

## Wisconsin Freight Advisory Committee (FAC) Meeting 16

Meeting Minutes from Thursday, October 26, 2023

9:30 a.m. to 3:30 p.m., Held in-person in Madison, Wisconsin

**FAC Member Organization Representatives:** Shawn Brantmeier, Mark Brehmer, Tom Bressner, Mei Cao, Maria Cartier, Ron Chicka, Jason Culotta, Tim Fiocchi, Mary Forlenza, Kirk Gill, Steve Griffin, Ryan Hoel, Chad Hoffman, Matthew Hovar, Neal Kedzie, Jeff Kitsembel, Larry Krueger, Sean Parker, Dr. Ernie Perry, Richard Pingel, Nels Rude, Sandi Siegel, Dr. Richard Stewart, Aileen Switzer, Don Vruwink, Thomas Winker, Travis Zaremba.

**Additional FAC Member Organization Proxies Present:** Heather Graves.

**Wisconsin Department of Transportation (WisDOT) Members Present:** Secretary Craig Thompson, Deputy Secretary Kristina Boardman, Assistant Deputy Secretary Joel Nilsestuen, Angela Adams, Lt. Tim Austin, Brad Basten, Ehren Bittorf, Hannah Brown, Rebecca Burkel, John Etzler, Mike Halsted, Dave Leucinger, Andrew Levy, Emily Lindsey, Justin Litscher, Alex McMurtry, Todd Merchant, Ben Mohlke, Jennifer Murray, Briant Novinska-Lois, Sarah Simonson, Matthew Sorenson, Lisa Stern, Matt Sudac, Matt Umhoefer.

**Panelists/Guests Present:** Mary Bartling, Bo DeLong, Alex Emerson, Corey Garceau, Angela Hansen-Winker, Bill Haskins, Owen Krappman, Joe Krebsbach, Jonathan Lamb (via video), Chad Mercier, Jean Mueller, Brian Netzinger, Libby Ogard, Collin Stellmacher.

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### Welcome (9:45 a.m.)

*Matt Umhoefer, Chief, Economic Development Section, Division of Transportation Investment Management (DTIM)*

Mr. Umhoefer welcomed attendees and reviewed the agenda and contents of the meeting folders.

### Opening Remarks (9:50 a.m.)

*Craig Thompson, WisDOT Secretary*

Secretary Thompson welcomed the FAC members and guests. He specifically noted the presence of the students and young professionals, asking for them to stand and be recognized. He also asked they consider career opportunities at WisDOT. He noted that the Bipartisan Infrastructure Law (BIL) is helping WisDOT move forward on many important projects. Secretary Thompson then noted how the Agricultural Road Improvement Program (ARIP), included in this year's budget, will soon start making investments to help farms and ag businesses. He noted the role that FAC member Tim Fiocchi played in moving that legislation forward.

Also related to agriculture, Secretary Thompson noted how Port Milwaukee's new infrastructure is opening markets for grain exports, and recognized the presence of Bo DeLong from the DeLong Company, which is now operating their new facility at the port. DeLong is one of the leading exporters of ag products, by container, from the U.S. – but they load at facilities outside of Wisconsin. Secretary Thompson said he'd like to change that.

Next, Secretary Thompson noted some major expansions underway or scheduled that will address truck parking needs at the state's rest areas and safety and weight enforcement facilities (SWEFs). Two examples were mentioned: first, the Wrightstown SWEF/State Patrol post, entering final design. Lettings will happen in 2024 and 2025; parking will expand from five spots to 34 spots. Second, construction is scheduled to begin in 2024 at the I-90 westbound area 16 to greatly expand truck parking – from 16 stalls to 70 stalls.

Finally, Secretary Thompson noted the meeting continued WisDOT's focus on intermodal freight opportunities in Wisconsin. He thanked the committee for its work on and attention to this issue, including the panel discussion at the meeting.

### **FAC Membership Update and Recap of the 15<sup>th</sup> FAC Meeting (9:55 a.m.)**

*Angela Adams, DTIM Deputy Administrator*

Ms. Adams began by recognizing three new members, one representing a new organization and two new members from existing organizations. The three organizations (and representatives) recognized included:

- Sandi Siegel, M.E. Dey (new organization – freight forwarders)
- Chris Hiebert, Southeastern Wisconsin Regional Planning Commission (new representative)
- Travis Zaremba, Federal Motor Carrier Safety Administration, Wisconsin Office (new representative)

Ms. Adams then delivered a summary of the 15<sup>th</sup> FAC meeting, held June 14, 2023. There were 49 external participants at that meeting, which covered a WisDOT State Freight Plan update, a panel session and tabletop exercise on Freight Forwarders and Compliance, a presentation on Watco's update on rail service across northern Wisconsin, and a panel session and tabletop exercise on Environmental Collaboration with Minnesota.

For a full summary of that meeting, please reference the Meeting 15 minutes.

### **2023-25 Budget and Transportation Highlights (10:15 a.m.)**

*Emily Lindsey, Chief, Budget Section, Division of Budget and Strategic Initiatives (DBSI)*

Ms. Lindsey provided a brief overview of how the 2023-25 Biennial Budget (2023 Act 19) is shaping transportation investments and expenditures in Wisconsin. Through pie charts, she illustrated the sources of the total biennial transportation budget of \$8.41 billion. This budget marked the first budget in excess of \$8 billion, even accounting for \$56 million being allocated to other state agencies. The largest source of revenue was state funds: \$5.19 billion, or 62 percent of the total. Other sources were federal funds (\$2.17 billion, or 26 percent); General Purpose Revenue (GPR; \$399 million / five percent); bond funds (\$353 million / four percent); and other funds (\$289 million / three percent). The bond funds are dedicated to the replacement of the Blatnik Bridge in Superior. The GPR funds are dedicated to transit; this marked a decision by the Legislature to remove transit funding from transportation revenues and fund it through the General Fund.

For the \$8.35 billion directed to transportation, almost half the allocation – \$4.15 billion, or 49 percent – is dedicated to State Highways. The next largest share is dedicated to Local Programs - \$2.73 billion, or 33 percent. Debt service and reserves (\$913 million / 11 percent) and WisDOT state operations (\$560 million / seven percent) round out the allocations.

Local programs encompass a broad field of efforts – General Transportation Aids, the Agricultural Roads Improvement Program (ARIP), Transit, Aeronautics, Rails, and Harbors. State funds account for \$1.93 billion, or 71 percent, of that set of funding. Federal funds (\$558 million / 20 percent) and local funds (\$240 million / nine percent) account for the balance.

