MEMORANDUM

TO: Wendall L. Meyer – FHWA Division Administrator

FROM: Steve S. Salwei - NDDOT Transportation Programs Director

DATE: August 31, 2013

SUBJECT: State Fiscal Year 2013 HSIP (Highway Safety Improvement Program)
        Annual Progress and Evaluation Report

The information in this report is provided in accordance with Section 148 of the Title 23, United States Code (23 U.S.C 148). This report includes information on the following four items:

   A. Program Structure
   B. Progress in implementing the HSIP (Highway Safety Improvement Program)
   C. Assessment of the effectiveness of the improvements
   D. High Risk Rural Roads Program

This report covers implementation during the 2013 state fiscal year (July 1, 2012 to June 30, 2013), and evaluation of projects completed in the 2010 state fiscal year (July 1, 2009 to June 30, 2010).

A. Program Structure

i. Program Administration

HSIP funds are administered centrally from the NDDOT Central Office in Bismarck. Potential HSIP projects are studied and selected for implementation by the NDDOT Traffic Operations Section. Projects on State owned and non-State owned roadways are identified by high crash annual listings and solicitation of local agencies. Highway safety improvement projects are selected for implementation by determining which projects have the greatest potential for reducing crashes and providing the most safety benefit to the public. This includes a competitive application process, crash analyses, and Road Safety Reviews (RSR). Once a project has been selected for implementation the NDDOT Central Office collaborates closely with local agencies in developing the project.

ii. Program Methodology

Potential HSIP projects are submitted by the District Engineers and Local Agencies in response to areas of concern they have identified. Projects are also initiated from the Central Office, with input from the Districts and Local Agencies, as countermeasures to locations identified from the annual High Crash Analyses. Crash history or potential for crash reduction are used in justifying projects.

Lane Departure crashes were addressed by a Statewide Rumble Strip Project that installed centerline and edgeline/shoulder rumble strips/stripes on all rural state-owned roadways, as well as transverse rumble strips at all stop conditions on state roads.

The HSIP projects align with the NDDOT SHSP as described in Section B of this report.

B. Progress in Implementing the HSIP Projects

i. HSIP Funds Available

Approximately $11.9 million in HSIP funds were available at the beginning of state fiscal year 2013.

ii. General Listing of Projects

The following is a list of the HSIP projects that were obligated using HSIP funds during state fiscal year 2013. The improvements identified in the FY 2013 HSIP are consistent with the emphasis areas identified in the North Dakota SHSP (Strategic Highway Safety Plan) and most are directly aligned with the potential strategies identified in the SHSP.

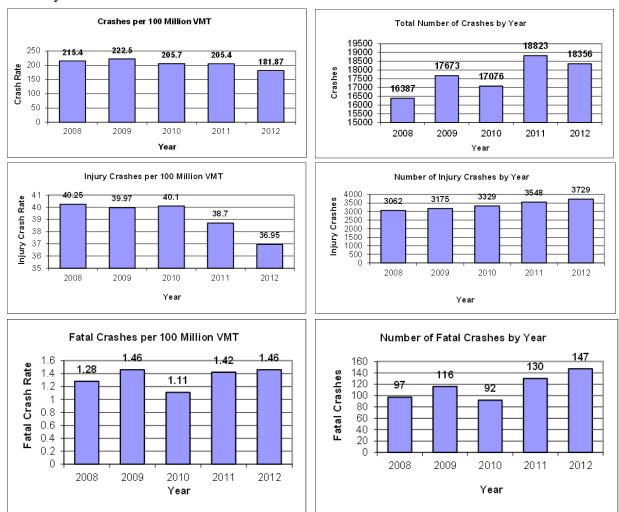| Projects	Improvement Category	Output	Cost	Relationship to SHSP	
				Emphasis Area	Strategy
19	1	156 Loc.	$1,481,896.05	Improve Intersection Safety	Install turn lanes, Provide more sight distance,
3	3	599 mi.	$1,480,330.22	Address Lane Departure Crashes	Install shoulder and edge line rumble strips
2	5	12 Loc.	$40,622.40	Improve Intersection Safety	Improve pedestrian facilities
3	10	9 mi.	$5,213,416.14	Address Lane Departure Crashes	NA
9	11	137 Loc.	$2,262,887.67	Address Lane Departure Crashes	Enhance marking on sharp curves
4	14*	NA	$1,739,705.91	Address Lane Departure Crashes, Improve Intersection Safety	NA
		Total Cost	$12,218,858.39		

*Crash Reports and SHSP Stakeholders Planning

C. Assessment of the Effectiveness of the Improvements

i. Overview of General Highway Safety Trends

The following data provides an overview of the state's crash data statistics for the past five years.

