State of Wisconsin
Department of Transportation

BIENNIAL REPORT
2017-2019
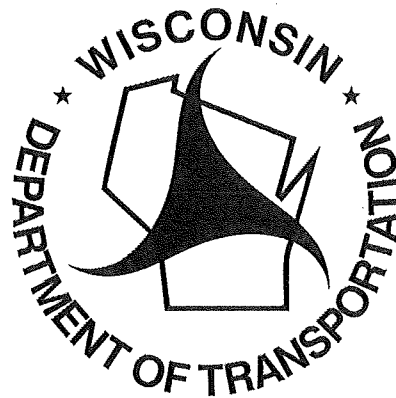
October 28, 2019

The Honorable Tony Evers
Governor, State of Wisconsin
Room 117 East, State Capitol
Madison, WI 53702

Wisconsin State Legislators
State Capitol Building
Madison, WI 53702

Dear Governor Evers, Members of the Legislature, and Residents of Wisconsin:

It is my pleasure to submit the 2017-2019 Biennial Report for the Wisconsin Department of Transportation. We continue to work with our local, tribal, federal, and industry partners to improve and maintain a safe, reliable, and efficient transportation system to facilitate mobility and economic development throughout the state. This report provides some of the activities and accomplishments during the 2017-2019 biennium to meet those goals.

Transportation is a key factor in all aspects of life, from connecting people to health, education, and recreation to freight, commerce, and economic development, on air, land, and water, urban and rural. Through our performance measurement and continuous improvement initiative, Mobility, Accountability, Preservation, Safety, and Service (MAPSS), and our asset management initiatives, the Department will continue to focus on effective and efficient use of resources to meet the needs of the state's transportation network in the 2019-2021 biennium and beyond.

Sincerely,

Craig Thompson
Secretary-Designee

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WisDOT's Strategic Direction

The Wisconsin Department of Transportation's (WisDOT) mission, vision, and values provide the strategic foundation for the department.

Mission: Provide leadership in the development and operation of a safe and efficient transportation system.

Vision: Dedicated people creating transportation solutions through innovation and exceptional service.

Values:
Accountability. Being individually and collectively responsible for the impact of our actions on resources, the people we serve, and each other.

Attitude. Being positive, supportive, and proactive in our words and actions.

Communication. Creating a culture in which people listen and information is shared openly, clearly, and timely - both internally and externally.

Excellence. Providing quality products and services that exceed our customers' expectations by being professional and the best in all we do.

Improvement. Finding innovative and visionary ways to provide better products and services and measure our success.

Integrity. Building trust and confidence in all of our relationships through honesty, commitment, and the courage to do what is right.

Respect. Creating a culture where we recognize and value the uniqueness of all our customers and each member of our diverse organization through tolerance, compassion, care, and courtesy to all.

Teamwork. Creating lasting partnerships and working together to achieve mutual goals.

The department's MAPSS Performance Improvement program focuses on the five core goals and associated performance measures that guide WisDOT in achieving the mission:

> Mobility - delivering transportation choices that result in efficient trips and no unexpected delays.

> Accountability - the continuous effort to use public dollars in the most efficient and cost-effective way.

> Preservation - protecting, maintaining, and operating Wisconsin's transportation system efficiently by making sound investments that preserve and extend the life of our infrastructure while protecting our natural environment.

> Safety - moving toward zero deaths and injuries on our roadways.

> Service - excellent service for our customers means high quality and accurate products and services delivered in a timely fashion by a professional and proactive workforce.

Establishing goals and measuring results is essential to running a successful organization, achieving its mission, and meeting public expectations. It helps the department be more transparent about the performance of the state's transportation system and be a data-driven agency.

MAPSS Scorecard measures are those that have been deemed of highest importance to our customers to show the current state of Wisconsin's transportation system. Some measures are important in demonstrating transparency and accountability but do not rise to the level of the Scorecard. The progress of these measures is reported publicly under the category of "additional measures."

In addition to the measures we report externally, we also track measures internally that are important for the smooth operations of the department and support other important performance outcomes; these measures are reported to department managers and staff. More information about MAPSS can be found at: http://wisconsindot.gov/Pages/about-wisdot/performance/mapss/default.aspx

The department's Continuous Improvement Initiative is fully integrated with and supports the MAPSS effort. Department staff continue to participate in process improvement and Lean Six Sigma training opportunities. To date, staff have completed over 100 projects resulting in lead time reduction, elimination of process steps, staff hours repurposed, cost savings, and cost avoidance. These projects save time and taxpayer dollars and assist the Department in achieving its mission of providing leadership in the development and operation of a safe and efficient transportation system. More information about Lean can be found at: http://wisconsindot.gov/Pages/about-wisdot/performance/lean-gvmt/leangovt-practice.aspx

Department Organization

Established in 1967, WisDOT supports all forms of transportation across Wisconsin. WisDOT works closely with other state, federal, and local agencies to meet changing and growing travel needs and to provide the safest, most efficient, and highest quality transportation services to the state, its citizens, and its many visitors.

For the 2017-2019 reporting period, the department was organized to include three executive offices and five program divisions reporting to the Office of the Secretary, which also included an Inspector General position:
- Executive Offices
  - Office of General Counsel
  - Office of Public Affairs
  - Office of Management and Budget
- Division of Business Management
- Division of Motor Vehicles
- Division of State Patrol
- Division of Transportation System Development
- Division of Transportation Investment Management

In 2018, the department initiated a Financial reorganization of functional areas within the agency. This resulted in:
- The Office of Policy, Finance, and Improvement was renamed the Office of Management and Budget.
- The Program Finance/Federal Funds Management Section in the Division of Transportation Investment Management was moved to the Office of Management and Budget.
- A Bureau of Financial Management was created within the Division of Business Management, including:
  - The creation of a Department Controller position;
  - Moving the Management Accounting Section from the Office of Management and Budget; and
  - Moving the Audit and Contract Administration Section from the Division of Transportation Investment Management.

In 2018, DTSD formed the Office of Asset and Performance Management (OAPM). In September 2019, the Office was reorganized into DTIM to more closely align with the division's long-term planning and infrastructure financing functions. Please see the Addendum on page 50 for further information.

While outside the 2017-2019 reporting period for this Biennial Report, in September 2019 the Department initiated a reorganization to focus and allocate resources to critical and emerging strategic issues. This reorganization included expansion of the Office of Inspector General and replacing the Office of Management and Budget with the Division of Budget and Strategic Initiatives. Please see the Addendum on page 50 for further information.

While WisDOT's main office is located in Madison, the department maintains regional offices for the Divisions of Transportation Systems Development and State Patrol as well as Division of Motor Vehicles service centers around the state. This preserves a local approach to transportation development and better serve customer needs.

The department has 3,244.13 authorized full-time equivalent (FTE). According to June 30, 2019 payroll records, 3,027 of these are filled. The FTE of these positions ranges from 0.15 to 1.00 FTE. In addition, the department has 285 limited-term employees.

Division Update: Executive Offices

The Executive Offices oversee department-wide procedural, legal and communication operations for the agency.

Office of the Secretary
The Office of the Secretary directs and coordinates WisDOT programs, submits the department's biennial budget request to the Governor, plans the legislative agenda, and develops long-range plans for transportation development and maintenance.

Office of the Inspector General (OIG)
The 2017-2019 Biennial Budget as passed by the Legislature mandated the creation of an Inspector General in the Department. While the provision was vetoed from 2017 Wisconsin Act 59, in his veto message, Governor Walker directed the department to create the position. In January 2018, an Inspector General was hired. However, the position was only occupied through September 2018 and remained vacant for the rest of the 2017-2019 reporting period. Please see the Addendum on page 50 for further information.

Office of General Counsel (OGC)
OGC provides legal counsel and advice to the Secretary, division administrators, staff, the Governor, and other government officials in matters relating to transportation programs. The office also assists the Secretary in identifying needs and formulating the department's legislative and administrative rule making program. Additionally, OGC coordinates legal affairs with the Governor's Office, the Department of Justice, the Department of Administration, and other local, state, and federal offices in matters involving government regulation and transportation business.

Office of Public Affairs (OPA)
OPA provides communication expertise and services to increase public understanding and awareness of WisDOT's programs, policies, and services. The office works in partnership with program staff to inform and educate the public and WisDOT employees about department programs and services. OPA coordinates media relations, communications support, graphic design services, employee communication, and Web communication.

Office of Management and Budget (OMB)
OMB supports the department in the management oversight of the department's budget, performance measurement and continuous improvement, state and national research programs, and operation of the department's library sciences support.

As mentioned above, a reorganization in September 2019 replaced OMB with the Division of Budget and Strategic Initiatives. Please see the Addendum on page 50 for more information.

Division Update: Division of Business Management

The Division of Business Management (DBM) provides reliable and cost-effective business support services to the Department.

DBM consists of three bureaus:

- **Bureau of Information Technology Services (BITS)** provides high quality, responsive, cost-effective and innovative technology solutions and services to accomplish WisDOT business objectives by using industry-standard best practices and project management tools and measures to efficiently deliver Information Technology (IT) in support of WisDOT transportation systems.

- **Bureau of Business Services (BBS)** provides a wide array of services including statewide management, maintenance and repair of (56) WisDOT owned facilities, lease management for (122) leases, forms management, records management, statewide distribution services, worker's compensation and liability insurance, damage claims collection, COOP / COG efforts and management of WisDOT's fleet of 1350 vehicles.

- **Bureau of Financial Management (BFM)** provides oversight of the department's financial functions and processes and is overseen by the DOT Controller.

2017-2019 Accomplishments

Division-Wide

- *Data-Driven Decision-Making:* Analyzed the number of supervisors needed to perform each section's functions efficiently. This data assisted DBM in making hiring decisions based upon customer need and aided in creating individual employee performance metrics. For example, this data determined that the facility supervisor responsibilities could be combined with the duties of another section supervisor, which allowed a supervisor position to be repurposed.

- *Cost Savings and Innovation:* Each DBM employee recommended at least one cost savings measure and one process improvement. DBM implemented a new paper shredding service that increased customer satisfaction and saves WisDOT over $10,000 annually.

- *Reform and Innovation:* Automated the DOT's Vehicle Use Agreement (VUA) forms by converting 3000+ paper VUA's to electronic. This conversion resulted in faster approvals, a reduction in errors and decreased paper consumption. Completed the transition of all 3,300+ WisDOT staff to the Single Security ID Card for access to DOT work facilities. Successfully implemented Voice over Internet Protocol (VoIP) technology at new DMV Madison West location and new WisDOT headquarters building at Madison Yards Way.

- *Effective Customer Service:* DBM staff established better lines of communication within the division as well as throughout the agency. DBM staff increased the number of face-to-face interactions with customers at regional field offices. Additionally, DBM staff increased the number of meetings with other WisDOT divisions to better communicate the agency's needs and work together to address the problems concerning the Department.

- *Investing in our Workforce:* DBM established a plan for individual training and professional growth for each employee by utilizing WisDOT's LearnCenter training resource as well as created a training plan for each newly-hired employee with their first six months of employment.

- *Business Continuity Management:* DBM bureaus created and updated standard operating procedures to ensure proper documentation of critical division processes.

- *Relocation of DMV Madison West/WisDOT Headquarters:* Relocated the DMV West and Odana Road Service Centers to the new Excelsior Drive location as well as relocated the new WisDOT Headquarters at Hill Farms in Madison.

Information Technology Services

- *IT Project Completion Rates:* Two-hundred and sixty-nine (269) IT projects were completed from July 2017 through June 2019. Seventy-five (75) percent of these projects were completed on time, which is significantly higher than the industry standard of sixty (60) percent.

- *IT Service Operations:* Between July 2017 and June 2019, IT service operations fulfilled 36,404 IT service requests and resolved 71,861 IT incidents. IT service operations spent 333,371 hours on projects and solutions delivery, and spent 475,130 hours on "Keep the Lights On" work, which refers to the effort required to maintain current IT systems and infrastructure to restore service as quickly as possible. Additionally, sixty-five (65) percent of service desk contacts were resolved on that first interaction, which increases productivity of WisDOT employees and reduces costs associated with incident resolution times to solve the IT problem.

- *Pavement Maintenance Management System (PMMS) Mapping:* Implemented improvements to the PMMS system, which provides road condition information on the state trunk network. Mapping the location of pavement/road condition gives the pavement maintenance engineer another visual advantage to evaluate and repair state roads based on the pavement condition.

- *Traffic Impact Analysis:* Developed a centralized mapping application to record, obtain, track and generate status maps and reports for Traffic Impact Analysis (TIA) data and proposed project traffic studies for all WisDOT regions. This improvement impacts various stakeholders and saves numerous hours gathering this important information.

- *Modernize WisDOT's Internal Intranet Website/Library:* Planned and implemented WisDOT's new intranet site now called MyDOT. The migration of the old system to newer technology has successfully integrated various applications for WisDOT's digital library.

Business Services

- *Data-Driven Decision-Making:* Developed customized reports and dashboards for each division to review monthly and cleansed and fixed schedules associated with preventative work orders. BBS has begun collecting the data needed to upload the CAD drawings for the WisDOT-owned facilities as well as all of the 100+ leased facilities.

- *Cost Savings:* Tracked performance measures within the Workers Compensation Program and focused on reducing lost time incident rates. Through communications and awareness, workers compensation injuries decreased and injury reporting improved.

- *Reform and Innovation:* Near completion of a process improvement project that will repurpose staff hours, reduce the number of process steps, and nearly eliminate manual entry errors in expediating a secured service for WisDOT employee's Personally Identifiable Information (PII).

- *Effective Customer Service:* Increased the number of on-site visits to WisDOT field offices by BBS staff to ensure proper facility maintenance and enhance direct customer interaction.

Financial Management

- *Bureau Reorganization:* Completed a reorganization of the division and created the new bureau of financial management. Established the role of the DOT Controller to better manage WisDOT financial operations and properly align the Department with current standard financial management practices.

- *PeopleSoft Maximization:* Provided training and support to agency staff on the processes and reporting in STAR. Collaborated with the STAR Program Office to make enhancements to processes and configurations in the system. This effort improved functionality that isn't currently being utilized and assist the agency more fully in properly operating the PeopleSoft system.

2019-2021 Goals

Information Technology Services

- *IT Service Process Review:* Complete a comprehensive process review by updating the IT Service Portfolio and IT Service Portal to evaluate consistency and accuracy of services provided. Additionally, develop and implement Financial IT Service Center policy, procedures, standards and guidelines.

- *Business Relationship Management Evaluation:* Assess the effectiveness of IT service functions provided to customers by gathering internal and external feedback. With this information, develop improvement plans and implement them while measuring the results to determine their impact on services offered to customers.

- *Increase Service Management Metrics Usage:* Better utilize the service management and project standard metrics from internal databases to evaluate and improve the work performance within IT services.

- *Application Portfolio Management Procedure:* Apply the Application Portfolio Management (APM) information in planning, selection, and implementation of projects to pro-actively manage improvements throughout different processes.

