

### U.S. Highway 85 Roadway Design Stakeholder Group

Project Location: Wyoming Border to Cheyenne Crossing

NH 0085(106)0 PCN06J8

Date: Sept. 9, 2025

### Purpose of the Meeting

Involve stakeholders in the design process

Review project background and goals

Gather input and comments



- ✓ Background information
- ✓ Design project changes
- ✓ Project schedule & next steps

### Why a Stakeholder Group?

Represent varied interests along the project corridor

Provide input on proposed road design

Identify and consider varied priorities of stakeholders and impacted residents



- ✓ Engage in design process
- ✓ Provide information to share with neighbors/networks

### Stakeholder Group Timeline



### Introductions

### **SDDOT Project Team**

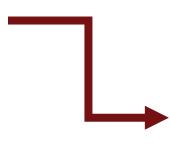
Todd Seaman – Project Lead

Mark Malone – Design Project Manager

Steve Palmer – Design/Construction Engineer

Mike Carlson – Construction Project Manager

Tom Horan – Project Team Member



### **Your Turn!**

#### **Please Share:**

- Name
- Organization/interest group
- How familiar are you with this project?

### **Organizations**

Adjacent Landowners

Black Hills Badland Tourism Association

**Cheyenne Crossing** 

**Eagle Cliff Ski Association** 

Flandreau Santee Sioux Tribe

**Lawrence County Commission** 

Lawrence County Highway Department

Lawrence County Sheriffs Department

Lead Chamber of Commerce

Lead-Deadwood School District

Local Residents

Rochford Volunteer Fire Department

S.D. Department of Tourism

S.D. Highway Patrol

S.D. Trucking Association

Spearfish Canyon Fire Department

Spearfish Canyon Fly Fisherman

**Spearfish Canyon Owners Association** 

Thunderhead Episcopal Church Camp

Trailshead Lodge

U.S. Forest Service

Wickiup Cabins

# Project Background

### **Project Limits**



### **Construction History**

**Grading** 1950, 1953, 1966

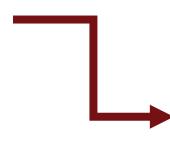
Resurfaced 1954, 1981, 1994, 2006, 2010

Structure repairs 1982, 2002

### **Current Project Background**

### **Project Needs**

- Reduce crash rates
- Replace pavement
- Replace drainage structures



### **Project Goals**

- 1. Protect the integrity of the corridor, protect the beauty of the Black Hills, while enhancing the experience for all users
- 2. Improve alignment and add shoulders where possible
- 3. Reduce impacts on the natural environment during construction

# Black Hills Context Sensitive Corridor Study

Highway 85 from Wyoming Border to Cheyenne Crossing has been identified as a "Context Sensitive Corridor".

Context Sensitive Corridor = Context Sensitive Design Process

### **Highway 85 Context (From Study)**

- Implementing safety measures has a high potential to reduce crash rate
- Current roadway widths and some geometry do not support function of the roadway.
- Improvements identified in the study include improve shoulders, add/improve pullouts, improve passing.
- Supports movement of goods and people

### What Does "Context Sensitive" Mean?

Design based on environmental features and scenic values.

Protect the integrity of the corridor, protect the beauty of the Black Hills, while enhancing the experience for all users.

