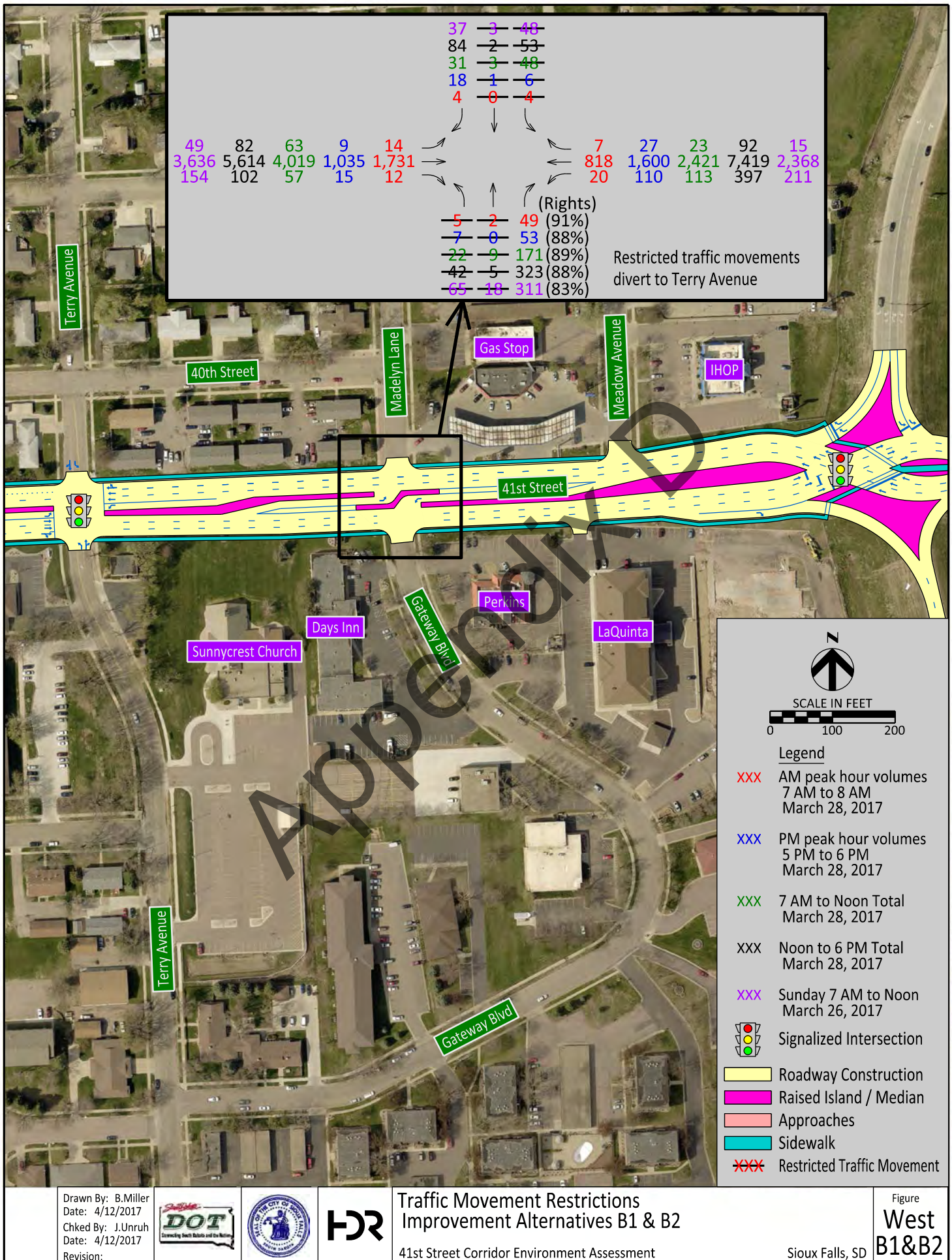
Sioux Falls, SD

Figure  
**West Exist.**









Drawn By: B. Miller  
Date: 4/12/2017  
Chkd By: J. Unruh  
Date: 4/12/2017  
Revision:



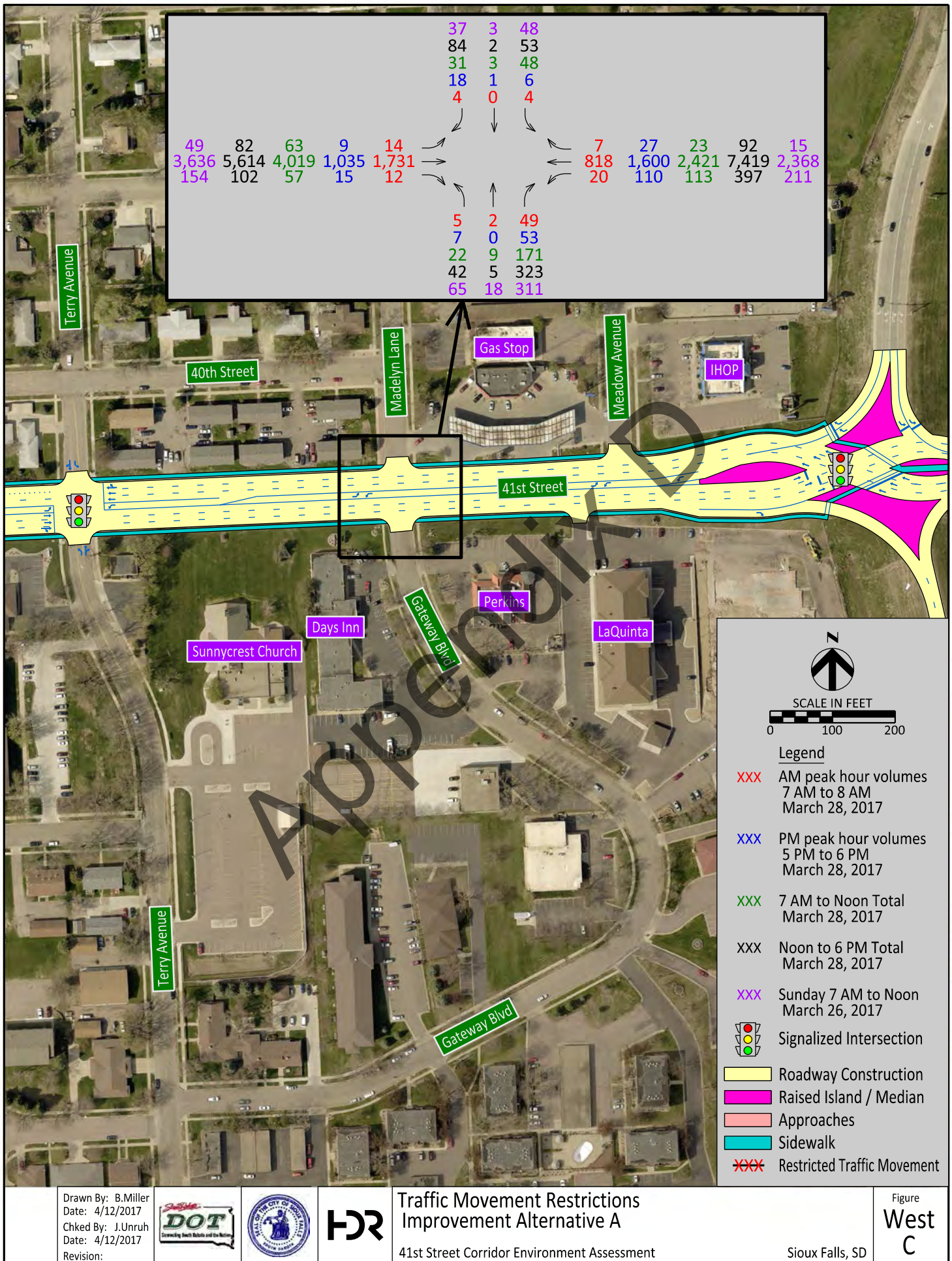
# Traffic Movement Restrictions Improvement Alternatives B1 & B2

41st Street Corridor Environment Assessment

Sioux Falls, SD

Figure  
**West  
B1&B2**





# I-29 Exit 77 (41<sup>st</sup> Street) Environmental Study

## I-29 to Marion Road Landowner Meeting with Tom Howe

May 10<sup>th</sup>, 2017  
HDR Conference Room

### Sign-in Sheet (Please Print)

#	Name	Property/Business Name and Location	Mailing Address	Phone #
1	James Unruh	HDR	6300 S. Old Village Pl SF SD 57108	977-7766
2	Jason Kjustad	HDR	6300 S. Old Village Pl SF SD 57108	977-7755
3	Tom S. Howe	I-90	P.O. Box 1075 SF, SD 57108	326-0133
4	Doug Carlson	I-90		
5				
6				
7				
8				
9				
10				



# Meeting Minutes

Project: I-29 Exit 77 (41<sup>st</sup> Street) Interchange and Environmental Study

Subject: 41<sup>st</sup> Street West of I-29 Alternatives – Meeting with 3 landowners

Date: Thursday, May 18, 2017

Location: HDR Conference Room

Attendees: Lawrence Piersol (Black Diamond Casino property)  
Dieter Proehl (Godfathers Pizza property)  
Greg Heine (Mount Marty College)  
Travis Dressen (SDDOT)  
Shannon Ausen (City of Sioux Falls)  
Jason Kjenstad, James Unruh (HDR)  
(see **Attachment 2** for sign-in sheet)

## 1. Previous landowner meetings

- 1.1 Only Heine had attended the 9/28/16 and 4/24/17 landowner group meetings.
- 1.2 Proehl purchased the Godfather's Pizza property in November 2016.

## 2. Project overview

- 2.1 All alternatives propose 3 through lanes in each direction from Marion Road to I-29 to accommodate 41<sup>st</sup> Street traffic.
- 2.2 The 41<sup>st</sup> Street/Marion Road intersection will be expanded with dual left turn lanes at all approaches to accommodate turning traffic so the intersection will operate at an acceptable level of service.
- 2.3 A raised median on 41<sup>st</sup> Street is proposed for most of the alternatives to reduce accidents. Improving safety is a main purpose and need for the project.
- 2.4 It was noted that all of the alternatives result in widening of 41<sup>st</sup> Street which will infringe on setback requirements. Since the infringements are the result of roadway widening, existing development is not required to meet the setback requirements. If the properties are re-developed, setback requirements would have to be met.
- 2.5 Existing property signs will also be impacted by 41<sup>st</sup> Street widening. Relocation of signs will be part of the final design and right-of-way acquisition phase of the project.

## 3. 41<sup>st</sup> Street west of I-29 alternatives (see 5/10/17 Public Meeting display items)

- 3.1 Alternatives A and B1 have a raised median on 41<sup>st</sup> Street from Marion Road to Terry Avenue.
- 3.2 Alternative C has a center two-way left turn lane.
- 3.3 Alternative B2 was developed at the request of Mount Marty College at the 9/28/16 landowner meeting. The 3/4 access configuration between Marion Road and Terry Avenue is intended to provide improved access from westbound 41<sup>st</sup> Street to a joint Godfather's Pizza/Mount Marty College driveway.
- 3.4 At the 4/24/17 landowner meeting, HDR had recommended eliminating Alternative B2 from further consideration due to the impacts to the Godfather's Pizza drive-through and parking impacts to Mount Marty College, Godfather's Pizza, and the Black Diamond Casino development.
- 3.5 As follow-up to the 4/24/17 meeting, Heine requested a more in-depth analysis of the impacts. Therefore, HDR had developed several graphics that provided more detail on the Alternative B2 impacts.





**4. Alternative B2 considerations (see Attachment 1 for Alternative B2)**

- 4.1 Proehl concurred that Alternative B2 would reduce the width of the Godfather's drive-through. He noted that the existing drive-through lane is very narrow now and any further width reduction would basically eliminate the lane; this would be a major negative impact to the business.
- 4.2 Loss of parking spaces at the Black Diamond Casino site would not be desirable.
- 4.3 Proehl noted that drivers have adapted to the median on west 12<sup>th</sup> Street and that the median seemed to improve traffic flow and reduce accidents. He did not see a major negative impact to his business along 41<sup>st</sup> Street due to the proposed raised median.
- 4.4 Piersol noted his experience in Florida with high volume roadways with raised medians. He generally concurred with the benefit of the raised median on 41<sup>st</sup> Street and did not consider that the raised median would have a major negative impact on access to his property, especially with a u-turn movement allowed at Marion Road.
- 4.5 The south sidewalk for Alternative B2 would be right next to the existing Mount Marty College sidewalk.
- 4.6 The main entrance to the Mount Marty College parking lot is from 43<sup>rd</sup> Street.

**5. Next steps**

- 5.1 HDR will continue to recommend that Alternative B2 be eliminated from consideration for 41<sup>st</sup> Street improvements.
- 5.2 HDR will continue to recommend that Alternative B1 be carried forward into the final design and right-of-way acquisition phase of the project.
- 5.3 Final design and right-of-way acquisition will begin in 2018 or 2019.
- 5.4 41<sup>st</sup> Street improvements are scheduled to begin in 2023.

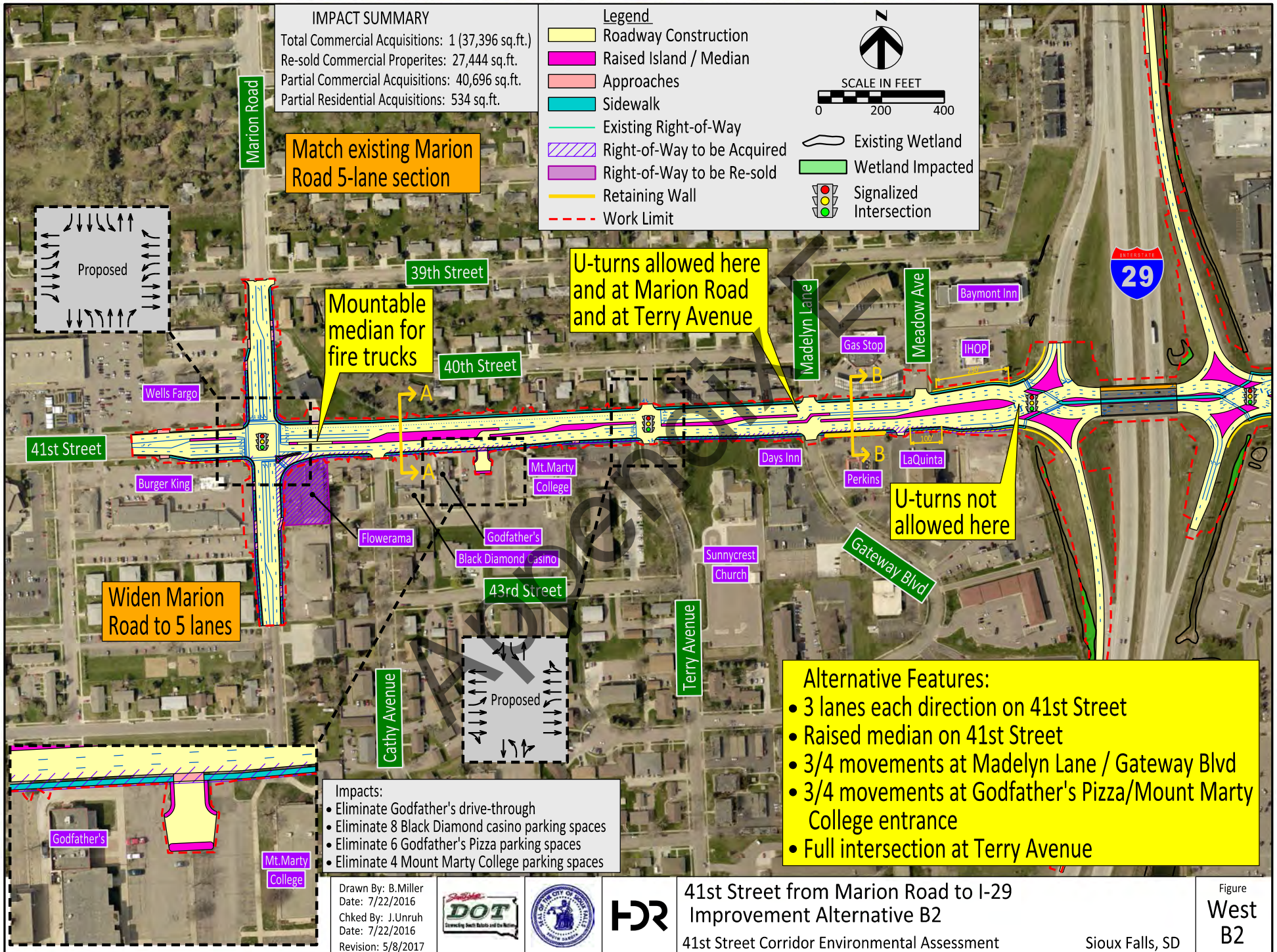




Figure  
West  
B2





Photo looking east at Black Diamond Casino parking lot

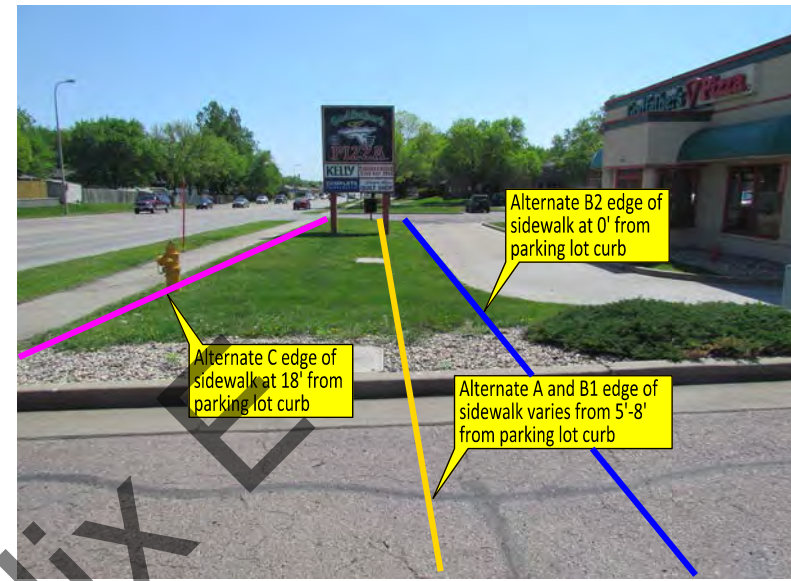


Photo looking east at Godfather's Pizza drive through

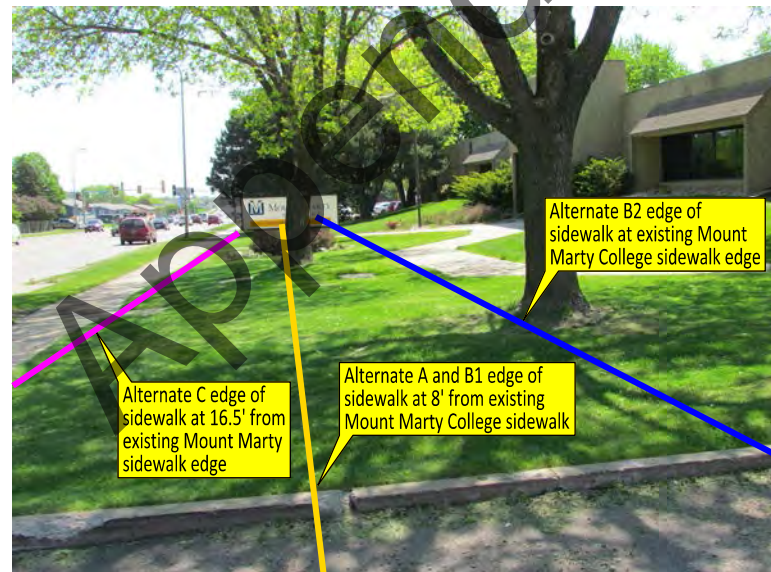


Photo looking east at Mount Marty College sidewalk

Drawn By: B. Miller  
Date: 3/1/2017  
Chkd By: J. Unruh  
Date: 3/1/2017  
Revision: 5/8/2017



Impact Photos at Mount Marty College,  
Godfather's Pizza and Black Diamond Casino

41st Street Corridor Environmental Assessment

Sioux Falls, SD

Figure  
West  
Photos

# I-29 Exit 77 (41<sup>st</sup> Street) Environmental Study

**I-29 to Marion Road Landowner Meeting with Mount Marty College, Godfather's Pizza, Black Diamond Casino representatives**

May 18, 2017

HDR Conference Room

## **Sign-in Sheet** (Please Print)

#	Name	Property/Business Name and Location	Mailing Address	Phone #
1	Jason Kinstad	HDR	6300 S. Old Village Pl Suite 100 SF SD 57108	605-977-7755
2	James Unruh	"	"	605-977-7766
3	Shannon Auser	CSF PWERs	224 W. 5th St Sioux Falls SD	605-376-8607
4	Dieter W. Proehl	Godfather's	Box 902 Sioux Falls, S.D.	605-366-4267
5	Greg Heinz	Mount Marty College	1105 W. 8th St Vermillion SD 57078	605-865-1502
6	Lawrence L. Piersol	Black Diamond Casino Beauty Supply	400 South Phillips Avenue Sioux Falls, SD 57104	605-351-0412 cell 605-330-6640 office.
7	Travis Dresson	SDDOT- SF Area		
8				
9				



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CONSTRUCTION, INC.**

Box 902 • 706 N. Helen, Sioux Falls, SD 57101-0902

DIETER W. PROEHL

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Res. 605/334-2492 • Fax 605/334-0965 ←





# Meeting Minutes

Project: I-29 Exit 77 (41<sup>st</sup> Street) Interchange and Environmental Study

Subject: 41<sup>st</sup> Street and Carolyn Avenue Alternatives – Red Rock Inn Meeting

Date: Tuesday, May 30, 2017

Location: HDR Conference Room

Attendees: Rikesh Patel – Red Rock Inn

Jason Kjenstad, James Unruh (HDR)  
(see **Attachment 1** for sign-in sheet)

## 1. Recent landowner and public meetings

- 1.1 Rikesh requested the meeting because he was unable to attend the recent landowner and public meetings.

## 2. Landowner meeting slides

- 2.1 Jason K. reviewed key slides from recent landowner and public meetings highlighting:
  - Project Purpose and Need – It was noted that Rikesh has mentioned at other meetings the need to address the accident problems along 41<sup>st</sup> Street.
  - Interchange alternatives
  - 41<sup>st</sup> Street east of I-29 alternatives
  - Carolyn Avenue alternatives

## 3. Carolyn Avenue alternatives

- 3.1 Rikesh preferred that the project move forward with Alternative 4 (west-side cul-de-sac).
- 3.2 Rikesh intends to keep his property and business but would consider selling his property for an adequate price. Based on his research, the value of his property is in the \$30 per square foot range as we have been using in our alternatives comparison matrices. Relocation of his business would also have to be provided.
- 3.3 His site and building have been subject to flooding because its elevation is similar to the Pizza Hut property. The August 28, 2015 rainfall event resulted in damage to his property.
- 3.4 The access easements shown on the concept alternatives layouts would need to be maintained to ensure access to the Red Rock Inn building and parking spaces.

## 4. Next steps

- 4.1 HDR will complete the documentation on recent landowner and public involvement/ meetings.
- 4.2 HDR will likely recommend that Carolyn Avenue Alternative 5 (east-side cul-de-sac) not be implemented due to the higher property acquisition costs that Alternative 4.
- 4.3 Final environmental documentation and approvals are anticipated by August 2017.
- 4.4 Construction is scheduled to begin in 2023 but may be accelerated to year 2022 if funding is available.



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# SIGN IN SHEET

Subject:	<b>I-29 Exit 77 (41<sup>st</sup> Street) Environmental Study Landowner Meeting</b>		
Client:	South Dakota Department of Transportation / City of Sioux Falls		
Project:	[SDDOT Project PL0100 (84) and IM0293 (A6)77]		
Meeting Date:	May 30 <sup>th</sup> , 2017	Meeting Location:	HDR Conference Room

Please print clearly. Thank you.

	NAME/REPRESENTING	ADDRESS	BEST CONTACT PHONE	E-MAIL
1	James Unruh	6300 S. Old Village Pl.	605-977-7766	james.unruh@hdrinc.com
2	Ricesh Patel	Red Rock	605-670-1145	RAMADA57104@gmail.com
3	Jason Kjenstad	6300 S. Old Village Pl SF SD 57108	605-977-7755	jason.kjenstad@hdrinc.com
4				
5				
6				
7				

5/30/17 Red Rock Inn Landowner Mtg  
Attachment 1



1. **Build Alternatives Evaluation Summary**

Alternatives recommended to be carried forward for further consideration:

Alternative	Description	Main reason(s) for carrying forward
4	West Side Carolyn Avenue Cul-de-sac	• Meets traffic, safety, and design criteria
5	East Side Carolyn Avenue Cul-de-sac	• Meets traffic, safety, and design criteria

Alternatives recommended to be eliminated from further consideration:

Alternative	Description	Main reason(s) for elimination
1	Right-in / Right-out at Existing Carolyn Avenue Alignment	• Intersection will remain within the 41 <sup>st</sup> Street right turn lane therefore SDDOT spacing criteria is not met.
2	Right-in / Right-out at Realigned Carolyn Avenue	• Intersection will remain within the 41 <sup>st</sup> Street right turn lane therefore SDDOT spacing criteria is not met.
3	Right-in Only at Existing Carolyn Avenue Alignment	• Intersection will remain within the 41 <sup>st</sup> Street right turn lane therefore SDDOT spacing criteria is not met.
6	Realigned Carolyn Avenue to Empire Mall Entrance	• Requires purchase of three commercial properties • Potential environmental impact with contaminated materials at Kings Mart convenience store/gas station

Alternative	Description	Purpose and Need				Traffic Operations		Property Impacts						Costs					Applicable Environmental Impacts						
		41 <sup>st</sup> St Capacity Improvement	Safety Improvement	Pedestrian Facilities Improvement	Adequate Separation from I-29 ramp (1)	Increase Traffic to Other Intersections	Year 2045 41st St/Carolyn Ave Intersection LOS AM/PM	Total commercial acquisitions #	Total Commercial Acquisitions sq ft	Partial commercial acquisitions sq ft	Re-sale commercial properties sq ft	Net Commercial Acquisition sq ft	Access impacts	Affected Business / Landowner Acceptance	Initial ROW Acquisition M \$	Net ROW Acquisition M \$	Construction M \$	Initial Total M \$	Final Total (after property re-sale) M \$	Historic Structures #	Section 4(f) Properties #	Environmental Justice #	Contaminated Materials #	Wetlands ac	Floodplain ac
1	Right-in / Right-out at Existing Carolyn Avenue	moderate	moderate	moderate	no	minimal	F/F	0	0	3,462	0	3,462	minor	good	0.2	0.2	0.6	0.8	0.8	0	0	0	0	0	0
2	Right-in / Right-out with Realigned Carolyn Avenue	moderate	moderate	moderate	no	minimal	F/F	1	60,252	5,755	57,353	8,654	minor	good	2.1	0.9	0.7	2.8	1.6	0	0	(5)	0	0	0
3	Right-in Only at Carolyn Avenue	moderate	moderate	moderate	no	minimal	NA	1	14,224	4,162	0	18,386	moderate	moderate	0.7	0.7	0.8	1.5	1.5	0	0	0	0	0	0
4	West side Carolyn Avenue Cul-de-sac	good	good	good	yes	moderate (2)	NA	1	14,224	3,436	0	17,660	moderate (3)	poor	0.7	0.7	0.9	1.6	1.6	0	0	0	0	0	0
5	East side Carolyn Avenue Cul-de-sac	good	good	good	yes	moderate (2)	NA	1	60,252	7,306	57,614	9,944	moderate (3)	poor	2.2	1.0	0.9	3.1	1.9	0	0	(5)	0	0	0
6	Realigned Carolyn Avenue to Mall Entrance	good	good	good	yes	minimal	A/A	3	145,744	0	103,171	42,573	minor	unknown (4)	4.4	2.3	1.1	5.5	3.4	0	0	(5)	(6)	0	0
NB	No-Build	poor	poor	poor	no	none	F/F	0	0	0	0	0	none	good	NA	NA	NA	NA	NA	0	0	0	0	0	0

NA: Not Applicable

(1) SDDOT design criteria requires a minimum 100' separation from an interstate ramp junction/turn lane to the nearest access point.

(2) Requires future signalization of 38<sup>th</sup> Street/Shirley Ave intersection. Cost estimates include this signal.

(3) Properties maintain access to Carolyn Avenue with these alternatives.

(4) This alternative has not been presented to a sizable group of affected business/landowners.

(5) Environmental justice impact not evaluated; see discussion for Alternatives 2, 5, and 6 evaluation.

(6) Kings Mart convenience store has been evaluated for Phase I Environmental Site Assessment due to past use as gas station; see discussion for Alternative 6 evaluation.

