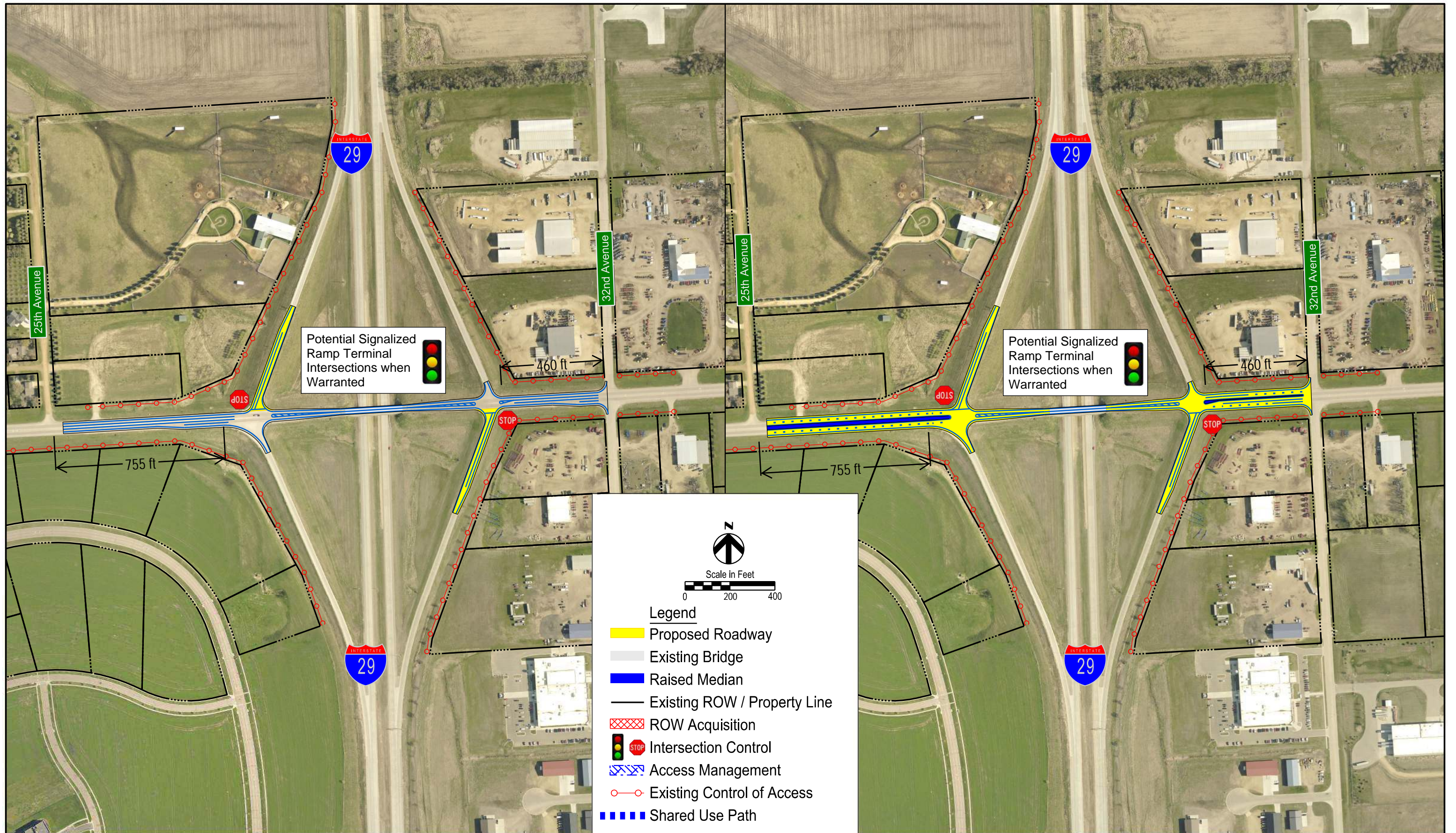


# US14 Bypass – I-29 Exit 133 Interchange Scenarios

## Scenario A: Maintain Existing Bridge with Ramp Terminal Improvements

Scenario includes:

- Maintains existing 2-lane bridge.
  - No bridge widening; does not accommodate shared-use path across I-29.
- Ramp terminal intersection improvements at existing locations.
- Two options to tie into US14 Bypass corridor beyond ramp terminals:
  - Option A: ramp terminal intersections tie into existing 3-lane corridor.
  - Option B: ramp terminal intersections tie into a potential 4-Lane divided corridor.



