

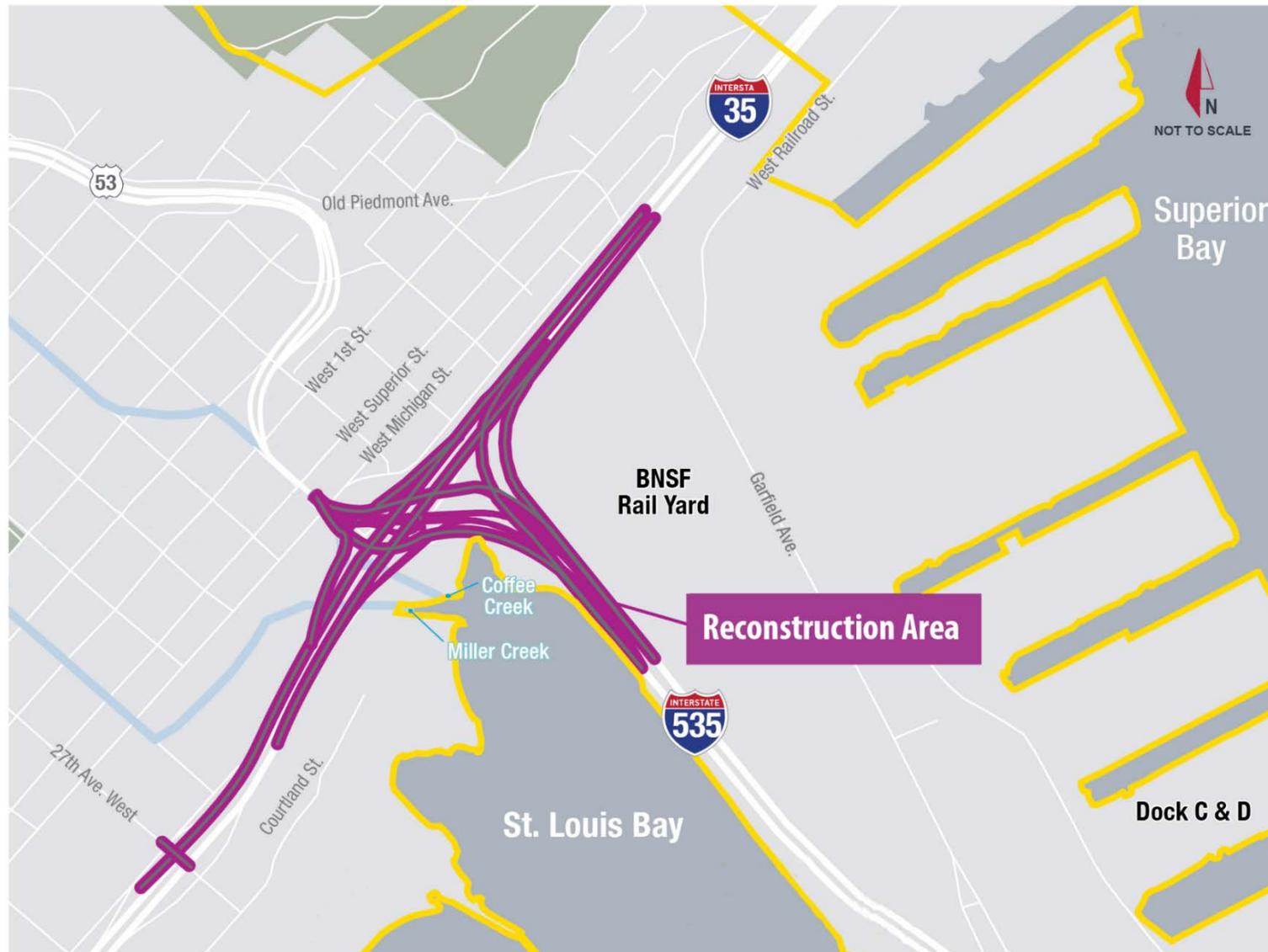


Twin Ports Interchange Reconstruction Project Update for HTAC

December 2, 2020

Patrick Huston, P.E. – TPI Project Director

Project Goals and Location

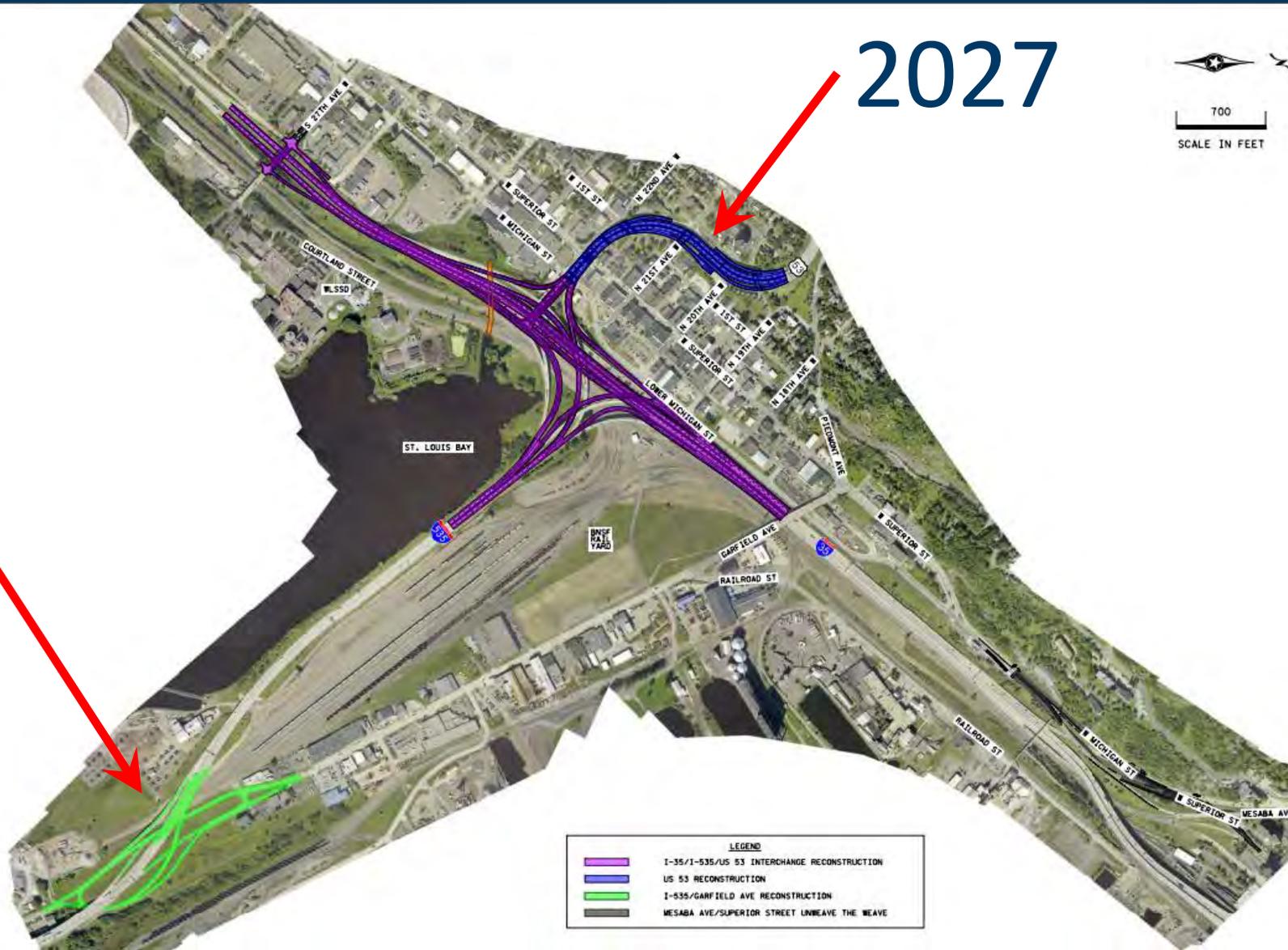


- **Enhance safety by eliminating blind merges and left exits**
 - Moving left exits to the right
 - Relocating merges
- **Replace aging infrastructure**
 - Reconstructing weight restricted and non-redundant bridges
 - Reduces maintenance and closures
 - Eliminates some bridge structure
- **Improve freight mobility**
 - Allow oversize/overweight freight on the Interstate
 - First and last mile to port!

