



**2021 MCEA Project of the Year  
I-694 at Rice Street (CSAH 49) Interchange  
Ramsey County**

June 17, 2021

## Project Team

- Beth Engum – Ramsey County Project Manager
- Dan Baar – County Surveyor
- Tom Nash – Senior ROW Specialist
- Nick Fischer – Ramsey County Construction Manager
- Brian Essler – Ramsey County Construction Tech 4
- SEH – Preliminary and final design and construction administration consultant
- Redstone Construction – Prime contractor

1999

















Minnesota Department of Transportation

Metropolitan Division  
Walker Edge  
1500 West County Street B2  
Roseville, MN 55113

November 1, 2000

Commissioner Anthony Bennett

Mr. Paul Kirkwood

Ramsey County  
Courthouse  
50 Kellogg Bldg  
St. Paul, Minn

Dear Messrs:

The Memorandum of Understanding jointly prepared by Mn/DOT and Ramsey County states that Mn/DOT will fund the reconstruction of the Rice Street bridge, while Ramsey County is responsible for rerouting and reconstructing Vadnais Boulevard.

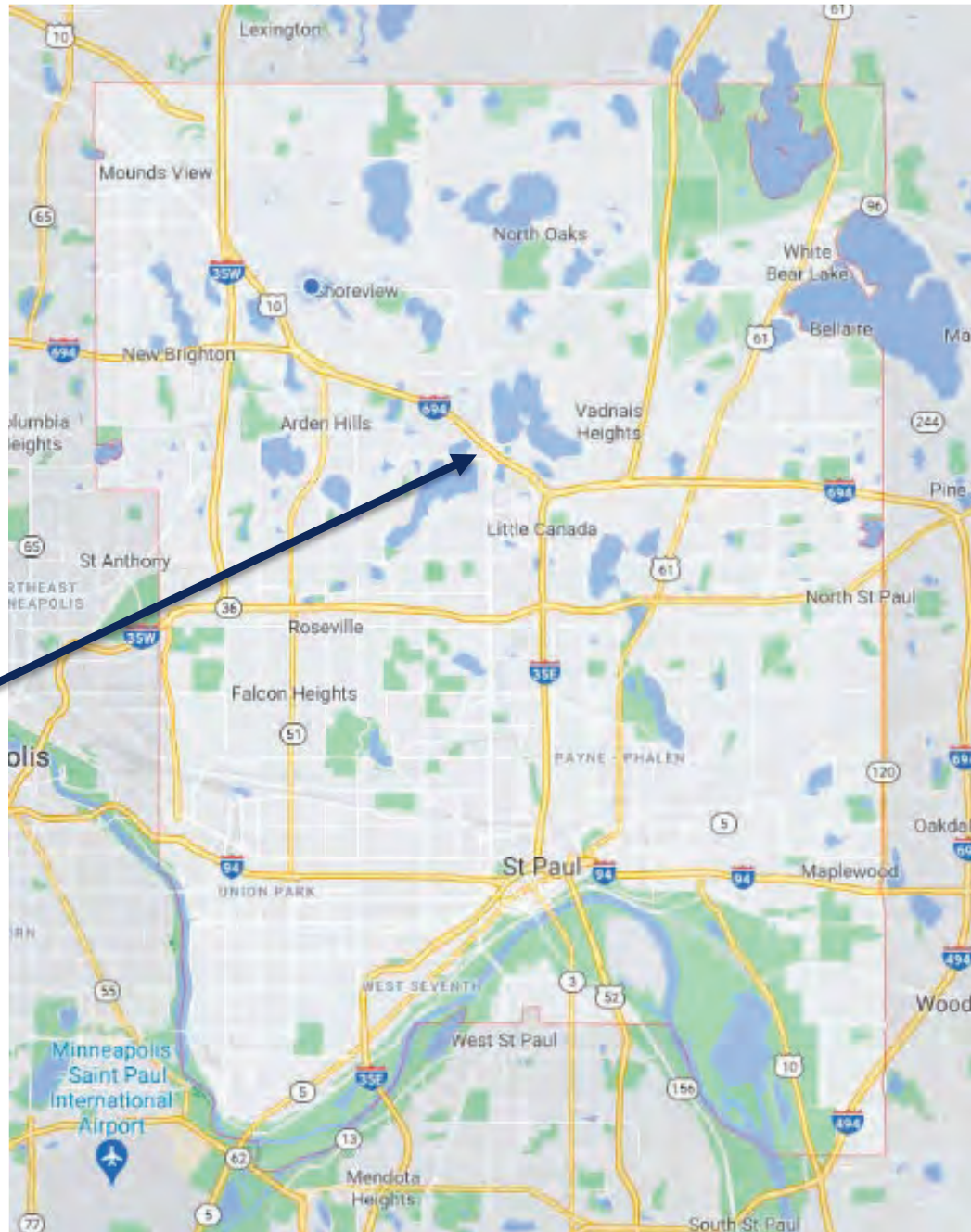
At our meeting on 10/27/00, it was agreed that Mn/DOT will program the Rice Street bridge as the first stage of the I-694 reconstruction project and as a condition of the Rice Street (Trunk Highway 49) Turnback. Mn/DOT and Ramsey County will coordinate their respective designs to ensure that both meet the needs of the Trunk Highway 49 reconstruction, as well as the future design of I-694. We shall proceed with our plans and be prepared to let the Rice Street bridge project in 2001.

