

MN Freight Advisory Committee

Lydia Bjorge

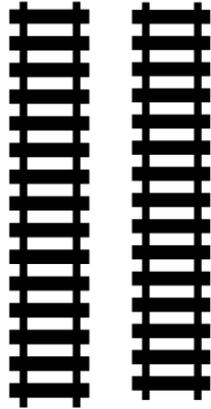
EXECUTIVE DIRECTOR, STATE GOVERNMENT
AFFAIRS, MINNESOTA

SEPTEMBER, 2018



Railroads are the Backbone of America's Freight Transportation

Nearly
140K
miles of track



In the U.S., railroads account for approximately **40%*** of all freight (more than any other transportation)



Over
180K
employees



For U.S. railroads, intermodal today accounts for around **21% of revenue**



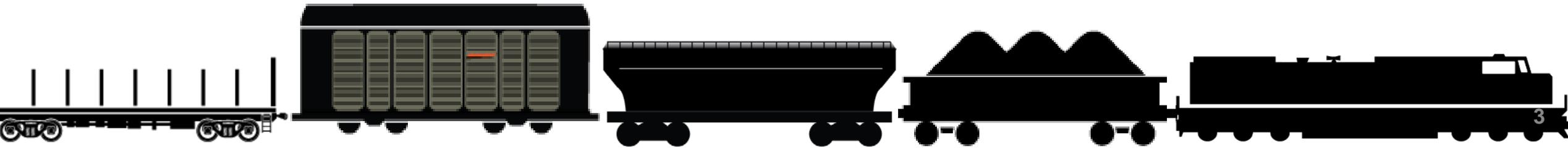
What Fits In Just One Freight Rail Car?

ENOUGH COAL **TO POWER** **21 HOMES** FOR A YEAR

ENOUGH GRAIN **TO MAKE** **258K LOAVES** OF BREAD

ENOUGH FRAMING LUMBER **FOR** **5.5 HOMES**

UP TO **24 VEHICLES**



BNSF is a Leading U.S. Railroad

- A Berkshire Hathaway company
- **41,000** employees
- Approximately **8,000** locomotives
- Moves **one-fourth** of the nation's rail freight
- Operates over **1,200** freight trains per day
- Leads rail industry in **technological innovation**

