



District 2 Freight Plan – Meeting #4

Plan Advisory Committee
September 2, 2020

Introductions

Andrew Andrusko

Project Manager/State Freight Planner – MnDOT
Office of Freight and Commercial Vehicle Operations

Nancy Graham

Senior Engineer – MnDOT District 2

Jon Mason

Planning Director – MnDOT District 2

Dan Haake

Project Manager – HDR

Chris Ryan

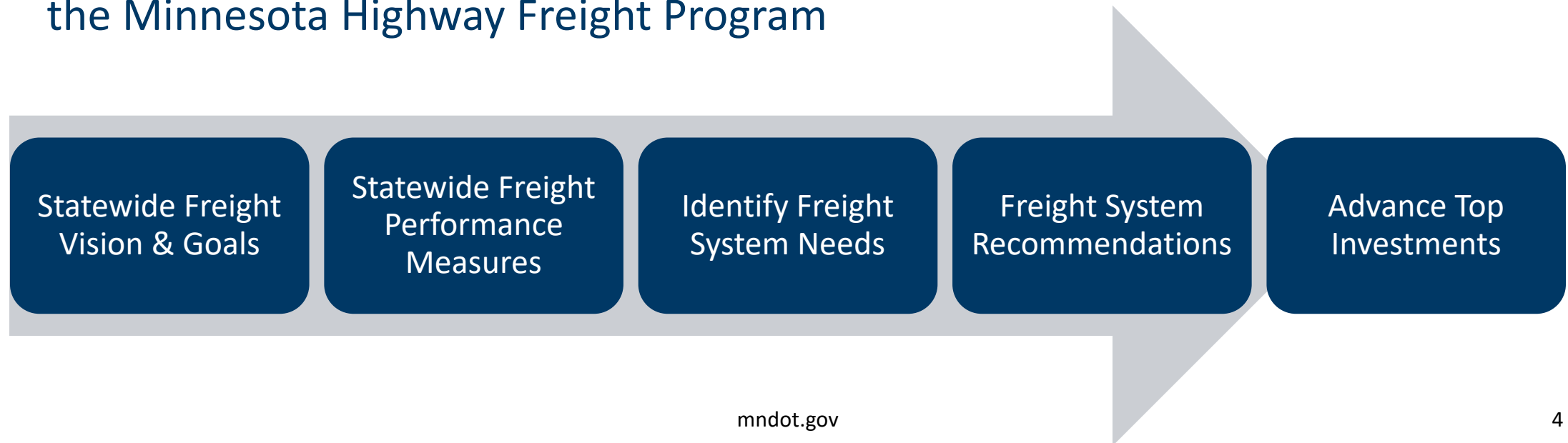
Deputy Project Manager – HDR

District Freight Planning

Andrew Andrusko | MnDOT Project Manager

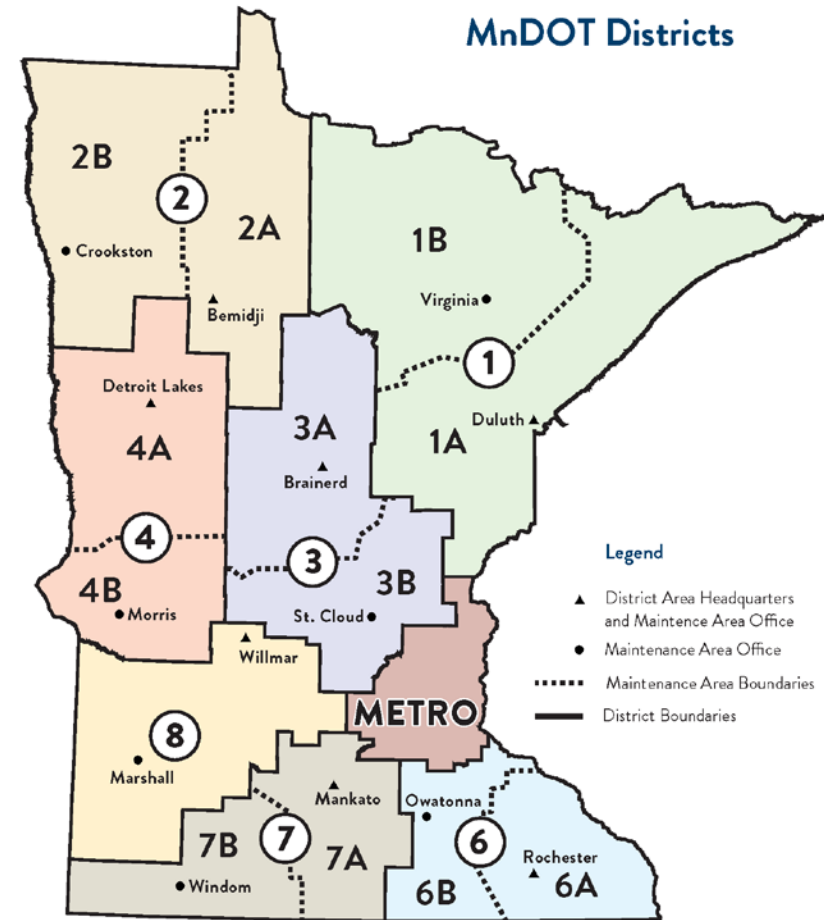
MnDOT Freight Planning

- MnDOT has been working to implement the recently adopted statewide freight plan called the Minnesota State Freight System and Investment Plan
- One of the key recommendations was to work with each area of the state to create more detailed plans that would identify improvements to connect with the Minnesota Highway Freight Program



MnDOT District Freight Plans

- Developing District Freight Plans for all Districts
 - District 1 completed
 - Districts 2, 3, 8 underway
- Precursor effort to prepare for next Statewide Freight Plan
- Identify key issues/opportunities for each District
- <http://www.dot.state.mn.us/ofrw/freight/districtfreightplan/>



MnDOT office contact information can be found online at: www.mndot.gov/information/locations.html

