I-90 Exit 59 (La Crosse Street)

Interchange Options Study

Public Open House #3

May 28, 2015: 5:30 PM – 7:00 PM

Study Area

Study Area:

- I-90
  - Vicinity of La Crosse Street
- La Crosse Street
  - Eglin Street to Disk Drive

Study Partners

Advisory Agencies:

- South Dakota Department of Transportation (SDDOT)
- City of Rapid City
- Rapid City Area MPO
- Federal Highway Administration

Consultant Team:

- HDR

Public Members/Stakeholders:

- Landowners and Business Owners
- Traveling Public and Concerned Citizens

Study Process

Study Process / Timeline:

July / October 2012 – Data Collection *(completed)*

October / November 2012– Traffic Assessment *(completed)*

November 28 / 29, 2012– Public and Stakeholder Meetings *(completed)*

December 2012 / December 2013 – Develop Alternatives (*completed*)

February 2014 – Public and Stakeholder Meetings *(completed)*

March / May 2014 – Refine and Analyze Alternatives (*complete*)

June 2014 / April 2015 – Develop Interchange Modification Justification Report / Draft Categorical Exclusion (*complete*)

May 2015 – Public Meeting

June 2015 – Finalize Study and Categorical Exclusion

Year 2015 - 2019* – Preliminary Design, Landowner Coordination, Final Design

Year 2020* – Construction

*Subject to Funding Availability

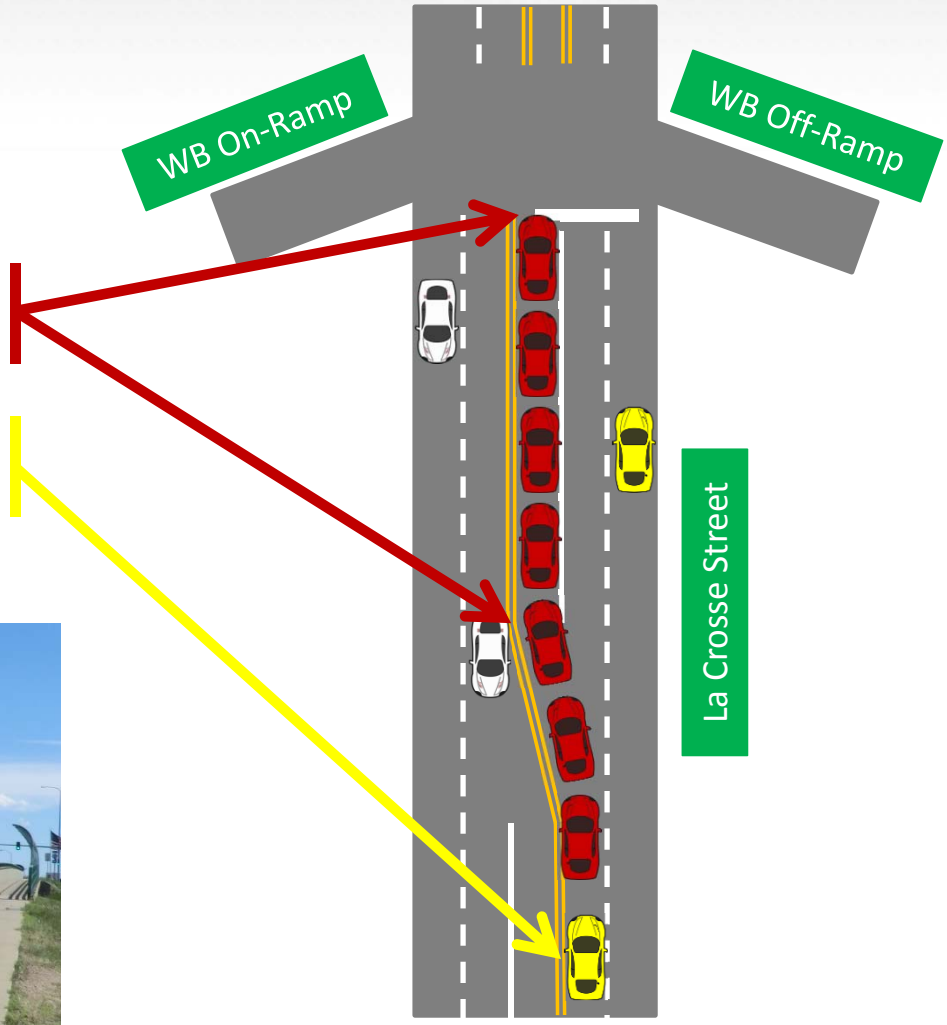
What is the Purpose and Need for this Project?

- Improve capacity
- Improve safety

Existing Traffic Assessment

La Crosse Street / I-90 Westbound Ramp

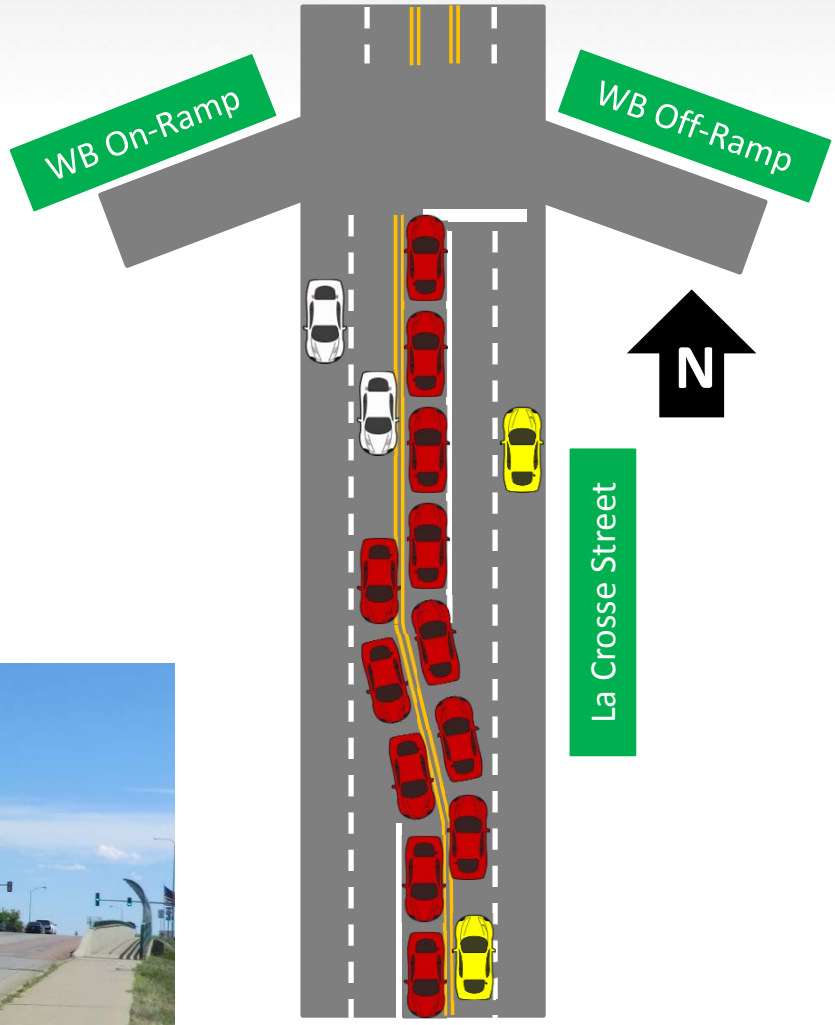
- Northbound Left Turn Vehicles Exceed Capacity
- Blocks Northbound Inside Through Lane



2035 Traffic Assessment (No-Build)

Vehicle Queue Exceeds Available Storage at Multiple Locations:

- La Crosse Street/I-90 EB Ramps
  - Eastbound Left/Right Turn Lanes
  - Southbound Left Turn Lane
- La Crosse Street/I-90 WB Ramps
  - Northbound Left Turn Lane