Options recommended for elimination from further evaluation

Drawn By: B.Miller  
Date: 4/12/2017  
Chkd By: J.Unruh  
Date: 4/12/2017  
Revision:



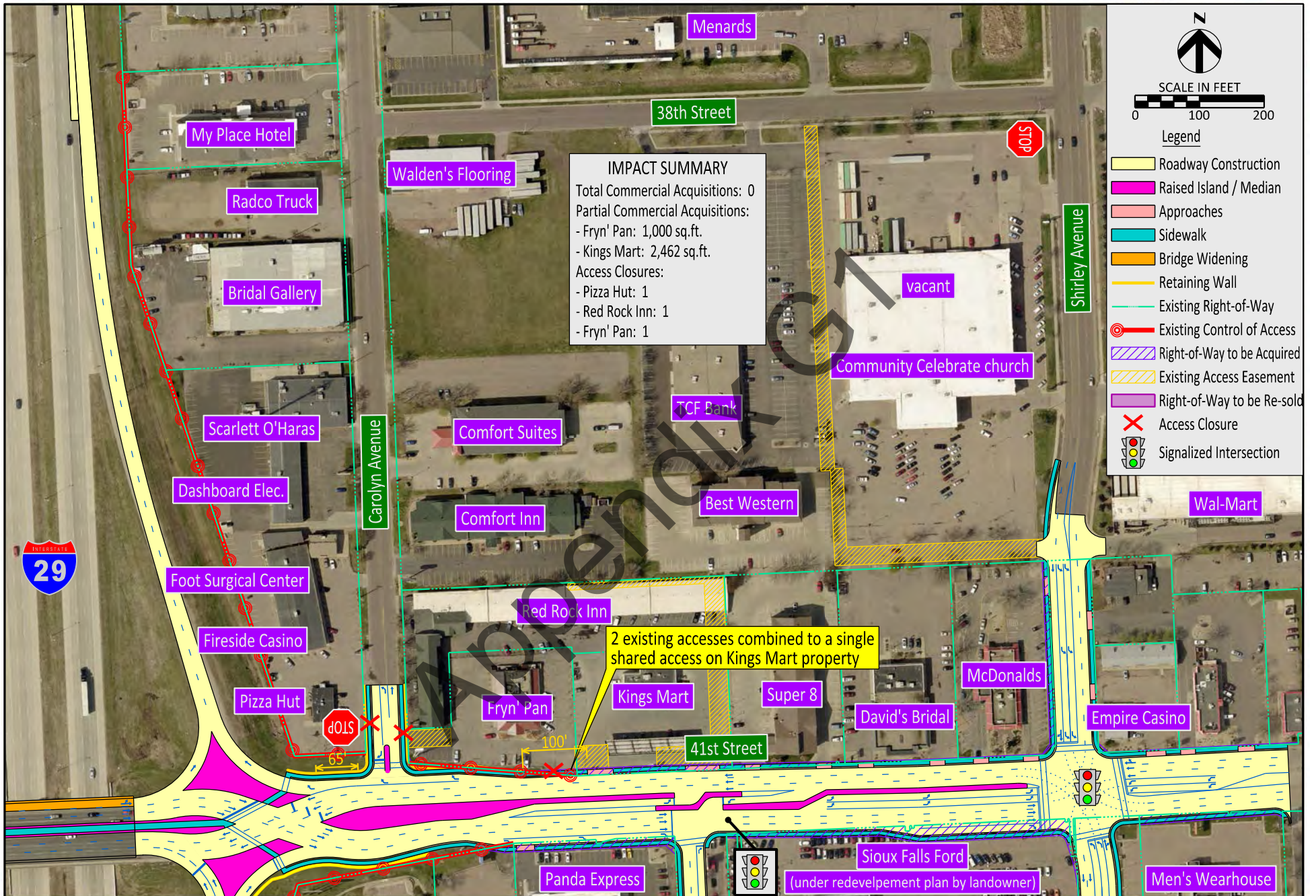
Carolyn Avenue  
Alternative Evaluation Summary and Comparison Matrix  
41st Street Corridor Environmental Assessment  
Sioux Falls, SD

Figure









Drawn By: B. Miller  
 Date: 11/16/2016  
 Chkd By: J. Unruh  
 Date: 11/16/2016  
 Revision: 4/12/2017

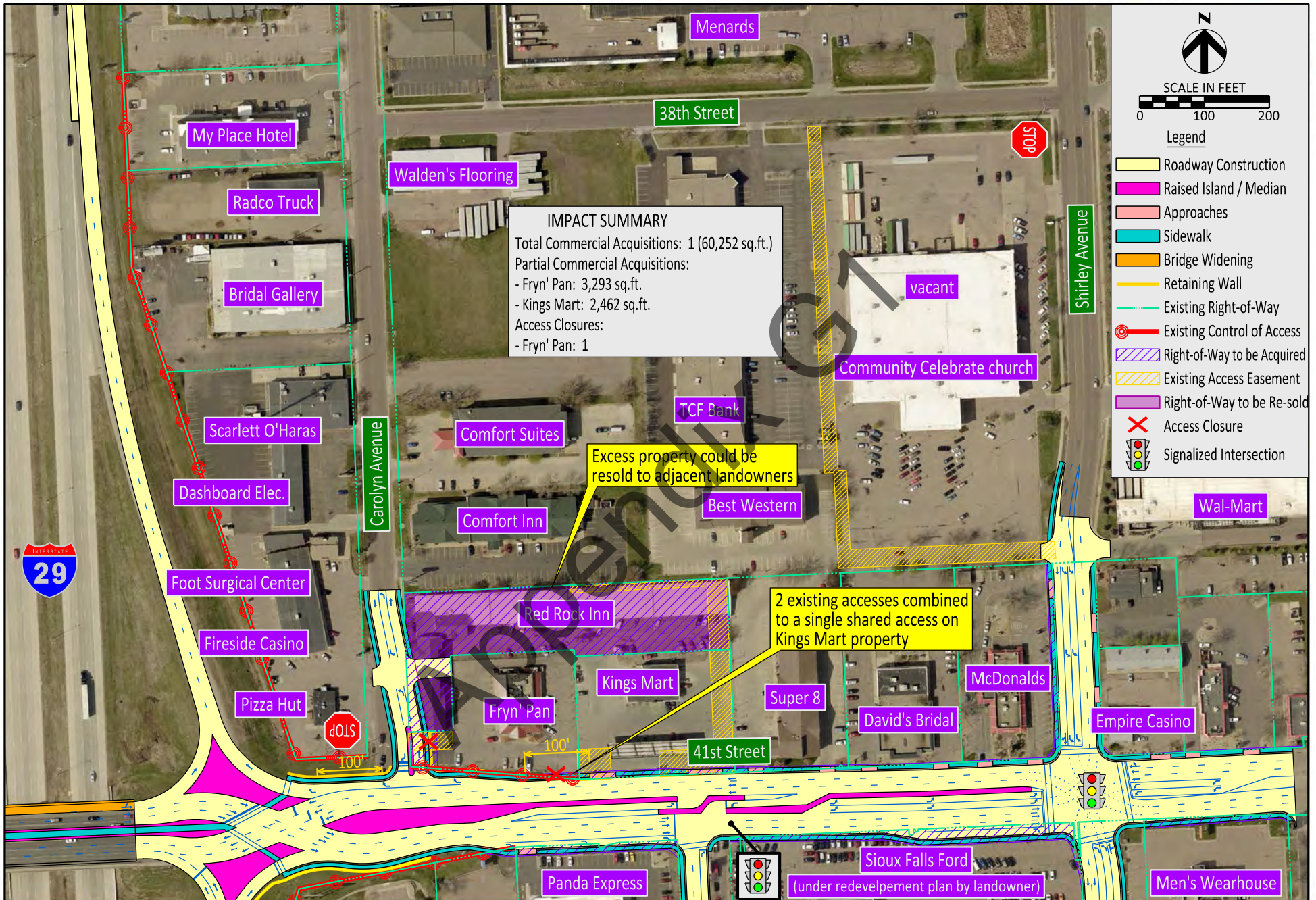


**Alternative 1**  
**Right-in / Right-out at Existing Carolyn Avenue**  
 41st Street Corridor Environmental Assessment

Sioux Falls, SD

Figure  
**C-1**





Drawn By: B. Miller  
 Date: 11/16/2016  
 Chkd By: J. Unruh  
 Date: 11/16/2016  
 Revision: 4/12/2017

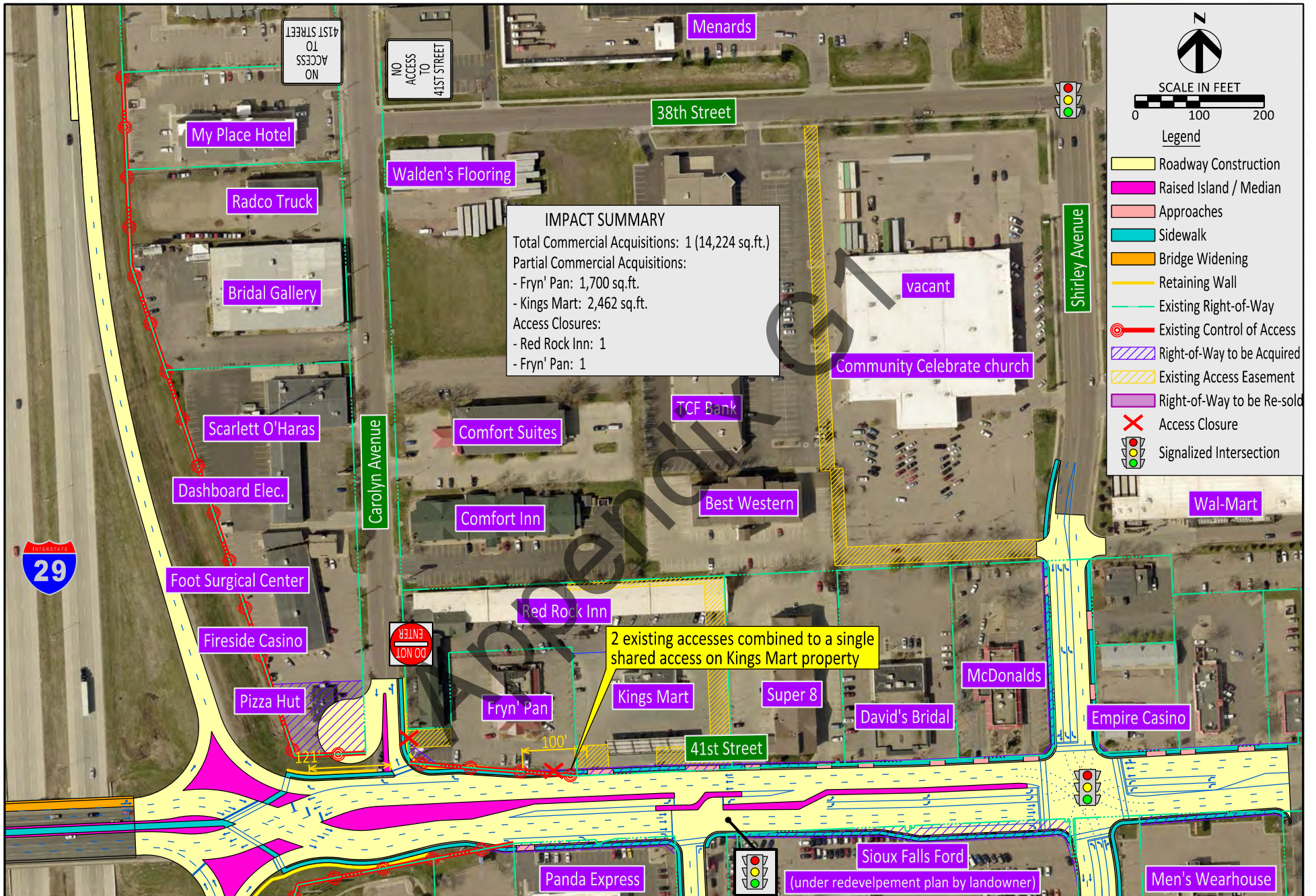


**Alternative 2**  
**Right-in / Right-out with Realigned Carolyn Avenue**  
 41st Street Corridor Environmental Assessment  
 Sioux Falls, SD

Figure

C-2





Drawn By: B. Miller  
Date: 11/16/2016  
Chkd By: J. Unruh  
Date: 11/16/2016  
Revision: 4/12/2017

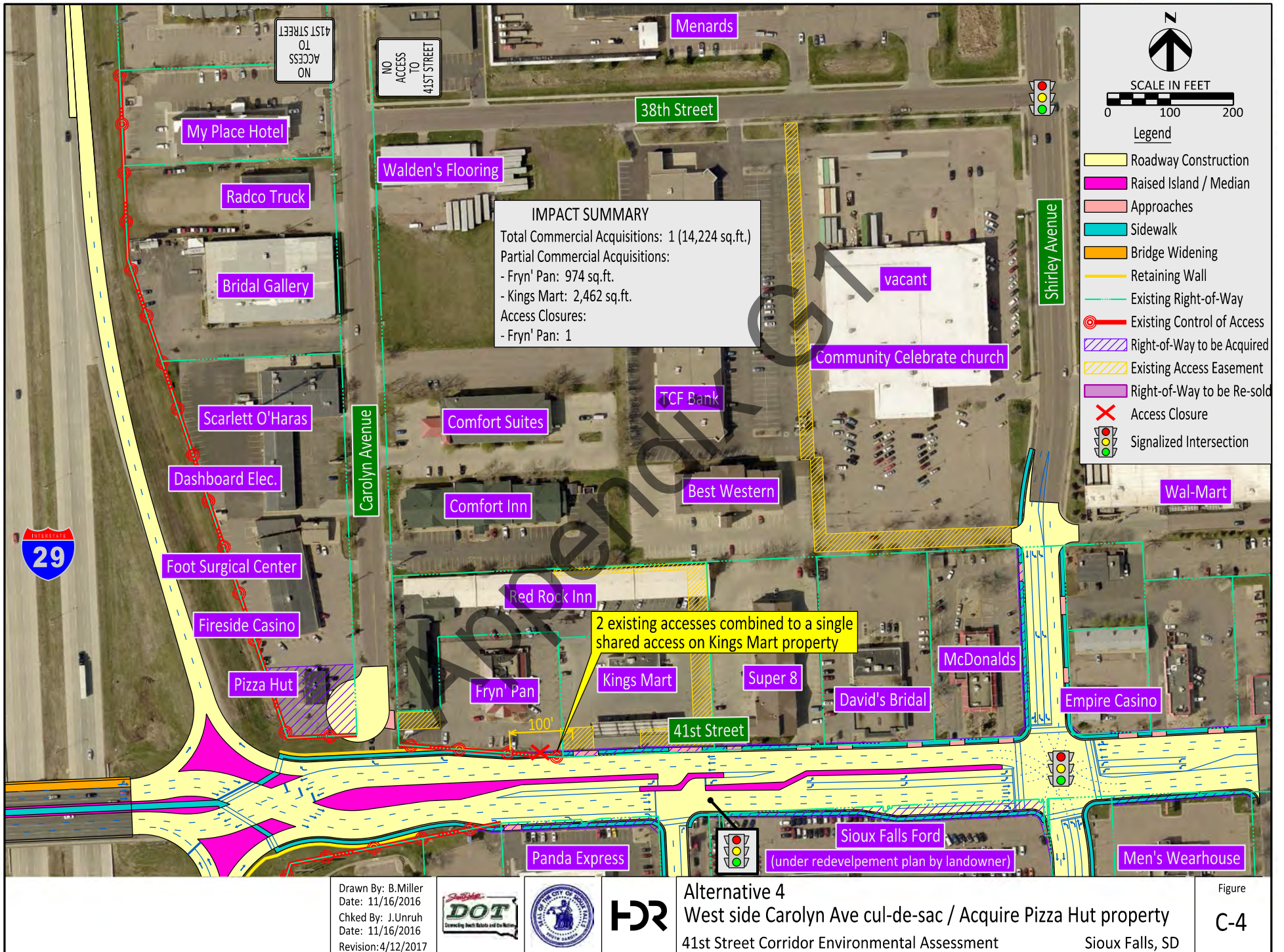


Alternative 3  
Right-in Only at Carolyn Avenue  
41st Street Corridor Environmental Assessment

Sioux Falls, SD

Figure  
C-3





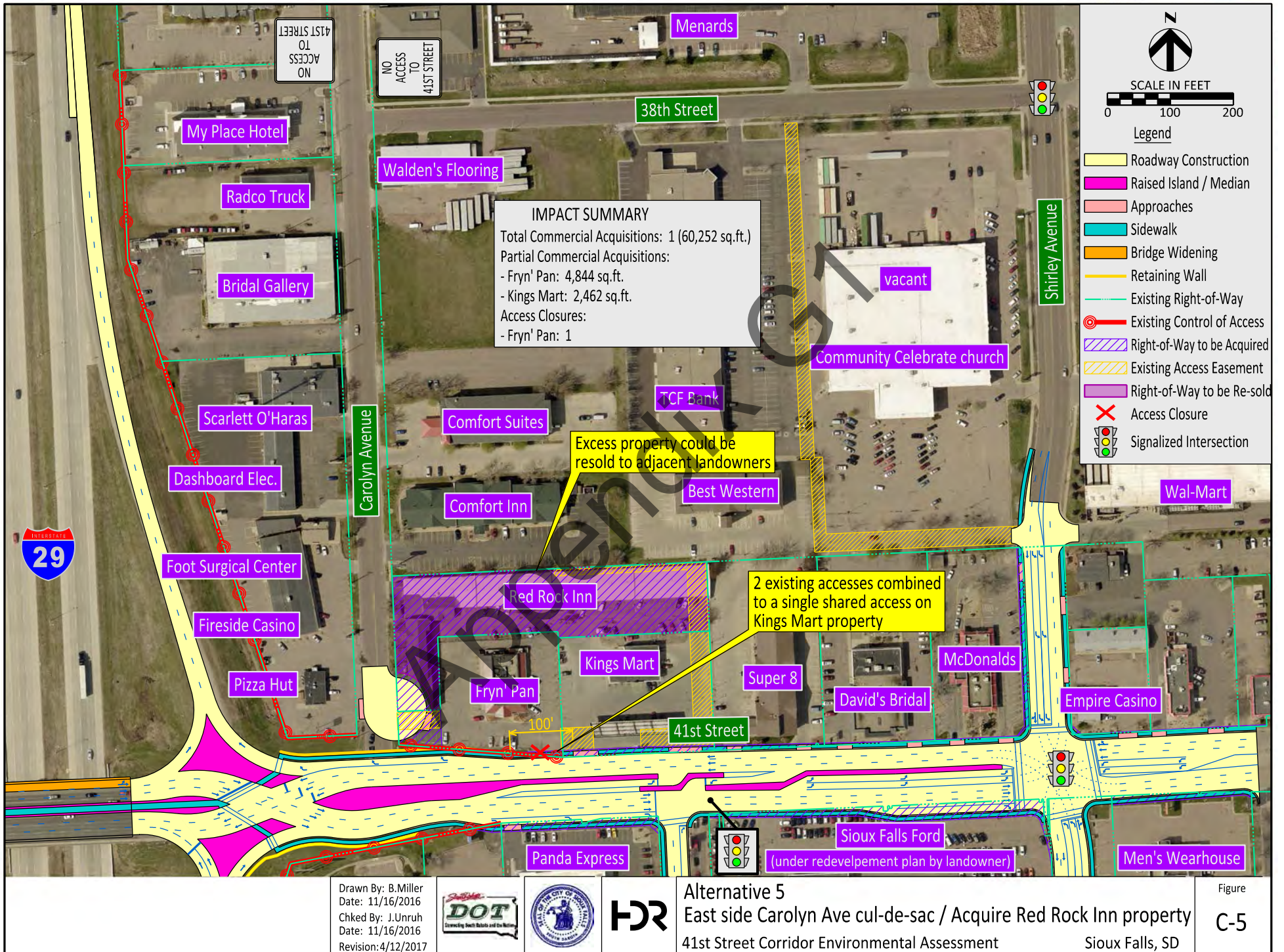
Drawn By: B. Miller  
 Date: 11/16/2016  
 Chkd By: J. Unruh  
 Date: 11/16/2016  
 Revision: 4/12/2017



**Alternative 4**  
 West side Carolyn Ave cul-de-sac / Acquire Pizza Hut property  
 41st Street Corridor Environmental Assessment  
 Sioux Falls, SD

Figure  
**C-4**





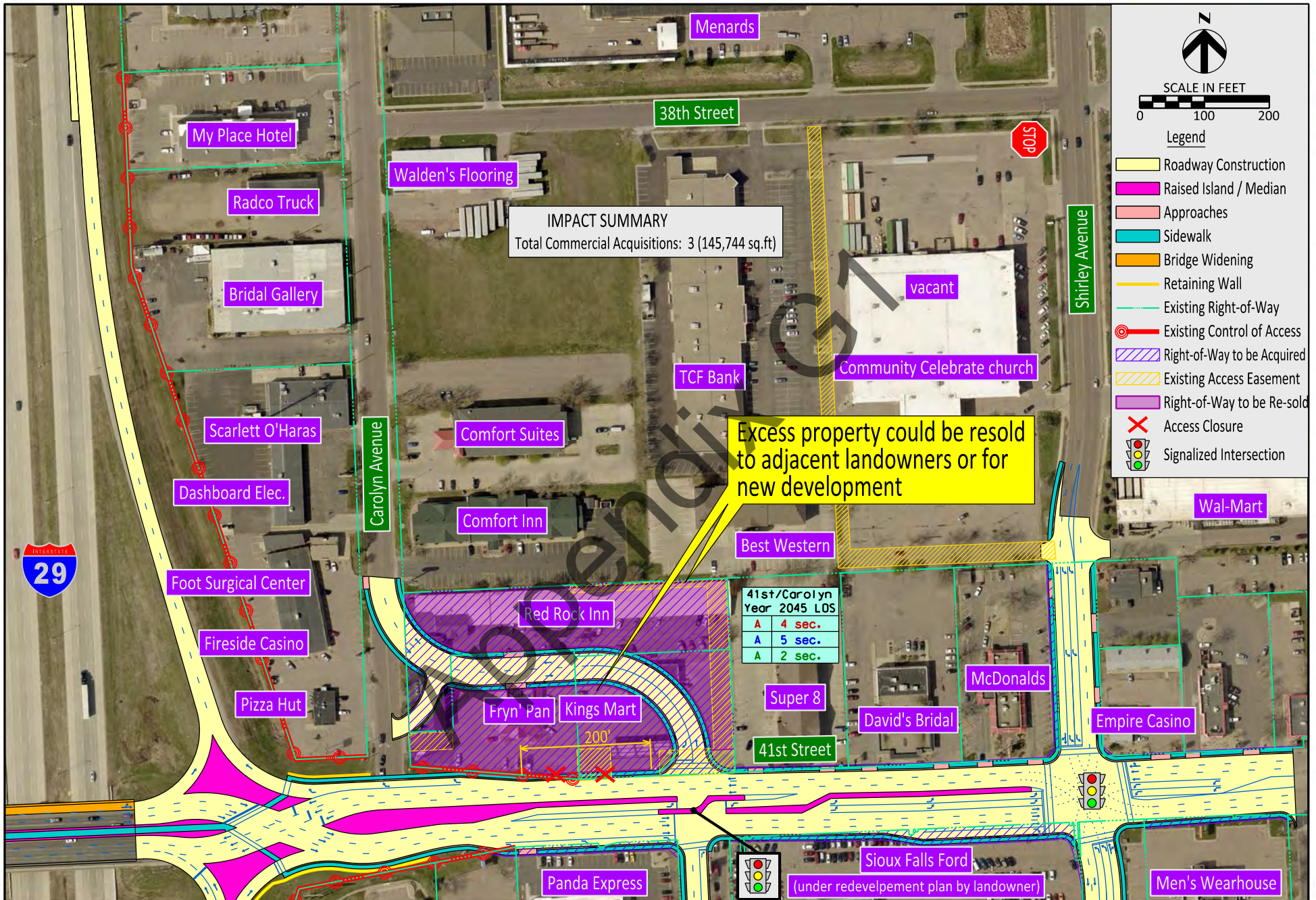
Drawn By: B. Miller  
 Date: 11/16/2016  
 Chkd By: J. Unruh  
 Date: 11/16/2016  
 Revision: 4/12/2017



Alternative 5  
 East side Carolyn Ave cul-de-sac / Acquire Red Rock Inn property  
 41st Street Corridor Environmental Assessment  
 Sioux Falls, SD

Figure  
 C-5





Drawn By: B. Miller  
Date: 11/23/2016  
Chkd By: J. Unruh  
Date: 11/23/2016  
Revision: 4/12/2017



Alternative 6  
Realigned Carolyn Ave to Mall Entrance  
41st Street Corridor Environmental Assessment

Sioux Falls, SD

Figure

C-6



1. Build Alternatives Evaluation Summary

Alternatives recommended to be carried forward for further consideration:

Alternative	Main reason(s) for carrying forward
Diverging Diamond Interchange	<ul style="list-style-type: none"><li>Significantly lower construction cost than SPI (regardless of treatment of the existing bridge)</li><li>Allows for better maintenance of traffic during construction than SPI</li><li>Lower predictive crash rate than SPI</li></ul>

Alternatives recommended to be eliminated from further consideration:

Alternative	Main reason(s) for elimination
Single Point Interchange	<ul style="list-style-type: none"><li>Significantly higher construction cost than DDI</li><li>Difficulty in maintaining traffic during construction</li><li>Higher predictive crash rate than DDI</li></ul>

Alternative		Purpose and Need				Year 2045 Traffic Operations						Safety		Driver/ Public Perception	Construction Impacts		Comparative Costs (5)					Applicable Env. Impacts	
		Meets SDDOT and City LOS Criteria	Improves Safety	Improves Pedestrian Facilities	Provides Adequate Separation to Nearest Access (1)	Northbound Ramp Intersection		Southbound Ramp Intersection		Ramps	Mainline Weaving	Predicted Annual Total Crashes Year of opening to 2045	Predicted Annual Fatality and Injury Crashes Year of opening to 2045	Driver Familiarity	Maintenance of Traffic during Construction	Allows for Phased Construction	ROW Acquisition	Bridge (6)	Retaining Wall	Roadway	Total	Wetlands	Floodplain
						Worst LOS AM/PM	Worst Delay AM/PM	Worst LOS AM/PM	Worst Delay AM/PM								Worst LOS AM/PM	Worst LOS AM/PM	#	#	M \$	M \$	M \$
Single Point Interchange (SPI)		yes	yes	yes	yes	B/C (2)	20/24 (2)	(2)	(2)	C/C	C/B	41.2	16.4	good	poor	yes	(4)	7.8	4.1	9.3	21.2	0.39	0
Diverging Diamond Interchange (DDI)	Widen existing bridge																	1.0			10.7		
	Widen and overlay existing bridge	yes	yes	yes	yes	C/C	26/23	C/C	26/25	C/C	C/B	32.9	11.5	(3)	good	yes	(4)	1.3	2.0	7.7	11.0	0.33	0
	New bridge																	5.5			15.2		
No-Build		no	no	no	no	C/E	28/76	C/F	34/85	C/C	C/B	57.0	23.1	good	0	NA	0	0	0	0	0	0	0
NA: Not Applicable																							
(1) SDDOT policy requires a minimum 100' separation from an interstate ramp junction/turn lane to the nearest access point.																							
(2) LOS and Delay applies to the single intersection associated with the SPI.																							
(3) While the DDI would be a new configuration for this area, drivers have become well-adapted to DDI interchanges where they have been implemented in other locations.																							
(4) Interchange alternatives are designed to fit within the existing I-29 ROW.																							
(5) 41st Street construction cost limits are based on estimated final Control of Access limits (per direction from SDDOT).																							
(6) Determination of bridge treatment with DDI alternative will be made during the final design process																							
Options recommended for elimination from further evaluation																							