For State Highways, allocations include Southeastern Wisconsin Mega-Projects, State Highway Rehabilitation, Traffic Operations, Maintenance, and (in dedicated bond funding), Wisconsin's share for replacing the Blatnik Bridge. Sources for the State Highways budget are state funds (\$2.21 billion; 53 percent); federal funds (\$1.56 billion; 38 percent); bond funds (\$353 million; nine percent); and local funds (7.9 million). Some of the large programs funded through State Highways saw funding increases of 10 to 17 percent. In addition to the Blatnik, other projects that will receive funding include the I-94 East-West corridor in Milwaukee County, STH 29 in Marathon County, and I-43 in Milwaukee and Ozaukee Counties.

### **Voices of Wisconsin's Freight-Related Industries (10:25 a.m.)**

*Steve Griffith, National Electrical Manufacturers Association*

Next, the meeting turned to the Voices of Industry segment. Steve Griffith from the National Electrical Manufacturers Association (NEMA) expressed his gratitude to return to the FAC meeting. His presentation touched on three themes from NEMA: NEMA 2025, Mobility Sector Impact, and Mobility Sector Trends. Wisconsin is home to several electrical and medical equipment manufacturers, including Rockwell Automation and Johnson Controls.

NEMA 2025 is the organization's strategy to raise the sector profile and "Create an ecosystem for the all-electric economy to prosper." NEMA sees a transportation future that is connected, electrified, and autonomous – part of moving to an all-electric economy. Their organization looks to apply advocacy, analysis of market data, development of standards for performance and design, and networking as a collective strategy to shape the sector.

Mr. Griffith spoke of NEMA's development of a Technology Roadmap that includes efforts such as grid modernization and expansion of renewable energy production. As part of the mobility efforts, NEMA supports a "buy American" approach, but notes that there are components currently imported for which there are no domestic manufacturers. Technologies that integrate and connect systems, produced with domestic content, will be important in the future.

NEMA is leading efforts in the mobility sector, in collaboration with government. National Electric Vehicle Infrastructure (NEVI) is a federal effort to provide financial support for recharging infrastructure for electric vehicles, coupled with infrastructure guidance to the states. Elements include smarter vehicles and improved standards for vehicle-to-infrastructure communication. Some examples include systems that integrate with school bus stops (a pilot in Georgia) and rail electrification planning and testing in Nevada. NEMA also contributed to the International Energy Conservation Code through developing language on EV readiness. In another application, NEMA standards are informing the Transportation Security Administration (TSA) on systems that can be integrated to streamline baggage and passenger screening at airports.

NEVI sees mobility as a growth market that will require consistent standards for interoperability, infrastructure, and workforce training and development. Mr. Griffith said the systems need to be human-centric while addressing needs to reduce greenhouse gases and increase safety. Data and education will be critical as systems become more mainstream, including the vehicle-to-everything and vehicle-to-grid

connections. There is also consideration of the concept of mobility as a service.

Mr. Griffith emphasized NEMA's role as the voice of manufacturing in the electrical sector, establishing standards and fostering collaboration. Connectivity, development of model policies and regulations, thoughtful leadership, and advocacy for innovative new technology will all be part of those efforts.

*Neal Kedzie, Wisconsin Motor Carriers Association*

Following Mr. Griffith, Neal Kedzie of the Wisconsin Motor Carriers Association (WMCA) offered an update on the trucking sector. WMCA is an affiliate of the American Trucking Association (ATA). He said he was pleased to report that things are being accomplished to address long-standing problems with bottlenecks, which are a drag on the economy and costly to truckers and the shippers they serve. He noted that of the American Transportation Research Institute's (ATRI) top 100 national bottlenecks, only one is in Wisconsin – along I-94 in Milwaukee. The Marquette Interchange reconstruction removed it from earlier listings, which ranked it as high as #14. The Interchange is now also safer for both truckers and drivers.

Since freight is regional and typically crosses state lines, Mr. Kedzie said it was important to look at the Midwestern states and their needs. Illinois has five of the top bottlenecks, including the #2 and #6 bottlenecks, which are in the Chicago area. Illinois has 194,000 motor carriers and 26 percent of the trucks in the nation. Elsewhere in the region, Minnesota has three bottlenecks, as does Indiana. Michigan and Ohio each have one bottleneck; Missouri has two. The costs to the economy of this congestion is \$94 billion per year; that's the equivalent of making 460,000 trucks idle for a whole year.

Another potential challenge for the trucking sector is federal rule-making on speed limiters for heavy trucks, which are designed to restrict the maximum speed that the truck can travel. There's first the question of whether speed limiters are needed; then if the answer is yes, at what speed should they be set? In 2016 there was a proposal from the Federal Motor Carrier Safety Administration (FMCSA) to set the limit at 68 miles per hour; that proposal was then withdrawn. In 2023 it came back in a supplementary Notice of Proposed Rule Making, asking for feedback on what the expected top speed should be. The proposed rule will then be open to public commentary; if it goes into effect, it won't be any sooner than 2025.

The Owner-Operators Independent Driver's Association is opposed to speed limiters. The American Trucking Associations (ATA) recommended testing any system first; if a limit was set that it would be at least 70 MPH if certain features were included, or 65 MPH without those features. One current House bill would ban the use of limiters. One of the important considerations is the variance in maximum speed limits around the country. Currently, Wisconsin allows 70 MPH; 11 states allow 75 MPH; Nevada, South Dakota, and a couple other places allow 80 MPH; Texas allows 85 MPH on some roads.

*Chad Mercier, Packer Freight Systems (Guest)*

The next voice was from Chad Mercier of Packer Freight Systems. That education led him to start Packer Freight Systems in February 2019; the company has since grown from four employees to twenty and reach a reported \$50 million in revenue. He credits a service attitude and internal corporate culture for the growth of the business.

Mr. Mercier discussed challenges in trucking. From the perspective of drivers, those include making ends meet right now, due to low freight rates and volumes in 2023, coupled with higher maintenance costs. He also noted the challenge of compliance and regulation; safety compliance costs aren't fully covered

by freight rates; the tracking of requirements (e.g., hours-of-service, drug testing, inspections, and emissions) is unpaid and time-consuming.

From the perspective of freight brokerage, Mr. Mercier cited the problem with double brokering – where a contracted carrier with valid credentials sub-contracts the shipping with a second company, without notifying the cargo owner. This practice is illegal without consent, and frequently, the final carrier is not paid. He also noted challenges with the push for technology from customers who want real-time communication on their load location and status, but it's difficult to keep up with the features and costs of new platforms.

