

Question from SB 2012 Hearing
January 28, 2021 – Senate Appropriations Sub-Committee

One Time Funding Items:

Roadway Information Management System (RIMS) + Construction and Materials Management System (CMMS)

The Roadway Information Management System (RIMS) is the primary means for defining and monitoring the state-owned highway network, maintaining an inventory of the roadway features, conditions, and characteristics and providing decision-makers with the information necessary for funding, business planning, project design, and maintenance programming.

The system is comprised of several modules including a project master schedule, bid opening schedule and a roadway management system which identifies project milestones, highway components, base highway information, roadway information, utilities, billboards, signs, and highway classifications.

RIMS is an antiquated system with limited capabilities which resides on the mainframe. RIMS currently lacks a user friendly web interface, a robust reporting system, and GPS technology. The NDDOT proposes to remove RIMS from the mainframe via a software conversion or the acquisition of a commercial-off-the-shelf product for a cost of \$5,860,000.

Once RIMS is replaced, a construction and materials management system (CMMS) will be added for a cost of \$3,800,000. The CMMS ensures materials incorporated into construction projects are properly tested and reported and bonuses or deductions for material quality are appropriately assessed. Currently individual Excel spreadsheets and standalone PDF forms are utilized. Data which is used in multiple locations must be manually re-entered and formula or calculation errors can occur. The CMMS will meet FHWA requirements, have a single point of data entry, and allow access to real-time information and reporting.

The total cost of removing RIMS from the mainframe and adding a CMMS is \$9,660,000

Benefits of a Statewide Transportation Management Center (TMC)

Definition

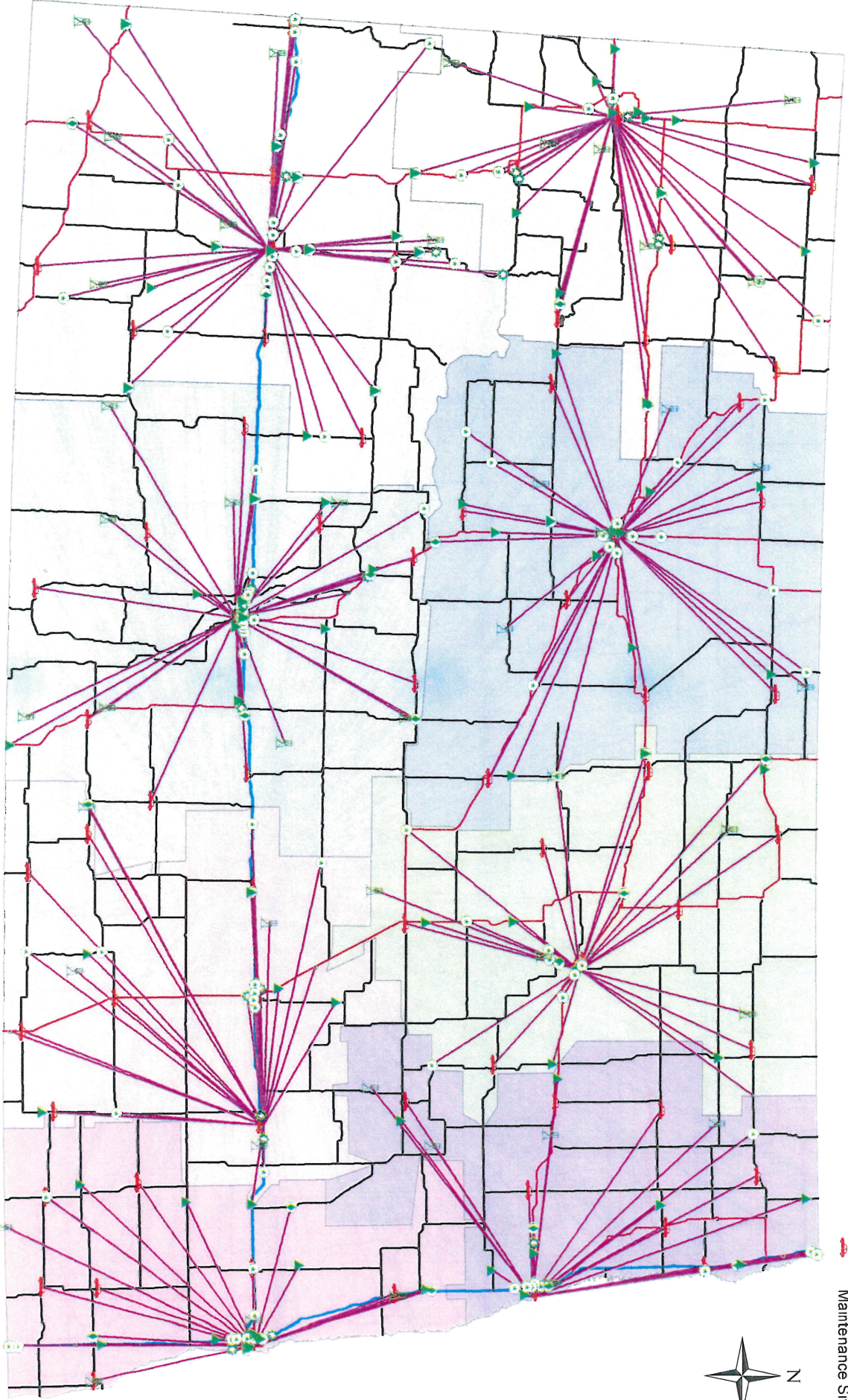
A Transportation Management Center is a central facility that controls, monitors, and manages the statewide operations of surface transportation and reports important information to other State and Local agencies and to the public relating to the current driving conditions.