Business Services

- *Repurposing Land Usage:* Collaborate with DTSD to divide an underutilized parcel of land behind the Wisconsin Rapids Sign Shop / Materials Lab. This land, which is over two acres, will give the Division of State Patrol (DSP) the space and tools needed for proper evidence handling. Currently, DSP does not have storage capabilities for crash vehicles pending criminal prosecution. Evidentiary rules require that these vehicles be maintained in a secure manner for lengthy periods of time. Without proper storage abilities, DSP uses either impound lots from local police agencies or secure private lots. This option costs thousands of dollars per vehicle in storage fees.

- *Update Facilities Staffing Model:* Improve service and responsiveness to customers and facility needs by developing a proactive budget and maintenance approach that will deliver better customer service and save money spent being reactive to facility maintenance repair costs.

- *Facility Funding Priority Plan:* Establish a WisDOT-owned facility replacement priority list for consideration of capital budget requests focusing on facilities at or beyond the useful life standard.

- *Reduce Fleet Vehicle Collisions:* Decrease the number of rear end collisions involving fleet vehicles by purchasing backup cameras and reverse sensing on fleet vehicles. The average cost for a rear end collision is $1,500 and DOT fleet vehicles were involved in seventeen (17) rear end collisions in FY19.

Financial Management

- *Improve Customer Billing:* Improve invoicing procedures by working with STAR because billing processes in STAR do not provide the information that are essential to local municipalities.

- *Electronic Dispatch of Purchase Orders:* Enable electronic dispatch of purchase orders by collaborating with STAR and the State Bureau of Procurement in DOA towards developing an effective solution that works for stakeholders.

- *Improve Payment Processing of Supplier Invoices:* Expand the use of electronic submission of invoices to streamline payment processing of operational invoices.

- *Consultant Contract Audits:* Implement modern audit software to assist the audit section with consultant contract audits. This will provide efficiencies in the number of audits performed and the amount of time consultants must wait for final resolution.

Division Update: Division of Motor Vehicles

The mission of the Wisconsin DMV is, "Together, we save lives through superior service, security and innovation." DMV is the front door for WisDOT and state government with more than 11 million public contacts each year. More information about DMV services can be found at http://wisconsindmv.gov.DMV office and service locations can be found at http://wisconsindot.gov/Pages/online-srvcs/find-dmv/default.aspx .

2017-2019 Accomplishments

Implementation of Hybrid/Electric Vehicle Fee
GOAL: 2017 Wisconsin Act 59 (17-19 Biennial Budget) created surcharges of $75 and $100 for the annual registration of hybrid and electric vehicles. The Division will prepare registration renewal notices and assess the new fees effective 1/1/18, as mandated by the Act.

RESULTS: *ACCOMPLISHED.* Electric vehicle fuel surcharge was implemented 1/1/2018 with $510,900 revenue collected to date. Hybrid electric surcharge implementation was delayed pending required remedial legislation that would allow DMV to accurately assess the surcharge. The hybrid electric surcharge was implemented for registrations with an effective date of 10/1/2019. Revenue collected from July 2019 to date is $69,900.

Issuance of REAL ID Diver Licenses and Identification Cards
GOAL: DMV has offered both REAL ID compliant and non-compliant driver licenses and identification cards since January 2013. For the first few years of issuance, only about 20% of customers chose to enroll and obtain a compliant product. The Department of Homeland Security's phased implementation plan to require federally compliant credentials for certain purposes will complete on October 1, 2020. As of this date, a REAL-ID compliant product will be required to board federally regulated commercial aircraft and enter specified federal facilities. Recognizing this requirement will have widespread impacts on Wisconsin customers, DMV will continue its efforts to encourage REAL-ID enrollment during initial issuance or renewal to avoid the need for a return trip to a DMV office to enroll and pay for a duplicate product. In calendar year 2017, the percentage of compliant products was nearly 31%.

RESULTS: *ACCOMPLISHED.* The percentage of Wisconsin DL/ID holders having a REAL ID-compliant product was 37% in July 2019, a 19% improvement. DMV is continuing to promote the option in multiple ways and staff continue to work with customers to assist them in obtaining compliant products.

Update Third Party Processing System
GOAL: Wisconsin law requires motor vehicle dealers and lien holders to electronically process title applications for their consumers. The current systems and interfaces are outdated and the process to onboard additional vendors to service dealerships is cumbersome and costly. DMV is partnering with Wisconsin Interactive Network to create two methods for electronic submission of the applications:
- An all-inclusive vehicle title and registration system for use by approved motor vehicle dealers, auctions, financial institutions, fleet companies, and third-party processing agents.

- A real-time title and registration processing system using modernized technologies from third party vendors providing services directly to automobile dealerships.

The fully implemented systems will offer efficiencies by reducing system maintenance and support costs. Users will be offered an accessible service with a modern interface, enhanced features, and 24x7 support services.
RESULTS: *ACCOMPLISHED*. On August 6, 2019 DMV successfully launched the new system and is continuing to migrate dealers and lenders onto the new platform. DMV continues to develop additional features and functionality while laying the foundation for new vendors to provide services in Wisconsin.

Implement Geocoding for Vehicle Kept in Location
GOAL: DMV is required to capture vehicle location information (county, municipality name, and municipality type) for every vehicle titled or registered in the state of Wisconsin. The location may identify a vehicle as being subject to an emissions inspection, or a specific tax such as county, sales, use and/or wheel tax. Historically, DMV systems have made use of a product that was designed to provide the best postal services delivery address but does not provide the true vehicle location (geographical coordinates) and requires manual intervention when the location is not correct. In late 2017, DMV will implement a new geocoding solution that will consistently identify the correct county, municipality and municipality type based upon the customer's primary residence address.

RESULTS: *ACCOMPLISHED*. Geocoder implemented 10/15/2017. Included in this project was a new "Vehicle Kept In" self-service application available to customers online. Additionally, DMV added functionality to store in the system vehicle kept in history.

Improved Service Delivery Alternatives
GOAL: DMV continues to work to improve the DMV website and provide easier navigation and additional service alternatives for its customers. Upcoming goals include:
- Creation of an on-line application which will allow customers to order vehicle registration replacement stickers on-line. This self-service system will allow customers the option to request this product at their convenience, reducing the need for DMV to fulfill these requests via telephone, email or in-person.
- Electronic transmission of third-party Commercial Driver License (CDL) skills test results from AAMVA's (American Association of Motor Vehicle Administrator's) federally required Commercial Skills Test Information Management System (CSTIMS) database to Wisconsin DMV's driver license issuance systems.
- Integration with AAMVA and FMCSA's "National Registry II" medical examiner certificate system.
- Development of paperless application process for driver training schools and third party CDL examiners licensed by DMV.

RESULTS:
- On-line application for replacement stickers – *ACCOMPLISHED*. Went live May 2018.
- E-transmission of 3rd party CDL skills tests results – *IN-PROGRESS*. Phase 1 of effort, which facilitated the real-time transfer of information to DMV systems has been completed and is in production. Phase 2 of the project is set to begin development first quarter of CY 2020. This phase will enable the transmission of customer exam information from DMV to CSTIMS and will complete the FMCSA-funded project.
- Integrate National Registry II medical certificates – *DELAYED*. This FMCSA grant-funded project has been put on hold, due to technical issues at FMCSA. The specifications for this IT system were scheduled to be delivered to jurisdictions in 2017 but remain unavailable and there is no timeframe on their completion and

release. When completed, National Registry II will enable the real-time electronic transfer of Medical Examiner Certificates (FedMed Cards) from registered medical providers to DMV and FMCSA.
- Paperless application process for driver training and CDL examiners – *DELAYED.* This project is being prioritized by DMV and DOT IT staff, with expected activation in the second quarter of CY 2020. This effort will transition DMV from a paper-based application process to an electronic process, saving stakeholders and customers time and postage.

ADDITIONAL ACCOMPLISHMENTS

2017 Act 244 Invisible Disability
Effective January 1, 2019, an applicant for a Wisconsin driver license, identification (ID) card and/or vehicle registration can choose to disclose on their driver license, ID card and vehicle registration record, that they have a disability that may not be immediately apparent to another person. DMV successfully updated its IT systems and forms to enable this disclosure, making valuable and potentially life-saving information available to law enforcement.

2017 Act 369 Guidance Documents
Implemented requirements to identify the applicable provision of federal law, state statutory or administrative code provision that supports any statement or interpretation of law that the agency makes in any publication, whether in print or on the agency's Internet site, including guidance documents, forms, pamphlets, or other informational materials, regarding the laws the agency administers. This change gives our customers a direct avenue for comment on the processes and implementation of the division's guidance documents.

2017 Act 105 Failure to Yield Right-of-Way Expansion
Act 105 expanded the list of traffic violations that require operating privilege suspension and attendance at a vehicle right-of-way course. The division made the necessary changes to its IT systems and correspondence to account for these changes and, thanks to this law change, now can hold violators accountable if they do not attend the required safety course following conviction. These courses provide the necessary training to re-acquaint these right-of-way violators with information and skills that may have deteriorated since their original driver education and testing.

2017 Act 172 Permanent Revocation
This act enabled a permanent revocation of operating privileges for certain combinations of OWI convictions. The implementation of this act improves safety on Wisconsin roads, while still providing an opportunity for those violators to regain those privileges if they maintain a ten-year span of safe driving habits. This balanced approach removes dangerous drivers from Wisconsin roads while still providing an opportunity for future law-abiding behavior.

New Plates Implemented
Choose Life - implemented 10/23/17
Children's Hospital of Wisconsin - implemented 4/23/18
4H Foundation - implemented 8/27/18
Musky Clubs Alliance of Wisconsin - implemented 8/27/18
Medical College of Wisconsin - implemented 4/29/19

Ignition Interlock Device (IID) Changes
Summer 2019 implemented immediate IID under 2017 Act 124 which required courts to issue immediate IID restrictions to driver's operating privileges upon conviction of an alcohol related violation.

Emailing Driving Receipts
In June 2019 the division started emailing driving receipts instead of allowing them to be printed at the end of the on-line driver's license/ID card applications.

2019-2021 GOALS

DMV has several goals for the coming two years:

OnBase Implementation
The Bureau of Driver Services is implementing the OnBase system to replace the current outdated and unsupported document management system. Through the implementation of this electronic workflow management and document storage system, BDS has been able to closely examine current processes and make those processes more efficient by eliminating steps and creating system automation. The project commenced in August 2017 and the system has been implemented in the Driver Eligibility Unit, the Citations & Withdrawals Unit, and the DMV Communication Center. With each implementation, units are reducing staff hours spent on less-critical work, avoiding costs, and improving security. The project is expected to conclude in September 2020.

Improve the DMV website and provide easier navigation and additional service alternatives for customers
- Continued promotion of DMV's "eNotify" electronic notification system. This system replaces costly mailed correspondence and renewal notices with low-cost and efficient email and text notifications.
- Integration with AAMVA and FMCSA's "National Registry II" medical examiner certificate system (awaiting final IT specifications from FMCSA).
- Development of paperless application process for driver training schools and third party CDL examiners licensed by DMV.
- Updates and enhancements to DMV's "Driver License Guide", "CDL Guide", and "ID Card Guide". These tools are "wizards" which walk customers through the process of identifying the documents, exams, applications, and fees required to submit applications for these products.
- Development of grant-funded practice test web applications for CDL drivers. These practice tests will help applicants prepare for the federally-mandated knowledge tests taken when applying for a commercial driver license.
- Development of a "Smart" Title application which will guide customers through the required application elements with integrated edits to ensure all sections are complete and fees are accurately calculated.

Update Registration Renewal Processes

DMV sends registration renewal notices to millions of customers every year. DMV is looking to successfully transition two parts of this program in the current biennium:

- With US Bank discontinuing their retail lockbox operation, they have subcontracted the work to Deluxe for the remainder of their contract with the State. DMV will transition the lockbox operation to Deluxe in FY20. In FY21, DMV will decide on a vendor after the US Bank subcontract expires.
- Bring the manufacturing of registration renewal notices in house by producing them in partnership with DOA Bureau of Publishing and Distribution instead of vendors. Also, take advantage of postage savings during the transition by modernizing the design.

ACD Replacement

DMV has been on the enterprise based automatic call distributor system (ACD) since July 2005 called Contact Center Anywhere (CCA). As of May 2015, the Department of Administration through the Division of Enterprise Technology was no longer supporting this application. The Division was originally signed with DOA to utilize a new ACD system, but the contract was discontinued in March of 2019.

Currently, DMV is in the requirements and demonstration phases with vendors used by other Wisconsin state agencies. The replacement ACD system must be able to handle 10,000+ calls a day, 500 emails per day, have the ability to integrate customer chat with the divisions website, utilize virtual customer callbacks, record all customer contact, offer voicemail to specific areas, provide a customer relationship management tool and provide reporting both enterprise and customizable; to name a few of the tools the division requires to ensure customer service indexes are met. The goal is successful implementation by early 2021.

Enhancement to Vehicle Registration Renewal/ENotify

This project enhances the on-line vehicle registration renewal system to include the ability for customers to sign up for ENotify, update their address, mail their product to a different address and update where their vehicle is primarily kept all while in the applications. In addition, enhancements are being made to make the process more user friendly and ensure the customers are renewing the correct plate(s) which will eliminate admirative expenses for the division.

Meet Federal REAL ID requirements

DMV will work to ensure that all customers who wish to have a REAL ID-compliant product by the current 10/2020 federal deadline do so and that Wisconsin is recertified for REAL ID compliance.

<u>*EO 14*</u>
DMV will respond by 12/2019 with recommendations for improving outreach and abstention for voting products and will implement recommendations.

<u>*Title and Registration Fee Changes*</u>
DMV will make changes to meet requirements of fee changes in the FY 20-22 budget.

<u>*Automated Knowledge Test System Improvements*</u>
DMV plans on implementing an enhanced version of its Automated Knowledge Testing application concentrating on three major areas. The first is aimed at improving the integrity of the testing process. The customer will have a photo taken each time they arrive at the DMV office before starting knowledge testing. The photo taken will be passed to the testing application where the agent can verify the customer wishing to take the exam is the same person that had their photo taken. The agent will also have the image of all customers at the testing units available for review. The test unit will also take photos of the applicant during the testing process for review. The second is improving the customer experience by rewriting non-CDL test questions where the customer has difficulty choosing the correct response and improving the images provided. Finally, DMV is planning on installing new testing hardware that is Windows 10 compliant and has an integrated camera. DMV administers just over 240,000 automated tests annually.

