

#### **Study Area**

The study area encompasses Interstate 90 from Exit 32 in Sturgis to Exit 40 at Tilford. The study area includes the following interchanges:

- Exit 34 at Black Hills National Cemetery
- Exit 37 at Pleasant Valley Road
- Exit 40 at Tilford Road

The study section also includes the Tilford Port of Entry facility located along I-90 eastbound between Exits 37 and 40.



Pleasant Valley Road Over I-90

#### **About the Project**

The South Dakota Department of Transportation (SDDOT), in cooperation with Meade County and the Federal Highway Administration, is working to preserve the Interstate 90 (I-90) corridor between Exits 32 and 40. This section of I-90 serves as the primary connection between Sturgis and Rapid City, South Dakota.

The project includes a corridor study, interchange analysis and justification, environmental documentation, and design plans. The project will culminate with the construction of the selected alternatives studied. Two projects are planned to implement all the necessary improvements, construction of the first project is planned for 2022 and the second project is currently scheduled for construction starting in 2024.

#### **Need for Study**

This study was the the first step in the process to identify deficiencies and needed improvements to I-90 and the interchanges between Exits 32 and 40. The study will initiate the FHWA Interchange Modification Justification process for addressing the Interstate Access Modification Policy Points.

The SDDOT has determined the pavement in the eastbound lanes of I-90 between Exits 32 and 40 will require replacement before 2025. The pavement condition, combined with deteriorating drainage structures, substandard designs, and interchange capacity limits, has led the SDDOT to develop a comprehensive study to identify the necessary improvements in the corridor.