U.S. Department of Transportation  
Federal Highway Administration

US14 Bypass - I-29 Exit 133 Interchange Scenarios  
Maintain Existing Bridge with Ramp Terminal Improvements

US14 / US14B Corridor Study

Brookings, SD

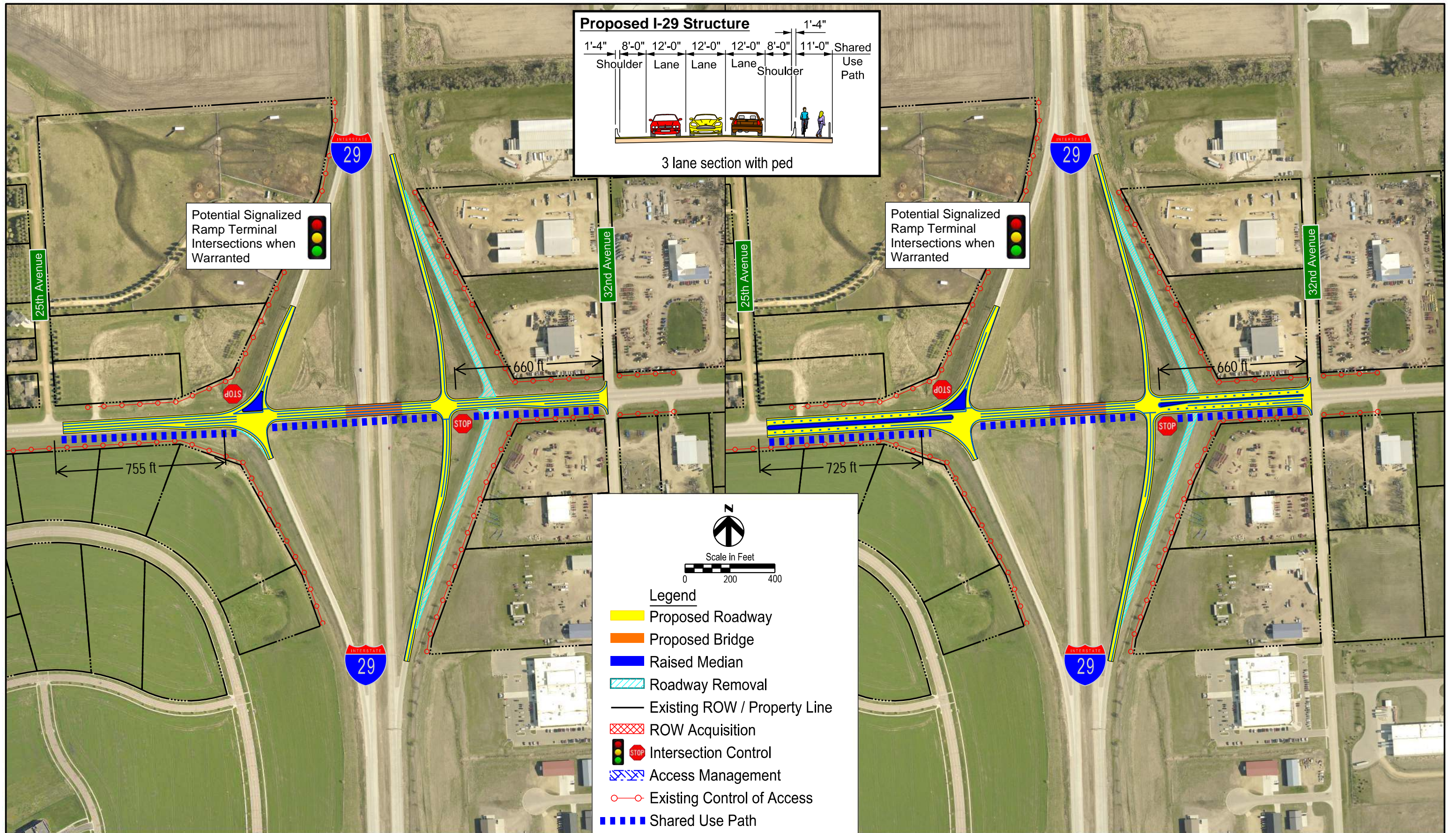
Figure  
US14 Bypass - I-29 Exit 133  
Interchange  
Scenario A