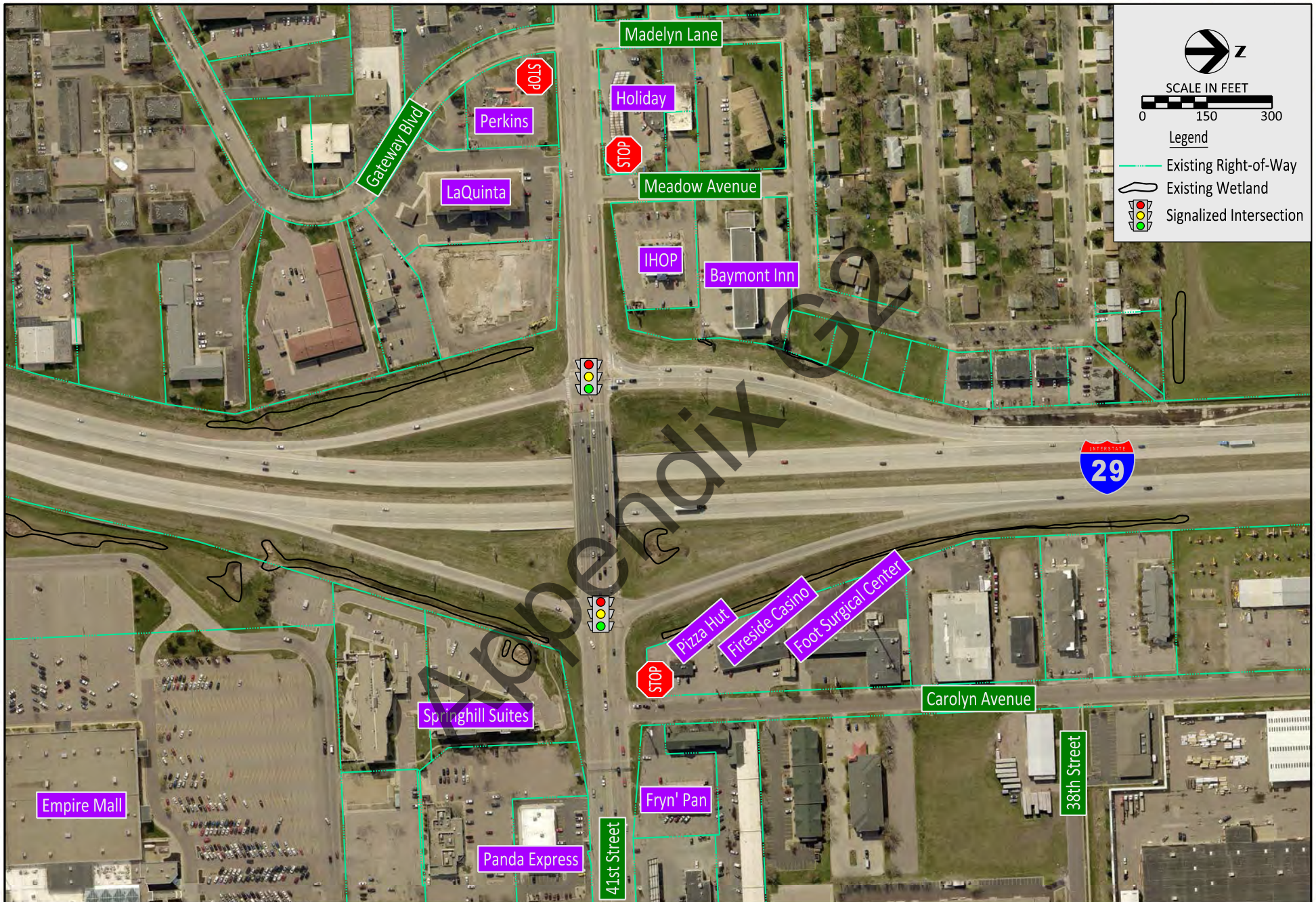
Drawn By: B.Miller  
Date: 4/12/2017  
Chkd By: J.Unruh  
Date: 4/12/2017  
Revision:



Interchanges  
Alternative Evaluation Summary and Comparison Matrix  
41st Street Corridor Environmental Assessment  
Sioux Falls, SD

Figure





Drawn By: B. Miller  
Date: 8/30/2016  
Chkd By: J. Unruh  
Date: 8/30/2016  
Revision: 2/1/2017



## Existing Conditions

41st Street Corridor Environmental Assessment

Sioux Falls, SD

Figure

I-0





Drawn By: B. Miller  
Date: 8/30/2016  
Chkd By: J. Unruh  
Date: 8/30/2016  
Revision: 2/1/2017



## Single Point Interchange Alternative

41st Street Corridor Environmental Assessment

Sioux Falls, SD

Figure

I-1





Drawn By: B. Miller  
Date: 8/30/2016  
Chkd By: J. Unruh  
Date: 8/30/2016  
Revision: 2/1/2017



## Diverging Diamond Interchange Alternative

41st Street Corridor Environmental Assessment

Sioux Falls, SD

Figure

I-2



1. **Build Alternatives Recommendations Summary**

Alternatives recommended to be carried forward:

Alternative	Description	Main reason(s) for carrying forward
B1	Raise center median with 3/4 access at 41 <sup>st</sup> St /Madelyn Lane/Gateway Blvd	<ul style="list-style-type: none"><li>Provides safety benefits of raised median</li><li>Meets SDDOT and City design policies</li><li>Provides reasonable access to properties</li></ul>

Alternatives recommended to be eliminated from further consideration:

Alternative	Description	Main reason(s) for elimination
A	Raise center median with full access only at signalized intersections	<ul style="list-style-type: none"><li>Landowner opposition to perceived access restrictions</li><li>Alternative B1 addresses access concerns</li></ul>
B2	Raise center median with 3/4 access at 41 <sup>st</sup> St /Madelyn Lane/Gateway Blvd and 3/4 access at Godfathers/Mount Marty College entrance	<ul style="list-style-type: none"><li>Impacts to Black Diamond Casino parking lot and Godfathers Pizza drive-through lane</li><li>City policy is to provide the 3/4 access configurations at street intersections or at a combination of multiple driveways.</li></ul>
C	Center two-way left turn lane	<ul style="list-style-type: none"><li>Does not provide safety improvements.</li><li>SDDOT and City design policies for application of raised medians are not met.</li></ul>

Alternative	Description	Purpose and Need				Traffic Operations (2)				Property Impacts							Costs					Applicable Environmental Impacts				
		Meets City LOS Criteria	Safety Improvement	Pedestrian Facilities	Improvement Meets SDDOT and City Design Policy	Year 2023		Year 2045		Total commercial acquisitions	Total Commercial Acquisitions	Partial commercial acquisitions	Re-sale commercial properties	Net Commercial Acquisition	Partial Residential Acquisitions (4)	Affected Business / Landowner Acceptance for Access and Impacts	Initial ROW Acquisition	Net ROW Acquisition	Construction	Initial Total	Final Total (after property re-sale)	Historic Structures	Section 4(f) Properties	Environmental Justice	Contaminated Materials	Noise
						41st St/Marion Rd Intersection	41st St/Terry Ave Intersection	41st St/Marion Rd Intersection	41st St/Terry Ave Intersection																	
		LOS AM/PM	LOS AM/PM	LOS AM/PM	LOS AM/PM					#	sq ft	sq ft	sq ft	sq ft	sq ft		M \$	M \$	M \$	M \$	M \$	#	#	#	#	#
A	Raised median with full access signalized intersections at 41st/Marion, 41st/Terry, and 41st/I-29	yes (1)	yes	yes	yes	D/C	B/B	E/E (1)	B/B	1	37,396	32,621	27,444	42,573	534	poor	2.2	1.6	9.9	12.1	11.5	0	0	0	(6)	11 (7)
B-1	Raised median with same intersections as Alt A and 3/4 access at 41st/Madelyn/Gateway	yes (1)	yes	yes	yes	D/C	B/B	E/E (1)	B/B	1	37,396	39,301	27,444	49,253	534	moderate	2.4	1.8	10.1	12.5	11.9	0	0	0	(6)	11 (7)
B-2	Raised median with same intersections as Alt A and 3/4 accesses at 41st/Madelyn/Gateway and Godfathers/Mount Marty College	yes (1)	yes	yes	no	D/C	B/B	E/E (1)	B/B	1	37,396	40,696 (3)	27,444	49,872	534	unknown (5)	2.4	1.8	10.2	12.6	12.0	0	0	0	(6)	(8)
C	Center two-way left turn lane with same signalized intersections as Alt A	yes (1)	no	yes	no	D/C	B/B	E/E (1)	B/B	1	37,396	18,115	32,412	23,099	534	good	1.7	1.0	9.2	10.9	10.2	0	0	0	(6)	11 (7)
NB	No-Build	no	no	no	no	C/E	B/B	F/F	B/E	0	0	0	0	0	0	good	NA	NA	NA	NA	NA	0	0	0	0	(9)

NA: Not Applicable

(1) To meet year 2045 LOS criteria, 41st Street will need to be widened to 3 through lanes west of Marion Road between year 2023 and year 2045 as shown in the 2012 Corridor Study.

(2) LOS shown is with the Diverging Diamond Interchange at I-29; LOS with Single Point Interchange at I-29 is similar.

(3) Impacts to Black Diamond Casino parking spaces and Godfathers Pizza drivethrough lane would be considered significant impacts to these properties.

(4) Residential acquisitions are for narrow strips (3' to 10' width) along Marion Road.

(5) The alternative was developed specifically to address a request by the Mount Marty College representative.

(6) Total acquisition parcel is at southeast quadrant of 41st & Marion (former 7-Eleven Store); underground gasoline storage tanks were removed in 1998 and contaminated soils were removed.

(7) Year 2045 predicted noise levels are above Noise Abatement Criteria but noise mitigation measures do not meet SDDOT policy for cost effectiveness

(8) Noise impacts would be the same as for alternative B-1

(9) SDDOT policy does not require evaluation of noise impacts for future no-build conditions.

Options recommended for elimination from further evaluation

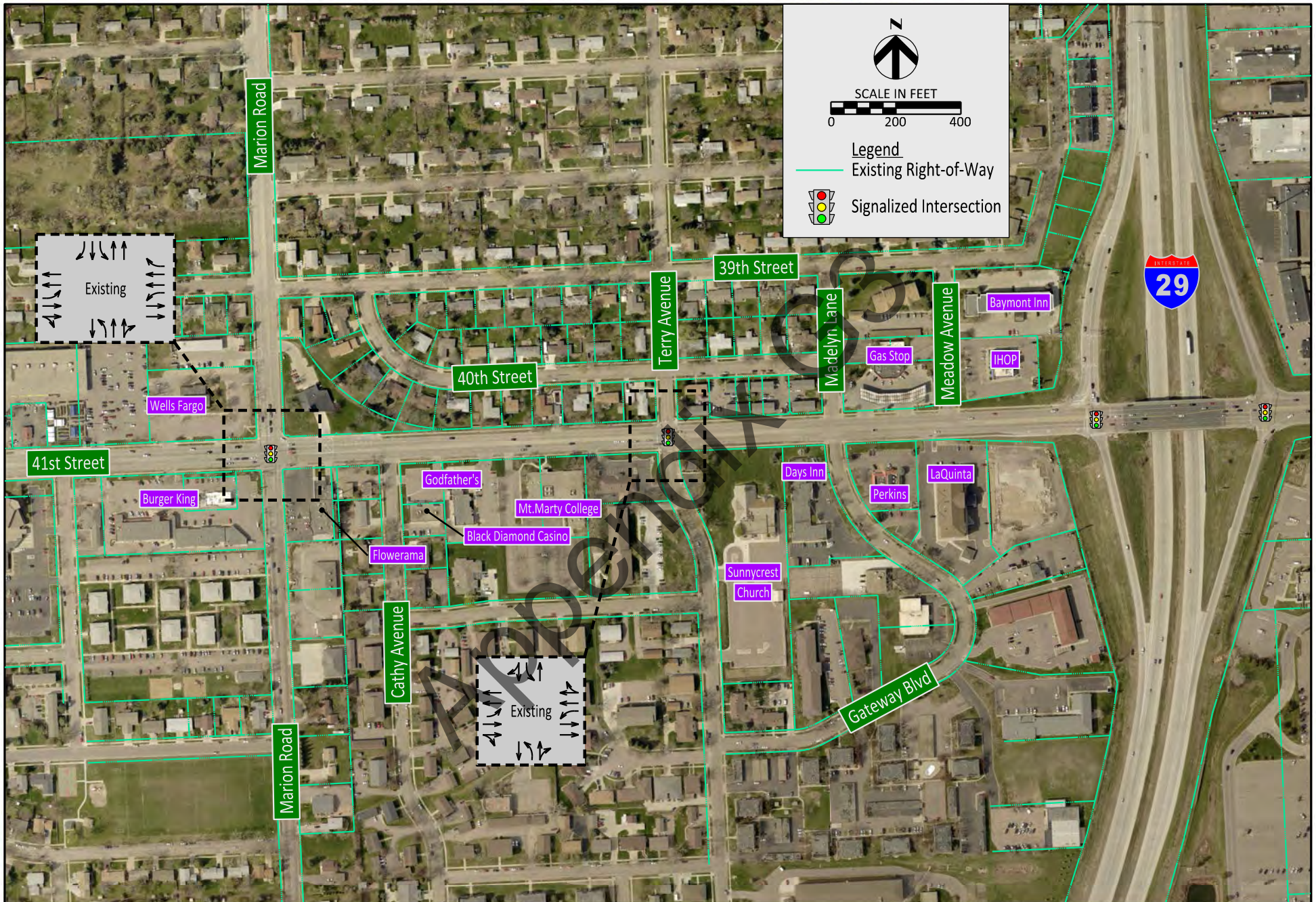
Drawn By: B.Miller  
Date: 4/12/2017  
Chkd By: J.Unruh  
Date: 4/12/2017  
Revision:



41st Street from Marion Road to I-29  
Alternative Evaluation Summary and Comparison Matrix  
41st Street Corridor Environmental Assessment  
Sioux Falls, SD

Figure





Drawn By: B. Miller  
Date: 7/22/2016  
Chkd By: J. Unruh  
Date: 7/22/2016  
Revision: 3/1/2017

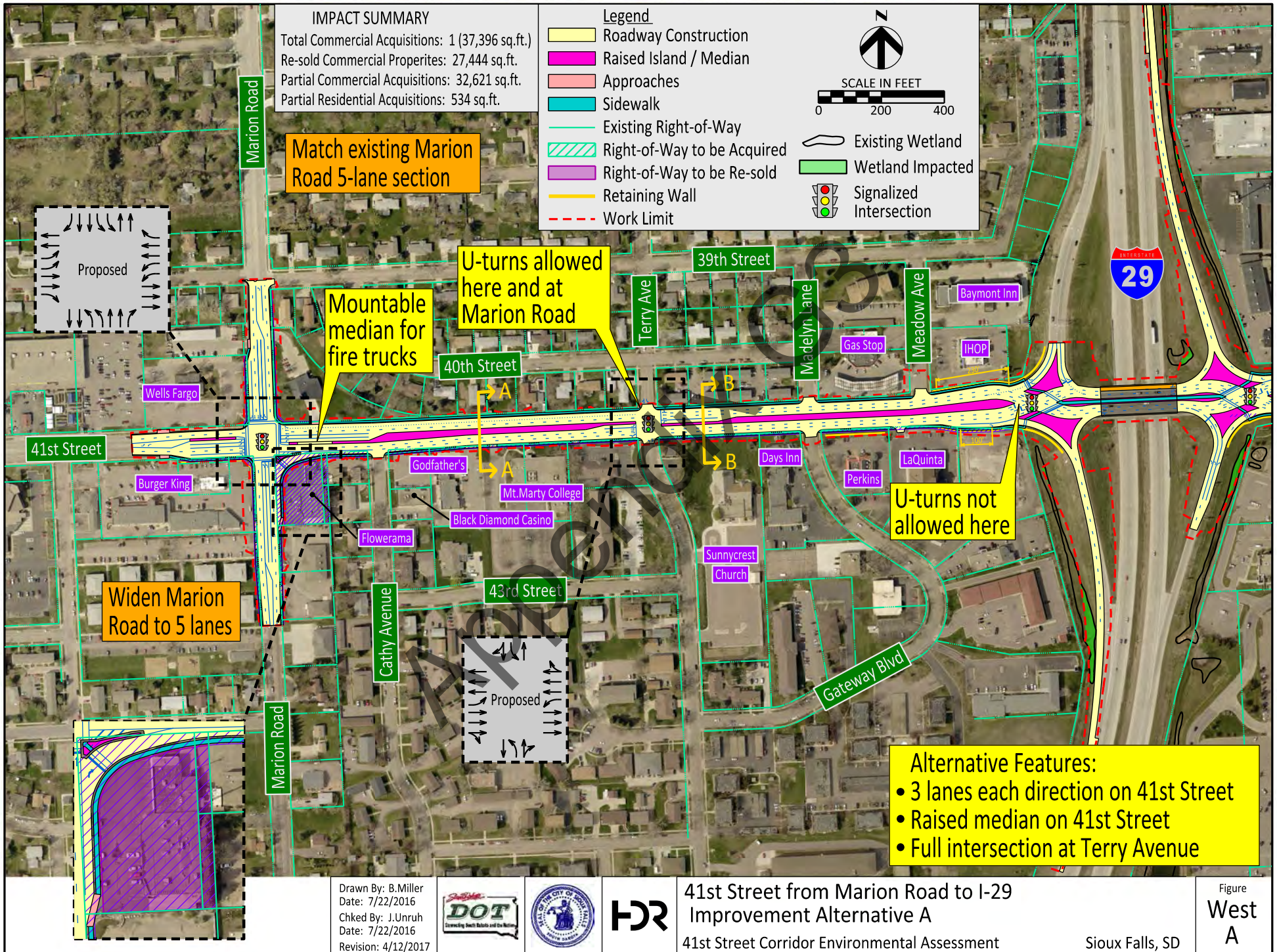


41st Street from Marion Road to I-29  
Existing Conditions  
41st Street Corridor Environmental Assessment

Sioux Falls, SD

Figure  
West  
Exist.





Drawn By: B. Miller  
 Date: 7/22/2016  
 Chkd By: J. Unruh  
 Date: 7/22/2016  
 Revision: 4/12/2017

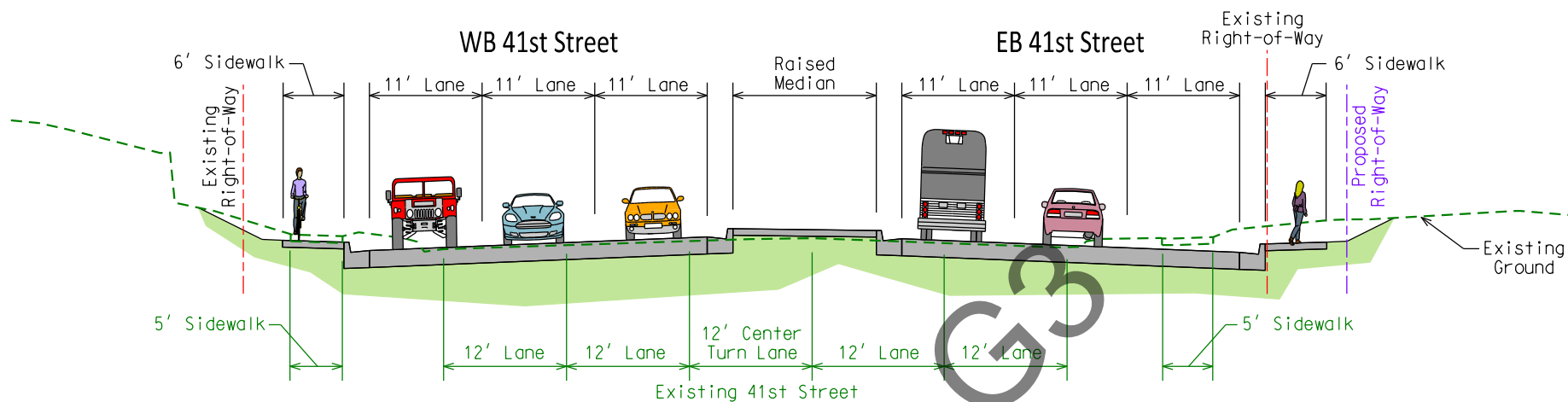


41st Street from Marion Road to I-29  
 Improvement Alternative A

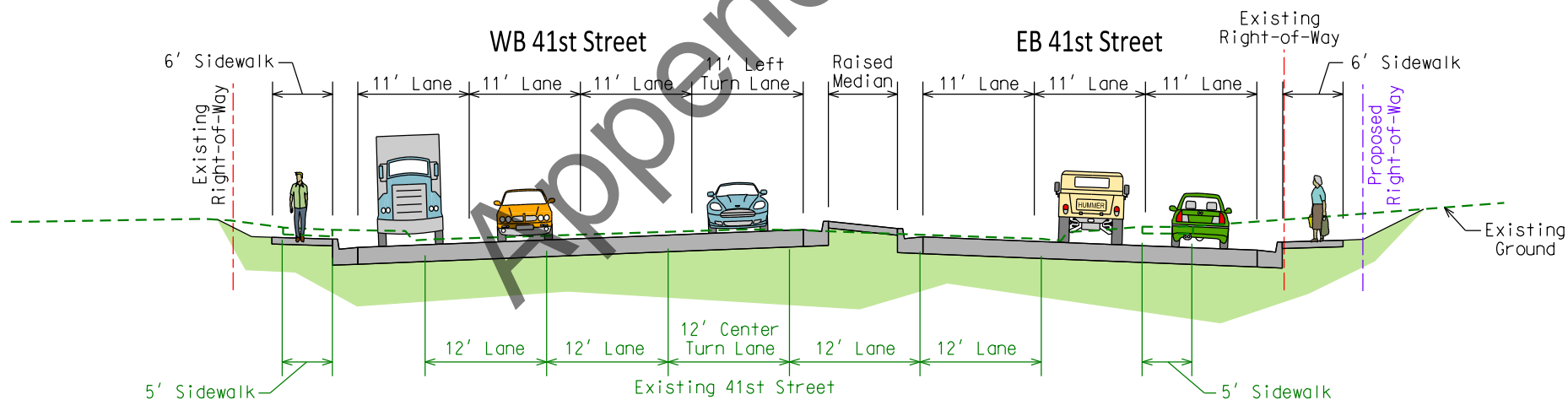
41st Street Corridor Environmental Assessment

Sioux Falls, SD

Figure  
 West  
 A



**SECTION A-A**  
LOOKING EAST



**SECTION B-B**  
LOOKING EAST

Drawn By: B. Miller  
Date: 3/1/2017  
Chkd By: J. Unruh  
Date: 3/1/2017  
Revision:



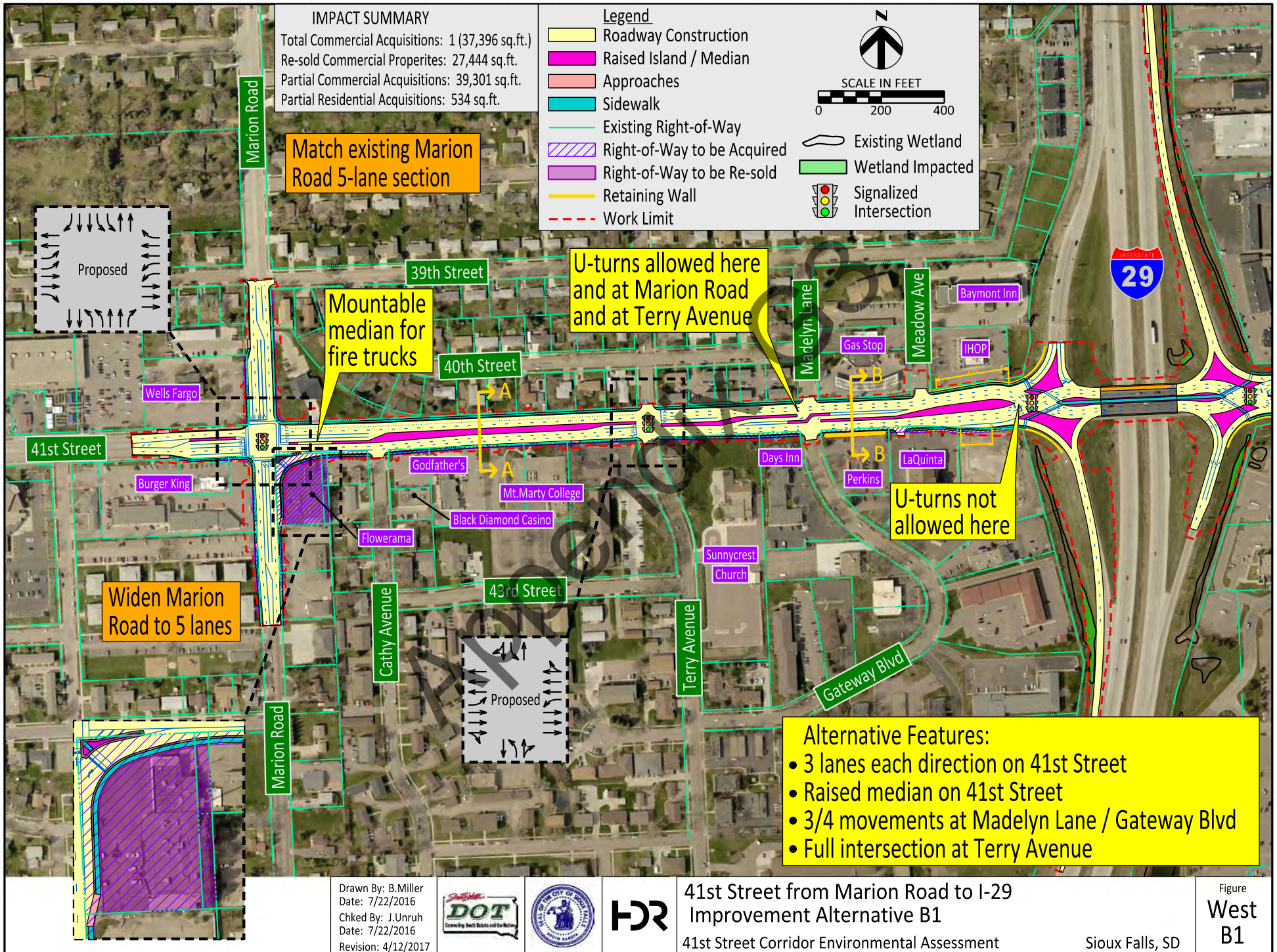
**41st Street from Marion Road to I-29**  
**Improvement Alternative A - Typical Sections**

41st Street Corridor Environmental Assessment

Sioux Falls, SD

Figure  
**West A**





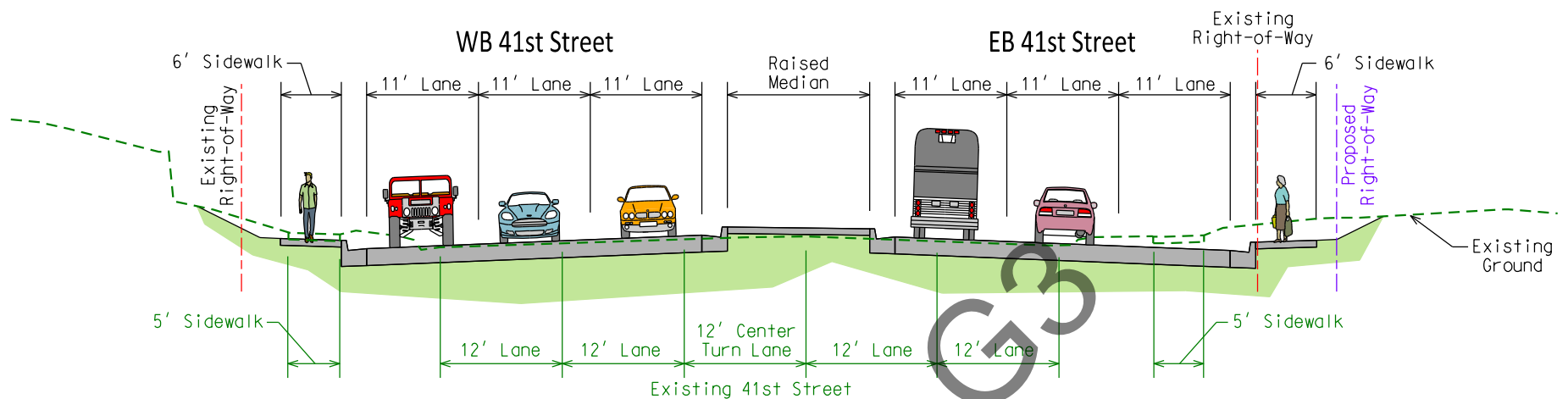
Drawn By: B. Miller  
 Date: 7/22/2016  
 Chkd By: J. Unruh  
 Date: 7/22/2016  
 Revision: 4/12/2017



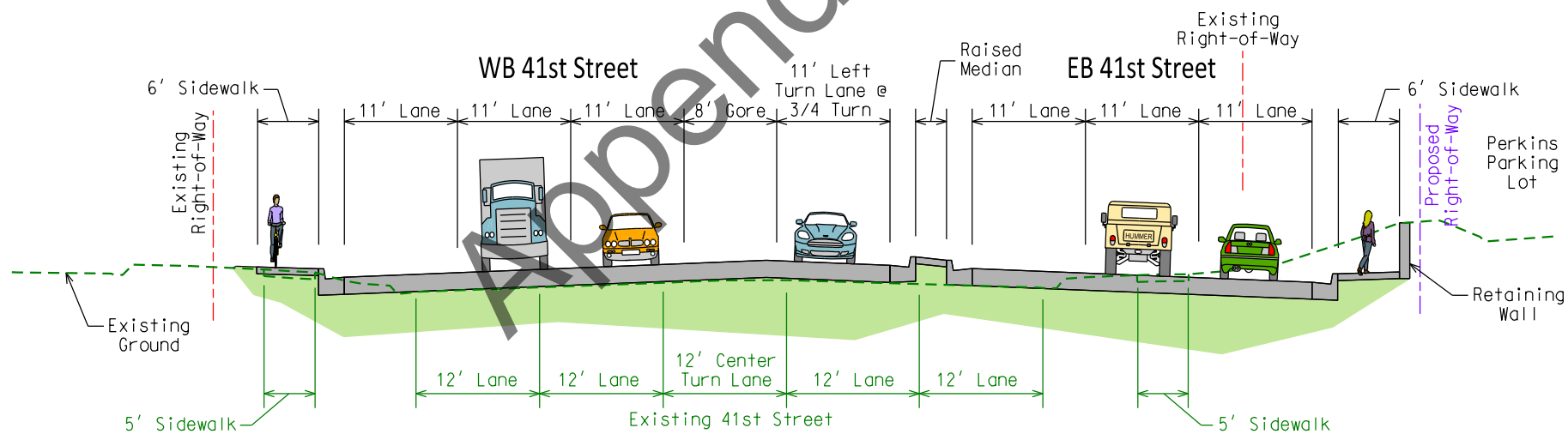
41st Street from Marion Road to I-29  
 Improvement Alternative B1  
 41st Street Corridor Environmental Assessment