The Memorandum of Understanding jointly prepared by Mn/DOT and Ramsey County states that Mn/DOT will fund the reconstruction of the Rice Street bridge, while Ramsey County is responsible for rerouting and reconstructing Vadnais Boulevard. Mn/DOT and Ramsey County will design and manage their respective projects, yet work closely to coordinate the construction of the projects.

Should you have any questions or concerns, please contact Marc Coors, Preliminary Design Engineer (651.582.1341) or Kimberly Buesch, Project Manager (651.582.1012).

Sincerely,

Richard A. Stehr  
Metropolitan Engineer



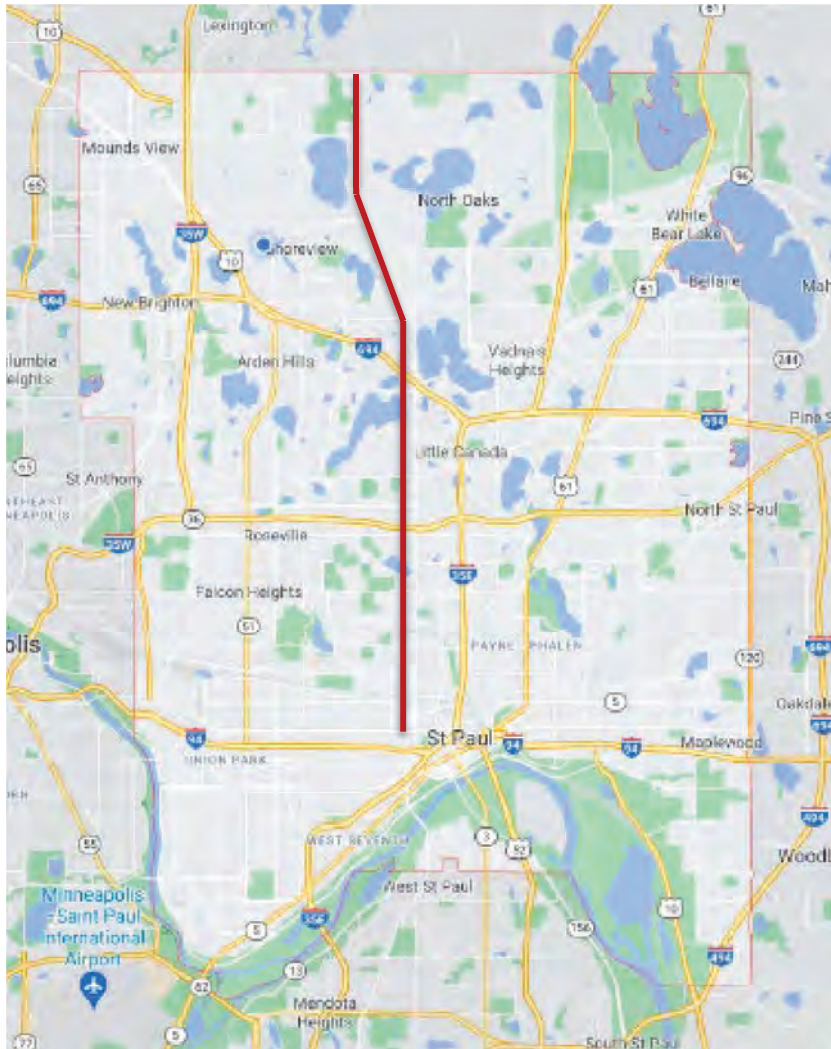


Rice St

## Project Need

- Interchange area congested 7 hours per day
