

Implementation of High-Speed Rail in Michigan

MSPE Annual Meeting

UMich Dearborn

May 2, 2025



DISCLAIMER

- Musings of an old man
- Does not represent the views of Quandel Consultants, Michigan Department of Transportation, my wife, kids, or any other relatives and friends
- Anyone else dead or alive

MICHIGAN'S ACCELERATED RAIL PROGRAM

- Some days you're in the fog
- Some days it is hard to see the details
- Other days it is like riding a Cheetah
- It is all what you make it



MICHIGAN'S ACCELERATED RAIL PROGRAM

- Show of hands
 - How many people have ridden Amtrak or VIA Rail Canadian?
 - How many people have ridden commuter trains in the US?
 - How many people have ridden passenger train in Europe or Asia?



MICHIGAN'S ACCELERATED RAIL PROGRAM



MICHIGAN'S ACCELERATED RAIL PROGRAM

Three routes in Michigan

- **Wolverine**
 - Chicago-Battle Creek-Detroit-Pontiac
 - 3 round trips/day
 - Ridership
 - 2023 - 436,230
 - 2010 - 503,964 All time high
- **Blue Water**
 - Chicago-Battle Creek-Port Huron
 - 1 round trip/day
 - 2023 - 173,172
 - 2013 - 194,776 All time high
- **Pere Marquette**
 - Chicago-Holland-Grand Rapids
 - 1 round trip/day
 - 2023 - 87,480
 - 2008 - 111,575 All time high



MICHIGAN'S ACCELERATED RAIL PROGRAM

- Key principals:
 - Overall experience
 - Safety
 - Reliability
 - Trip time not speed
 - Not how fast you go, it's how little you go slow
 - 25 to 45 MPH speed increase is the same as 90-110 MPH speed increase



MICHIGAN'S ACCELERATED RAIL PROGRAM

- **Focus will be in the Wolverine line**
 - NS owned Chicago Union Station – Porter
 - No stations
 - Amtrak owned Porter, IN to Kalamazoo, MI
 - New Buffalo, Niles, & Dowagiac
 - CN owned Battle Creek
 - Battle Creek
 - Michigan owned Kalamazoo to Dearborn
 - Kalamazoo, Albion, Jackson, Ann Arbor, & Dearborn
 - Conrail owned Dearborn – West Detroit
 - CN west Detroit – Pontiac
 - Royal Oak, Troy/Birmingham, & Pontiac