The continuing challenges of truck driver availability were also raised by Mr. Mercier. He noted retirements are outpacing new hires; average driver age is currently in the upper 40s. Young workers are discouraged from driving careers due to long hours, low pay for hours worked, poorer working conditions and benefits than other occupations, and high levels of stress and adversity relative to pay. Mr. Mercier offered potential solutions and changes, including increasing driver pay as an incentive; scheduling drivers for fewer hours per day and giving them more flexibility over their schedules.

Mr. Mercier added his observations on how Artificial Intelligence (AI) will change freight. Current applications include digital freight matching (connecting open freight to partner carriers). He said Packer Freight Systems uses load matching software that has 17,000 carrier options in his system. AI also is being used currently for marketing, document processing, transportation claims, and fraud detection. In the near-future, Mr. Mercier expects to see contract analysis, sales and lead generation, market insight, and forecasting. Beyond that he is unsure how much of the human element it can or will replace.

In a question-and-answer session, Mr. Mercier was asked about how truckers who don't want to be continuously tracked should be monitored and held accountable. He replied that check-ins could be done on an hourly basis, or by stop points and times. Hours-of-service are critical; driver safety cannot be compromised. One other question was raised about the problem with continuous driver tracking; Mr. Mercier replied that electronic logs track every minute of driving operation, and theft is now becoming a problem as drivers and their loads are tracked. Finally, one of Mr. Mercier's instructors spoke to offer praise of his determination; he worked out of his basement and invested every dollar he had to get the business started. The business has made great strides the past four years. Mr. Mercier replied that he was appreciative of his education and would not have started his business otherwise. He also credited the instructor for pushing him rather than being stuck elsewhere.

#### **Break (10:55 a.m.)**

#### **Young Professionals - Panel Presentation and Discussion (11:10 a.m.)**

- Moderator:  
Sean Parker, Council of Supply Chain Manufacturing Professionals (CSCMP), Twin Cities Roundtable
- Panel Members:  
Jean Mueller and Collin Stellmacher, Northeast Wisconsin Technical College (NWTC)  
Joe Krebsbach, UW-Superior  
Korey Garceau, Port Milwaukee / UW-Superior  
Alex Emerson, UW-Platteville  
Owen Krappman, Marquette University  
Chad Mercier, Packer Freight Systems / NWTC

After a break, the first panel of the day focused on the voices and perspectives of young freight professionals. Moderator Sean Parker introduced himself, noting that through CSCMP, he has been both the recipient of mentoring and a mentor to others. He also asked the professors who joined the students to stand and be recognized for their efforts in education.

*Jean Mueller and Collin Stellmacher, NWTC*

Ms. Mueller and Mr. Stellmacher co-presented. Mr. Stellmacher said he is a transportation planning intern with Paper Transport, Inc. and a second-year Supply Chain Management student at NWTC; he also interned with Schneider National. Ms. Mueller has held several positions at N.E.W Industries in Sturgeon Bay and is currently the Master Scheduler. She has been a student for a year.

Ms. Mueller offered her perspectives on job-related lessons learned. Those include starting from the bottom, since it gives a basis of knowledge on the business. Being truthful is essential, or you will lose credibility and respect. Follow the chain of command; it is there for a reason – you need to demonstrate you can be a reliable partner. Failures help you improve. And, she noted, always keep learning; hard work pays off. She added that since her company is on the Door County peninsula, it's isolated for freight deliveries and pickups. There are often one-day delays for less-than-truckload (LTL) shipments, and that has led to problems with production and delivery dates. Driver shortages add to unpredictability. Her company uses parcel deliveries as well; UPS has generally been good, but FedEx needs either a standing appointment or pickups will wait until the next day.

From a technology standpoint, current systems in use that they have experienced include Oracle, SAP, Uber Freight, and TMW. No software does it all; it's different for fleets versus small carriers. Regarding electronic data interchange (EDI), there has been little to no recent change. There is a need for better communication.

Among the future challenges they identified, the spot market for trucking is hard to track, so it is difficult to understand the market going forward. Companies who are leading the market should provide insights to others on the future. Improved analytics may allow AI to help predict demand and set production schedules. The public also needs to be made more aware of the aging of truck drivers, and how difficult it will be to replace them. Communication between the public and private sectors needs to improve to help the public sector be informed.

Among the future freight visions that they identified was the use of alternative fuels. By 2050, there are a number of possible alternative fuel sources, from battery-electric, to compressed natural gas (CNG), to hydrogen. All of these alternatives require additional equipment that adds weight to the trucks, reducing the loads that can be legally hauled. In California, Schneider is using E-Cascadia semi trucks; they are limited by a 350-mile range.

Other trends that are shaping freight include the increasing number of distribution centers (DCs) being built near consumers, to reduce the last-mile delivery distances and address consumer expectations for next-day deliveries. On Interstate Highways and some State Highways, truck lanes are being incorporated as extended merge lanes. This makes it easier and safer for slow-moving vehicles to get up to speed. Freight deliveries are also being moved to off-hours (6:00 p.m. to 6:00 a.m.) as those times are less disruptive and transit times between deliveries are reduced.

*Joe Krebsbach, UW-Superior*

Mr. Krebsbach introduced himself as a student in the 2024 class of Transportation and Logistics Management majors at UW-Superior. He has a background as a first responder with a volunteer fire department and has taken the Canadian National Railroad's First Responder equipment safety and emergency response course. He also received training in Colorado at the Security and Emergency Response Training Center for Crude Oil and Class III Flammable Liquid Emergencies Transported by Railroad. Rail has also been part of his internship and career; the North Shore Scenic Railroad currently employs him as Assistant Operations Manager. He was previously an Operations Intern for the company.

He focused his presentation on the future of freight rail. The current landscape is witnessing a decline in traffic due to the economic slowdown and inflation following the Covid pandemic. Geopolitical issues with China are also reducing trade; meanwhile, intermodal container traffic was shifted away from congested West Coast ports. Mr. Krebsbach expects intermodal volumes will grow substantially, with rising demand for intermodal services. He noted BNSF's investments in expanding capacity on its intermodal lanes – one from Barstow (California) to Chicago; the other along the Northern Route from Seattle and the Pacific Northwest.

Mr. Krebsbach also noted the testing of alternative fuels for rail locomotives, including hydrogen fuel cells, liquefied natural gas (LNG), CNG, and biodiesel; Union Pacific is using fleets of biodiesel powered engines. Battery-electric units are also being tested, including Watco testing switching locomotives. All the newer fuels are limited by the reduction in fuel density – the reduced level of sustained power each provides. Range of equipment is also lower than with internal combustion engines. The crashworthiness of equipment and new challenges to combustion (battery acids, lithium flammability) are emerging considerations, as is the resistance of technologies to temperature extremes and other elements of the climate.