Purpose of this effort

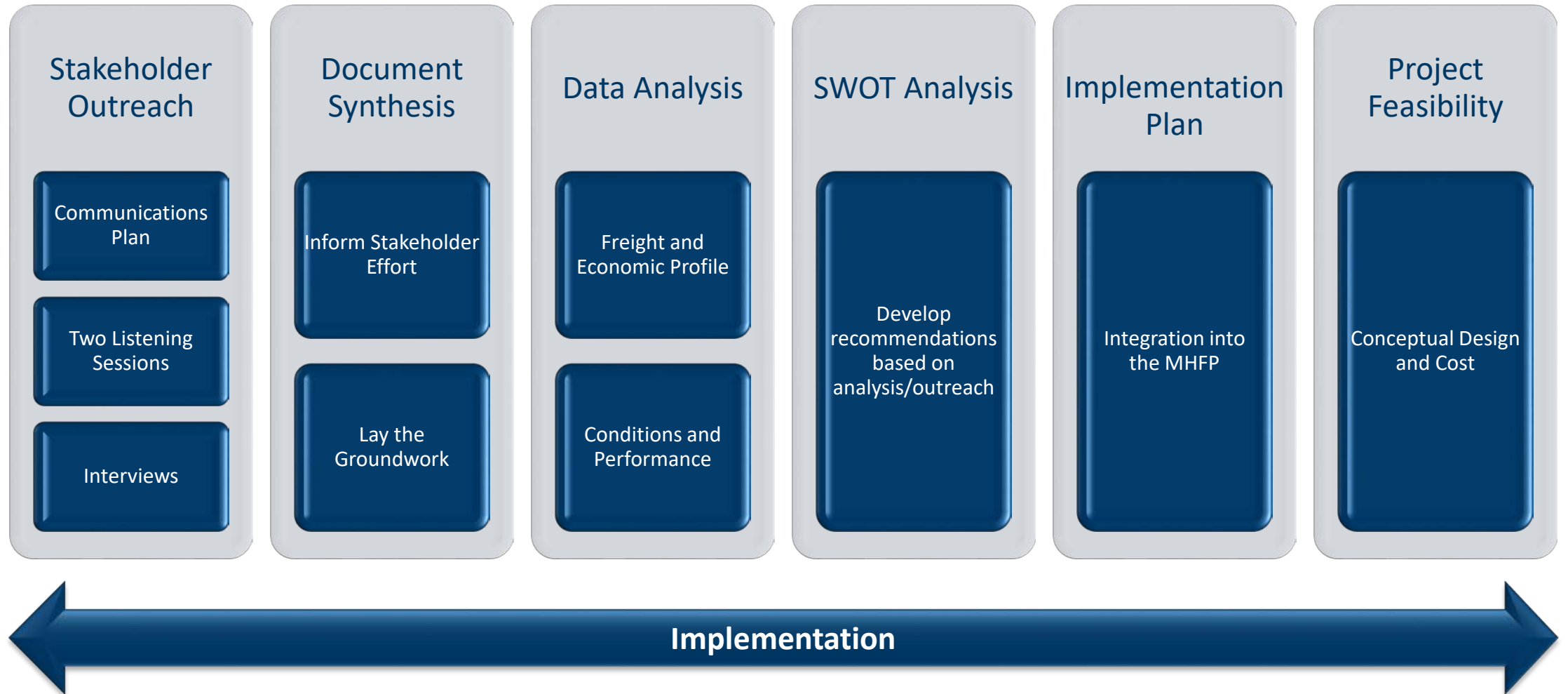
The District 2 Freight Plan will:

- I. Provide an up-to-date assessment of freight needs and issues specific to the District
- II. Produce a list of strategies to improve freight mobility in the Northern and Northwest Minnesota region
- III. Roll up long-term planning and programming in the next Statewide Freight System Plan

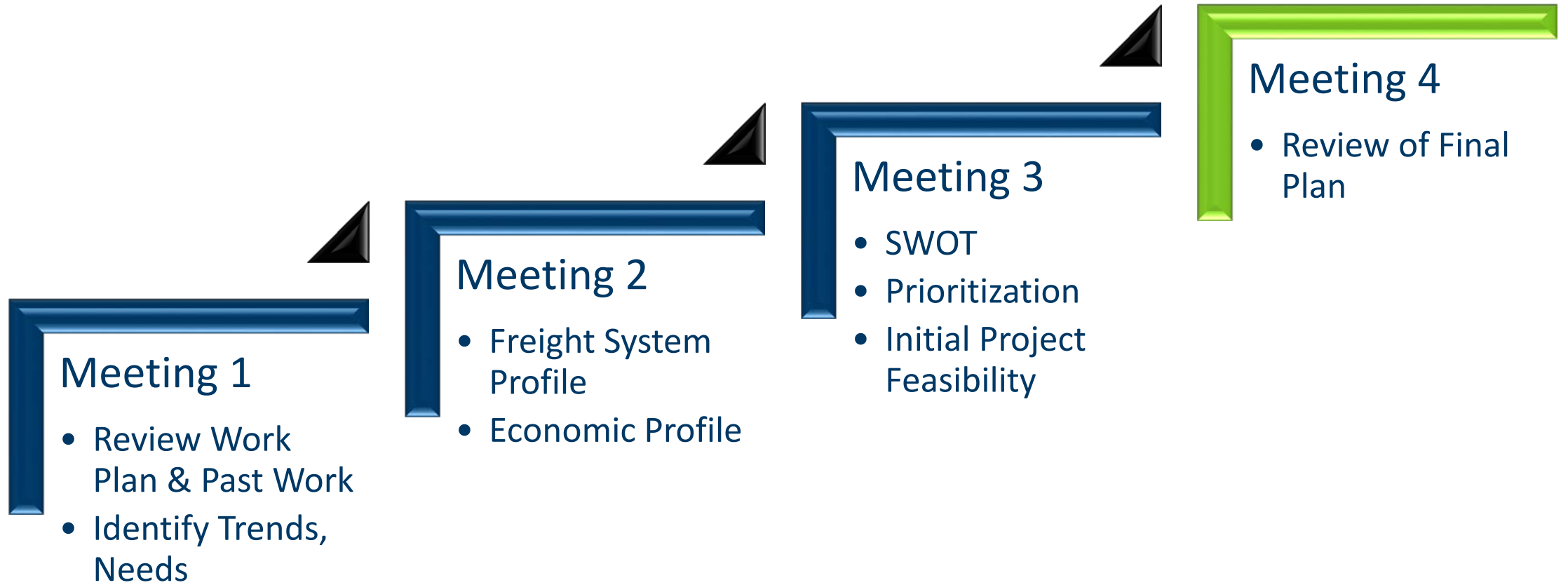
Project Status Update

Dan Haake | HDR Project Manager

Project Status



Advisory Committee Meetings



Draft Final Plan

Dan Haake | HDR Project Manager

Documents

- Final Plan
 - Working Papers
 1. Document Synthesis
 2. Economic and Freight System Profiles
 3. SWOT Analysis
 4. Prioritization and Preliminary Conceptual Design