Deferred Work

2028

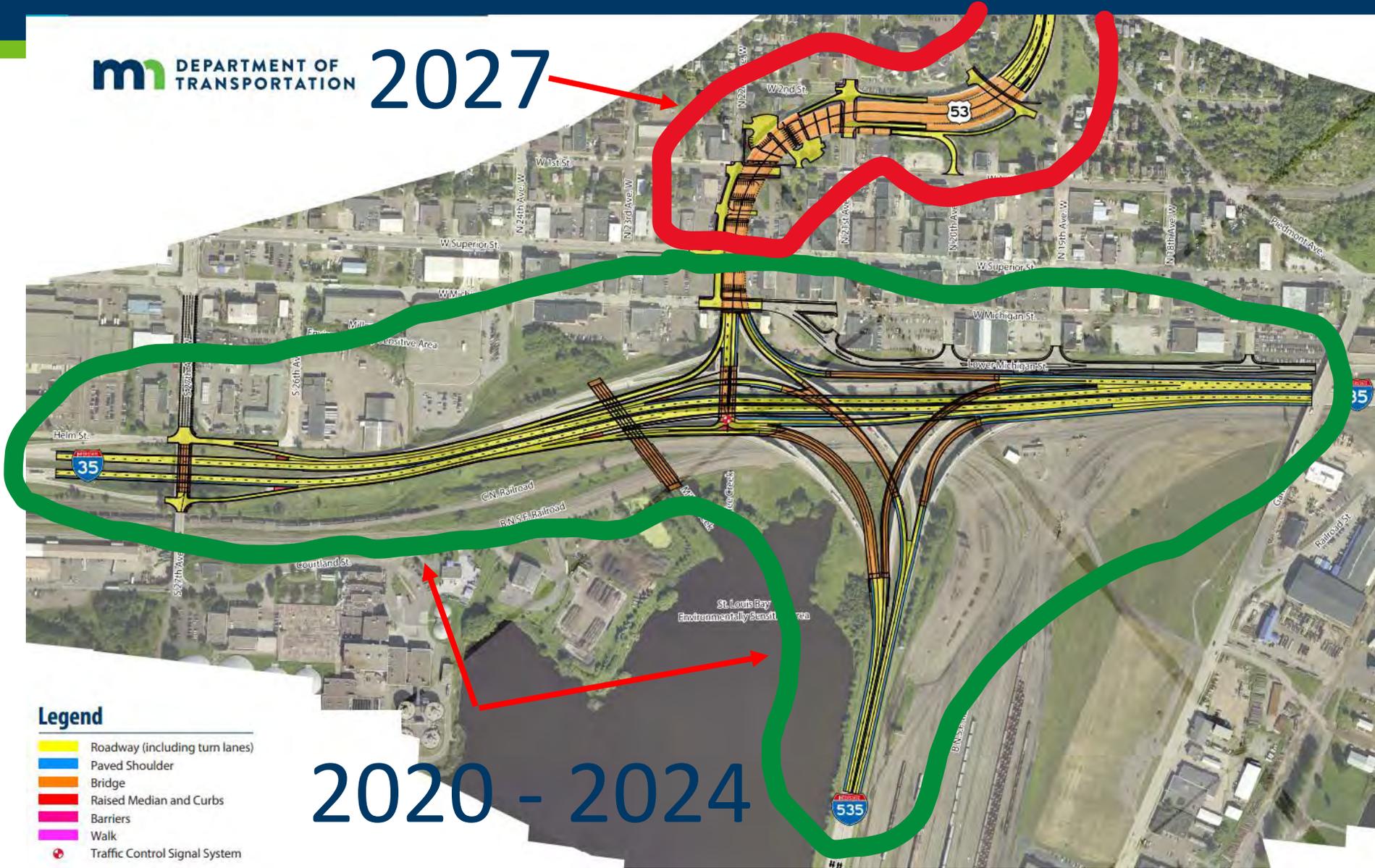
2027



What is being Constructed

m DEPARTMENT OF TRANSPORTATION

2027



Legend

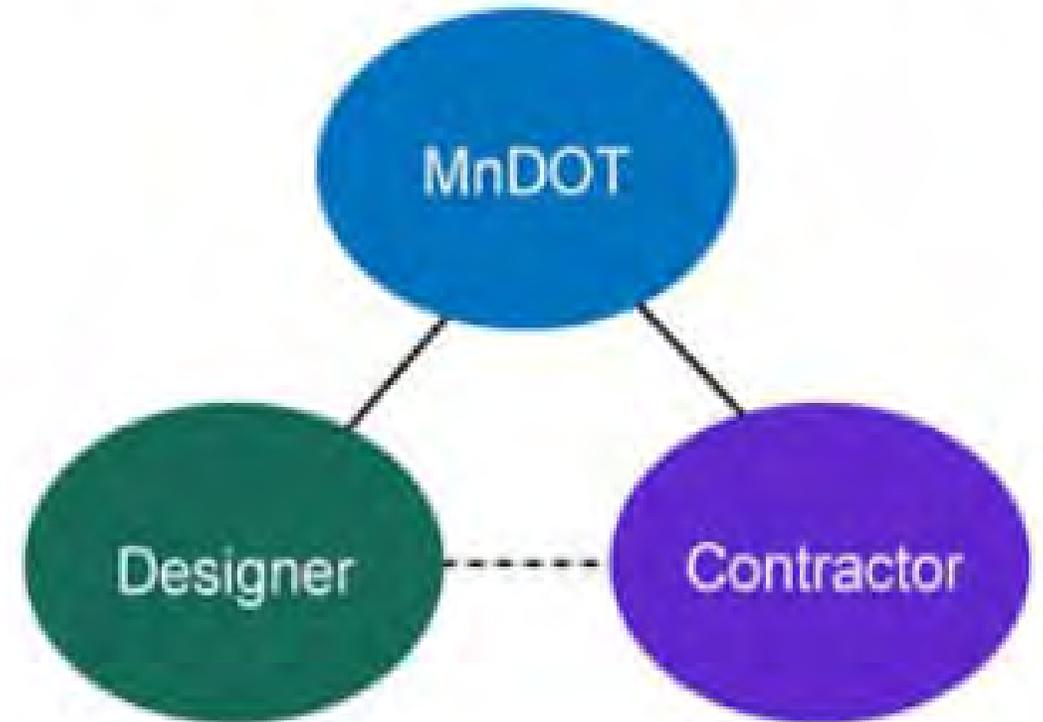
- Roadway (including turn lanes)
- Paved Shoulder
- Bridge
- Raised Median and Curbs
- Barriers
- Walk
- ⊕ Traffic Control Signal System

2020 - 2024

CMGC Contracting – Collaborating Up Front

- CMGC = Construction Manager General Contractor
- CMGC is a **collaborative** process where the owner (MnDOT) develops/designs the project with the designer and contractor
- CMGC is used on highly complex projects
- The TPI contractor is Ames-Kraemer Joint Venture (AKJV)
- TPI is MnDOT's 6th CMGC project (of 7)

CM/GC Contracting Relationship



TPI CMGC Project Team Members

- AKJV was chosen as CMGC contractor through objective selection process
- Co-location began in October 2018
- MnDOT, AKJV and key design personnel were co-located in an office on Railroad Street until COVID 19



CMGC Test Programs



The Plan Set



5718
pages!

