

**Statement of Francis Ziegler  
 Director, North Dakota Department of Transportation  
 before the  
 Committee on the Budget, United States Senate**

**on  
 “Devils Lake Flooding Disaster: How Should the Federal Government Respond?”  
 Devils Lake, North Dakota, July 8, 2010**

Mr. Chairman:

Good afternoon. I am Francis Ziegler, Director of the North Dakota Department of Transportation (NDDOT). Thanks for the opportunity to appear before the Committee today and thanks for your interest in improving transportation in North Dakota.

Today, I include in my testimony not only a discussion of Devils Lake issues, but some discussion of broader federal transportation issues. Continued federal support through programs such as the emergency relief program is extremely important if we are to meet the challenges of dealing with rising water in the Devils Lake Basin.

**Rising Water Levels in the Devils Lake Basin**

Impacts of Rising Water

Since 1993, the lake elevation has risen almost 29 feet. The current lake elevation is 1452 feet. Table 1 illustrates that just over \$191.1 million (\$161.4 million federal funding \$28.7 million state/local funding) has been spent from 1994 through November of 2009 to raise roadways that have been impacted by high water levels. This includes \$149.4 million for state highways, \$25.9 million for county roads and \$14.4 million for BIA roads. Maintaining traffic flow is a major challenge when these projects are under construction.

**Table 1  
 DEVILS LAKE BASIN HIGHWAY EXPENDITURES**

<b>Year</b>	<b>Total Costs</b>	<b>Federal Share</b>	<b>State/Local Share</b>
1994 – Nov 2009	\$190,117,000	\$161,438,500	\$28,678,500
Estimated Costs 2010 -2012	\$168,400,000	\$143,768,000	\$24,632,000
Estimated cost to raise State Highways to 1465 ft.	\$250 - \$300 Million		

Currently 18 projects are planned from 2010 – 2012 on state highways in the Devils Lake Basin. Table 1 shows that the total cost of these projects is estimated to be about \$168.4 million, \$143.8 million federal and \$24.6 million state funding. Upon completion of these projects the roadways will be raised to an elevation of 1460 feet.

Roads acting as dams (RAAD) continues to be a major challenge for the NDDOT and local entities. These roads were never designed to hold back water. Included in the 2010 -2012 estimate are the following RAAD projects:

- Grade raise to elevation of 1460 on ND 20 at Spring Lake.
  - Estimated cost \$14.2 million.
- Install dam components on ND 20 at Acorn Ridge. Raise grade to 1465.
  - Estimated cost \$28.9 million.
- Culvert installations on ND 20 and ND 57.
  - Estimated cost \$295,000.

When these RAAD projects are completed the immediate concerns with RAAD on the state highway system will be taken care of. However, while the immediate state highway system needs have been addressed, the RAAD system within the Sioux Lake Nation must still be dealt with.

Attachment 1 shows the location of about \$233 million of planned projects in the Devils Lake area for the years 2010 – 2014. This includes the \$168.4 million worth of emergency relief projects identified in Table 1. Projects include major and minor rehabilitation, overlays, seal coats, and structural and safety improvements.

#### Future Concerns

If the lake reaches its ‘natural spill’ elevation of 1458 feet, the NDDOT anticipates raising all essential state highways to an elevation of 1465 feet. This would require an additional \$250 - \$300 million, and would take two years to complete.

By law, FHWA can provide up to \$100 million in ER funding for repairs in a state for each natural disaster or catastrophic failure that is eligible for funding under the ER program (commonly referred to as the \$100M per State cap). If roadways need to be raised to 1465 feet we may very well need Congress to pass special legislation lifting the cap.

A recent rain storm in the area caused two closed basin sloughs along US Highway 2 east of Penn to overflow onto the highway. A temporary grade raise to provide safe passage of traffic through the area is estimated to cost about \$865,500. A permanent grade raise to an elevation of 1460 feet is estimated to cost about \$7,976,000.