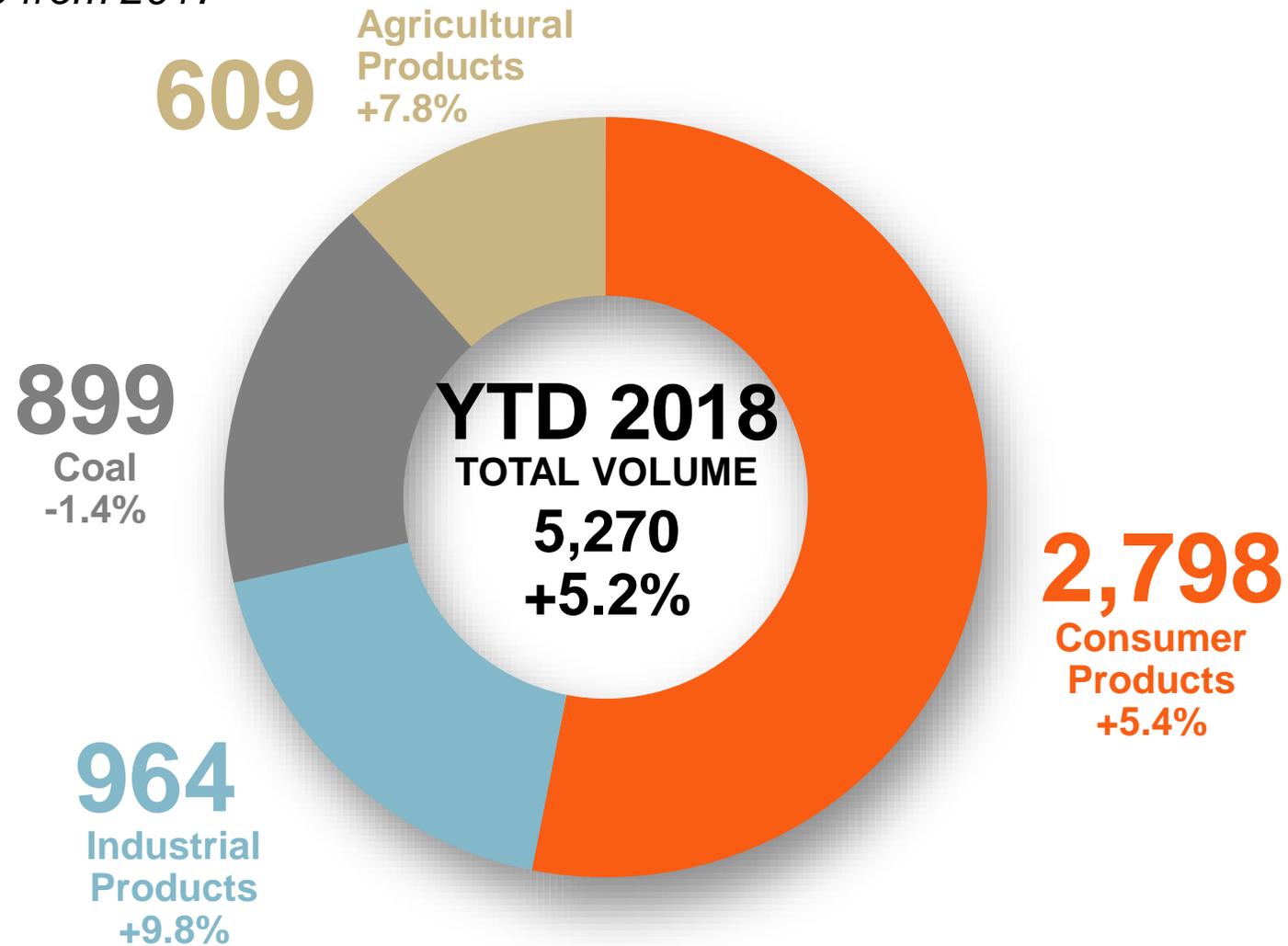


BNSF Volume – First Half 2018



Total units and % change from 2017

In Thousands



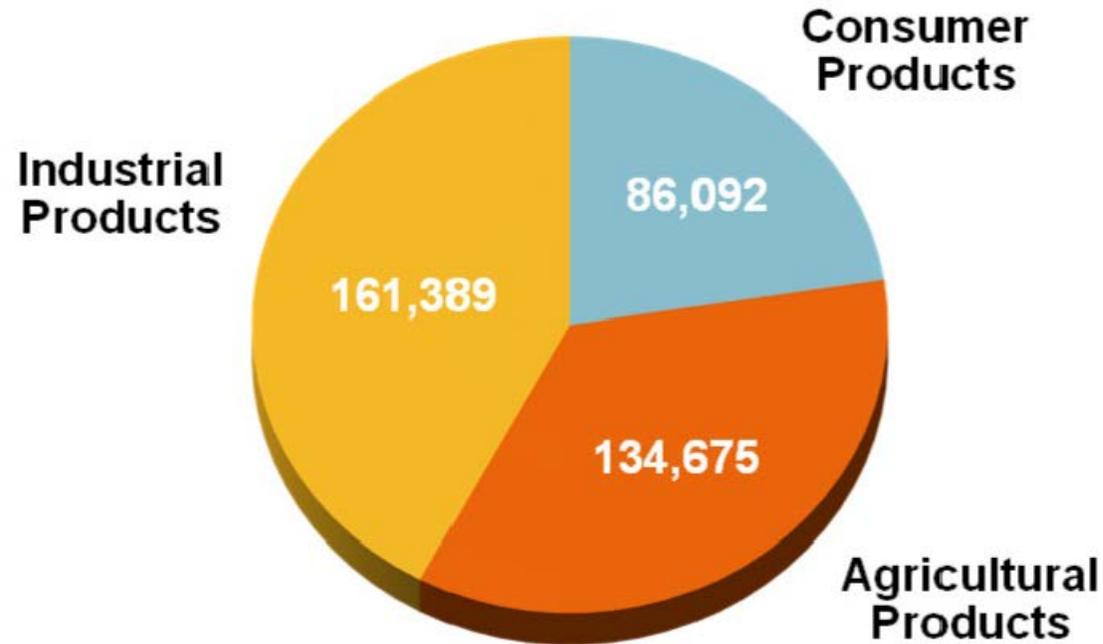
BNSF in Minnesota

- **1,498** route miles
- Approximately **2,200** employees
- Over **\$165,000,000** in payroll
- Over **\$2 million** in foundation giving since 2012