# US14 Bypass – I-29 Exit 133 Interchange Scenarios

## Scenario B: 3-Lane Cross-Section across Bridge with Ramp Terminal Improvements

Scenario includes:

- US14 Bypass reconstruction through interchange as a 3-lane section (one through lane in each direction).
  - New bridge.
- Northbound ramp terminal shifted west to increase spacing with 32<sup>nd</sup> Avenue intersection.
- Ramp terminal intersection improvements.
- Two options to tie into US14 Bypass corridor beyond ramp terminals:
  - Option A: ramp terminal intersections tie into existing 3-lane corridor.
  - Option B: ramp terminal intersections tie into a potential 4-Lane divided corridor.
- Shared-use path on south side.



US14 Bypass - I-29 Exit 133 Interchange Scenarios  
 3-Lane Cross-Section Across Bridge with Ramp Terminal Improvements

US14 / US14B Corridor Study

Brookings, SD

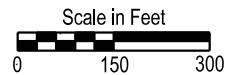
Figure  
 US14 Bypass - I-29 Exit 133  
 Interchange  
 Scenario B

# US14 Bypass – I-29 Exit 133 Interchange Scenarios

## Scenario C: Multilane Cross-Section across Bridge with Ramp Terminal Improvements

Scenario includes:


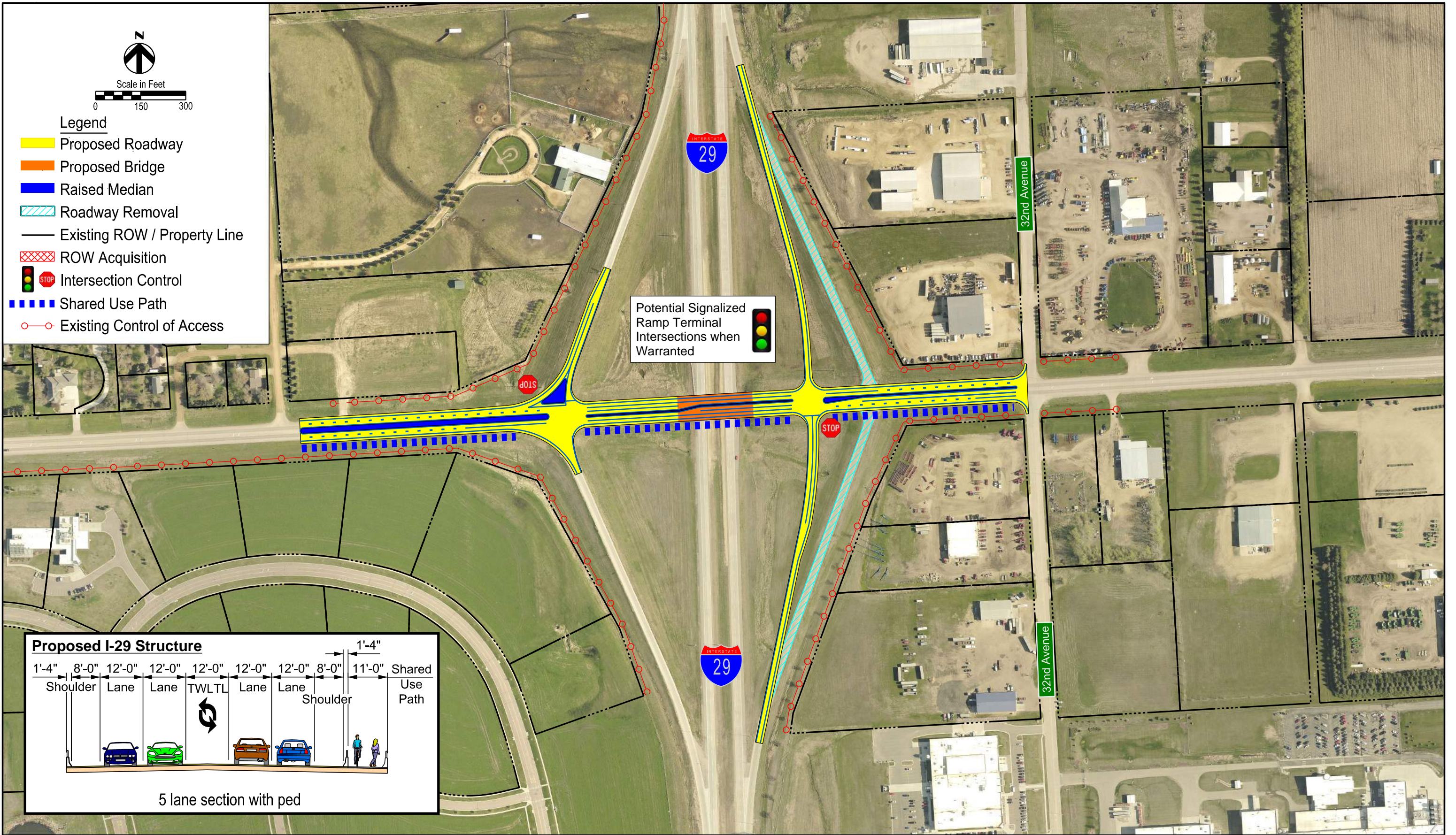
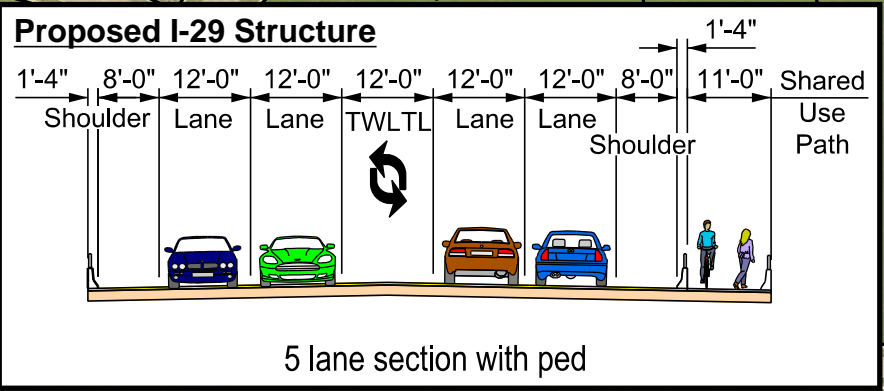
- US14 Bypass reconstruction through interchange as a 4-lane divided section (two through lanes in each direction).
  - New bridge.
- Northbound ramp terminal shifted west to increase spacing with 32<sup>nd</sup> Avenue intersection.
- Ramp terminal intersection improvements.
- Shared-use path on south side.