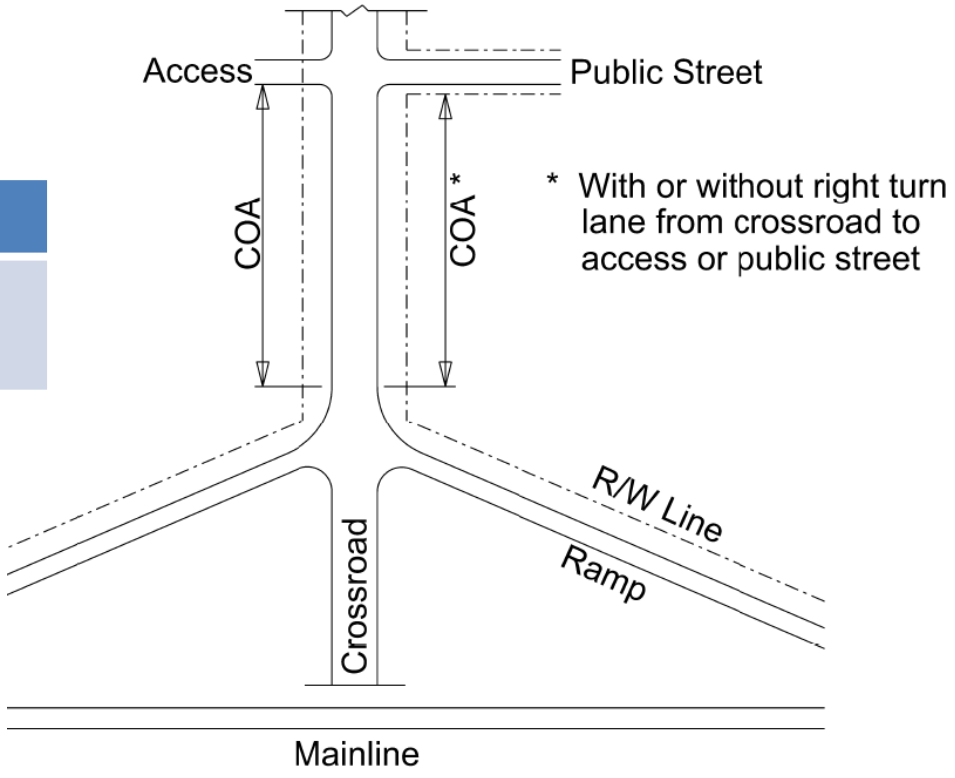
Control of Access

SDDOT Roadway Design Manual – *Control of Access*

Minimum Control of Access (COA)[1]

Type of Improvement	Urban
Reconstruction of Existing Interchange	100’

[1] This distances is considered minimum per the current AASHTO *A Policy on Design Standards Interstate System*, July 2005