BNSF Volume – Minnesota in 2017

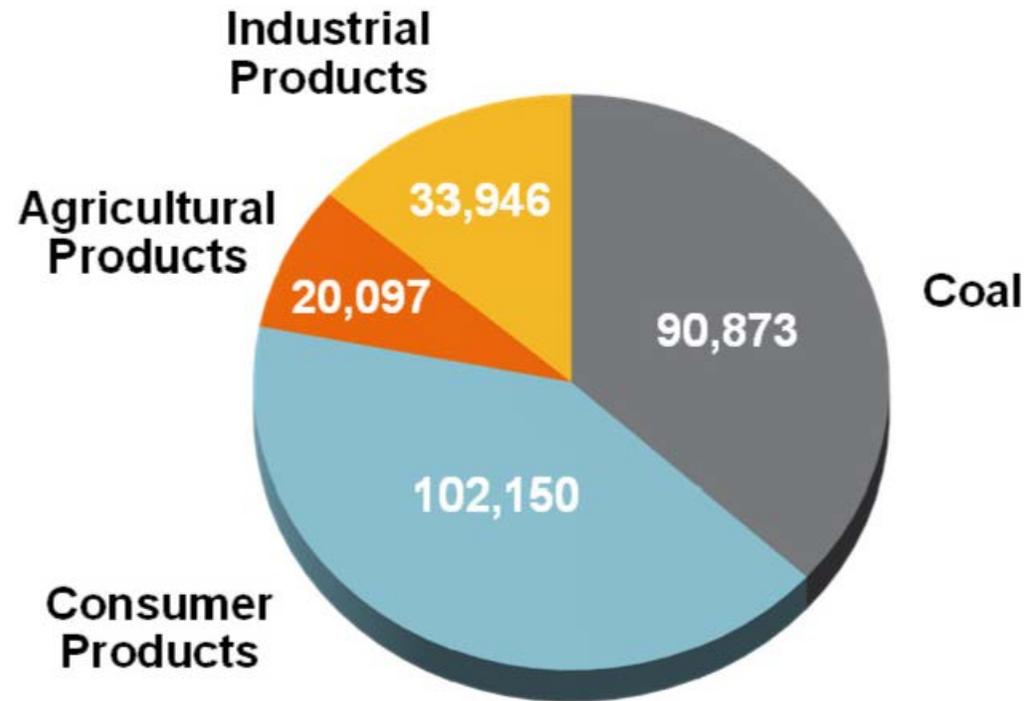
Products Shipped From Minnesota



382,156 Carloads and Intermodal Units

BNSF Volume – Minnesota in 2017

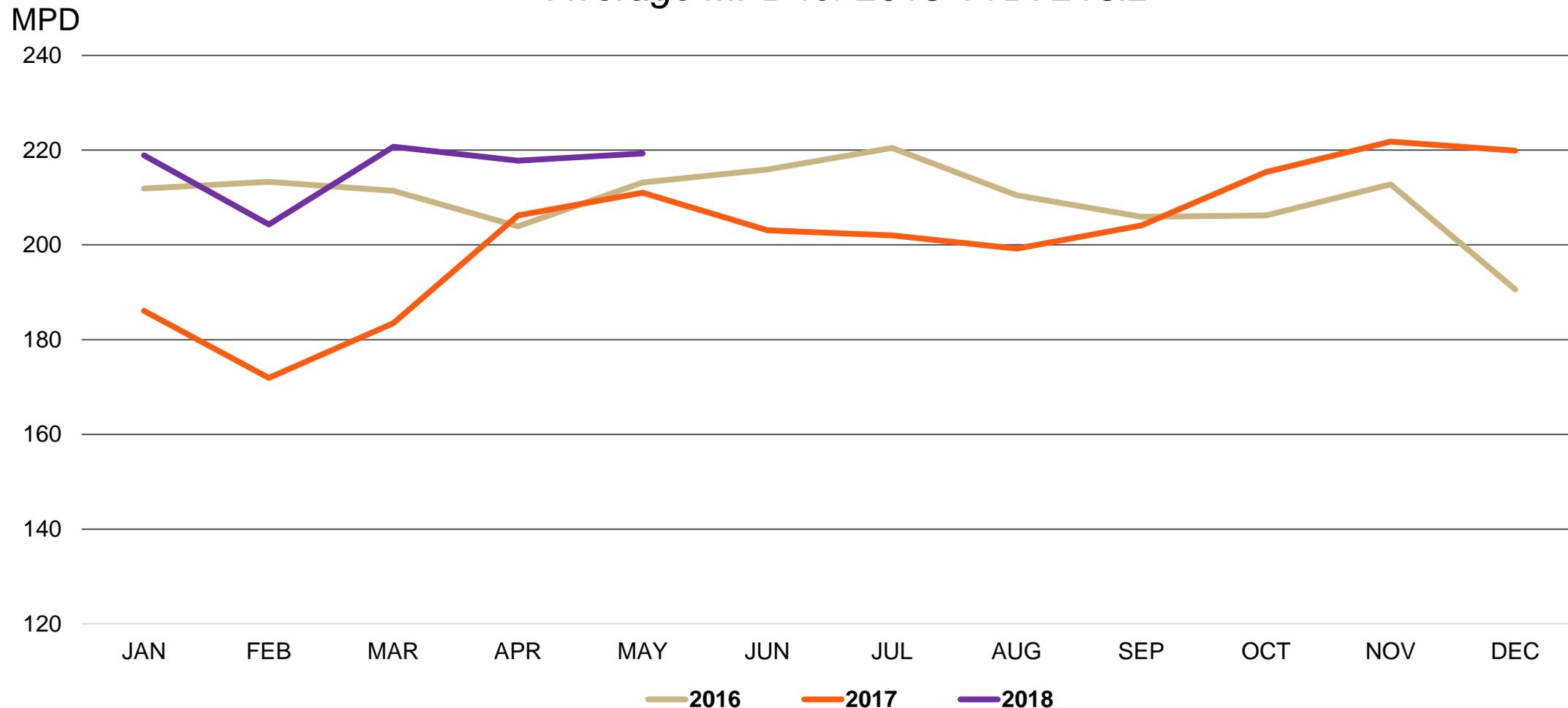