The trend for the state's total crash rate has been decreasing since 2009. The trend for the state's total number of crashes has been variable over the past 5 years. The trend for the state's injury crash rate has been decreasing since 2010. The trend for the state's number of injury crashes has been increasing over the past 5 years. The trend for the state's fatal crash rate has been variable over the past 5 years. The trend for the number of fatal crashes has been increasing since 2010.

ii. Description of Overall HSIP Effectiveness

The summary of the evaluation of projects completed during state fiscal year 2010 is described in the below table. Projects in Improvement Category 1 demonstrated an increase in the total number of crashes and a decrease in the average severity of each crash. The project in Improvement Category 2 demonstrated no change in the total number of crashes and an increase in the average severity of each crash. Projects in Improvement Category 3 demonstrated an increase in the total number of crashes and a decrease in the average severity of each crash. The project in Improvement Category 4 demonstrated no change in the total number of crashes and no change in the average severity of each crash. Projects in Improvement Category 10 demonstrated a slight decrease in the total number of crashes and an increase in the average severity of each crash.

Year Submitted: 2013
Evaluation of Projects Completed During: 7/1/2009 - 6/30/2010 (State Fiscal Year 2010)

Improvement Category*	Output	Cost	Relationship to SHSP		3 yr Crash History "Before" Projects Initiated					3 yr Crash History "After" Projects Completed				
			Emphasis Area	Strategy	Fatal	Injury	PDO	Total	Average Crash Severity**	Fatal	Injury	PDO	Total	Average Crash Severity**
1	14 Loc.	$8,133,602.94	Improve Intersection Safety	Install Turn Lanes, Signing, Flashing Beacon	2	16	39	57	1.95	1	45	109	155	1.65
2	1 mi.	$865,755.90	Roadway Departure Crashes	Widen Roadway	0	2	4	6	1.67	0	6	0	6	3.00
3	76 mi.	$1,319,232.25	Roadway Departure Crashes	Install Rumble Strips	5	32	56	93	2.28	5	40	99	144	1.94
4	1 Loc.	$86,930.48	Roadway Departure Crashes	Install skid resistant treatment	0	1	2	3	1.67	0	1	2	3	1.67
10	7 mi.	$6,455,446.92	Roadway Departure Crashes	Prevent Edge Dropoffs, Clearzone Improvement, Surface Improvement	0	22	130	152	1.29	2	13	136	151	1.32

 *Improvement Category 1 included 3 projects, Improvement Category 2 included 1 project, Improvement Category 3 included 6 projects, Improvement Category 4 included 1 project, Improvement Category 10 included 4 projects
**Crash Weights: Fatal = 12, Injury = 3, PDO = 1

D. High Risk Rural Roads Program (HRRRP)

i. Basic Program Implementation Information

There are three HRRR projects that were obligated funding in FY 2013. The following is a list of projects that were obligated using HRRRP funds during Fiscal Year 2013.

Projects	Improvement Category	Output	Cost	Relationship to SHSP	
				Emphasis Area	Strategy
1	2	8 mi.	$70,080.67	Address Lane Departure Crashes	NA
1	3	27 mi.	$360,000.00	Address Lane Departure Crashes	Install shoulder and edge line rumble strips
1	11	1 Loc.	$2,735,476.79	Address Lane Departure Crashes	Provide enhanced delineation for curves
		Total Cost	$3,165,557.46		

At the time of this report, a funding total of $1.1 million is available for this program.

ii. Methods Used to Identify HRRR Locations

A High Risk Rural Road is any roadway functionally classified as a rural major or minor collector or a rural local road:
1. On which the crash rate for fatalities and incapacitating injuries exceeds the statewide average for those functional classes of roadway; or
2. That will likely have increases in traffic volume that are likely to create a crash rate for fatalities and incapacitating injuries that exceeds the statewide average for those functional classes of roadway.

iii. Overall HRRRP Effectiveness

No assessment can be made since no projects have been completed under this program.

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