**Legend**

- Proposed Roadway
- Proposed Bridge
- Raised Median
- Roadway Removal
- Existing ROW / Property Line
- ROW Acquisition
- STOP**
- Shared Use Path
- Existing Control of Access

Potential Signalized Ramp Terminal Intersections when Warranted

# US14 Bypass – I-29 Exit 133 Interchange Scenarios

## Improvement Scenarios

Scenario A: Maintain Existing Bridge with Ramp Terminal Improvements

Scenario B: 3-Lane Cross-Section across Bridge with Ramp Terminal Improvements

Scenario C: 4-Lane Divided with Intersection Improvements

## Preliminary Summary Matrix

Scenario	2050 Traffic Operations	Turn Lanes	Intersection Spacing	Predictive Safety		ROW & Costs		Environmental Resources
	Interchange ETT (LOS)	Provide All Warranted Turn Lanes?	Spacing between I-29 NB Ramp and 32 <sup>nd</sup> Ave	F&I Crashes	Total Crashes	ROW Acquisition	Construction & ROW Costs	Potential Impacts
	<i>AM / PM</i>	<i>Yes / No</i>	<i>Feet</i>	<i>Average Annual # Crashes</i>	<i>Average Annual # Crashes</i>	<i>Acres</i>	<i>\$ mil</i>	<i>Low, Medium, High</i>
Scenario A	B / B	No	460	1.2	3.2	< 0.5	\$1.5 - \$3.0	Low
Scenario B	B / B	Yes	660	1.2	3.3	< 0.5	\$7.5 - \$10	Low
Scenario C	B / A	Yes	660	1.2	3.2	< 0.5	\$10	Low
No Build	-	No	450	1.0	3.0	0	0	Low

ETT: Experienced Travel Time (accounts for delay of all routes through interchange and cumulative delay of passing through multiple signalized intersections).