Chapter 1: Vision for the Future

Dan Haake | HDR Project Manager

Plan Development and Data Sources

- Leveraging Past Work
 - Statewide Freight System and Investment Plan (SFSP)
 - Greater MN Mobility Study
 - GF-EGF Metropolitan Transportation Plan
 - D2 Manufacturers' Study
- Data Sources
- Stakeholder Engagement



Stakeholders Included:

Paradis Inc. Thief River Falls Airport
CHS Northland Grain
Bemidji Aviation Grand Forks – East Grand Forks Metropolitan Planning Organization
Digi-Key Textron FedEx Central Boiler

 **32 responses** were collected
from our stakeholders and the community

2 carriers	2 receivers	8 selected more
1 government	7 shippers	than one option

Distributed on **MnDOT's**
social media channels

Ran for **2 weeks** 327 link clicks
14,568 saw the ad at least once



Encouraged project partners to
share on their channels

An online survey was distributed including similar questions as the stakeholder interview.



Hey:
Northwest Minnesota
We want to hear from you!

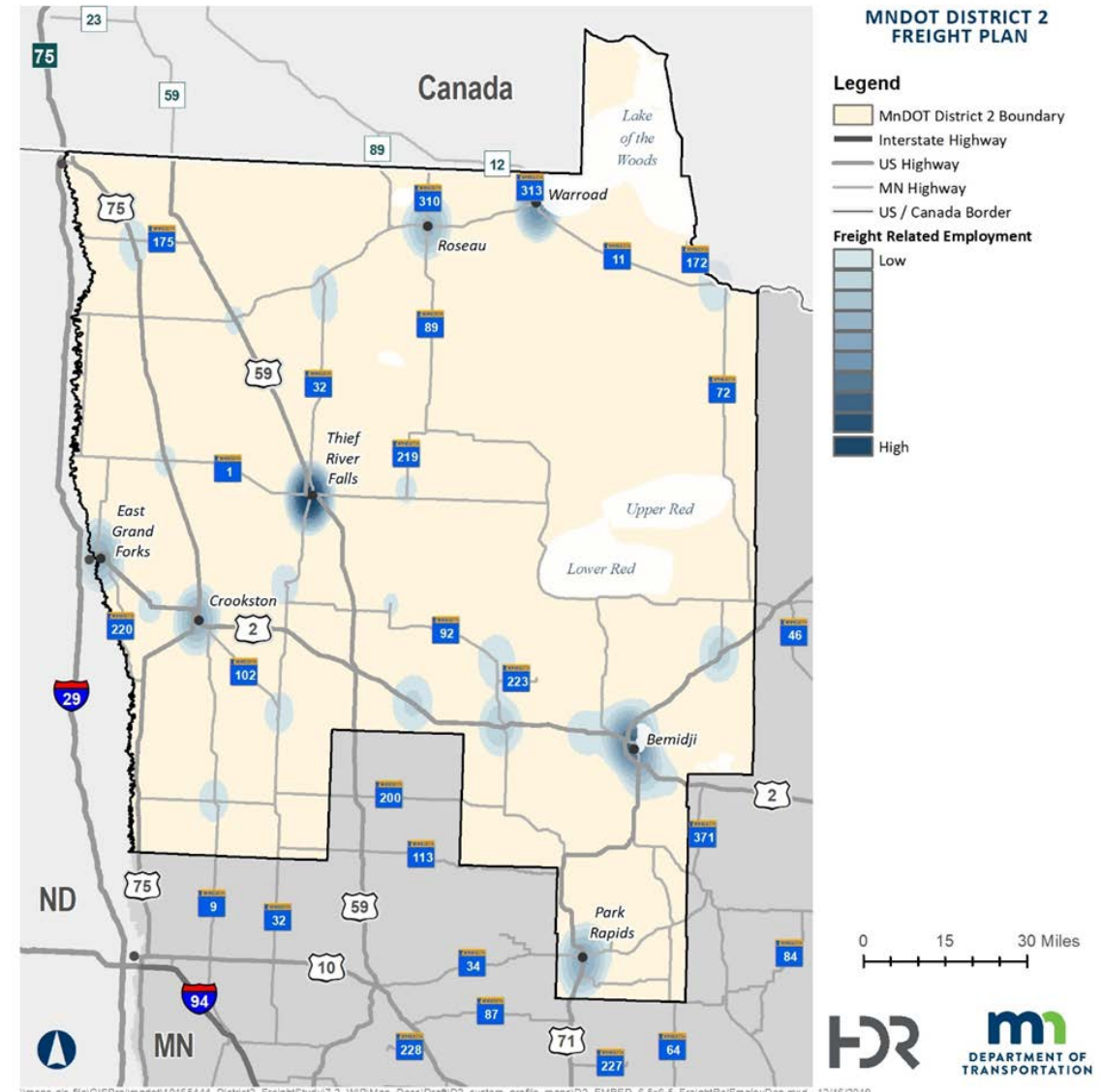
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DEPARTMENT OF TRANSPORTATION

Chapter 2: Existing Freight Conditions

Dan Haake | HDR Project Manager

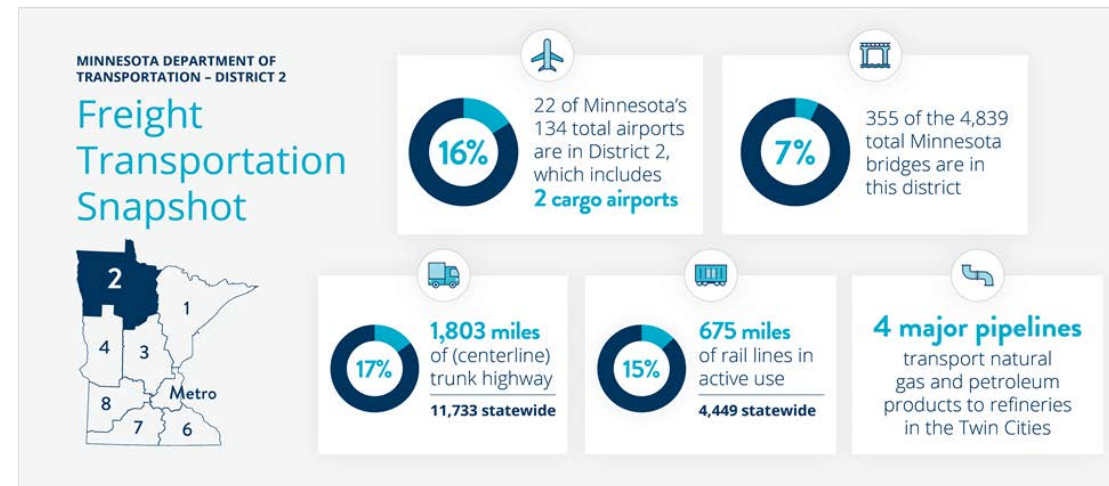
Importance of Freight to the Economy

- Economy
 - > 50 percent of jobs in the District are freight-dependent



Freight System Profile

- 5 Freight Modes – Identified and analyzed
- Key Takeaways:
 - Border Crossings (US 75 Reliability)
 - Trucks accounted for 7 percent of all crashes
 - 2x more likely to be fatal
 - Agriculture related crashes
 - 30 percent of crashes (Aug-Oct)
 - Pavement concerns on county network