5718

MINNESOTA DEPARTMENT OF TRANSPORTATION
395 JOHN IRELAND BOULEVARD MS 650 ST. PAUL, MINNESOTA 55155-1800
***** PROPOSAL *****
FOR HIGHWAY CONSTRUCTION AND MAINTENANCE PROJECTS WITH
BIDS RECEIVED UNTIL 9:30 O'CLOCK A.M. ON
SEPTEMBER 11, 2020

Proposal of AMES KRAEMER JOINT VENTURE
(NAME OF FIRM)

2500 County Road 42 W, Burnsville, MN 55337
(ADDRESS)

(952)892-8650
(AREA CODE-TELEPHONE NUMBER)

TO FURNISH AND DELIVER ALL MATERIALS AND TO PERFORM ALL WORK IN ACCORDANCE WITH THE CONTRACT, THE PLANS AND THE APPROVED DEPARTMENT OF TRANSPORTATION "STANDARD SPECIFICATIONS FOR CONSTRUCTION, 2018 EDITION" (USING ENGLISH UNITS), ON FILE IN THE OFFICE OF THE COMMISSIONER OF TRANSPORTATION EXCEPT AS STATED OTHERWISE IN THE SPECIAL PROVISIONS, WHICH ARE PART OF THIS PROPOSAL, FOR:

PRIME SP: 6982-322WP1 and WP2 CONTRACT ID: 200605

STATE PROJECT NO.: 6982-322WP1 (TH 35=103), 6915-136WP1 (TH 53=106),
6980-60WP1 (TH 535=390)
6982-322WP2 (TH 35=103), 6915-136WP2 (TH53=106),
6980-60WP2 (TH 535=390)

FHWA PROJECT NO.: BLD-NHFP-NHPP I350(129)

LOCATION: In St. Louis County on:
TH 35 from 0.28 Miles South of 27th Ave W to 0.1 Miles North of Garfield Ave
TH 53 from W Michigan St to 21st Ave W
TH 535 from 0.2 Miles East of TH 35 to TH 35
In St. Louis County on:
TH 35 from 0.28 Miles South of 27th Ave W to 0.1 Miles North of Garfield Ave
TH 53 from W Michigan St to 21st Ave W
TH 535 from 0.3 Miles East of TH 35 to TH 35

TYPE OF WORK: Grading, Bituminous Mill & Surfacing, Box Culvert, Lighting, Signal, TMS, ADA
Improvements, and Bridge Nos. 69905, 69909, 69X19
Grading, Bituminous and Concrete Surfacing, Retaining Walls, Lighting, Signals, TMS,
ADA Improvements, and Bridge Nos. 69902, 69903, 69904, 69906, 69910, 69139

LENGTH: 1.895 Miles

STARTING DATE: October 01, 2020 COMPLETION DATE: June 01, 2025

This Contract Contains Intermediate Completion Requirements

NOTICE TO BIDDERS: ALL BIDS MUST BE SUBMITTED ELECTRONICALLY.

This Proposal is complete and ready for letting.

SAFO Tom Styrbicki Digitally signed by Tom Styrbicki
Date: 2020.07.28 09:48:35 -0500

Tom Styrbicki, Director, Office of Project Management and Technical Support JMS

BID RIGGING IS A SERIOUS CRIME. IF YOU HAVE ANY INFORMATION CONCERNING COLLUSIVE BIDDING, EVEN A REQUEST TO SUBMIT A COMPLIMENTARY BID, PLEASE CALL THE MINNESOTA ATTORNEY GENERAL'S OFFICE AT TELEPHONE NO. 651.206.1706.

Project Status

- Bid Letting - September 11, 2020
- Project Start – October 2020
- Fall 2020 Work
 - 27th Ave W. Bridge Replacement – in progress
 - I-35 Crossovers - done
 - Railroad Track Realignment – in progress
 - Demolition of Autobahn Building
 - Select Bridge Foundation Construction



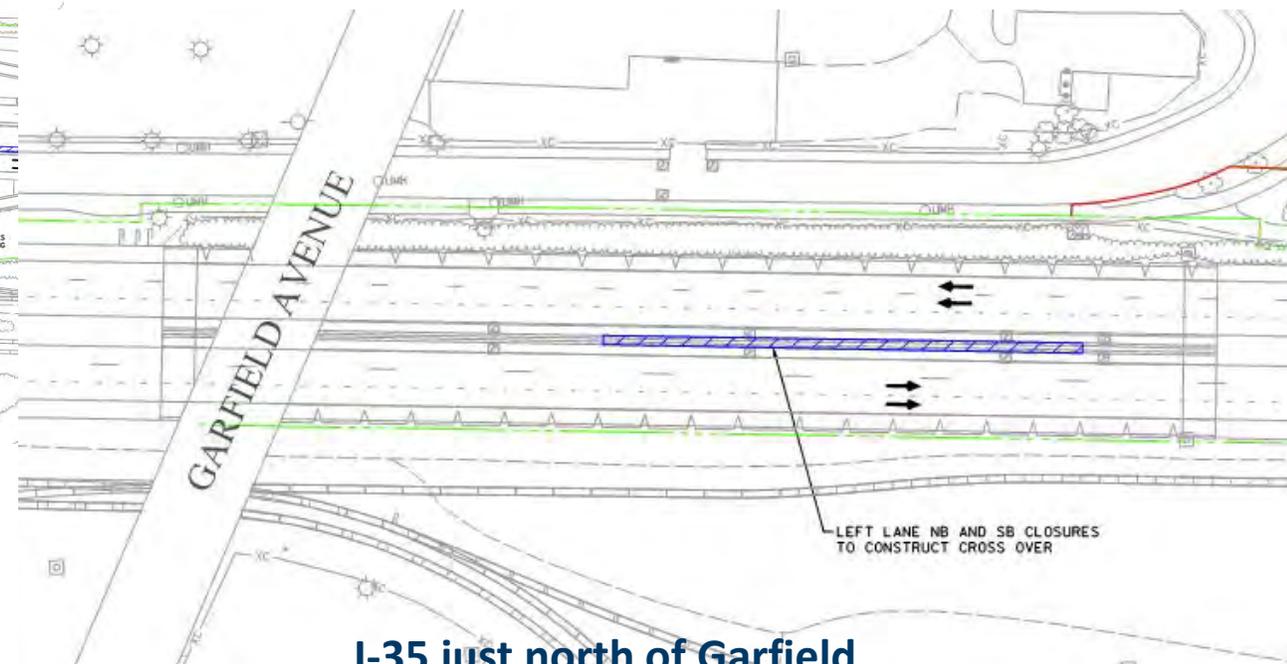
• Fall 2020 Work

- 27th Ave W. Bridge Replacement
- I-35 Crossovers
- Railroad Track Realignment
- Demolition of Autobahn Building
- Select Bridge Foundation Construction
- Soil Stockpile Sites