Products Shipped To Minnesota



247,066 Carloads and Intermodal Units

Agricultural Products Velocity

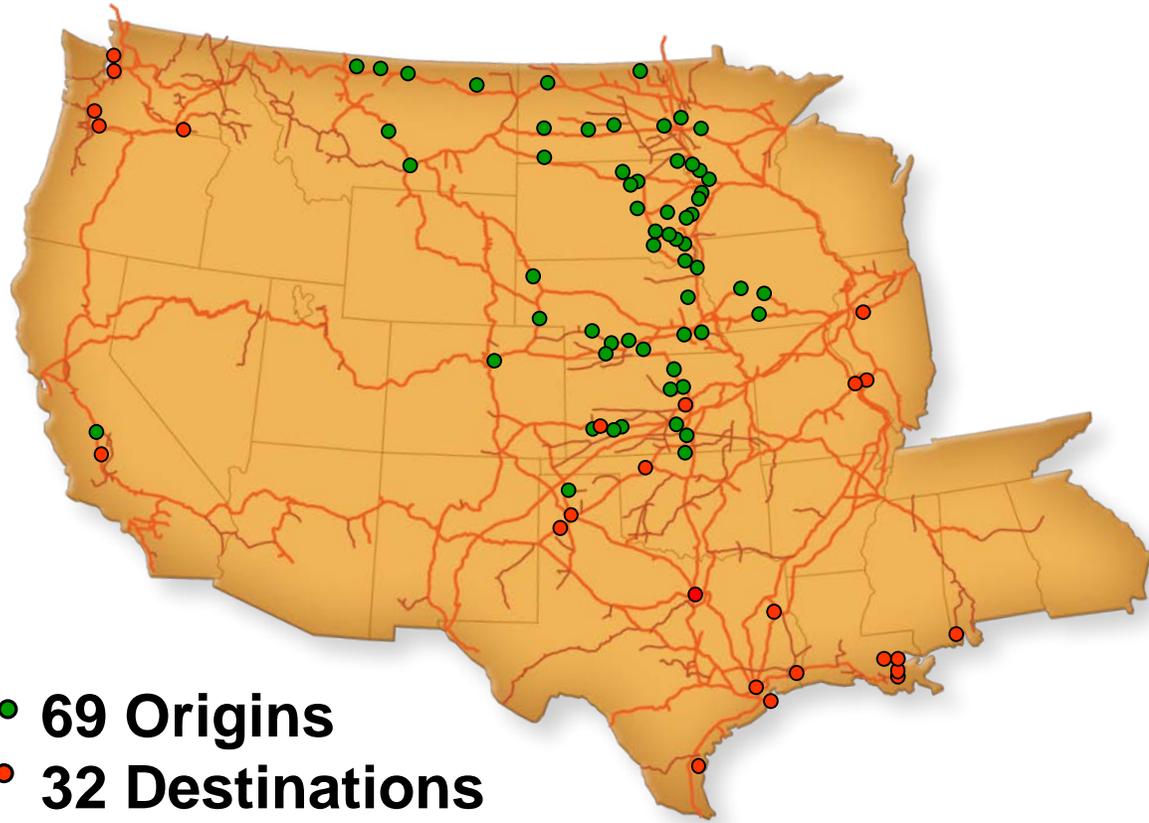
Agricultural Products Miles Per Day (MPD)
Average MPD for 2018 YTD: 216.2