Sioux Falls, SD

Figure  
 West  
 B1



**SECTION A-A**  
LOOKING EAST



**SECTION B-B**  
LOOKING EAST

Drawn By: B. Miller  
Date: 3/1/2017  
Chkd By: J. Unruh  
Date: 3/1/2017  
Revision:



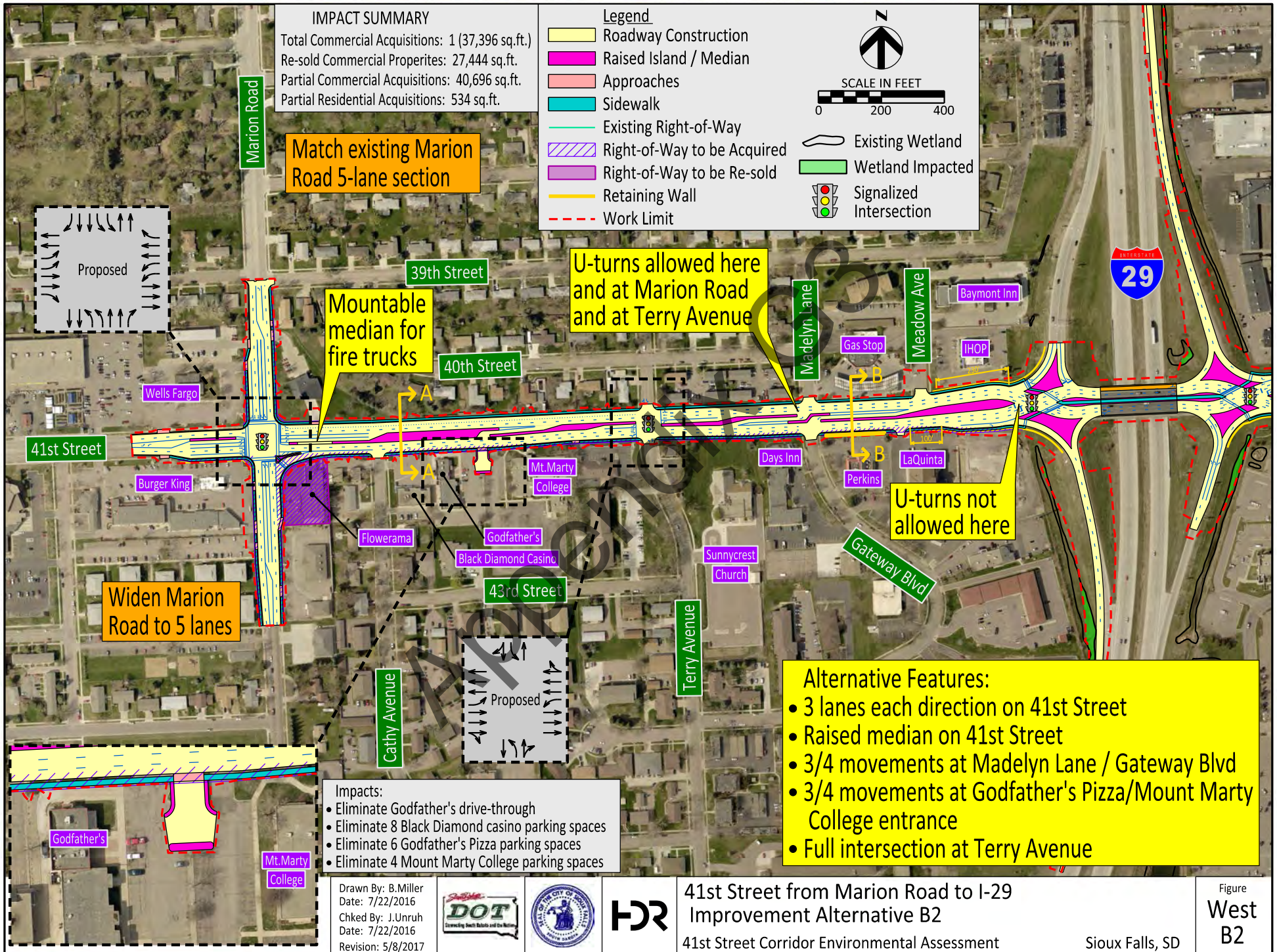
**41st Street from Marion Road to I-29**  
**Improvement Alternative B1 - Typical Sections**

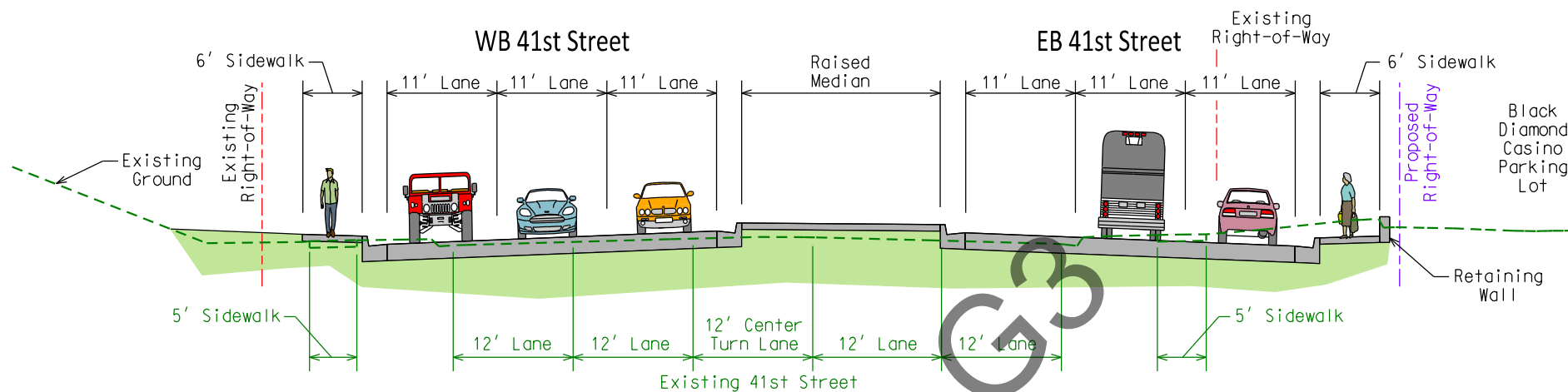
41st Street Corridor Environmental Assessment

Sioux Falls, SD

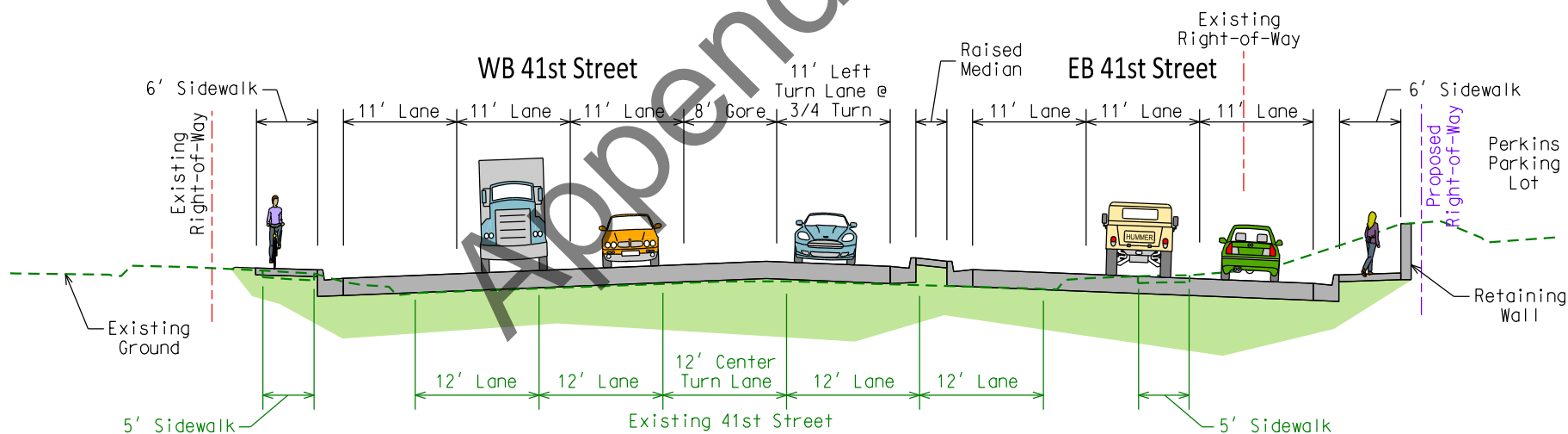
Figure  
**West B1**







SECTION A-A  
LOOKING EAST



SECTION B-B  
LOOKING EAST

Drawn By: B. Miller  
Date: 3/1/2017  
Chkd By: J. Unruh  
Date: 3/1/2017  
Revision: 5/8/2017



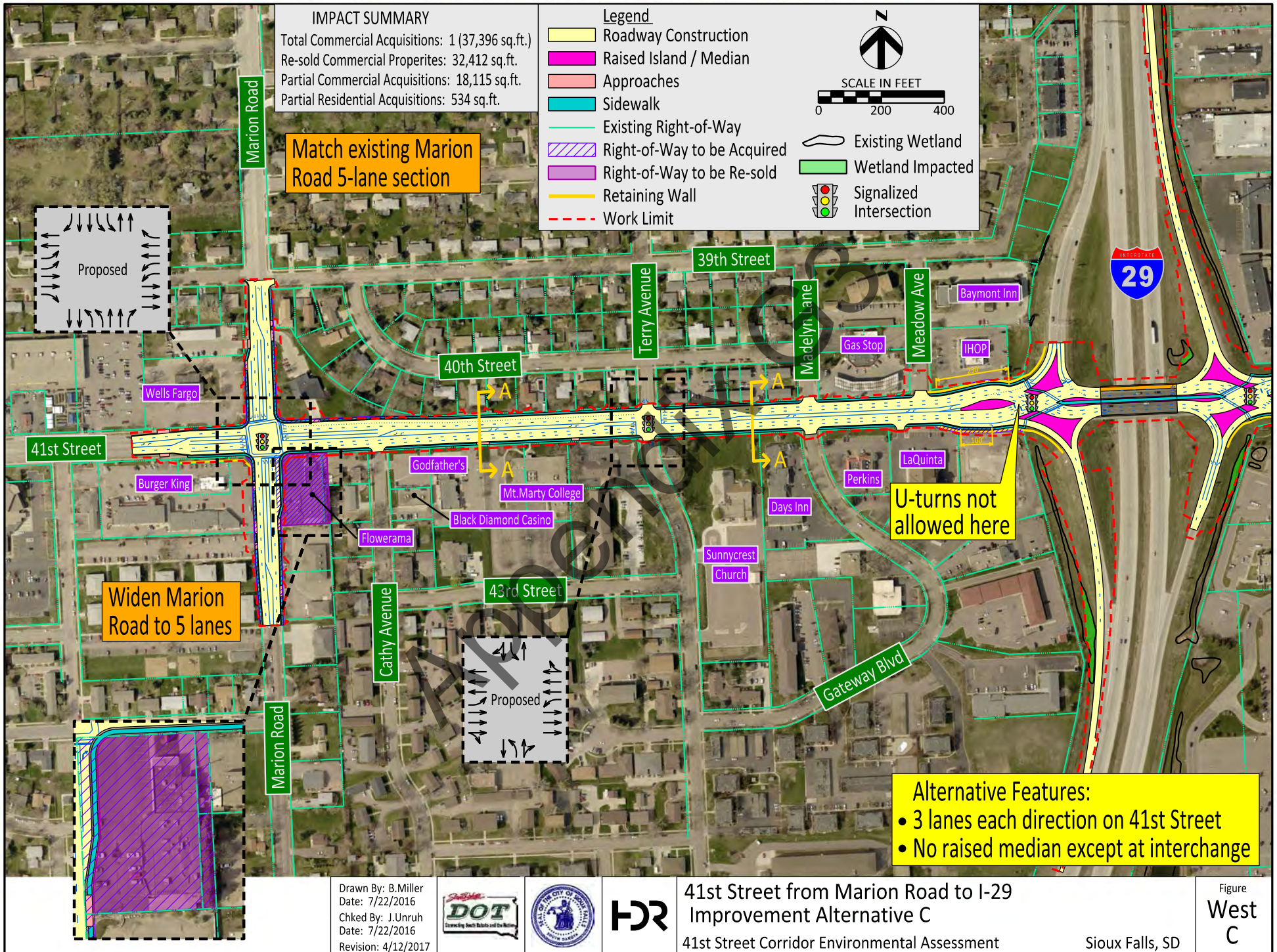
41st Street from Marion Road to I-29  
Improvement Alternative B2 - Typical Sections

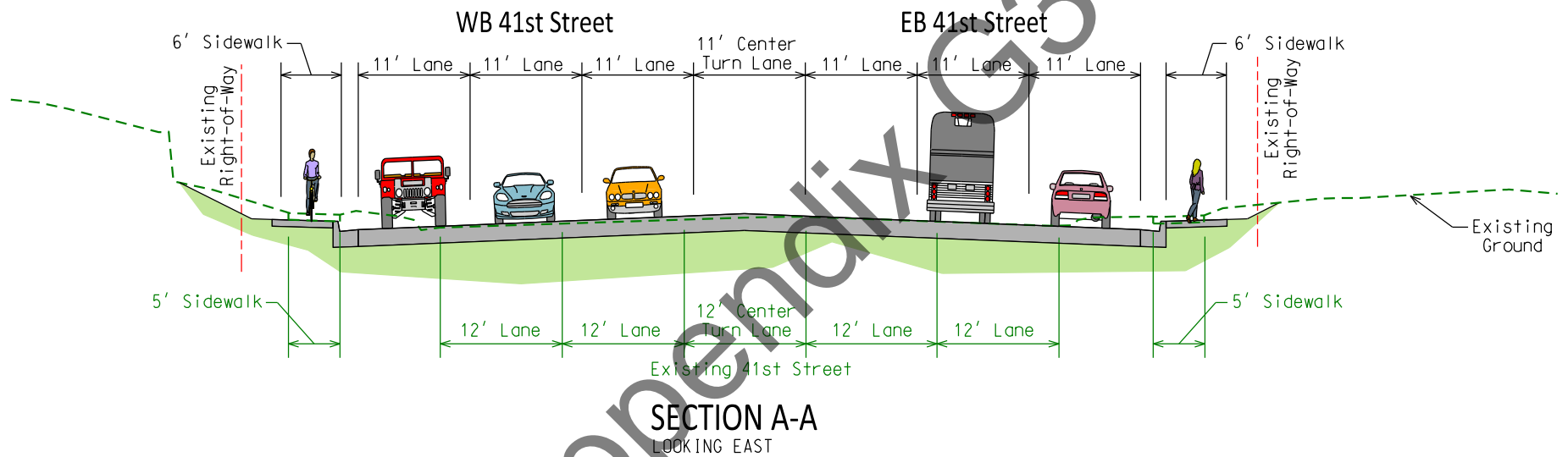
41st Street Corridor Environmental Assessment

Sioux Falls, SD

Figure  
West  
B2







Drawn By: B. Miller  
 Date: 3/1/2017  
 Chkd By: J. Unruh  
 Date: 3/1/2017  
 Revision:



41st Street from Marion Road to I-29  
 Improvement Alternative C - Typical Section  
 41st Street Corridor Environmental Assessment

Sioux Falls, SD

Figure  
 West  
 C



1. **Build Alternatives Recommendations Summary**

Alternatives recommended to be carried forward for further consideration:

Alternative	Description	Main reason(s) for carrying forward
A	Raise center median with 3/4 access at W Empire Place and two-way mall access at Shirley Avenue	<ul style="list-style-type: none"><li>Provides safety benefits of raised median</li><li>Meets SDDOT and City design policies</li><li>Provides reasonable access to properties</li></ul>

Alternatives recommended to be eliminated from further consideration:

Alternative	Description	Main reason(s) for elimination
B	Raise center median with 3/4 access at W Empire Place and one-way mall access at Shirley Avenue	<ul style="list-style-type: none"><li>One-way mall access road is not desired by the property owner (Empire Mall); the City of Sioux Falls concurs with the property owner.</li></ul>
C	Center two-way left turn lane	<ul style="list-style-type: none"><li>Does not provide safety improvements.</li><li>SDDOT and City design policies for application of raised medians are not met</li></ul>

Alternative	Description	Purpose and Need				Traffic Operations (2)						Property Impacts				Costs			Environmental Impacts													
		Meets City LOS Criteria	Safety Improvement	Pedestrian Facilities Improvement	Meets SDDOT and City Design Policy	Year 2023			Year 2045			Total commercial acquisitions	Partial commercial acquisitions	Empire Mall Access Circulation	Affected Business / Landowner Acceptance for Access and Impacts	ROW Acquisition	Construction	Total	Historic Structures	Section 4(f) Properties	Environmental Justice	Contaminated Materials										
						41st St/W Empire Pl Intersection	41st St/Shirley Ave Intersection	41st St/Louise Ave Intersection (3)	41st St/W Empire Pl Intersection	41st St/Shirley Ave Intersection	41st St/W Louise Intersection (3)																					
																							LOS AM/ PM/Sat	LOS AM/ PM/Sat	LOS AM/ PM/Sat	LOS AM/ PM/Sat	LOS AM/ PM/Sat	LOS AM/ PM/Sat				
																						#	sq ft			M \$	M \$	M \$	#	#	#	#
A	Raised median with 3/4 access at W Empire Place and 2 thru lanes on Shirley Ave and mall entrance	yes (1)	yes	yes	yes	A/A/A	B/D/D	C/D/E	A/A/A	C/D/D	C/E/E	0	24,720	good	moderate	0.8	6.2	7.0	0	0	0	(5)										
B	Raised median with 3/4 access at W Empire Place and one-way outbound at Shirley Ave mall entrance	yes (1)	yes	yes	yes	A/A/B	B/D/D	C/D/E	A/A/B	B/D/D	C/D/E	0	18,895	poor (4)	poor (4)	0.6	5.7	6.3	0	0	0	(5)										
C	Center two-way left turn lane with signalized intersections at W Empire Place and Shirley Ave	yes (1)	no	yes	no	A/A/B	A/D/D	C/D/E	A/A/B	B/D/D	C/D/E	0	22,935	good	good	0.7	6.1	6.8	0	0	0	(5)										
NB	No-Build	yes	no	no	no	A/B/C	A/B/B	C/D/E	A/B/C	A/B/B	D/E/E	0	0	good	good	NA	NA	NA	0	0	0	0										

NA: Not Applicable

(1) LOS criteria at an un-improved 41st/Louise intersection are not met for any scenario; however, 41st St improvements do not result in worse LOS at the 41st/Louise intesection.

(2) LOS for Build Alternatives is with the Diverging Diamond Interchange at I-29; LOS with Single Point Interchange at I-29 is similar.

(3) Improvements at 41st/Louise intersection are not proposed with this project.

(4) One-way outbound mall access at Shirley Avenue is not desired by the property owner (Empire Mall); the City of Sioux Falls concurs with the property owner.

(5) Panda Express strip mall has been evaluated for Phase I Environmental Site Assessment due to past use as gas station. Underground storage tanks have been removed and previous contaminated materials cases have been closed.

Options recommended for elimination from further evaluation

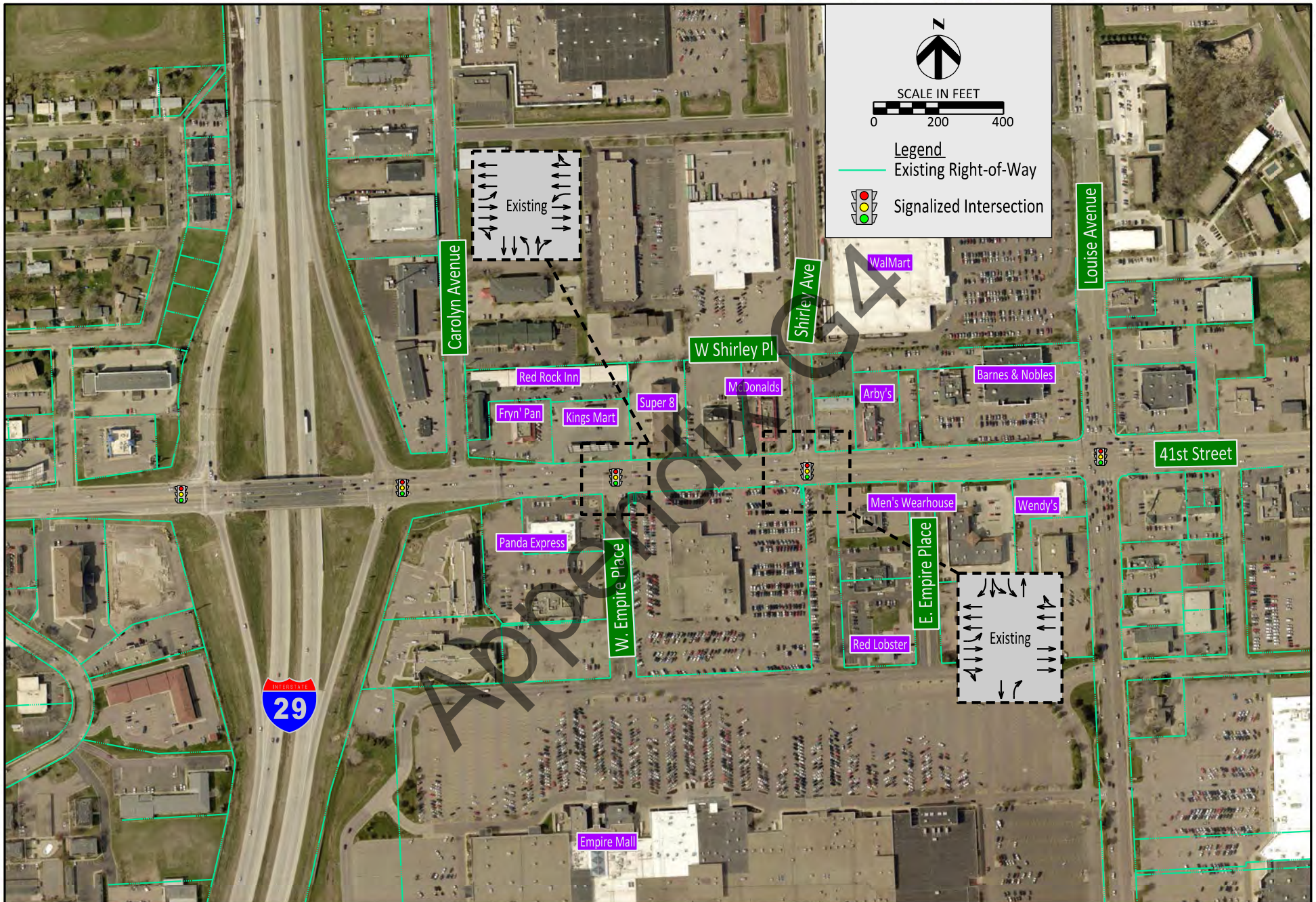
Drawn By: B.Miller  
Date: 4/12/2017  
Chkd By: J.Unruh  
Date: 4/12/2017  
Revision:



41st Street from I-29 to east of Shirley Avenue  
Alternative Evaluation Summary and Comparison Matrix  
41st Street Corridor Environmental Assessment  
Sioux Falls, SD

Figure





Drawn By: B. Miller  
Date: 7/22/2016  
Chkd By: J. Unruh  
Date: 7/22/2016  
Revision: 3/10/2017



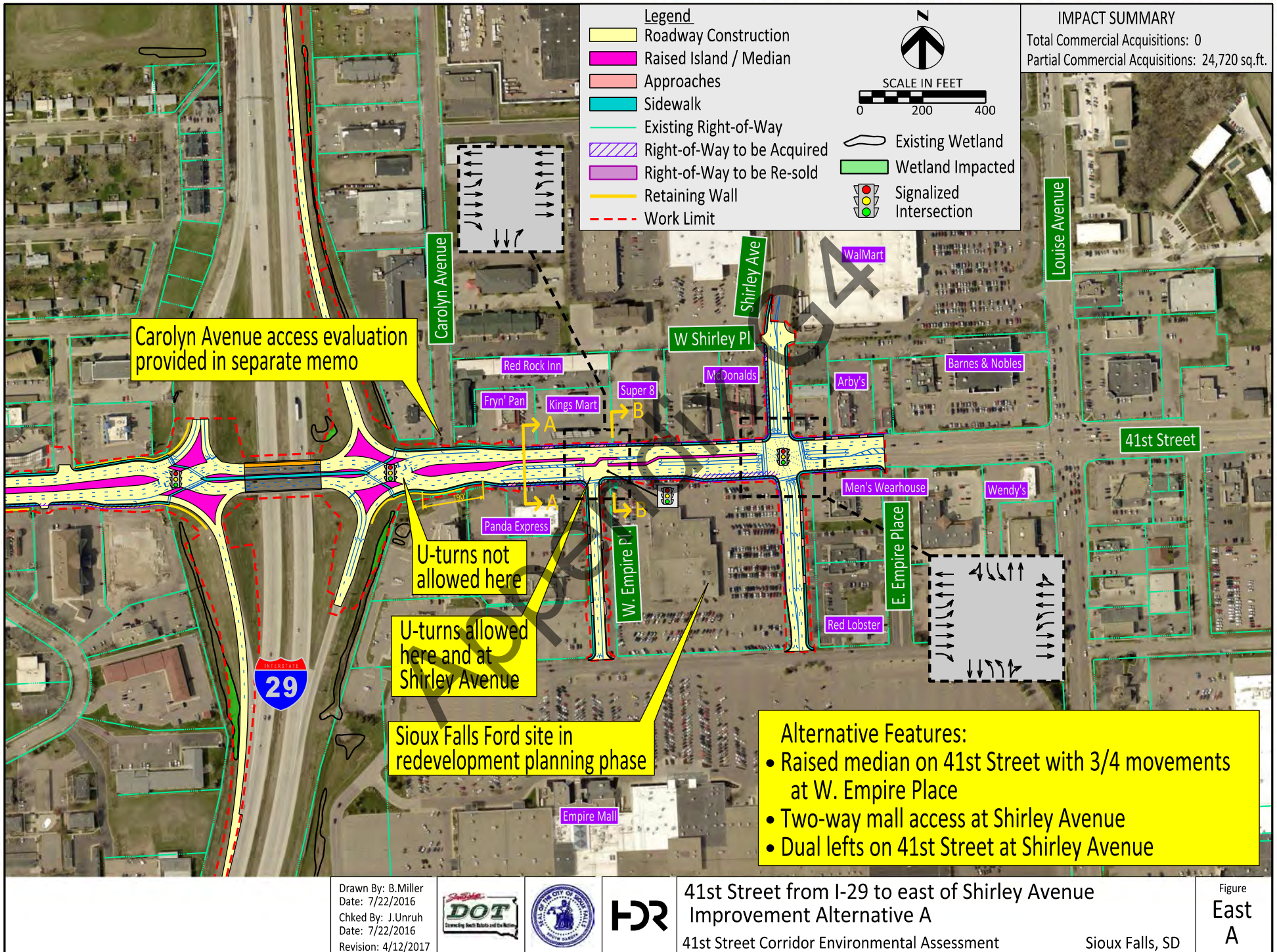
# 41st Street from I-29 to east of Shirley Avenue Improvement Alternative A

41st Street Corridor Environmental Assessment

Sioux Falls, SD

Figure  
East  
Exist.