  - Closely spaced signalized intersections
  - 5-legged intersection
  - Backups onto freeway
  - Daily  $\frac{3}{4}$ + mile backups on Rice St
  - Numerous private accesses
- 86% of survey respondents said roadway improvements needed to improve traffic
- Traffic projected to grow 33% by 2040
  - 19,500 vpd grow to 26,000 vpd
- No pedestrian/bicyclist facilities
- Provide better access to former public works site
- Enhance economic development potential

## Trunk Highway 49 Turnback - 1999



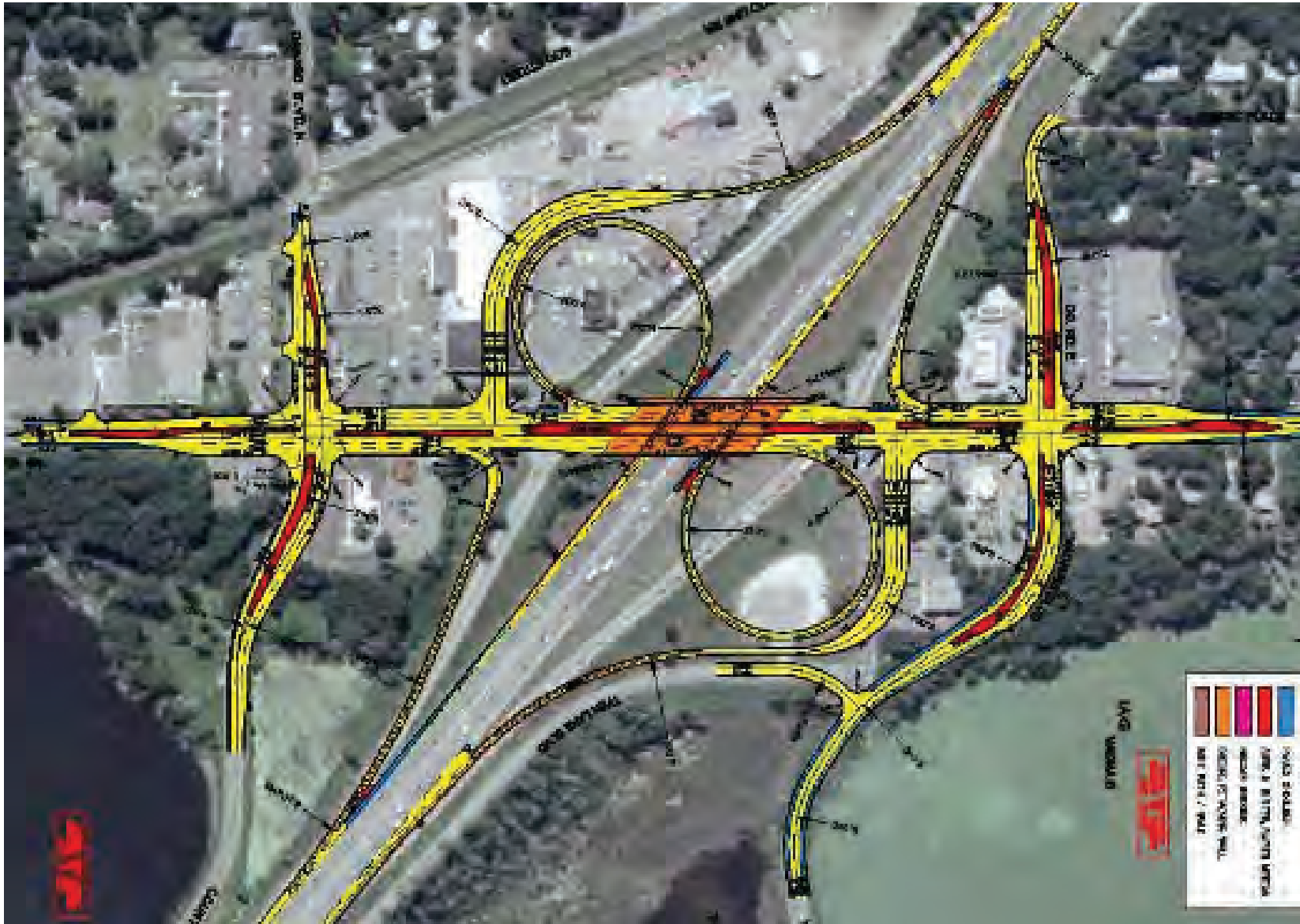
- Rice Street (TH 49) turnback to Ramsey County (CSAH 49)
  - St Paul (Capitol to Anoka Co border)
  - Approximately 12 miles

