

Local Rural Road Safety



*County State Aid Highway (CSAH) 5
Freeborn County, Minnesota*

National Surface Transportation Policy & Revenue Study Commission

Testimony submitted by:

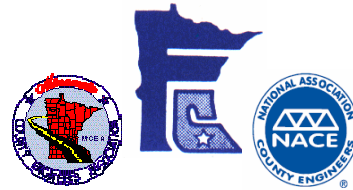
Susan G. Miller, P.E. County Engineer, Freeborn County, Minnesota

April 19, 2007

Minneapolis-St. Paul, Minnesota Field Hearing

Susan G. Miller, P.E.

Ms. Miller was born and raised in South Dakota. After graduating from Ipswich High School, she received her Bachelors of Science degree in Civil Engineering from North Dakota State University. She worked for a small civil engineering firm in Southern California before returning to the Midwest as the Assistant City Engineer with the City of Albert Lea, MN. For the last nine years, she has been appointed the Freeborn County Engineer managing over 600 miles of roadway and 176 bridges. Susan and her husband Joe Grossman have four children and live on their farm just southwest of Albert Lea. Besides spending most of her free time with her family, she is the National Association of County Engineers Secretary Treasurer. Susan is also a member of the Minnesota County Engineers Association, Minnesota Surveyors and Engineers Society, and on the Board of Directors for the Albert Lea Economic Development Agency.



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A County Engineer's Perspective

My name is Susan Miller and I am the County Engineer in Freeborn County, Minnesota. I also have the privilege to currently serve as Secretary-Treasurer for the National Association of County Engineers (NACE) and will serve as their President in 2008. It is an honor to be here before this Commission and among all those who have shared the value of our nation's transportation system with you. In light of the previous testimony you have heard and looking at those who will still come before you, I must say that this is a bit overwhelming for a rural county engineer.

The opportunities with NACE have allowed me to step outside my role as a county engineer managing 634 miles of highways and 176 bridges serving a population of 35,000. What I have learned is that the majority of county road professionals (i.e. those with titles to include county engineers, highway superintendents, road administrators, road supervisors, highway commissioner, transportation director, or public works director) are in counties like mine or even smaller. As you know, local governments are a vital component of our transportation system, owning about 75% of our nation's

roads. Counties alone own about 1.77 million miles of highways, 256,000 bridges, and one third of the transit systems. And most of those miles of highway are considered rural. More than 25,000 people die each year on rural roads, which translates into a fatality rate that is 2.5 times greater than on urban roads. According to a US General Accounting Office report, rural local roads had the highest rate of fatalities per mile traveled of all types of roadways. Major rural collectors, which represent the greatest number of miles of county roads eligible for the federal-aid program, had 5,816 deaths for a rate of 2.81 fatalities per 100 million Vehicle Miles Traveled (VMT). These roads received \$1,600 per lane mile in federal funding. In comparison, fatalities on urban freeways and expressways were 1,354, the fatality rate was .79 and \$81,000 in federal funding was spent per lane mile.

Minnesota's county engineers have recognized this is indeed our biggest challenge and have successfully initiated local traffic safety efforts that can be replicated throughout the transportation network. Why, because in rural America those aren't just fatalities,

"More than 25,000 people die each year on rural roads, which translates into a fatality rate that is 2.5 times greater than on urban roads."



Baby Chloe was killed and her two year old sister and parents were critically injured when a drunk driver failed to stop at this intersection in Freeborn County.

they are our neighbors, our Little League coaches, our children.

One of Minnesota's successes was the creation of a Traffic Safety Engineer position in MnDOT's, Office of State Aid to Local Government to provide education and outreach specifically for strategies targeting the local system. In Minnesota, we are fortunate to have good crash data on all public roads. Similar to other states, the majority of fatalities in Minnesota are happening on rural two lane roads, exactly the roads county engineers are primarily responsible for, yet many rural highway departments don't have the resources to add a traffic safety engineer to their staff. To further complicate matters, crashes on the rural system are randomly distributed across many miles for most rural highway departments. Proactively developing a phased implementation of the highest priority strategies and counter measures system wide is needed but most of us lack a knowledgeable workforce and the financial resources to make a difference. On our own, most of us don't even know where to start.

Local Traffic Safety Engineer

How could we implement this initiative nationwide? We could expand on the success of the Safe Routes to School Program. This program has a **funded** mandate

to have a full time coordinator in every State DOT to properly implement this effort to ensure the health and wellness of our children. The structure has worked extremely well in keeping the targeted funding aligned with the goal and I have to believe it is because there is a designated champion. The commission has heard testimony on the traffic safety as a public health issue. You have heard that the number one cause of death for someone 3 to 34 years old **is** a traffic fatality. And you have heard that the majority of those fatal crashes are happening on our systems. Just imagine the effect we could have if every state had a **funded** position for traffic safety on the local system, a champion to assist local road authorities in defining the problem and finding the right solutions to invest limited resources wisely. It seems to me not only as an engineer, but as a mother of four, that if we are truly concerned about the health and wellness of our children we need to target traffic safety on the local roads.