Division Update: Division of State Patrol

The Division of State Patrol (DSP) promotes highway and public safety by providing and supporting law enforcement and traffic safety services. In addition to statewide law enforcement, DSP's public safety services include:

- Patrolling Wisconsin's state highways;
- Conducting motor carrier safety inspections and weight enforcement;
- Supporting mobile data communications with MACH for 180 agencies and over 4,300 users;
- Providing training and instrumentation for alcohol testing of drivers;
- As the state highway safety office, securing federal funding for local partners, coordinating research, funding, and outreach for behavioral traffic safety programs; and
- Providing specialized law enforcement services like technical reconstruction, air support, drug or bomb-detection canines (K-9s), Mobile Field Force, SWAT, dignitary protection and training facilities at the State Patrol Academy.

The DSP is made up of five regions, each with a post (headquarters). The geographically large southwest and northwest regions each have two posts. An overview of DSP's mission and structure can be found at: http://wisconsindot.gov/Pages/about-wisdot/who-we-are/dsp/dsp.aspx

2017-2019 Accomplishments

Highway Safety and Law Enforcement
- There were 576 traffic fatalities in 2018 in Wisconsin. DSP has continued to use intensified enforcement and effective traffic safety education to reduce fatalities and serious injuries from traffic crashes. However, traffic fatalities in Wisconsin have recently risen from levels not seen since World War II. The average number of fatalities per year from 2012 to 2016 was 554, whereas the average number of traffic fatalities per year from 2014 to 2018 was 562, a 1.4 percent increase in the rolling five-year traffic fatality average. The number of people injured in traffic crashes has increased steadily from 39,701 in 2014 to 41,124 in 2018, a 3.6 percent increase. The number of reported traffic crashes also increased. In 2017, the traffic crash rate was 214.12 crashes per 100 million vehicle miles traveled, which is 9.1 percent above the prior five-year rolling average. Fortunately, safety belt usage in 2019 reached an all-time high of 90.4 percent.

- In partnership with the National Highway Traffic Safety Administration and law enforcement agencies throughout the state, the Bureau of Transportation Safety (BOTS) organized successful mobilizations backed by extensive public education messages in the media to increase safety belt use and decrease alcohol-impaired driving. In 2019, 312 agencies around the state participated in the Click It or Ticket campaign, it is estimated that 288 agencies will have participated in the Drive Sober or Get Pulled Over-Labor Day impaired driving mobilization at the time of this writing and 249 agencies participated in the Drive Sober or Get Pulled Over-Winter Holidays effort. Wisconsin continues to deploy its own media campaign to demonstrate how simple changes to driver behavior can prevent crashes. See DOT's "Zero in Wisconsin" website for more details: http://www.zeroinwisconsin.gov/

- Toward the end of 2018 and into 2019, BOTS, the UW TOPS Lab, and DSP began a phased pilot of Predictive Analytics using Community Maps. The pilots took place in Sauk, Winnebago, Brown, Fond Du Lac, Outagamie, and Chippewa counties. The efforts included using analysis areas developed through an algorithm designed by the UW TOPS Lab to focus enforcement on historically high severity crash locations and identifying behavioral crash factors — speeding, impaired driving, lack of seat belt, etc. The enforcement included a significant amount of outreach using

flyers to motorists and local businesses which provided data and justification for the effort. An analysis will be conducted to determine effectiveness of the efforts.

- DSP emphasized training and enforcement efforts focused on highway criminal interdiction while maintaining its traffic enforcement efforts statewide. In 2018, DSP issued more than 46,859 speed citations, 221,061 traffic warnings, 3,718 drug and alcohol related traffic citations, 19,066 safety belt citations and made more than 225,111 traffic stops. DSP personnel also provided 39,525 motorist assists in 2018 on roadways throughout Wisconsin. The Division of State Patrol's Air Support Unit (ASU) provided a consistent air enforcement presence in 2018, completing 47 aerial traffic enforcement details. A total of 132 flights were logged, these included flights for disaster response, search and locate, surveillance and training flights.

- State Patrol Troopers and Inspectors are often called to respond to a scene where a member of the public has intentionally or unintentionally overdosed on an opioid narcotic. Our officers are regularly confronted by the threat of exposure to illicit drugs laced with fentanyl or other dangerous compounds during the normal course of their duties. In December of 2017 the Division of State Patrol provided each sworn officer with two doses of nasal naloxone (Narcan) and the training necessary to administer this life saving medication that counters the effects of an opioid overdose. Since the implementation of this program WI State Patrol Troopers and Inspectors have administered Narcan to thirty individuals who had experienced a dangerous overdose and one law enforcement officer who received an accidental exposure during a vehicle search. The decision to outfit State Patrol sworn staff with Narcan has undoubtedly saved many lives from this increasing opioid threat that affects the public and public safety professionals alike. More information can be found at: http://wisconsindot.gov/Pages/safety/enforcement/default.aspx

Motor Carrier Safety and Enforcement
- The Motor Carrier Safety Assistance Program (MCSAP) continued to advance the safe operation of commercial motor vehicles and drivers through safety inspections and traffic enforcement efforts. The program also includes audits and reviews of carriers to assure that they are meeting regulatory requirements. DSP has trained a number of local, county and tribal law enforcement agencies to conduct Size & Weight and MCSAP Inspections in their areas. Wisconsin's efforts to reduce Commercial Motor Vehicle (CMV) related fatalities have reduced the number of large truck fatalities from 79 in CY 2016 to 64 in CY 2018. Wisconsin experienced a three percent increase in large truck crashes from 7,461 in 2016 to 7,713 in 2018. However, while large truck crashes increased by three percent, injury crashes decreased by 32 percent in CY 2018 when compared to the CY 2014-2017 average. There were 2,342 large truck injury crashes in 2016 compared to 1,363 in 2018. This decrease of injury crashes is in spite of the increased overall crashes and continued economic expansion. Injury crashes also decreased in spite of the increased movement of freight in urban areas where fatalities are lower compared to rural areas where fatalities are higher, and where the majority of state enforcement occurs.

- The Size and Weight Program ensures that commercial vehicles operate within permitted size and weight limitations. Combined with MCSAP, more vehicles and drivers are subject to more intensive safety checks. In addition to checking more than 37,000 vehicles and/or drivers for compliance with state/federal regulations in FFY 2018, DSP weighed over 1.7 million vehicles in CY 2018 using Weigh-in-Motion (WIM) technology and nearly 295,000 vehicles at WisDOT owned Safety and Weight Enforcement Facilities (SWEFs) located throughout the state. Additionally, more than 2,313 CMVs were weighed by DSP utilizing portable scales. When comparing FFY 2017 to FFY 2018, DSP saw a 50 percent decrease in the number of vehicles weighed utilizing Weigh-in-Motion technology. This reduction can be attributed to the expansion of Interstate 90 in the Madison to Beloit area. This construction project required the closure of the Madison SWEF and Beloit SWEF for a significant time period. More about DSP's

promotion of safe trucking can be found at: http://wisconsindot.gov/Pages/dmv/com-drv-vehs/mtr-car-trkr/mc-safety/mcsap.aspx

Wireless Communications Networks
- The WISCOM (Wisconsin Interoperable System for Communications) is a statewide trunked radio system that is used, maintained and hosted by DSP for the benefit of public safety users throughout the state. WISCOM has grown to 126 sites statewide making it the largest VHF trucking system in the U.S. WISCOM continues to operate several 800 MHz sites in the Milwaukee, Madison and Fox Valley areas as well as at several Department of Corrections facilities around the state. These sites are seamlessly interoperable with the main VHF system, making it a "hybrid" network. There are currently over 34,000 subscriber radios that can access WISCOM statewide. There are currently 11 state agencies, 14 federal, several out of state and two tribal agencies using WISCOM. Additional user growth continues in the non-governmental user area including two railroad police operations and numerous private EMS or air ambulance groups. As of May 2019, there were 862 public safety agencies and 69 non-governmental agencies using the network. WISCOM continues to be the interoperable communications choice during Wisconsin Badger football games in Madison between all participating agencies.

- Network technicians designed, developed and implemented network connectivity and phone service to the DSP wing on the 9th Floor of the new Hill Farms State Office Building. Among other things, the project included redundant network connectivity through fiber and DSP microwave for staff to access e-mail, share drives and the telephone system. The configuration and testing included the installation of wireless access points, data jacks and telephones throughout the entire floor.

- Technical and network staff were also heavily involved in the design, implementation and consolidation of communications networks and dispatch technology at the new Traffic Management Center (TMC) at the Intermodal Station in Milwaukee. Section staff lead the installation, configuration and testing of the workstations, dispatch consoles, monitors, telephones, printers and other networking infrastructure to ensure a smooth transition into the facility.

- Finally, engineering, technical and network staff supported a request from the Wisconsin Air National Guard to facilitate radio communications networking at the Volk Field Combat Readiness Training Center. The goal was to connect Exercise Control and Ground Controlled Intercept functions at Volk Field with alternate airspace near Boulder Junction, WI for the Northern Lightning exercise. The radio equipment deployed provided Air Combat Maneuvering Instrumentation capabilities for over 175 aircraft participating in the exercise.

- The Bureau of Support Services upgraded their Mobile Architecture for Communication Handling (MACH) software to add new functionality including new sub-statuses that allow for increased accuracy of work activities, a command prompt to allow dispatchers more efficient call handling and improved map markers for dispatched events that provide greater detail and efficient call management. MACH is currently utilized by 180 agencies with over 4,300 users. More on the DSP's communications system can be found at: http://www.dot.wisconsin.gov/statepatrol/services/communications.htm

Academy
In addition to being the primary source of training for Division of State Patrol sworn staff, the State Patrol Academy offers training and education to municipal, county, state and federal law enforcement related personnel. Examples include:

- Soft skill topics such as leadership; supervisory and management; instructor development; traffic law; motor carrier enforcement; crash reconstruction; canine; chemical testing; and law enforcement dispatching.
- Tactical skills training such as firearms; defensive and arrest tactics; emergency vehicle operations; vehicle contacts; and professional communications.
- Specialized training includes: Interdiction for the Protection of Children, Canine Officer Training, Krav Maga, Salvage Vehicle Inspection, (ABATE) Safe Rider, White Collar Crime and Evidence Technician training.

The Academy serves as a residential training facility and provides meals, lodging and facility space for partner agencies such as the: Federal Bureau of Investigation (FBI), National Insurance Crime Bureau (NICB), Department of Justice, Department of Natural Resources, Department of Corrections, Madison Police Department, Capitol Police, Wisconsin National Guard and Minnesota law enforcement agencies. The facility is used for meetings, classes, workshops, conferences and driver training. The Academy trained 7094 students in FY 18 and 4,956 students in FY 19. In March 2018, the Academy graduated 37 members of the 63rd State Patrol Recruit Class. The Academy also graduated 19 members of the 64th State Patrol Recruit Class in March 2019. More information about the Academy can be found at: http://wisconsindot.gov/Pages/about-wisdot/careers/patrol/academy.aspx

Law Enforcement Pursuit Data Collection

Year	Total Pursuits	Reason	Outcome	Average Top Speed	Average Distance	Injuries	Deaths
2017	2,237	1334 traffic offense 569 criminal offense 79 warrants/wanted 255 other	810 apprehended 993 terminated 218 eluded 41 other 175 not apprehended	79 mph	3.32 miles	186	12
2018	1,942	940 traffic offense 573 criminal offense 28 warrants/wanted 401 other	968 apprehended 17 terminated 6 eluded 1 other 950 not apprehended	77 mph	1.84 miles	171	9

2019-2021 Goals

Reduce Fatalities and Improve Traffic Safety
- WisDOT MAPSS has set a goal for 2018-19 to reduce the number of fatalities by two-percent and serious traffic injuries and total traffic crashes by five-percent from the previous five-year average. DSP's goal is to use all available resources, including federal funding, to increase safety belt use in Wisconsin from 90.4 percent in 2019 to 92.0 percent by 2020. The Air Support Unit has a goal of reaching 80 aerial traffic enforcement details in 2019 to effectively enforce speed and aggressive driving laws.

- Aside from its partnerships with law enforcement agencies, DSP and BOTS will continue to meet statutory requirements of providing outreach to each county Traffic Safety Commission. BOTS will also continue to provide public information and education materials, safety training for citizens and professionals, overtime funding and equipment to local units of government for conducting ongoing high-visibility enforcement activities and research on new and emerging highway safety issues. BOTS will continue to distribute and manage safety programming grants (currently about 750 grants annually, the clear majority to local governments) to address behavioral highway safety crashes in their localities. DSP will develop motorcycle awareness programming to heighten motorists' awareness of motorcyclists on our roadways and to encourage motorists to always look twice for motorcycles.

Maintain Chemical Testing Services and Training
- The Chemical Testing Section will train and certify approximately 500 law enforcement personnel to operate the evidential breath test (EBT) instrument and recertify approximately 3,100 current EBT operators annually. Additional training includes preliminary breath test (PBT) device operation and calibration for over 800 law enforcement personnel as well as educational presentations to the public, prosecutors, and judges. The Section also evaluates and approves new EBT, PBT, and ignition interlock devices as requested for use in Wisconsin. Furthermore, the Section will maintain and certify over 240 EBT instruments in use at law enforcement agencies throughout the State and provide expert testimony on instrumentation and symptoms of impairment when called upon by the courts. More information can be found at http://wisconsindot.gov/Pages/about-wisdot/who-we-are/dsp/spec-svcs/chemtest.aspx

- In addition to instrumentation and training, the Section is also the record custodian for many documents related to OWI adjudication; receiving and responding to about 500 open records requests annually. To make these documents more accessible, a lean project is underway to generate a public-facing webpage where frequently requested records will be available to anyone. This project is meant to enhance the Section's accountability, communication, integrity, and customer service.

Promote Motor Carrier Safety and Enforcement Activities
The Division of State Patrol's Motor Carrier Enforcement Section will incorporate the Federal Motor Carrier Safety Administration's (FMCSA) Compliance, Safety and Accountability (CSA) model to help meet DSP's compliance and enforcement goals. This will:
- Utilize predictive analytics to increase highway safety and reduce large truck-related crashes by identifying high crash rate areas and target law enforcement deployments to these areas;
- Protect the state's highway infrastructure through inspection, enforcement and enhanced regulatory coordination and administration;
- Provide efficient service to the motor carrier industry and the driving public; and
- Implement new technologies to improve highway safety and preserve highway infrastructure.

The Section will also use complete, timely and accurate data to effectively implement policy and operational development. The division is required to report SWEF hours of operation and the number of vehicles weighed to the Federal Highway Administration (FHWA) as part of its annual recertification. The number of inspections is reported to the Federal Motor Carrier Safety Administration on a quarterly and annual basis. The State Patrol performance targets for safety and enforcement efforts are to ensure that SWEFs are operated 17,200 hours and to increase the number of inspections to 35,000 in FFY (federal fiscal year) 2020.

Enhance Field Operation Activities

The Division of State Patrol is committed to developing a predictive analytics tool designed to merge various data sets together with a goal of predicting times and locations where law enforcement resources would be deployed to best enhance safety. Data will be shared with other law enforcement partners.

Our agency is committed to identifying and removing impaired drivers from our highways. Impairment is not only caused by alcohol but also by other prescribed and illicit drugs. The Division of State Patrol intends to train all sworn officers in Advanced Roadside Impaired Driving Enforcement to better detect impairment.