Interchange Options Reviewed

Option 1

- Diamond Interchange

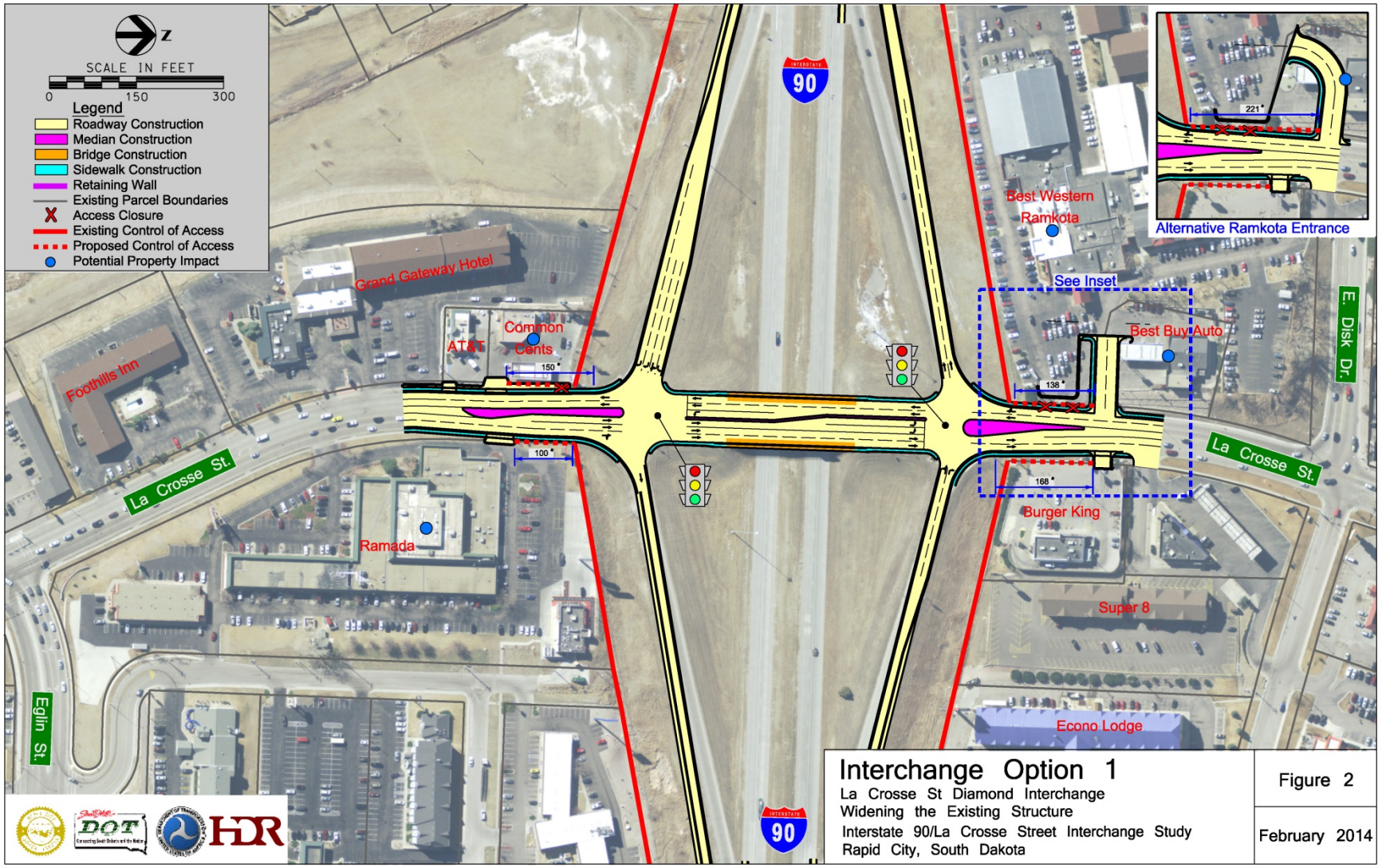
Option 2a, 2b, 2c

- Single Point Urban Interchange

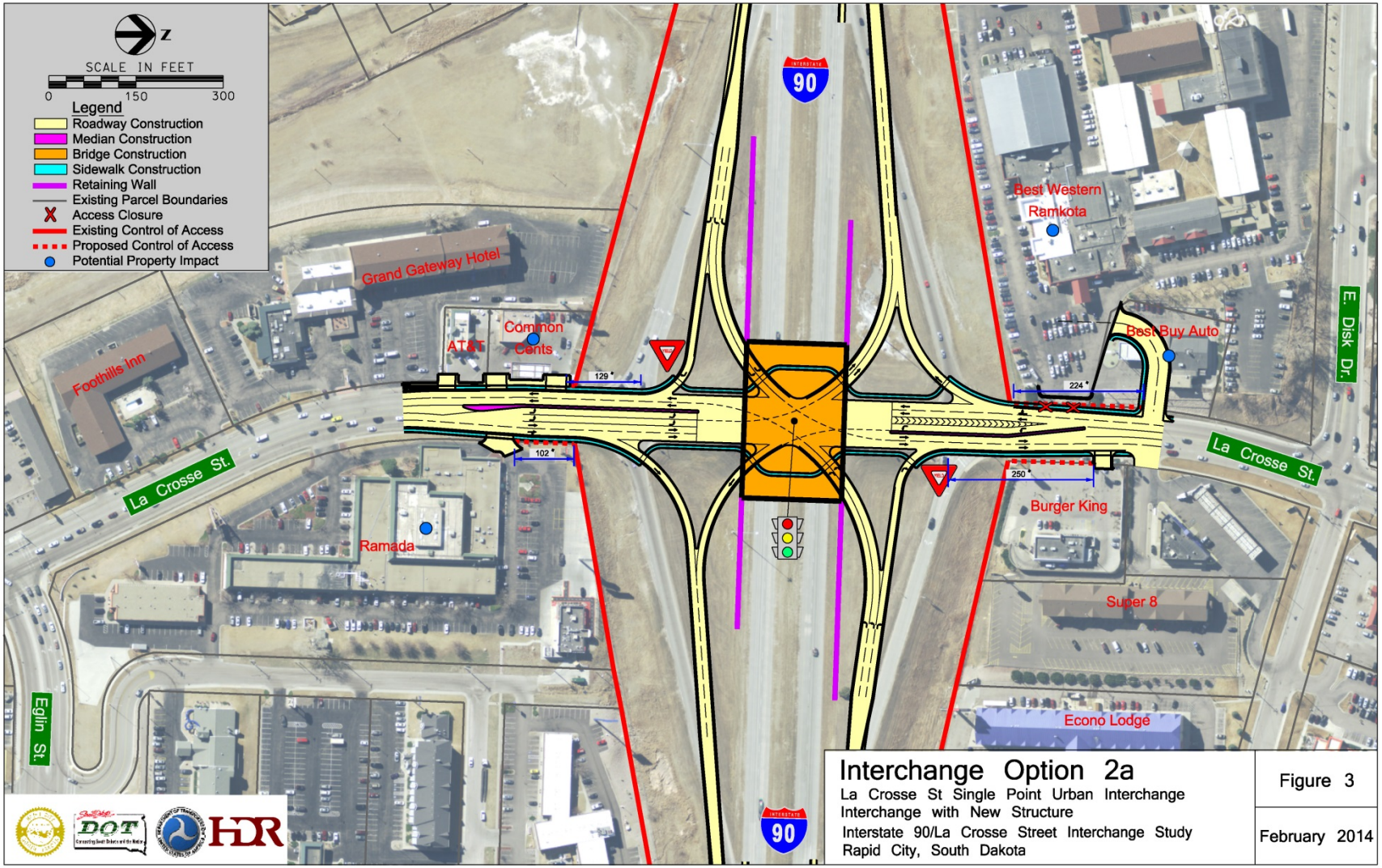
Option 3a, 3b

- Diverging Diamond Interchange

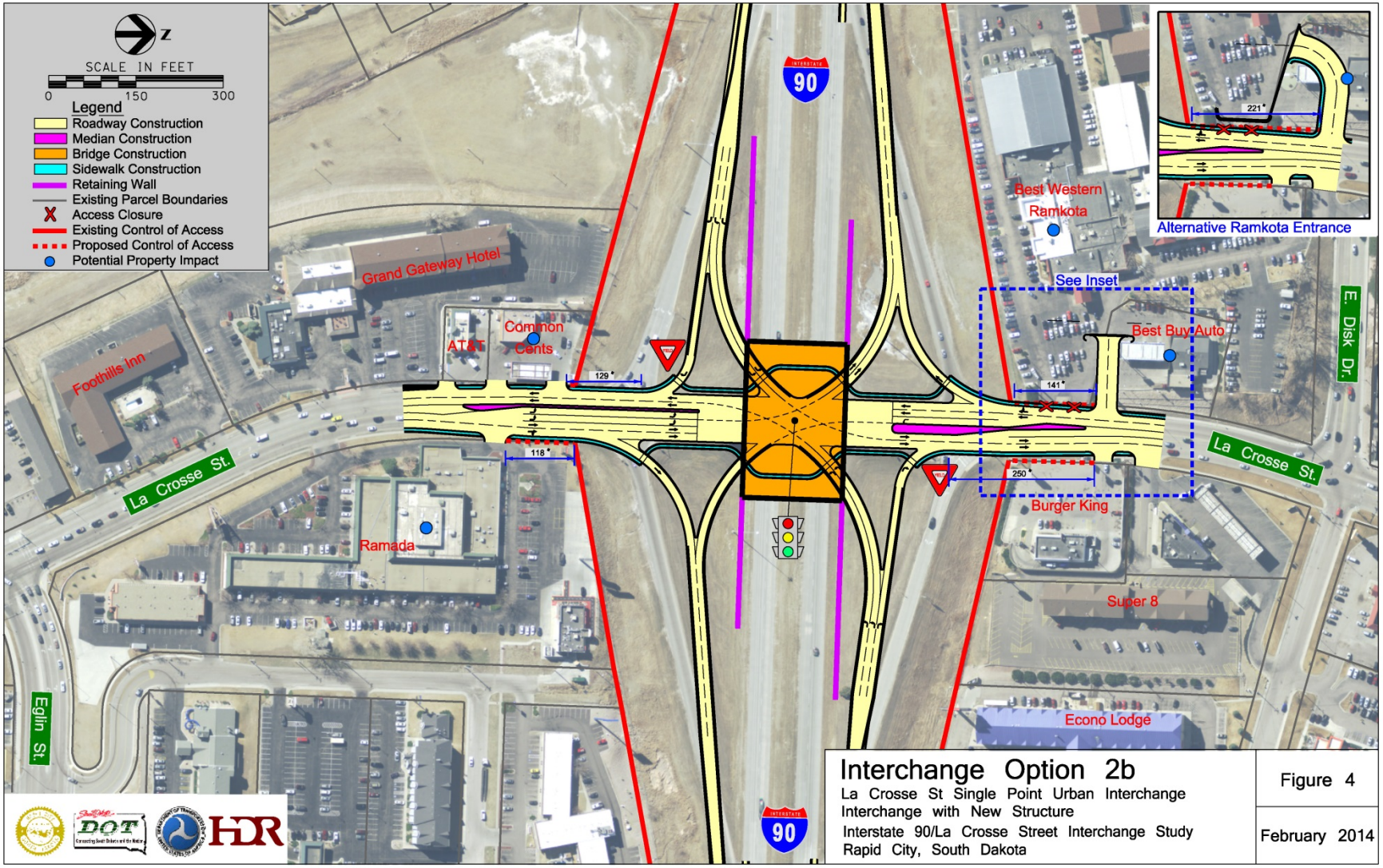
Interchange Option 1



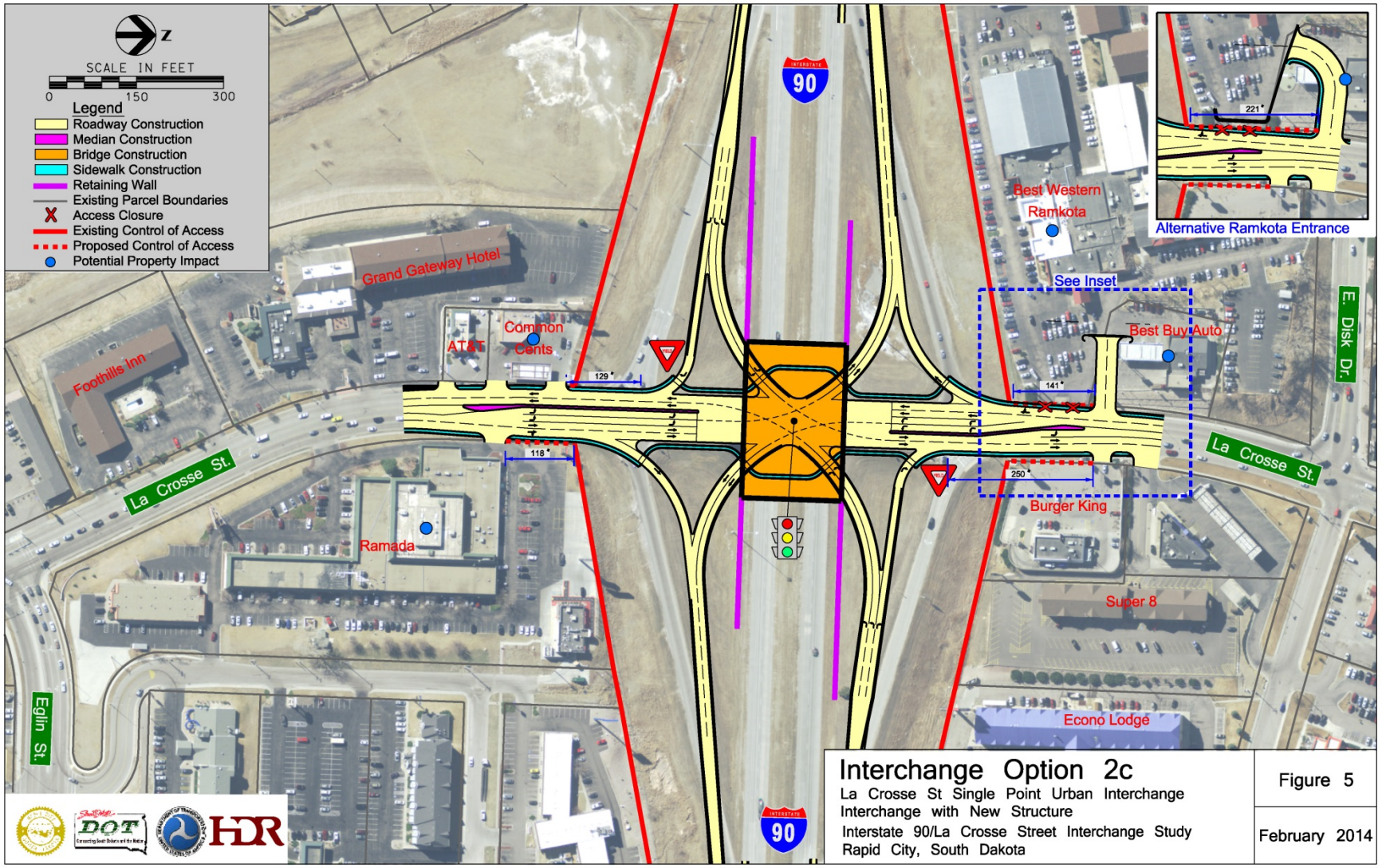
Interchange Option 2a



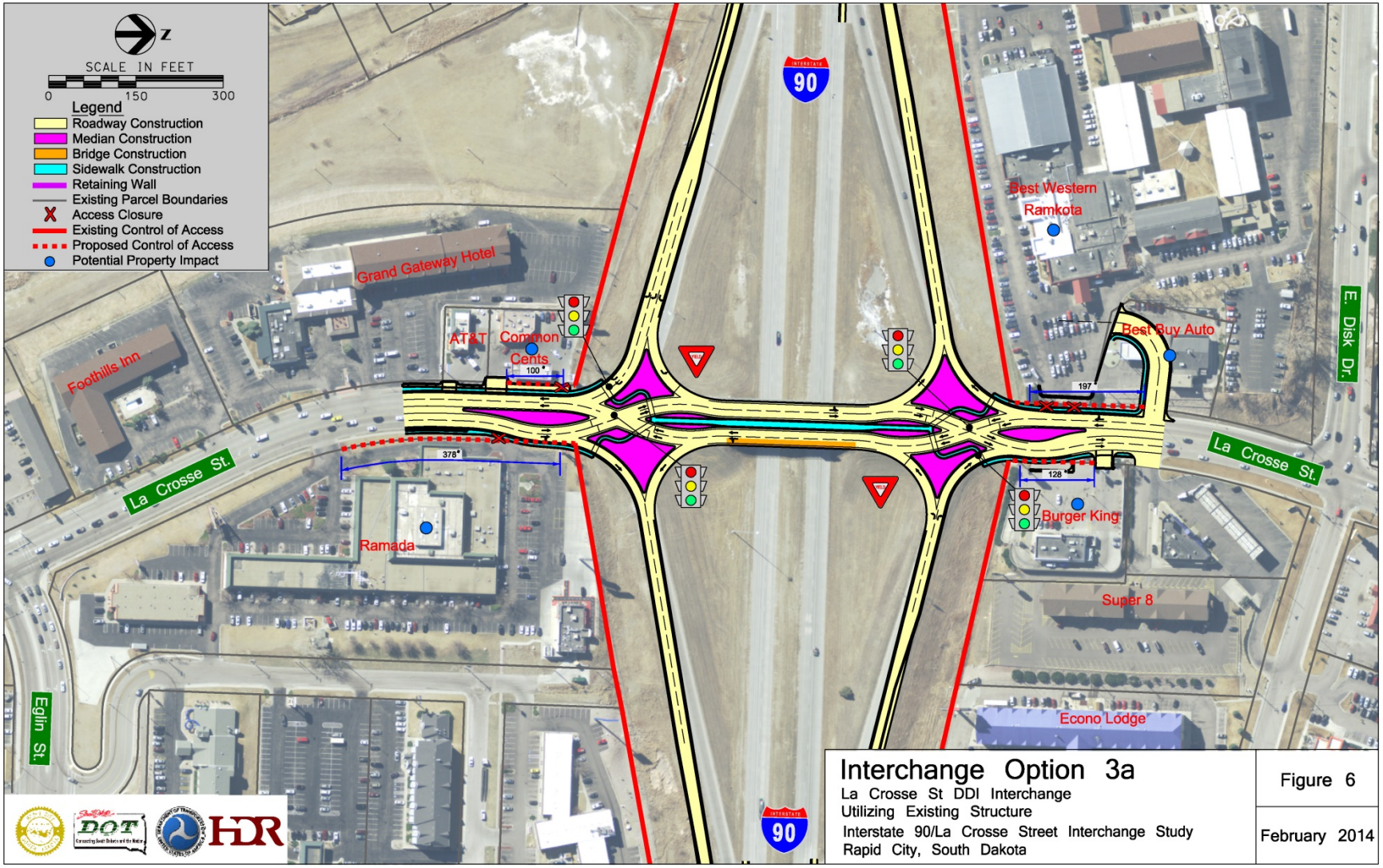
Interchange Option 2b



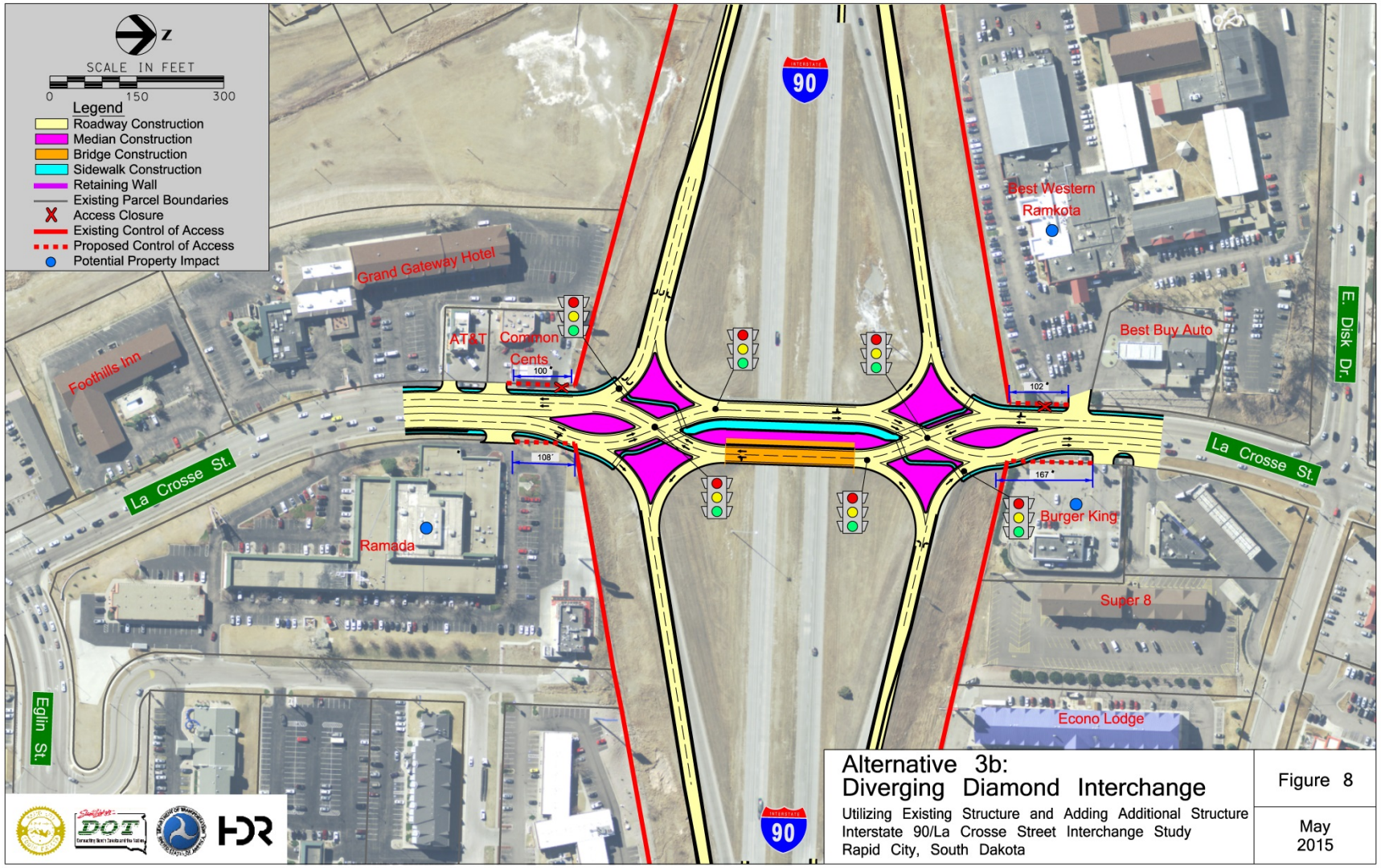