Local jurisdictions are also faced with the challenge of providing access. The Grahams Island road connecting State Highway 19 to Grahams Island and Grahams Island State Park needs to be raised. In June, 2010, the UGPTI completed a study on the Economics of Access to Grahams Island and Grahams Island State Park. The study looked at raising the Grahams Island access road from its current elevation of 1455 feet to 1461 feet. The cost of this 4.8 mile project is estimated to be \$14.4 million. Ramsey and Benson County will each have to come up with \$1.45 million in local match to complete the project.

The AMTRAK rail line running through the Devils Lake Basin is also in danger of being inundated by water. A Planning and Feasibility Study will be undertaken to look at this segment



of the AMTRAK line. The study will cost about \$700,000. NDDOT and AMTRAK have each agreed to pay 50 percent of the study costs. A preliminary estimate to raise the grade of the rail bed between Devils Lake and Churchs Ferry is about \$60 million.

The Devils Lake Basin is not the only area in North Dakota dealing with high water issues. As a result of recent heavy rains, 22 sites on state highways in the West James River Basin were, or are close to being, inundated with water. Cost estimates are being developed to raise the grades at these sites. Many county and township roads are also under water in this area.

Let me turn now to a discussion of why a strong Federal investment in surface transportation in North Dakota is not just in North Dakota's interest, but also very much in the national interest.

### **North Dakota is Working Hard to Improve Transportation**

Transportation infrastructure investment results in many benefits. It creates jobs and strengthens the economy. It improves safety. It improves mobility for our citizens and businesses. With these and other benefits in view, NDDOT is working hard to improve transportation in the state.

NDDOT and the Upper Great Plains Transportation Institute (UGPTI) recently held public input meetings across the state to discuss transportation. During the sessions, UGPTI presented results of a study on highway service levels and investments in North Dakota and gathered input about prioritizing transportation funds and levels of service.

Preliminary input indicates that:

- Residents want more transportation infrastructure across the state.
- Residents are concerned about traffic increases, especially in western North Dakota due to the energy industry.
- Public expectations are growing – for load carrying capacity and wider roads.

Recognizing the benefits of transportation, the State of North Dakota increased its financial commitment to transportation infrastructure by enacting a \$1.35 billion transportation funding bill. This comprehensive transportation package for North Dakota funds maintenance and enhancement of the state's transportation system. It includes an unprecedented sum in non-matching State General Fund dollars. It also includes almost \$600 million more to rebuild our roads and help cities, counties and townships recover from statewide flooding.

This year the NDDOT has undertaken the largest construction season in the history of the department. There are approximately \$450 million in projects on nearly 2,000 miles of roadway statewide. The work includes projects under the regular federal program, stimulus (ARRA), emergency relief and state funding.

While the State of North Dakota is doing more than ever in this area, Federal investment in transportation is critically important. Federal aid accounts for 52% of our State's current biennial transportation budget, 57% if ARRA is included. So, federal dollars are important to our efforts

to preserve and improve North Dakota highways. It is, therefore, critically important that legislation reauthorizing the federal highway program serve the needs of rural states like North Dakota. This will allow us to continue to meet the demands being placed on our state's highway network.

Even though our state's large road network has few people to support it – North Dakotans pay more than the national average to support Federal surface transportation programs. The per capita contribution to the Highway Account of the Highway Trust Fund attributed to North Dakota is \$161 compared to a national average of roughly \$109 per person. This is a per capita contribution 48 percent above the national average.

So, while North Dakota is investing in transportation, federal investment in surface transportation in our state is critically important.

I would now like to spend some time focusing on the situation in the Devils Lake Basin.

### **Benefits from Transportation Infrastructure Investment**

There are many benefits from transportation infrastructure investments. Job creation is one. Jobs are created on the site of projects. Jobs are created in supplier and support industries. There is also a boost to the general economy from the onsite and supplier jobs.

Safety is another benefit. Preserving and improving roads in pursuit of smooth surfaces, appropriate roadway width, guardrails, signage and pavement marking is essential to our mission of providing a safe transportation system. Better highways and the availability of public transit help us in our daily lives, ensuring good access to school, medical facilities, work, and other important destinations.