Crash Data & Analysis

SAFETEA-LU emphasizes a data driven investment in safety. I mentioned that Minnesota does have crash data on all public roads. This is not true in most states and initially we are finding out that State DOT's are reluctant to designate dollars from the Highway Safety

Improvement Program (HSIP) and directed programs such as the High Risk Rural Roads (HRRR) program to local roads where they have no crash data. There is a need for better and more readily available crash data, specifically on local roads, as it relates to improving rural road safety and in linking congestion problems to crashes. There is a need for a collective responsibility of both the state and local governments to resolve this deficiency.

Our Minnesota Traffic Safety Engineer assists counties with evaluation of crash data and is a liaison to other resources within the DOT and FHWA. But for a county engineer to become educated about what is happening on their system, he or she needs to be able to utilize that data as part of their daily operation. Minnesota worked to develop a crash analysis software tool for local road authorities. Our friends at Iowa State University's Center for Transportation Research and Education (CTRE) had developed a CD-ROM based tool containing current crash data and a customized program for doing simple queries and basic analysis and it was easy for their county engineers to use. Minnesota, through our Local Road Research Board and our Local Technical Assistance Program (LTAP), located at the University of Minnesota's Center for Transportation Studies, partnered with CTRE to bring this tool to the cities and coun-

ties in Minnesota at a very low cost and in a very short time frame. The crash tool is easily implemented, but the LTAP professionals and our State Traffic Safety Engineer provide training and maintain future updates on our behalf.

I would be remiss if I didn't take this opportunity to stress what an invaluable resource the LTAP/TTAP system of 58 centers, including 6 Tribal Centers, in every state is for local roads. Things that work should be continued with increased federal financial support. I also mentioned the Local Road Research Board which is a state, county, city, and university partnership dedicated towards finding solutions for our roads so we can work smarter to get the best return on our investment.

Minnesota is blessed with a very good crash database inclusive of all public roads which as I noted not all states can say. Strong leadership at both the state and local level is needed to make the collection and analysis of all public road crash data a priority. That being said, analysis of our crash data mirrors trends in other states; and we know local roads are over represented in serious injury and fatal crashes. Data driven does not mean chasing crashes across the system....it means making decisions based on knowledge. Other states without good data on all public roads most cer-



Paving shoulders, improving clear zones, better retroreflectivity striping and edge-line rumble strips are all effective lane departure crash countermeasures



Cass County, MN paved shoulders and improved right of way.



Crow Wing County, MN installed offset turn lane in a tourist area.



Freeborn County, MN installed chevrons along horizontal curves.

tainly need to prioritize data collection efforts, but they **should not wait** until a collection system is developed, implemented and analyzed. To the contrary, data across the country tells us that we need to focus on lane departure crashes. There are proactive strategies and low cost countermeasures that can be deployed on any system with just a little federal and state guidance and funding assistance for focused safety improvements.

Funding Opportunities

There have been a variety of funding opportunities that Minnesota has created, either with federal money or state money to begin this investment in low cost safety improvements on the local roads. I have attached a summary of those programs for the written record. I use the term “focused safety improvements” as I believe it encourages county engineers from then on to use every dollar we get with more emphasis on how to best invest for the safest road possible. Through these funding opportunities, installation of center and edge line rumble stripes, elimination of blind intersections, and retro reflective signage improvements for enhancing horizontal curve delineation are examples of projects implemented by some of these programs.

While Minnesota has had many successes in anticipation of SAFETEA-LU and the programmatic focus of the

Highway Safety Improvement Program, there are frustrations on the local level with the lack of implementation at the state level to focus safety improvements where life changing crashes are occurring. If 50% of the fatal and serious injury crashes occur on the local system in Minnesota, then it should follow that 50% of the core safety dollars through the Highway Safety Improvement Program should be invested on the local roads. While there seems to be philosophical support at the state level, the difficulty is in diverting anticipated federal revenue away from the traditional state system. The delay in passage of the reauthorization forced many states to continue planning and programming as usual. Increased construction price indices and decreased obligation authority also created difficulties for states to deliver expected state projects without diversion of funding that should have been targeted for systematic safety improvements on the local system. Across the nation, it is difficult for those responsible for the local road system to have voice at the state level to ensure that money targeted for investment at the local level is actually spent at the local level. Our partnerships with the states need to be expanded to include in a more active role at the federal level to safeguard that the good intentions of SAFETEA-LU are implemented. Again, the Safe Routes to School program was success-

ful in getting protected, targeted resources invested across the nation as intended without diversion to other efforts. There needs to be a consistent, dedicated effort like that so county engineers like me can continue to look for new solutions and know there are funding opportunities available.

County roads are a vital component of this country's transportation system. Every trip begins or ends on a local road. Local roads that pose our country's greatest traffic safety challenge. Safety is always first and foremost, but it needs to be strategically integrated into all investments and efforts on our local roads. And we need the support at both the state and federal level to really make a difference.

I would like to thank the Commission for this opportunity. It is my hope that once the HSIP and the federal-state-local partnership trifecta can be perfected in every state, the tragedy of these life changing crashes can be prevented from devastating your family or mine.



*“Determine that the thing can and shall be done,
and then find the way.” — Abraham Lincoln*