Interchange Option 2c



Interchange Option 3a



Interchange Option 3b



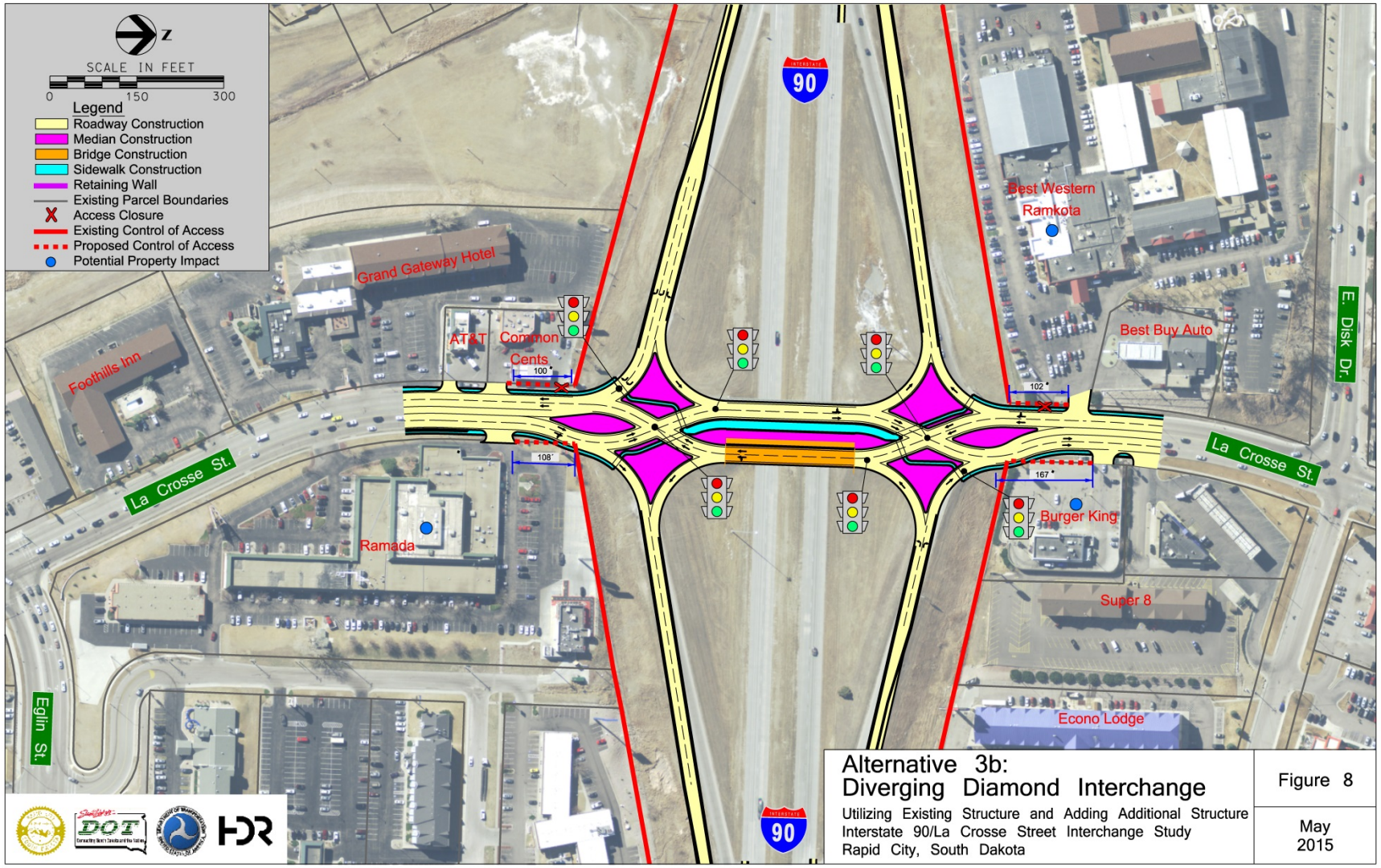
Auxiliary Lane – All Options

Evaluation of Options

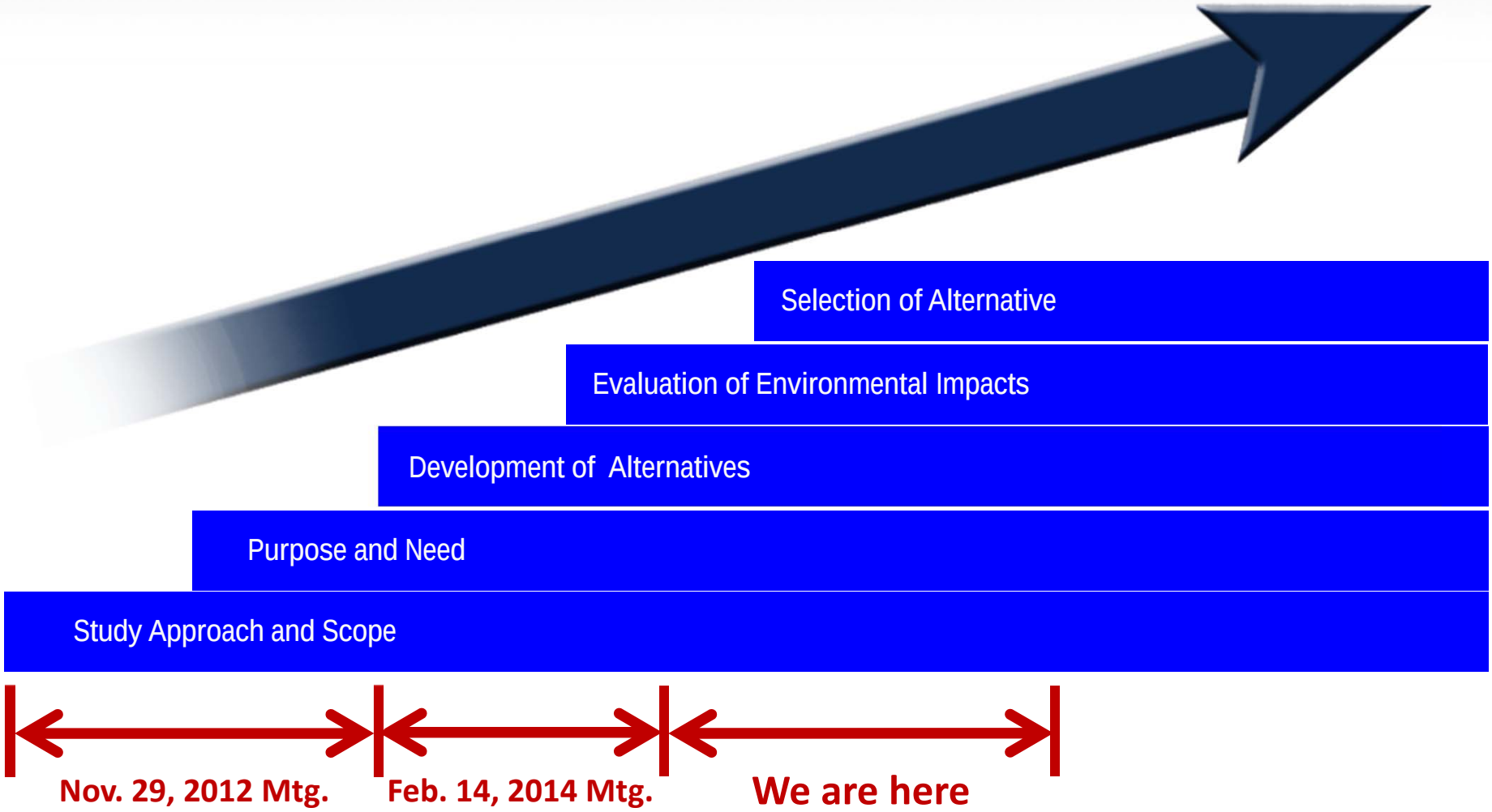
Option	Description	Driver Familiarity	Maintenance of Traffic During Construction	Property Impacts	Order of Magnitude Cost	Traffic Operations and YOB	Safety – Vehicle Conflicts	Pedestrian Crossings at Unsignalized Locations	Weighted Score (1 = Worst; 3 = Best)
1	Diamond Interchange	3	2	1	3	1	1	3	1.80
2a	Single Point Urban Interchange	2	1	2	1	2	2	1	1.65
2b	Single Point Urban Interchange	2	1	2	1	2	2	1	1.65
2c	Single Point Urban Interchange	2	1	2	1	2	2	1	1.65
3a	Diverging Diamond Interchange	1	2	1	3	3	3	2	2.35
3b	Diverging Diamond Interchange	1	3	3	3	3	2	2	2.60
	Criteria Weights	10%	10%	15%	20%	25%	15%	5%	

[1] Criteria were scored from 1 to 3, with a value of 1 representing the worst score and 3 representing the best. This resulted in some options having tie scores.

