



Twin Ports Interchange Reconstruction Project Monthly Update

August 27, 2018

Contractor Updates

- Contract executed for Preliminary Bridge Design in main interchange and Visual Quality
 - Parsons Transportation Group (PTG) – Jeff Cavallin
 - Kimley Horn – Todd Halunen
- Selected Construction Manager/General Contractor (CMGC) to negotiate a contract for preliminary plans.
 - Ames – Kraemer Joint Venture
 - Project Manager - Steve Kaldenbach
 - Construction Manager – Ben Lovin
 - **Collaboration between owner, contractor and designer BEFORE CONSTRUCTION**

CMGC Benefits & Challenges

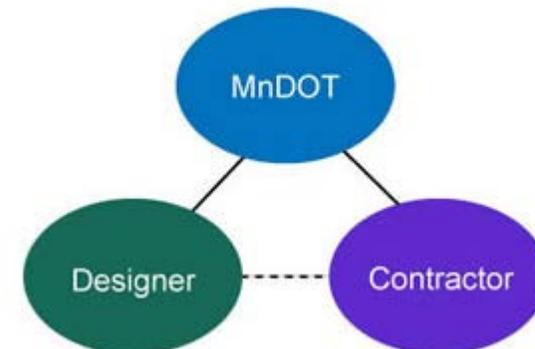
Benefits

- **Innovation** – Contractor input into the design process
- **Cost Management** – Contractors provide real-time cost information
- **Design Savings** – Streamline design
- **Design Control** – MnDOT retains control of the design, with contractor input
- **Construction Risk** – Construction risks mitigated during project development
- **Cost Certainty** – Greater cost certainty earlier in the project
- **Time Savings** – Able to deliver early work packages similar to design-build

Challenges

- **Cost Validation** – Negotiated versus bid contract
- **Culture** – Relatively new to the transportation industry