The Division of State Patrol continues to combat crime and terrorism. All sworn officers will be equipped with the necessary tactical equipment to safely handle all threats. Our services will be expanded to include the development of the Mobile Field Force, SWAT and specialized tactical teams. The agency has and will continue to support Homeland Security initiatives. All sworn officers will be trained as Threat Liaison Officers to protect our citizens and improve our ability to share information with other law enforcement partners.

Improve Interoperable Communications and Data Collection

High bandwidth secure wireless access points continue to be established and will be maintained at post facilities, WisDOT rest areas along interstate highways, and at SWEFs, allowing officers to wirelessly transfer electronic citations, crashes and criminal reports from the mobile data computers in their squad cars to the DSP servers. The Bureau of Support Services continues to build out the statewide WISCOM system installing digital narrowband voice base stations that incorporate the national P25 standard, enhancing interoperability and providing more secure voice transmission of sensitive information. Major network improvements were made to the DSP network infrastructure that added storage capacity, processing efficiency and network reliability. The WISCOM system continues to add sites, users and updates to the system as it grows. Adding additional sites to the "layer" of 800 MHz sites in the Milwaukee, Madison and Fox River Valley areas will continue to improve interoperability in those metro areas.

Wireless Communications Networks

In FY 2020, the Bureau of Support Services will consult with the Department of Military Affairs on the effective use of staff at WisDOT for the ongoing maintenance of a statewide public safety interoperable communication system.

Academy

The DSP Academy will:
- Recruit, select and train members of the 65th and 66th Recruit Classes.
- Partner with the Wisconsin Department of Justice in order to facilitate Division of Criminal Investigation, Physical Fitness and Officer Wellness training and education. Facilitate the Training and Standards Bureau Law Enforcement Command College.
- Improve the educational experience of our participants in the classroom and dormitory through the technological enhancements of additional smart boards and increased wireless capability.
- Provide small meeting space using underutilized areas and improved furnishings.
- Partner with the Wisconsin Department of Natural Resources in providing additional training facilities, canine accommodation and pavilion space.

- Partner with the Wisconsin Department of Corrections in the facilitation of their entry level and management training.
- Create efficiencies that make the Academy more cost effective.
- Provide value-added training to Wisconsin's law enforcement community.

Division Update: Division of Transportation System Development

The Division of Transportation System Development (DTSD) provides leadership in the planning, development, and operation of safe, reliable and efficient transportation systems. The division is headquartered in Madison with field offices in Rhinelander, Wisconsin Rapids, Green Bay, Eau Claire, Superior, Waukesha, La Crosse, and Madison. More information about the regional field offices can be found at: http://wisconsindot.gov/Pages/about-wisdot/who-we-are/dtsd/dtsd-region-offices.aspx.

WisDOT let a total of 788 projects with contract costs of $2.6 billion over the 2017-19 biennium. These projects improved a total of 986 miles of roadway and 815 bridges. Below are highlights summarized by region.

North Central Region

WIS 29/WIS 156 Realignment and Overpass
Construction included the removal of the at-grade intersection of WIS 29 and WIS 156, replacement of the intersection with an overpass, and realignment of WIS 156 to the WIS 32 interchange. This safety project eliminates the risk of high speed angle crashes.

US 51, 3rd Ave
This is an urban reconstruction project in Oneida and Vilas counties that began in 2018 and is scheduled to finish in fall 2019. It is the last of several recent projects in the Minocqua area to replace deteriorated pavement, upgrade storm sewer systems, improve signal operations, and enhance pedestrian accommodations.

US 45 and WIS 96
Construction of a roundabout removed a signalized intersection that had a history of severe crashes. In the past year, since the project finished, no crashes with injuries or fatalities were reported.

WIS 47
This reconstruction project in Keshena included construction of a roundabout, new pavement, and improved pedestrian accommodations. WisDOT worked closely with the Menominee Indian Tribe of Wisconsin throughout the design and construction process to address local needs and to coordinate businesses access during construction.

Business 51 (Post Road)
Reconstruction of this roadway resulted from more than 20 years of planning among WisDOT and the villages of Plover and Whiting. Construction began in 2018 and is scheduled to finish in fall 2019. The project will improve safety and operations with construction of a center median, turn lanes, upgraded intersection designs, and improved pedestrian accommodations.

WIS 23
An urban reconstruction project in the city of Montello replaces deteriorated pavement and storm sewer, along with intersection geometric changes which provide improved turning for oversized vehicles in the WIS 23 corridor. Construction is scheduled to finish in fall 2019.

US 8 and WIS 47
Construction of a roundabout at the intersection of US 8 and WIS 47 in Rhinelander replaced a signalized intersection which had a history of crashes. The project also replaced the pavement on the approaches to the intersection, which was severely deteriorated. A significant amount of public involvement was conducted during design and construction.

Northeast Region

US 10 and WIS 441 Tri-County Project
Construction of the WIS 441 Tri-County Project is finishing in 2019 and is projected to come in under budget. The project reconstructed and expanded approximately six miles of US 10 / WIS 441 from four lanes to six lanes between in Winnebago, Outagamie and Calumet counties, constructed a second parallel bridge over Little Lake Butte des Morts, and reconstructed five interchanges, including the area's first (and state's second) diverging diamond interchange.

WIS 15 expansion
The WIS 15 expansion and bypass project in Outagamie County has resumed planning and real estate processes, with construction scheduled from 2021-2024. The project will expand 11 miles of WIS 15 to a four-lane divided highway to enhance safety and capacity.

Winneconne Bridge
A two-year construction project to replace the WIS 116 bridge over the Wolf River in the village of Winneconne, Winnebago County, finished in 2018. The former WIS 116 lift bridge over the Wolf River was replaced with a new fixed bridge located just south of the old bridge. The replacement bridge is at higher elevation and includes new fishing platforms.

I-41 Expansion
Preliminary design for I-41 Expansion Project in Outagamie and Brown counties has begun. The expansion project will stretch 23.6 miles between WIS 96 (Wisconsin Avenue) in Grand Chute and County F in De Pere. It will widen the highway from two lanes to three lanes in each direction to reduce congestion and enhance safety. A tentative schedule has construction running from 2025 to 2029.

Northwest Region

Grand Avenue bridge over Half Moon Lake
Located at a prominent entrance to Carson Park, one of Eau Claire's signature attractions, the original bridge was both structurally deficient and functionally obsolete. The new causeway to the bridge, a local project, includes multi-use trails along both sides, ADA-accessible fishing piers, decorative lighting, boulevards, bike lanes and additional recreational enhancements. Construction to replace the existing bridge over Half Moon Lake and the causeway approach to the bridge began in July 2017, and the structure was reopened in November 2017.

Red Cedar River Bridge
Construction on the Main Street bridge over the Red Cedar River in the city of River Falls began in September 2018. The project included rebuilding the west side of the structure and redecking the east side, along with providing a bridge with ADA-compliant pedestrian access.

US 2 (Belknap Street)
WisDOT coordinated with the city of Superior and utilities to rebuild US 2 (Belknap Street) starting in spring 2017, including new pavement, storm sewer and safety enhancements. The street reopened to traffic in fall 2018, with the entire project completed in spring 2019.

US 63, Red Wing, MN Bridge
Replacement of the historic Eisenhower Bridge over the Mississippi River, connecting Hager City, Wis., and Red Wing, Minn., is a joint project with Minnesota DOT slated to open in fall 2019. The new structure is upstream from the bridge, which opened in 1960. The existing two-lane, 1,631-foot bridge will be removed in 2020.

Southeast Region

Zoo Interchange Core
WisDOT completed the core of the Zoo Interchange in late summer 2018. The project included the four-level system interchange, five out of the six service interchanges, completion of supporting roadways and reopening of the Hank Aaron State Trail. The interchange is the busiest in the state handling more than 350,000 vehicles daily. The current budget has funds included to complete the portion of the Zoo Interchange between Watertown Plank Road and Burleigh Road.

I-94 North-South
Work resumed in earnest in fall of 2017 to complete the remaining 18.5 miles of mainline Interstate roadway, supporting the Foxconn manufacturing development. The project received a funding boost with a $164 million federal grant. Mainline work is slated to finish by June 2020. There will be all new structures and mainline roadway with four lanes in each direction in place by late 2019 from Racine County G to WIS 142 in Kenosha County. Once completed, this will finish the overall project which includes 35 miles of mainline I-94 from the State line to the Mitchell Interchange.

Wisconn Valley/Development Roads
The local roads in and around the Foxconn development site have been transferred to WisDOT to be reconstructed and improved to help support increased traffic. The project started in 2018 with the reconstruction and improvements to Braun Road, Racine County H, WIS 11 and County KR (Kenosha and Racine Counties). A new roadway, Wisconn Valley Way, is being constructed and will replace the frontage road along I-94. The development road work will finish in fall 2021.

WIS 100
The two-year project is reconstructing WIS 100 from I-43 to the Franklin City line. This project runs the entire length of Hales Corners. The project is a full reconstruction in a dense urban setting, creating multiple challenges with staging and timing. The most unique element of the project was the relocation of a historic building. Part of the move was done as a community event.

WIS 164
The new road will have wider shoulders, turn lanes and a new roundabout at the intersection of WIS 164 and WIS 167. To further enhance safety, a section of a hill is being removed to improve sightlines and reduce the slope heading into an intersection. Construction is scheduled to finish in late 2019.

West Waukesha Bypass
The multi-year project is being constructed in segments with the Town of Waukesha, Waukesha County and WisDOT each responsible for a different segment. The final segment is being built by WisDOT and is slated to be completed by late 2019 with punch list and landscape work being finished in spring 2020. The segment currently under construction includes a four-lane separated roadway and a completely redesigned intersection with WIS 59 and Waukesha County X.

Southwest Region

I-39/90 Expansion

In September 2018, WisDOT announced advancing the entire completion of Interstate mainline open to traffic in fall 2021. In November 2019, more than 20 miles of I-39/90, from Edgerton to Madison, are anticipated to open to three lanes in each direction. In 2018, expansion work was completed in the Edgerton area, including two new bridges over the Rock River. Extensive construction began in the Janesville and Beloit areas in 2018 and is continuing until 2021. Over the last two years, dozens of miles of Interstate have been reconstructed and expanded while still maintaining two lanes in each direction during daytime hours and weekends.

US 18/151 (Verona Road)

In 2017 and 2018, crews constructed the northbound and southbound Verona Road interchange ramps to accommodate traffic staging during the expansion of Verona Road. From late April 2019 to early July 2019, crews built the Williamsburg Way bridge over the future lanes of Verona Road. Also in 2019, two new bridges will be constructed for Verona Road traffic to travel over County PD/McKee Road. Project staff continue to receive positive feedback from residents, businesses and public about the newly completed portions of the project. One final construction season remains, where crews will reconstruct County PD between Fitchrona Road and Commerce Park Drive, until the entire Verona Road Project is completed in fall 2020.

Beltline Interchange

The department has revisited the scope of the Beltline Interchange (I-39/90 and US 12/18) in Dane County. The re-scoping is intended to enable significant savings in the estimated cost for the interchange and allow the taxpayers to see improved safety while utilizing the remaining life of the infrastructure.

I-39/90/94 Wisconsin River Bridges

The I-39/90/94 bridges over the Wisconsin River were constructed in 1961 and are nearing the end of their operational life. WisDOT started the environmental process including public involvement in 2018 to examine rehabilitation and replacement alternatives. A preferred alternative is expected in spring 2020.

US 51, McFarland-Stoughton

A preferred alternative has been selected to reconstruct US 51, add auxiliary lanes, and provide bike/pedestrian accommodations where feasible on the existing alignment between I-39/90 and the Madison Beltline in southern Dane County. The preferred alternative was presented at a public meeting in September 2019 and well received by area stakeholders. The environmental document is expected to be available for public review spring 2020.

2017-2019 Accomplishments

Cost Savings and Efficiency

- Completed nine Lean Continuous Improvement projects, including a new process for routine sign replacements estimated to save $2.5 million annually. Another initiative to remove redundant steps from utility change orders and invoice reviews has reduced process lead time by 37 days. https://wisconsindot.gov/Pages/about-wisdot/performance/lean-gvmt/leangovt-practice.aspx

- Recycled more than 3.7 million tons of roadway material in improvement projects in 2017 and 2018, creating an estimated $55.2 million in savings and surpassing the department's goal of replacing at least 10 percent virgin materials in projects each year. WisDOT' s recycled materials efforts help to prevent waste and create opportunities for savings.

- Tracked nearly $4 million in savings by working with contractors to implement 50 ideas to save money on project work through the Cost Reduction Incentive (CRI) program. The department uses a cost reduction incentive clause in contracts to partner with the construction industry to encourage innovative ideas for improved work methods, new products or equipment.

- Finalized a Value Engineering study creating an estimated $1.1 million cost avoidance in the I-43 rehabilitation project (Rock County line to US 12).

- Saved 108 million pounds of salt, worth more than $4 million, by working with county highway maintenance departments on liquid de-icing strategies and other winter best practices. As part of this, the department purchased high-capacity brine makers for 14 counties – in addition to those purchased directly by counties. In addition, 43 counties have had route optimization analysis completed.

- The LED lighting retrofit program is expected to pay for itself within five years. The amount of LED lighting in the state highway system has increased from 24 percent to 78 percent of total inventory. Annually the program is expected to yield utility cost savings of $450,000 along with maintenance and operations cost savings of $250,000. The project received more than $300,000 from the Focus on Energy rebate program incentive.

- Continuing to meet and surpass surplus land sales goals with roughly $11.4 million in sales recorded in FY18 and FY19 combined. Additionally, the division continues to create efficiencies to save money in the appraisals process.

- Aligned processes and procedures to implement asset management project development guidance, including revisions to the Facilities Development Manual. The changes will address key safety and bridge priorities to achieve the best long-term infrastructure health possible. The process outlines a workflow that prioritizes safety needs while weighing all other needs.

- Focused on statewide and regional opportunities for innovation and process improvement through the nationally recognized DTSD Innovation Program. Key areas of focus included:

  - Transportation Asset Management
    - Use of iPads in the field for culvert inspections and direct data entry into the WisDOT GIS platform.

- Use of radio-controlled trucks with wireless cameras for interior inspection of culvert pipes.
- Implementation of the Maintenance Program Management application to streamline county maintenance contracts.
- Pilot testing of Unmanned Aerial Systems for structures inspections.

- eProject Delivery.
    - Implemented statewide process for electronic design review (30/60/90) using Bluebeam ReVu and Bluebeam Studio.
    - Pilot testing and implementation of cloud-based file storage platform, box.com, with improved mobile access, tracking, and version control.
    - Expanded use of mobile technologies and mobile applications (e.g. OnStation) to save on inspection time and improve quality.
    - Implementation of Quantities-to-Plans (Q2P) tool that assists project teams in compiling engineering estimates.
    - Implementation of GIS tools such as Esri Arc GIS Online and Google Earth Pro.
    - Pilot testing and implementation of eSignatures (DocuSign) for various project documents.