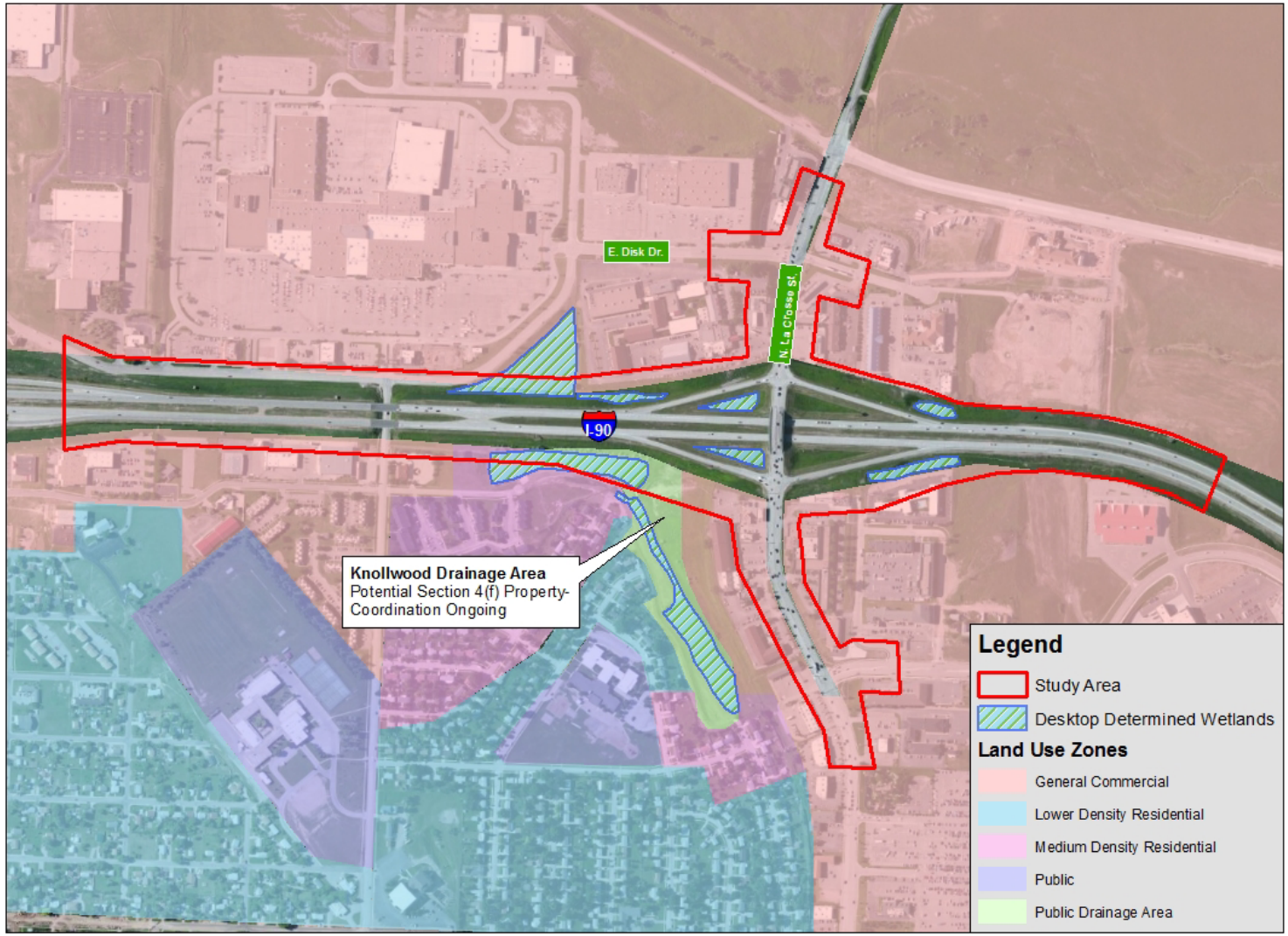
Recommended Option 3b



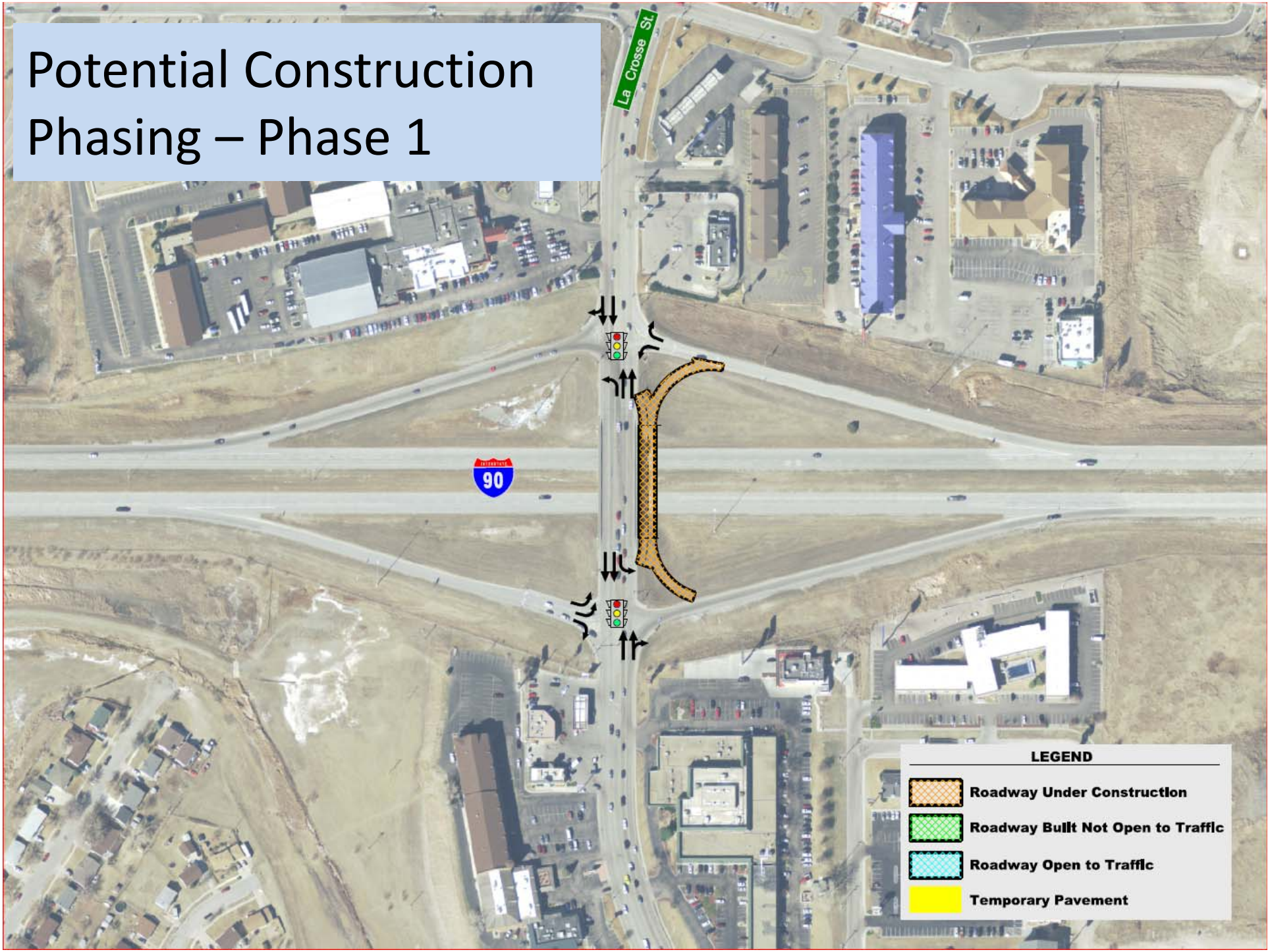
Steps of the Environmental Process