Benefits

- Better Situational awareness as highway information is reported back to one central location and shared.
- The TMC will convert raw data into useful information and safety related actions.
- All incidents are handled in a uniform and consistent manner through a single source contact, which eliminates confusion.
- Center would operate 24/7/365 operating the State Intelligent Transportation System (ITS).
- Has the ability to track weather systems as they move across the state and notify the proper maintenance forces of when they can expect the system to be in their area and what to expect from the system.
- Has the ability to dispatch maintenance resources across the state.
- Will provide quicker 24-hour roadway condition updates to citizens and employees.
- Enhances the Departments ability to utilize advanced transportation systems such as variable speed limits and connected vehicle technologies.

- Allows the Department to pinpoint traffic incidents/emergency situations and send emergency responders quicker.
- Allows the Department to coordinate with surrounding State TMC's on events impacting multiple state jurisdictions like flooding, fires and storms.
- Will enhance coordination and cooperation between NDDOT and other State and Local partners such as the Department of Emergency Services, State Radio, North Dakota Highway Patrol, Local Law Enforcement, Cities and Counties.
- Has the ability to monitor the weather and issue travel advisories without sending someone out on the road.
- Can manage large traffic events and direct traffic to a quicker route.
- Can monitor traffic in construction work zones and relay that information to the traveling public.
- Can notify drivers of upcoming hazards or obstacles.
- Will serve as the central location for roadway closures travel alerts and no travel advised messaging when driving conditions are unsafe.
- Can relay information of wrong way detection and warning to the driver or other drivers that someone is traveling the wrong way.
- Notify drivers of an approaching oversize vehicle.
- Can monitor the types and frequency of various incidents to help identify any patterns.
- Coordinate/update Dynamic Message Signs for Amber Alerts, roadway incidents and travel advisories.
- Provide information to the media quicker and more accurately.
- Provides the ability to deploy variable speed signs throughout the state.

NDDOT TMC Overview



- ▲ Automatic Recorder
- ◆ Weigh in Motion
- Environmental Sensor Station
- Tower
- Active Camera
- Dynamic Message Sign
- Maintenance Site