### **Design Considerations**

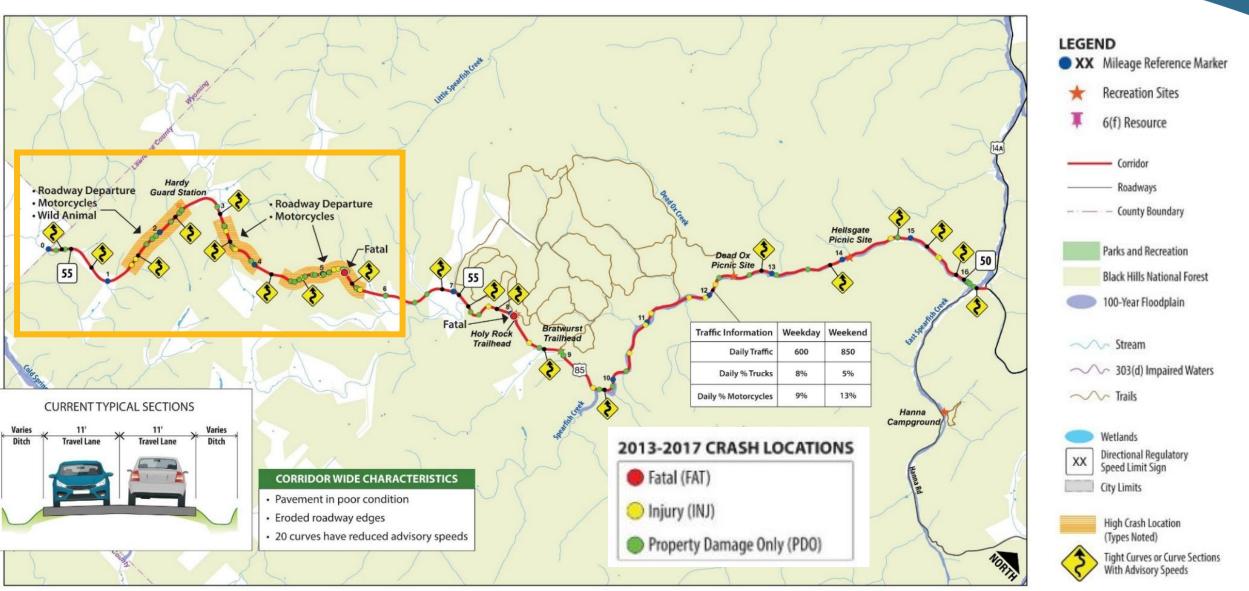
- Mile-by-mile approach
- Flexible design standards
- Spearfish Creek
- Rock Formations

Optimizing design to minimize impact

# Pause for Discussion

# Safety

### **Corridor Characteristics**



### **Highway Deficiencies**

Poor pavement conditions

Eroded roadway edges and shoulders

20 curves with reduced advisory speeds

High crash volume

Crash rate 4x higher than state average

### **Crash History (2018-2022)**

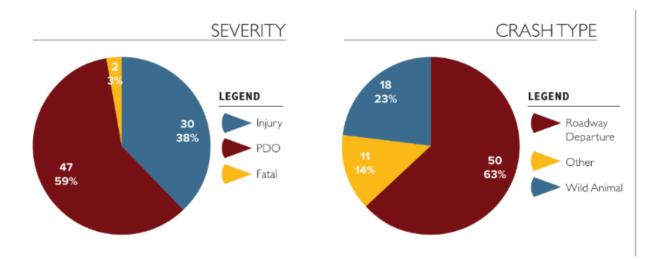
### **61 Reported Crashes**

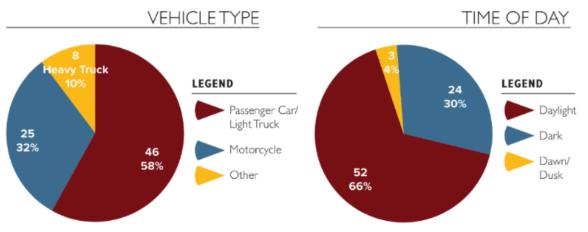
- 42 road departure
- 23 involved motorcycles
- 1 fatal crash
- 26 injury crashes

- Reported Weighted Crash Rate =
   8.5 crashes per MVMT
- Exceeds statewide average crash rate for similar facilities (1.46 crashes per MVMT)
- High potential for crashes

### **Crash Data**







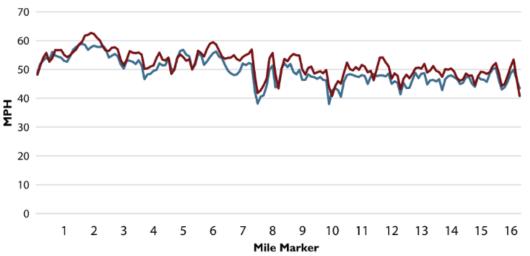
\*Total Crashes for 5 Years (2013 through 2017)