These investments are also important to the economic competitiveness of North Dakota and the nation. Businesses reviewing whether to stay or locate in North Dakota want to be sure that goods arriving at or leaving their facilities move safely and efficiently.

### **Federal Surface Transportation Issues**

Clearly, our ability to continue to invest in surface transportation infrastructure in North Dakota will depend in part on Federal surface transportation funding levels. The needs are there to justify increased investment. Various commissions and reports have called for increased surface transportation infrastructure investment. For example, the American Association of State Highway and Transportation Officials (AASHTO) has recommended, for the six-year period 2010-2015, proportional increases in the highway and transit programs over the prior six years -- to \$375 billion and \$93 billion, respectively -- plus funding for other programs.

Another factor relevant to funding levels is inflation. The highway industry has been hit hard by inflation during the past decade. From 2001 through April of 2010, North Dakota's overall construction cost index increased by 87 percent. The purchasing power of highway dollars has



been reduced significantly and program funding has not kept pace with these rising costs (Attachment 2). A transportation bill without significant growth for North Dakota will severely hurt our ability to invest in transportation infrastructure throughout the state.

Beyond the overall funding level, however, to achieve continued progress in North Dakota it is essential that rural states like North Dakota participate at least proportionately in any growth of the Federal highway and transportation program, both as to formula and other funds.

In the authorizing committee in the House of Representatives a proposal has been outlined and partial legislation reported from a subcommittee to the full committee. This proposal apparently calls for increases in federal highway program authorizations of about \$110 billion over the next 6 years compared to the last 6 years (\$337 billion compared to \$227 billion).

We are concerned about a number of aspects of this proposal. It would: create a large new program funding only metro areas with a population of 500,000 or more; and provide funds for large nationally significant projects, a high speed rail program and infrastructure banks, all of which seem geared to assist urban areas of the country. We recognize that there are major needs in urban areas; however, rural needs are essential too. It does not appear that rural states like North Dakota would be able to utilize the funds in these new programs – even though these new programs seem to represent most of the proposed increase in the federal highway program.

In that regard, we were very pleased that bipartisan rural mobility legislation, S. 3485, was recently introduced in the United States Senate by Senator Barrasso, you, Mr. Chairman, and 11 other Senators. That legislation basically takes the position that, if new legislation is to dedicate significant funds to discretionary highway programs only for large metropolitan areas, the legislation must also include a significant counterpart program of funding for rural states. We are hopeful that efforts like this will ensure that final legislation will not ignore the national interest need to continue to invest significant Federal transportation funds in rural states as well as urban ones.

In addition, we do not support funding new large discretionary programs, particularly programs that are not accessible to North Dakota. We would prefer that increased funding be provided to highway formula programs, enabling all states to participate in program growth.

The House proposal also would increase the share of overall transportation investment dedicated to transit. North Dakota joins AASHTO in supporting, instead, proportional growth in the highway and transit programs.

In short, even though all details of this proposal are not set, we are very concerned that the House legislation could provide North Dakota with a considerably reduced share of transportation program dollars compared to current law. We will appreciate your efforts, Mr. Chairman, to avoid any such adverse result in the final legislation.

## **The Nation Benefits from Federal Transportation Investment In and Across Rural States**

Let me turn now to reasons why authorization legislation should provide rural states like ours at least their current share of the Federal highway and surface transportation programs.

Federal-aid highways in our state, not just those on the National Highway System --

- serve as a bridge for truck and personal traffic between other states, advancing interstate commerce and mobility;
- enable agricultural exports and serve the nation's ethanol production and energy extraction industries, which are located largely in rural areas;
- are a lifeline for remotely located and economically challenged citizens;
- enable people and business to traverse the vast tracts of sparsely populated land that are a major characteristic of the western United States; and
- provide access to scenic wonders and facilitate tourism.