Source: BNSF internal data through May 31, 2018

Growth of the BNSF Shuttle Network

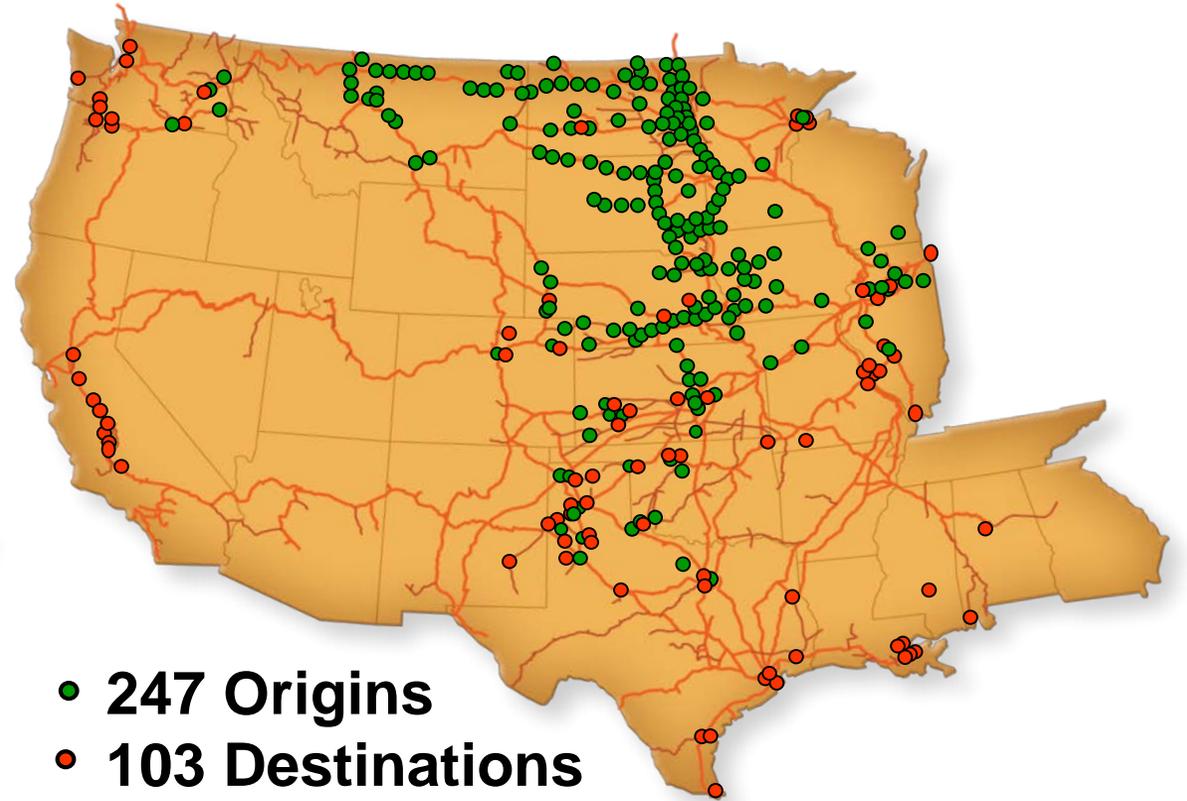
2000



- 69 Origins
- 32 Destinations

13 Mexico Shuttle Destinations

2018



- 247 Origins
- 103 Destinations

34 Mexico Shuttle Destinations

BNSF – A Culture Focused on Safety



Employee



Operational



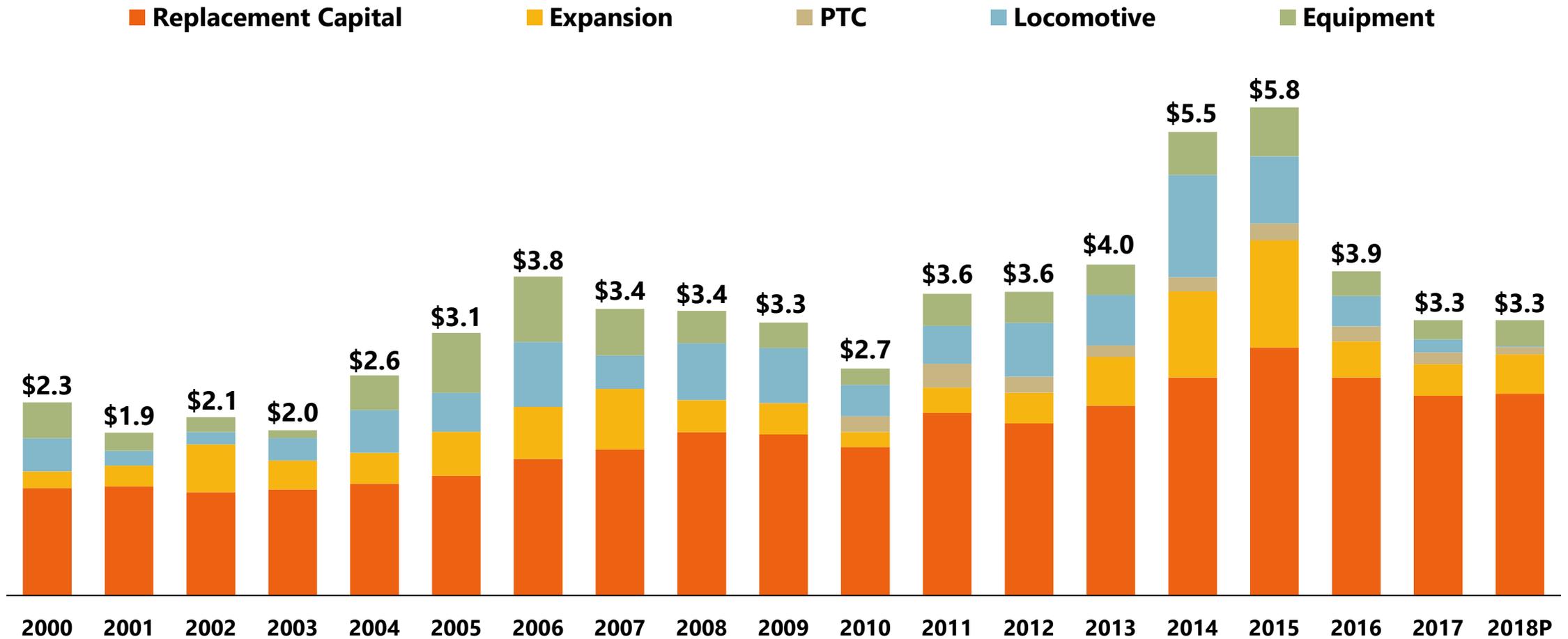
Community