SDDOT US85 - WY to Cheyenne Crossing 122311-01 11/10/2023

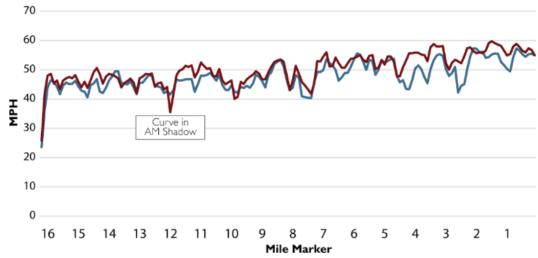
	TOTAL	SEVERE
POTENTIAL FOR CRASH REDUCTION	HIGH	HIGH

### **Speed Data**









May Average
June Average

# Pause for Discussion

# Design

### **Project Timeline to Date**

**February 2018:** Black Hills Context Sensitive Corridor Study identifies U.S. 85 as a focus corridor. Safety concerns identified due to high crash rates.

May 2020: Study Advisory Team evaluates improvements needed for corridor.

June – August 2021: Project website live and first public meeting held.

December 2023: Design public meeting held.

### 2023 Public Meeting: What We Heard

- Involve public in the design process
- Reduce impacts to adjacent land and properties
- Add shoulders to the roadway
- Maintain scenic value of the roadway
- Questions about construction sequencing and road closures

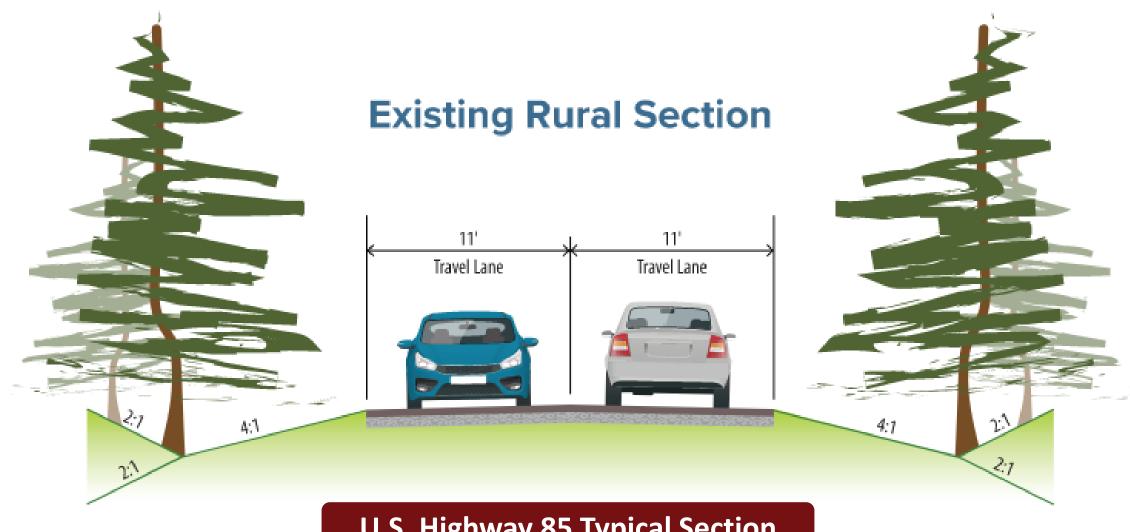


### **Design Updates**



- Pre-2023 Public Meeting: 290 disturbed acres
- Current Preliminary Design: 201.5 disturbed acres
  - 30.5% decrease in disturbed acres as a result of comments received in 2023.
- By Comparison: 1950/1960s Grading Project Work Limits: 338 disturbed acres