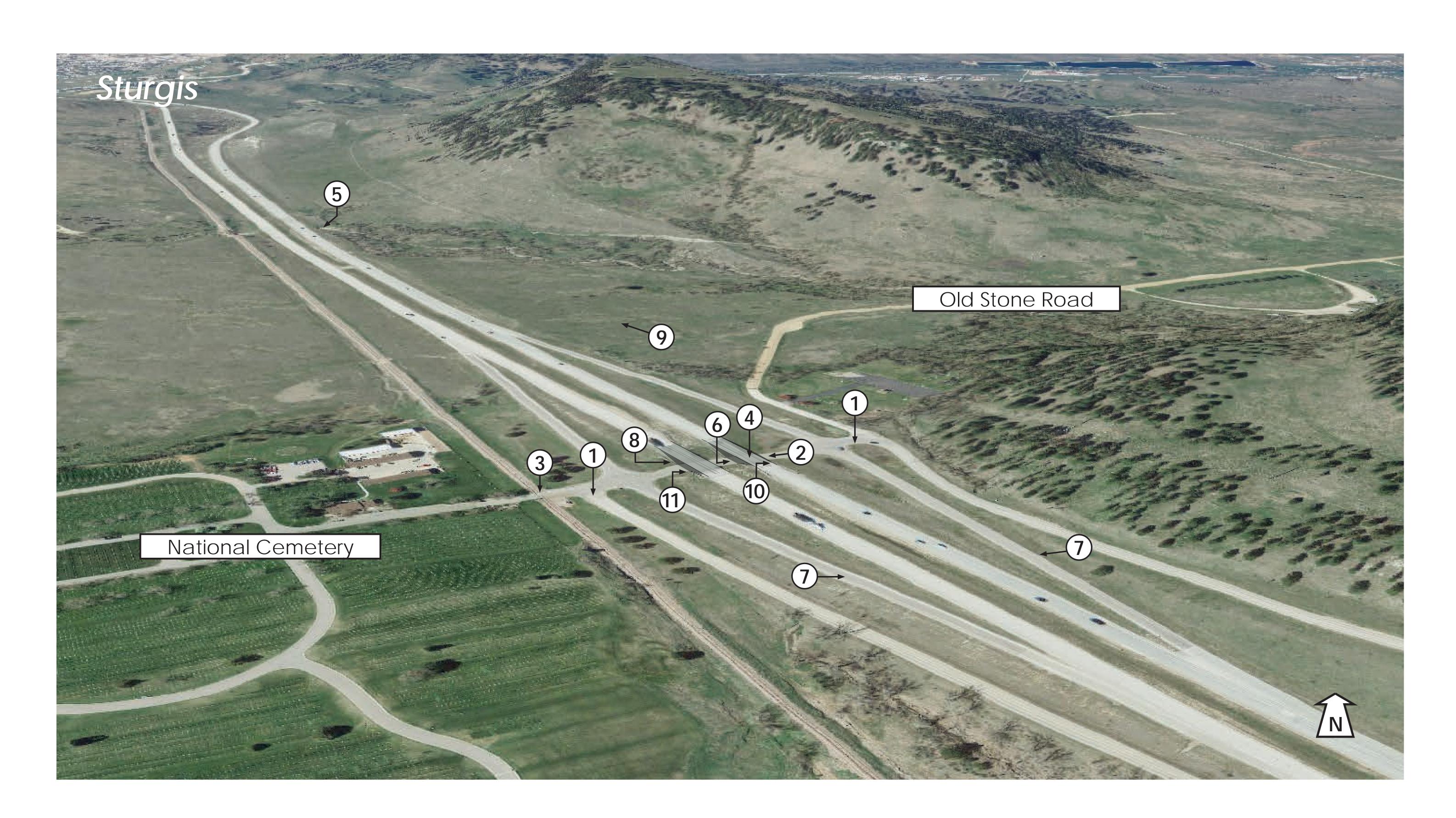
### Tonight's Meeting

We have developed concepts for two projects to respond to comments we heard at the last public meeting. We want to know how the order of the Evaluation Criteria compares with your values.

Presentations: 4:45 and 6:00pm

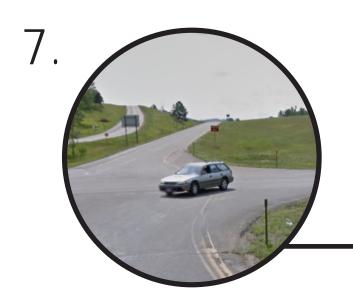


# + Exit 34: Existing Conditions

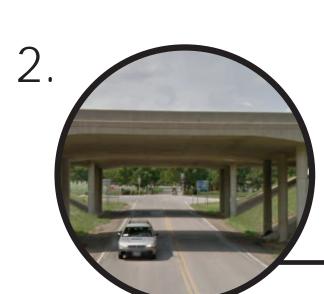




Distance between ramps and frontage roads on the crossroad does not meet spacing standards.



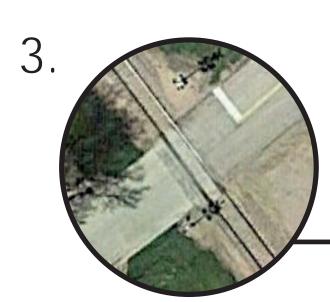
Ramp lengths and curves do not meet current standards.



Cross road doesn't meet emergency stopping standards.



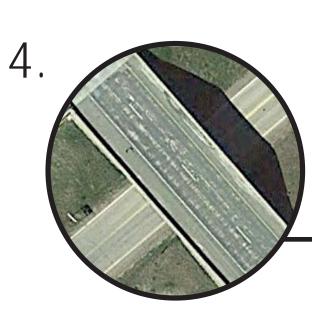
Existing configuration allows snow to build-up under the crossing.



Un-safe at-grade railroad crossing near the entrance to Black Hills National Cemetery.



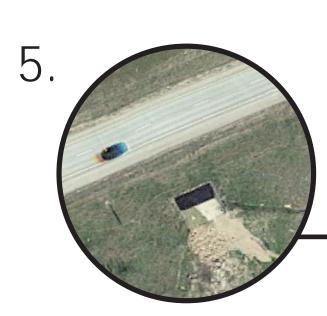
Lack of frontage road connection to Sturgis.



Existing structures are nearing the end of their useful life.



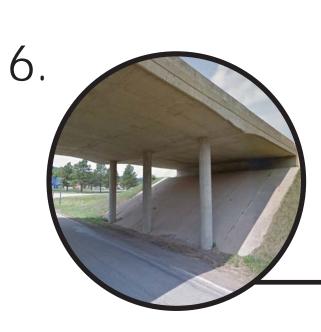
Bridge barriers do not meet current standards.



Culvert at Alkali Creek nearing the end of its useful life.



The distance between the traffic lanes and the bridge columns is substandard.