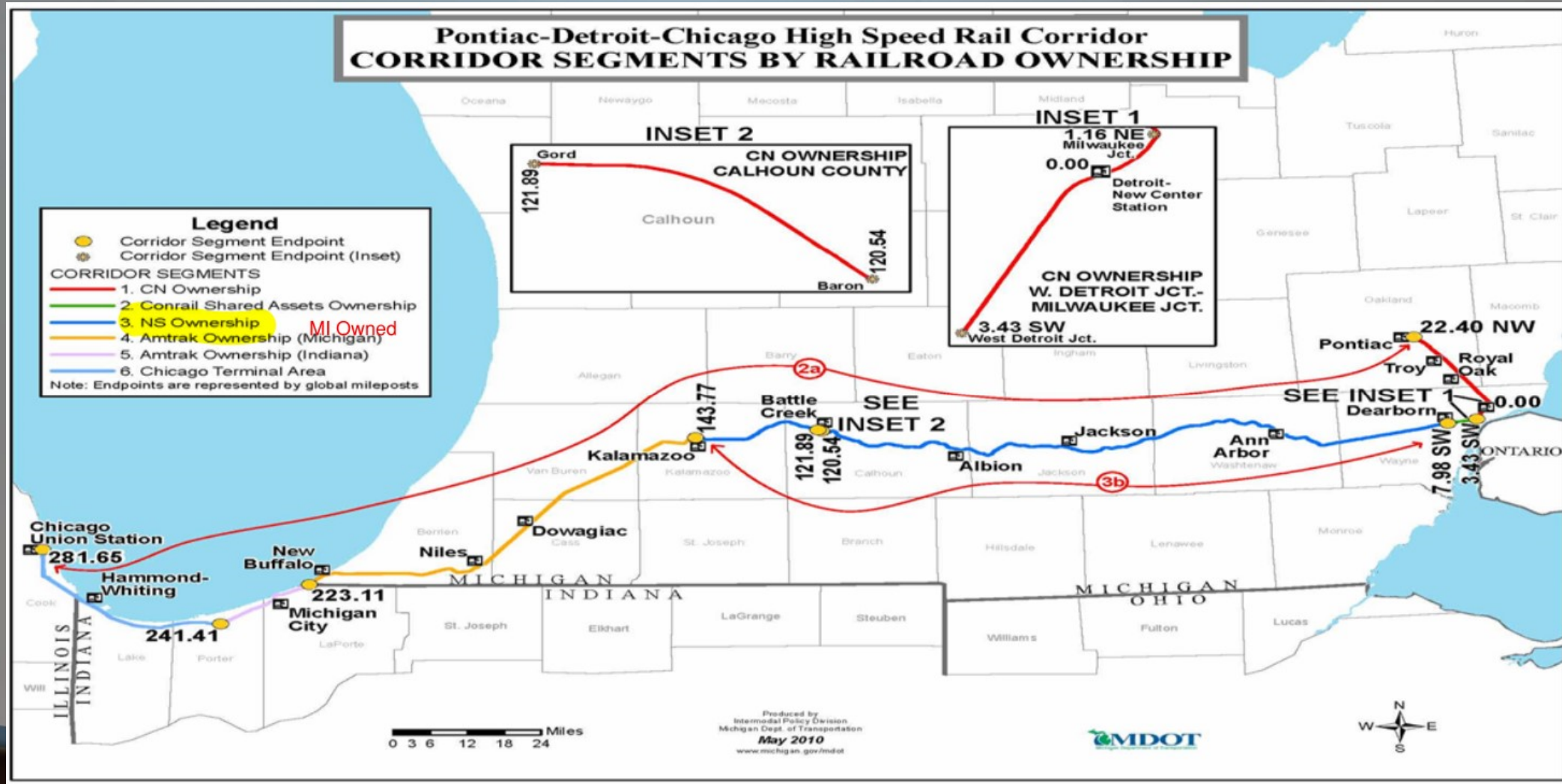


MICHIGAN'S ACCELERATED RAIL PROGRAM

- **Wolverine Route** **304 miles**
 - CUS – Porter NS **39 miles**
 - Porter – Kalamazoo **99 miles**
 - Kalamazoo –Dearborn **135 miles**
 - Dearborn – Detroit **5 miles**
 - Detroit – Pontiac **26 miles**



MICHIGAN'S ACCELERATED RAIL PROGRAM



MICHIGAN'S ACCELERATED RAIL PROGRAM

Michigan's Accelerated Rail Program

- **Safe, reliable, resilient services**
- **Shorten Travel Times**
- **Increase Frequencies**
- **Serve more people**
- **Improved on-board service**

MICHIGAN'S ACCELERATED RAIL PROGRAM

How do you do this:

- **Reduce travel time**
 - Not how fast you go, its how little you go slow
 - Going from 25 to 45 MPH is the same as going from 80 to 100 MPH
 - **CUS – Porter**
 - **Connection to Canada**
- **New modern equipment**
 - Siemens Charger Locomotives & Venture coaches
- **Stations**
 - 22 stations in MI
 - Good spaces
 - No real holes
 - Most are good facilities
 - Newer ones – Pontiac, Troy/Birmingham, Dearborn, Grand Rapids, East Lansing
 - In the works – Detroit, Ann Arbor
 - Need work – Flint, Jackson, Port Huron

MICHIGAN'S ACCELERATED RAIL PROGRAM

- **Speed Limit Barriers**

- Excepted track – no passenger services be low class 1 track
- 25-79 MPH - wayside signal system recommended
- Above 80 positive stop – automatic braking
- Above 90 MPH – enhanced Traffic Management System – Train Control System
 - Automatic braking – positive stop
 - Health monitoring
 - Enhanced grade crossing safety measures
 - Vital – safety critical 99.9 to the ninth-degree safety verified same as aviation

Above 110 MPH – no grade crossings without a positive barrier or separations