# New Ramsey County Public Works Facility - 2004



New facility in 2004

# I-694/Rice St MnDOT Concept - 2004





# Vadnais Blvd Realignment - 2009



2006 (old)



2009 (new)

# MnDOT Projects – 2008, 2015, 2016, 2017



## Funding



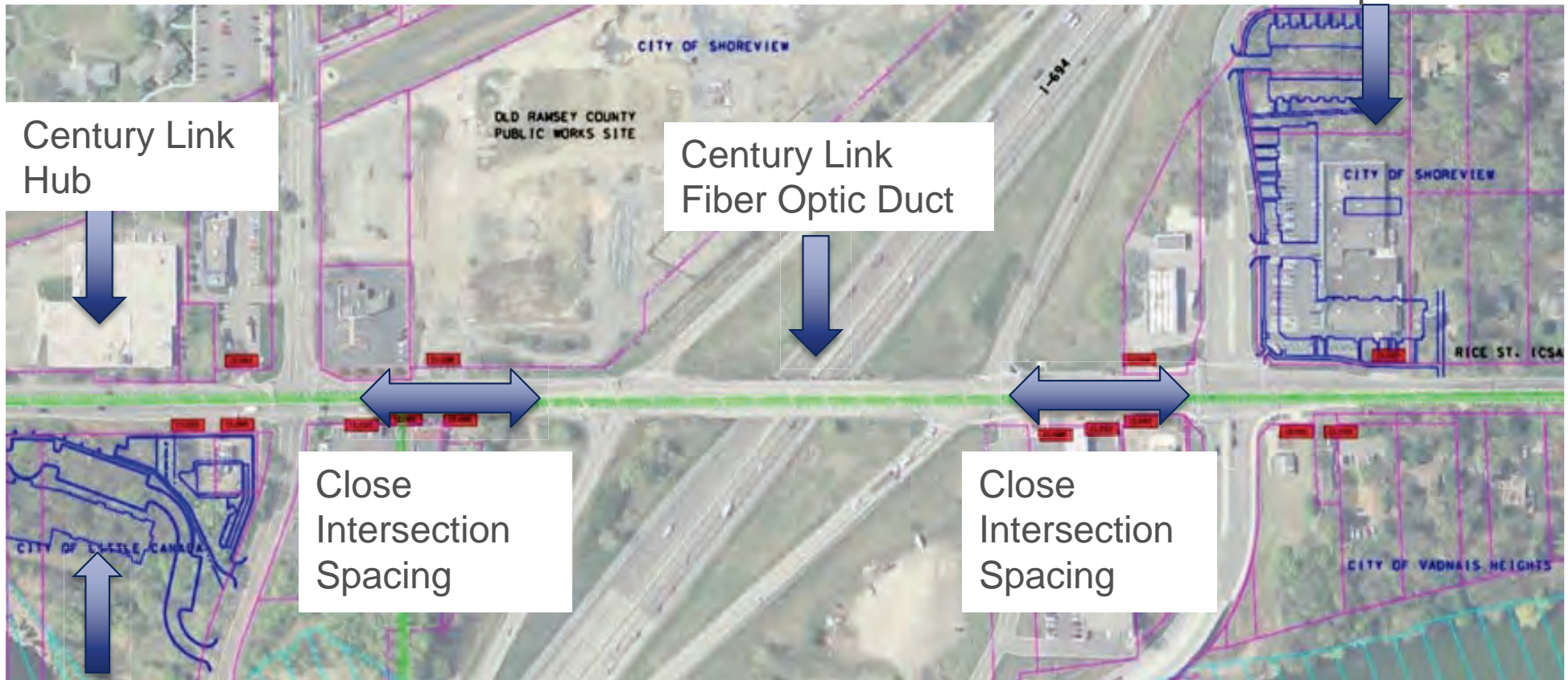
- County, with MnDOT and City support, sought funding for 10+ years
- \$7.0M - 2016 Federal funds
- \$20.5M - 2017 Local Road Improvement Program (LRIP) Earmark
  - Design, ROW, and construction