Crossovers



I-35 just south of 27th Ave. West



I-35 just north of Garfield

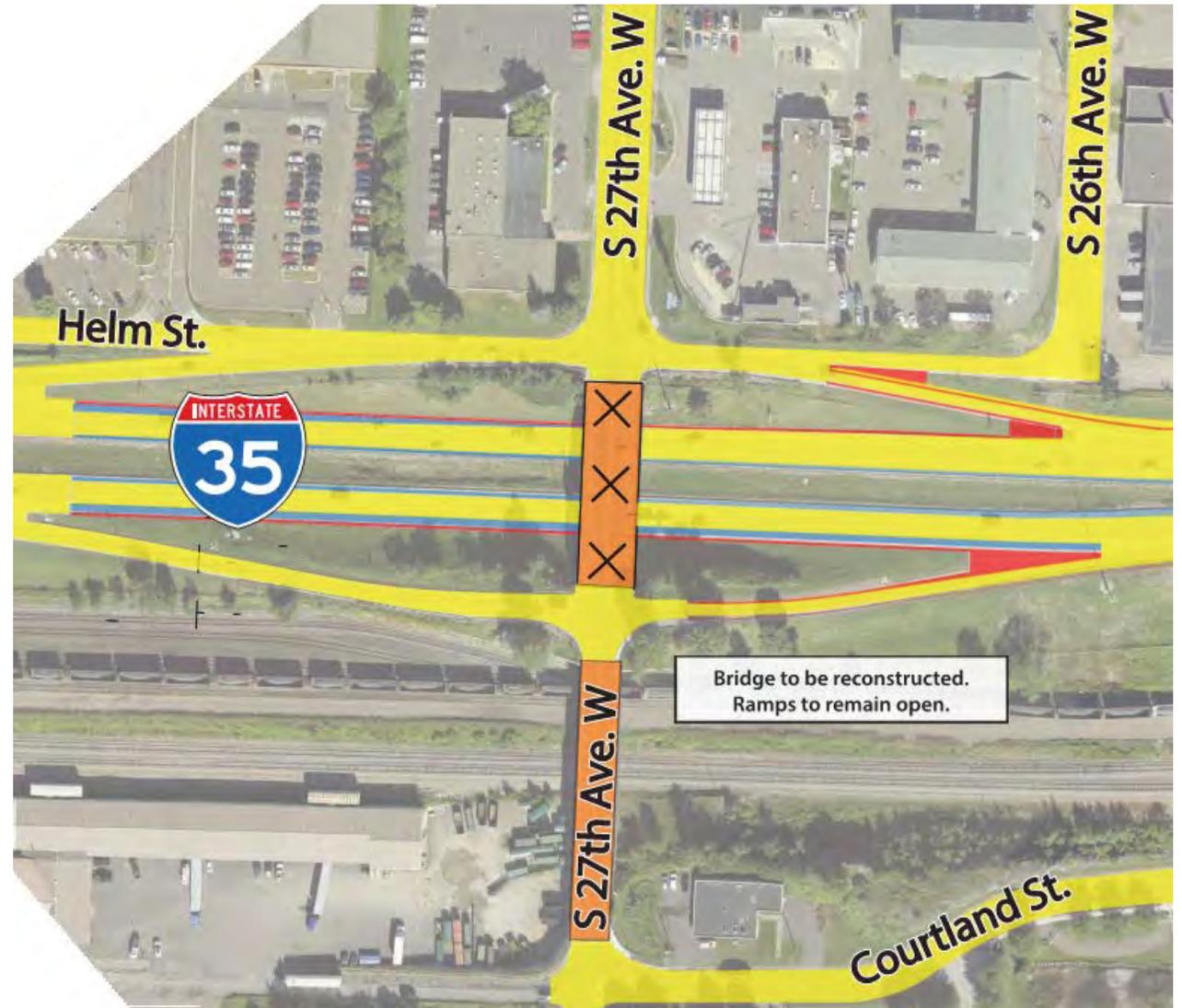
27th Avenue West Bridge Replacement



27th Avenue West Bridge Replacement

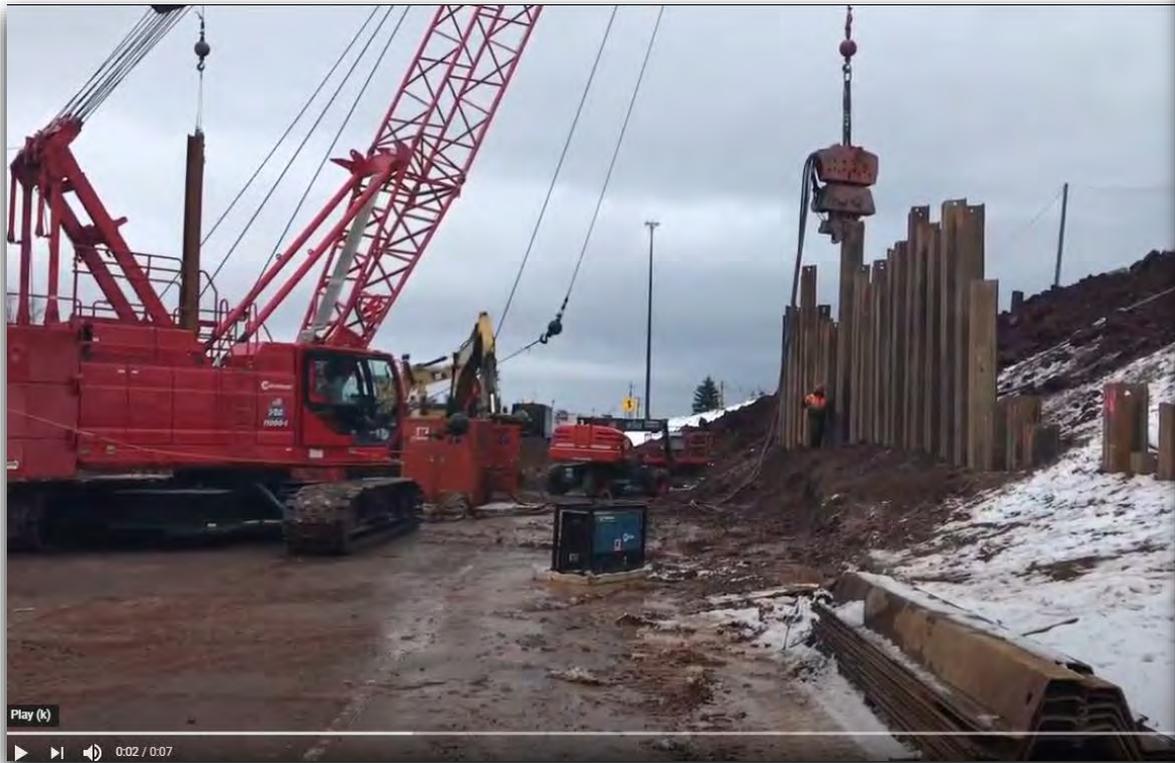
Estimated Construction Timeline:

- Start Construction: October 2020
- End Construction: June 2021
- Bridge Closure times to be determined
- Entrance and exit ramps will be open when the bridge is closed



27th Avenue West Bridge Replacement

Daytime lane closures for material deliveries and crane swing



27th Avenue West Detours

Twin Ports Interchange

Detour I-35 SB to S 27th Ave W
Fall 2020 - Late Spring 2021



27th Avenue West Detours

Twin Ports Interchange

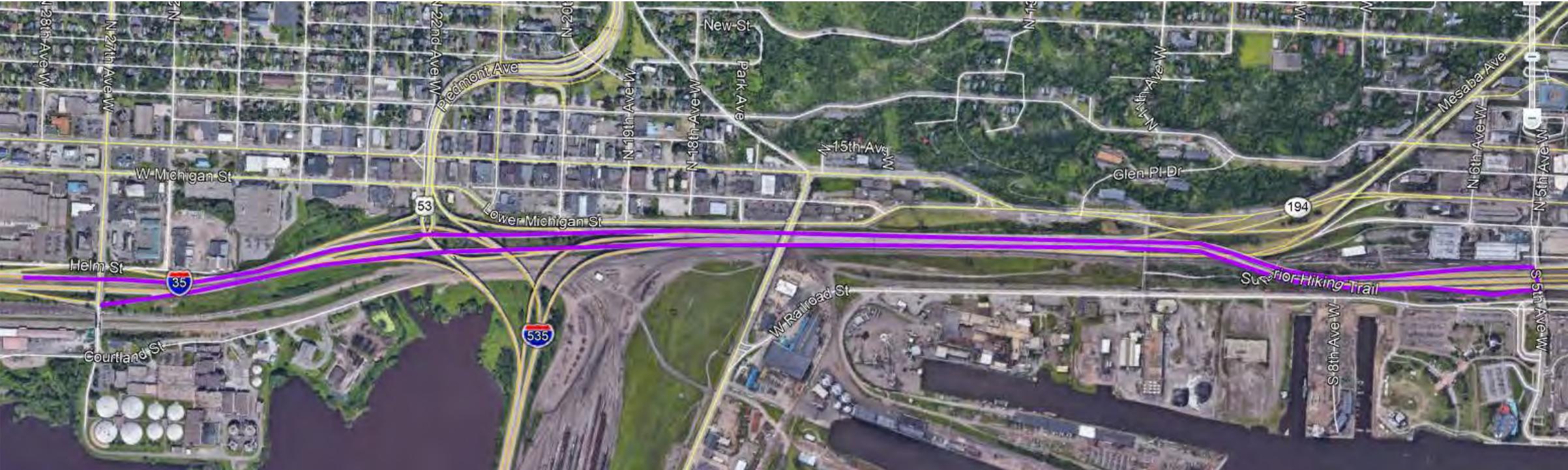
Detour I-35 NB to N 27th Ave W

Fall 2020 - Late Spring 2021



XX

27th Avenue West Detours



Crushing in the Heart of the Interchange



Spring – Fall 2021: One lane in each direction

Twin Ports Interchange Spring - Fall 2021

mi DEPARTMENT OF
TRANSPORTATION



Twin Ports Interchange Staging Narrative

Construction Activities:

- Construct Bridge from NB I-535 to NB I-35
- 27th Ave Bridge Demolition and Construction (Winter/Spring 2021)
- Miller/Coffee Creek Box Culvert Construction (Western Portion)
- I-35 Southbound Excavation to remove the "hump" between 27th Ave and TH 53
- Temporary Pave I-35 Southbound
- Construct Temporary Bypass between Lower Michigan and I-35 Southbound
- Lower Michigan Street Storm Sewer Relocation
- Construct Temporary Michigan Street Connection

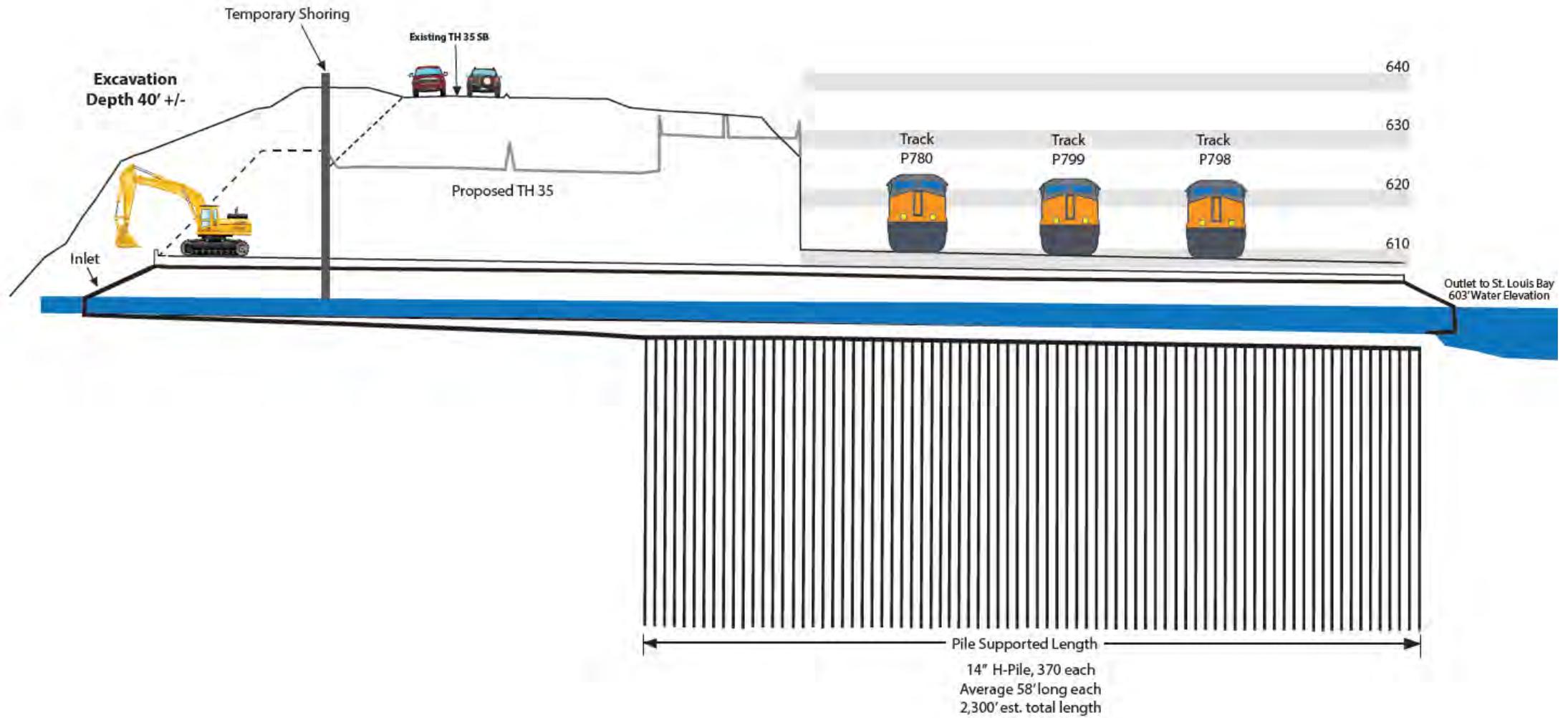
Traffic Impacts:

- I-35 Southbound reduced to a single lane within the project limits
- I-35 Northbound reduced to a single lane from I-535 to the Northern project limits
- I-35 Northbound Ramp to TH 53 Northbound Closed
- TH 53 Southbound Ramp to I-35 Southbound Closed
- I-535 Northbound Ramp to I-35 Southbound Closed
- Lower Michigan Street Closed

Legend
 Proposed Construction

Spring – Fall 2021: One lane in each direction

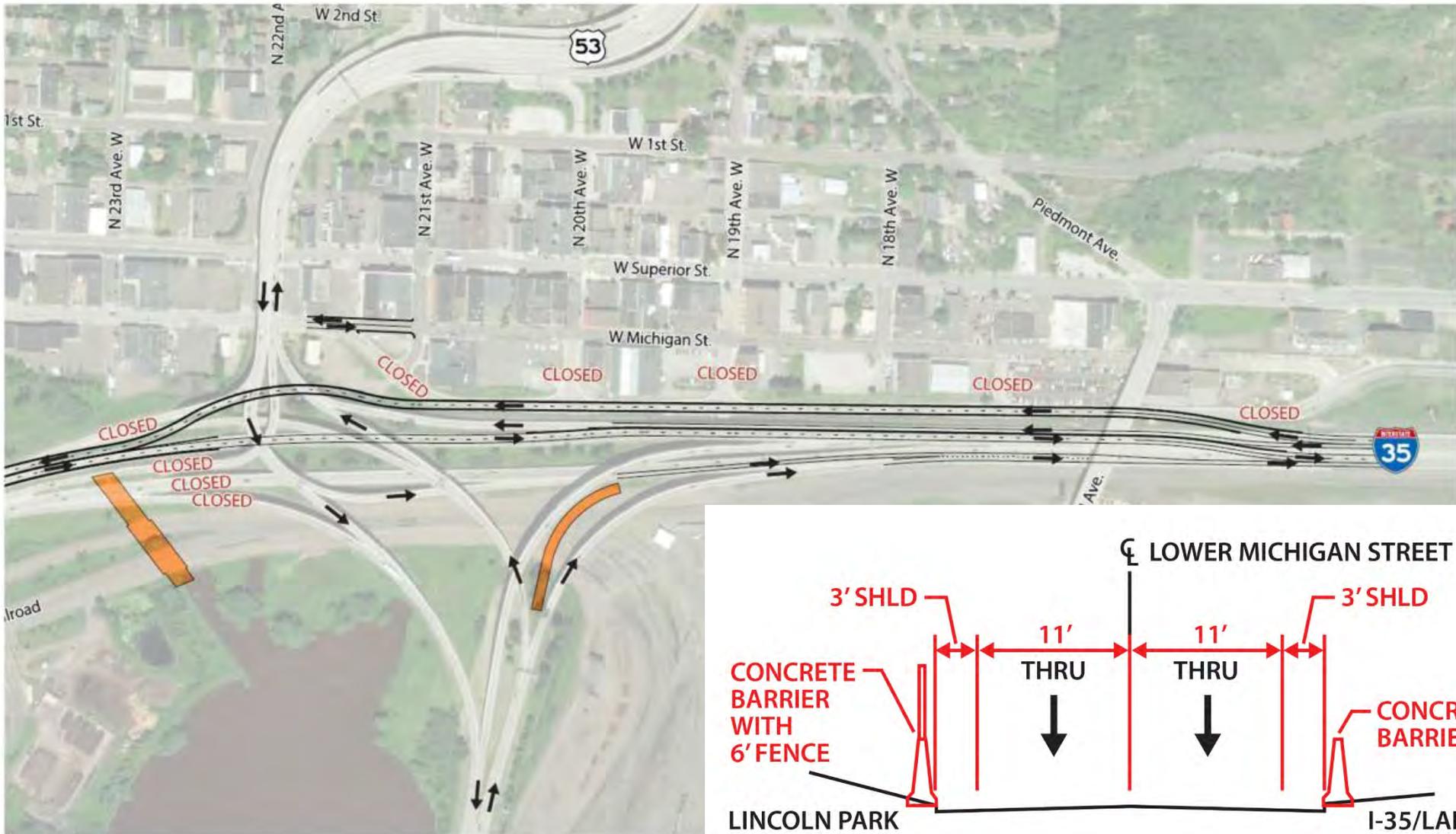
Miller & Coffee Creek Box Culvert Construction