In addition, the scope of the Federal-aid system, extending beyond the NHS, enables enhanced investment to address safety needs on rural routes.

Further, Federal investment in rural transit helps ensure personal mobility, especially for senior citizens and people with disabilities, connecting them to necessary services. Federal public transportation programs must continue to include funding for rural states and not focus entirely on large metropolitan areas.

## **Bridge States Serve a National Connectivity Interest for People and Business**

Let me amplify a few of these points. Highway transportation between major metropolitan areas is simply not possible without excellent roads that bridge those vast distances. This connectivity benefits the citizens of our nation's large metro areas because air or rail frequently will not be the best option for moving people or goods across the country. The many commercial trucks on our rural interstate highways demonstrate every day that people and businesses in major metropolitan areas benefit from the nation's investment in highways in rural states.

The most recent FHWA data on tonnage origins and destinations shows that just over 59 percent of the truck traffic using North Dakota's highways does not either originate or terminate within the State. This is well above the national average of about 45 percent, underscoring that North Dakota's highways help connect the nation in a way that benefits other states.

## **Essential Service to Agriculture, Natural Resources, Energy**

A significant portion of the economy in our State is based on agriculture, energy production, and natural resource extraction. Governor Hoeven's economic strategic plan has identified agriculture, energy, advanced manufacturing, technology-based businesses, and tourism as growth industries because North Dakota holds a competitive advantage in those areas. These have been the focus of much of North Dakota's investments in economic development.



Agriculture is one sector of the economy where the United States has consistently run an international trade surplus, not a deficit. Over the last two decades roughly 30 percent of all U.S. agricultural crops were exported.

Apart from its value to the state, there is a strong national interest in ensuring that agricultural products and natural resources have the road network that is needed to deliver product to markets, particularly export markets. In 2009, North Dakota led the nation in the production of barley, durum wheat, spring wheat, navy beans, pinto beans, canola, flaxseed, honey, lentils, dry peas, sunflowers, and dry edible beans. Last year North Dakota was the fastest growing export state in the nation. A key part of the road network supporting the movement of agricultural products is roads below the National Highway System, where crops begin their journey from point of production to destination.

North Dakota is a major contributor of energy production in the nation. Our state is currently fourth in the nation in oil production and contains large coal reserves. Good roads throughout the State are important to our nation becoming energy independent and providing agricultural products to feed a hungry world.

Over the last three decades, tens of thousands of rural rail branch lines have been abandoned nationwide. In North Dakota since 1980, over 1,500 miles of railroad branch lines have been abandoned. The reduced reach of the rail network means that many areas, particularly rural areas, must rely more heavily on trucks to move goods. This was noted by USDA in its April 2010 “Study of Rural Transportation Issues.”

With increased truck traffic in North Dakota and much of the upper Midwest, it is a challenge for us to continue to move these products. That challenge is compounded by the necessity of imposing spring load restrictions. The underlying reason for imposing spring load restrictions is inadequate roadway thickness. During the spring thaw, the ground is waterlogged and can’t support a fully loaded 18-wheeler on a highway of standard thickness. Many states, especially those in the north, have little choice given their current funding but to limit the amount of weight on highways in the spring. Like congestion, load restrictions slow down commerce and add greatly to the cost of doing business.

### **Tourism Access**

Without a strong road network in rural states, access to many scenic destinations would be limited. Tourism is vital to the economy of North Dakota.

### **Funding and Financing Considerations**

Rural states like North Dakota face a number of serious obstacles in preserving and improving the Federal-aid highway system within their borders. We:

- are very rural,
- are geographically large,
- have low population densities, and

- have extensive highway networks.

These factors make it very challenging for rural states to provide, maintain, and preserve a modern transportation system that connects to the rest of the nation. Our low population and traffic densities also mean that tolls are not an answer to funding transportation needs in rural areas. Our budget to maintain (plow snow, apply pavement marking, patch roads, seal cracks, repair signs and guardrails) the state transportation system is approximately \$9,200 per mile each year. It takes approximately 2,700 vehicles per mile per day, using today's Corporate Average Fuel Economy (CAFÉ) standards, to generate this amount of revenue from state motor fuel taxes. Very few state highways average 2,700 vehicles per mile per day in North Dakota.