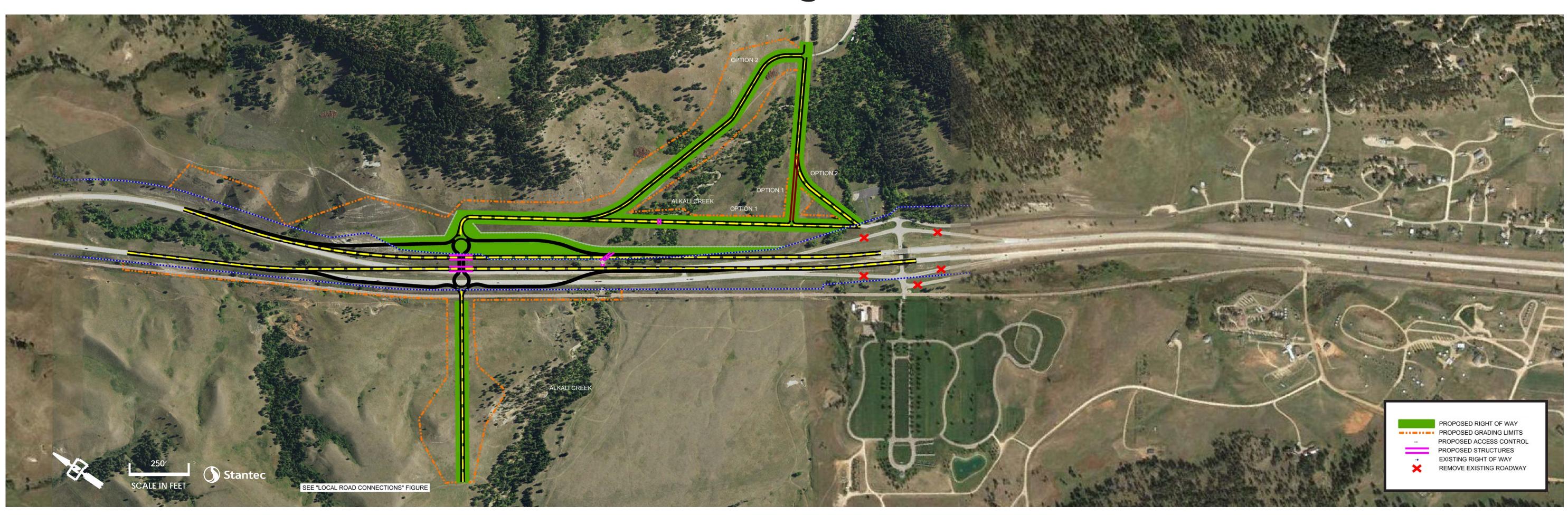


Inadequate clearance under the bridges.



# + Exit 34: Preliminary Concepts

Alternative 34-1B: Roundabout Interchange

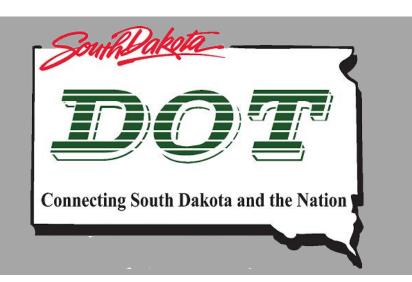


Alternative 34-3: Modified Folded Diamond



Alternative 34-7: Roundabout Interchange (South)





## + Exit 34: Local Road Connections

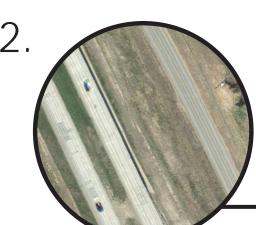
Connections to I-90 from local roads are critical. However, the existing frontage road at Exit 34 will be closed due to constraints. This board illustrates three proposed alternatives for a new frontage road applicable to Alternatives 34-1B and 34-3.

### Existing Conditions





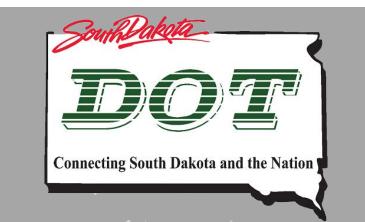
Due to constraints, the frontage road will be closed.



There are three different proposed alignments.