Drawn By: B. Miller  
 Date: 7/22/2016  
 Chkd By: J. Unruh  
 Date: 7/22/2016  
 Revision: 4/12/2017

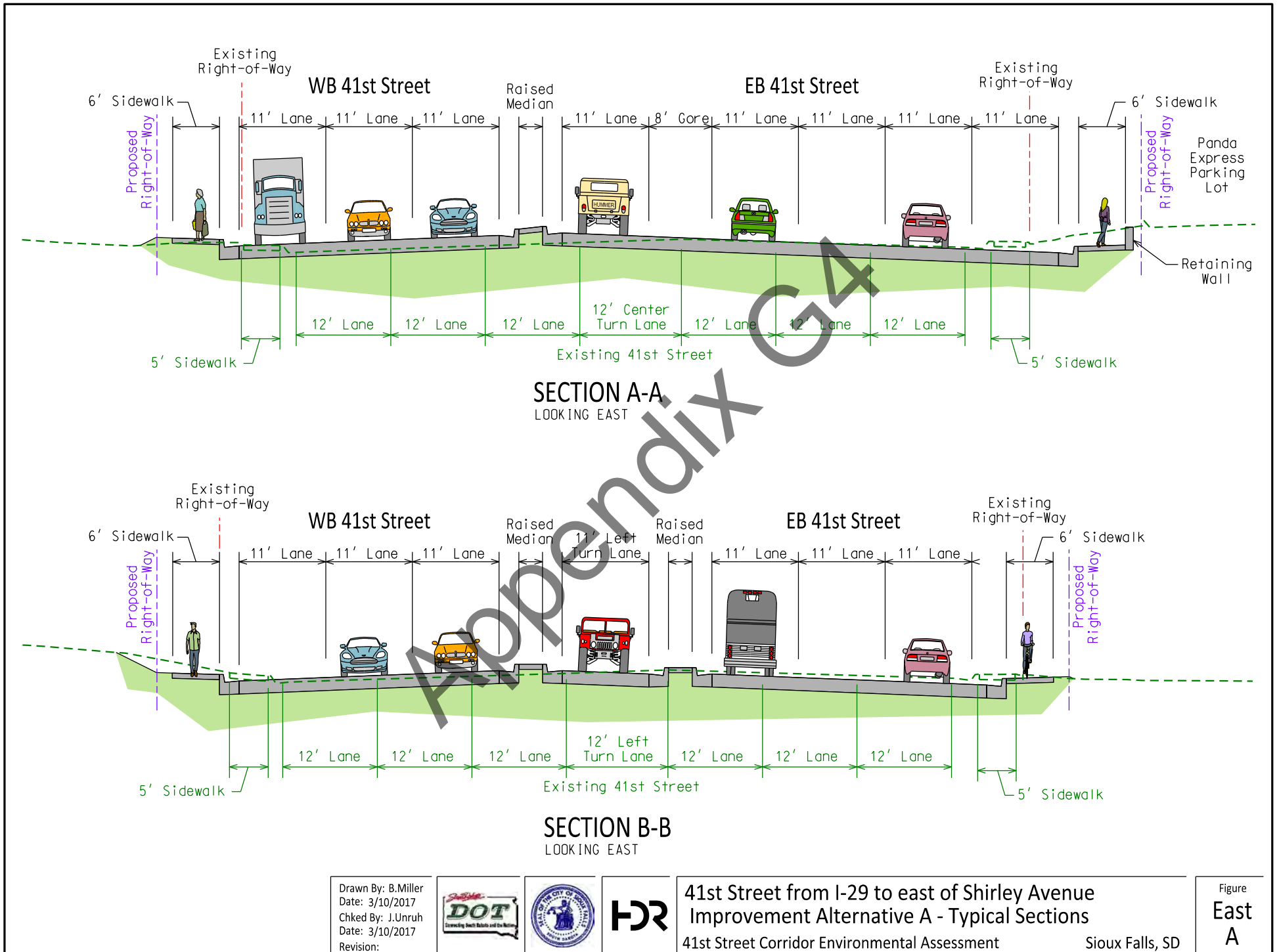


41st Street from I-29 to east of Shirley Avenue  
 Improvement Alternative A

41st Street Corridor Environmental Assessment

Sioux Falls, SD

Figure  
 East  
 A



Drawn By: B. Miller  
 Date: 3/10/2017  
 Chkd By: J. Unruh  
 Date: 3/10/2017  
 Revision:



41st Street from I-29 to east of Shirley Avenue  
 Improvement Alternative A - Typical Sections  
 41st Street Corridor Environmental Assessment

Sioux Falls, SD

Figure  
 East  
 A



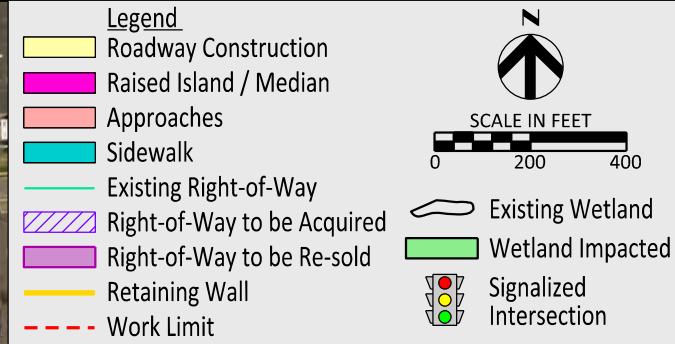
The City of Sioux Falls and Empire Mall have decided to drop this alternative from further consideration because the one-way main access road to the mall is not desirable.

Carolyn Avenue access evaluation provided in separate memo

U-turns not allowed here

U-turns allowed here and at Shirley Avenue

Sioux Falls Ford site in redevelopment planning phase



- Alternative Features:**
- Raised median on 41st Street with 3/4 movements at W. Empire Place
  - Dual lefts on 41st Street at Shirley Avenue
  - One-way Empire Mall exit at Shirley Avenue

Drawn By: B. Miller  
Date: 7/22/2016  
Chkd By: J. Unruh  
Date: 7/22/2016  
Revision: 4/12/2017



41st Street from I-29 to east of Shirley Avenue  
Improvement Alternative B

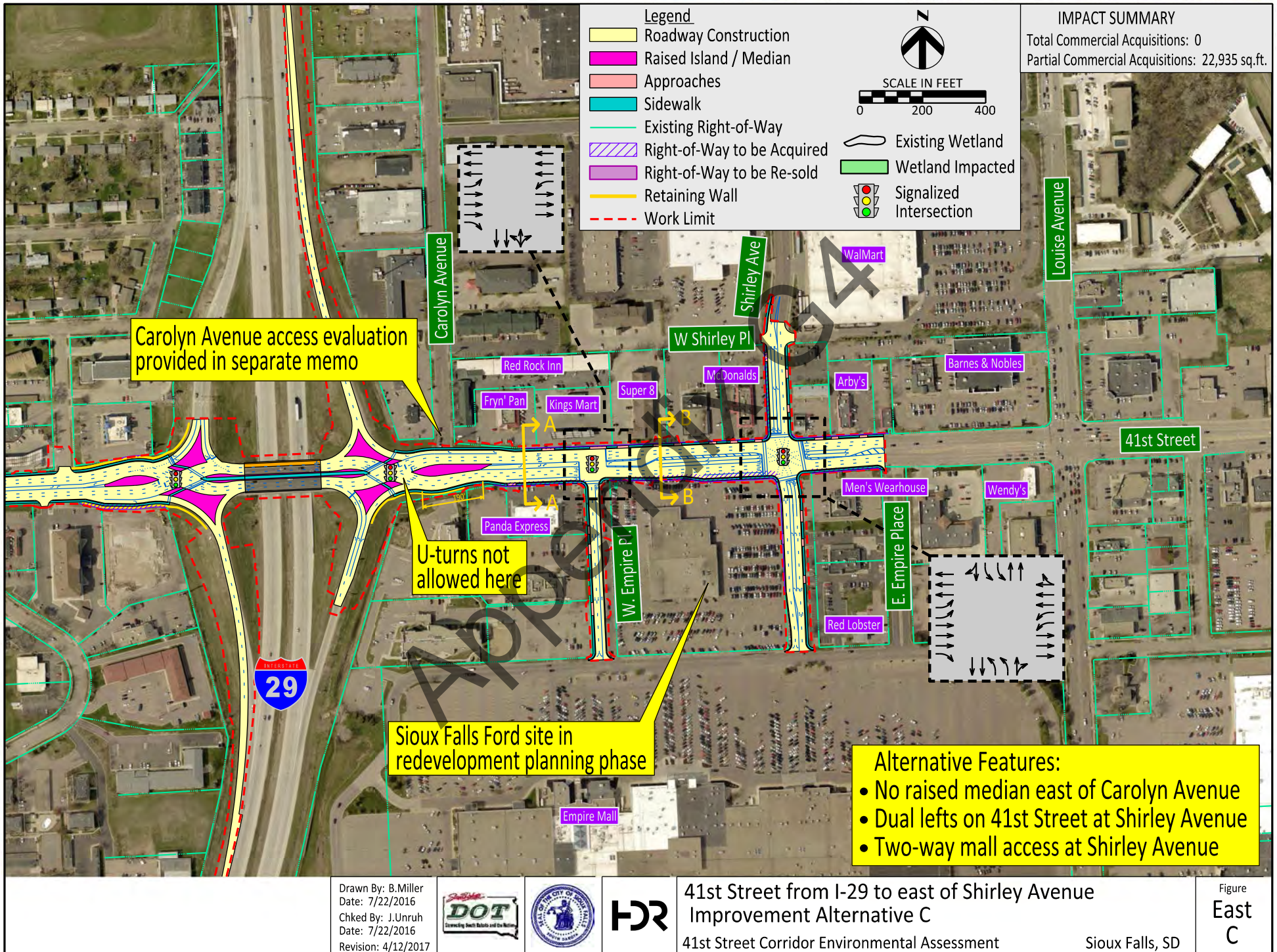
41st Street Corridor Environmental Assessment

Sioux Falls, SD

Figure  
East  
B







Drawn By: B. Miller  
Date: 7/22/2016  
Chkd By: J. Unruh  
Date: 7/22/2016  
Revision: 4/12/2017

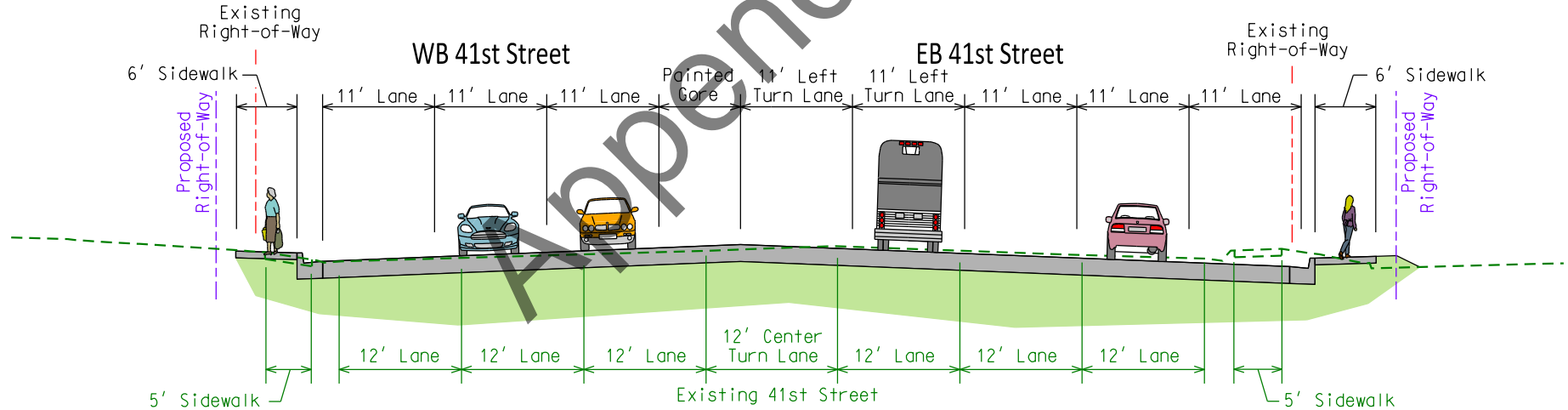
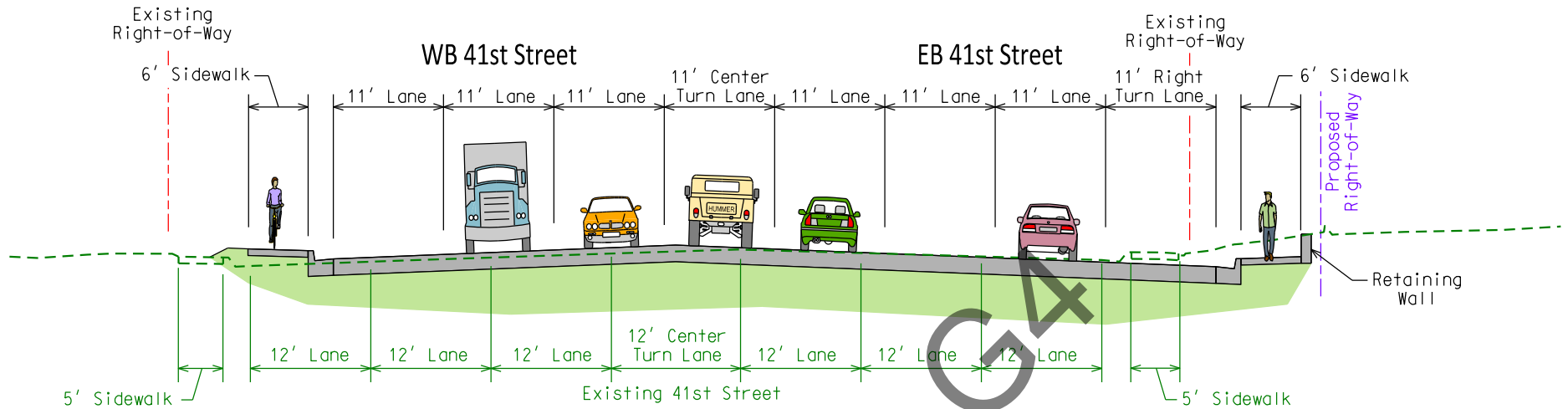


41st Street from I-29 to east of Shirley Avenue  
Improvement Alternative C

41st Street Corridor Environmental Assessment

Sioux Falls, SD

Figure  
East  
C



Drawn By: B. Miller  
Date: 3/10/2017  
Chkd By: J. Unruh  
Date: 3/10/2017  
Revision:




41st Street from I-29 to east of Shirley Avenue  
Improvement Alternative C - Typical Sections

41st Street Corridor Environmental Assessment

Sioux Falls, SD

Figure  
East  
C





**I-29 Exit 77 (41<sup>st</sup> Street)  
Interchange &  
Environmental Study**

PL0100(84) 3616 P, PCN 05MH  
IM0293(A6)77 3014 N, PCN 03RA  
IM0293(A6)77 3011 N, PCN 03RA  
IM0293(A6)77 3145 N, PCN 03RA

**Public Meeting #2  
May 10<sup>th</sup>, 2017**

**Study Advisory  
Team**


U.S. Department of Transportation  
Federal Highway Administration

MPO

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

DOT  
Connecting South Dakota and the Nation

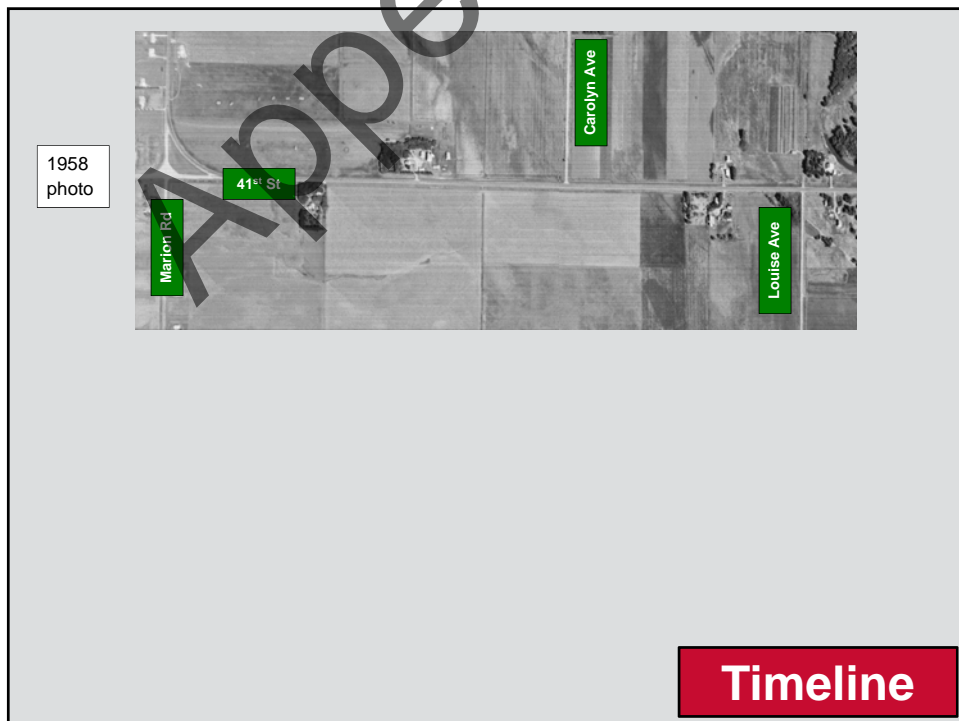
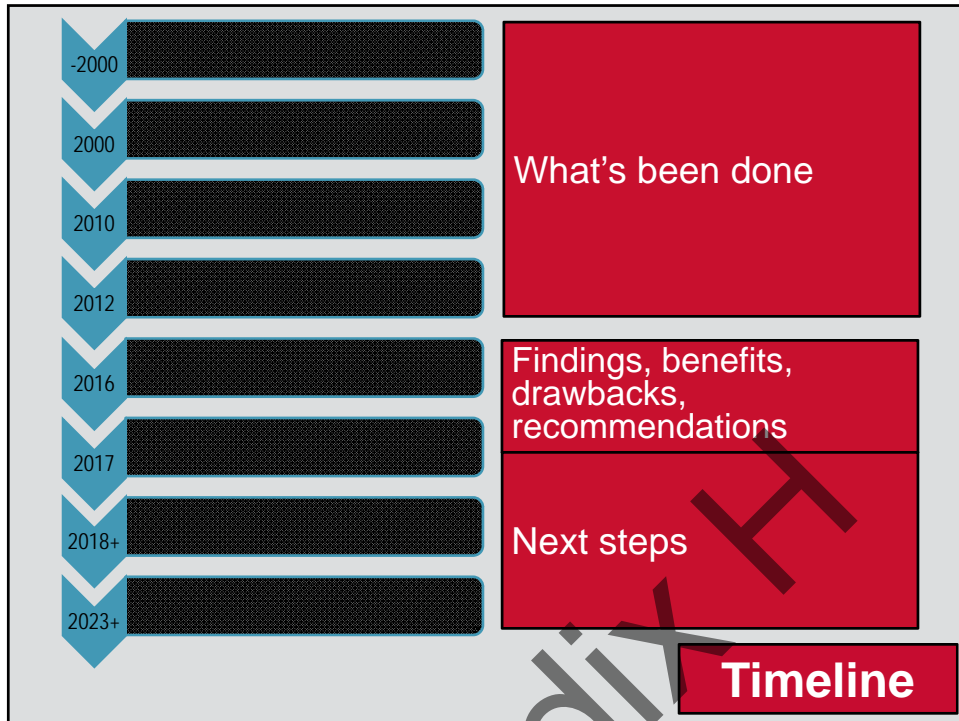
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**Meeting Purpose and  
Agenda:**

1. Review what's been done
2. Summarize key findings of environmental studies
3. Summarize key benefits and drawbacks of alternatives
4. Present recommended alternatives
5. Show next steps for project
6. Answer your questions and comments

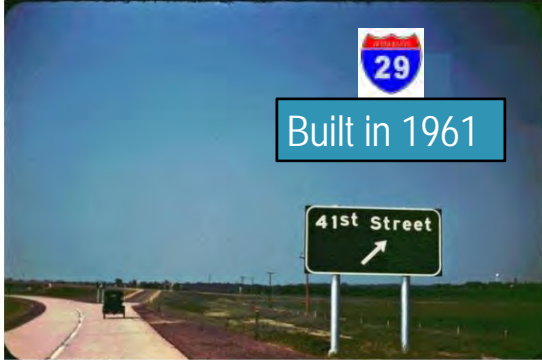
**Purpose & Agenda**





I moved to Sioux Falls back in 1989 and it was a much different place than it is now and clearly it was a much different landscape back in 1961.

Thanks to Darlene Johnson, we get a look back to what the busiest exit in Sioux Falls and South Dakota looked like back in 1961.



Darlene Johnson Via Facebook

According to the Facebook post it was:

*“ The Horseless Carriage Club of America (SF group) on a tour taking the 41st St. exit off of I-29. (now exit 77) in Sioux Falls.*

The amount of green grass, no traffic and the ability to see for miles all is an interesting look for what is now the busiest street in South Dakota.

**Timeline**

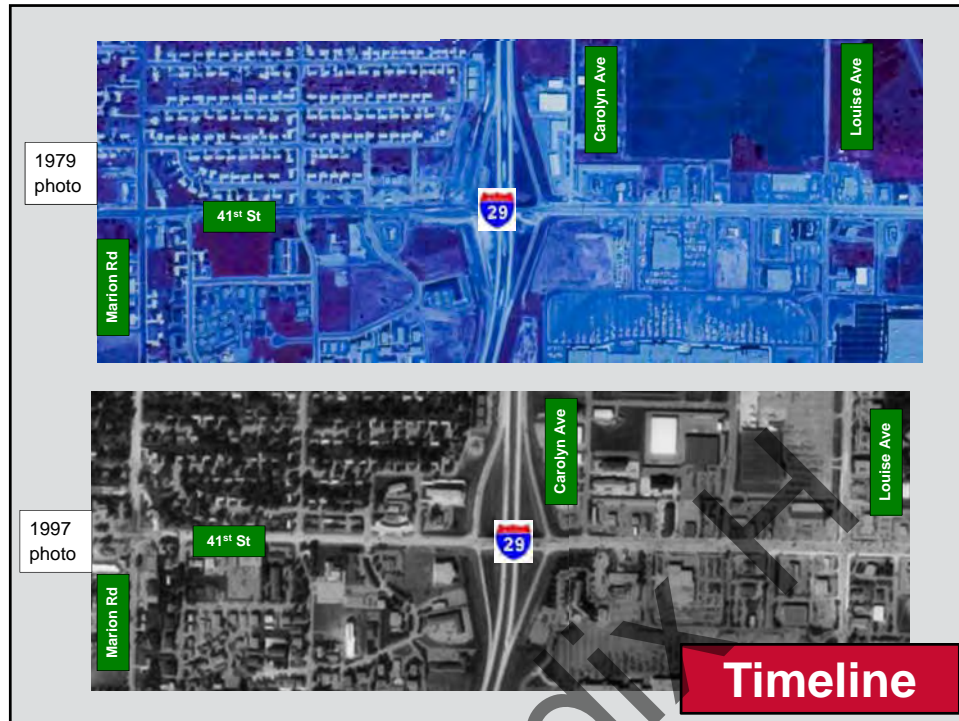
1958 photo



1969 photo



**Timeline**





2010

- Statewide interstate study (by SDDOT)
- made interchange recommendations based on traffic congestion and high crash rates



One of highest crash  
rate interchanges in  
South Dakota

Poor traffic  
conditions

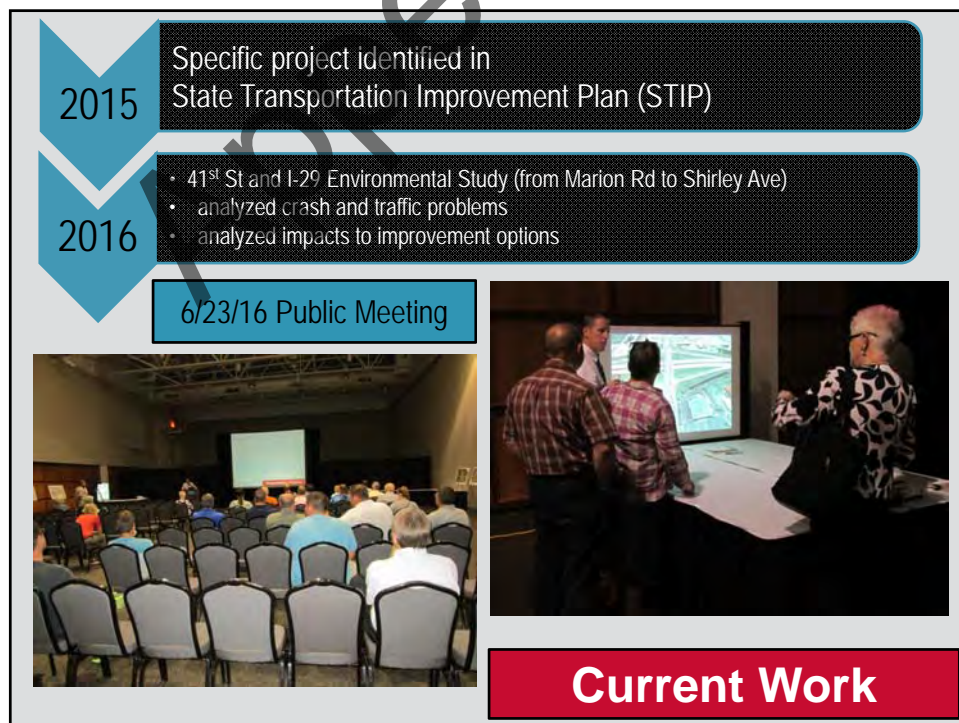
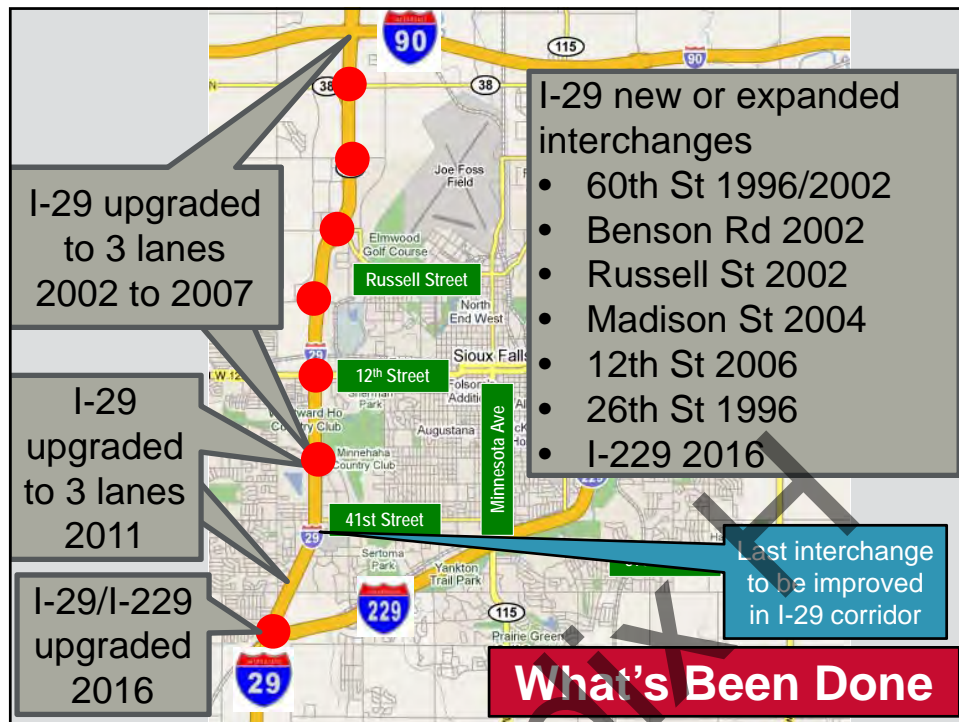
**What's Been Done**

2012

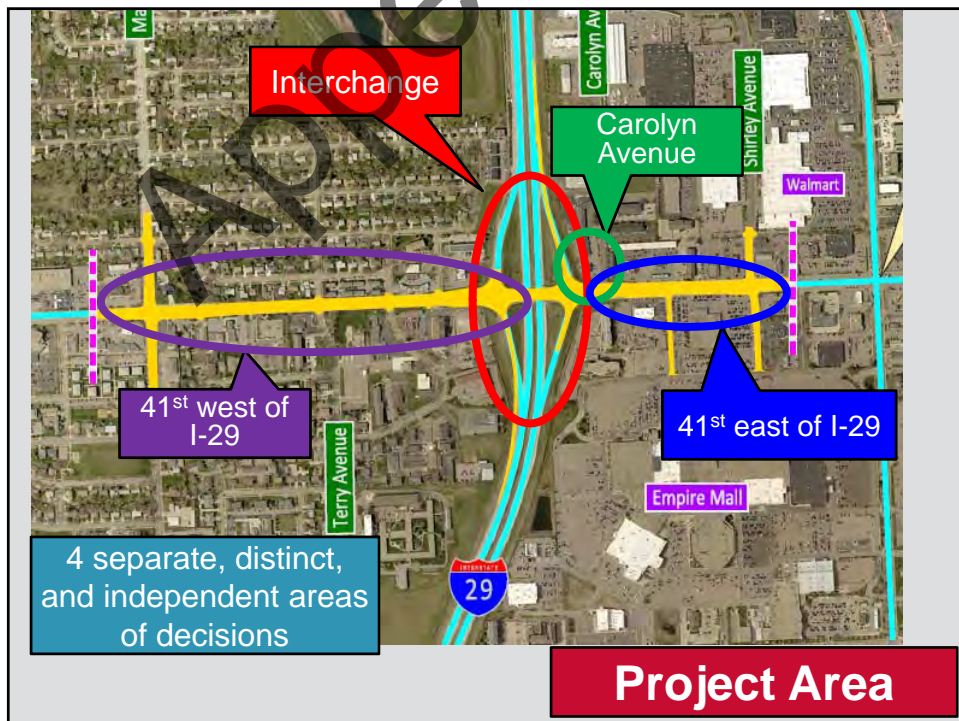
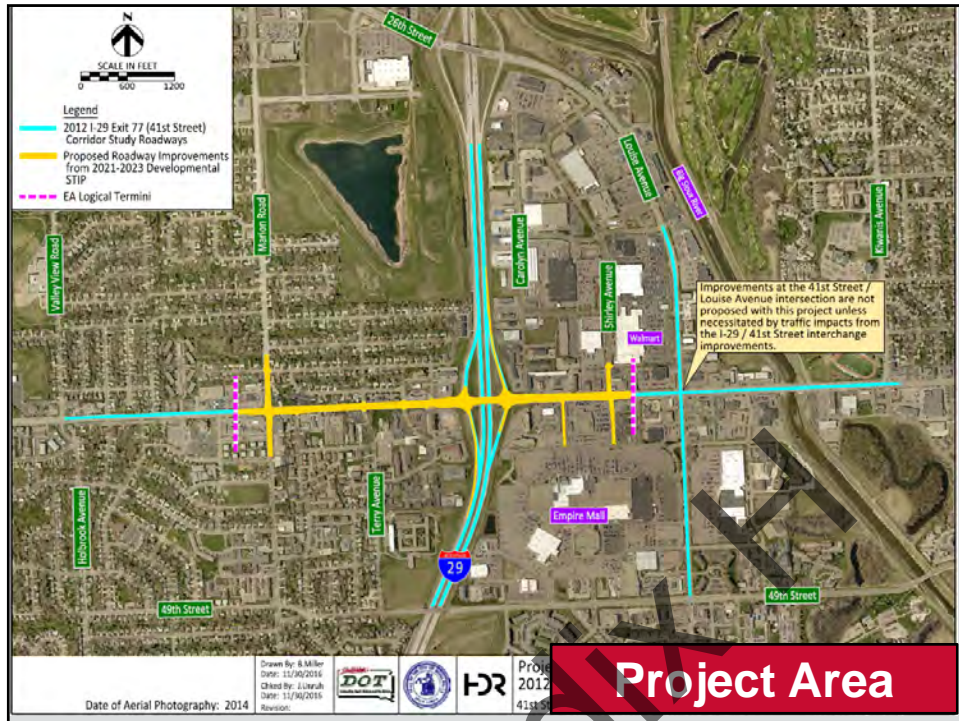
- 41<sup>st</sup> Street and I-29 Corridor Study (from Valley View Rd to Kiwanis Ave)
- analyzed crash and traffic problems
- identified specific improvement options