Importance of Air Cargo

- Importance of Air Freight
 - Supporting Advanced Manufacturing, DigiKey, etc.
 - Availability of inbound air freight
 - Medical supplies
 - E-commerce



Chapter 3: Key Needs, Issues and Challenges

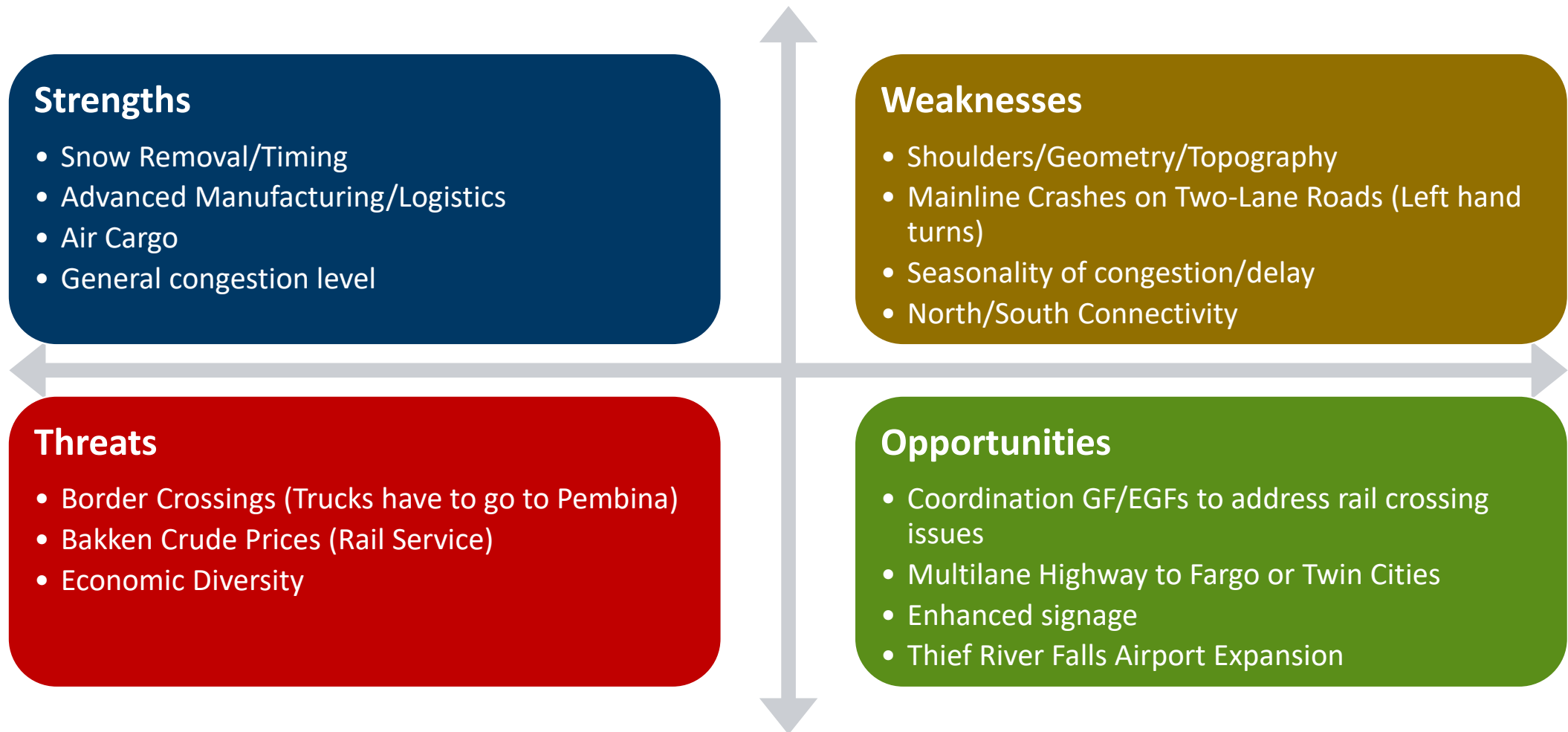
Dan Haake | HDR Project Manager

Chris Ryan | HDR Deputy Project Manager

Chapter 3: Key Needs, Issues and Challenges

- SWOT Analysis
- Future Challenges
- Identification of Gaps = Freight Needs – Programmed Projects

SWOT Analysis



Key Challenges

- Importance of Air Cargo
- Manufacturing Industries are Critical to the District 2 Economy
- Limited Canadian Border Crossing Options
- Desire for Corridor-Level Freight Mobility Improvements
- Need for Downtown Studies

Freight Needs and Issues Identification

Data-Identified Needs

- Roadway Crash Data
- Highway-Rail Crash Data
- Truck GPS Data
- Vertical Clearance
- Infrastructure Condition Data

Stakeholder-Identified Needs

- Stakeholder Interviews
- Online Survey
- Manufacturers' Perspectives Study
- Previous Plans and Studies