Railroading will continue to incorporate numerous AI elements. In Australia, one rail corridor that carries iron ore is 100 percent automated; in North America, most Class I railroads use GIS and GPS systems. The Class Is also use Positive Train Control (PTC); expectations are that these systems will see greater deployment to short lines. Newer Tier 5 diesel locomotives are also being added to locomotive fleets.

Challenges seen by Mr. Krebsbach include highway/rail at-grade crossings, especially those without active warning systems. Any future system with automated or crewless trains would require major upgrades to warning systems for at-grade crossings; liability for crashes would be challenging and new government regulations would need to be established.

Specific to Wisconsin, Mr. Krebsbach was optimistic about the role short lines and regional railroads will be playing. The sale of the Canadian National lines to Watco and creation of the Fox Valley & Western (FOXY) is expected to follow the pattern of Wisconsin & Southern (WSOR): providing individual customer service, including transloading and terminal service. He noted the opportunities for FOXY will increase if mining returns to northern Wisconsin and the Upper Peninsula, especially if the White Pine Mine reopens.

Mr. Krebsbach offered some recommendations for WisDOT to consider, including maintaining awareness of potential new rail facilities (refueling terminals, intermodal terminals, and transload facilities) and their potential impacts to highway facilities. He encouraged working with railroads to improve connections between those rail facilities and major highways, ensuring those connecting roads have planning efforts to address increasing capacity and get necessary upgrades. He also encouraged

data sharing. Further, he encouraged WisDOT to be more engaged with the “Workforce of the Future” through involvement that would include internships, class tours, career days, shadowing, and guest speakers. He also encouraged cooperative efforts on research projects, scholarships, new business opportunities, and future workforce recruitment.

*Korey Garceau, Port Milwaukee / UW-Superior*

The next panelist was Korey Garceau, a 2023 graduate of the UW-Superior Transportation and Logistics Program who interned at Lake Express and the Duluth Seaway Port Authority. He is now employed by Port Milwaukee as a Trade Development Representative. His focused area was maritime freight. He began with a discussion of preparing for cargo diversification. Wisconsin’s position on the Great Lakes is a bridge between the agricultural heartland of the nation and overseas markets. It also hosts cities with strong manufacturing and industrial legacies. But the historic coal and steel loads need to be replaced by new cargoes, moving along shifted trade lanes that supply different markets. As such, port infrastructure needs to be versatile, with the ability to accommodate multiple commodities. Further, this infrastructure should take advantage of opportunities to address sustainability concerns, such as electrical hookups for vessels docked at terminals.

Mr. Garceau noted the increasing interest in containerized shipping within the Great Lakes, as part of expanding maritime trade in Wisconsin. However, only two U.S. ports see regular service: Cleveland and Duluth. If there is to be expanded containerized service on the Great Lakes, ports need more infrastructure for storage of containers and warehouses for their contents. Bridges that don’t allow double-stacked containers on rail cars need to have their clearances addressed. There is reason to be optimistic for expansion. More port “dots” along the Great Lake will allow ports to compete for rates, lowering delivered costs for the cargo owners and growing the overall market for containers-by-vessel.

There are often conflicting visions of land use at or near ports, and Mr. Garceau acknowledged that. In planning for these areas, urban planners and freight planners need to understand each other’s goals and adopt a teamwork mentality that encourage trade while considering community space. Some locations where these efforts are being put to practice include the former Pulliam power plant location in Green Bay, where the location already has rail connections and is at the mouth of the Fox River, rather than up-river. Also included is the CN peninsula in Manitowoc, where a balance of housing versus industry is a realistic goal. Community awareness is critical; citizens need to understand what a port does and how important it is to commerce, to economic activity, and to communities.

In conclusion, Mr. Garceau highlighted the benefits of investing in maritime transportation. Maritime gives Wisconsin access to the entire globe, and thereby reduces the number of “touch points” where cargo needs to transfer between modes or containers. It reduces landside congestion as rail or truck moves are consolidated into one large load; this also has environmental advantages. Further, maritime freight supports regional and national trade.

*Alex Emerson, UW-Platteville*

Mr. Emerson developed his presentation around the connections between data science and freight management. He began by noting the development of the Internet of Things (IoT) and how sensors and cloud-computing technology have fostered the “Big Data” environment. Within that environment are five “Vs” – Volume, Velocity, Variety, Veracity, and Value that fuel modern data science. While this data informs decision-makers, it does not – nor should it – replace human decision-making.

There are three categories of analytics that inform freight management, Mr. Emerson said. *Descriptive* analytics looks at the historic context of shipments to identify when and where shipments are delayed, and where and how cargoes are damaged. *Predictive* analytics develops expectations and potential outcomes for current and future shipments; this can help identify potential supply chain interruptions. Lastly, *Prescriptive* analytics suggest courses of action for future shipments, to inform decision-makers on options for other strategies or courses of action. All three sets of analytics work together to optimize freight movements.

Mr. Emerson said that when evaluating a concern, it is critical to start with the question that needs to be answered, not with a data set that may or may not be applicable to the actual problem. Otherwise, the outcome will provide bad insights. When the question is clearly articulated, find the data that informs that question, and spend time preparing, cleaning, and wrangling the data. Look for anomalies that may indicate other factors (defective equipment, dead zones, etc.) to filter those out; apply the “garbage in, garbage out” mantra. It is also important to have data shared and collected from across multiple functional areas and agencies, rather than restricted to “silos.” Management must show support and encouragement for employees to gather all the relevant data.

The private transportation sector collects vast amount of data, but carriers are reluctant to share it with the public sector. Further, the sector is vast and highly fragmented, Mr. Emerson said. He identified one source to inform both sides on means to collaborate on potential data-sharing: the 2013 *Freight Data Sharing Guidebook*. It offers examples of legal agreements and data protection that can alleviate carrier concerns. Data breaches do happen, however; concerns are legitimate. One 2023 example hit Air Europa, exposing customer credit card details. Therefore, ensuring security during data sharing and in storage is critical.

Mr. Emerson expects the future will add to the massive pool of data as sensors and cameras on trucks and roads collect real-time data on road conditions, weather, congestion, and more. All this will further populate the IoT environment and help analysts identify the abnormal events and inefficiencies. The storage and use of this vast amount of information will present ongoing challenges; improved technologies and infrastructure for data storage and analysis will be required. Increased scrutiny during data preparation will also be necessary. Overall, it will be crucial to invest in educating people on best practices for data analysis and security. It’s an iterative process that requires investment in the “people” part of the equation.