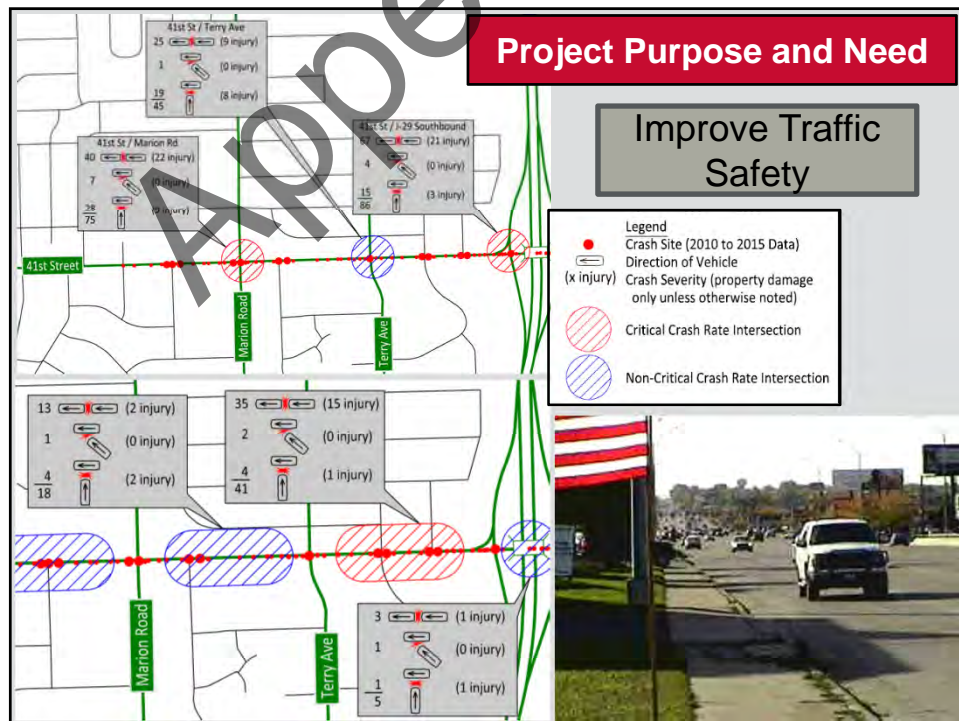
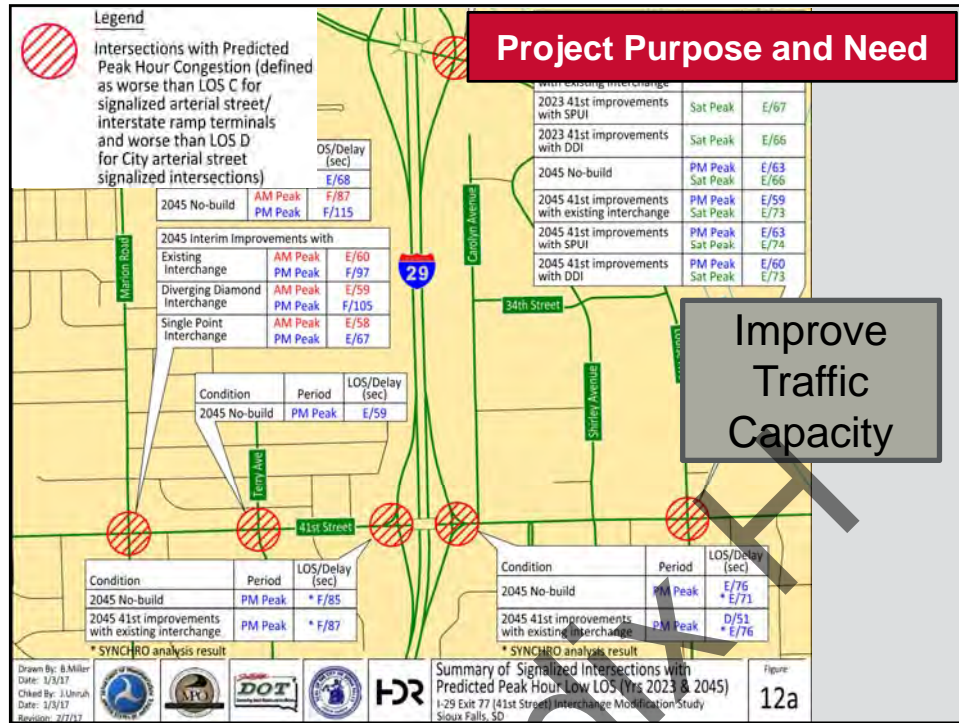


**What's Been Done**

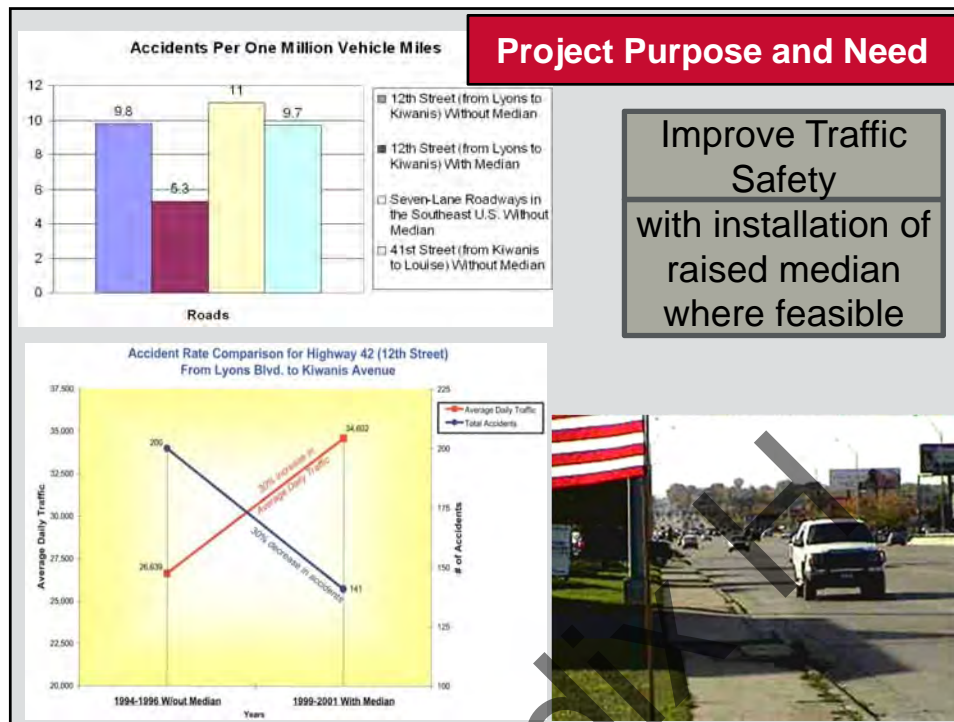


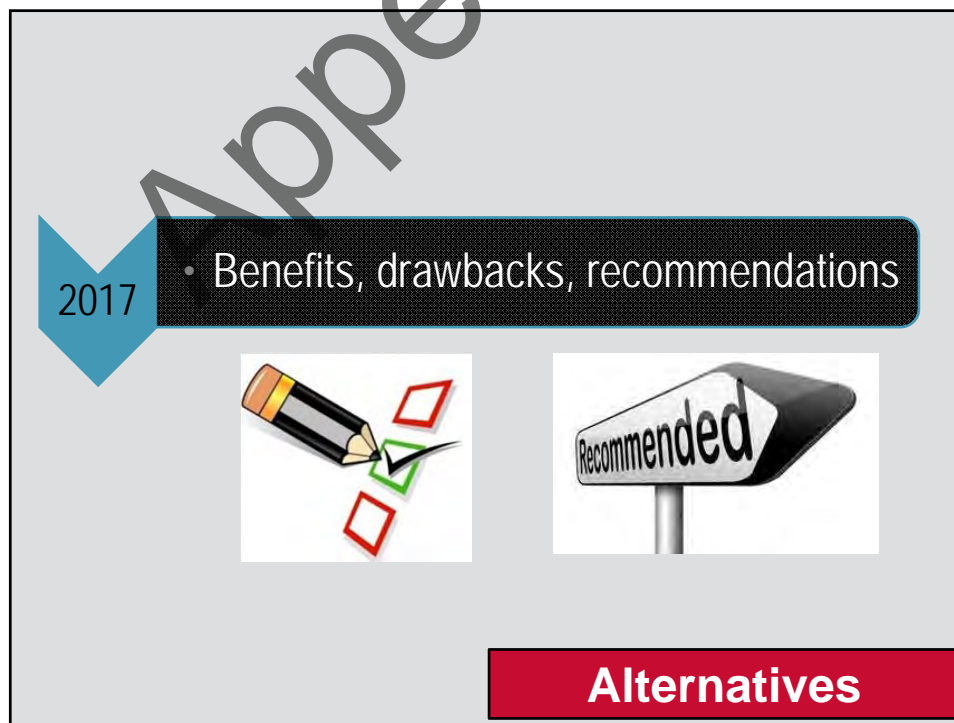
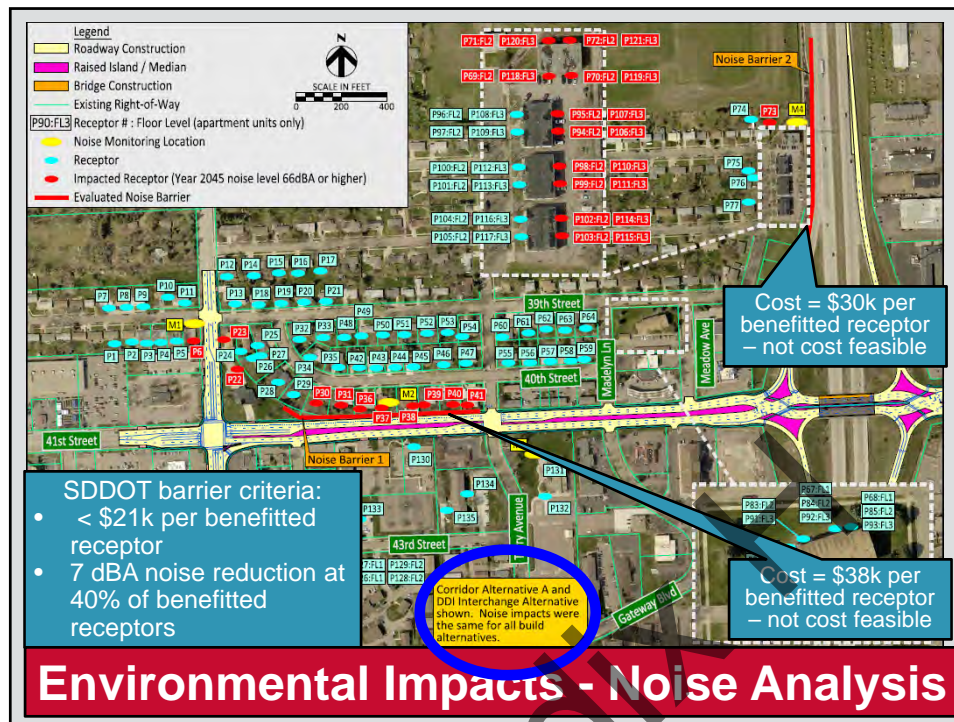




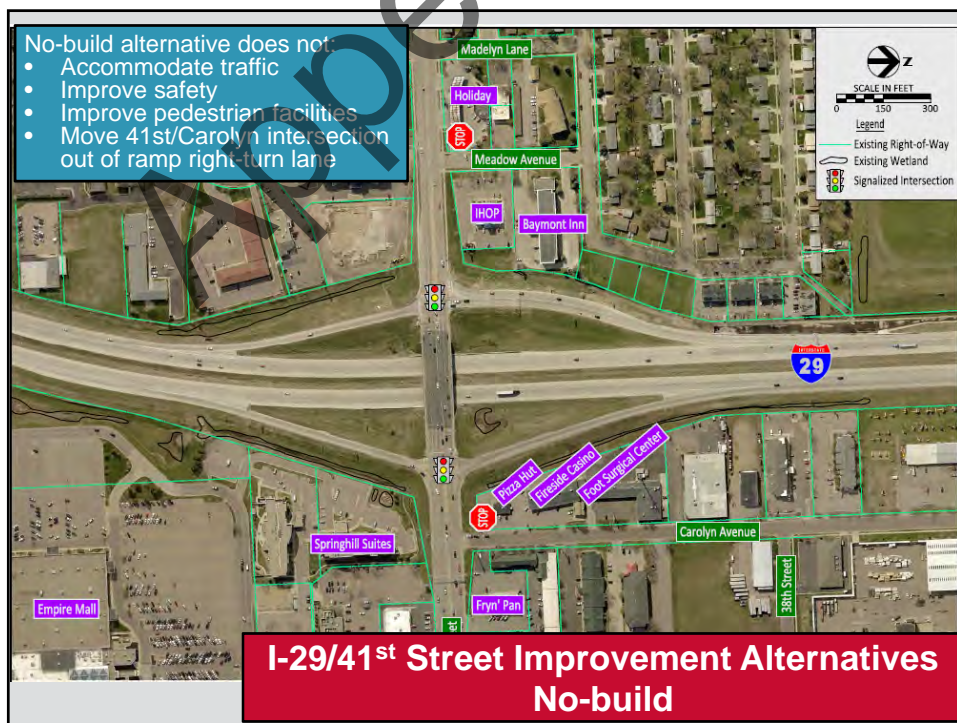


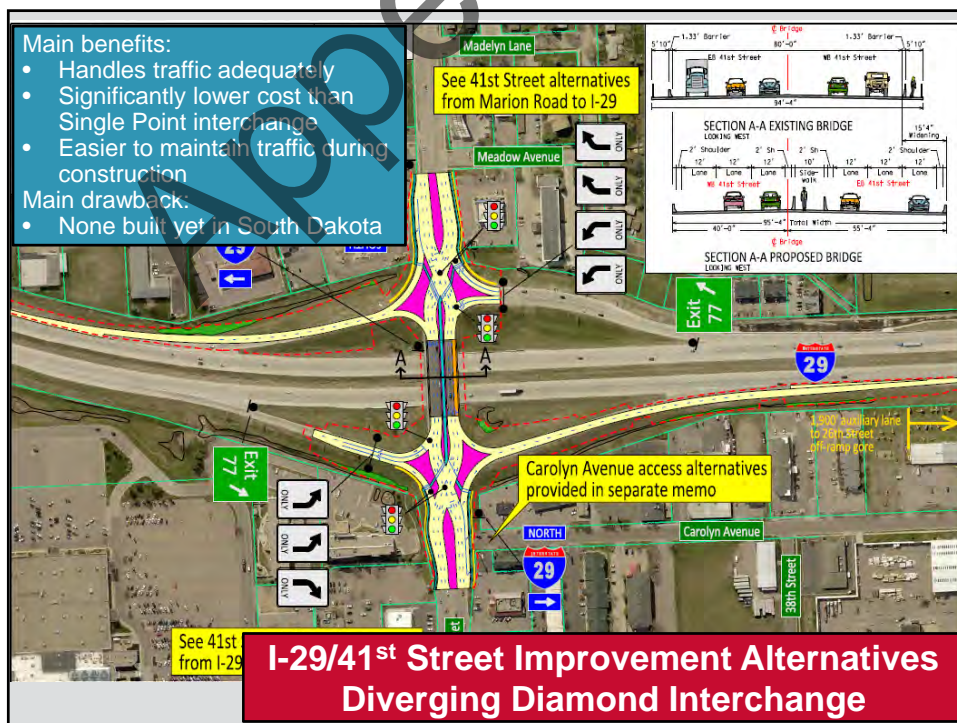
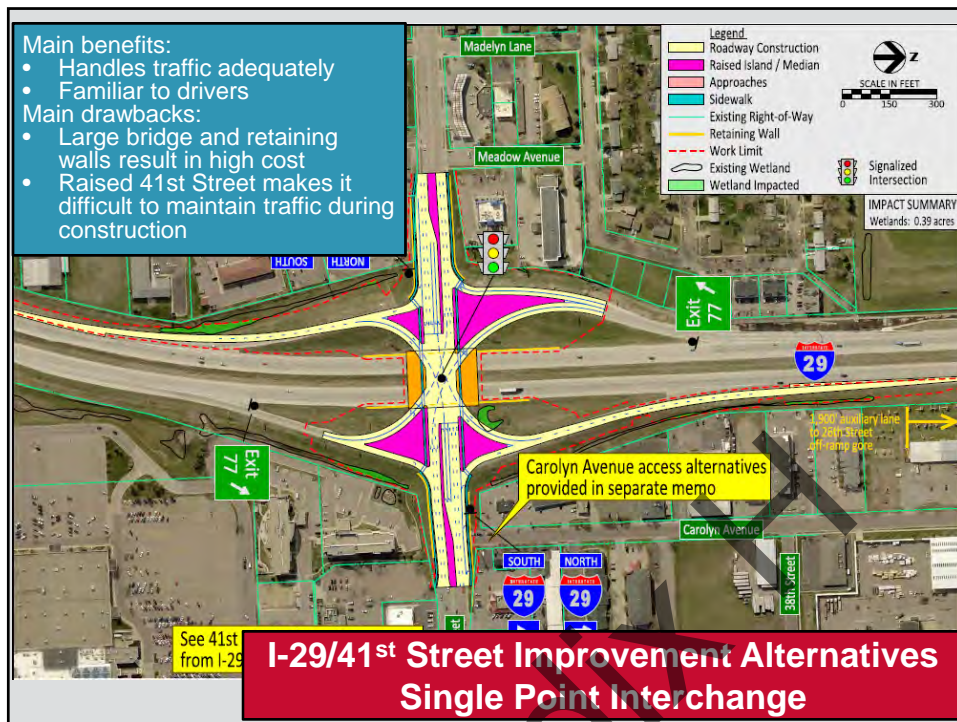














Comparison Matrix Interchange Alternatives		I-29 Exit 77 (41st Street) Interchange Study Project # PL0100(84) 3616P, PCN 05MH												4/12/17									
Alternative		Purpose and Need				Year 2045 Traffic Operations						Safety	Driver/ Public Perception	Construction Impacts	Comparative Costs (\$)				Applicable Env. Impacts				
		Meets SDDOT and City LOS Criteria	Improves Safety	Improves Pedestrian Facilities	Provides Adequate Separation To Nearest Access (1)	Northbound Ramp Intersection		Southbound Ramp Intersection		Ramps		Manatee Weaving	Predicted Annual Total Crashes Year of opening to 2045	Predicted Annual Fatality and Injury Crashes Year of opening to 2045	Driver Familiarity	Maintenance of Traffic during Construction	Allow for Phased Construction	ROW Acquisition	Bridge (1)	Retaining Wall	Roadway	Total	Wetlands
						Worst LOS AM/PM	Worst Delay AM/PM	Worst LOS AM/PM	Worst Delay AM/PM	Worst LOS AM/PM	Worst Delay AM/PM	#	#				M \$	M \$	M \$	#	#	acres	acres
Single Point Interchange (SPI)		yes	yes	yes	yes	B/C (2)	20/24 (2)	(2)	(2)	C/C	C/B	61.2	16.4	good	poor	yes	(4)	7.8	4.1	9.3	21.2	0.39	0
Diverging Diamond Interchange (DDI)	Widen existing bridge																						
	Widen and overlay existing bridge	yes	yes	yes	yes	C/C	26/23	C/C	26/25	C/C	C/B	32.9	11.5	(3)	good	yes	(4)	1.3	2.0	7.7	11.0	0.33	0
	New bridge																						
No-Build		no	no	no	no	C/E	28/76	C/F	34/85	C/C	C/B	57.0	23.1	good	0	NA	0	0	0	0	0	0	0

NA: Not Applicable

(1) SDDOT policy requires a minimum 100' separation from an interstate ramp junction/turn lane to the nearest access point.

(2) LOS and Delay applies to the single intersection associated with the SPI.

(3) While the DDI would be a new configuration for this area, drivers have become well-adapted to DDI interchanges where they have been implemented in other locations.

(4) Interchange alternatives are designed to fit within the existing I-29 ROW.

(5) 41st Street construction cost limits are based on estimated final Control of Access limits (per direction from SDDOT).

(6) Determination of bridge treatment with DDI alternative will be made during the final design process

Options recommended for elimination from further evaluation

# Interchange Alternatives Comparison Matrix

## Interchange Alternatives Comparison Matrix

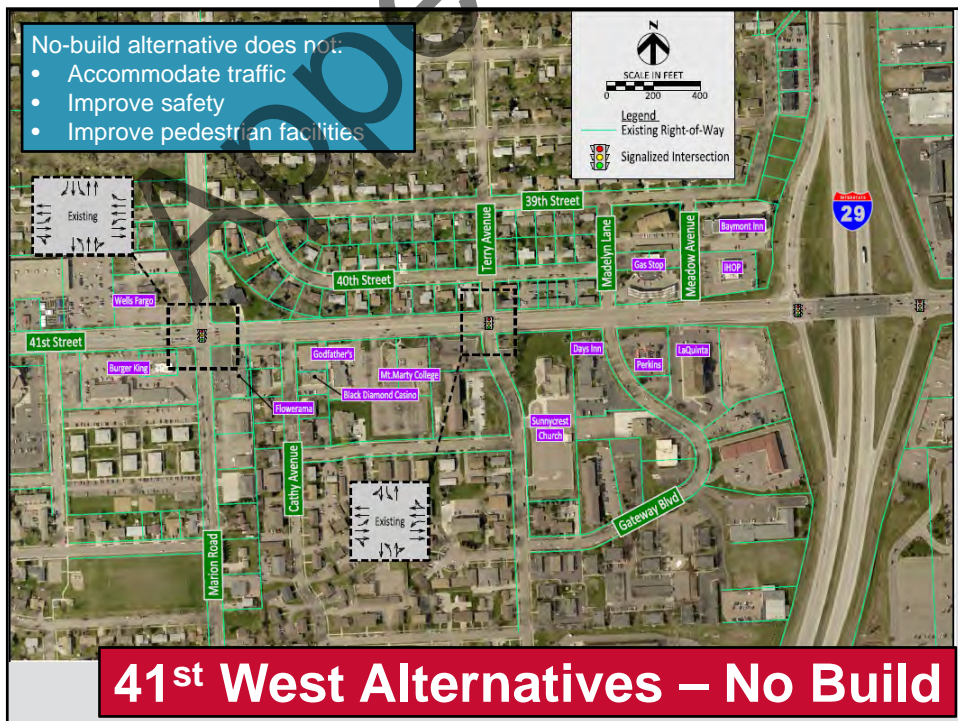
Alternatives recommended to be carried forward for further consideration:

Alternative	Main reason(s) for carrying forward
Diverging Diamond Interchange	<ul style="list-style-type: none"> <li>Significantly lower construction cost than SPI (regardless of treatment of the existing bridge)</li> <li>Allows for better maintenance of traffic during construction than SPI</li> <li>Lower predictive crash rate than SPI</li> </ul>

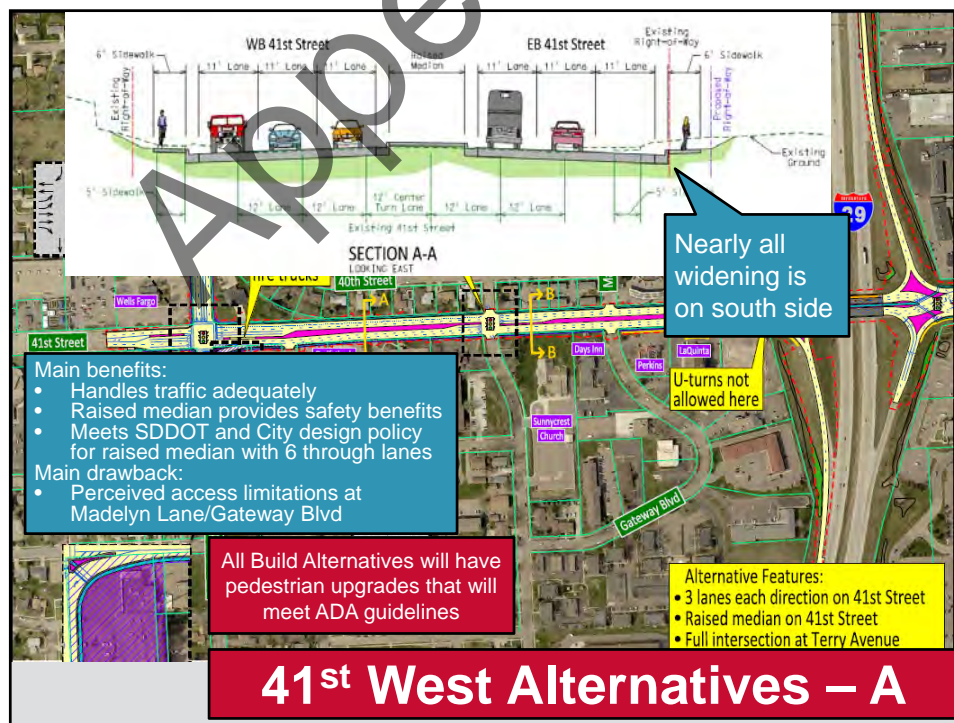
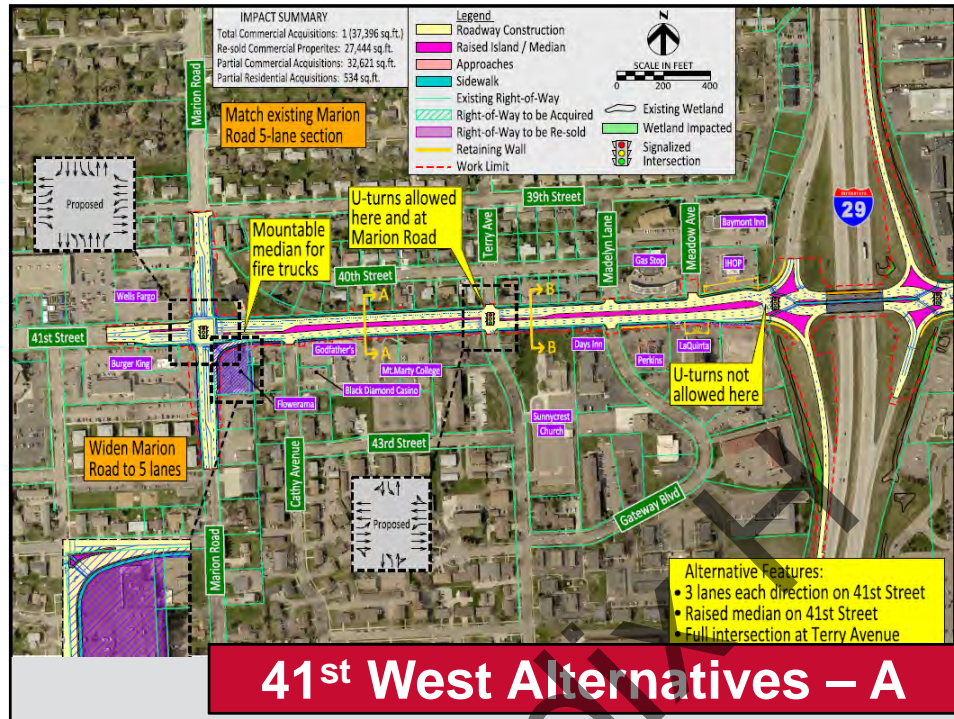
Alternatives recommended to be eliminated from further consideration:

Alternative	Main reason(s) for elimination
Single Point Interchange	<ul style="list-style-type: none"> <li>Significantly higher construction cost than DDI</li> <li>Difficulty in maintaining traffic during construction</li> <li>Higher predictive crash rate than DDI</li> </ul>

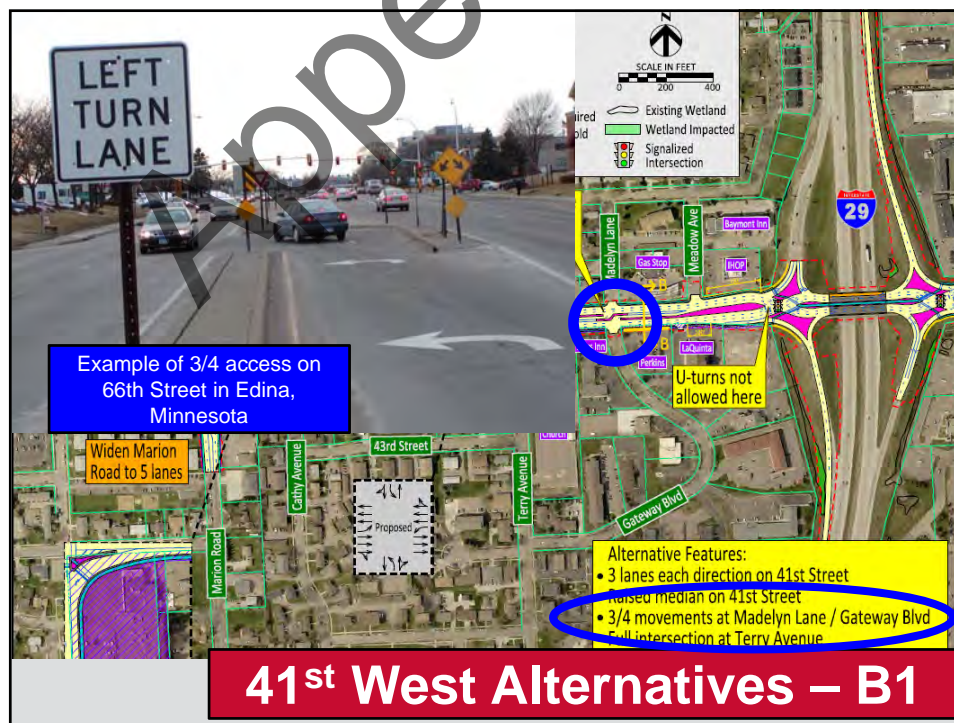
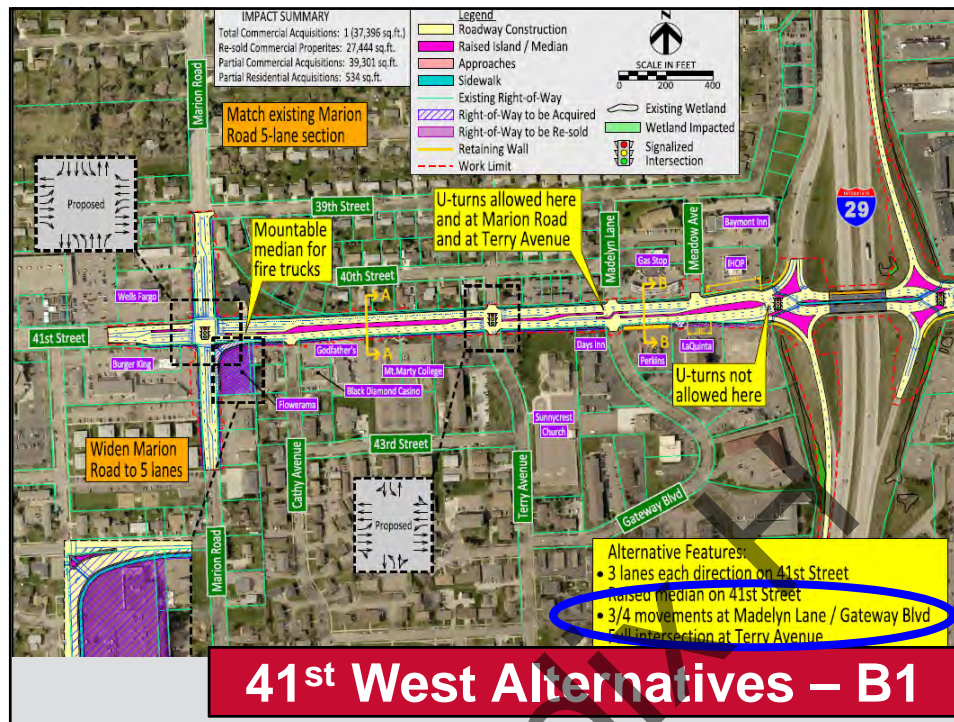
## Interchange Alternatives Recommendations



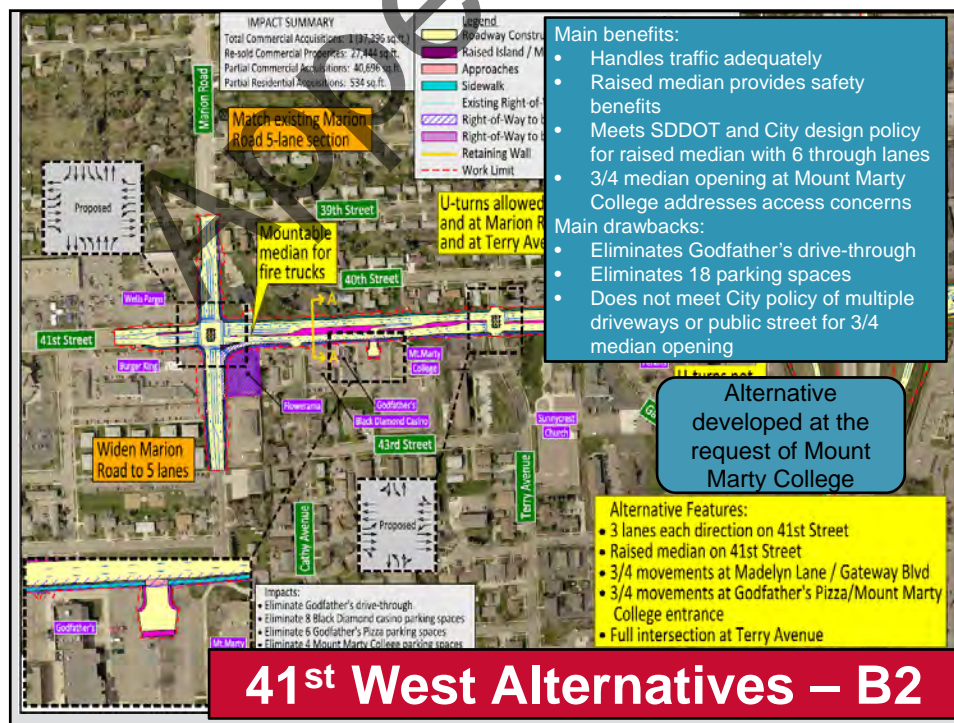
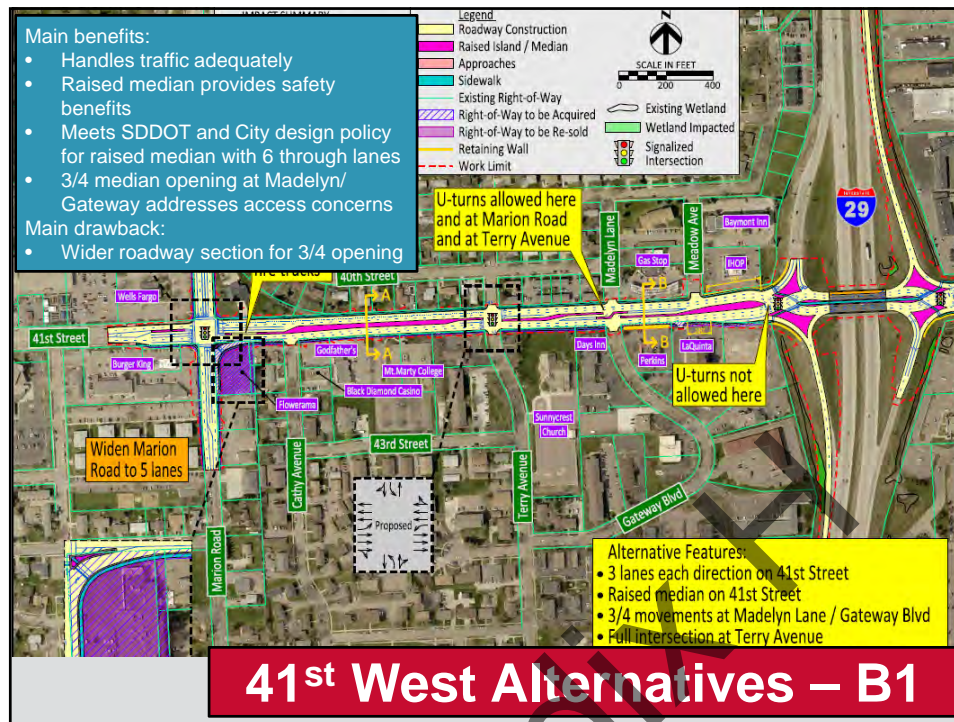


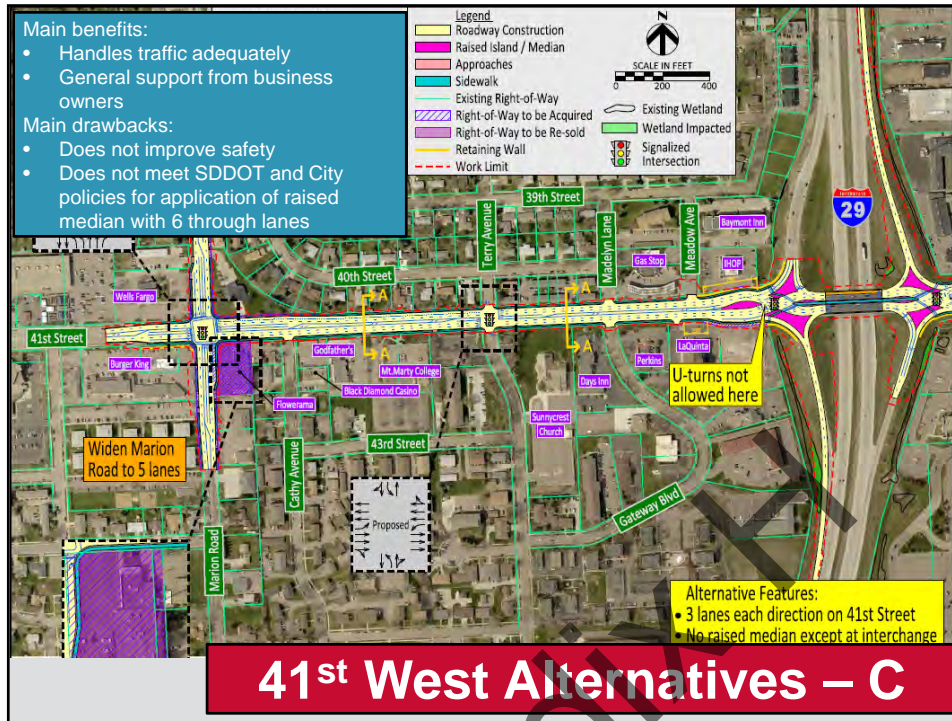












Comparison Matrix  
41st Street West of I-29 Alternatives

I-29 Exit 77 (41st Street) Interchange Study  
Project # PL0100(84) 3616P, PCN 05MH

4/12/17

Alternative	Description	Purpose and Need	Traffic Operations (2)		Property Impacts										Costs				Applicable Environmental Impacts								
			Year 2022	Year 2045	Total Commercial Acquisitions		Partial Commercial Acquisitions		No-able Commercial Acquisitions		Partial Residential Acquisitions (4)		Affected Business/Landowner Acceptance for Access and Impacts		Initial ROW Acquisition	Net ROW Acquisition	Construction	Initial Total (after property re-sold)	Section 4(f) Properties	Environmental Justice	Contaminated Materials	Noise					
		Meets C/DOS Criteria	Safety Improvement	Predictable Construction Impacts	Need to Right-of-Way	Left of Marion Rd Intersection	Right of Marion Rd Intersection	Left of Terry Ave Intersection	Right of Terry Ave Intersection	Left of Marion Rd Intersection	Right of Marion Rd Intersection	Left of Terry Ave Intersection	Right of Terry Ave Intersection	Left of Marion Rd Intersection	Right of Marion Rd Intersection	Left of Terry Ave Intersection	Right of Terry Ave Intersection	Initial ROW Acquisition	Net ROW Acquisition	Construction	Initial Total	Final Total	Historic Structures	Section 4(f) Properties	Environmental Justice	Contaminated Materials	Noise
A	Raised median with full access signalized intersections at 41st/Marion, 41st/Terry, and 41st/I-29	yes (1)	yes	yes	yes	D/C	B/B	C/E (1)	B/B	1	37,396	32,621	27,444	42,573	534	poor	2.2	1.6	9.9	12.1	11.5	0	0	0	(6)	11	(7)
B-1	Raised median with same intersections as Alt A and 3/4 access at 41st/Madison/Stateway	yes (1)	yes	yes	yes	D/C	B/B	K/E (1)	B/B	1	37,396	30,301	27,444	49,253	534	moderate	2.4	1.8	10.1	12.5	11.8	0	0	0	(6)	11	(7)
B-2	Raised median with same intersections as Alt A and 3/4 access at 41st/Madison/Stateway and Godfather's/Mount Marty College entrance	yes (1)	yes	yes	no	D/C	B/B	K/E (1)	B/B	1	37,396	30,301	27,444	49,272	534	unknown (K)	2.4	1.8	10.1	12.8	12.0	0	0	0	(6)	11	(7)
C	Center for-way left turn lane with same signalized intersections as Alt A	yes (1)	no	yes	no	D/C	B/B	K/E (1)	B/B	1	37,396	18,113	32,412	23,099	534	good	1.7	1.0	9.2	10.9	10.2	0	0	0	(6)	11	(7)
NB	No-Build	no	no	no	no	C/E	B/B	F/F	B/E	0	0	0	0	0	0	good	NA	NA	NA	NA	NA	0	0	0	0	(9)	

NA: Not Applicable

(1) To meet year 2045 LOS criteria, 41st Street will need to be widened to 3 through lanes west of Marion Road between year 2022 and year 2045 as shown in the 2012 Corridor Study.

(2) LOS shown is with the Diverging Diamond Interchange at I-29; LOS with Single Point Interchange at I-29 is similar.

(3) Impacts to Black Diamond Casino parking spaces and Godfather's Plaza driveway lane would be considered significant impacts to these properties.

(4) Residential acquisitions are for narrow strips (3' to 10' wide) along Marion Road.

(5) The alternative was developed specifically to address a request by the Mount Marty College representative.

(6) Total acquisition parcel is at southeast quadrant of 41st & Marion (former 7-Eleven Store), underground gasoline storage tanks were removed in 1998 and contaminated soils were removed.

(7) Year 2045 predicted noise levels are above Noise Abatement Criteria but noise mitigation measures do not meet SDDOT policy for cost effectiveness.

(8) Noise impacts would be the same as for alternative B-1.

(9) SDDOT policy does not require evaluation of noise impacts for future no-build conditions.

Options recommended for elimination from further evaluation:

41<sup>st</sup> West Alternatives  
Comparison Matrix



Alternatives recommended to be carried forward:

Alternative	Description	Main reason(s) for carrying forward
B1	Raise center median with 3/4 access at 41 <sup>st</sup> St /Madelyn Lane/Gateway Blvd	<ul style="list-style-type: none"> <li>Provides safety benefits of raised median</li> <li>Meets SDDOT and City design policies</li> <li>Provides reasonable access to properties</li> </ul>

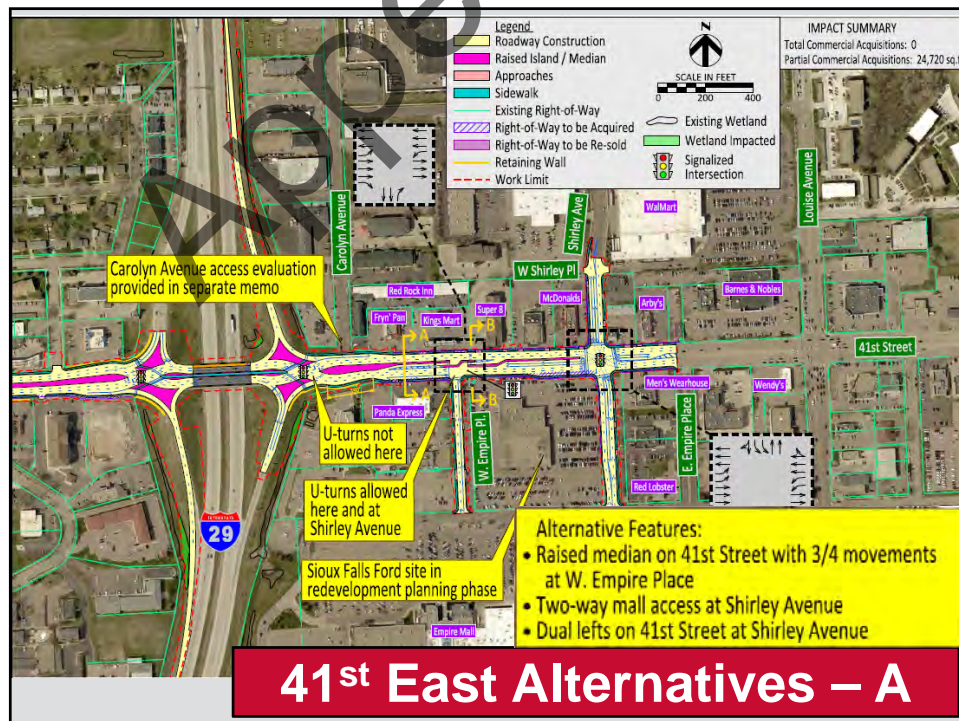
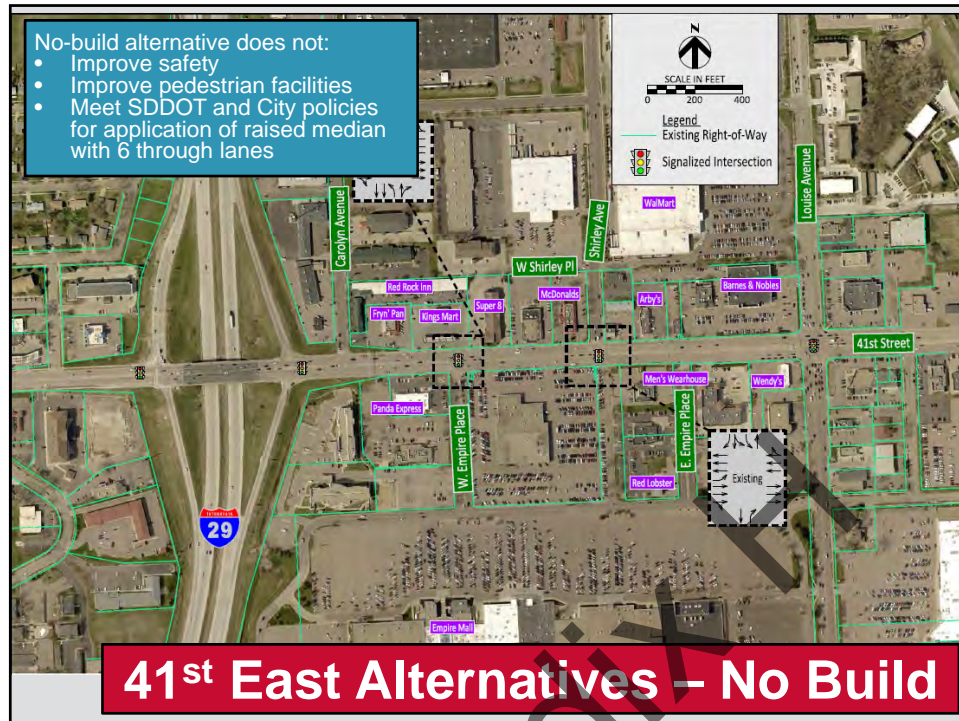
Alternatives recommended to be eliminated from further consideration:

Alternative	Description	Main reason(s) for elimination
A	Raise center median with full access only at signalized intersections	<ul style="list-style-type: none"> <li>Landowner opposition to perceived access restrictions</li> <li>Alternative B1 addresses access concerns</li> </ul>
B2	Raise center median with 3/4 access at 41 <sup>st</sup> St /Madelyn Lane/Gateway Blvd and 3/4 access at Godfathers/Mount Marty College entrance	<ul style="list-style-type: none"> <li>Impacts to Black Diamond Casino parking lot and Godfathers Pizza drive-through lane</li> <li>City policy is to provide the 3/4 access configurations at street intersections or at a combination of multiple driveways.</li> </ul>
C	Center two-way left turn lane	<ul style="list-style-type: none"> <li>Does not provide safety improvements.</li> <li>SDDOT and City design policies for application of raised medians are not met.</li> </ul>

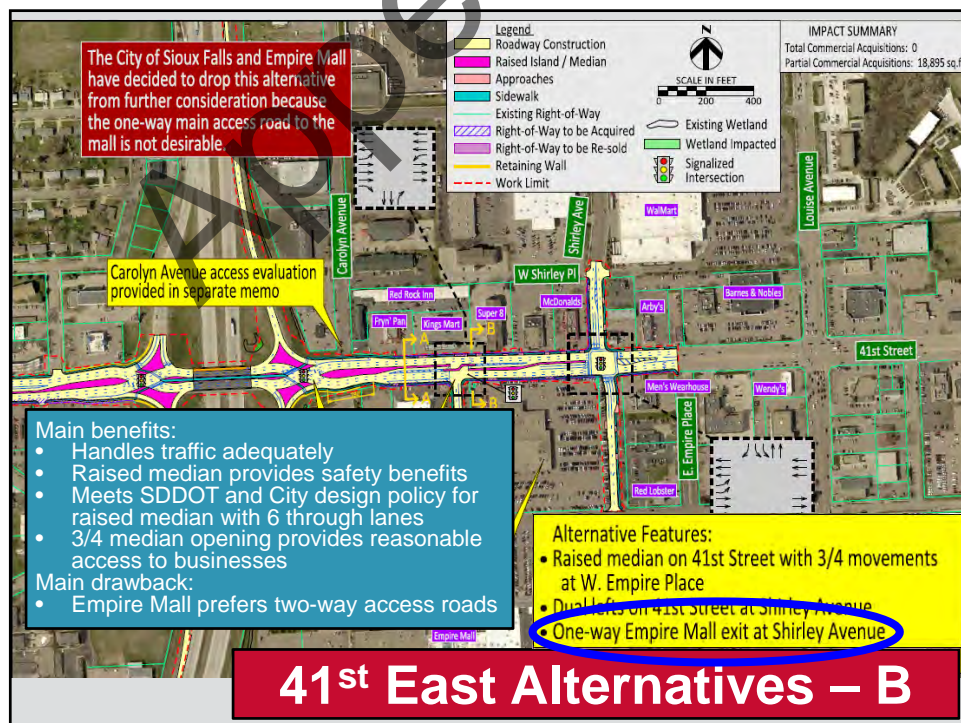
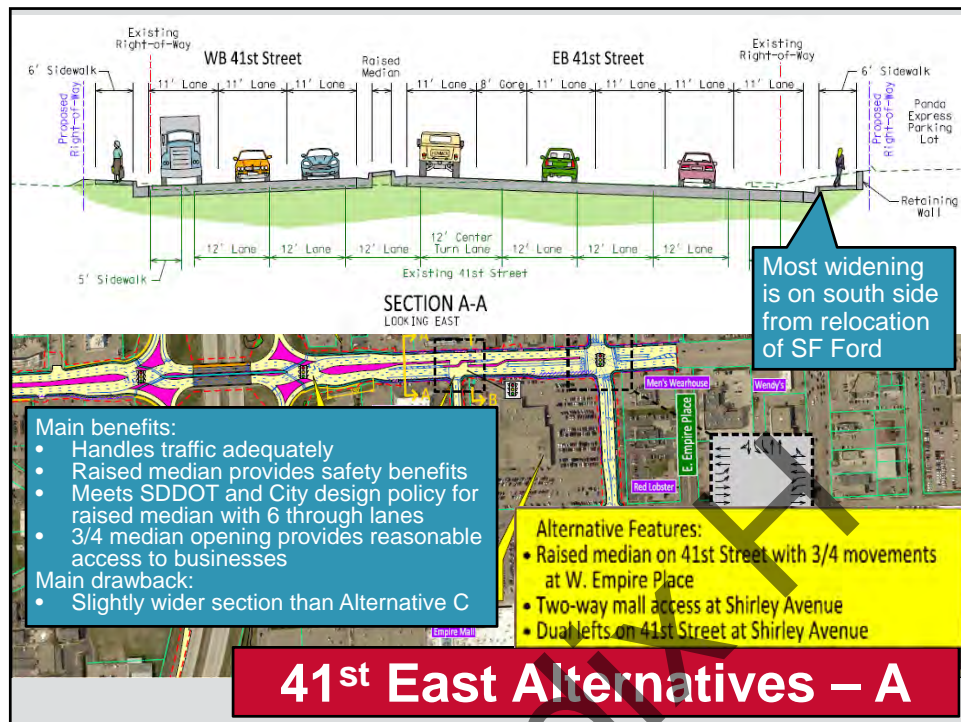
### 41<sup>st</sup> West Alternatives Recommendations

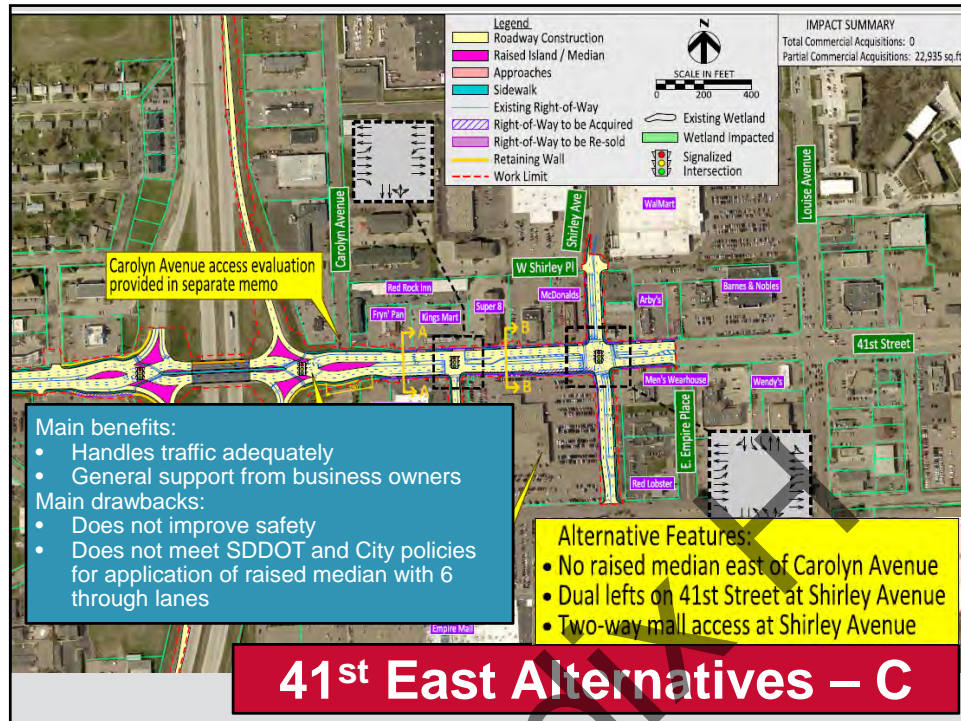


### 41<sup>st</sup> East Alternatives









Comparison Matrix  
41st Street East of I-29 Alternatives

I-29 Exit 77 (41st Street) Interchange Study  
Project # PL0100(84) 3616P, PCN 05MH

4/12/17

Alternative	Description	Purpose and Need				Traffic Operations (2)						Property Impacts				Costs			Applicable Environmental Impacts			
		Meets City LOS Criteria	Safety Improvements	Pedestrian Facilities Improvements	Meets SDDOT and City Design Policy	Year 2023		Year 2045		Total commercial acquisitions	Partial commercial acquisitions	Empire Mall Access Circulation	Affected Business / Landowner Acceptance for Access and Impacts	ROW Acquisition	Construction	Total	Historic Structures	Section 4(f) Properties	Environmental Justice	Contaminated Materials		
						41st St/W Empire Pl Intersection	41st St/Shirley Ave Intersection	41st St/Louise Ave Intersection (3)	41st St/W Empire Pl Intersection													
		LOS AM/PM/Sat	LOS AM/PM/Sat	LOS AM/PM/Sat	LOS AM/PM/Sat	LOS AM/PM/Sat	LOS AM/PM/Sat	LOS AM/PM/Sat	LOS AM/PM/Sat	sq ft	sq ft			M \$	M \$	M \$						
A	Raised median with 3/4 access at W Empire Place and 2 thru lanes on Shirley Ave and mall entrance	yes (1)	yes	yes	yes	A/A/A	B/D/D	C/D/E	A/A/A	C/D/D	C/E/E	0	24,720	good	moderate	0.8	6.2	7.0	0	0	(5)	
B	Raised median with 3/4 access at W Empire Place and one-way outbound at Shirley Ave mall entrance	yes (1)	yes	yes	yes	A/A/B	B/D/D	C/D/E	A/A/B	B/D/D	C/D/E	0	18,895	poor (4)	poor (4)	0.6	5.7	6.3	0	0	(5)	
C	Center two-way left turn lane with signalized intersection at W Empire Place and Shirley Ave	yes (1)	no	yes	no	A/A/B	A/D/D	C/D/E	A/A/B	R/D/D	C/D/E	0	22,935	good	good	0.7	6.1	6.8	0	0	(5)	
NG	No-Build	yes	no	no	no	A/B/C	A/B/B	C/D/E	A/B/C	A/B/B	D/E/E	0	0	good	good	NA	NA	NA	0	0	0	

NA: Not Applicable

(1) LOS criteria at an unimproved 41st/Louise intersection are not met for any scenario; however, 41st St improvements do not result in worse LOS at the 41st/Louise intersection.