Miller Creek Temporary Shoring and Track Work



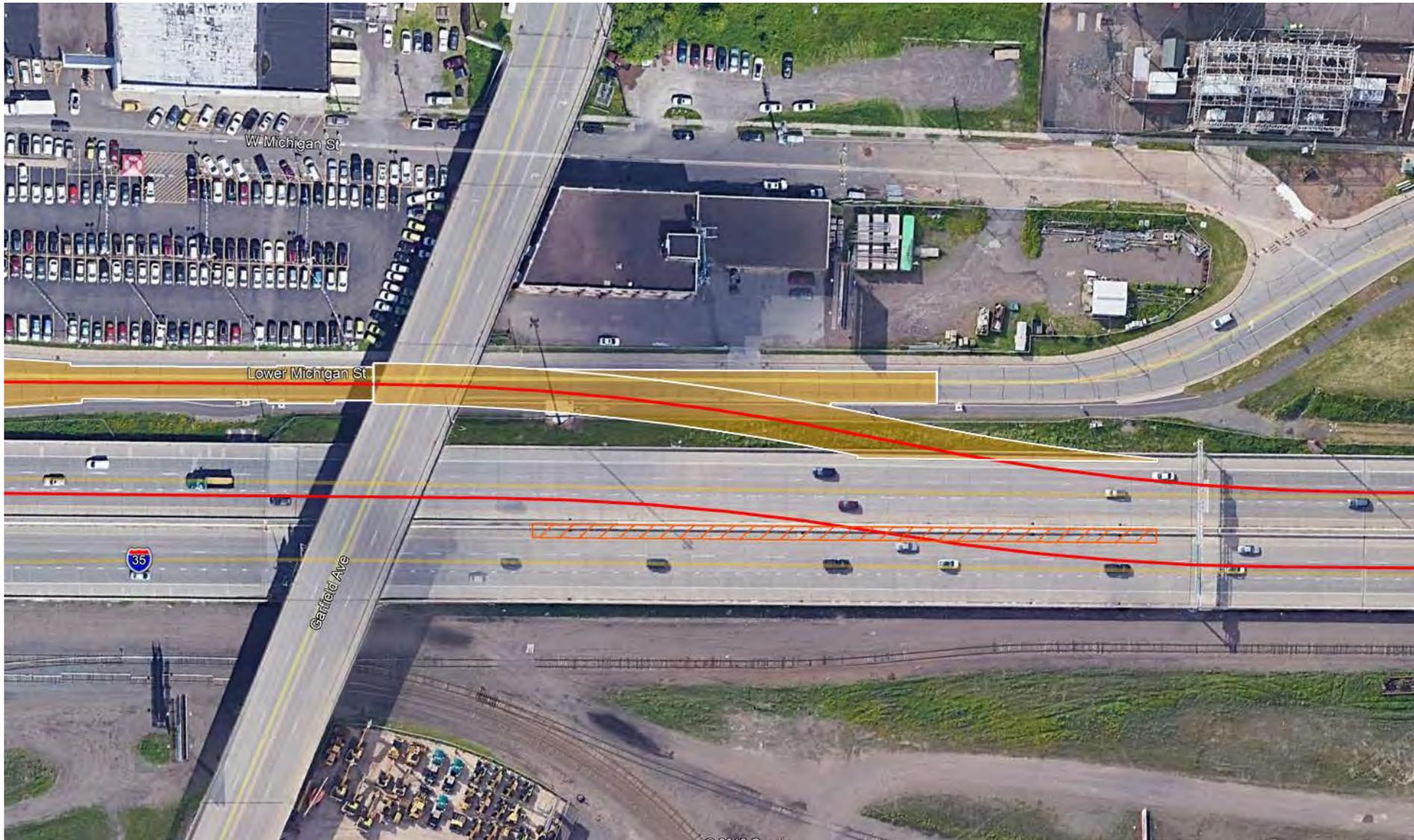
Lower Michigan Street Bypass



**Fall 2021
to
Fall 2022**



Lower Michigan Bypass Detail



**Fall 2021
to
Fall 2022**

Lower Michigan Bypass Detail



**Fall 2021
to
Fall 2022**

Overall Project Staging Summary



- **Spring 21 – Fall 21:** I-35 will be a single lane in each direction
- **Fall 21 – Fall 23:** Maintaining two lanes in each direction on I-35 will keep traffic flowing (I-535 and US Hwy 53 detoured)
- Lower Michigan St. bypass will reduce traffic diversions through Lincoln Park
- Year-round construction will help complete project sooner
- Fall 23: “Substantial completion”
- Summer 24: Final completion

Lower Michigan Street Utilities

- Gas Main Work: Completed
- Lift Station Work: Started May 25th
 - Lower Michigan is back open to traffic
- Video explanation on gas and sewer work on YouTube:
https://youtu.be/okX98_T1w_0
- Short detours of the Cross City Trail are expected in this area
 - Between 20th Ave W. and 22nd Ave. W

Project Outreach and Information

Billboards in place

- Hwy 53 before coming into Superior, Wis.
- I-35 near Beroun/Hinckley
- In project area, downtown Duluth

Radio ads

- On hold until the project gets closer. Will run throughout the region

Project information hotline

- Phone number: 218-343-3748
- Use 511 for updates
- Sign up for updates on the project website: <https://www.dot.state.mn.us/d1/projects/twin-ports-interchange/>

Posted videos

- Unable to host in-person meetings, so we recorded a couple videos of TPI staff explaining portions of the project. Many views!
 - Mound video
 - 27th Avenue Bridge videos
 - **Miller/Coffee Creek video coming soon!**

Virtual meetings

- Monthly update meetings held virtually. Details to attend are on the project “meetings” page
- **Next public update meeting is Monday, December 7 at 12:15 pm**

**Headed
to Duluth?**



**Major Road Construction
coming 2020**

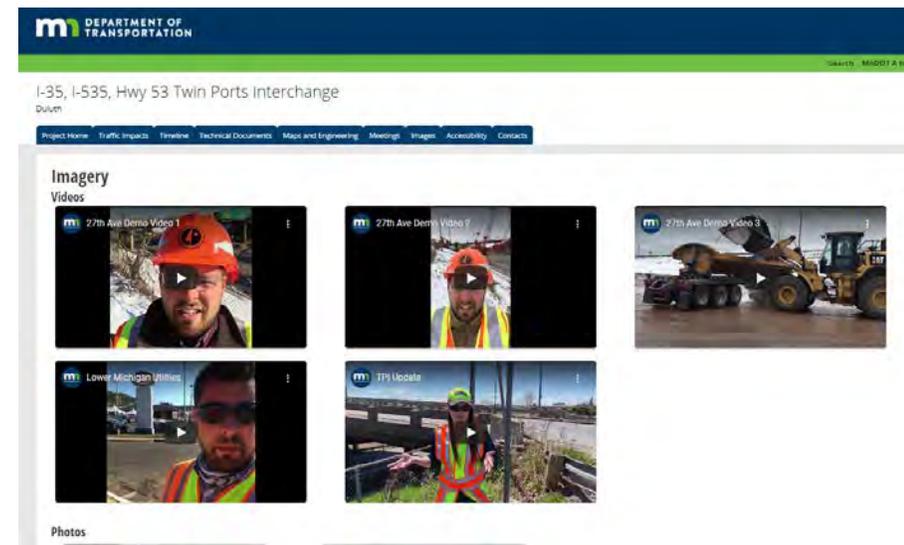
Search Twin Ports Interchange for updates

Plan ahead and drive safe!