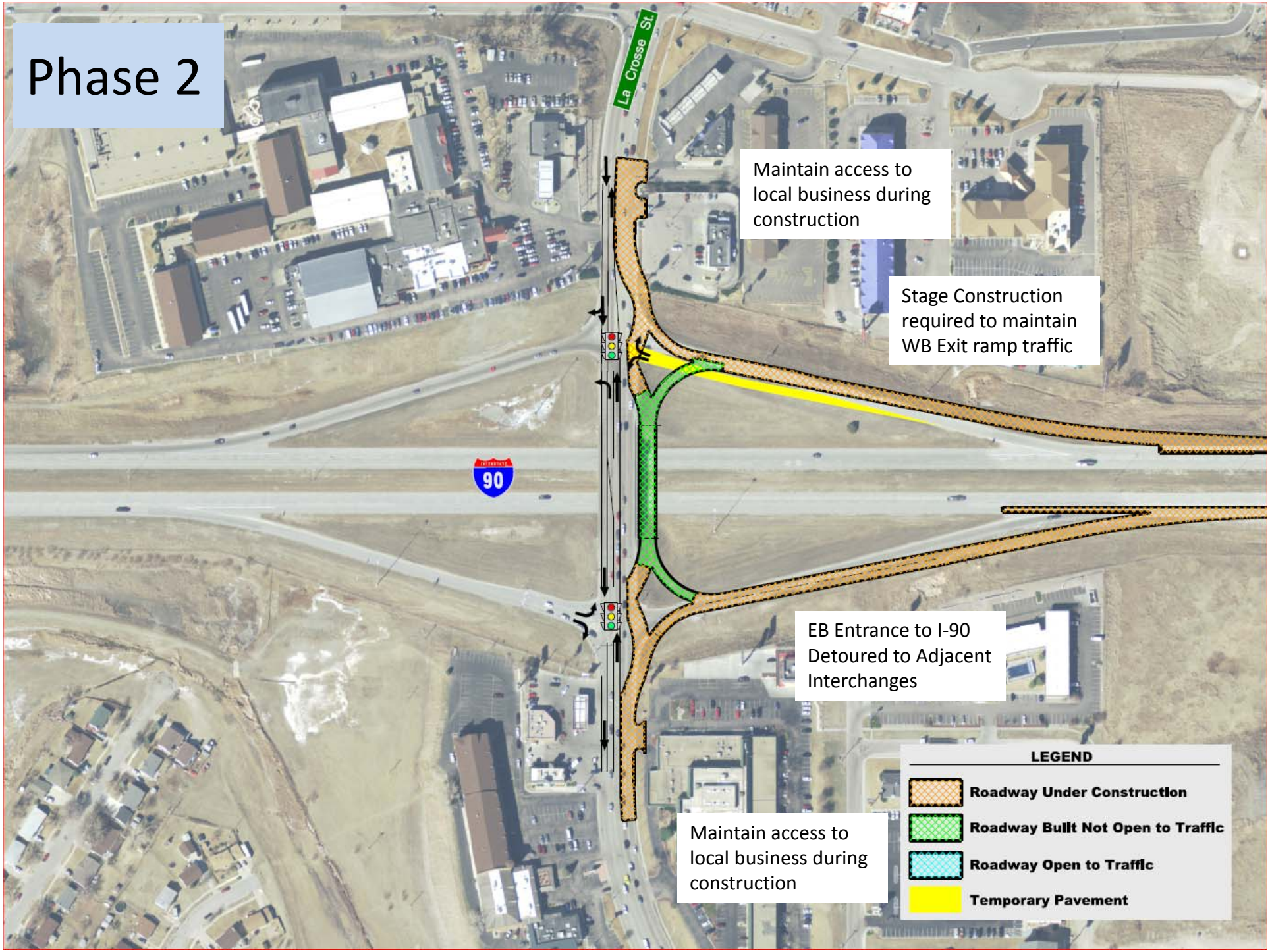


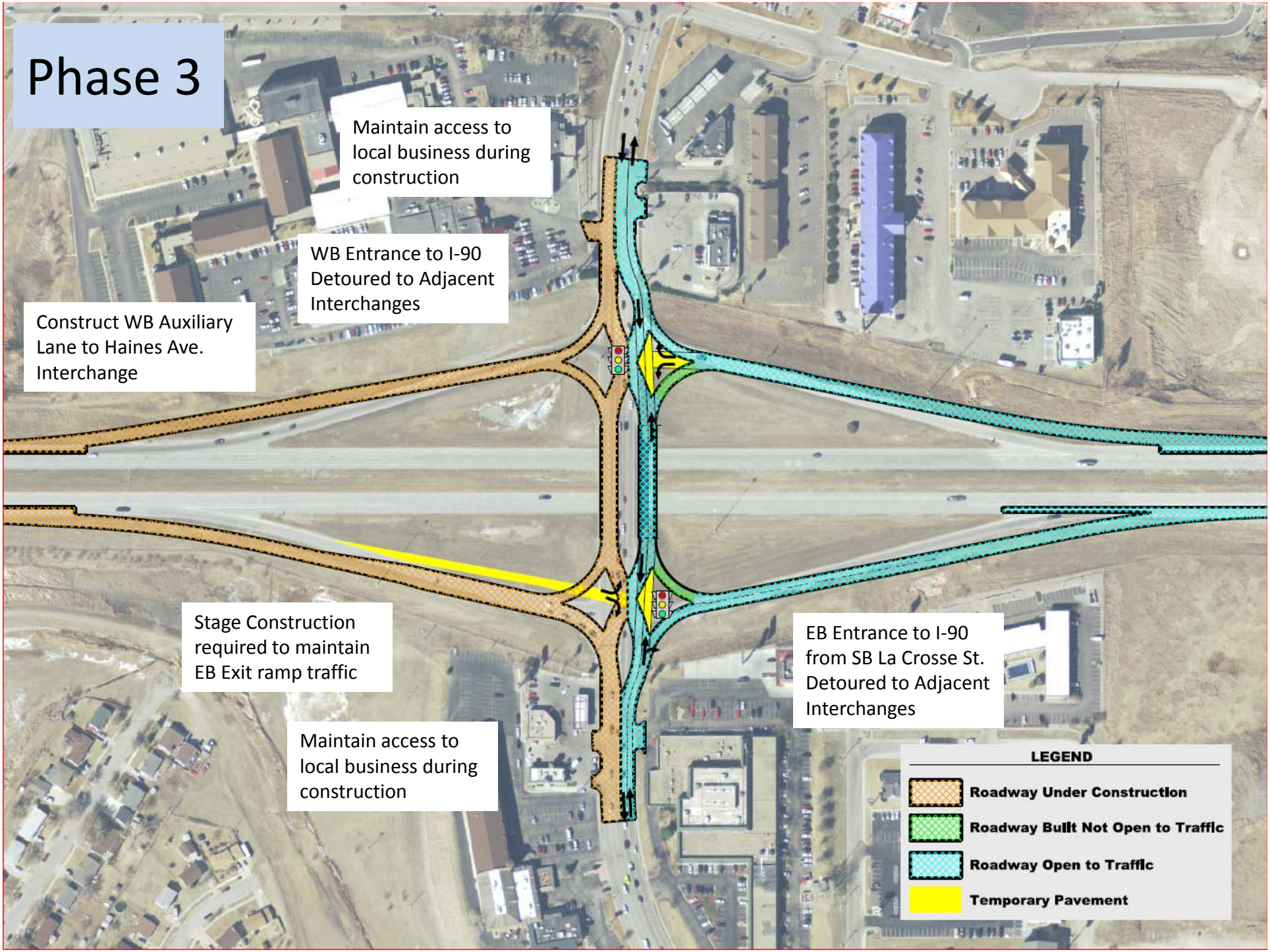
What are the Environmental Resources in the Study Area?