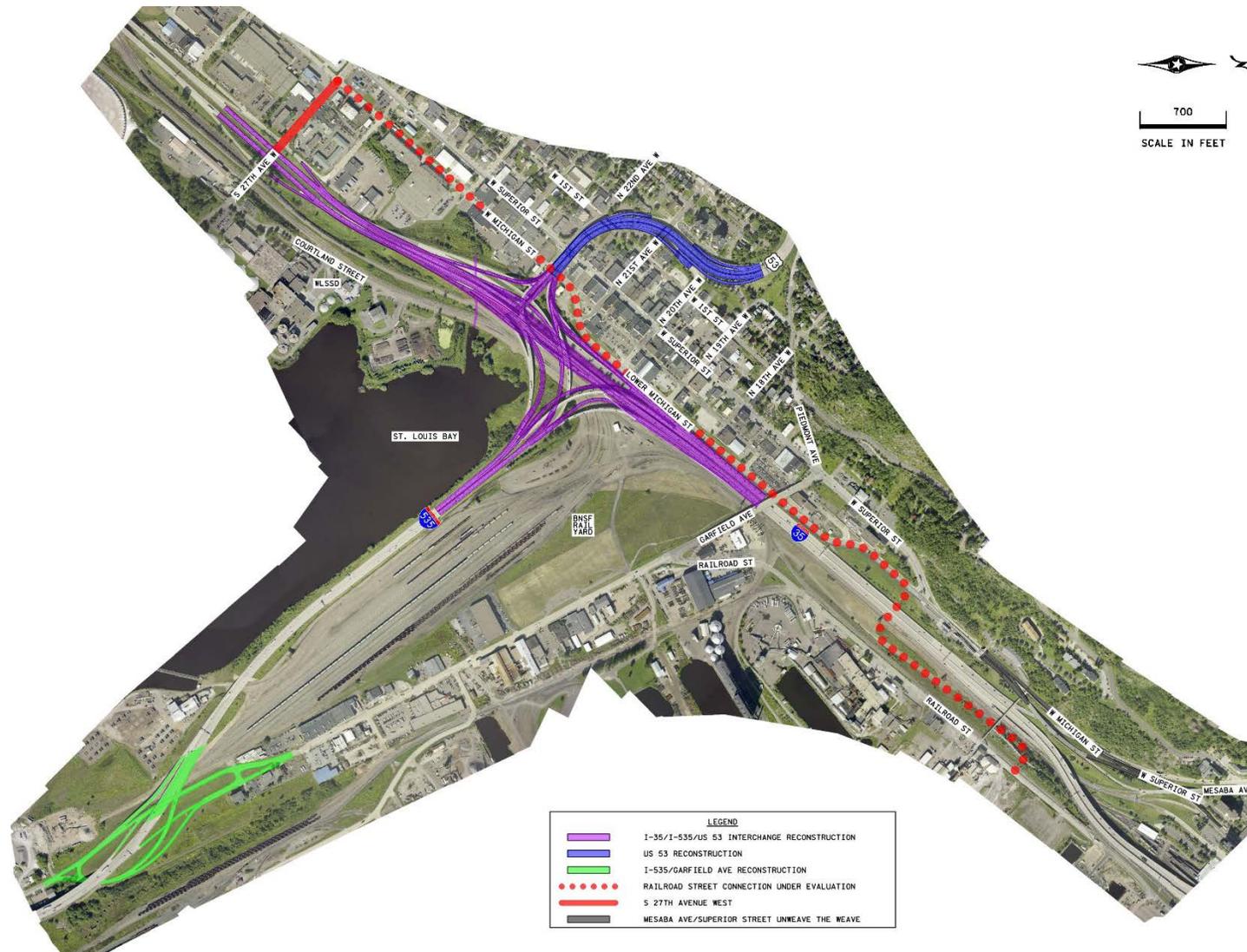
CM/GC Contracting Relationship



Purpose of Project

- 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

Project Components



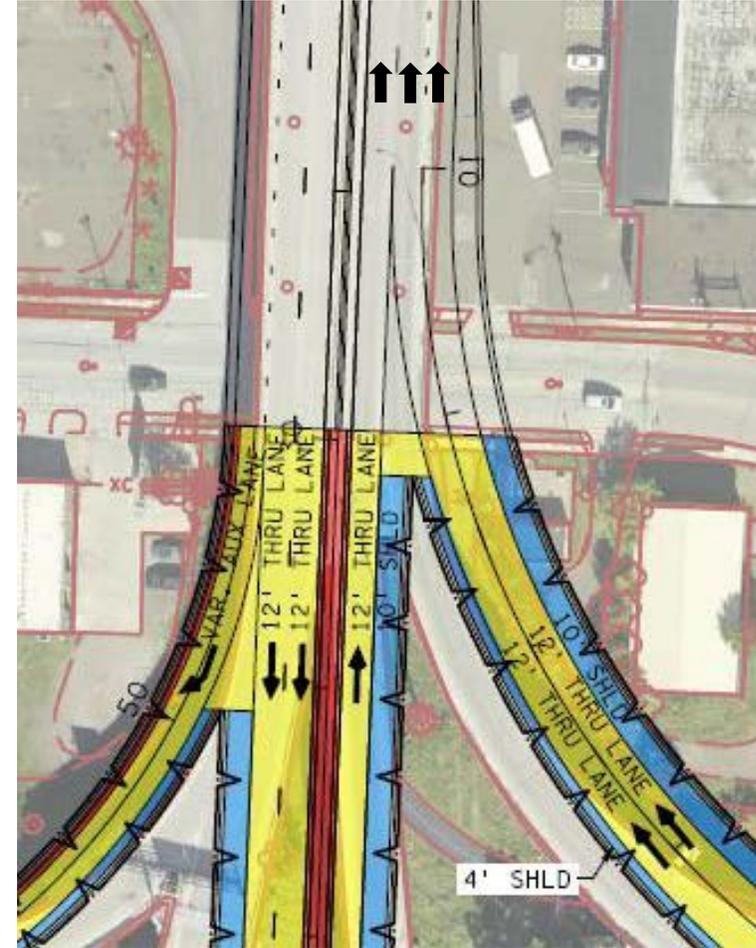
Interchange and T.H. 53 Layout



Merge from I-35 SB to Hwy 53 NB

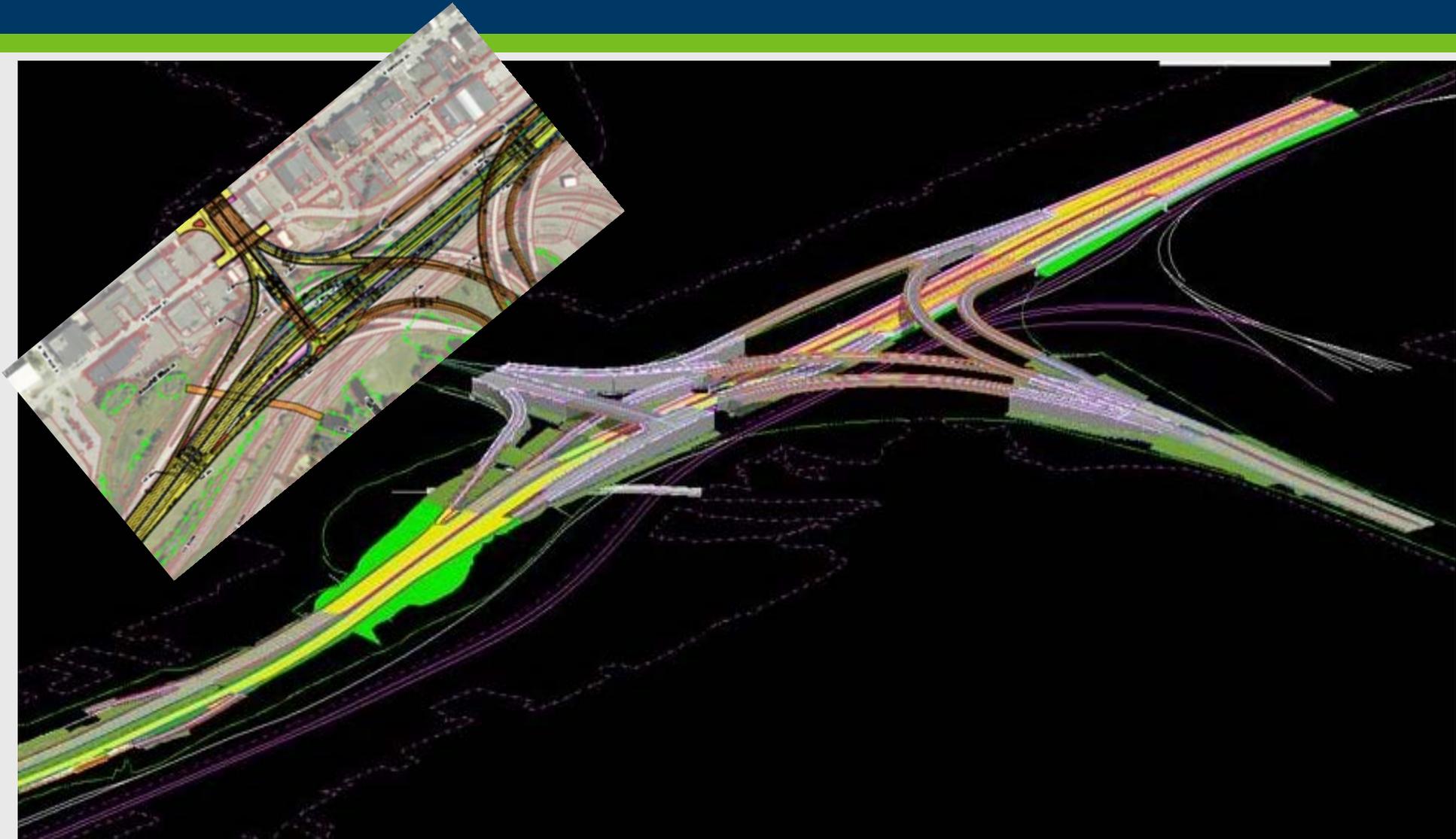


Existing

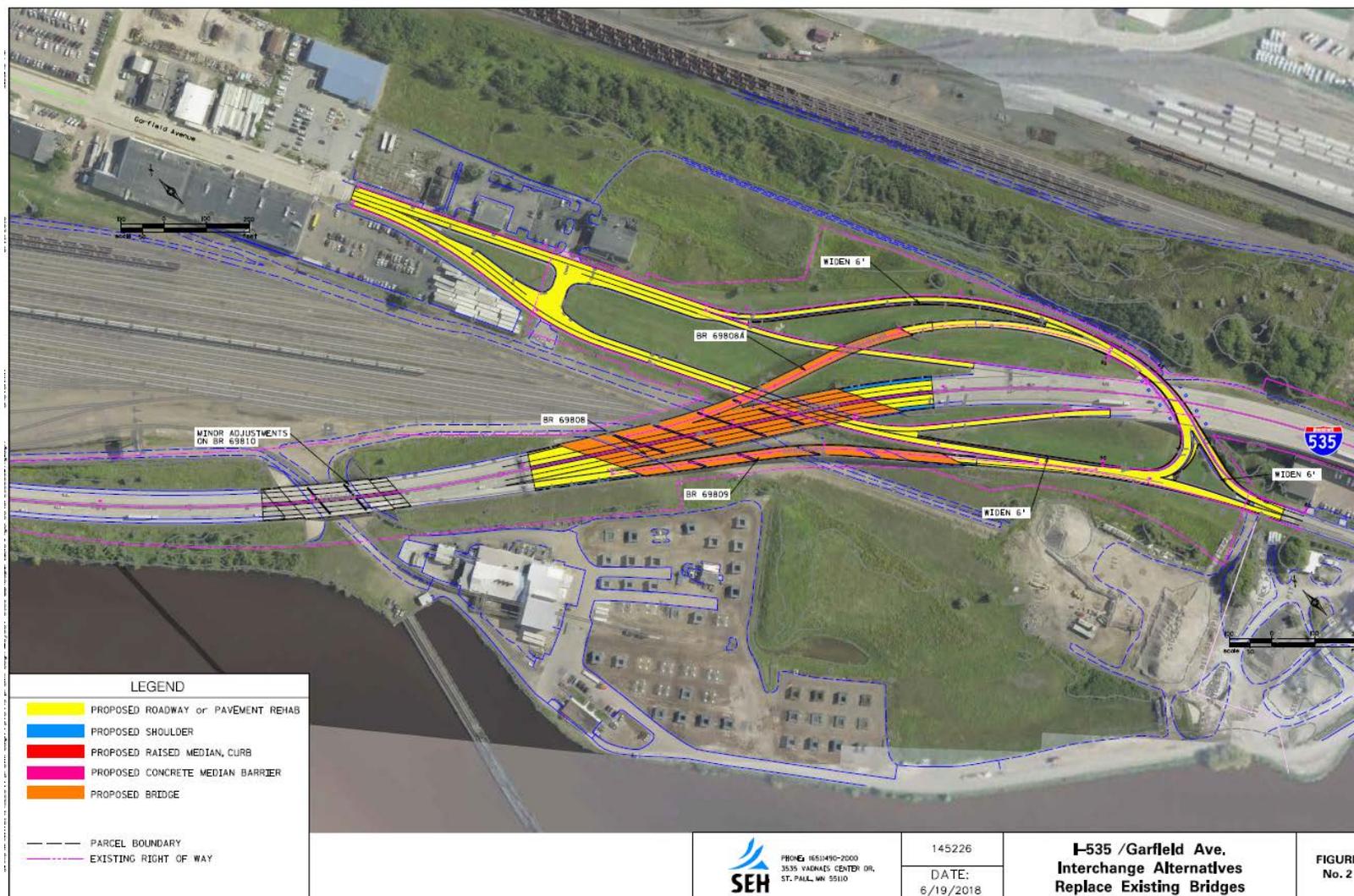


Proposed

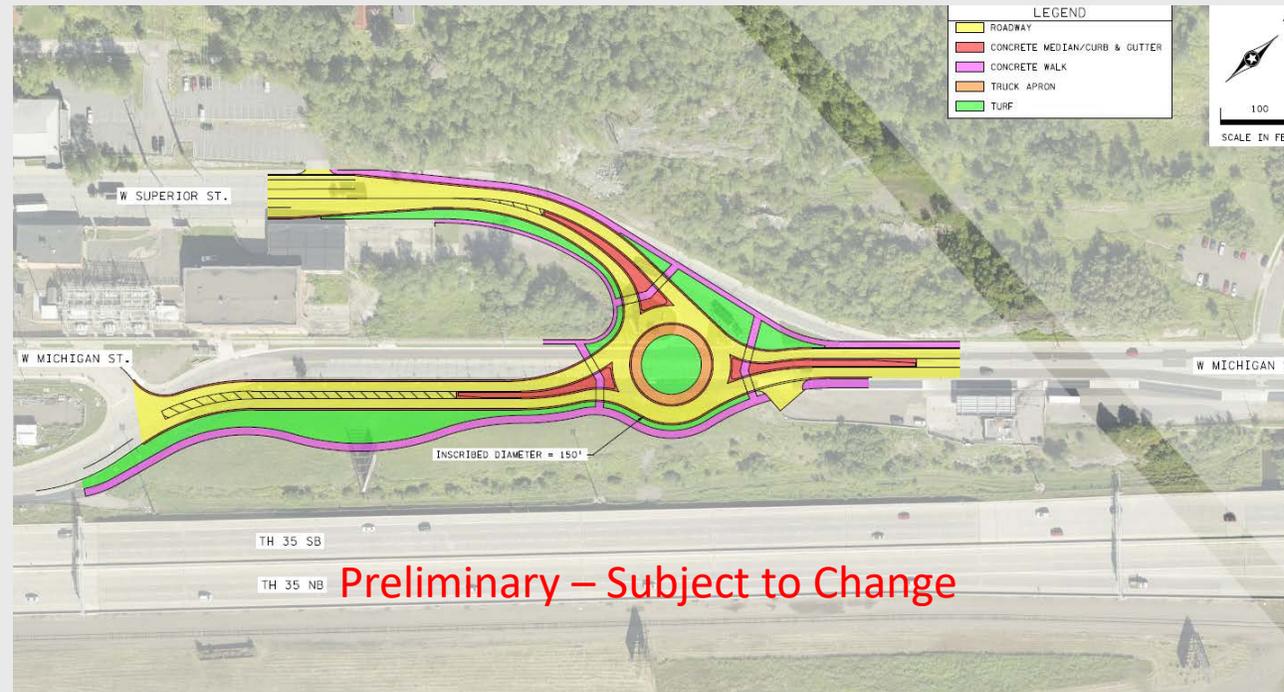
3-D Modeling



I-535/Garfield Avenue



Michigan/Superior Street Roundabout Option



- Still under evaluation
- Hired consultant to design layout
- Need to avoid “Point of Rocks” and bill board
- Design to allow for a 4th leg

Coffee Creek Realignment



2019 Local Improvements

Legend

- Channelization
- Add truck stopping lanes at rail crossings
- Relocate Coffee Creek
- Concrete pavement repair
- Pavement rehabilitation
- Potential intersection improvement being studied



Field Work Update

- Right of Way
- Environmental Drilling –
 - 2 weeks completed for 2019 work