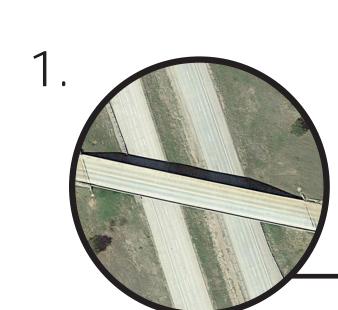
### Preliminary Concepts



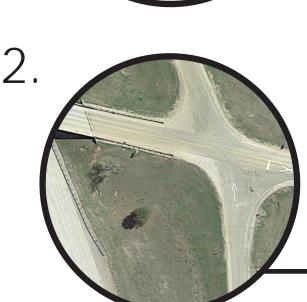


# + Exit 37: Existing Conditions





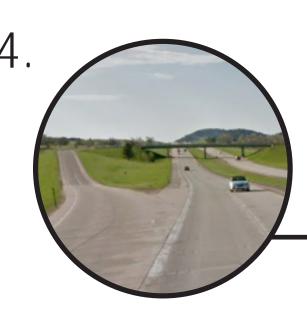
Distance between ramps and railroad on the crossroad does not meet spacing standards.



Intersection spacing does not meet emergency stopping standards.



Ramp lengths and curves do not meet current standards.



Merging difficulties.



Existing structures are past the end of their useful life.



Inadequate clearance under the bridges.



Lack of frontage road connection to Blucksberg Drive.