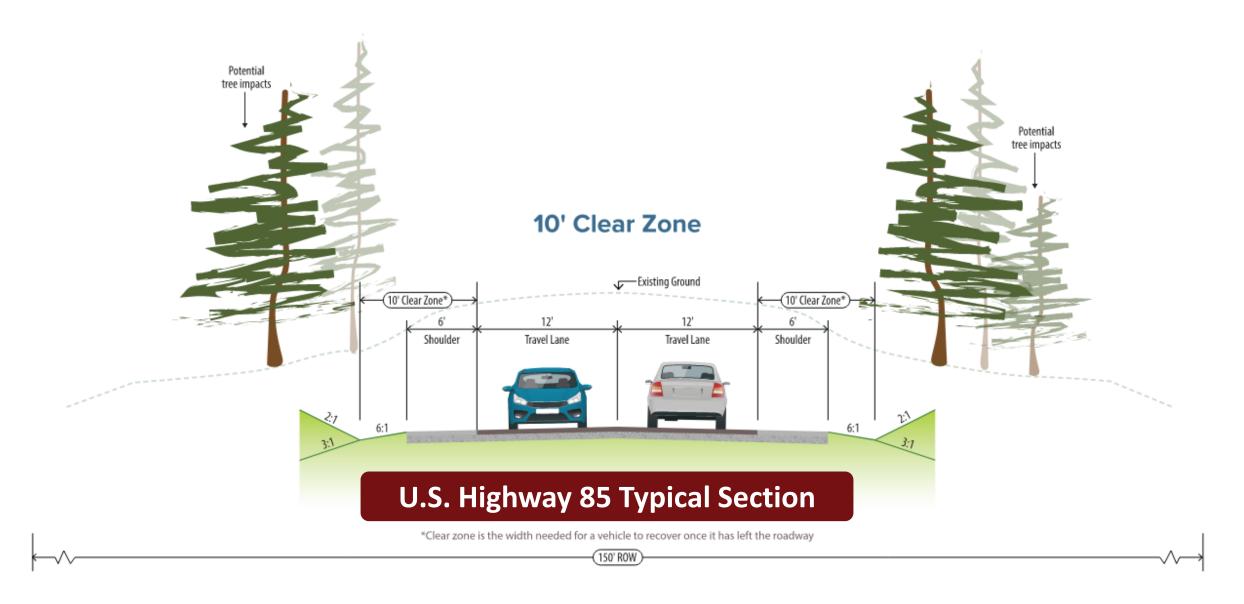




### **U.S. Highway 85 Typical Section**

\*Clear zone is the width needed for a vehicle to recover once it has left the roadway





### **Proposed Safety Improvements**

Widen roadway to accommodate shoulders where possible

Addition of roadside pullouts

Speed management signage/devices

Curve and motorcycle safety treatments

Improvement of surface friction

✓ Reduce crash rates

### Pause for Discussion: Guardrail







### Pause for Discussion: Guardrail

#### **Benefits**

- Prevent cars from entering Spearfish Creek
- Potential to reduce rollover crashes

#### **Considerations**

- Guardrail could block the view of Spearfish Creek
- Potential changes in creek access for some areas



### **Data-Backed Design**

**Increasing Safety & Preserving Natural Characteristics** 

U.S. Highway 14A Curve Reconstruction (2019-2020)

### Before Construction 2014-2018

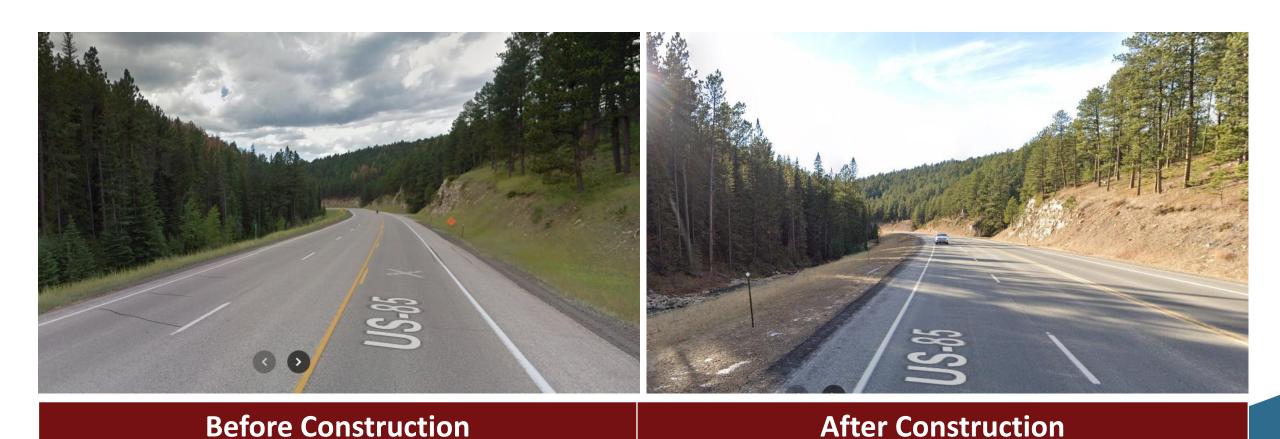
13 crashes (1 fatal, 4 injury, 8 PDO)
2.6 crashes per year