 - Starts again on Monday for 2 weeks
 - Archaeological monitoring with drilling
- Sewer video/cleaning
- Noise
- Environmental Assessment Worksheet

Traffic Noise Analysis Report

- Required if project -
 - Adds traffic capacity (new traffic lanes), or **changes the road profile**
- Receptor = noise-sensitive parcel that receives traffic noise from studied roadway
- Traffic Noise Impact = a noise level that
 - approaches or exceeds the FHWA Noise Abatement Criteria (NAC), or
 - creates a substantial noise increase of 5 decibels or more, over existing noise levels.

Noise Study Summary

- Noise measurements taken at 9 locations representative of outdoor human activity
- Used to calibrate model
- 374 receptors were identified
- Existing Condition (2016) 53 receptors exceed NAC
- No Build (2040) 55 receptors exceed NAC
- With Project (2040) 52 receptors exceed NAC*

*reduced impact results from roadway shift blocking line of sight to mainline

Noise Study Summary – Data

- The proposed project area was divided into 18 Noise Sensitive Areas (NSA) based on impacts
- Five areas had noise impacts (I, J, K, L, N)
- Noise barriers were evaluated for 5 areas where modeled noise levels were projected to approach or exceed Federal noise criteria

Modeled Receptor Sites



Noise Study Summary – Factors

- Three factors must be met for a noise barrier to be considered reasonable
 - noise reduction design goal of at least 7 decibels must be achieved at a minimum of one receptor
 - cost effectiveness threshold of \$78,500 per individual benefited receptor
 - benefited receptors vote on whether barrier should be built if above criteria are met
- None of the barriers met both of the first two factors
- No barriers proposed

Visual Quality Manual Components

- Documentation of process and input
- Details for bridges and walls
- Textures
- Colors
- Preliminary Landscape Layout
- Cost analysis
- Photo simulations

DRAFT – SUBJECT TO CHANGE

Highway 53 Bridge Comparison (without aesthetic treatments)



Highway 53 Bridge Comparison - 20th W (without aesthetic treatments)



I-35 Bridge Comparison (without aesthetic treatments)



I-35 Bridge Comparison. (without aesthetic treatments)



I-35 Bridge Comparison – 21st West (without aesthetic treatments)



Updated Construction Costs

Component	Low	High
Concept C	\$108 million	\$126 million
T.H. 53	\$63 million	\$74 million
Miller and Coffee Creek Replacement	\$7.2 million	\$8.3 million
Garfield/I-535 Interchange Replacement	\$27 million	\$32 million
27 th Avenue West Rehab	\$1.6 million	\$1.9 million
Railroad Street Connection (if built)	\$9 million	\$10 million
Total	\$216 million	\$252 million

Next Public Meeting

- Monday, September 24

- 11:30-12:30
- 6:00 – 7:00 pm

Same meeting at both times

Clyde Iron

2920 West Superior Street

- October – TBD Formal Public Hearing on EAW and Visual Quality Open House

- [TPI Project Website](#) or Google Twin Ports Interchange

- Contact :Roberta Dwyer, Project Manager, 218-725-2781 or roberta.dwyer@state.mn.us