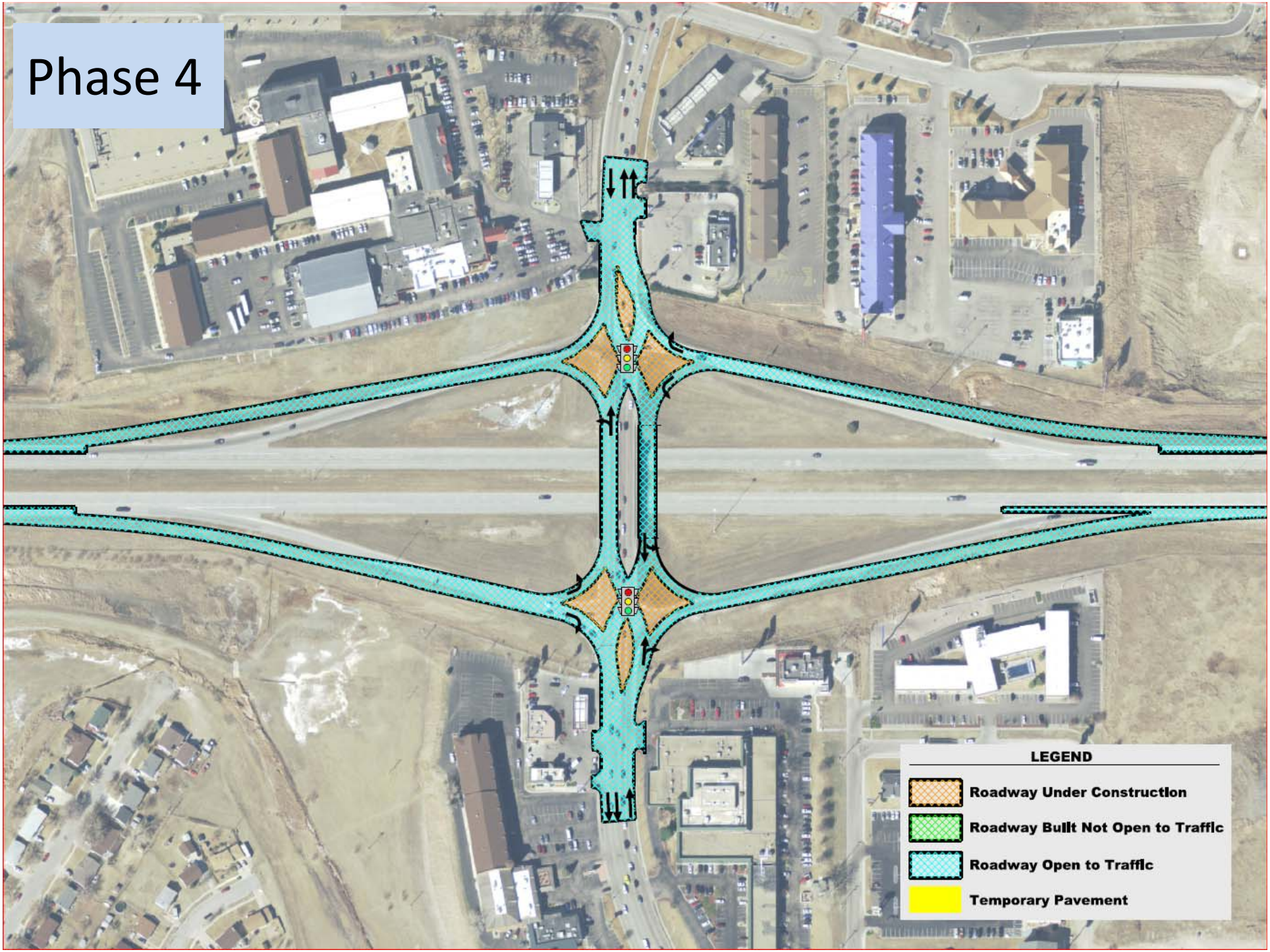
Potential Construction Phasing – Phase 1



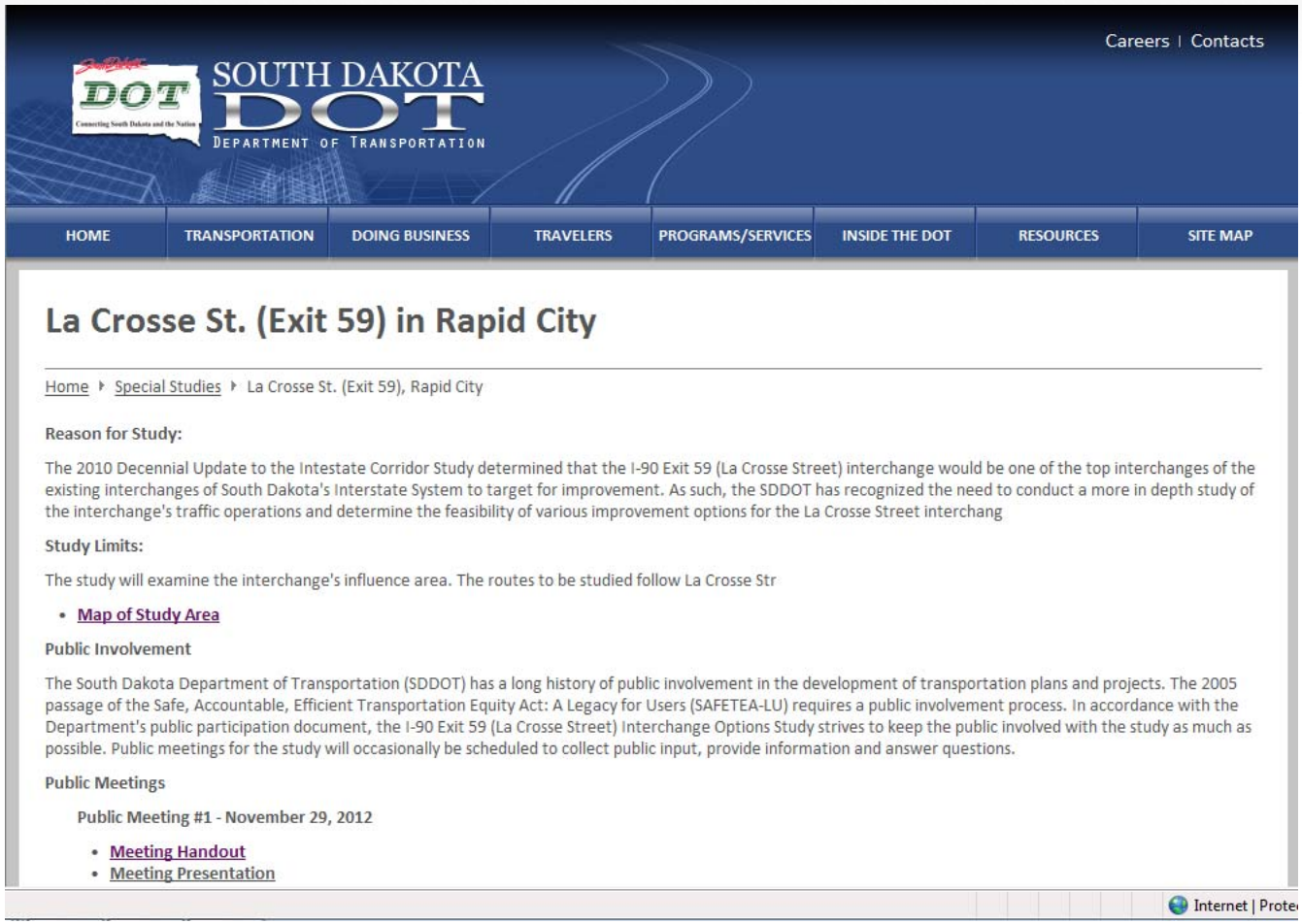

Phase 2
La Crosse St.
Maintain access to local business during construction
Stage Construction required to maintain WB Exit ramp traffic
90
EB Entrance to I-90 Detoured to Adjacent Interchanges
Maintain access to local business during construction
LEGEND
Roadway Under Construction
Roadway Built Not Open to Traffic
Roadway Open to Traffic
Temporary Pavement


Phase 3
Maintain access to local business during construction
WB Entrance to I-90 Detoured to Adjacent Interchanges
Construct WB Auxiliary Lane to Haines Ave. Interchange
Stage Construction required to maintain EB Exit ramp traffic
Maintain access to local business during construction
EB Entrance to I-90 from SB La Crosse St. Detoured to Adjacent Interchanges
LEGEND
Roadway Under Construction
Roadway Built Not Open to Traffic
Roadway Open to Traffic
Temporary Pavement

Phase 4


LEGEND
Roadway Under Construction
Roadway Built Not Open to Traffic
Roadway Open to Traffic
Temporary Pavement

Project Website



http://www.sddot.com/transportation/highways/planning/specialstudies/lacrosse/default.aspx

Study Contacts

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I-90 Exit 59 (La Crosse Street)

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THANK YOU FOR PARTICIPATING!