*Owen Krappman, Marquette University*

The final voice of young professionals was Owen Krappman, who highlighted the role of people in planning for the future of freight. His experience includes education in Marquette’s Supply Chain and Finance Programs, an internship at CH Robinson in sales development and solution design, and application of lean / six sigma process improvements.

Mr. Krappman emphasized that no matter which part of the freight environment is examined – from commercial drivers to freight cargo owners and customers, to the “complementors” (gas stations, warehouse and dock workers, etc.) – all value the same field of factors: safety, reliability, greater efficiency, simplicity, and human-to-human connections.

By 2050, he sees that these values will hold: people will still want reliable, safe, and efficient roads that are easy to navigate and support commerce. How the transportation system will be used in the future is the challenge that is the question faced by planners. Mr. Krappman believes road usage will increase,

motivated by the expansion in e-commerce that puts more goods and higher values on the roads. He sees the first- and last-mile being hybrid markets; some elements will be human (Uber Eats) while others will incorporate drones or other automation. Analysis and optimization of these practices is one place where AI and machine learning will be utilized to optimize routes and predict busy times or locations. Mr. Krappman spoke of optimizing systems through “pushing the button fewer times.”

Optimization will not just be applied to route planning, but also to freight loads and shipment timing. More freight deliveries will provide more data to analyze and inform AI. But even as more freight comes through the state, the workforce may see substantial changes, if automation replaces truck drivers. Cost factors will determine where, when, and how autonomous trucks will be used; so will ethical and legal concerns, such as determining responsible parties for any incidents involving AVs.

Mr. Krappman’s recommendations for WisDOT parallel those of Mr. Emerson: use technology to aid people by helping make their lives easier. With the transition to a more technological economy, investments will be needed to educate and reskill those whose jobs are phased out or transformed. There will need to be broader discussion of when and where to use humans and when and where to use technology. It’s important to note that AI doesn’t consider the human element in its decision-making; adding human expertise is essential before final decisions are cast. He noted that human expertise and technology should both be applied in a system-level focus on safety – confronting legal and ethical factors, improving highway safety, and optimizing operations to keep up with increasing volumes. Buy-in from the public will always be essential; public viewing and transparency on the decision-making processes will need to be emphasized.

In the Question-and-Answer segment, Mr. Parker asked the panel – what would the “utopia” of AI look like? Mr. Krappman replied that it would be a merger of human and technological knowledge. He said that automation can be applied in situations where people are comfortable with automated processes – part of the “push the button less” philosophy. But for claims, for example, he said those circumstances are not ideal for AI. Those are situations where there needs to be a person who can be reached by telephone. Other discussion covered the application of AI to identify new measures for engineers by better identification of problems. Such a tool could generate safer roads and intersection, especially intersections where humans and vehicles (including automated vehicles) may interact. AI could also be used to track emissions at points where fuel is wasted. The key steps are to identify the problem, assess the problem, and mitigate the problem.

Another question asked panelists to expand on the importance of mentoring. One respondent said that classes can only go so far in an education. Job shadowing was identified as a good tool in helping a student get practice “in the field” and to solidify all the knowledge that would be needed in performing the position.

A question was asked if there was one thing that surprised the young professionals in their internships. One student replied that careers are all about the network that you build. You never know when a business connection will be someone to help you along the way.

A question was raised on automation of commercial vehicles – did the young professionals have concerns over potential problems where AI is coming in contact with humans? The panelist replied that all the presentations touched on AI, but there seems to be consensus that it is important to not over-rely on technology. AI should be used to help with process improvement and efficiency, but not at the expense of safety. We can’t give autonomous systems authority and control there. Follow-up

questioning asked about AV adoption. The panelist emphasized that technology should be applied to aid people, not replace them. There needs to be a clear process for the adoption and application of technology. “Generative AI” was a phrase mentioned in closing.

### **Young Professionals – Tabletop/Breakout Discussions (11:55 a.m.)**

This information has been collected in a separate document.

### **Lunch Break (12:35 p.m.)**

#### **Agricultural Roads Improvement Program (1:30 p.m.)**

*Jennifer Murray, Director, Bureau of Transit, Local Roads, Railroads, and Harbors, DTIM*

After lunch, Jennifer Murray gave FAC attendees a preliminary overview of the Agricultural Roads Improvement Program (ARIP). The program information is still in draft form, subject to changes. The program was established in the 2023-25 State Budget through \$150 million in one-time SEG funds. Under Wis. Stat. s. 86.31, the program specifically applies to Class B and weight-restricted local roads for locations where such restrictions restrict the movement of truckloads of agricultural products. Local governments that successfully apply may receive up to 90 percent of road project costs reimbursed. Per the legislation, the program must make all awards within three years of the legislation date, and projects must be reimbursed within five years.

There are several criteria that determine eligibility of a potential ARIP project. These include the function of the highway, bridge, or culvert to agricultural lands or facilities (including forest products); that the highway has a “Class B” designation or posted seasonal weight limitations; and that after the improvement, the highway will no longer be posted for weight restrictions. Other criteria apply to this competitive program.

WisDOT expects two cycles of solicitations will occur in 2024. The first round is expected to open from January to March; with a March 15 due date. Final selections will be made at the end of April, with successful projects announced at the end of May. The second round would open in June, with review and final selections by the end of September and awards announced by the end of October.

The selection process will draw from numerous criteria, including the number of producers that would benefit, the largest level of economic impact, the lack of other options for accessing the agricultural area, the lack of local capacity to address the existing needs, the opportunity to reduce the number of trips to serve and agricultural area, and the overall volume of products to be transmitted. The applicants will need to provide this data and documentation as part of the application process.

Ms. Murray was asked if the \$150 million would be evenly allocated to the two application cycles; she said she wasn’t sure. She was asked if forestry was included in the eligibility, she confirmed it was clearly specified. She was asked if there were specific standards that the roads needed to achieve; she replied there were no specifics in the statutes, but that there was the potential for this program to parallel the Local Roads Improvement Program (LRIP) on that criteria.

## **North Central Intermodal Study: Presentation of Preliminary Findings (1:40 p.m.)**

*Libby Ogard, Prime Focus LLC*

*Dr. Richard Stewart, UW-Superior*

Ms. Ogard and Dr. Stewart co-presented on the findings from their study of Intermodal Freight, as commissioned by the North Central Regional Planning Commission. They, along with Dr. Eric Jessup, were the primary authors of the study.