- Implemented an asset management software to enhance lifecycle planning and track maintenance issues associated with traffic operations assets including electrical installations, ITS devices, pavement marking, and signing. These traffic operations assets, or field inventory, now include 1024 traffic signals, 473 cameras, 164 dynamic message signs, 338 system detector stations, 169 portable changeable message signs, 138 ramp meters, 14,972 luminaires at 1224 locations, and 405 switches at 388 locations. Work orders through this system document approximately 9,000 maintenance events annually.

- Continued development of the Wisconsin Structures Asset Management System (WISAMS) planning and investment application. The WISAMS approach focuses on safety and seeks to extend the usable life of a structure (versus replacement) when feasible, practical, and cost-effective by using identified preservation techniques.

- Completed a process review of the Car-Killed Deer Program and instituted changes to improve program efficiency and effectiveness. During 2018, more than 13,800 car-killed deer were reported on the state trunk highway system. The program costs about $500,000 each year and requires contractors to remove deer within two business days after a request. WisDOT has contracts with 15 county highway departments and seven private contractors to remove deer on Interstates, U.S. highways and state highways. The 2017-19 state budget transferred this wildlife management program from DNR to WisDOT after 70 years of DNR management.

- Used cold-in-place recycling method on 12 projects let from 2017-19, totaling 117 centerline miles of roadway. Cold-in-place recycling mills the existing asphalt road surface and processes the material on-site for reuse by way of a convoy of equipment that crushes, adds new liquid asphalt and paves simultaneously.

- Successfully launched the first two modules of the Maintenance Program Management (MPM) system, which will replace seven legacy systems and hundreds of manual processes when completed – and will provide increased validation and oversight on financial processes including invoicing. Counties have already used the first two modules to electronically submit their 2018 annual financial reports and surveys. In past, these were submitted and reviewed manually.

- After a successful stringless paving pilot program, language was added to standard specifications to accommodate automated machine guidance. Using GPS and 3D technology, stringless paving eliminates the need to install, maintain and remove the stringline that is traditionally set up to guide paving equipment.

Safety and Mobility

- WisDOT responded to multiple major flooding events statewide, with a total of $23 million in federal aid secured for repair efforts in the summers of 2017 and 2018. More than 300 sites were repaired in this time period. The department worked closely with local, state and federal officials to establish detours, relay timely information to the traveling public and make repairs to damages on roadways throughout the state. Additionally, use of innovative technologies like ground penetrating radar and falling weight deflectometer helped ensure roads were safe to keep open or reopen in several areas of the state during flooding emergencies.

- The division worked in support of numerous special events, such as the 2017 US Open and the Harley Davidson 115th Anniversary. Extensive coordination was required with event organizers, local and county officials, county law enforcement and public works staff and the State Patrol. This coordination was needed to determine parking locations, spectator and event routes, directional signage needs, and police patrol locations. Coordination with ongoing WisDOT construction projects was a key consideration for traffic planning.

- Since the 511wi.gov website first launched in 2008, there have been 22,327,309 visits with an all-time daily high in 2019 of 72,093 visitors during a winter storm. Use of the mobile app and telephone system has also increased as drivers expect more real-time roadway information.

- Replaced 168,000 linear miles of pavement markings and 74,000 traffic signs. The sign replacements include routine replacements due to age, knockdowns and project work.

- Increased use of living snow fence to aide in drift control, a cost-effective method to enhance driver safety by reducing the amount of blowing snow on the roadways. More than 109,000 feet of living snow fence was installed over the past two winters. Additionally, the department has been using native species that are pollinator-friendly.

- Prepared and approved more than 1,184 environmental documents including documents for 62 airport projects and 14 Transportation Economic Assistance projects.

- Logged 1,508,457 miles, 46,596 service hours and made 13,087 motorist assists through the Freeway Service Team and State Farm Safety Patrol. State Farm's sponsorship generated $264,800 in private investment to support the program. Customer surveys show 97 percent of respondents rate the service as excellent.

- Trained 5,839 emergency responders and county highway employees through the Traffic Incident Management Enhancement (TIME) program on safety protocols for working adjacent to traffic.

- Issued 139,027 Oversize-Overweight (OSOW) permits. Just over half (70,903) were self-issued online with no need for interaction with processors.

- Coordinated the movement of 1,353 wind tower loads with the Wisconsin wind tower industry and neighboring state DOTs.

- Expanded the Truck Parking Information Management System (TPIMS) to include a total of 12 locations. The system, funded with federal grants in several states, provides real-time information to commercial drivers looking for appropriate rest space near the end of service hours without having to waste time or fuel.

- Launched a pilot project to help speed up replacement of curb ramps that do not conform with ADA standards (as opposed to reconstructing as part of a larger coinciding project).

2019-2021 Goals

Enhancing mobility
The 2019-21 budget calls for the completion of the Zoo Interchange as designed and creates additional funding for more than 200 state highway rehabilitation projects as well as increases to the Local Program and General Transportation Aids.

Maximizing capacity
WisDOT is examining the use of median shoulder lanes during peak hours to improve travel reliability along the Madison Beltline. The practice, Dynamic Part Time Shoulder Use, currently in place in at least 17 states, is being studied for potential use between Seminole Highway and I-39/90. The use of median shoulders could be implemented in conjunction with a Beltline resurfacing project scheduled for 2021. Additionally, WisDOT continues to develop its traffic management system with devices such as the dynamic message signs and is integrating other separate software systems, such as the Wrong Way Detection System for increased efficiencies and faster response and clearance times.

Continuing to cut salt in winter maintenance
WisDOT is working with multiple counties and the University of Wisconsin's Traffic Operations and Safety (TOPS) Lab to discuss results of pilot projects and establish best practices for use of liquid brine on winter roadways. As the price of salt continues to rise, liquid brine is seen as an opportunity to cut material costs because it can provide the same clearing power using less salt. Additionally, the department will continue working with counties on salt application. The department plans to host another Winter Tech Talk in late 2019 and is working with county and national partners to identify additional educational opportunities.

Strengthening asset management tools
WisDOT will continue strengthening asset management tools and data for high-value assets (pavements, structures, roadside facilities, culverts, salt sheds). This includes full implementation and population of a new GIS-based Culvert Asset Management System (in year two of a four-year pilot), and a Roadside Facilities Asset Management system (deployed statewide in CY2019). It also includes identifying follow-up action needed from the recent statewide roadside facilities waste water evaluation. Efforts like these enable the department to provide timely, accurate information on needs, priorities, and costs to preserve investment in the highway system.

Focusing on quality pavements
WisDOT continues to be a national leader in using and implementing a concrete quality program. The department has developed specifications implementing the new air tests and has implemented an optimized gradation and reduced cement content mixes. Additionally, the Asphalt Unit with the assistance of the Wisconsin Asphalt Pavement Association and Federal Highway Association continued the development of Percent Within Limits specifications for larger asphalt paving jobs. This program went from a pilot program to statewide specification in 2019 and has provided positive benefits in terms of improved quality and consistency of HMA pavements. These improvements will lead to longer lasting roads and reduced maintenance.

Focusing on infrastructure
In July 2019, the department launched a process to streamline delivery and oversight of certain projects within the Local Bridge Program. A pilot project is active on 16 projects, creating opportunity to minimize or eliminate some standardized design and construction reports to save time and streamline delivery. As a longer-range goal, the pilot could create a template process for greater efficiency.

Develop design-build process
Recent changes in the law have enabled WisDOT to develop a design-build process to help streamline planning, contracting and delivery of certain projects. The department will be working with industry to develop alternative contracting processes. The law requires WisDOT to pilot contracting for at least five projects using the design-build method.

Enhancing relationships with tribal governments
On Sept. 30, 2019, WisDOT met with the state's 11 federally recognized tribes as well as the Federal Highway Administration and Bureau of Indian Affairs to sign an updated partnership agreement on transportation related issues. The agreement was initially done in 2005 with an update in 2010. The updated partnership agreement places additional emphasis on relationship-building, communication and minimizing institutional barriers.

Division Update: Division of Transportation Investment Management

The mission of the Division of Transportation Investment Management (DTIM) is to plan and program resources to achieve a safe, effective and efficient multimodal transportation system. DTIM is committed to improving transportation safety, fostering internal and external partnerships, and increasing efficiencies. DTIM's specific duties include:

- Coordinating, collecting, storing, and distributing data required to optimize the use of available funding for state highway system project and program development. More information can be found at http://wisconsindot.gov/Pages/projects/6yr-hwy-impr/overview/default.aspx.
- Developing urban and statewide multimodal transportation plans, policies and strategies to help identify a comprehensive view of future transportation needs, direct program development and guide investment decisions. More information can be found at http://wisconsindot.gov/Pages/projects/multimodal/default.aspx.
- Providing statewide leadership to enable communities to make sound mobility decisions and investments by anticipating and exploring opportunities, promoting and facilitating solutions, and providing financial and technical support. Additional information can be found at http://www.dot.wisconsin.gov/localgov/.
- Providing leadership to maintain and develop a safe and efficient air transportation system. Please see http://www.dot.wisconsin.gov/modes/air.htm for more information.

2017- 2019 Accomplishments

Long-Range Transportation Planning
WisDOT submitted the Wisconsin State Freight Plan to the United State Department of Transportation (USDOT) for approval in October 2017, approximately two months before the federal deadline. The Plan was approved by USDOT in April 2018, guaranteeing Wisconsin's receipt of over $70 million in National Highway Freight Program funds in federal fiscal years 2018-2020.

The plan identifies strategic actions to improve the freight system and economic opportunities in Wisconsin by helping the department define industry needs, transportation issues, and the investment and policy options available for preserving Wisconsin's multimodal freight transportation system. The State Freight Plan was developed using the department's stakeholder engagement process to ensure the final document and recommendations reflect the interests, issues, and concerns of the users of the freight system in Wisconsin.

One of the Plan's key policy statements - that the department would convene a gathering of stakeholders to develop an intermodal shipping strategy for Wisconsin - was instrumental in developing the Wisconsin Freight Advisory Committee's Intermodal Subcommittee.

Additional information about the State Freight Plan can be found at:
http://wisconsindot.gov/Pages/projects/sfp/default.aspx

Transportation Economic Assistance Program

The Transportation Facilities Economic Assistance and Development Program (TEA) assists local governments to fund transportation infrastructure improvements that support economic development projects in their communities.

The TEA program has provided grants to local governments for road, rail, harbor and airport improvements that support economic development projects that encourage businesses to locate or expand in Wisconsin. The program provides $5,000 for each job created in the state up to 50 percent of the total project costs or $1 million, whichever is less. Over the previous biennium, DTIM approved more than $6.8 million in grants to communities to support the creation of over 1,000 jobs, retention of over 4,700 jobs, and the investment of over $300 million in private capital investment in the state. For more information, please visit https://wisconsindot.gov/tea

State Infrastructure Bank (SIB)

The SIB program is a revolving loan fund that has provided loans to local governments to fund transportation infrastructure improvements that help preserve, promote and encourage economic development and/or promote transportation efficiency, safety and mobility. Over the previous biennium, DTIM approved nearly $1.3 million in low interest loans to two Wisconsin cities to help support economic development projects in their communities. For more information, please visit https://wisconsindot.gov/sib

Traffic Forecasting and Travel Demand Modeling

During the biennium, WisDOT streamlined traffic forecasting protocols and policies. The department continues to complete traffic forecasts for corridor planning, roadway projects and intersection improvements. Transportation planners and engineers use future traffic volumes and other factors to plan and design the state's transportation system.

The department supports traffic analysis tools including travel demand models and leads or assists the support of twelve travel demand models that serve 30 Wisconsin counties. In calendar years 2018-19, WisDOT updated the statewide travel demand model. Travel demand models assist with day-to-day traffic forecast production, evaluating transportation project alternatives and developing long-range transportation plans. In 2018, the National Household Travel Survey data began to be integrated into department products. In 2018, WisDOT also reviewed and updated guidance for stakeholders in developing traffic forecasts for projects.

For more information, please visit Chapter 9 of the Transportation Planning Manual at: https://wisconsindot.gov/Documents/projects/data-plan/plan-res/tpm/9.pdf.

All Roads Network of Linear Referenced Data (ARNOLD)

On August 7, 2012, the Federal Highway Administration (FHWA) issued a requirement for states to provide a geospatial network for all publicly owned roadways. The DTIM ARNOLD Initiative is WisDOT's approach to meet FHWA requirements, but also to support state needs for highway programming, comprehensive safety analysis, state and local road mileage certification, and a multitude of additional business needs across the DOT. DTIM is nearing completion of Stage 2, which prepares the existing geospatial networks of the State Trunk Network (STN) and Wisconsin Information Systems for Local Roads (WISLR) for transition to the ARNOLD framework.

Document Management
DTIM continues to improve on increasing the division's productivity, efficiency, and cost effectiveness of document management. DTIM is piloting the use of OnBase – DOT's enterprise class documentation management system - for the Transportation Economic Assistance (TEA) Grant program, and environments such as Microsoft's OneDrive to reduce file storage costs.

Length Classification Usage
WisDOT's DTIM section was the lead state in the Transportation Pooled Fund-5(340) Study which looked at the use of length classification data to estimate trucks and axle factors. Length classification sites are 1/5th the price and require much less maintenance than and improved employee safety over the axle classifications sites which were used to collect this data previously at these sites. DTIM continues to deploy length classification sites where possible.

Crash Mapping and Analysis
Crash Mapping supports a data driven approach to traffic safety planning and program development. DTIM continued to lead this multi-divisional program which made significant improvements to the 2012 original deployment. These improvements included improved data quality, increased timeliness of obtaining crash data, and improved tools to access the crash data. One of these tools is referred to as the Crash Mapping and Analysis (CMAA) system, which is incorporated into the WisTransPortal Crash Data Retrieval Facility at the University of Wisconsin – Madison Traffic Operations and Safety (TOPS) Laboratory and is used regularly by WisDOT, public safety organizations, local governments, regional planning commissions, universities, engineering firms, and others.

Highway Pavement Data Collection
The department has historically collected pavement distress data on half of the state highway system every year. Beginning in SFY 2018, the department began collecting images of the entire state highway system each year with the goal of having two representative tenth of a mile samples are surveyed from established one-mile segments to identify specific pavement distresses. Collecting the entire state highway system annually will help enhance the department's use of timely and accurate data to assist in the development of its asset management program.

Highway Performance Monitoring System (HPMS)
Each state is required to prepare an annual submittal of HPMS data in accordance with the procedures, formats, and codes specified by FHWA. Starting in spring 2019, to support the new federal performance measures, FHWA now requires states to submit data for highly functionally classed roads in March of each year, and the rest as usual in June. DTIM successfully met these requirements and continues to score very well on FHWA's performance evaluation of each states' HPMS submittal.