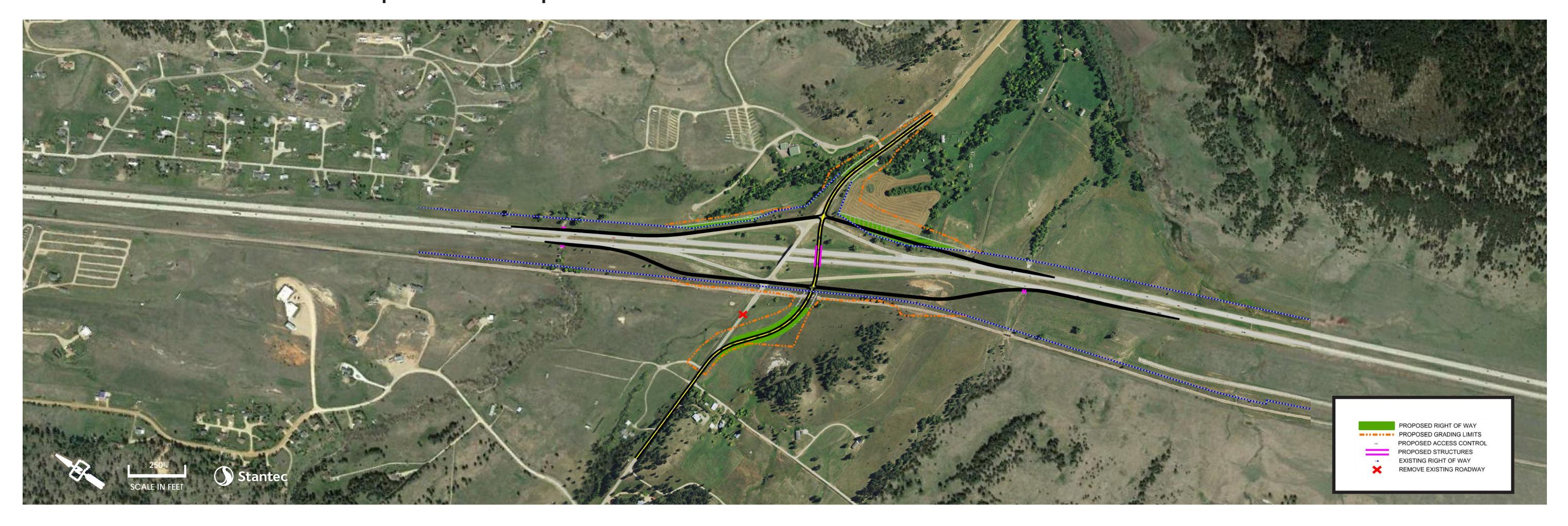


# + Exit 37: Preliminary Concepts

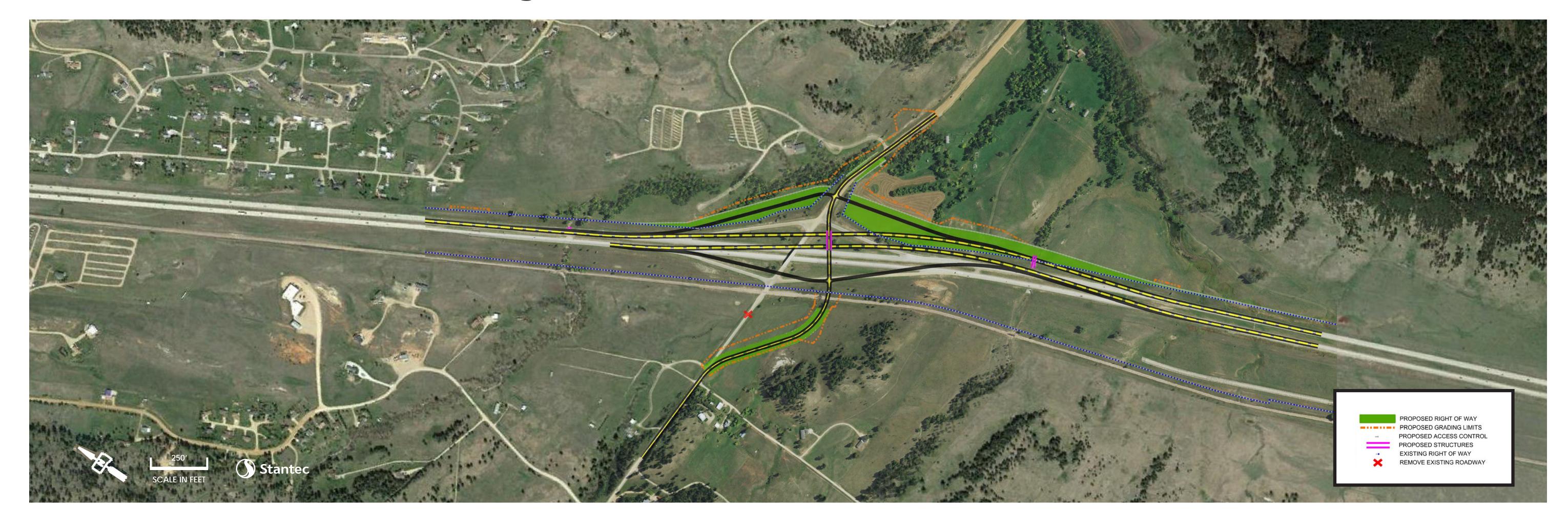
### Alternative 37-1: Ramp Upgrade



Alternative 37-2: Squared Up Structure



Alternative 37-3: I-90 Realignment

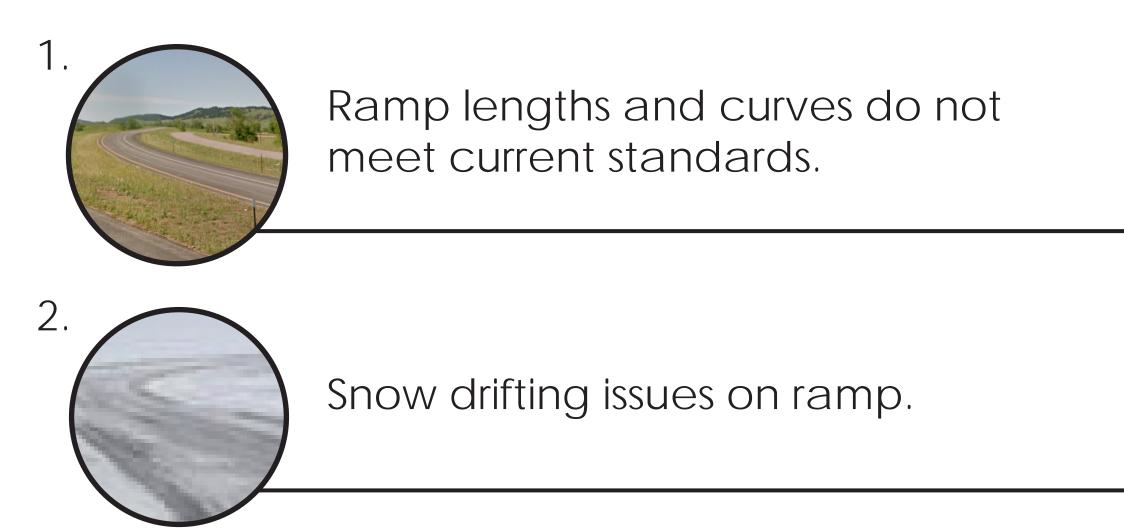