SAFETY VISION TO OPERATE FREE OF ACCIDENTS AND INJURIES

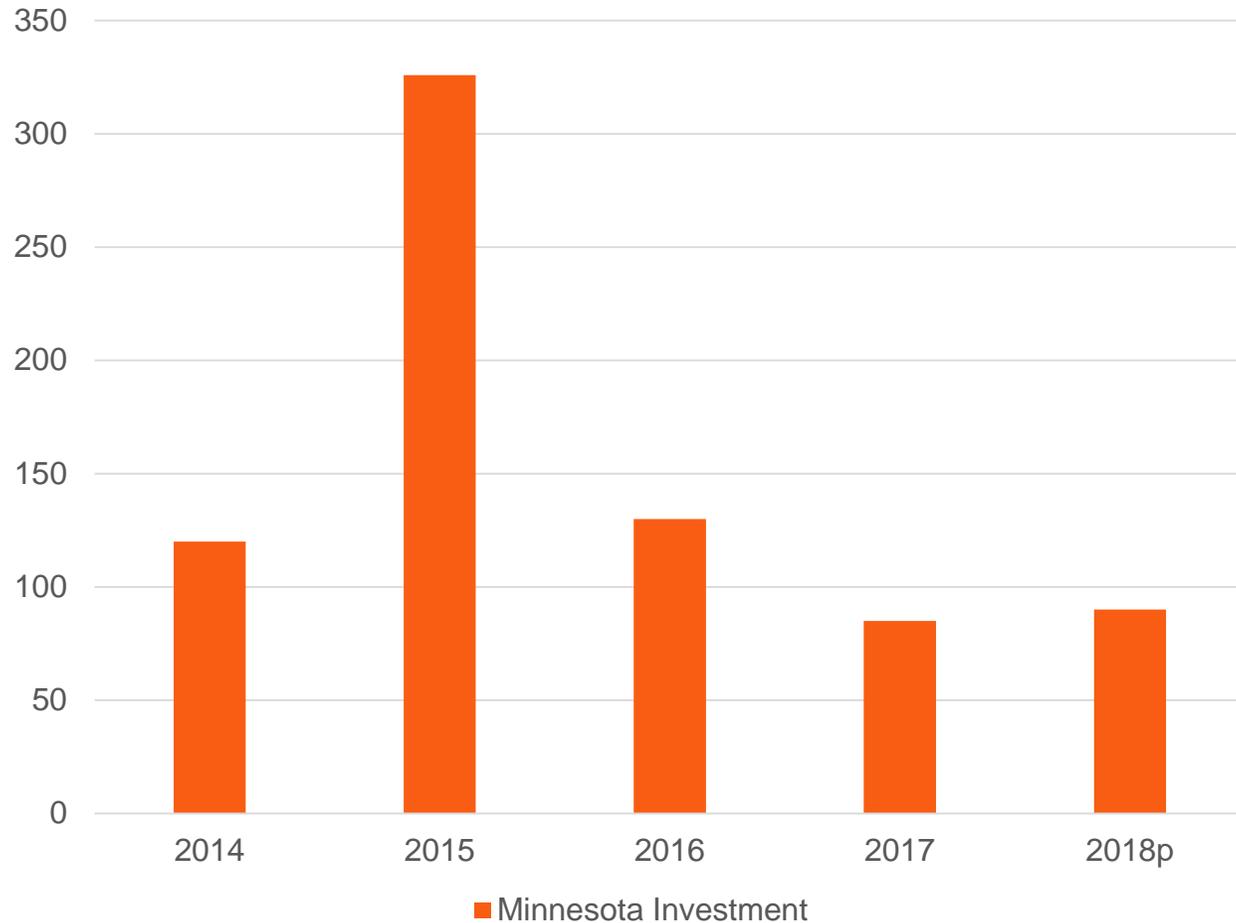
Prevention: BNSF's Capital Investments



\$ Billions



Prevention: BNSF's Capital Investments in MN



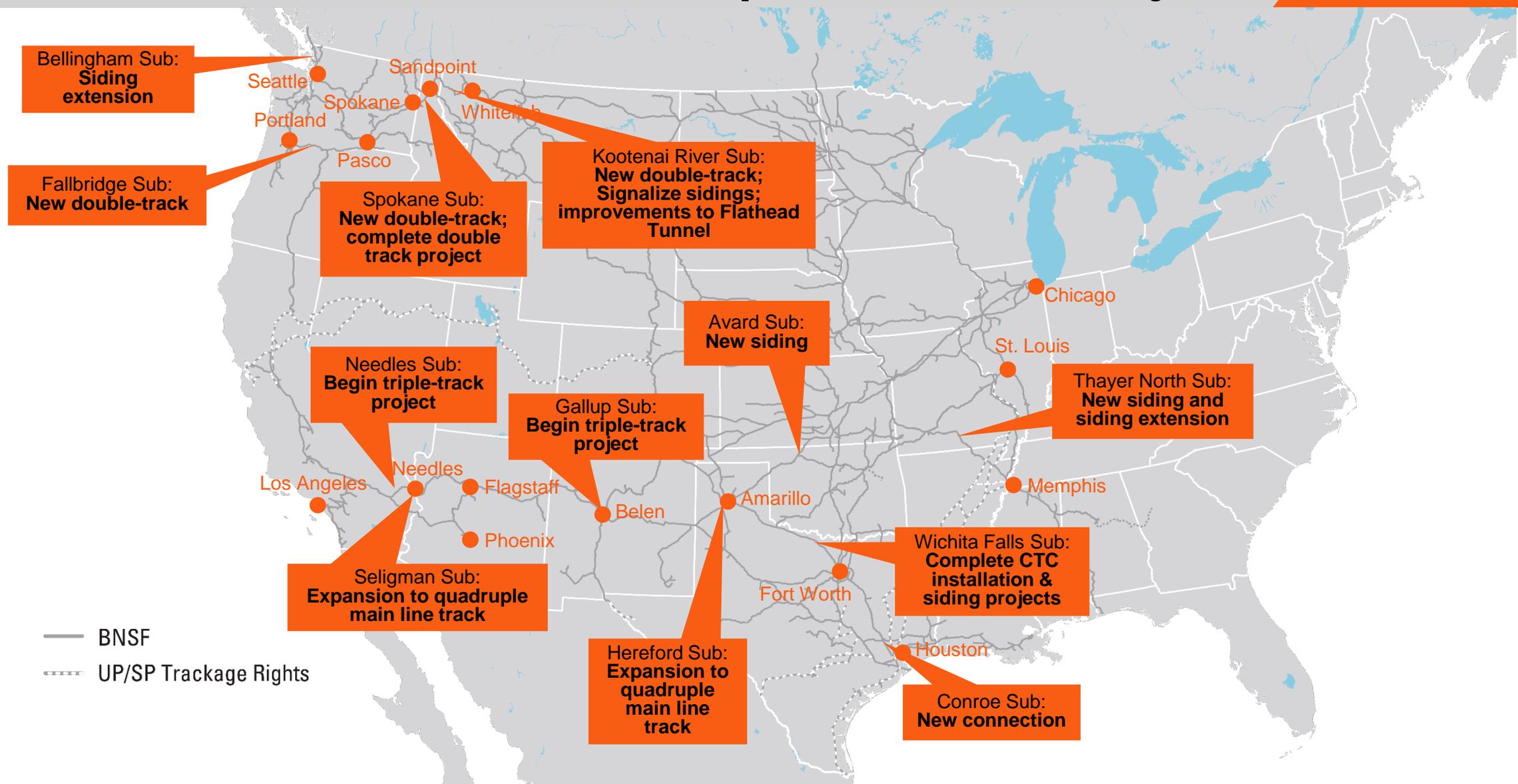
2018 MN Investment:
\$90 M

Significant Focus:
Safety Technology

\$



2018 Line Expansion Projects



Moorhead Grade Separation

Safety, and Mobility Project – Moorhead, MN

▪ Project Description:

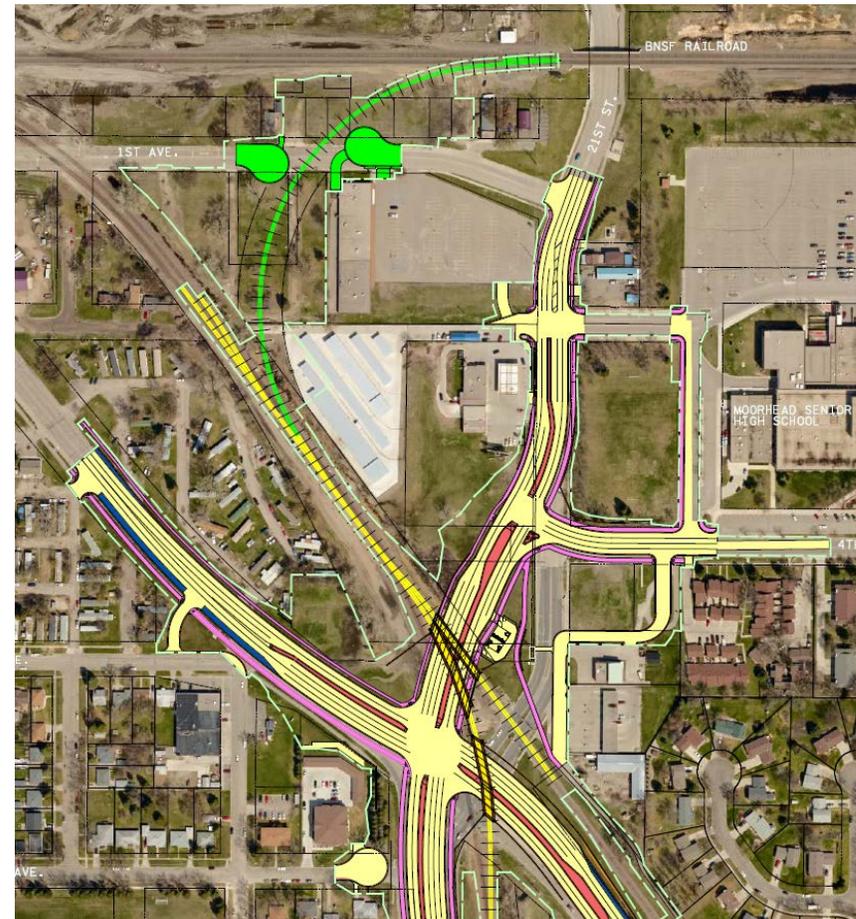
- EAST: Construct three highway underpasses to eliminate skewed at-grade crossings at SE Main, 20th, and 21st Streets. Also construct wye connection between KO and Prosper Subdivisions (illustrated at right).
- DOWNTOWN: Construct two highway underpasses to eliminate at-grade crossings in downtown Moorhead. Two possible alternatives being evaluated: 8th or 11th Street. Situated west of SE Main, 20th, and 21st streets.

- **Public Benefits (OVERALL)** – Improve traffic flows and safety in a heavily traveled junction of downtown and suburban arterial streets.

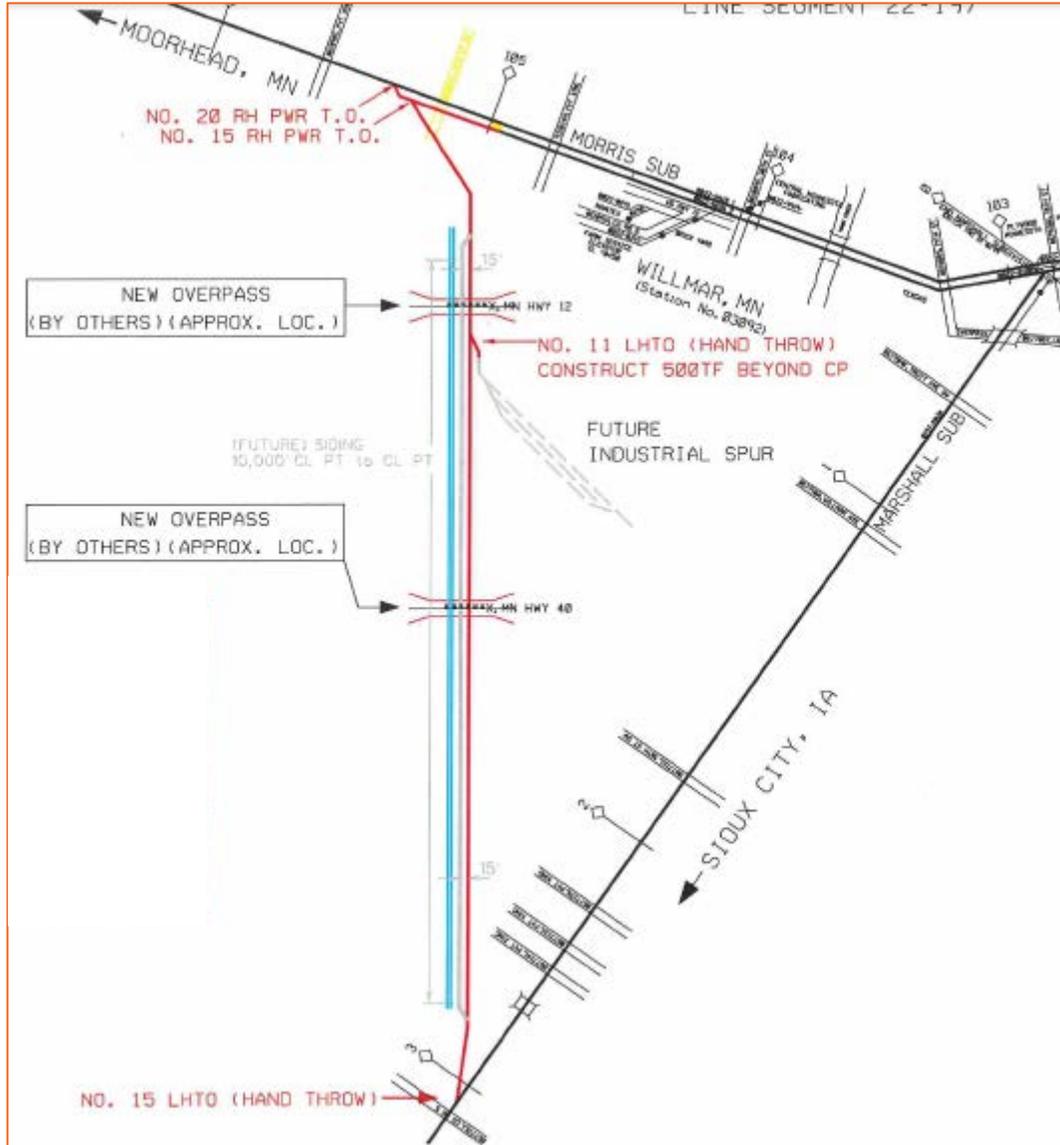
Wye connection would reduce train movement through at-grade crossings in downtown Moorhead by keeping trains out of downtown.