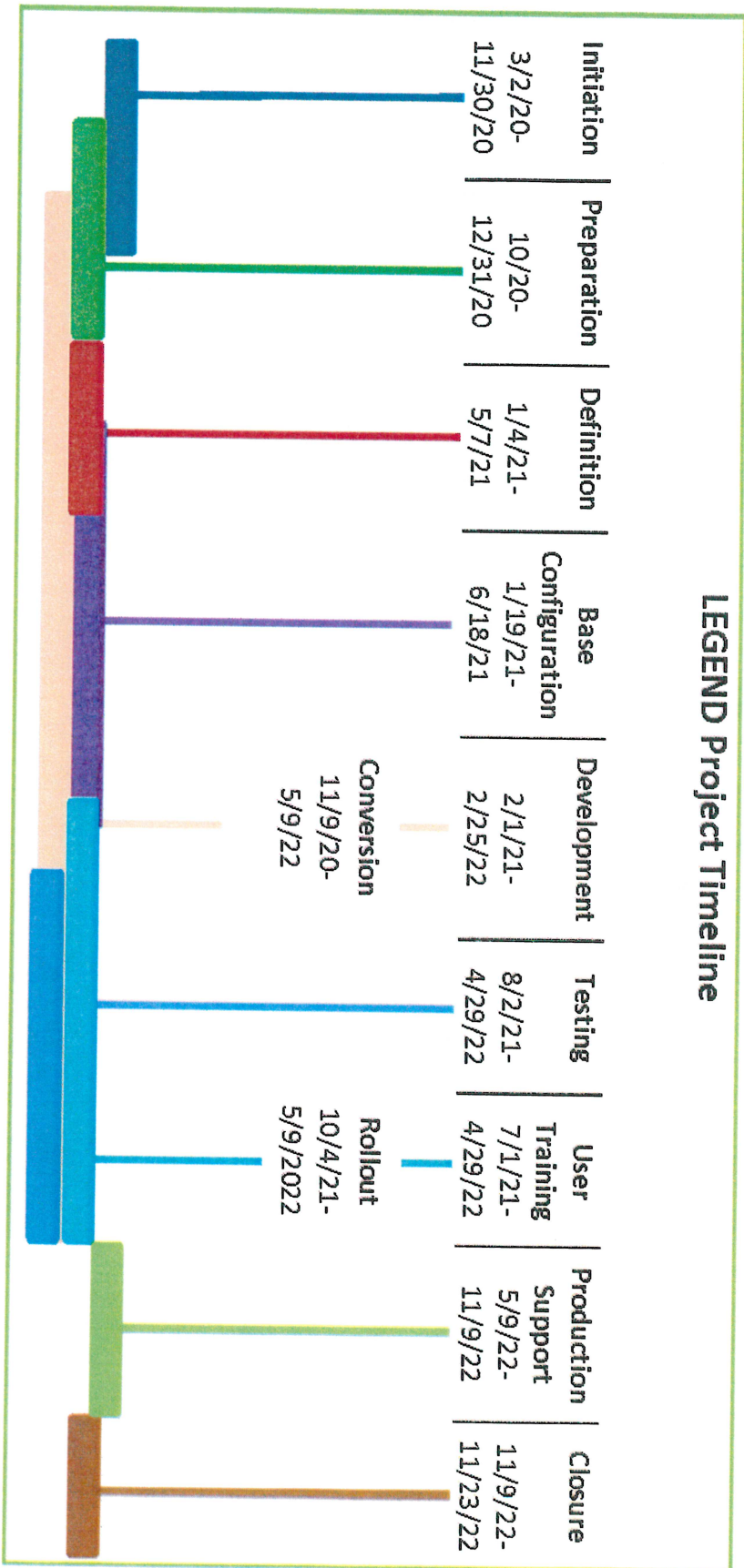
Section 6 Exemption – Drivers License System Project

The amount appropriated for the drivers license system project, as contained in section 1 of chapter 12 of the 2019 Session Laws is not subject to the provisions of section 54-44.1-11. Any unexpended funds from this appropriation are available for continued drivers license system project costs during the biennium beginning July 1, 2021 and ending June 30, 2023

DRIVER LICENSE PROJECT TIMELINE

- Business Process Improvement Project – Completed Spring 2020
- RFP was released - Spring 2020
- Contract signed with FAST Enterprises - Fall 2020
- Build system on current, sustainable technology
- Flexible universal service delivery platform
- Currentity in the Definition, Base Configuration, Conversion, and Development Phase
- Definition Phase – Gathering System Requirements
- Base Configuration – Verify core functions already installed
- Conversion – Prepare data and develop conversion extracts
- Development – Develop interfaces to other impacted systems
- Continue into Testing and Training Phases Summer 2021
- Go Live – May 9, 2022

LEGEND Project Timeline



Section 4. Exemption – Enhanced State Highway Investments

Section 54-44.1-11 does not apply to funding of \$503,115,558 in the capital assets line item relating to enhanced state highway investments in section 1 of chapter 12 of the 2015 Session Laws. Any funds continued into the 2021-23 biennium but not spent by June 30, 2023, must be continued into the biennium beginning July 1, 2023, and ending June 30, 2025, and may be expended only for enhanced state highway investments.

