



Department of Transportation

Aberdeen Region Office

West Highway 12

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DATE: May 18, 2018

TO: Christina Bennett
Operations Traffic Engineer

FROM: Corey Pinkley
Aberdeen Region Traffic Engineer

SUBJECT: Proposed Speed Limit Administrative Rule Change
US Highway 81

Attached for the Transportation Commission's consideration is a speed limit administrative rule change on US Highway 81 at Watertown.

PROPOSED AMENDMENT:

70:01:02:05. Codington County. The following are the maximum speeds on certain highways in Codington County:

(5) U.S. Highway 81 beginning ~~1.13~~ 1.36 miles south of the junction of U.S. Highway 212 and U.S. Highway 81, then north for ~~0.7~~ 0.93 mile, ~~50~~ 45 miles per hour; then north for 0.43 mile, 35 miles per hour; then north for 1.69 miles, 30 miles per hour; then north for 0.77 mile, 35 miles per hour; then north for 0.62 mile, 55 miles per hour; then east for 2.84 miles, 55 miles per hour;

COST

The estimated cost to make the necessary signing changes, if this proposal is approved, is as follows. The costs are based on the contract bid items prices for the signing items, as part of the reconstruction project. The signs will be installed by the Contractor after completion of the roundabout construction.

5.0 SqFt per speed limit sign x 3 signs x \$21.50 per SqFt = \$322.50

- One new Speed Limit 65 sign and two new Speed Limit 45 signs

9.0 SqFt per warning sign x 1 sign x \$23.50 per SqFt = \$211.50

- One new Reduced Speed Limit Ahead 45 sign

11 Ft post per sign x 4 signs x \$12 per Ft of post = \$528

Total Cost = \$322.50 + \$211.50 + \$528 = \$1,062

EXPLANATION OF THE PROPOSAL:

The proposed change will extend the speed zone on US Highway 81 further south, and reduce the speed limit in this zone from 50 mph to 45 mph. There is a project underway this summer to construct a roundabout at the intersection of US Highway 81 & 20th Ave SE in Watertown.

This intersection has had a history of crashes, but the current configuration and driver behavior on the rural, multilane segment of US Highway 81 did not make it feasible that a reduction in speed limit would alleviate these issues. The intersection also did not meet warrants for a signal. To increase safety and reduce crashes at this location, the department determined that a roundabout would be the best solution.

The recommended speed limit change will correspond to the design speed of the tapers coming into the roundabout, which will itself naturally slow traffic down due to the geometry at the center, which is designed for 25 mph. The 45 mph zone is proposed to begin approximately 70 feet south of the driveway on the west side of US Highway 81 shown on the attached map of the proposed changes.

The South Dakota Department of Transportation initiated the proposed change. The City of Watertown has been contacted and made aware of the proposed changes; city engineer Shane Waterman was in support of the proposed speed rule. Lieutenant Caleb Walters, South Dakota Highway Patrol, is also in support of the proposed speed rule.

SPEED STUDY:

A speed study was not conducted, because the proposed changes correlate to the geometry of the new roundabout being constructed at this location.