After Construction 2021-2024

2 crashes (1 injury, 1 PDO) 0.5 crashes per year



### **Highway 14A Curve Reconstruction**



### **Highway 14A Curve Reconstruction**





**Before Construction** 

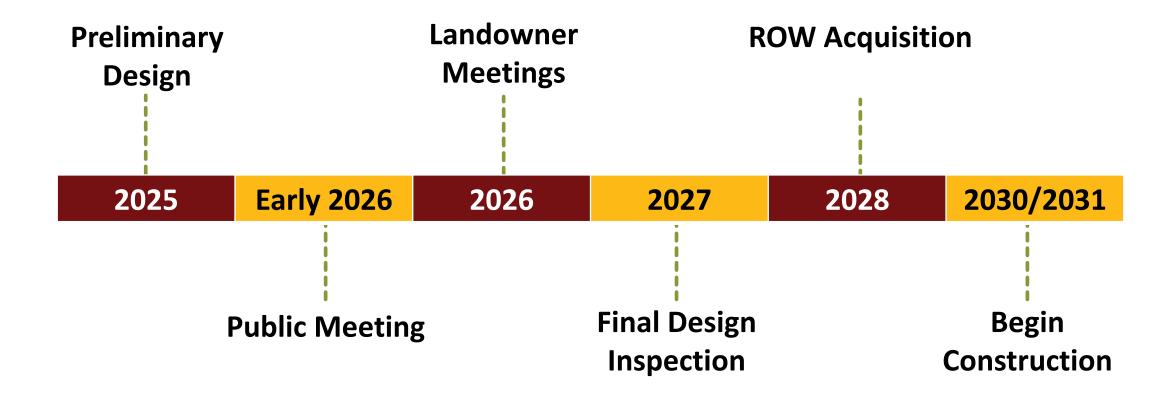
**After Construction** 

### **Design Decisions = Safety Benefits**

What We ARE NOT Doing	What We ARE Doing	Safety Benefits
Removing all the trees	Removing trees to support a 30' clear zone where possible	Reduces the number of trees that could be struck at high speed after leaving the roadway. Goal is to allow space for a car to come to a stop before striking any objects and causing a more serious crash.
Straightening out every curve	Reducing the severity of the curves where possible	Increased site distance  More regular speed through corridor, reducing possibility for human mistakes
Realigning the entire roadway	Minor modifications at spot-specific locations to enhance safety where appropriate.  Lowering the roadway to reduce angle of ditches where appropriate	Changing the angle of the roadway/clearzone will reduce the occurrence of run-off-the-road roll-over crashes

### **Tentative Project Schedule**

Dependent on federal funding Estimated cost: \$57.6 million



# Pause for Discussion

### Stakeholder Group Timeline



### THANK YOU!

### Extra Slides

### QUESTION

Is the SDDOT going to be Raising the speed limits on U.S. Highway 85?

### U.S. HIGHWAY 85 FAQ'S!

Wyoming Border to U.S. Highway 14A Lawrence County



# SD // DOT

https://dot.sd.gov

### **ANSWER**

Overall this section of roadway will continue to be the same speed limit. The SDDOT is proposing curve improvements that would result in higher speed advisories around curves with the aim to increase safety in these areas.