By the numbers, intermodal freight comprises a \$55 billion market; however, that amount is only six percent of the over-the-road trucking market, and 16% of the third-party logistics (3PL) market. At present, the freight market is in a moderate recession, down nine percent year-to-year. International containers are one of the sectors with the greatest drop in volumes.

The objective of the study was to determine the viability of converting a portion of truck freight traffic to rail. One of the disadvantages for the region is that neither Wisconsin nor Minnesota are on big thoroughfares for freight; most of that east-west traffic comes from California into the Chicago area. For intermodal to be cost-effective, most freight experts believe that the transport distance for cargo needs to be between 500 and 1,000 miles. Longer distances go by carload freight; shorter distances go by truck.

The study found several barriers to Wisconsin opportunities. One critical challenge is the Union Pacific line through Milwaukee does not have sufficient clearance for double-stacked containers due to several local street and highway bridges over the rail corridor. Another set of operational barriers are the haulage and trackage rights; these agreements provide opportunities for Class I railroads to share use and capacity but also limit usage for other potential partners.

The study indicates opportunities as railroads seek growth through new service and terminal models. Most Class I railroads now prefer to work with private operators for new intermodal terminals, rather than try to own and operate them directly. A new marine container service has been established at Duluth and could serve as a model for opportunities in other cities. The CPKC merger is also putting more emphasis on north-south trade routes, helping to support cross-border trade with Canada and Mexico.

The methodology of the study involved data collection, development of scoring criteria, and assessment of potential locations through use of that criteria. Mapping was used to identify “hot spots” of available warehouses (to handle inbound cargo) and map areas of concentration against rail corridors with high intermodal traffic volumes and highways with high freight volumes. The importance of lane balance was a major consideration; empty containers are needed for exports. In the Minnesota/Wisconsin region, the BNSF has the greatest density of intermodal traffic.

Warehouses want to locate close to their end use customers. The optimal locations should also be convergence points for highways and railroads. For inbound loads, the study identified warehouse clusters (ranked by square footage) – places where cargo can get unloaded for local deliveries. Outbound customers were identified as food and agricultural shippers with the highest sales volumes; more than 500 locations were plotted and clusters identified.

Next, Dr. Stewart discussed the characteristics and requirements of intermodal terminals. In the region, most are public, except the private Ashley Furniture terminal at Arcadia. Each terminal has a base of one or more keystone customers. The examination assessed the space needed (around 20 acres), the

minimum number of annual lifts needed (20,000 was cited as a baseline volume, although Wisconsin terminals have operated with lower volumes), and whether the terminal would handle international containers, domestic containers, or both. While international containers are the more profitable market, Dr. Stewart noted the recently-opened UP terminal in the Twin Cities is exclusively for domestic containers. Other criteria were discussed, including the drayage distances; he noted that drayage should not be more than 15 percent of the overall haul distance. He also noted that backtracking of movement was not favored.

From all these factors, a scorecard was developed for the study to consider the desirability of potential terminal locations. The seven key criteria for service include: 1) direct connections to a Class I railroad along a corridor that accommodates double-stacks; 2) availability of sufficient land for a terminal; 3) easy highway access for drayage and distribution; 4) a drayage distance that is cost-effective in comparison to other terminals; 5) a catchment area with sufficient population density to support sustained inbound cargo demand without competition from an adjacent terminal (and preferably with balanced inbound and outbound volumes along critical lanes); 6) a keystone customer (or customers) to ensure sufficient freight volumes; 7) and local terminal support – minimal or no “NIMBY (not-in-my-backyard)” opposition. The team noted that Ashley Furniture’s private intermodal terminal in Arcadia is proof that by guaranteeing a satisfactory number of loads, you’re almost ensured of receiving intermodal service.

The study applied the seven criteria to potential locations for a terminal in Wisconsin to provide a comparative indication of which locations would have greatest likelihood of success. Each of the seven criteria were given a score on a one to five scale; therefore, the maximum potential score was 35. A key caveat is that any proposed terminal would need to be financially viable – with reliable deliveries and cost-effective pricing for cargo owners.

In total, 18 potential locations in Wisconsin were assessed. Some of the initially attractive locations have substantial challenges. For example, WSOR service to the Oshkosh transload facility is restricted to one train per week between that terminal and Chicago. Locations along UP need to have the vertical barriers removed. At present, the highest-ranking opportunities are CPKC at the Milwaukee Muskego Yard; CPKC at Port Milwaukee; and CN at Fond du Lac. With removal of vertical clearance restrictions, UP facilities at the Butler Yard and in Jackson join the top tier of candidate locations.

Another key evaluation metric in the study was looking at origin / destination pairings between Wisconsin and major North American metropolitan areas – locations at an optimal distance (long lanes) for intermodal freight. The study first looked only at locations where single-line rail service was available from Wisconsin (via CN, CPKC, BNSF, or UP). Later, considerations were made to review options that would include interchange with eastern railroads (Norfolk Southern and CSX). UP and CSX have existing interchange agreements. The result is that destinations in Texas and in California could each divert 14,000 outbound loads per year; locations in Kansas (Kansas City), Tennessee (Memphis), and Pennsylvania could divert about half that volume. Each of these lanes (save Kansas City) appears to have sufficient return volumes for lane balance.

One point the research team noted was that improvements from precision scheduled railroading (PSR) opened enough capacity on Class I railroads to divert seven million to 11 million truckloads to rail. That comprises 3.5 million truck drivers per day. But at present, diversion is not cost-competitive; spot rates for trucking are much cheaper than intermodal. They’re at such a low point, they’re even lower than carload rail freight. However, over time, trucks may become less cost-competitive as highway congestion and driver availability/cost become more constraining.

The research team summarized their recommendations to include using the influence of the states to address infrastructure deficiencies, encouraging state agencies and non-government organizations to work in unison, and recognize the need to have a local champion for a terminal who would provide leadership. Use of funds to leverage state matching grants is another recommendation, as is broad-scale engagement among all parties – railroads, shippers, carriers, and intermediaries on exploring terminal options and viable long-lane corridors. Opportunities exist for connecting distribution centers in the Fox River Valley or Milwaukee with southern metropolitan regions such as Memphis, Dallas, and Houston; perhaps domestic intermodal is more viable?

Among the questions asked to the panel were clarification on the double-stack limits on the UP rail line through Milwaukee; those are due to overhead clearances from state highways and local roads. Another question asked to confirm that WSOR is limited to one train per week between Oshkosh and Chicago; the response clarified it is one intermodal train per week that would get trackage rights into Chicago. Another question asked if WSOR could have access to a Milwaukee terminal; that would require a new agreement. One member reiterated his ongoing concern with drayage costs making his products from Wisconsin more expensive than from any other state east of the Mississippi River. It costs him \$1,700 to dray a container to Chicago; it's less than that to move the container between Chicago and China. Ms. Ogard said Montana faced similar challenges over high grain shipping costs.