### **Avoid Program Complications or Increases in Regulatory Requirements**

The next authorization bill should not make federal highway program delivery more complicated. The current highway and transportation program is complex. We would like to see processes streamlined so we can deliver projects more efficiently. We see proposals for additional requirements as counterproductive. It takes three to four years in North Dakota to complete a project that requires full environmental process clearance. We support the Federal Highway Administration's "every day counts" initiative to streamline the project development process. However, any new statutory provisions that add requirements and regulations will add time to program and project delivery and increase project costs.

One area where new regulation is being actively discussed concerns performance standards and targets. Performance measures are important, and we in North Dakota use them in our state. We believe, however, that national performance standards should be general in nature and that each state should be allowed to establish its own specific targets.

Areas being discussed that may involve some program changes and may involve new regulation concern "livability" and transportation planning to address climate change. These are often discussed in terms of providing options for transit, biking, and walking. From the perspective of this state, that raises concern. For many Americans, particularly in rural areas, those options will not serve their transportation needs. Good highways will also be essential to livability in rural and many other areas. If livability is to be part of the next highway and transit legislation, it must be framed in a flexible way that allows rural states and communities to pursue solutions that are practical for them.

We are strong supporters of the approach to program delivery in current law – that most funds are apportioned to the states. We, like other states, conduct public outreach and then prioritize project selection. We are concerned that various proposals would give more emphasis to distribution of funds to projects based on decisions at USDOT, not in the states. Disproportionate growth in Federal discretionary dollars inevitably would reduce the portion of the program distributed to states. While we do not expect a Federal program without some discretionary funding decisions made by USDOT, we think rapid growth in discretionary Federal programs should be avoided.

Let me also note that while we want a surface transportation reauthorization law that is good for



North Dakota enacted as soon as possible, without a reauthorization law, states and business are faced with operating under program extensions. While we are currently operating under an extension through the end of 2010, we suspect that some will say that any next extension should be short. Short extensions make program delivery less effective and discourage investment by the private sector. So, if there are to be extensions, they should be of practical length, perhaps a year.

### **Transportation is a Good Investment**

Much of today's surface transportation infrastructure was built by our forefathers as an investment in our country. Today that investment is taken for granted as everyone automatically expects a strong transportation network. Many people have invested in new forms of communication in their home, spending more than ever before on items such as cell phones and Internet. Today it is not unusual for an individual consumer to spend \$500 a year on a cell phone bill, compared to the national per capita average contribution of \$109 a year into the Highway Account of the Highway Trust Fund. We think this illustrates that transportation is a good buy.