We chose to leave the “2020” on the billboards because the project is starting this fall, and we figured we have enough other construction going on in Duluth this year – Lake Avenue Bridge and Superior Street – that it warranted leaving it. We will update them for next year.

Upcoming Outreach

- Next public update meeting is Monday, December 7 at 12:15 pm
 - The meeting link is on the project website
- Watch project website for more upcoming public outreach opportunities
 - <https://www.dot.state.mn.us/d1/projects/twin-ports-interchange/> or Google “Twin Ports Interchange”
 - Videos have been posted on the website for the “mound” and for 27th Avenue West
 - What would you like to know about the projects? Let us know.
 - Watch for future virtual meeting opportunities
- MnDOT Offices are closed
 - Field staff is working
 - Office staff is telecommuting, but available regular business hours.



Questions/Comments?

Patrick Huston, Project Director

patrick.huston@state.mn.us

218-348-9902



Blatnik Bridge Update *for the* Harbor Technical Advisory Committee (HTAC) December 2, 2020

Jessica Felix, P.E. – WisDOT NW Region Deputy Director

Patrick Huston, P.E. – MnDOT District 1 Major Projects Engineer



Partnership – MnDOT and WisDOT

- Two DOTs but one Twin Ports
- Frequent Collaboration
 - Border bridges
 - Maintenance
 - Inspection

Top: Eisenhower Bridge of Valor

Bottom: Snooper truck / inspection



Agenda

- Provide an overview
- Blatnik Bridge history
- Scope of the project
- Project process
- Outreach opportunities
- Round Robin Input

Core Team

- **MnDOT District 1:**

- Duane Hill – District Engineer
- Pat Huston – Project Director

- **WisDOT NW Region Team:**

- Jessica Felix – Deputy Director
- Tim Mason – Planning and Operations Chief

- **MnDOT Blatnik Team:**

- John Krysiak – Project Manager
- Pippi Mayfield – Communications
- Keith Molnau – Bridge

- **WisDOT Blatnik Team:**

- Marc Bowker – Project Manager
- Christena O’Brien – Communications
- Aaron Bonk – Bridge

- **Consultants:**

- Vince Gastoni – Parsons: Project Management, Bridge Alternatives
- Beth Kunkel – Kimley-Horn: Outreach & Environmental
- SRF: Traffic
- SEH: Geometric Alternatives

Why are we here?

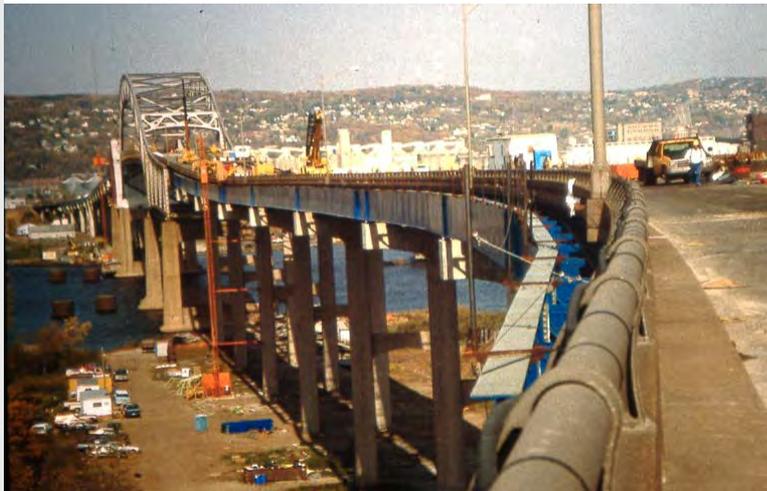
- Significant deterioration developed in truss elements
- Maintenance issues
 - Safety inspection required yearly
 - Additional maintenance ongoing
 - Structural maintenance required every 4 years for safety and serviceability
 - Next project scheduled for 2022



Do we need two bridges?

- Considerations

- Service and maintenance require closures or lane restrictions
- Redundancy
- Freight efficiency, emergency response, accessibility



Photos: 1994 redecking

Blatnik Bridge Facts (1/2)



- Opened to traffic in 1961
- Connects Duluth, MN and Superior, WI via I-535/US 53
- 120 foot maximum vertical clearance over St. Louis River/Bay
- 52 total spans; navigation channel 600 ft
- Carries 4 traffic lanes (2 in each direction)
- Accommodates 33,021 vehicles per day (2019)
- Permit load restriction due to condition

Photo: Archival photo of bridge

Blatnik Bridge Facts (2/2)



- At nearly 8,000 feet long it is the second longest bridge in MN and third longest in WI, spanning the Twin Ports
- The Twin Ports is the largest port on the Great Lakes with 800 vessel visits annually

Blatnik Bridge Maintenance History (1/2)

- 1958 – 1961: Construction
- 1961: Opens to traffic
 - Designed for max vehicle weight of 154,000 pounds
- 1973: Median change from curb to median barrier
- 1994: Widening project
- 1995: Painting and repair project
- 2008: Emergency gusset repair and spot paint
 - First load restriction to 80,000 pounds

Photos: 1958 construction of Blatnik Bridge



Blatnik Bridge Maintenance History (2/2)

- 2008: Emergency gusset repair and spot paint
 - First load restriction to 80,000 pounds
- 2010: Suspender rope replacement project
- 2012 - 2013: Repaint truss in splash zone, perform truss strengthening and install new lighting system
 - Changed max vehicle weight back to 154,000 pounds
- 2016: Repair project (emergency gussets and cable)
 - Load rating reduced again to 104,000 pounds
- 2019: Inspection
 - Load rating further reduced to 80,000 pounds (legal loads only)
- 2021/2022: Planned maintenance work

Blatnik Bridge Today



What is being investigated?

- Maintain a fully operational connection across the Saint Louis Bay navigation channel
- Evaluate rehabilitation or replacement of truss
- Evaluate the option of extending service life of the approach spans or replace in entirety
- Replacement on existing or new alignment

Why now? (1/2)

- Significant deterioration developed in truss elements
- Maintenance issues
 - Yearly inspection under the National Bridge Inspection Program
 - Additional maintenance ongoing
 - Structural maintenance required every 4 years for repairs and modifications to maintain current serviceability level
 - Next project scheduled for 2022



Why now? (2/2)

- June 2019 – Load restriction at 80,000 pounds and can no longer accommodate overweight loads
- Increased road user delays due to more frequent bridge maintenance activities and inspections
- Increased maintenance levels and drastically increasing costs
- Planning and design process takes several years
- Key decision-making needed in next 12 to 24 months

What will it cost?

- Project scoping and preliminary engineering has not been completed on the Blatnik Bridge project to date
- Appropriate project cost levels cannot be determined without that work
- High level planning cost estimates for a range of alternatives will be developed by the project team after the first round of screening
 - Time frame: 9-12 months
- Scoping level cost estimates will be developed as part of the Blatnik preliminary engineering contract
 - Timeframe: 2-3 years
- MnDOT/WisDOT share costs on all border bridges