#### **Wisconsin State Rail Plan 2050 (1:55 p.m.)**

*Alex Gramovot, Chief, Planning Section, DTIM*

Mr. Gramovot offered a brief overview of the Wisconsin Rail Plan (WRP) 2050, adopted in July of 2023. This plan meets federal requirements for rail funding and sets state policies for passenger and freight rail. He noted that the WRP integrates with the other WisDOT “Family of Plans,” including the State Freight Plan. Some of the key elements in the WRP include plans to expand passenger rail service in Wisconsin to locations such as Madison, Oshkosh, Appleton, Green Bay, and Eau Claire by 2050. Key goals include enhancing safety, security, and resiliency; ensuring system preservation and enhancement; and enhancing mobility, operations, reliability, efficiency, and connectivity. Public involvement was extensive, involving public comment periods (which captured 553 comments), virtual public meetings, and a recorded presentation.

#### **Break (2:05 p.m.)**

#### **Intermodal Freight in Wisconsin - Panel Presentation and Discussion (2:15 p.m.)**

- Moderator: Dr. Richard Stewart, UW-Superior
- Panel Members:
  - Brian Netzing, Menards Inc.
  - Bo DeLong, The DeLong Company
  - Sandi Siegel, M.E. Dey
  - Jonathan Lamb, Lake Superior Warehousing

Dr. Stewart introduced the panel, noting they represented a combined 175 years of experience with freight.

*Brian Netzing, Menards Inc.*

Mr. Netzing discussed the challenges Menards has faced with intermodal freight. The company has 12 distribution centers (DCs) around the country that supply its stores; Eau Claire is its largest DC. The

company's primary sources are in Asia, but they also bring in products from Brazil in South America through New Orleans and Mobile; and from Europe through Halifax.

The CN intermodal yard in Chippewa Falls had been a large destination point until Covid; currently, only half the pre-Covid volume of containers is arriving at Chippewa Falls – around 3,500 per year. Minneapolis is now a larger destination; around 8,000 containers per year are delivered there for Menards. However, when comparing Chippewa Falls to the Twin Cities, Chippewa Falls deliveries are advantageous for distance to the DC (14 miles versus 85 miles), and travel times are shorter to Chippewa Falls over water from Asia (12 days versus 13 days) and across North America by rail (four days versus six days). (This is due to the use of different coastal terminals and rail carriers.) Menards also receives 500 containers per year through Chicago; the drayage distance from there is over 300 miles.

One of the other advantages Mr. Netzinger identified in regard to the Chippewa Falls yard is a 15-mile approved heavy load route between the yard and the DC. By allowing heavier containers and using a six- or seven-axle configuration for 90,000 pounds, the company can eliminate the need for every seventh container. Other states allow similar additional weight on six-axle configurations, with more roads open to those operations. These heavier weight options and the Chippewa Falls terminal are helpful for export markets; especially since loaded containers of soybeans, distiller's dried grains (DDGs), and lumber are brought to the yard on a closed one-mile loop. Two local companies – Chippewa Valley Grain and River Country Co-Op – handle grain exports. Mr. Netzinger added that Menards now has 29 CNG-fueled trucks in operation for deliveries to the Twin Cities region.

Although there has been consideration of container shipping on the Great Lakes, Menards does not currently see that as viable for its business. A container sent through the Pacific Coast ports would spend 12 days on a vessel, compared to 45-50 days coming via the Great Lakes. Delivered container cost via the Great Lakes was as high as \$9,250 in March 2023, although it's dropped to \$4,025 for November 2023. By comparison, the delivered container cost from Asia to Chippewa Falls via Prince Rupert, British Columbia was \$4,500.

Covid prompted steamship companies (Cosco, CMA CGM) to shift their service away from Chippewa Falls to locations in Minneapolis or Chicago. Menards' import volumes had been over 7,800 containers in 2020; by 2021 it fell to 4,300, then to 2,600 in 2022. Volumes have recovered somewhat in 2023, with 3,600 containers received through September. It's been a struggle to get the steamships to agree to let their containers go to Chippewa Falls by rail. This means Menards has delays in container movements and deliveries as drivers need to travel farther to get to the Twin Cities; this also results in a shortage of chassis.

One difference between Ashley and Menards is that Ashley made the commitments with the liners and CN to guarantee volumes. Menards has its vendors pay the freight costs; often, they are unable to get quotes for shipping rates to Chippewa Falls. Without the inbound containers, exporters have been left without the means to export containerized grains. At the worst part of the pandemic, the container owners refused to allow returning containers to be reloaded for export.

Businesses like Custer Farms have been facing uncompetitive pricing from both railroads and steamship lines in their attempts to export; they have shifted sourcing to other states and have resorted to other extraordinary means to get containers for export.

*Bo DeLong, The DeLong Company*

Mr. DeLong's company is a long-term family business that has been a leader in containerized agricultural exports for the past two decades. The company's primary markets are China, Japan, and Southeast Asia; DeLong exports 120,000 TEUs (about 85,000 to 90,000 containers, using both 20' and 40' containers) per year through its six transload facilities. The export efforts started with draying loaded containers to Chicago; now, those containers are loaded from one of two transload facilities directly adjacent to the Joliet intermodal terminals. Soybeans and DDGs are the primary exports.

Beyond the Chicago area, DeLong also has container loading operations in/near Omaha, NE; Kansas City, KS; Columbus, OH; and Newark, NJ. The company's business model works due to competitive backhaul rates supported by the front haul (importers) paying most of the costs of container transportation. This allows containerized shipping to be competitive with bulk vessel shipping. The important factor is to be efficient, through making quick loads and turns for the liner services.

Several factors can challenge this business model, Mr. DeLong said. These include the basic availability of containers as import volumes fluctuate. Drayage costs compel the transloading facilities to be near major intermodal terminals. Transloading costs are controlled through managing these operations internally. To be competitive, containers need to be loaded in the range of 52,000 to 56,000 pounds; transfers to intermodal yards are often made without use of public roadways. Velocity is tied to efficiency; DeLong works to make container turns in less than a day and a half.