(2) LOS for Build Alternatives is with the Diverging Diamond Interchange at I-29; LOS with Single Point Interchange at I-29 is similar.

(3) Improvements at 41st/Louise intersection are not proposed with this project.

(4) One-way outbound mall access at Shirley Avenue is not desired by the property owner (Empire Mall); the City of Sioux Falls concurs with the property owner.

(5) Panda Express strip mall has been evaluated for Phase I Environmental Site Assessment due to past use as gas station. Underground storage tanks have been removed and previous contaminated materials cases have been closed.

Options recommended for elimination from further evaluation

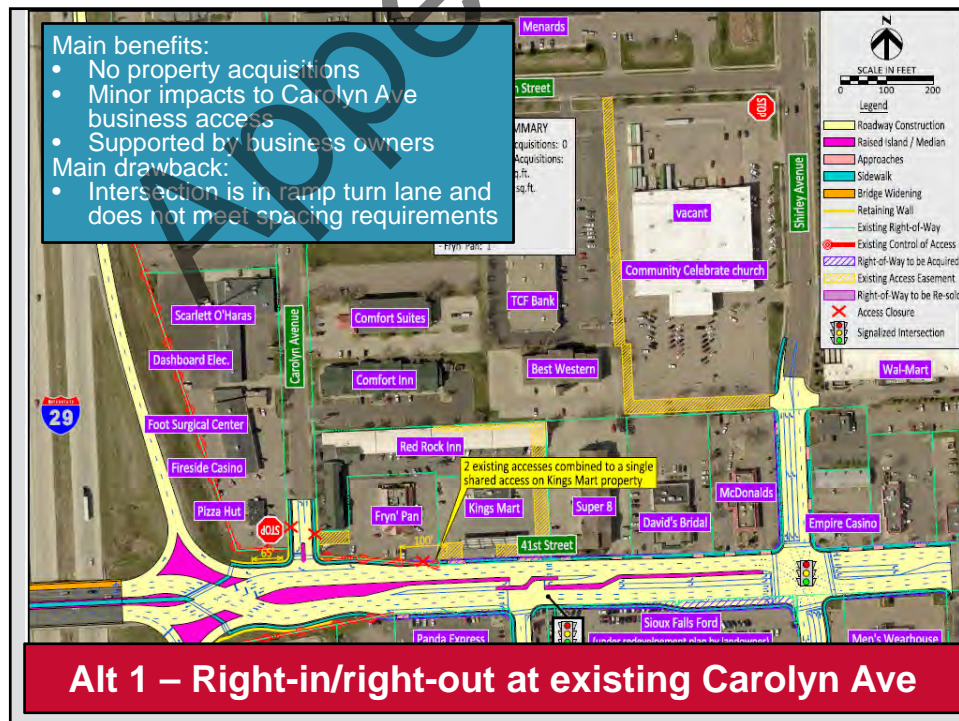
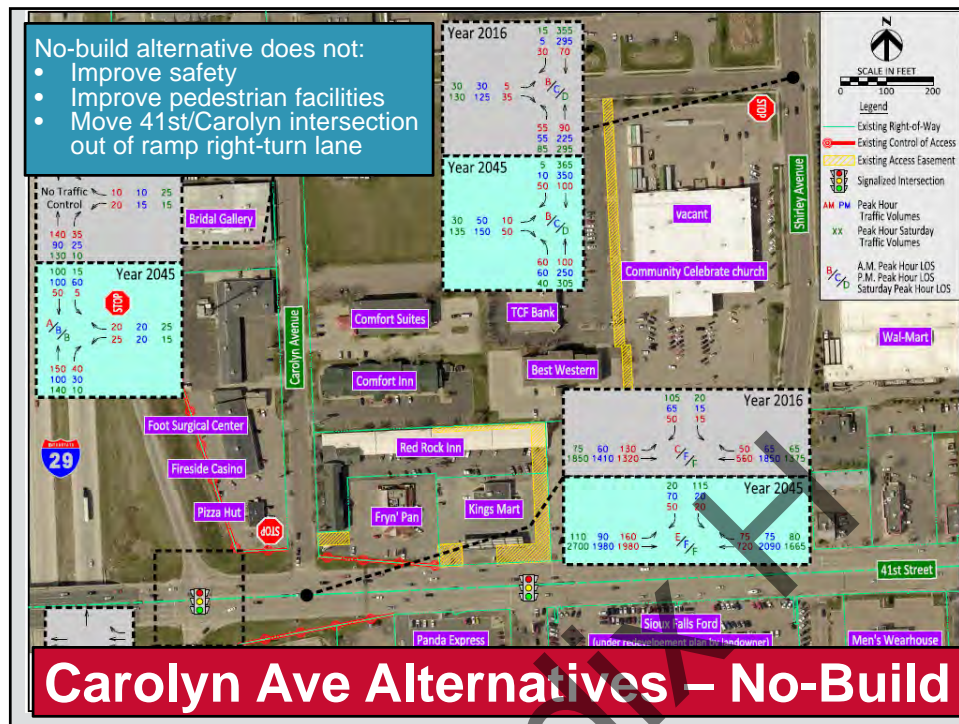
41<sup>st</sup> East Alternatives  
Comparison Matrix

## 41<sup>st</sup> East Alternatives Comparison Matrix

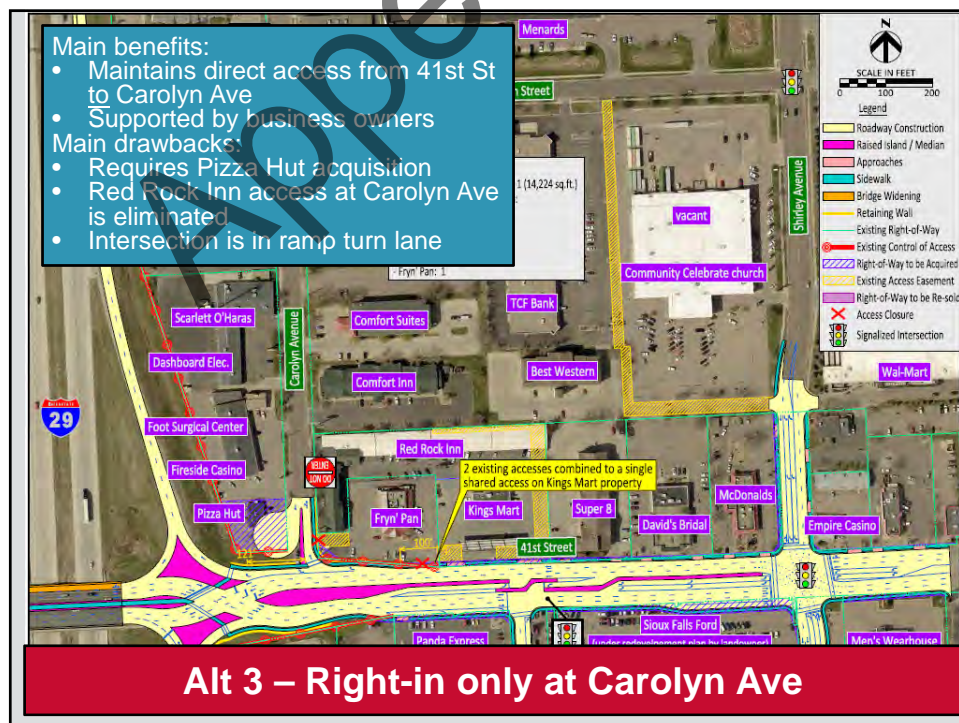
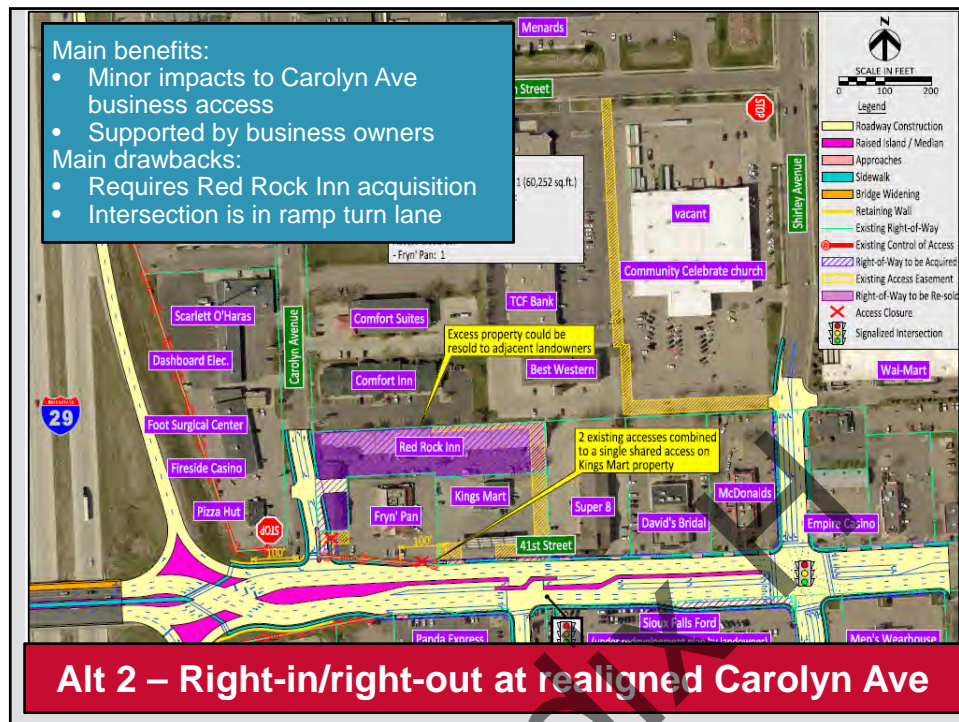


Alternatives recommended to be carried forward for further consideration:		
Alternative	Description	Main reason(s) for carrying forward
A	Raise center median with 3/4 access at W Empire Place and two-way mall access at Shirley Avenue	<ul style="list-style-type: none"> <li>Provides safety benefits of raised median</li> <li>Meets SDDOT and City design policies</li> <li>Provides reasonable access to properties</li> </ul>
Alternatives recommended to be eliminated from further consideration:		
Alternative	Description	Main reason(s) for elimination
B	Raise center median with 3/4 access at W Empire Place and one-way mall access at Shirley Avenue	<ul style="list-style-type: none"> <li>One-way mall access road is not desired by the property owner (Empire Mall); the City of Sioux Falls concurs with the property owner.</li> </ul>
C	Center two-way left turn lane	<ul style="list-style-type: none"> <li>Does not provide safety improvements.</li> <li>SDDOT and City design policies for application of raised medians are not met.</li> </ul>
<div>41<sup>st</sup> East Alternatives Recommendations</div>		



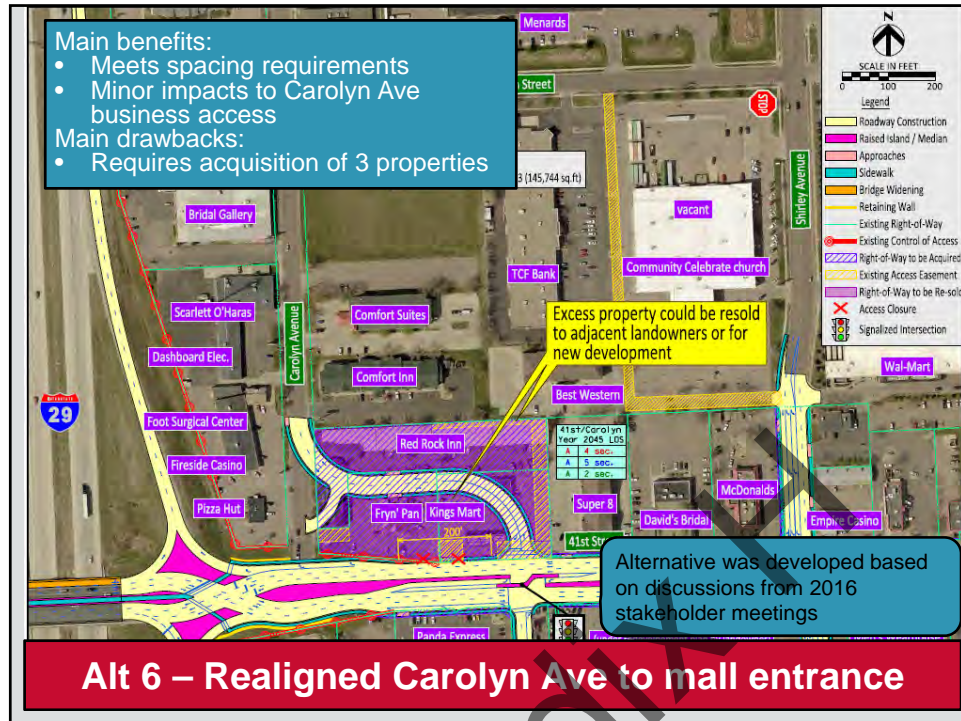












Comparison Matrix Carolyn Avenue Alternatives		I-29 Exit 77 (41st Street) Interchange Study Project # PL0100(84) 3616P, PCN 05MH											4/12/17									
Alternatives	Description	Performance and Access				Traffic Operations		Property Impacts					Costs				Applicable Environmental Impacts					
		41 <sup>st</sup> St Capacity Enhancement	Safety Improvement	Pedestrian Crossing Improvement	Adequate Separation from I-29 ramp (ft)	LOS AM/PM	#	sq ft	sq ft	sq ft	sq ft	Affected Business / Landowner Acquisition	Initial ROW Acquisition	Net ROW Acquisition	Construction	Initial Total	Net Total	Initial Total	Net Total	Initial Total	Net Total	
1	Right-in / Right-out at Existing Carolyn Avenue	moderate	moderate	moderate	no	minimal	F/F	0	0	3,462	0	3,462	minor	good	0.2	0.2	0.8	0.8	0	0	0	0
2	Right-in / Right-out with Realigned Carolyn Avenue	moderate	moderate	moderate	no	minimal	F/F	1	60,262	8,793	87,653	8,684	minor	good	3.1	0.9	0.7	3.6	3.4	0	0	
3	Right-in Only at Carolyn Avenue	moderate	moderate	moderate	no	minimal	NA	1	14,224	4,162	0	18,386	moderate	moderate	0.7	0.7	0.8	1.5	1.5	0	0	
4	West side Carolyn Avenue Cul-de-sac	good	good	good	yes	moderate (2)	NA	1	14,224	3,430	0	17,660	moderate (3)	poor	0.7	0.7	0.9	1.6	1.6	0	0	
5	East side Carolyn Avenue Cul-de-sac	good	good	good	yes	moderate (2)	NA	1	60,252	7,306	57,614	5,944	moderate (3)	poor	2.2	1.0	0.9	3.1	1.9	0	0	
6	Realigned Carolyn Avenue to Mall Entrance	good	good	good	yes	minimal	A/A	3	145,744	0	103,171	42,579	minor	unknown (4)	4.4	2.3	1.3	5.5	3.4	0	0	
NB	No-Build	poor	poor	poor	no	none	F/F	0	0	0	0	0	none	good	NA	NA	NA	NA	NA	0	0	

NA: Not Applicable  
(1) SDOOT design criteria requires a minimum 100' separation from an interstate ramp junction/turn lane to the nearest access point.  
(2) Requires future signalization of 38<sup>th</sup> Street/Shirley Ave intersection. Cost estimates include this signal.  
(3) Properties maintain access to Carolyn Avenue with these alternatives.  
(4) This alternative has not been presented to a sizable group of affected business/landowners.  
(5) Environmental justice impact not evaluated; see discussion for Alternatives 2, 5, and 6 evaluation.  
(6) King's Mart convenience store has been evaluated for Phase I Environmental Site Assessment due to past use as gas station; see discussion for Alternative 6 evaluation.

Options recommended for elimination from further evaluation

Carolyn Ave Alternatives  
Comparison Matrix

Alternatives recommended to be carried forward for further consideration:

Alternative	Description	Main reason(s) for carrying forward
4	West Side Carolyn Avenue Cul-de-sac	• Meets traffic, safety, and design criteria
5	East Side Carolyn Avenue Cul-de-sac	• Meets traffic, safety, and design criteria

Alts 4 & 5 provide reasonable access to area businesses because of:

- 41<sup>st</sup> St 3/4 median access at Empire Mall entrance
- Signal at 38<sup>th</sup>/Shirley intersection
- Improved 41<sup>st</sup>/Shirley intersection

Alternatives recommended to be eliminated from further consideration:

Alternative	Description	Main reason(s) for elimination
1	Right-in / Right-out at Existing Carolyn Avenue Alignment	• Intersection will remain within the 41 <sup>st</sup> Street right turn lane therefore SDDOT spacing criteria is not met.
2	Right-in / Right-out at Realigned Carolyn Avenue	• Intersection will remain within the 41 <sup>st</sup> Street right turn lane therefore SDDOT spacing criteria is not met.
3	Right-in Only at Existing Carolyn Avenue Alignment	• Intersection will remain within the 41 <sup>st</sup> Street right turn lane therefore SDDOT spacing criteria is not met.
6	Realigned Carolyn Avenue to Empire Mall Entrance	• Requires purchase of three commercial properties

**Carolyn Ave Alternatives Recommendations**

2017

- Fill out and return Comment Card by May 24
- SAT will compile, review, and address comments
- SAT will finalize environmental study with selected alternative

**Next Steps**



2018

- Begin next phase of project
  - Preliminary design
  - Property acquisitions
  - Permitting

**Next Steps**

2023

Begin construction

**Next Steps**



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 Project Development, Data Analysis Engineer  
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Study Website  
[www.41ststudy.com](http://www.41ststudy.com)



**Study Information**



**Questions and Comments**





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# SIGN IN SHEET

Subject:	I-29 Exit 77 (41 <sup>st</sup> Street) Environmental Study		
Client:	South Dakota Department of Transportation / City of Sioux Falls		
Project:	[SDDOT Project PL0100 (84) and IM0293 (A6)77]		
Meeting Date:	Wednesday May 10, 2017	5:30 – 7:00 PM	Meeting Location: Sioux Falls Convention Center

Please print clearly. Thank you.

	NAME/REPRESENTING	ADDRESS	BEST CONTACT PHONE	E-MAIL
1	Steve Gramm	700 E. Broadway Ave. Pierre	605-773-6641	Steve.gramm@state.sd.us
2	Mr. Verson	3101 S Carolyn Ave	712 470 1791	Flynho1401@HotMail.ca
3	Constance Weaver	2701 N Career Ave 144	605 413 5066	cjweaver14@ole.orgie.edu
4	LEE KAFFAR	214 SUNSET CIRCLE DELL RAPIDS, SD 57022	605 254 3155	LEE.LAFFAR@DELLRAPIDS.COM
5	James Unruh	HDR		
6	Jason Kiensted	HDR		
7	Brande Miller	HDR		
8	Terry Keller	HDR		
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	NAME/REPRESENTING	ADDRESS	BEST CONTACT PHONE	E-MAIL
1	Scout Sudbeck	700 E Broadway, Pierre	605-773-2707	Scout.Sudbeck@state.sd.us
2	Taren Korkow	3101 S Carolyn Ave	214-0931 605-800-0931	taren.korkow@gmail.com
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	NAME/REPRESENTING	ADDRESS	BEST CONTACT PHONE	E-MAIL
1	Brad Remmick	700 E Broadway <sup>Pierre</sup>	605-773-3093	bradley.remmick@state.sd.us
2	Ron Soucie	1903 S Mary Beth Ave #2	605 370-9974	ronald.soucie@simon.ca
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Please print clearly. Thank you.

	NAME/REPRESENTING	ADDRESS	BEST CONTACT PHONE	E-MAIL
1	Shannon Auser	224 W. 9th St. SF, SD 57110	367-8607	sauser@siouxfalls.org
2	Marion Barber	Pierre	776-1012	marion.barber@dot.gov
3	MIKE LANGFORD	Sioux Falls	551-2940	
4	Amber Gibson	500 N. Winston Ave 84100 SFSO 57104	367-5390	amber@seco.org
5	Sue Lund	3900 S Terry - office Sioux Falls, SD	361-1402 Day	sue.sannycrescent@midconetwork.com
6	Allen Merrill	2004 S. Western Ave Sioux Falls, SD	216-8952	allen.m.merrill@sioux.falls.sd.gov
7	Mark Hoines	FHWA		
8	Rich Phillips	Sioux Falls		
9	Chuck Gustafson	Sioux Falls	332-1000	
10	TERRY KELLER	PIERRE	280-4381	terry.keller@pdrinc.com
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Please print clearly. Thank you.

	NAME/REPRESENTING	ADDRESS	BEST CONTACT PHONE	E-MAIL
1	Darin Johnson SDDOT	5306 W. 60th ST. N. Sioux Falls, SD	605-367-5680	darin.johnson@state.sd.us
2	Parla Jones Home owner	5005 W 40th ST SF, SD 57106	605-361-8652	<del>Parla Jones</del> Pistkae per @ sioux falls sd
3	FRANK EISENMAN HOME OWNER	3708 S STEVEN CT SF SD 57106	605 361 4665	EISENMAN2 @ AOL . com
4	Chris Henly Attorney	315 S. Phillips Ave Sioux Falls, SD 57104	605-336-3075	chris@mcclerhenny law co llc
5	Dan Kantz	4606 S Septima Ave SF SD	605-254-3180	
6	Steve Hoff	6500 S. Old Village Pl.	605-261-6683	steve.hoff@tdrinc.com
7	Jason Reaves	5024 S. Brook Pl SF	605-274-3396	jreaves.sdacpa@midconetwork.com
8	Russ Hoek	340 S. Marion Sioux Falls	605-254-8415	russfovs@aol.com
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Comments from April/May 2017 I-29 Exit 77 (41 <sup>st</sup> Street) Public Involvement and Applicable Responses				
Property	Representative	Meeting	Concern(s)	Response(s)
Fryn' Pan Restaurant (4204 W. 41 <sup>st</sup> Street)	Dave Stukel	email dated 5/4/17 following 4/25/17 landowner meeting	<p>I think that it is important that I voice my opinion on the two alternatives that are still under consideration.</p> <ol style="list-style-type: none"> <li>1. EVERYTHING about Alternative 4 is going to have a negative impact on Fryn' Pan's business. This alternative will drastically impact the profitability of this restaurant. The median is a negative, the "combined driveways" are a negative, the "long route" to go home to the east is a negative, the increase in "cut through traffic" is a negative (to my parking lot's life span AND the safety of my customers). The combination of all these negatives is enough to drive a long-standing business "Out Of Business".</li> <li>2. All of these negatives still exist in Alternative 5, but at least in Alternative 5 Fryn' Pan could possibly be in a position to expand it's parking lot. This parking lot expansion could offset some or all of the negatives that would be piled upon my business.</li> <li>3. In visiting with my neighbor, King's Mart, they too have expressed that Alternative 5 is the least disruptive for Fryn' Pan and King's Mart.</li> </ol> <p>I would look forward to voicing my opinions at the public meeting on May 10 but unfortunately we will not be unable to attend. I trust that my opinion will be heard.</p> <p>Lastly I would like to sincerely thank you for the hard work that you consistently put into these projects.</p>	<ol style="list-style-type: none"> <li>1 The concerns raised appear to contradict support for Carolyn Avenue Alternatives 4 and 5 shared at the 4/24/17 landowner meeting. <ul style="list-style-type: none"> <li>• The proposed 3/4 access raised median configuration on 41<sup>st</sup> Street does not restrict any access movements <u>to</u> the Fryn' Pan.</li> <li>• The single combined driveway with King's Mart was the condition when the Fryn' Pan was established at this location in the 1970s. The driveway directly to the Fryn' Pan was installed several years later within the legal control-of-access for the I-29 interchange.</li> <li>• Patrons leaving the Fryn' Pan heading eastbound on 41<sup>st</sup> Street will need to utilize Carolyn Avenue, 38<sup>th</sup> Street, and Shirley Avenue. Although this is a longer route than turning left from Fryn' Pan directly to eastbound 41<sup>st</sup> Street, making left turns onto 41<sup>st</sup> Street is very difficult and unsafe at virtually any time of the day because of the high traffic volumes on 41<sup>st</sup> Street. The "long route" represents a beneficial safety aspect of Alternatives 4 and 5.</li> <li>• Cut through traffic may be a concern; however, the proposed improvements on 41<sup>st</sup> Street and at the Shirley Avenue/41<sup>st</sup> Street intersection will likely make the "cut-through" route less desirable for drivers than utilizing the street network.</li> </ul> </li> <li>2 There is no guarantee that Fryn' Pan would purchase any part of the Red Rock Inn property acquired with Alternative 5.</li> <li>3 Verbal comments from King's Mart representatives at the 4/25/17 landowner meeting indicated concurrence with Alternatives 4 or 5.</li> </ol> <p>The large cost differential between acquisition of the Pizza Hut property (Alternative 4) and the Red Rock Inn property (Alternative 5) leads us to move forward with Alternative 4.</p>
Black Diamond Casino (5113 W 41 <sup>st</sup> Street)	Lawrence Piersol	Comment card dated 5/19/17	Good meeting regarding project with good visuals and explanation, although I had previously reviewed the project on line as I was out of the state for the winter.	No response required.



Comments from April/May 2017 I-29 Exit 77 (41 <sup>st</sup> Street) Public Involvement and Applicable Responses continued				
Property	Representative	Meeting	Concern(s)	Response(s)
Bridal Gallery (3101 S Carolyn Avenue)	Taren Korkow	Comment card at 5/10/17 public meeting	I am still not happy w/ the options on Carolyn Avenue. The hotels are farther down closer to 38 <sup>th</sup> Street where us closer to 41 <sup>st</sup> Street will really be impacted by closing the road. I for one would cut through the business to access my business. I would not go to 38 <sup>th</sup> and around.	The Bridal Gallery driveway is approximately 300 feet from 38 <sup>th</sup> Street and 700 feet from 41 <sup>st</sup> Street. While some drivers may cut through the Fryn' Pan and King's Mart properties to access Carolyn Avenue, the proposed improvements on 41 <sup>st</sup> Street and at the Shirley Avenue/41 <sup>st</sup> Street intersection will likely make the "cut-through" route less desirable for drivers than utilizing the street network.
King's Mart (4200 W 41 <sup>st</sup> Street)	un-named customer	Letter dated 5/16/17	Traffic Engineers, I am a regular customer at the King's Mart gas station on West 41 <sup>st</sup> . When I attempt to exit with a left turn onto 41 <sup>st</sup> , I feel like I'm playing "Frogger". There are more exits on that side of 41 <sup>st</sup> (in that area) that are also difficult to make left turns. The Manager of King's Mart says it will be fixed in 2023. Is there any way to make it safer until then? Thank you, King's Mart Customer.	Recommended Alternative A will resolve the unsafe situation with left turns from driveways along 41 <sup>st</sup> Street. Until 41 <sup>st</sup> Street is widened with this project, there is not a feasible solution to the problem. The City is requesting that the I-29/41 <sup>st</sup> Street project be accelerated to year 2022. In addition, the 41 <sup>st</sup> Street/Shirley Avenue intersection improvements may be completed prior to the overall I-29/41 <sup>st</sup> Street project.
Carolyn Ave general	Chris Parsley & Koni Sims	5/10/17 MPO Citizens Advisory Committee	Request sidewalk access to the propose cul-de-sac on Carolyn Avenue from 41 <sup>st</sup> Street.	This will be considered during preparation of preliminary and final design plans. It should be noted that existing Carolyn Avenue has no sidewalk north of 41 <sup>st</sup> Street.
41 <sup>st</sup> Street general	Chris Parsley	5/10/17 MPO Citizens Advisory Committee	Bicycle community wants painted sharrows in the center of the lanes, with signage, on the outermost lanes of 41 <sup>st</sup> Street.	This will be considered during preparation of preliminary and final design plans. With the high traffic volumes on 41 <sup>st</sup> Street and many driveways, it would seem preferable to discourage bicyclists from using 41 <sup>st</sup> Street for safety reasons.