## Project Team / Partners

- Beth Engum, Ramsey County Project Manager,
  - Began preliminary engineering and final design in 2016
- SEH – Design consultant
- FHWA, MnDOT, Metro Transit
- 3 cities - Vadnais Heights, Shoreview, Little Canada
- 2 watershed organizations - Vadnais Lake Area Water Management Organization, Ramsey-Washington Metro Watershed District

# Design and Construction Constraints

New Mixed-Use Development



New Senior Housing Development

- Maintain Traffic During Construction
- Additional Width for Bicyclists and Pedestrians
- Access management



## Considered 20+ interchange designs

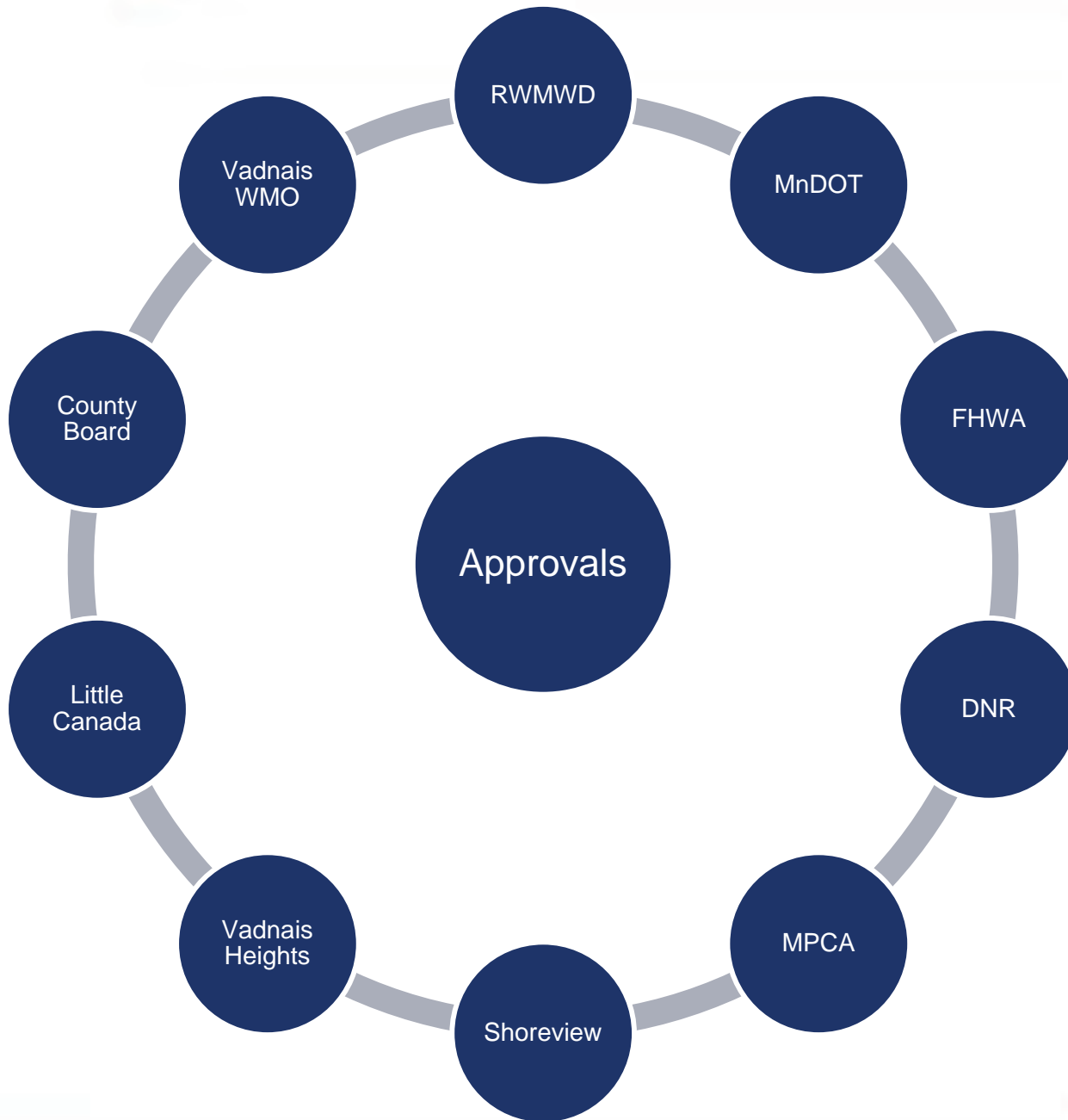




# Preferred Alternative







# Surveying / Right of Way Acquisition



- Dan Baar – County Surveyor
  - Started in 2013
  - 35 boundary surveys
  - 2 ROW plats
- Tom Nash – Sr ROW Specialist
  - 17 parcels
  - Fee acquisition of 4 parcels
  - All settled through negotiation
- Paid \$4,986,000 (original est. \$10M)
- Sold excess ROW to adjacent private properties so they could expand
- Sell parcel to Vadnais Heights for redevelopment