The pandemic in 2021-22 created significant issues for containerized shipping. Inland container yards (CYs) and terminals were closing regularly due to being overwhelmed by congestion. DeLong worked with importers and drayage companies to remove the CYs from the equation and bring the returning containers directly on-site at the transload terminals, employing the "street turns" practice. At Joliet, DeLong worked with Home Depot and Walmart to use the same truck for dropping off imports and picking up empty containers for delivery to the DeLong transload facilities. That practice was also used in Kansas City, in cooperation with Kubota. This helped the liner services to maximize container velocity.

The Joliet terminals comprise 45 acres, and include container loading, staging, and container storage. DeLong's operations are just two miles from UP's terminal and three miles from BNSF. Omaha is DeLong's most efficient operation, with transloading happening directly within the BNSF intermodal yard. Omaha captures empty containers that are being repositioned from Chicago, Memphis, and Dallas; these containers are already on their way west to be returned. Since the facility is on BNSF property, the containers are filled to the maximum weight allowed by the rail cars carrying the containers.

DeLong agrees that any opportunities to expand intermodal will require key importers to anchor the demand for deliveries to southeastern Wisconsin and commit to threshold volumes of inbound boxes – probably 200 to 400 boxes per week at a minimum. The terminal would also require commitments from one railroad (provided it can provide the service) and one to two steamship lines. Export volumes will follow the imports, as the state has ample large-scale exporters.

*Sandi Siegel, M.E. Dey*

In her role as President of a freight forwarding company, Ms. Siegel's core business is with importers; the company also works with exporters. As of late 2023, she said the supply chain is on a better place than the chaos and congestion that marked the Covid era. At the peak, an importer could not get an ocean container delivered to the Midwest. But there are still lingering effects; markets are still uncertain, with cautious shippers facing issues with global politics. Customers are getting mixed messages. But the

improvements have happened – freight rates have normalized and equipment shortages have been balanced through repositioning. Imports remain higher than pre-Covid; loaded export volumes are higher at many ports, with spot congestion and equipment shortages.

The challenge is that even as container volumes return to historic norms, infrastructure is not keeping pace, especially for Wisconsin. The two public intermodal yards in Wisconsin are Chippewa Falls and New Richmond in the western part of the state, while Metropolitan Chicago/Joliet has almost two dozen yards. This concentration of activity in Illinois is also a challenge to demonstrate demand to liner services and railroads because all the data for inbound cargo is credited to Illinois. Other ongoing challenges – first/last mile costs, delays at turn-around, challenges for overweight cargoes – are well-documented. Lack of an intermodal yard in eastern Wisconsin also means benefits from proximate warehouses (quick and efficient cargo handling, faster customer fulfillment) are not available. The bottom line is that the market is driven by ocean carriers and they are not supporting service into or out of Wisconsin intermodal facilities. Freight forwarders can't buy service to Wisconsin, even with the support of railroad companies – the liners simply won't give rates, even when repeatedly asked.

Ms. Siegel said the beneficial cargo owners (BCOs) need to be more emphatic in making commitments on contract volumes and destinations. Ocean carriers will subcontract with railroad to get the boxes delivered if the customer demands it. If the company is not controlling the volumes, then it's not getting service.

Ms. Siegel then shared maps of the CP network to show the rail routes taken by containers in the "old days," with liner service by ZIM and Hapag-Lloyd. Now, the closest yards for Wisconsin customers are CN's Harvey yard, and CPKC's Schiller Park yard. Most Wisconsin shippers opt to use Canadian ports for imports to save costs; they have lower harbor maintenance fees than at U.S. Ports. She expressed optimism for opportunities from the CPKC merger, noting the growth of the Mexican market for both imports and exports. Mexico will provide relief to issues with China. Another advantage: cross-border commerce with Mexico or Canada can be done with domestic intermodal equipment rather than overseas boxes.

The need for improved Wisconsin infrastructure is a key business issue with the Metropolitan Milwaukee Association of Commerce. Government support will be needed to bring about major changes; the state should look at attracting an intermodal yard the way it looked at attracting Foxconn – as a means to attract future businesses. The new air cargo terminal at Mitchell International (GMIA) has the opportunity to provide relief to the air cargo congestion at O'Hare. However, there is also the challenge that the size of the planes that can land at GMIA is smaller than what can be handled by O'Hare.

*Jonathan Lamb, Lake Superior Warehousing / Duluth Cargo Connect*

Mr. Lamb offered insight on maritime intermodal opportunities. The Twin Ports of Duluth-Superior are served by four Class I railroads, are connected to the globe via the St. Lawrence Seaway, and are covered by a Foreign Trade Zone designation. Duluth is one of two existing U.S. ports handling intermodal containers (Cleveland is the other port) with service provided by Spliethoff.

The CN rail/truck intermodal yard in the Twin Ports has gone through "gyrations," per Mr. Lamb. The facility had been on a pace of 12,000 to 15,000 lifts per year; now it has seen volumes drop, much like witnessed in Chippewa Falls. The intermodal ramp is entirely within the footprint of the Port, which is a benefit as overweight containers don't need to use public highways to reach the warehouses. The port has over 500,000 square feet of warehouse storage.

The operations of Spliethoff through the Seaway are still emerging, but the opportunities are exciting, Mr. Lamb said. The Port accommodates both Customs and the Coast Guard to help facilitate operations. The container-on-vessel service is still a “niche service” and is oriented towards the European markets. Use of the Seaway has its limits – the seasonality of operations and the vessel size (limited by the lock system). The economies of scale are just not there for the service.

What would help to improve the service is the development of a network of ports around the Great Lakes that would handle containers. This could help to add markets, support matchbacks for exports, and potentially increase destinations in Europe and elsewhere. Mr. Lamb thinks that time will come, eventually, as landside density increases. He notes that Europe is ahead of the U.S. in carbon taxes; container-on-vessel may be cost-effective under such calculations. But that will be years into the future.

#### *Question and Answer Session*

In the Question-and-answer session, Bo DeLong was asked if his containerized grains were specialty grains, or otherwise identity-protected. He replied that the containers covered all commodity type grains; identity-protected grains comprised between three and four percent of overall exports. The containerized loads compete with bulk shipping. Another question asked if other customers used Chippewa Falls for inbound cargoes. The response was that yes, Walmart has used it to direct products to its distribution centers in Tomah and Menomonie.

#### **Intermodal Freight in Wisconsin – Tabletop/Breakout Discussions (3:10 p.m.)**

This information has been collected in a separate document.

#### **Closing Remarks (3:45 p.m.)**

*Angela Adams, DTIM Deputy Administrator*

In her closing remarks, Ms. Adams thanked attendees and panelists for sharing their time and information with WisDOT, noting the importance of the FAC in informing the agency on current and emerging issues.