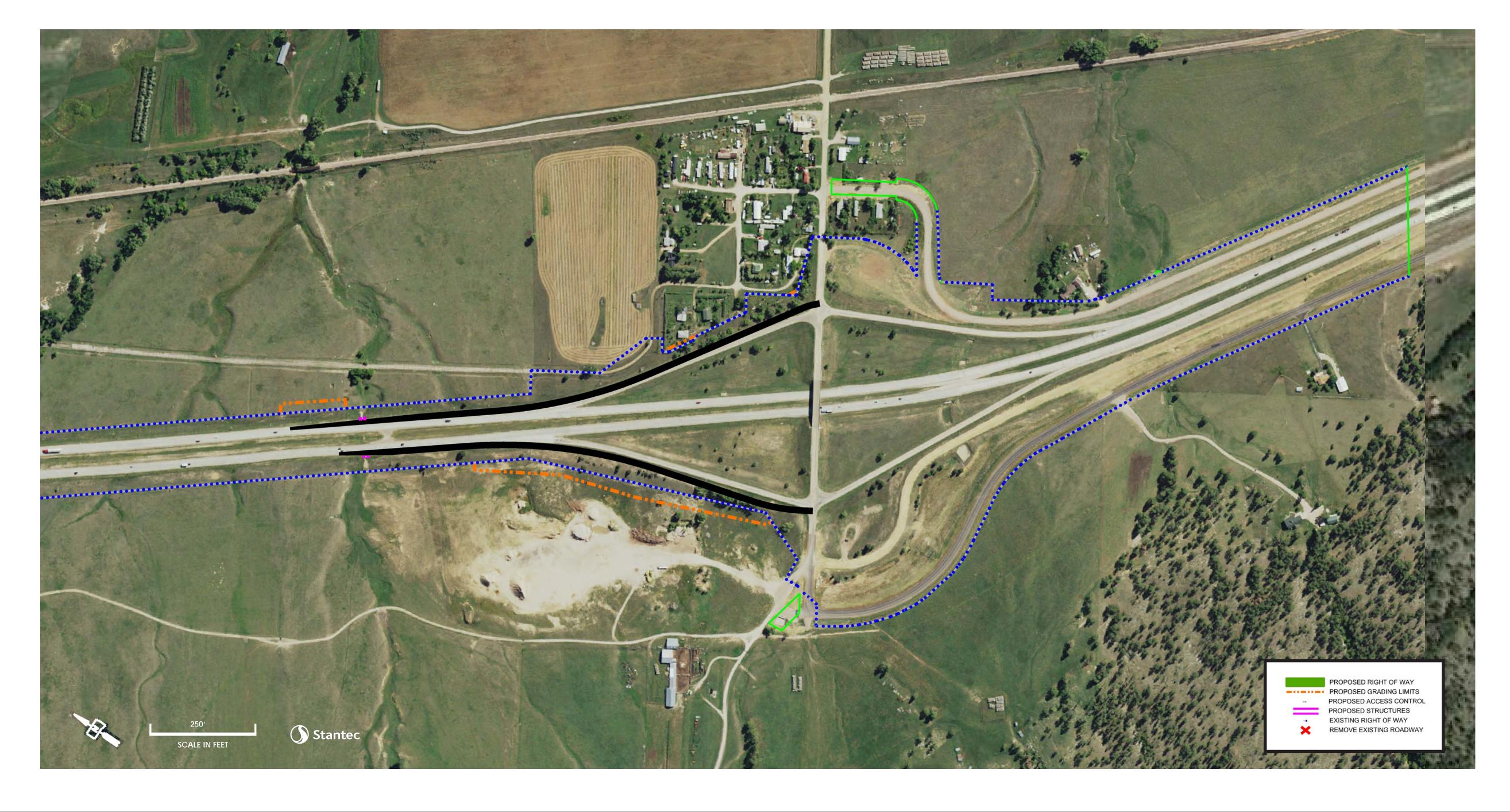
## + Exit 40

### Existing Conditions

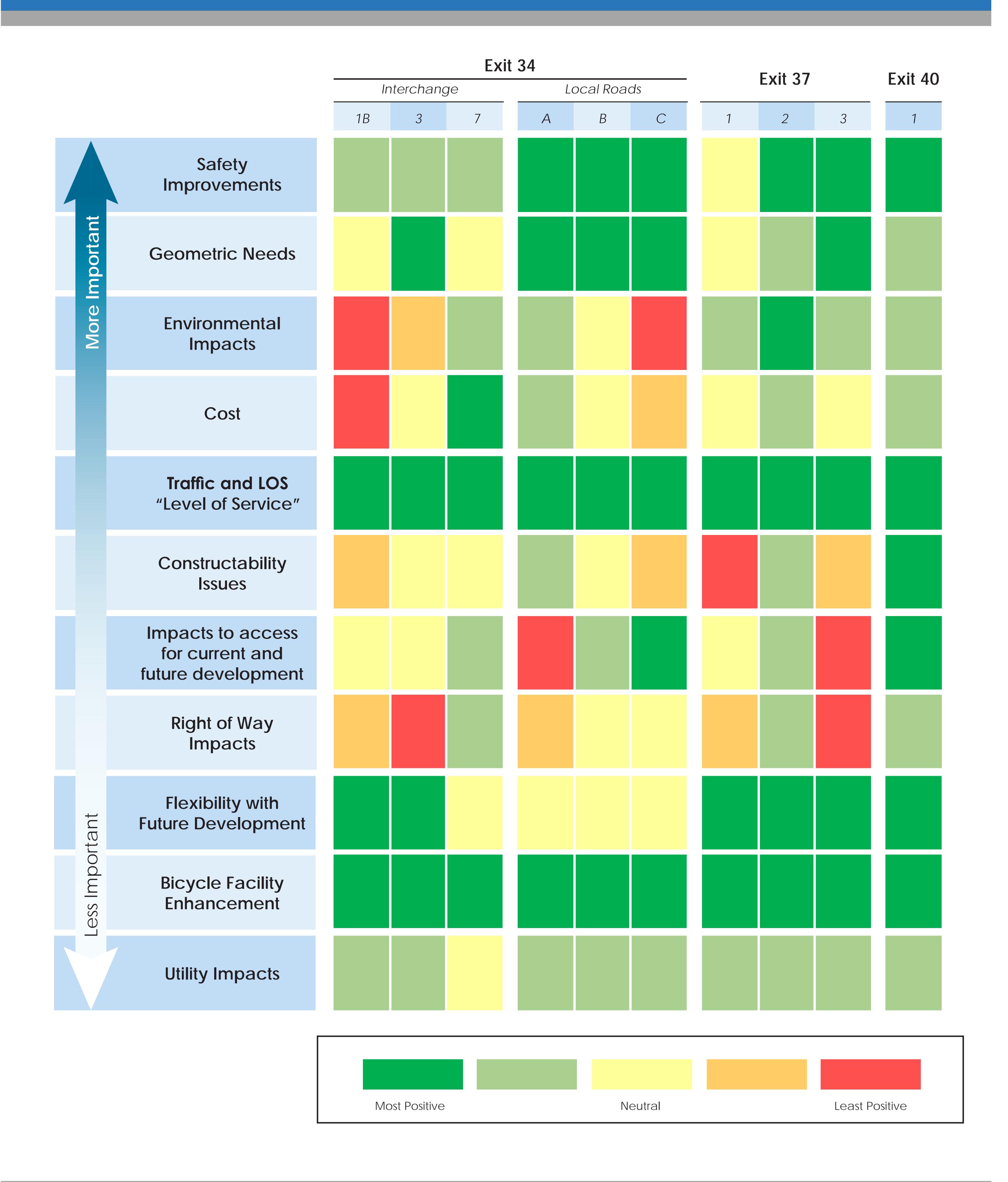




### Preliminary Concepts



## + Alternatives Evaluation





## 4 Next Steps

#### Project Schedule

The major activities of the I-90 Design and Study are following the schedule shown below:

- Corridor Study:
  Substantially completed by the end of 2018
- Determination of Construction Projects:
  Spring 2019
- Interchange Modification Justification Reports: Summer 2019
- Environmental Studies: Fall 2019
- Detail Design Completed: Fall 2021
- First Construction Project: 2022