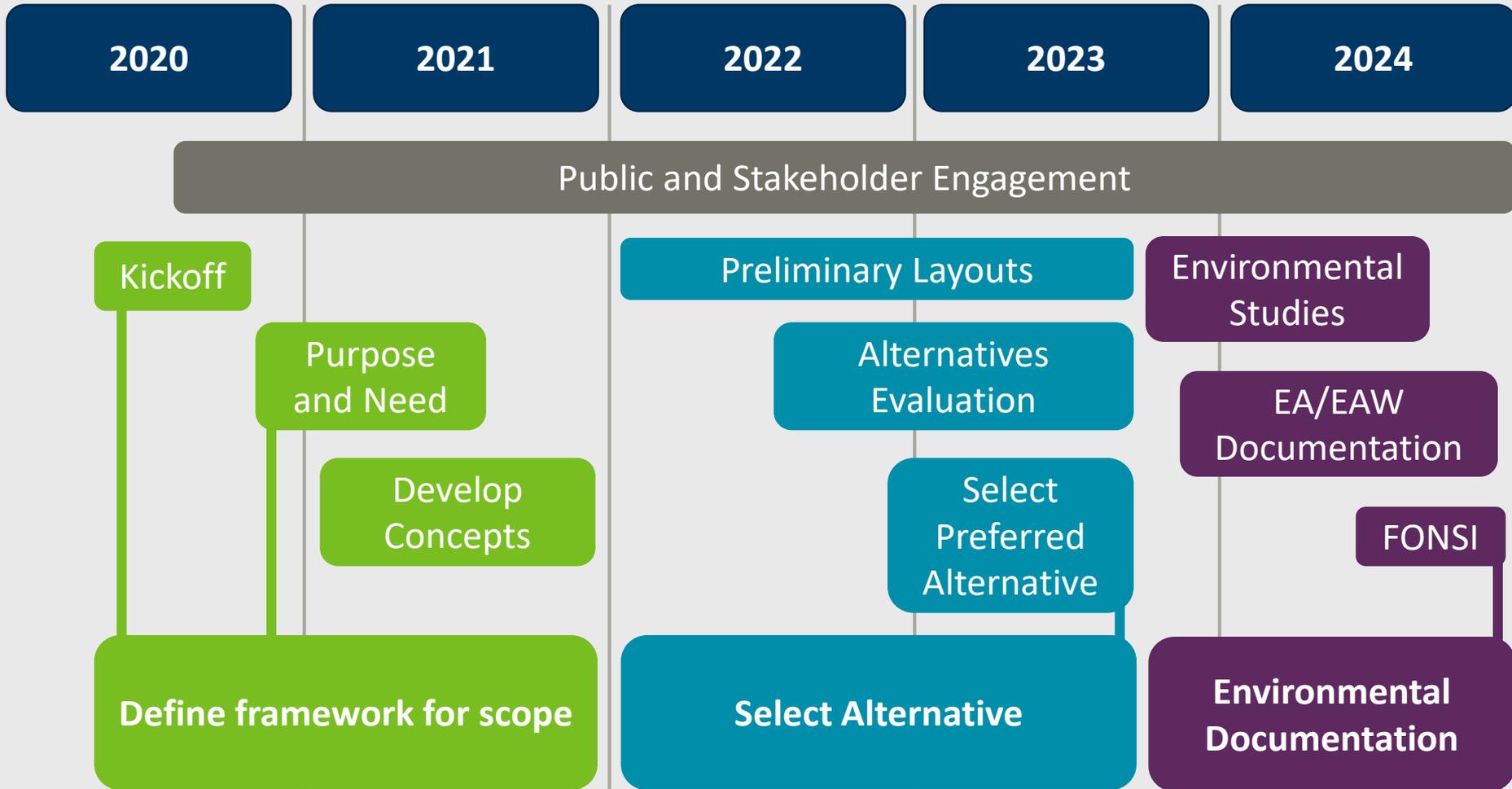
What do we know now?

- Multiple studies have been completed:
 - Bridge Management Study (2017)
 - MnDOT Existing Bridge Condition Assessment (2018 to present)
 - Load rating analysis (2019)
 - Subsurface pile investigation (2020)
 - Freight and Traffic Model (2019)
 - WisDOT Traffic Safety and Operational Study of US 53 and City of Superior (2019)

How long before construction starts?

- **2020 to 2024: NEPA Process**
 - Working towards preferred alternative selection and environmental documentation
- 2024 to 2026: Preliminary Design
- 2026 to 2028: Final Design
- 2028 to 2031: Construction

Where are we in the NEPA process?



What happens next?

- Define Project:
 - **Develop purpose and need statement (final by 2/5/2021)**
 - Develop screening criteria
 - Develop potential alternatives
 - Screen alternatives to determine feasible alternatives for further study
 - Evaluate social, economic, and environmental impacts for feasible alternatives
 - Select preferred alternative

Blatnik Bridge Location and Study Area



How will an environmental review be conducted?

- Documentation will include:
 - Purpose and need
 - Evaluation of alternatives
 - Impact assessment
 - Natural, cultural, social
 - Environmental commitments
 - Preferred alternative
 - DOT/FHWA approvals



Outreach and Communication Opportunities

- Inform
 - Project website / Govdelivery sign up
 - Public Information Meetings
 - Open houses (next meeting January 12, 2021)
- Consult
 - Stakeholder small group meetings
- Collaborate
 - Public Advisory Committee (PAC) (next meeting January 5, 2021)

Public Advisory Committee (PAC)

- The PAC is a high-level group that is the conduit to and from other specific groups
- Two meetings have been held to date
- Next PAC meeting is to review draft purpose and need

Stakeholder Small Group Meetings

- MnDOT/WisDOT need to balance many different interests
- Engaged stakeholders help inform project
- Provide knowledge of local conditions and potential impacts
- Understand local issues, concerns and interests
- Supply input that may guide options
- As the project evolves, plans will change

List of Stakeholder Small Group Meetings

- Tourism/recreation - Tuesday, October 13, 2020, 1:00 - 2:30 p.m.
- WI government - Tuesday, October 13, 2020, 3:00 - 4:30 p.m.
- MN government - Wednesday, October 14, 2020, 1:00 - 2:30 p.m.
- Special interests - Thursday, October 15, 2020, 1:00 - 2:30 p.m.
- Transportation - Thursday, October 15, 2020, 3:00 - 4:30 p.m.
- MN industry - Tuesday, October 20, 2020, 1:00 - 2:30 p.m.
- WI industry - Tuesday, October 20, 2020, 3:00 - 4:30 p.m.
- WI businesses - Thursday, October 22, 2020, 1:00 - 2:30 p.m.
- OSOW haulers – Tuesday, November 17, 2020, 1:00 – 2:30 p.m.

Stakeholder Small Group Questions

- What problems do you associate with the Blatnik Bridge today?
- What do you look for from the Blatnik Bridge project that you would like MnDOT/WisDOT to consider in this process?
- What do you think will be the biggest challenge to getting this project constructed?

Lake Carrier's Association

- October 30th meeting with USCG and select LCA members for a discussion from vessel owner/captain perspectives

Attendance

- Michael Walker/U.S. Coast Guard/ michael.o.walker2@uscg.mil
- Lee Soule/U.S. Coast Guard/ Lee.D.Soule@uscg.mil
- Representatives from Lake Carrier's Association and Mariners/Captains invited for discussion:
 - Eric Peace/Lake Carriers' Association/ peace@lcaships.com
 - Captain Paul Christiansen/Director of Operations and Security/Interlake Steamship Co.
 - Jstockert@keyship.com
 - Kevin McMonagle, Kevin.mcmonagle@gatx.com
 - Paul C.

Draft Purpose and Need

The following three basic needs have been identified as the existing problems that are driving the Blatnik Bridge project:

- Bridge Condition
- Mobility
- Safety

Draft Purpose and Need

DRAFT Secondary Needs

- Multi-modal considerations

Draft Purpose and Need

DRAFT Purpose Statement

Based on the needs described above, the following objectives summarize the intent for this project:

- To create a sustainable connection over the St. Louis Bay between the cities of Duluth and Superior
- To restore the intended freight movements of the crossing - original operational performance
- To provide reliable movement of goods and services locally and regionally
- To improve the geometric deficiencies at the 53/35/ I-535 interchange and the Hammond/5th street intersection

Draft Purpose and Need

DRAFT Purpose Statement

Using the above needs and objectives, MnDOT and WisDOT define the purpose of this project as:

- *Provide a multi-modal, interstate connection over the St Louis Bay that does not restrict the movements for freight and provides local, regional, and international movement in a safe and efficient manner.*

HTAC Specific Questions

- What are we missing?
- Partnerships potential?
 - Future challenges (dewatering)
 - What do you know that we should know??!
- How can we best engage with HTAC

Questions?



Project Websites:

MnDOT: <https://www.dot.state.mn.us/d1/projects/blatnik-bridge/>

WisDOT: <https://wisconsin.gov/Pages/projects/by-region/nw/blatnikbridge/default.aspx>

Primary Project Contacts:

Pat Huston, MnDOT District 1 Major Projects Engineer
(218)348-9902 patrick.huston@state.mn.us

Marc Bowker, WisDOT NW Region Project Manager
(715) 635-4975 marc.bowker@dot.wi.gov

Thank you!