



**Department of Transportation
Division of Planning/Engineering
Office of Materials and Surfacing
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October 22, 2018

Mr. Mike Behm
Director of Planning/Engineering
Department of Transportation
Pierre, SD 57501

Approved: 10/23/2018

Mike Behm /s/
Director, Div of Planning/Engineering

Re: NH 0073(73)62 – Jackson County – PCN 05HV
SD73 – From south of the White River to Kadoka – 8.7 miles
Grading, Interim Surfacing, Replace Structure, AC Surfacing

Dear Mr. Behm:

This grading, shoulder widening, and structure replacement on SD73 includes grading, shoulder widening, and interim surfacing with PCN 05HV and final surfacing of the project with PCN 05U4. The following surfacing design is recommended for these projects:

PCN 05HV (Grading Sections):

- Salvage & Stockpile Existing Surfacing
- Grading
- 12" Base Course & Base Course, Salvaged
- Interim Surfacing – Asphalt for Prime and an Asphalt Surface Treatment

PCN 05HV (Shoulder Widening Sections):

- Shoulder Widening
- 15" Base Course & Base Course, Salvaged
- Interim Surfacing – Asphalt for Prime

PCN 05U4 (Grading Sections):

- 5" x 36' Asphalt Concrete

PCN 05U4 (Shoulder Widening Sections):

- 1" Cold Milling
- 2" x 36' Asphalt Concrete

Note: Due to the anticipated shale and shale derived subgrade soils within the project limits, it has been recommended by the Geotechnical Office to surface the proposed 6' shoulders full width with asphalt concrete.

The AASHTO Design Procedure utilized the following data:

Soils: Pierre, Samsil, Emigrant, and Razor Associations

Traffic:	ADT (2017)	896
	ADT (2042)	1,031
	T %ADT	19.0
Design Liquid Limit		63
K-Value		75
Resilient Modulus		7,500
Daily ESALS – Flexible		56

Sincerely,

Joe J. Feller /s/
Chief Materials and Surfacing Engineer

cc: J. Gengler – Acting Road Design Engineer
J. Forman – Pierre Region Engineer
D. Sherman – Winner Area Engineer
J. Koch – Pierre Region Materials Engineer
R. Rowen – Bituminous Engineer
M. Leiferman – Project Development
S. Johnson – Bridge Design Engineer

J. Humphrey – Operations
T. Grannes – Materials Engineer
D. Hodges – Concrete Engineer
P. Clements – Planning & Programming
S. Rabern – Surfacing Plans
T. Fitzke – Pavement Design Engineer
B. Prouty – Project Development
FHWA