### **Conclusion**

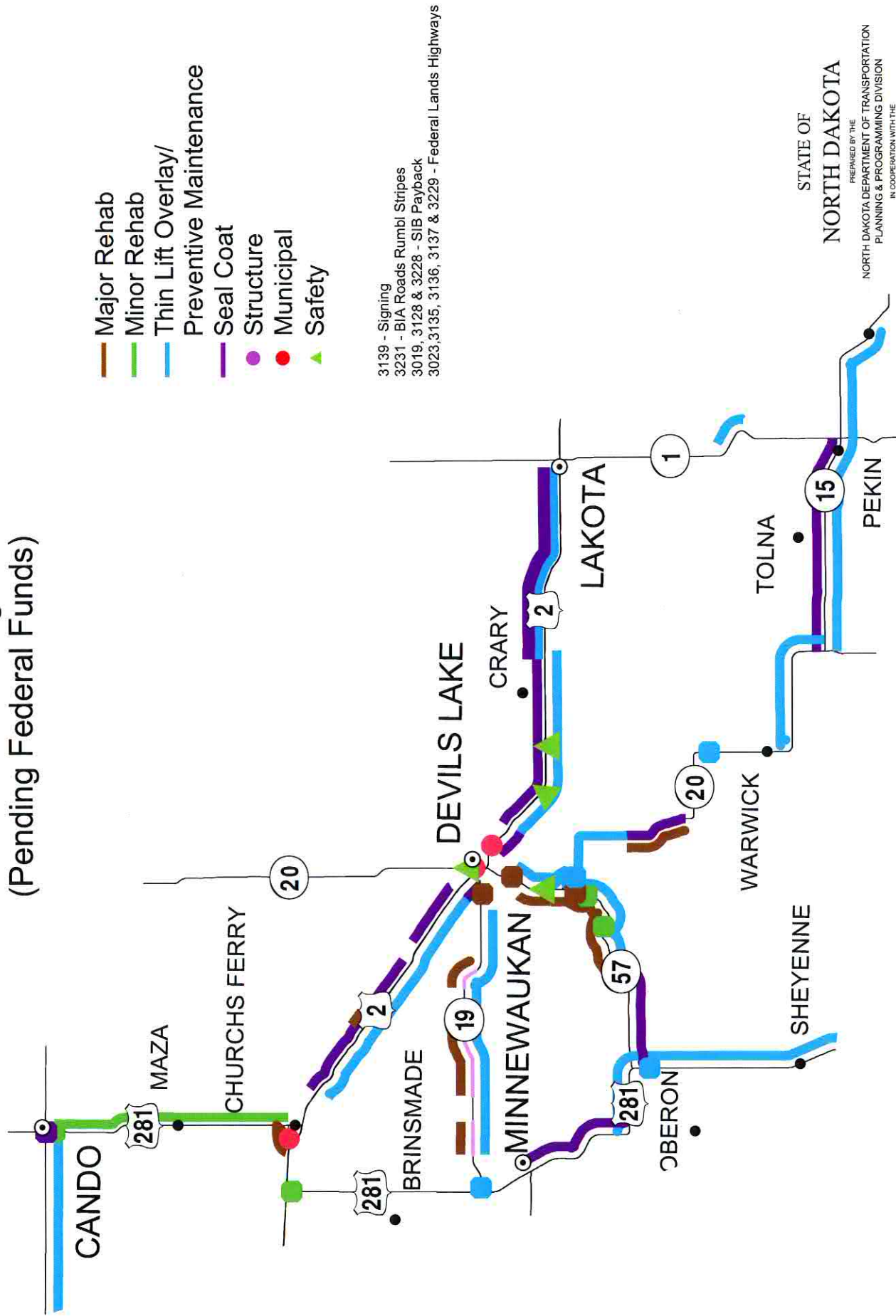
In conclusion, it is essential that the Congress, through the reauthorization process, recognize that increased federal investment in highways and surface transportation in rural states is, and will remain, important to the national interest. The citizens and businesses of our nation's more populated areas, not only residents of rural America, benefit from a good transportation network in and across rural states like North Dakota. With such legislation, we will be better equipped to address transportation issues in North Dakota.

That concludes my statement. I'll be happy to respond to any questions you may have.

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# Attachment 1

## 2010 -14 STIP Construction Program - Devils Lake (Pending Federal Funds)



- Major Rehab
- Minor Rehab
- Thin Lift Overlay/  
Preventive Maintenance
- Seal Coat
- Structure
- Municipal
- ▲ Safety

3139 - Signing  
 3231 - BIA Roads Rumbi Stripes  
 3019, 3128 & 3228 - SIB Payback  
 3023,3135, 3136, 3137 & 3229 - Federal Lands Highways

STATE OF  
**NORTH DAKOTA**  
 PREPARED BY THE  
 NORTH DAKOTA DEPARTMENT OF TRANSPORTATION  
 PLANNING & PROGRAMMING DIVISION  
 IN COOPERATION WITH THE  
 U.S. DEPARTMENT OF TRANSPORTATION  
 FEDERAL HIGHWAY ADMINISTRATION  
 2010



### North Dakota's Overall Construction Cost Index

