

FINAL PROJECT CONCEPT STATEMENT

1 Mile East of County Road P59

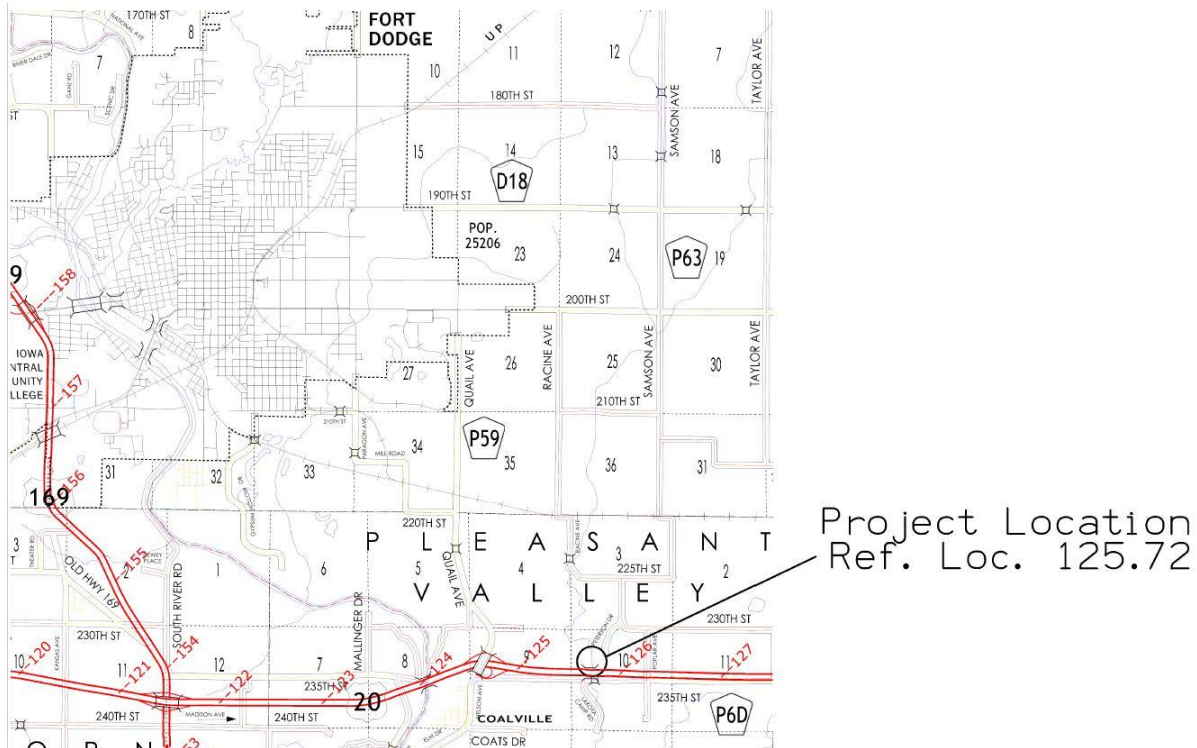
Webster County
NHSN-020-3(178)—2R-94
PIN: 19-94-020-010

Highway Division
District 1 Office

Allison Smyth, P.E.
515-239-1039
August 28, 2019

I. STUDY AREA

A concept field review was held June 11, 2019. Attendees were Tony Gustafson, Allison Smyth, and Kevin Schlesky of District 1; Dave Claman and Matt Erickson of Bridges and Structures; Mike Carlson of Location and Environment; David Heer of Soils; and Mike Roller and Rick Bowman of Fort Dodge Maintenance.



A. Project Description

This project involves the repair of a washed-out foreslope on the north side of US 20 in Webster County, approximately 1 mile east of County Road P59.

B. Need for Project

The foreslope has washed out, as shown in the photographs below. An ICN cable is present at the location, and the utility company must now relocate their line. The department needs to repair the slide in order to prevent further damage.



C. Present Facility

The existing structure at Holliday Creek is a 24'-0 x 26'-0 x 571'-0 reinforced concrete arch culvert (Maintenance Number 9425.8S020, FHWA Number 605750) extended in 1984. The slide appears to have occurred at the original location of Holliday Creek.

D. Traffic Estimates

The 2017 estimated ADT is 9,000 with 21% trucks.

E. Sufficiency Ratings

The planning class for US 20 is commercial and industrial network and is a maintenance service level "B" road. US 20 is on the National Highway System (NHS).

F. Access Control

Access rights will not be acquired for this project.

G. Crash History

Crash data was not collected for this location.

II. PROJECT CONCEPT

A. Feasible Alternative: Repair Slide

Repair the foreslope as directed by the following Preliminary Bridge recommendations.

The foreslope will be repaired by reshaping a ditch from the westbound lanes of US 20 down to Holliday Creek. The ditch will be graded with two slopes and lined with Flexamat - the first section will be approximately 16 feet wide and 190 feet long and the second section will be approximately 16 feet wide and 150 feet long. This solution will slow down the water draining from the roadway and prevent further erosion.

Apply erosion control and rural seeding and fertilizing to all disturbed areas.

The estimated cost for this project is \$294,000. For a detailed cost estimate, follow this link:

<pw:\ntPwInt1.dot.int.lan:PWMain\Documents\Projects\9402001019\Concept\DOSubmittal\Support Docs\Cost Estimate.pdf>.

B. Traffic Control Analysis

Traffic will be maintained at all times during construction. This project is not expected to impact traffic.

C. Recommendations

It is recommended that the present erosion be repaired, as described.

D. Construction Sequence

It is anticipated that all work on this project will be awarded to one prime contractor. The District 1 office will coordinate the plan preparation with assistance from the Preliminary Bridge and Soils offices.

E. Special Considerations

There are no bike paths or sidewalks adjacent to this project; therefore, no ADA accommodations are planned in conjunction with this project.

Temporary easement and permanent right of way not be required for this project.

Standard survey coverage will be required and will be completed by Preliminary Survey.

F. Project Schedule

D00 Predesign Concept	08/28/2019
D01 Survey Plan and Photogrammetry	09/30/2019
D02 Design Field Exam	11/11/2019
D09 Final Miscellaneous Plans	05/05/2020
L04 Letting Miscellaneous	07/21/2020

G. Program Status

This project will be funded with FY2021 NR funding (Monitor List).

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