Freight Needs Categories

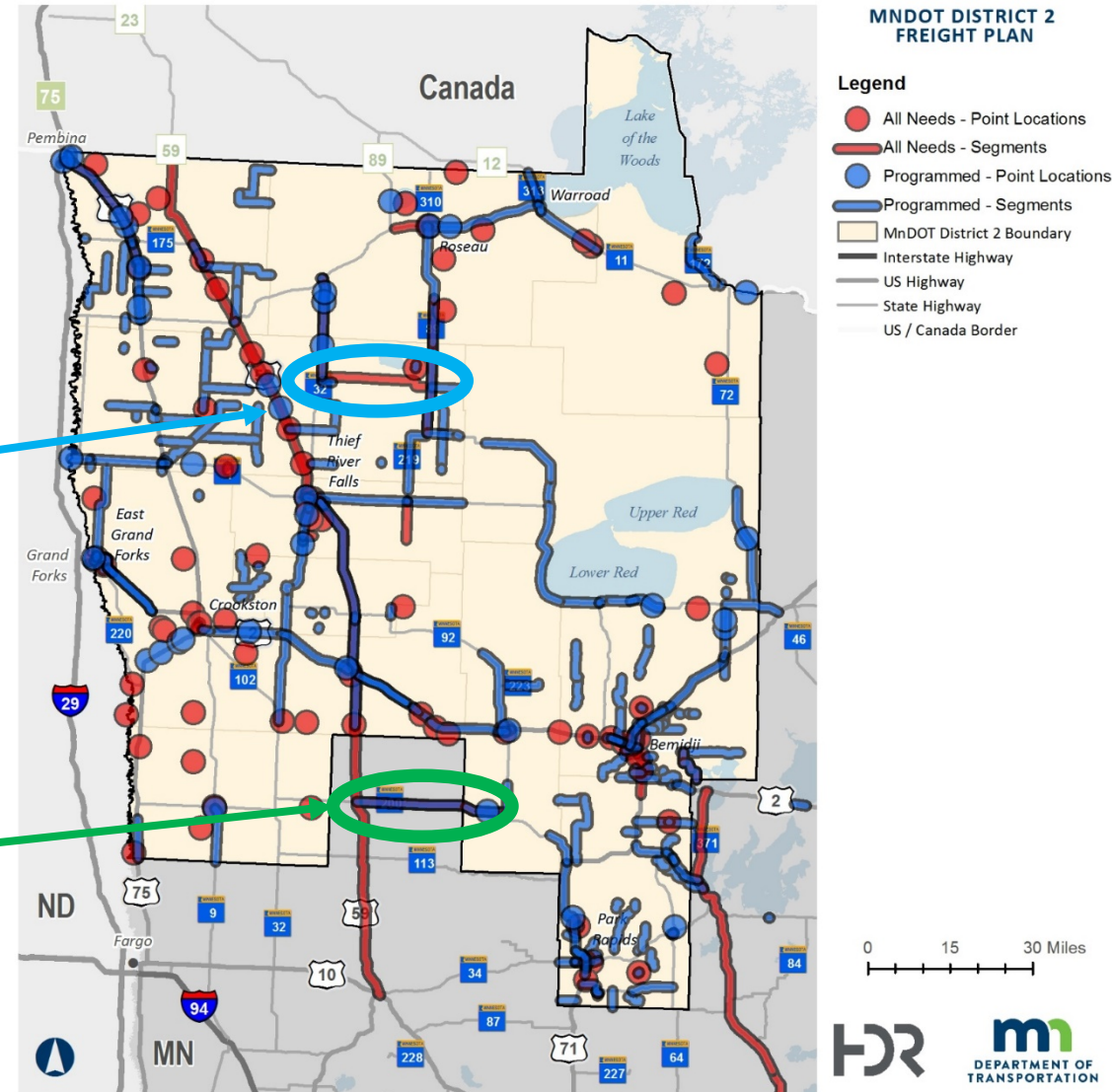
- Safety → Freight Plan Goal: **Safeguard Minnesotans**
- Mobility → Freight Plan Goal: **Improve Minnesota's Mobility**
- Condition → Freight Plan Goal: **Preserve Minnesota's Infrastructure**

Gap Identification

- Gaps identified by comparing freight needs with programmed projects

Freight need not addressed

Freight need addressed



Chapter 4: Project Funding and Prioritization

Chris Ryan | HDR Deputy Project Manager

Project Scoring and Prioritization

Truck Volume Score

- Max score of 10 for truck volume and truck percentage

Safety Score

- Max score of 10 for truck crashes and grade crossings

Mobility Score

- Max score of 15 for TTRI, vertical clearance, and bridge weight limit

Condition Score

- Max score of 5 for bridge condition

Final Ranking and Selection

Rank	IssueID	Source	Roadway	Category	Details
1	D12	MnDOT 10-Year Crash Data	Robert St	Safety	Intersection with high crash density
2	D14	MnDOT 10-Year Crash Data	W 6th St	Safety	Intersection with high crash density
3	D17	MnDOT 10-Year Crash Data	Central Ave	Safety	Intersection with high crash density
4	D3	MnDOT 10-Year Crash Data	3rd St NW	Safety	Intersection with high crash density
5	S1	Previous Plans/Studies	Main Ave	Mobility	Trucks have difficulty with signal, turn onto city streets to avoid movmeent (NB to EB and WB to SB movements)
6	D68	MnDOT Bridge Inventory Data	350th Ave	Condition	One or more bridge ratings < 5
7	S11	Stakeholder Interviews	Bemidji Airport	Condition	Request for new airport maintenance facility.
8	S12	Stakeholder Interviews	TRF Airport	Mobility	Request for runway extention to allow for larger aiplanes.
9	S8	Previous Plans/Studies	Pennington Ave S	Safety	Small radius of roundabout causes some issues for truck movements, particularly in icy winter conditions.
10	S6	Previous Plans/Studies	Center St W	Safety	Signalized intersection requested to improve safety.
11	D5	MnDOT 10-Year Crash Data	E Main St	Safety	Intersection with high crash density
12	D6	MnDOT 10-Year Crash Data	USTH 2	Safety	Intersection with high crash density
13	S4	Previous Plans/Studies	USTH 2	Safety	Unsafe signal, reports of WB trucks not seeing signal in time to stop and running light.
14	D11	MnDOT 10-Year Crash Data	Demers Ave	Safety	Intersection with high crash density
15	S14	Previous Plans/Studies	MNTH 89	Mobility	Request for 10-ton road to allow deliveries in the spring
16	D33	MnDOT Bridge Inventory Data	T-26	Mobility	Posted weight limit <= 15 tons
17	D40	MnDOT Bridge Inventory Data	310th St	Mobility	Posted weight limit <= 15 tons
18	D52	MnDOT Bridge Inventory Data	T-26	Condition	One or more bridge ratings < 5
19	D74	MnDOT Bridge Inventory Data	310th St	Condition	One or more bridge ratings < 5
20	S3	Previous Plans/Studies	220th St NW	Mobility	Turn lane requested onto 220th St from TH 1 WB.
21	S2	Previous Plans/Studies	USTH 75	Mobility	Bypass lane requested due to heavy truck traffic.
22	S13	Stakeholder Interviews	210th St	Safety	Request for designated turn lane.
23	S5	Previous Plans/Studies	3rd St W	Safety	Bypass lane requested on US 1. Many vehicle pass on shoulder to pass left-turning vehicles.
24	D7	MnDOT 10-Year Crash Data	USTH 2	Safety	Intersection with high crash density
25	D9	MnDOT 10-Year Crash Data	MNTH 1	Safety	Intersection with high crash density
26	D10	MnDOT 10-Year Crash Data	Main Ave	Safety	Intersection with high crash density
27	S7	Previous Plans/Studies	Bemidji Ave N	Safety	Request for bypass lane at business entrance.
28	S9	Previous Plans/Studies	260th St SW	Mobility	Bypass lane requested.
29	D16	MnDOT 10-Year Crash Data	Demers Ave	Safety	Intersection with high crash density
30	D100	StreetLight Data Analysis		Mobility	Segment with TTRI > 8
31	D97	MnDOT 10-Year Crash Data	Washington Ave SW	Safety	Segment with high crash density
32	D80	MnDOT Bridge Inventory Data		Condition	One or more bridge ratings < 5
33	D90	MnDOT 10-Year Crash Data	USTH 2	Safety	Segment with high crash density
34	D4	MnDOT 10-Year Crash Data	MNTH 32	Safety	Intersection with high crash density
35	D15	MnDOT 10-Year Crash Data	Anne St NW	Safety	Intersection with high crash density
36	D85	MnDOT 10-Year Crash Data	N Broadway	Safety	Segment with high crash density
37	D96	MnDOT 10-Year Crash Data		Safety	Segment with high crash density
38	D98	MnDOT 10-Year Crash Data		Safety	Segment with high crash density
39	D99	MnDOT 10-Year Crash Data		Safety	Segment with high crash density