FDM Safety Chapter and Safety Certification Process Developed
The Office of Appraisal/Relocation/Property Management (OAPM) led the development of the first safety chapter in the Facilities Development Manual (FDM). The development of this chapter included the development, implementation and training of a new safety certification process. The process is the underpinning of the newly codified Performance-Based Practical Design policy guidance in the FDM. The process utilizes Highway Safety Manual performance-based safety practices.

FDM Performance-Based Practical Design Changes Codified
OAPM led the development of draft language for the FDM to convert from a standards-based design approach to

a performance-based design approach. OAPM partnered with DTSD Bureau of Project Development (BPD) to develop final drafts, obtain department input, obtain FHWA approval, and train DTSD improvement staff on the changes. Performance-Based Practical Design (PBPD) is grounded in a performance-based framework. PBPD can be articulated as modifying a traditional design approach to a "design up" approach where transportation decision makers exercise engineering judgment and performance-based practices to build up the improvements from existing conditions to meet both project and system objectives.

Supported Bureau of Structures
OAPM partnered with the bureau of structures to review and refine the scopes of more than 40 structures projects scheduled for early replacement to align them with the appropriate asset compliant scopes.

Developed Pavement Maintenance Manual Policy
OAPM worked with the Bureau of Highway Maintenance to develop a maintenance manual chapter that integrates the consideration of asset management practices with the necessary pavement maintenance practices that support them. The newly created Highway Maintenance Manual Chapter 04.05.01 helps set framework for pavement maintenance candidate projects that are coordinated with the asset management logic employed in the department's programming theme.

Improved Program Effectiveness Scopes
OAPM worked with region programming staff to educate them about the theme, the pavement engineering incorporated in the life-cycle design approach employed in the theme. The results were an increase in scopes matching the theme. The average region scores went from about 62 percent to 80 percent matching. This work involved a detailed project by project education in some regions. OAPM staff worked with programming engineers, maintenance engineers, and pavement engineers in this process. The goal of this effort was to align the projects to the theme to maximize the effectiveness of the projects programmed with the new increased funding.

Developed Project Scheduling Goals to Meet Strategic Program Goals
OAPM worked with Project Development staff to develop an Advanceable Project Letting Program (APLP) performance measure that helped target the right amount of advanceable project design readiness to be able to deliver an increased program budget. OAPM worked with management teams and region staff and increased the department's readiness for the increased funding. The advanceable project program was bolstered to be able to absorb the increased funding and not have design delivery problems prevent the increase from resulting in LET projects. In addition to the development of APLP, OAMP helped develop measures for loading and scoping projects, as well.

Developed Theme Compliant Project Scenario Plan to Meet New Program Funding Levels
OAPM worked with each region to develop their list of theme compliant projects and advanceable projects to move forward to meet the increased funding in the new budget. The efforts resulted in being able to map the locations of the projects demonstrating the impact of the projects added due to increased funding. This was an instrumental tool in the negotiating process for budget approvals.

Transit - State Safety Oversight Certification
The department was certified as complying with enhanced regulatory standards for the State Safety Oversight (SSO) program. Following 49 CFR part 674, designated state safety oversight agencies must demonstrate adequate capacity to oversee, enforce, investigate and audit rail transit systems' safety programs and activities. The deadline for the Federal Transit Administration (FTA) for this certification was April 15, 2019 and the

department accomplished the task in July 2018. Failure to meet this deadline would have resulted in FTA withholding all public transit funds from state transit systems until certification was completed.

Transit Asset Management Program
The department complied with the new federal Transit Asset Management (TAM) program requirements in advance of the October 2018 deadline. TAM is a business model that prioritizes funding based on the condition of transit assets – vehicles, facilities and equipment – to achieve or maintain transit networks in a state of good repair. The TAM rule (49 CFR part 625) is a set of federal regulations that sets out minimum asset management practices for transit providers and state and local transit systems are required to maintain and document minimum TAM standards.

Comprehensive Review of WisDOT Transit Programs by Federal Transit Administration (FTA)
The Transit Section underwent its regular three-year Comprehensive Review by FTA contractors in the summer of 2018. The contractors reviewed policies and procedures implemented by the Transit Section regarding oversight of federal grant subrecipients. No findings were issues after the auditors had completed their review, the first time a state had received a perfect review in FTA Region V.

Milwaukee Intermodal Station Improvements
The Transit Section procured design and construction firms for much-needed improvements to the Milwaukee Intermodal Station (MIS). This station is a major transit hub in downtown Milwaukee for rail and urban and intercity bus services. After nearly a decade of trying to bring together various financial and political partners to spend down earmarked funds, work finally began on MIS building improvements in the summer of 2019. The work included upgrading of an inefficient HVAC system and build-out of the second floor to attract tenants.

Wisconsin Employment Transportation Assistance Program
WisDOT administers the Wisconsin Employment Transportation Assistance Program (WETAP) in partnership with the Department of Workforce Development. WETAP represents an effort to connect low-income workers with jobs through enhanced local transportation services. In 2017, WisDOT awarded roughly $1.8 million in combined state and federal funds to non-profit organizations throughout the state to support van pool, ridesharing, vehicle loan, operating and mobility management projects. Moreover, it was estimated that WETAP projects allowed approximately 1,900 individuals to retain access to jobs or find new employment in 2017.

Freight Advisory Committee
From spring 2017 through summer 2019, the department convened the Wisconsin Freight Advisory Committee (FAC) for five distinct meetings. An additional meeting is scheduled for November 2019. The Committee consists of over 40 stakeholders representing private businesses, educational institutions, and local governments. The FAC was established to advise the department on issues that impact freight mobility and to provide a voice for the freight sector on the development of freight-related policies, projects, and processes. The FAC focuses on advising and helping WisDOT understand the current and emerging concerns from freight sector users, providers, and regulators. Committee responsibilities include:
- Assist WisDOT in the development and subsequent updating of the state's Freight Plan and other relevant state plans as appropriate.
- Provide feedback and advice to the Secretary's Office on freight transportation policies and processes including but not specifically limited to:
  - o Identifying obstacles, challenges, and opportunities in Wisconsin for more efficient freight movement in the state, national and worldwide economy.

- o Identifying opportunities within the freight industry to improve freight movement to, from, through and within Wisconsin.
- o Identifying potential governmental initiatives that could enable Wisconsin firms to move goods more efficiently.
- o Facilitating education among freight stakeholders and the state.
- o Providing feedback and advice on governmental planning and project initiatives that impact the multimodal freight network.

In spring 2017 the FAC voted on a series of new department policies that were listed in the then-draft Wisconsin State Freight Plan. The policy receiving the greatest number of votes in two areas - (1) importance to the business community and (2) conduciveness to joint public-private action - related to development of an intermodal strategy for Wisconsin. In response, WisDOT created an Intermodal Subcommittee under the FAC. The Subcommittee, comprised of the department and 21 other organizations, met throughout 2018 and published its final report, *Overview of Intermodal Freight in Wisconsin*, in March 2019. For more information, please visit https://wisconsindot.gov/intermodal

Freight Rail and Harbors Projects
The department awarded Freight Rail Preservation Program (FRPP) grants totaling $4.5 million in 2017 and $14.5 million in 2018. In conjunction with recipient matching funds, FRPP grants enable acquisition, construction and rehabilitation of freight rail-related facilities to preserve and upgrade rail infrastructure important to job growth and Wisconsin's economy. In addition, DTIM awarded loans totaling $4.8 million in 2017 and $600,000 in 2018 through the Freight Railroad Infrastructure Improvement Program (FRIIP). FRIIP-funded projects typically include track construction and rehabilitation, as well as privately-owned facilities such as industrial spurs, trackside grain elevators and conveyors, and transload facilities.

The following projects were completed on the publicly owned railroad corridors in 2017 & 2018:
- Completion of the bridge B-256 (at Spring Green) reconstruction project
- Completion of the Fox Lake Subdivision (Janesville–Zenda/Illinois state line) track rehabilitation and rail replacement project
- Completion of the bridge B-316 (at Wauzeka) replacement project
- Completion of the Brandon–Ripon rail replacement project
- Completion of bridge rehabilitation and replacement projects on several state-owned rail lines (numerous)

DTIM awarded and administered funds from the Harbor Assistance Program (HAP) of over $9.33 million for six projects in 2017, over $7.16 million for five projects in 2018. The HAP also awarded a $799,802 emergency grant in 2018 for a docking facility repair of the SS Badger in Manitowoc after significant damage from a late winter storm. HAP provides financial assistance to harbor facilities on the Great Lakes and Mississippi River for projects that improve or maintain waterborne commerce. Awarded projects included a mix of dredging, repairs, and expansions.

The Harbors and Waterways program area participates in statewide and regional planning to improve water transportation on the Great Lakes and Mississippi River:
- Upper Mississippi River Basin Association alternate member. Currently, the Navigation Subcommittee is working on multistate planning for development of the M-35 Marine
- Coastal Management Council is jointly administering with DOA representative as required by Wis. Statute 85.095(2). The council awards grants to preserve coastal lands and provide access to and

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education about Wisconsin's coastal resources.

The Railroads and Harbors Section (RHS) is continuously improving coordination between WisDOT and the railroad companies for highway improvement projects. RHS holds regular conference calls with the railroads to strengthen lines of communication and cooperation. Work is being done to provide the railroads with more advanced notice of upcoming highway projects that require plan review, coordination with railroad work, and flagging requirements for highway work that impacts railroad operations. A system was successfully put in place to resolve 100 percent of Trans 29 Utility Permit Applications within 25 days of complete receival.

Passenger Rail
The Milwaukee-Chicago Hiawatha Service provides seven round-trips daily (six on Sunday) between Milwaukee Intermodal Station, Milwaukee Airport, Sturtevant, WI, Glenview, IL, and Chicago Union Station. It is jointly supported by Wisconsin (75 percent share) and Illinois (25 percent share). The Hiawatha Service continues to experience increases in ridership and revenue. Ridership exceeded 835,509 in 2018, a 0.1 percent increase from 2017. Revenues increased by 6.12 percent. Cost recovery ratios also continue to increase year-over-year, from 74.4 percent in 2017 to 74.7 percent in 2018. The Hiawatha Service is the highest ridership route in the Midwest and the 6th highest state-supported route in the nation. The Hiawatha Service experiences standing room only conditions on some peak trains. RHS has completed several projects and initiatives as part of a continuing effort to maximize revenue and ridership and manage costs. This effort has resulted in decreasing state operating payments. Initiatives include, but are not limited to:

- Grant applications for improved infrastructure on the Hiawatha system, including a new second platform at the Milwaukee Airport Rail Station and 6 new coach cars and 3 coach-cab cars.
- Secured agreement from Midwest State Equipment Pool to add the Hiawatha to the coach car equipment procurement, providing 6 new coach cars to the Hiawatha procured with 100 percent federal funding.
- Use and management of more efficient state-owned locomotives (replacing Amtrak locomotives) through participation with Midwest states in joint ownership, maintenance, and management of locomotives procured with 100 percent federal funding.
- Continuation of peak/off-peak fares to increase revenues and roll-on bike service and pets on board program
- Completion of a new train concourse at Milwaukee Intermodal Station with ADA-compliant platforms, safe, overhead access to the platforms, and a new roof structure
- Schedule changes on Saturdays
- Marketing program and promotion efforts

Rustic Roads
Since the first Rustic Road was designated in 1975, the Rustic Roads program has remained one of Wisconsin's most successful and long-lasting state-local partnerships. Over the last two years, two new roads were approved by the Rustic Roads Board, bringing the total to 122 Rustic Roads covering over 730 miles in 61 Wisconsin counties.

In the fall of 2018, an updated on-line (interactive) Rustic Roads Guide, as well as a hard copy version, were both published. The website for the on-line version had over 13,000 hits and over 10,000 individual requests for the hard copy version were fulfilled by the Department of Tourism. These statistics serve as a testament to the continued popularity of the program. For more information, please visit http://wisconsindot.gov/rusticroads

Airport Projects

During the biennium, approximately 72 Wisconsin airports benefitted from $168 million in airport improvements administered by DTIM's Bureau of Aeronautics (BOA). These projects were completed primarily in two categories: 1) rehabilitation and repair of runways, taxiways, aprons and roadways pavements, helping preserve these pavements before they reach the point of needing complete replacement, and 2) pavement reconstruction projects or new pavements. Both rehabilitation projects and reconstruction projects help increase safety at airports by refreshing airport pavement surfaces, therefore significantly reducing the amount of foreign debris on pavements that can damage aircraft engines. Preservation projects of crack sealing and seal coating airfield pavements occurred at eighteen airports during the biennium. Below is a list of rehabilitation paving projects and paving reconstructions or new pavements.

Large pavement rehabilitation projects:
- Rehabilitation of the primary runway at Baraboo-Wisconsin Dells Regional Airport
- Rehabilitation of the terminal ramp and Taxiway C at Central Wisconsin Airport in Mosinee
- The second phase of the primary runway pavement rehabilitation at Dodge County Airport in Juneau
- Rehabilitation of the crosswind runway at Platteville Municipal Airport
- Taxiway shoulder rehabilitation and concrete joint sealing at Dane County Regional Airport in Madison
- Rehabilitation of service roads and taxiways Green Bay- Austin Straubel International Airport.

Projects that conducted pavement reconstructions or new pavements:
- Alexander Field in Wisconsin Rapids
- Baraboo-Wisconsin Dells Regional Airport
- Burnett County Airport in Siren
- Chippewa Valley Regional Airport in Eau Claire
- Dane County Regional Airport in Madison
- General Mitchell International Airport in Milwaukee
- Green Bay- Austin Straubel International Airport.
- Hartford Municipal Airport
- Langlade County Airport in Antigo
- Marshfield Municipal Airport
- Menomonie Municipal Airport
- Platteville Municipal Airport
- Sheboygan County Memorial Airport
- Waukesha County Airport
- Wausau Downtown Airport
- Wautoma Municipal Airport

Many of the above pavement projects included airfield lighting and visual navigational aid replacement or rehabilitation. Airfield lighting replacements are usually LED, which reduces monthly utility costs significantly. Airports with large airfield lighting projects:
- General Mitchell International Airport in Milwaukee
- La Crosse Regional Airport
- Southern Wisconsin Regional Airport in Janesville

Safety is of utmost importance at airports, and several projects conducted in the biennium enhanced safety in

various ways. Two airports replaced sections of perimeter fencing, therefore helping to increase airport safety as well as reduce wildlife near airfield pavements. The two airports were General Mitchell International Airport and Lawrence Timmerman Airport, both in Milwaukee. Several other airports acquired dedicated airport snow removal equipment, which is necessary to quickly remove snow on runways and taxiway pavements to help aircraft land without diverting to another airport. Some mowing equipment was funded, to keep growth down on turf runways, around airfield lights and in runway approaches. Additionally, two airports purchased replacement Airport Rescue and Firefighting vehicles and related gear.