- **BNSF Benefits** – Allow direct flows for trains moving between KO and Moorhead Subdivisions on a new east wye connection and eliminate a skewed at-grade crossing in a high traffic area.

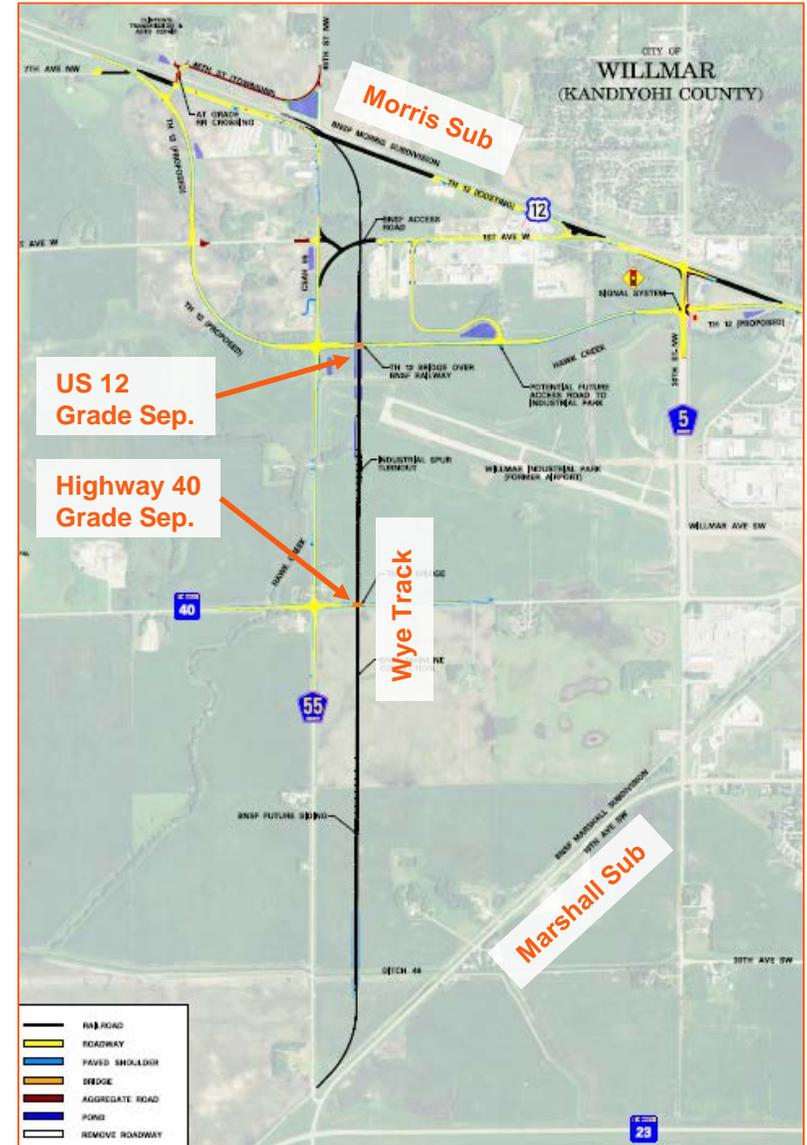
Moorhead Grade Separations – Eastern Component



Willmar Wye Project



RAILROAD SCHEMATIC



HIGHWAY SCHEMATIC

RailPass

Shorter wait times at AGS (Automated Gate System) entrance kiosks.

Personalized “My Units” screen that provides a snapshot of a driver’s shipments with up to date status information.

Drivers can set **personalized default settings** to reduce typing and chances for error.

Emergency Safety Button with a GPS pin to a driver’s location for assistance should a driver need immediate medical attention or needs to report an accident inside a BNSF Intermodal Facility.

Parking Verification feature will provide drivers with the ability to update their assigned parking location directly through the RailPASS app eliminating the need to call their dispatcher or flag down a yard checker when there is an existing shipment in a designated spot.



Layers of Safety Technology



**Equipment Detector
Technology**



**Track Inspection
Technology**



**PTC
Technology**

=

BIG DATA

FARGO

SUPERIOR

MINNEAPOLIS

ST. PAUL

BNSF Safety in Minnesota



Technology: Equipment Detectors

- Dragging Equipment Detector Systems
- Hot Box/Bearing Detector Systems
- Hot Wheel Detector Systems
- Wheel Impact Load Detectors



Technology: Track Inspection

- Rail Detector Vehicles
- Unmanned & Manned Track Geometry Cars
- Machine Vision Systems
- Ground Penetrating Radar
- UAVs



Technology: Big Data

BIG DATA

- Layers of Technology Generate Copious Data - 35+ Million Readings Every Day
- Analyzed to Inform Maintenance & Other Safety Efforts
- Turning Finders into Fixers

Technology: Positive Train Control

- PTC Infrastructure 100% Installed
- Protecting Freight Trains & Commuter Trains