Chapter 5: Recommended Actions

Chris Ryan | HDR Deputy Project Manager

Dan Haake | HDR Project Manager

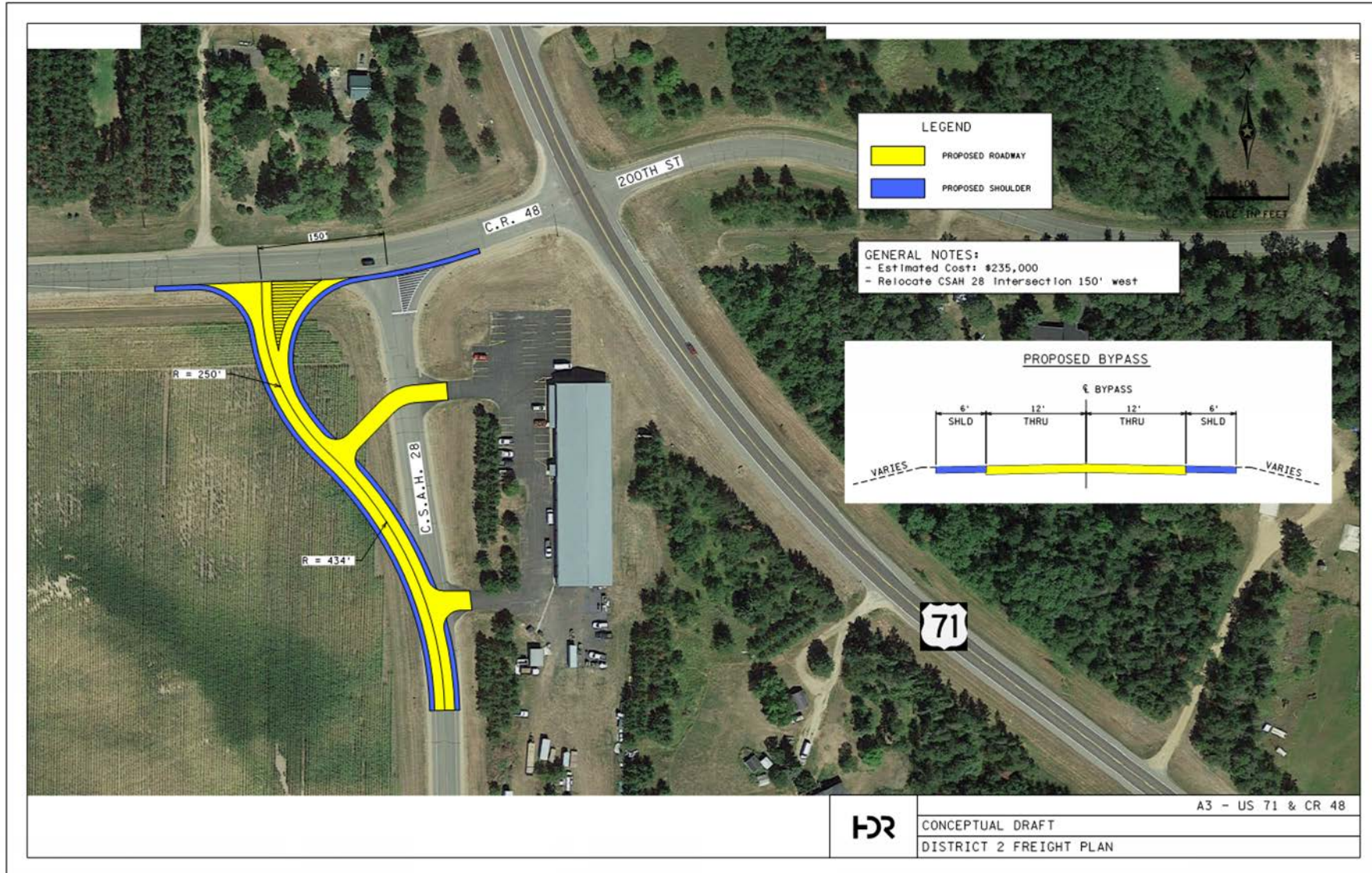
Recommendations

- **Projects** to physically improve the District's freight system.
- **Policies** to improve the governance and efficiency of the District's freight system.
- **Programs** to improve freight mobility in the area.
- **Partnerships** to collaboratively address system and operational challenges.