Those airports that acquired snow removal equipment include:
- Central Wisconsin Airport
- Chippewa Valley Regional Airport
- Kings Land O Lakes Airport
- La Crosse Regional Airport
- Manitowoc County Airport
- Rhinelander-Oneida County Airport
- Richard I. Bong Airport
- Sawyer County Airport
- Solon Springs Municipal Airport
- West Bend Municipal Airport

Additionally, several airports enhanced safety by refreshing pavement markings or installing or reconstructing approach navigational aids, such as visual glide slope indicators and Runway End Identifier Lights, giving visual cues to pilots as they approach the runway. Five other airports also enhanced their airport safety by either removing obstructions in runway approaches or grading runway safety areas, which flattens the slope of the ground adjacent to the runway to make the recovery area for runway overruns safer.

Other airport improvement projects completed in the biennium helped enhance airport facilities, such as terminal building construction/remodel projects (including the replacement of passenger boarding bridges at three airports), Aircraft Rescue and Fire Fighting building upgrades, snow removal equipment storage buildings, and the construction of areas for future hangars to be built. Seven airports also replaced or installed aircraft fueling facilities, which helps airports become more self-sustaining through revenue generation and increase the attractiveness of the airport to the transient flying public.

Work has commenced for the construction of an Airport Rescue and Firefighting Training Facility, including two mock props (fuselages) for live burn training at the Appleton International Airport. Fox Valley Technical College will manage the training, which is expected to draw airfield firefighting personnel from all parts of the Midwest, with the side benefit of economic benefit to the airport and the community.

Information on the Airport Improvement Program can be found at: http://wisconsindot.gov/Pages/doing-bus/local-gov/astnce-pgms/aid/airport.aspx

Enhanced Airport Safety and Capability
DTIM's Bureau of Aeronautics (BOA) has collaborated with the Federal Aviation Administration (FAA) and conducted extended outreach to airport stakeholders to enhance and expand the capability and safety of their Wisconsin airports, including encouraging them to seize the opportunities of enhanced access and safety through FAA's Next Generation (NextGen) modernization program for the U.S. air traffic system. BOA managed projects that inspected and cleared Wisconsin airport approach and departure surfaces. These improvements cleared the way for implementation of enhanced NextGen instrument approach procedures. This effort provided the establishment of NextGen instrument approach procedures at airports, which previously had none. NextGen also provided BOA with the opportunity to enhance safety and capability at all airports with existing ground-based navigation facilities while eliminating the cost of maintaining antiquated navigational aids like the Non-Directional Beacons.

NextGen is providing new capabilities that will improve safety and accessibility at airports used by piston- and turbine-powered general aviation aircraft. These enhancements expand the operational capability of our airports so that business, commercial and public safety users can depend on expanded access to Wisconsin communities, day or night and even in Wisconsin's often challenging weather conditions. Over the biennium, new standard instrument approaches were developed, or improved and implemented at Wisconsin's airports. Dependable access and a greater margin of safety are features that make our airports and communities attractive to commercial, business and industry users as they consider transportation infrastructure to support their operations and economic development needs.

Fly Wisconsin!
In a partnership with the Wisconsin Airport Management Association (WAMA), the BOA developed the Fly-Wisconsin Airport Passport Program, launching is on September 1, 2017. The overall goal is to promote aviation in Wisconsin while safely utilizing the national airspace system and related aeronautical infrastructure. By encouraging pilots to fly to all public use airports in Wisconsin, the Fly Wisconsin Airport Passport program promotes safety, partnerships and promotes economic opportunities. The program has been very popular and currently has over 1300 registered participants.

Runway Pavement Marking
BOA will continue the state-sponsored pavement marking program, which assists general aviation airports with refreshing their pavement markings on runways and taxiways. Pavement markings are an essential safety item for pilots. Pavement markings allow pilots to visually identify the runway environment, as well as safely identify the location of taxiway pavements. As a pilot approaches the runway, they use the visual cues provided by the pavement markings to identify that they are at the correct airport and on the correct heading, as well as use the pavement markings to identify the target area for landing the aircraft and guide them along the center of the pavement. Once on the ground, the pilot needs to maneuver the aircraft to the taxiway system, and the pavement marking gives a centerline reference to those taxiway pavements. General aviation airports, especially smaller general aviation airports, typically have less local resources to conduct pavement marking projects. BOA assists the general aviation airports with keeping the pavement markings visible with the pavement marking program, therefore increasing safety to the flying public.

Local Aid and Assistance Programs
January 2019 launched WebTAS, (Web-based Transportation Assistance System), to calculate and issue payment of General Transportation Aids (GTA) and Connecting Highways Aids (CHA) distributed on a quarterly basis throughout the calendar year. The 2018-2019 biennium budget provided over $1.2 billion for local transportation aid, local road and bridge improvement assistance, and competitively awarded multi-modal and

air quality improvement grants. Payments were distributed directly to 1,925 local governments throughout the state of Wisconsin over the two fiscal years.

The department has further refined its change management protocol for delivery of local projects in the 2016-2019 biennium, including more detailed review of all requests for additional funding to ensure the most efficient use of available funding. The change management process applies to project funding, schedule, scope, and other factors.

The department conducted significant public outreach regarding programs, funding availability and process changes in the 2018-2018 biennium. This outreach has included written communications, public meetings, and ad hoc training sessions requested by stakeholders. In addition, the longtime department use of management consultants was eliminated at the end of 2019. Department local delivery staff are coordinating closely with FHWA to reduce and main stream project delivery requirements to ensure efficient and cost-effective delivery services to local municipalities.

Critical Freight Corridors Designations

Working closely with local governments, WisDOT recently submitted proposed Critical Rural Freight Corridors (CRFCs) and Critical Urban Freight Corridors (CUFCs) to U.S. DOT for designation. Designating public roads as CRFCs or CUFCs will make these roads or public transportation-related facilities part of the National Highway Freight Network and will make them eligible to receive National Highway Freight Program funds. Improvements to CRFCs and CUFCs will improve the safe and efficient movement of freight along the freight corridor and further promote industry growth.

Federal Performance Measures

Within the past biennium, WisDOT has conducted extensive analysis, established base line conditions and set targets for several federal performance measures. Targets were reported to FHWA in 2019 and were included in several state and local documents including the Statewide Transportation Improvement Program (STIP), Transportation Asset Management Plan (TAMP) and local long-range planning and Transportation Improvement Program (TIP) documents. In addition, targets were reported to FHWA via electronic reporting tools by required deadlines. The department continues to review performance measures and coordinate with MPO's in target setting and reporting.

2019 – 2021 Goals

DTIM/DTSD OAPM Transition Planning Completed and Operating

DTIM and DTSD are meeting to establish transition details on how to move OAPM activities to DTIM and embed certain functions and connection in DTSD. This will be critical to continue to successfully implement performance-based practical design and leverage the life-cycle logic in the theme to produce the best system results for the given level of funding. Alignment and healthy operating connections will also be critical for the understanding of programmatic readiness for adjustments due to funding levels.

Continued Efforts to Improve the Reliability of Thematic Algorithms

OAPM will continue to work with the Bureau of State Highway Program's pavement units to identify and improve the engineering elements of pavement prediction algorithms.

Continued Efforts to Improve Safety Screening and Safety Needs Analysis
OAPM will continue to work with the Bureau of State Highway Program's needs analysis teams to continue to improve the methods and accuracy of the consideration of system screens for engineering sites of promise considerations. Refining methodologies for how we identity safety improvement sites of promise will help direct funding to the locations that engineering improvements will have the greatest potential for positive impact. The results will be better safety system screening results and more effectively targeted towards improvements that could realize a reduction in serious injury crashes.

Continued Efforts to Leverage the Safety Certification Process for HSIP eligibility
OAPM will continue to work with the Bureau of State Highway Programs on integrating work done in the Safety Certification Process with the traditional HSIP eligibility. Modifications to the Program Management Manual and approvals by FHWA would be required. The results would be increasing flexibility with respect to the department's ability to HSIP spending authority.

Onboarding of OAPM staff
While the Office has been operating at a high production and efficiency level in both a temporary and permanent capacity for two years, there are only two management level staff in DTIM. Three additional positions have been identified for the organizational structures. These positions will be developed, recruited and onboarded.

Long-Range Transportation Planning
It is highly likely that the department will begin the process of updating the State Freight Plan sometime in late 2020 to early 2021. An updated version will be due to U.S. DOT prior to December 2022.

The Department's current multi-modal long-range transportation plan, Connections 2030, was completed in 2009. A major update to the plan is needed to extend the 20-year plan horizon to 2050. It is likely that the department will begin the plan update process in late 2019 or early 2020.

The State Rail Plan was adopted by the department in 2014. Within the plan, the department committed to an update within five years. This would put the plan update in 2019. The department is currently reviewing the need for an update to the plan and may conduct a minor update in 2020, with a major update to be completed in subsequent years.

Freight Advisory Committee
Beyond the November 2019 meeting, staff expect the FAC to continue to meet semiannually through 2021. The FAC continues to be a valuable source of feedback and advice for the department and will be instrumental in helping WisDOT update the Wisconsin State Freight Plan.

Traffic Forecasting and Travel Demand Modeling
Traffic forecasting goals include continuing cooperative efforts in coordinating long-range planning and forecasting data with stakeholders, including metropolitan planning organizations. WisDOT will continue to update the Transportation Planning Manual with protocols, procedures and policies related to department activities. Forecasting will continue to work toward integrating the National Household Travel Survey data into Department products, including travel demand models.

MPO and RPC Coordination
WisDOT continues to coordinate and work with Metropolitan Planning Organizations (MPOs) and Regional Planning Commissions (RPCs) to follow federal laws including the Fixing America's Surface Transportation Act

(FAST Act), conduct system-wide analyses, and complete federally requested updates of their urban and regional long-range transportation plans. WisDOT will also continue to coordinate on performance measure targets as required in MAP-21 and FAST Act legislation. This provides the necessary coordination for efficient transportation planning and continued authorization of federal funding (FHWA and FTA) for transportation improvement projects.

Transportation Economic Assistance Program & State Infrastructure Bank
Over the next two years, DTIM staff will continue to explore ways in which funds from both the TEA and SIB programs can be used to leverage additional federal funds to help finance transportation infrastructure improvements that support greater economic growth and development in communities throughout the state.

Rustic Roads
Over the next year, DTIM staff and the Department of Tourism will continue to explore ways to fund and distribute a new Rustic Roads Guide and work with DTSD's Bureau of Transportation Safety (BOTS) to find ways to continue the Rustic Roads Motorcycle patch program.

The Rustic Roads Motorcycle patch program provides a patch to motorcyclists that ride 10 or more Rustic Roads and is extremely popular with motorcycle groups and charities. Since certain aspects of the program are inconsistent with BOTS' program goals, staff have been working on ways to revise and improve the program, so it meets the safety needs of BOTS, promotes the economic development of communities near a Rustic Road, and provides another opportunity for the department to show support to popular charitable organizations.

Corridor Management Program and Planning
DTIM will conduct a review of the state's corridor management program to insure a consistent asset management approach to corridor planning. Department staff will integrate plans and policies from the Transportation Asset Management Plan and other longer-range plans (out further than 10 years) to assist WisDOT regions in planning for the long-term reliability of Wisconsin's transportation system. This will also include developing strategies for all modes of travel, where linking corridor planning to mode choice makes sense.

All Roads Network of Linear Referenced Data (ARNOLD)
DTIM's ARNOLD Initiative is WisDOT's approach to meet FHWA requirements, but also to improve the collection, integration, analysis, and visualization of data for a myriad of state highway and local road program requirements. DOT plans to complete Stage 2-Transition of the ARNOLD Initiative and begin Stage 3-Implementation. Implementation will be done in phases, starting with the existing geospatial networks for the State Trunk Network (STN) and the Wisconsin Information Systems for Local Roads (WISLR), key physical and administrative roadway attribute data, and select decision-support systems.

Traffic Count Data Sharing Feasibility
By 2026, FHWA may require states to improve on providing traffic volume data on all public roads to support roadway safety analysis and improve estimates of vehicle miles traveled (VMT). FHWA recommends state DOTs collaborate with regional and local governments and share their traffic count data to meet these increased demands. However, there is no clear evidence if this can even happen, as count methods, processing, and resulting statistics vary, and to what level of change and at what cost to state, regional, and local governments.

DOT plans to collaborate with the City of Madison/Dane Count MPO to determine the feasibility of data sharing, since these agencies have invested in the same traffic count data management system (Jackalope). Once each agency has adjusted their processes to the new Jackalope system, there is common interest in determining the potential and associated costs and benefits of whether traffic count data or traffic count statistics can effectively be shared to meet each other's needs.

Crash Mapping and Analysis

DTIM and DTSD will continue to partner on making improvements to crash mapping and analysis business processes.   Focus will be on establishing a road map for support and improvements to the Crash Mapping and Analysis (CMAA) system and determining the location and mapping needs for improved traffic safety engineering.

Highway Improvement Programs

DTIM will continue to provide asset management, program management, and financial direction for the state's Major Highway Program and the State Highway Rehabilitation Program (SHR). In addition, DTIM will provide financial guidance to the SE Mega Projects program. DTIM will:

- Establish, monitor, and pursue goals for total level of highway improvement projects advertised and awarded for "LET" and the level of construction-related quantities used on highway improvement projects.

- Conduct reviews of transportation projects to ensure that state and federal mandates and standards are met, as well as to identify potential cost savings using industry best practices

- Leverage all federal highway funding received and ensure that all federal highway funding is obligated resulting in the eligibility to receive additional federal highway funding through the federal redistribution process.

Highway Performance Monitoring System (HPMS)

Each state is required to prepare an annual submittal of HPMS data in accordance with the procedures, formats, and codes specified by FHWA. Every ten (10) years FHWA makes significant refinements to HPMS – the next reassessment is in 2020. Reassessment may contain additional data collection requirements, and changes in procedures and submittal timeframes. DTIM staff will participate in workshops and webinars to offer recommendations, gain knowledge and information of the upcoming assessment, and begin to make refinements to DOT data collection and reporting processes.

Transit Programs

The department has a goal of complying with new Public Transportation Agency Safety Program (PTASP) requirements. PTASP requires urban public transportation systems to develop safety plans that include processes and procedures to implement Safety Management Systems (SMS), which is an organizational approach to managing safety risk and assuring the effectiveness of safety risk mitigation. The department intends to submit a complaint PTASP program by the July 2020 deadline.

The department has the goal of assisting multiple rural transit systems and their local utility providers in implementing electric bus service in their service areas. WisDOT received $2.975 million in grants through the federal Low or No Emission Vehicle Grant program in August 2018 for these projects. It is hoped that the new buses and infrastructure will be in place by the end of calendar year 2020.