Note: The North Dakota Department received an infusion of funds to be used in oil impact areas for infrastructure projects during the oil boom. Projects of this magnitude require time to complete given the need for design, engineering, permits, and construction. The last of these oil impact projects are scheduled to be closed out this biennium. If for some reason a delay is experienced during closeout this section allows those projects to be finalized in the 21 – 23 biennium. This section will not be needed after the 21-23 biennium.

Remaining Projects

Project #	Hwy Location	Type of Work	Estimated Expenses Remaining	Reason Expenses Remain
SOIA-7-085(088)180	85LEWIS & CLARK BRIDGE AND ROADWAY	New Bridge, Widening, HBP, Overlay, Turn Lanes	PCN 20171 \$ 4,822,000	Contractor Claim. Non-binding mediation scheduled for March 2021. Arbitration scheduled for July 2021.
SOIB-7-804(058)304	Cnty Rd 42 (123rd Ave NW)-Epping W to 131st Ave	Grade, Widening (40'), HBP, Turn Lanes, Passing/Climbing Lanes, Lighting	21594 \$ 1,900,000	
AC-NH-SOIB-7-023(041)925	1804 NW	Bypass - Grade, HBP	19862 \$ 332,845	Retainage and unresolved issues.
SOIB-7-804(060)267	1804 CNTY RD 5 TO JCT TIOGA RD - CNTY RD 21	Structural OI>3, Widening, Passing/Climbing Lanes(3), Turn Lanes(19), Selective Grading, Structure/Incid	21785 \$ 7,966	Project final. Closeout of CE contract remaining
SOIB-4-083(143)921	83Minot US 83 Bypass (4th Ave NW to US 83)	Widen existing bypass to 4-lanes, new Structure, Grade, HBP	22161 \$ 658,377	Final records being reviewed.
AC-NH-SOIB-7-085(109)125	85LONG X BRIDGE	Structure Replacement, Grading, Agg Base, HBP, Wildlife Underpass	22041 \$ 5,011,241	Work in progress
AC-SS-SOIB-7-804(082)293	1804 RED MIKE AREA TO CO RD 42 - EPPING	HBP, Grading, Widening (40'), Turn Lanes, Passing/Climbing Lanes, Structure/Incid	21787 \$ 12,427,693	Work in progress
H-SOIB-7-085(112)180	73 JCT ND 23 EAST 6 MI	PE ONLY	22329 \$ 17,732	Work in progress
	85 WILDLIFE CROSSING S OF L&C STRUCTURE	Erosion Control/Seeding, Riprap, Ditch Block	22460 \$ 65,000	Work in progress
	FENCING FOR WILDLIFE CROSSING NEAR 85LONG X	Fencing	23130 \$ 685,000	Work in progress
	85 N OF LONG X BRIDGE - HORSESHOE BEND	PE & ROW	22304 \$ 26,463	Work in progress
	85 PE (1-94 to WC ENV & Long X Design)	PE ONLY	20046 \$ 79,478	Work in progress
	1804 PE & ROW (ND 1804, PCNs 20890 & 21594)	PE & ROW	20891 \$ 22,629	Work in progress
	Var. Various Projects in Western ND	Wetland Monitoring on SOIA/SOIB projects	21593 \$ 74,000	Work in progress
	New Town NW TRR - Golf Course Buildings	Buildings, Parking Lot - HBP, Grade, Landscaping, Lighting	21942 \$ 12,424	Work in progress
	23 (CMAR)	PE ONLY - Intersection Improvements	22255 \$ 257,821	Work in progress
	2 WILLISTON - US 2/26TH ST/2ND AVE		\$ 26,200,669	

Section 5. Appropriation – Department of Transportation

In addition to the amounts appropriated to the department of transportation in section 1 of this Act, there is appropriated any additional income from federal or other funds which may become available beginning January 1, 2021 and ending June 30, 2023.