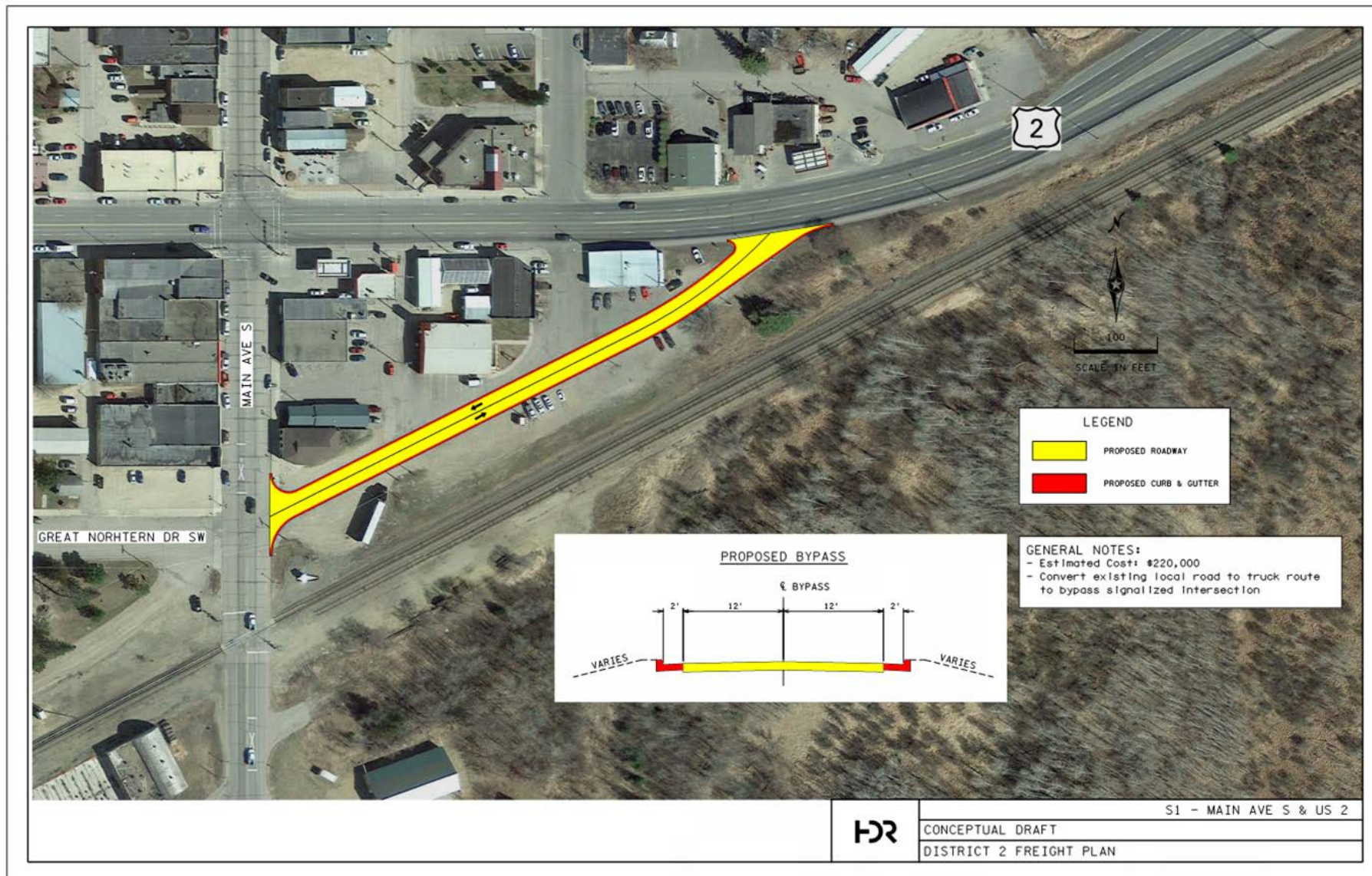
Projects

ID	Roadway	Issue	Conceptual Design and Review Notes
D3/S6	3rd St NW	Intersection with high crash density	The MN 11/MN 89 intersection was reconstructed in 2015. In 2019, Roseau completed a MN 89 corridor study that included multiple alternatives. Review alternatives for additional freight considerations.
D17	Central Ave	Intersection with high crash density	In 2019, the Grand Forks/East Grand Forks MPO completed a MN 220 corridor study with multiple alternatives. Review alternatives for additional freight considerations.
S1	Main Ave	Trucks have difficulty with signal/turn onto city street	The US 2/MN 92 intersection was reconstructed in 2018. Due to right of way constraints, trucks have challenges turning at the intersection. Analyze the area for a potential truck route.
D5	E Main St	Intersection with high crash density	Review the types of crashes at this two way stop intersection to determine potential alternatives.
D11	Demers Ave	Intersection with high crash density	Trucks have challenges turning at this urban intersection. The signal system is planned for replacement in FY 2024. Review for potential intersection alternatives to improve freight.
S3	220th St NW	Turn Lane from 220th ST from TH 1 WB	Review for turn lane warrants. Segment not included in 10 year plan, but could be included in future MnDOT/County scoping efforts if warranted.
S2	USTH 75	Bypass lane requested due to high truck traffic	There are multiple access points in this 1/4 mile section. Review previous plan or study data to determine potential alternatives.
D7	USTH 2	Intersection with high crash density	Review the larger area between bypass junction and the US 75 junction for freight challenges.
D15	Anne St NW	Intersection with high crash density	The intersection is planned for reconstruction in FY 2022. Alternatives include a roundabout at the US 71/Anne St. intersection. Review current alternatives for additional freight considerations.
A1	MN 87 to RP 47	Curves/Shoulders	Curves just east of Hubbard have been noted as a freight challenge. Analyze the area for potential improvement.
A2	MN 11 to RP 75	Curves	MnDOT has a planned construction project in adjacent to the Roseau Airport in FY 2025. Review alternatives for additional freight considerations.
A3	US 71 to RP 264	Truck Route Access	Intersection has been noted as a freight challenge. Analyze the area for potential improvement.
A4	US 59 to RP 356	Shoulder Width	Wider shoulders have been noted as a need in this area. Analyze widen shoulder for freight benefit.
A5	MN 371 to RP 91	Truck Bypass Suggested	Truck movement through Walker has been noted as a freight challenge. Analyze the area for potential freight improvement.