The department has a goal of providing federal operating assistance reimbursement funds to rural public transit systems early in calendar year 2020. Congressional delays in appropriating funds over the past few years has forced rural transit systems to wait until September (or later) before receiving federal reimbursements. WisDOT has set aside unused funds from previous years' grants to use for 2020 payments. FTA has approved the use of those funds for this purpose.

Freight Rail Programs
RHS will maintain WisDOT's relationships with the rail transit commissions, communities and the railroads to preserve and improve freight rail service to Wisconsin businesses and communities. The following goals, projects and improvements are planned for the freight rail preservation program in 2019-2020:
- Completion of bridge rehabilitation and replacement projects on several state-owned rail lines (bridges 226, 254, 262, 272, A-492, A-494, U-6½, B-356, B-364)
- Completion of nine Prairie Subdivision bridge rehabilitation and replacement projects in preparation for rail replacement projects
- 50 percent completion of the Bridge 334 (at Merrimac) rehabilitation project [phase 3 in 2020-21]
- 50 percent completion of the Waukesha Subdivision (Waukesha–Milton) track rehabilitation and rail replacement project
- Completion of the Ripon to Fisk rail replacement project
- Completion of the Fisk to Oshkosh rail replacement project
- Completion of the Port of Milwaukee's Crossing Rehabilitation project
- Completion of the Port of Milwaukee's Intermodal Yard and West Classification Yard Track Rehabilitation project
- Completion of the replacement of bridge U-330 (at Lena) and rehabilitation of track from Green Bay to Crivitz
- Assisting Escanaba & Lake Superior Railroad to maintain rail service for its Wisconsin customers

RHS will strive to provide at least $7 million of low-cost Freight Railroad Infrastructure Improvement Program (FRIIP) loan funding to businesses to increase transportation efficiency and reduce shipping costs for Wisconsin farmers and industry.

RHS State Railroad Property Management
Goals for RHS management of state railroad property:
- Complete development of SharePoint Workflow for DT2036 (Trans 29 Application) form routing to improve permit process efficiency.
- Continue development of a GIS application for the state-owned rail system
- Complete video-record 100 percent of state-owned rail lines (video-recorded over a third of the system in 2017-2018)
- Develop database of Offer To Use (OTU) agreements and payments
- Review property along FRPP projects for encroachments and either work to remove or properly document
RHS will continue to provide railroad coordination for highway projects. The STEP grant will complete design and begin construction and railroad work with an anticipated completion date of December 2020.

Passenger Rail
The goal for passenger rail is to continue to increase revenue and ridership on the Hiawatha Service, with a target of at least one percent ridership growth annually. The Department will also continue to manage

operating costs with a goal to maintain a cost recovery ratio of 70 percent or higher. The Department will complete a final Environmental Assessment and Service Development Plan for increasing the Hiawatha Service to 10 round-trips daily. The goal is to receive a Finding of No Significant Impact from the Federal Railroad Administration. This will make the project eligible for federal funding for final design, construction, and implementation, and will facilitate competitive grant applications.

Airport Improvements and Preservation
- The Bureau of Aeronautics will continue to improve Wisconsin airports by enhancing safety and maintaining airport infrastructure. In the next biennium, we will also make airport improvements which promote economic development. The Bureau manages the Federal Aviation Administration's program, shares in the cost of that program, and manages and funds state aid projects.
- Reconstruction or rehabilitation of runway pavements is always a top priority. Upcoming runway projects are either bid or are planned for: Central Wisconsin Airport in Mosinee, Chippewa Valley Regional Airport in Eau Claire, King's Land O'Lakes Airport, Monroe Municipal Airport, Shawano Municipal Airport and Viroqua Municipal Airport. The bulk of airport improvement funding is spent to extend the life of existing airport pavements.
- The construction contract will soon be awarded for the extension and reconstruction of the primary runway and its parallel taxiway at Kenosha Regional Airport, an improvement which will meet business aircraft needs. Additional funding will be needed to complete the project.
- Bids were just awarded for the first phase of the development of commercial hangar areas at both Appleton International Airport and Dane County Regional Airport. Hangar area development at several smaller airports is also planned. Hangar or hangar space rental provides needed income for airport owners, and commercial airport-related development increases revenue potential for the area around airports.
- Aircraft fueling facilities generate revenue for airport owners. Projects are in the works for facilities either reaching the end of their useful life and therefore no longer insurable, unable to meet new standards, or in need of updated credit card reader and computer systems.
- A variety of terminal building projects are planned, as existing buildings reach the end of their useful lives: Central Wisconsin Airport in Mosinee, Clintonville Municipal Airport, Dane County Regional Airport in Madison, Green Bay – Austin Straubel International Airport; Rhinelander-Oneida County Airport, Richland Airport, Sheboygan County Memorial Airport (including a customs facility) and Wittman Regional Airport in Oshkosh. Appleton and Dane County have additional boarding bridges to be replaced.

Supplemental Federal (FAA) funding: Congress allocated additional Airport Improvement Program (AIP) funding for 2018 and authorized additional funding 2019 through 2023. So far, one Wisconsin airport has been allotted supplemental funding via the 2018 appropriation, and two Wisconsin airports have been allotted supplemental funding via the 2019 appropriation; we anticipate additional projects for Wisconsin if the supplemental funding is included in annual appropriations.

Runway Pavement Marking
The Bureau of Aeronautics will continue the state-sponsored pavement marking program, which assists general aviation airports with refreshing their pavement markings on runways and taxiways. Pavement markings are an essential safety item for pilots. Pavement markings allow pilots to visually identify the runway environment, as well as safely identify the location of taxiway pavements. As a pilot approaches the runway, they use the visual cues provided by the pavement markings to identify that they are at the correct airport and on the correct heading, as well as use the pavement markings to identify the target area for landing the aircraft and guide them along the center of the pavement. Once on the ground, the pilot needs to maneuver

the aircraft to the taxiway system, and the pavement marking gives a centerline reference to those taxiway pavements. General aviation airports, especially smaller general aviation airports, typically have less local resources to conduct pavement marking projects. BOA assists the general aviation airports with keeping the pavement markings visible with the pavement marking program, therefore increasing safety to the flying public.

US Customs and Border Protection (USCBP) clearing at Wisconsin airports
The Bureau of Aeronautics (BOA) is working with Sheboygan and Kenosha airports to establish new USCBP clearing and screening facilities for international flights. The clearing and screening facilities conform to strict USCBP guidelines for USCBP staff to utilize and properly clear business and private aircraft into the United States. The clearing and screening facilities being planned are expected to be built, compliant, staffed and functioning at these two airports within the next biennium (2019-2021). Project funding for the facilities will be provided by local and state government agencies and administered by the DTIM BOA.

Enhanced Airport Access Capability
The Federal Aviation Administration's (FAA's) Next Generation (NextGen) modernization program for the U.S. air traffic system NextGen is providing new capabilities that will improve accessibility and safety at airports used by piston- and turbine-powered general aviation aircraft. These enhancements expand the operational capability of our airports so that business, commercial and recreational aviation users can depend on expanded access to Wisconsin communities, day or night and even in Wisconsin's often challenging weather conditions. Dependable access and a greater margin of safety are features that make our airports and communities attractive to commercial, business and industry users as they consider transportation infrastructure to support their operations and economic development needs.

Airport approaches being clear of obstructions is critical to the accessibility of the airport and fully utilizing the approach capabilities NextGen offers. If obstructions are present in the approach (for instance, trees or power poles), the FAA will adjust the airport's approach requirements so that the pilot can see and avoid that obstacle in poor weather or at night. If approaches are clear, the airport receives the best possible approach to the runway environment.

In the 2019-2021 biennium budget, BOA received an additional $1M each year ($2M total) in order to help airports with enhancements due to NextGen, and BOA will be accomplishing this primarily through three initiatives – 1) statewide airport approach assessment; 2) helping airports clear obstructions so the airport can receive the best approaches to their airport, increasing the likelihood an aircraft can safely land in poor weather; and 3) helping airports establish new approaches that are not yet written for their airport.

Aircraft Registration System
The current aircraft registration system (ARS) is hosted on the DOT mainframe. This is old technology and the department is in the process of moving hosted applications, so the mainframe can be shut-down and eliminated. As a result, ARS is in the process of being converted and hosted on a new platform. The ARS conversion project will yield additional benefits including a customer self-service web portal, allowing customers to submit initial aircraft registration applications and renew existing applications on-line and pay fees via credit card. The objective is to have the new ARS on-line by June 2021.

Wisconsin Standard Specifications for Airport Construction Document Update
Standard Specifications for Airport Construction establishes the administrative procedures, requirements, acceptable means, methods and quality for construction on airports. Establishing a state specification for airport construction is critically important to identify the unique and important safety and quality differences from WisDOT highway and roadway construction specifications. Federal Aviation Administration (FAA) produces national construction standards. The national standard does not consider state, local, geographical, materials, and construction industry practices. A key benefit to creating an FAA approved state specific airport specification is that it allows Wisconsin to maximize and tailor the states unique conditions, while ensuring compliance with FAA requirements and federal funding eligibility. Further benefits include Departmental consistency in contract administration, improved efficiency and consistency, which reduces the potential for claims and disputes, and reduce overall project construction costs. The final draft of the Airport Construction Specifications was submitted to the FAA the end of July 2018. We will incorporate the FAA's comments into the specification and obtain final FAA approval in early 2020. We expect to implement the updated specification for all Construction projects bid for the 2021 construction season.

Electronic bidding for airport construction and equipment projects
Currently the Bureau of Aeronautics uses traditional sealed paper bids for construction and equipment projects. The goal is to electronically bid a few pilot projects in the fall and winter of 2019. The results of the pilot projects will determine the schedule to roll out electronic bidding with select projects in 2020 and be completely transitioned to electronic bidding starting with the 2021 construction season.

Airport Wildlife Hazard Mitigation Program
The bureau will offer a new service to Wisconsin airports that will proactively help them manage wildlife hazards. Under our program we will be able to conduct wildlife hazard assessments and provide consultation directly to airport sponsors, including developing wildlife hazard management plans. Our certified staff member will provide these services to airports at no additional cost. Benefits include: a) wildlife management expertise available directly to airport managers; b) improving aviation safety by significantly reducing the chances of aircraft-wildlife strikes, saving lives and substantial property damage; and c) the potential to save a significant amount of state tax dollars – potentially over $3,000,000 over a 10-year span.

Local Aid and Assistance Programs
The overarching goal of the department for local aid and assistance programs is to provide funding for local governments and local projects quickly and efficiently while providing excellent customer service. In the new biennium, program outreach and communication efforts will continue to ensure strong and stable program partnerships with local units of government, regional planning organizations, and community stakeholder groups for all local aid and assistance programs.

The department will continue to develop its change management and initial project review processes to ensure that the scope of each project does not exceed what is necessary for a safe and effective facility.

Local bridge facility performance-based design will increase program stability and allow the department to fund additional projects by limiting state or federal funding to the essential scope of the project. Local project sponsors maintain the ability to enhance design of local bridges with local funding.

The department will also review existing aid and assistance programs and operations for efficiencies. As part of this effort, the department will begin use of a new web-based system for the Local Roads Improvement Program that will reduce printing, postage, and other administrative costs while streamlining program and

records management. The WebTAS LRIP electronic application will be added to WebTAS, the electronic application that calculates GTA and CHA, allowing local stakeholders to easily access local funding data. The system is tentatively scheduled to go live in the spring of 2020

Addendum – Department Organization and Contacts

In September 2019, the Department initiated a reorganization to focus and allocate resources to critical and emerging strategic issues. While not during the 2017-2019 reporting period of this report, the information on this reorganization is included here to reflect the Department's current organization structure as well as to provide current contact information.

The September 2019 reorganization included the following:

Office of Inspector General (OIG)
The OIG advises the Secretary's Office on efficiency, compliance and program improvement efforts. The office conducts risk-based internal reviews to identify and evaluate issues and make recommendations for improvement. The office may also investigate reports of fraud, waste and abuse received from the public or from within the department.

As part of the September 2019 reorganization, the OIG was expanded from a single position to three positions, an Inspector General (IG) and two analyst positions. While the IG position had been vacant since September of 2018, the position was filled as of September 1, 2019 as was one of the two analyst positions.

2019-2021 Goals

- *Biennial Report:* As required by Executive Order 255, OIG will submit a biennial report by December 2020 detailing its findings and recommendations during the biennium to the Secretary's Office.

- *Risk-Based Assessment:* OIG will develop and utilize a risk-based assessment to prioritize review activities. The assessment will evaluate the likelihood of occurrence, the potential impacts and other factors and will be based on collaboration with each division.

- *Policy and Financial Reviews:* OIG will complete reviews of risk areas based on the risk-based assessment. These reviews will evaluate current department practices and their results and make recommendations for improvement to the Secretary's Office. The department has allocated to additional FTE to support these efforts.

- *Policy and Process Development:* OIG will develop and implement policies and procedures to clearly describe the responsibilities of the office and review processes. This documentation was not developed when the office was created in 2017.

- *Fraud, Waste and Abuse Reporting:* OIG will implement an internal and external process to receive and evaluate reports of fraud, waste and abuse from the public and department staff.

Division of Budget and Strategic Initiatives (DBSI)
DBSI was formed to focus efforts on crucial agency functions as well as emerging initiatives. The new division replaces and expands on the former Office of Management and Budget, focusing on budget, policy, federal relations, business relations, continuous improvement, performance measurement, strategic initiatives, and research and library services.

DBSI is comprised of two bureaus:
- Budget – responsible for biennial budget development, oversight of department operating budgets, policy development, and federal relations.
- Strategic Initiatives – responsible for continuous improvement, performance measurement, coordinating department efforts on emerging issues and initiatives, and research and library services.

2019-2021 Goals
- Develop the department's biennial budget to reflect agency priorities.
- Evaluate and potentially redesign the transportation revenue model.
- Re-establish an agency-level operating budget management approach.
- Work with the Governor's Office and department stakeholders on federal reauthorization priorities.
- Evaluate and reform MAPSS.
- Align department research program with department strategic initiatives.
- Lead identification and integration of emerging issues and initiatives (e.g., connected and automated vehicles, agency/division business planning) into the department.

Office of Asset and Performance Management (OAPM)
The OAPM is responsible for asset management for the state highway improvement program. The September 1, 2019 reorganization moved OAPM from DTSD to DTIM to align the office with other state highway improvement program asset management functions as well as the programming, financing, and management of the program.

Management Changes
In addition to the above changes, management changes were made to accommodate the reorganization:
- The DTIM administrator, Aileen Switzer, was named the administrator of the new division, DBSI;
- The DTSD administrator, Joe Nestler, was named the administrator of DTIM; and
- The DTSD deputy administrator, Rebecca Burkel, was named the administrator of DTSD.

Given these changes and to facilitate contact with the Department, the contact information on the following pages reflects the current structure rather than the structure and contacts for the period of this report.

More information on the department's organization including current organization charts and regional office locations is available at http://www.dot.wisconsin.gov/about/index.htm

For More Information

http://www.dot.wisconsin.gov/

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