Note: This section allows any additional federal funding received by the North Dakota Department of Transportation over the 21 -23 biennium to be automatically appropriated. This provision is especially critical in that federal funding, in particular discretionary federal funding, is often unpredictable and cannot be adequately estimated in advance. The North Dakota Department of Transportation intends to aggressively pursue any and all discretionary federal funding which becomes available.

Grants

GRANT PM	Submitted	Available Funding	Project Name	Federal \$	Total Project Cost	Match	Local Match	Other Match	Award	Notification Date
3-Dec-2018	2018 Competitive Highway Bridge Grant Program	\$ 225,000,000	North Dakota's Bridge Rural Replacement (BRR) Program	\$ 8,939,037	\$ 11,045,455	\$ -	\$ 2,106,368	\$ -	\$ 6,111,000	8/28/2019
1-Mar-2019	INFRA	\$ 950,000,000	US-85 IRE Freight Expansion	\$ 40,000,000	\$ 104,500,000	\$ 54,500,000	\$ -	\$ 10,000,000	\$ -	7/25/2019
20-Mar-2019	Automated Driving System Demonstration (ADS) Grant	\$ 60,000,000	ND Automated Driving System Demo Grant	\$ 3,670,342	\$ 4,587,928	\$ -	\$ -	\$ -	\$ -	9/18/2019
20-Mar-2019	Automated Driving System Demonstration (ADS) Grant	see above	Safety Happens in Everyplace's Lives Daily (SHIELD) joint app with C&D & MCO	\$ 9,966,972	\$ 13,707,742	\$ -	\$ -	\$ 1,700,500	\$ -	9/18/2019
11-Jul-2019	BUILD	\$ 900,000,000	US-85 IRE Freight Expansion	\$ 25,000,000	\$ 104,500,000	\$ 49,100,000	\$ -	\$ 30,400,000	\$ -	11/12/2019
11-Jul-2019	BUILD	see above	Rural Economic Preservation Through Rail Replacement - Oakes, ND	\$ 21,605,350	\$ 23,071,950	\$ -	\$ -	\$ 1,466,600	\$ -	11/12/2019
24-Feb-2020	INFRA	\$ 906,000,000	US-85 IRE Freight Expansion	\$ 45,000,000	\$ 90,000,000	\$ -	\$ -	\$ -	\$ -	6/18/2020
18-Mar-2020	FTA Bus & Bus Facilities Program 33391b)	\$ 454,000,000	Bus & Bus Facilities Program 33391a)	\$ 15,000,000	\$ 17,647,059	\$ -	\$ 2,647,059	\$ -	\$ 15,000,000	8/11/2020
18-May-2020	BUILD	\$ 1,000,000,000	Billings County Little Missouri River Crossing (LMRC) Safety & Mobility Project	\$ 12,800,000	\$ 18,000,000	\$ -	\$ -	\$ 5,200,000	\$ -	9/16/2020
18-May-2020	BUILD	see above	Rural Economic Preservation Through Rail Replacement - Oakes, ND	\$ 21,955,190	\$ 23,071,950	\$ -	\$ -	\$ 1,516,800	\$ -	9/16/2020
18-May-2020	BUILD	see above	Improving Resiliency of Rural ND Roads	\$ 25,000,000	\$ 50,554,544	\$ 25,554,544	\$ -	\$ -	\$ 22,000,000	9/16/2020
28-Aug-2020	AT/CVTD (Adv Trans & Congestion Mgmt Tech Deployment)	\$ 00,000,000	Statewide Transportation Management Center (TMC)	\$ 6,000,000	\$ 12,000,000	\$ 6,000,000	\$ -	\$ -	\$ -	1/6/2021
		Total Available Funding Nationally*							\$ 43,511,000	
									0.90%	

*A small percentage may have been withheld to cover USDOT administration cost. Blank Award cells mean NDDOT is awaiting award announcement.
 *Submitted by Billings County as the applicant with full support from NDDOT.
 This list may not include all NDDOT applications submitted by other Divisions over the years. Some listed grant opportunities did not emphasize or require Congressional support letter.