Issue ID A3: Double left turn from US 71 to CSAH 28 North of Park Rapids



Issue ID S1: Difficult Truck Turns - US 2 and Main Ave in Bagley



Issue ID S2: Bypass Lane on US 75 near Stephen



Policies, Programs and Partnerships

- The 2018 Statewide Freight System and Investment Plan (SFSP) identified five specific goals designed to guide MnDOT's efforts to support freight mobility.
 - Support Minnesota's Economy
 - Improve Minnesota's Mobility
 - Preserve Minnesota's Infrastructure
 - Safeguard Minnesotans
 - Protect Minnesota's Environment and Communities
- Recommendations aligned with SFSP goals
- Relationship to SWOT Analysis and Outreach Results

SFSP Goal 1: Support Minnesota's Economy

Policies

- Use sustained/long-term investments to improve timeliness of travel to the Twin Cities

Programs

- Advocate for programs to fund air cargo improvements that support rural economies
- Continue work to maintain relationships from the Manufacturers' Perspective Study and the District Freight Plan efforts.

Partnerships

- The State of Minnesota could work with U.S. Customs and Border Protection to address the implications of focused freight crossings into Canada via Pembina, ND, creating a circuitous truck route to the Winnipeg market

SFSP Goal 2: Improve Minnesota's Mobility

Policies

- Initial planning efforts to identify additional north/south cross-district routes.
- Work across the state border to address Grand Fork rail crossing delays that extend into Minnesota

Programs

- Develop “three lane” corridors in heavy agricultural areas and key interregional corridors

Partnerships

- Partner with the private sector and local airports to pursue funding for larger hangers and extended runways
- Work with the railroads to ensure connectivity to multimodal connectivity points
- Multi-state oversized/overweight harmonization (including Canada)
- Assistance to county governments with freight planning

SFSP Goal 3: Preserve Minnesota's Infrastructure

Policies

- Increased signage – both directional and dynamic messaging signs

Programs

- Short line railroad tax credit aimed to incentivize maintenance and rehabilitation on rail used for agricultural rail shuttles
- Program to help counties address weight restricted key agricultural corridors.

Partnerships

- Work with the airports to advocate for air cargo project funding at state legislature

SFSP Goal 4: Safeguard Minnesotans

Policies

- New signage near past crash locations, left hand turn lanes, bypass lanes, or two-way left turn lanes (three lane roads) which may help eliminate these risks during harvest

Programs

- Create a shoulder widening program for key freight corridors

Partnerships

- Partner with local counties to increase response times to winter weather on local roads
- Identify funding opportunities to improve airport weather response

SFSP Goal 5: Protect Minnesota's Environment and Communities

Policies

- Develop programs that minimize the environmental impacts of freight, specifically: pollution, greenhouse gas emissions, stormwater impacts and wildlife habitat loss
- Apply context sensitive, truck design guidelines on roads with significant volumes or deliveries.
- Analyze the impact of freight on environmental justice populations.

Programs

- Last mile connectivity to air cargo facilities
- Future “main street” redesign projects could integrate freight

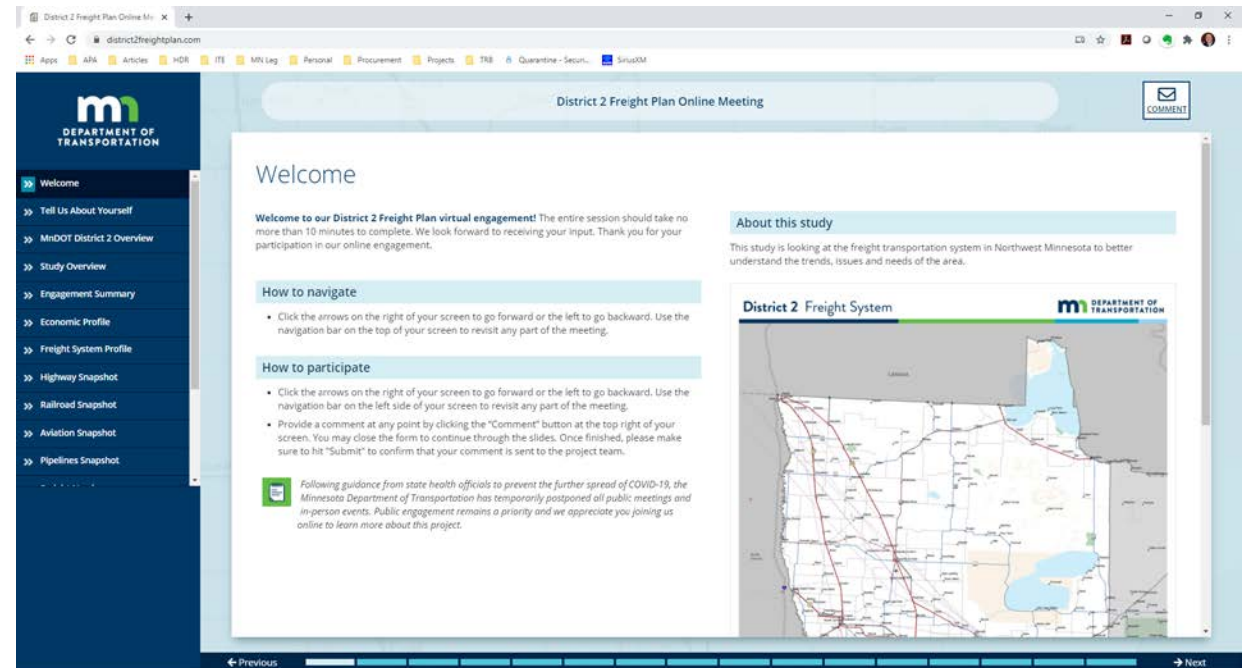
Partnerships

- Working with private sector partners and local agencies, study and address urban delivery issues in downtowns like Bemidji.
- Partnerships with local delivery companies to address curb space/parking issues

Next Steps

Andrew Andrusko | MnDOT Project Manager

- Online Public Meeting
 - <https://district2freightplan.com/>
- Finalize Report
 - Feedback from PAC and Public Comments



Integration with Other Efforts

- Data/Information for next Statewide Freight System Plan
- Comprehensive list of freight needs in each District
 - Total level of freight needs statewide
- Potentially identify statewide freight mobility funding gap



Minnesota Highway Freight Program

- Eligibility
- Up to 10% of the funding may be spent on intermodal projects
 - Ports, RRs, Airports, Intermodal Terminal
- Applications Due: September 28
- <http://www.dot.state.mn.us/ofrw/mhfp/>

Fiscal Year	Estimated Funding Available
2023	Up to \$13,650,000
2024	Up to \$22,200,000
2025	Up to \$20,000,000

Thank you!

Andrew Andrusko, AICP

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