# Right of Way Acquisition

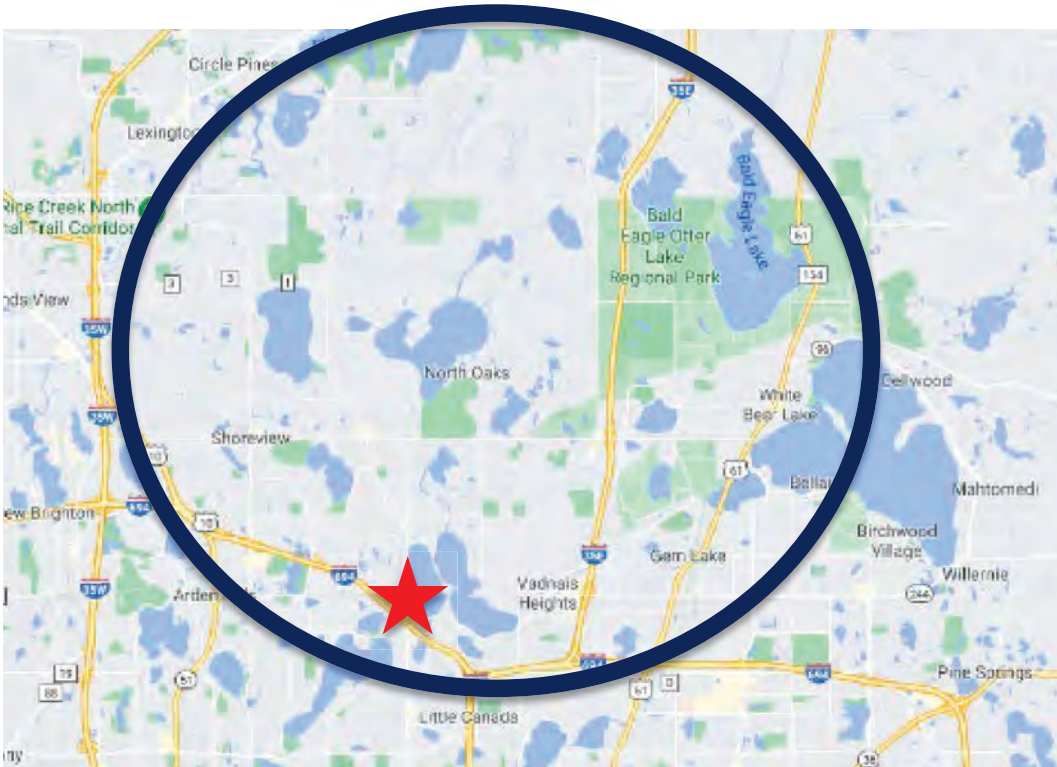


Vadnais Inn Bar

Mobile Mart Gas Station



## Century Link Fiber Optic Duct



- Impacted large service area north of project
- Located on bridge and under freeway
- MN Statute 161.46 requires payment to private utility for relocation across interstate
- Paid \$809,000 to relocate
- Did not pay to relocate in county ROW

## Construction



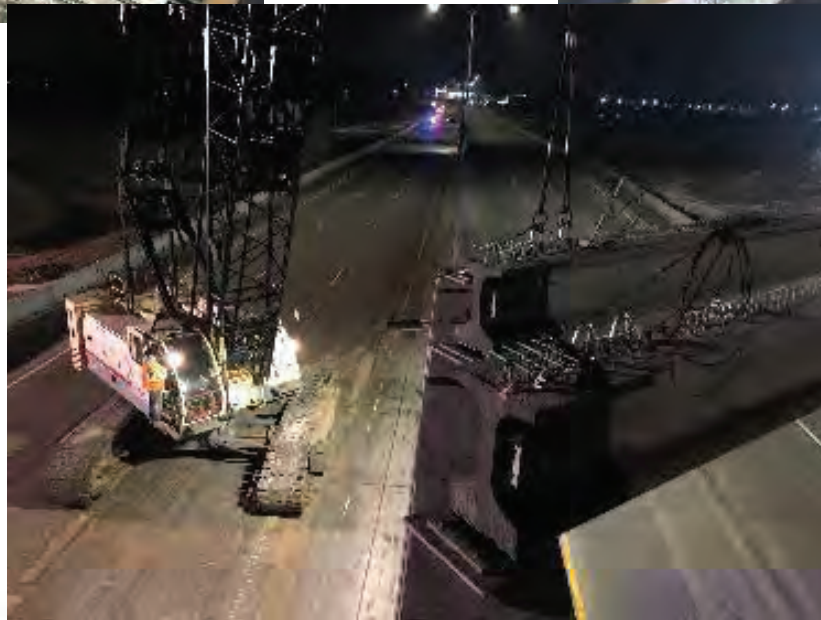
- Redstone Construction – Prime contractor
- Nick Fischer – Ramsey County Construction Manager
- Brian Essler – Ramsey County Construction Tech 4
- SEH – Construction administration
  
- Started in Spring 2019



# Construction – Century Link Duct Line

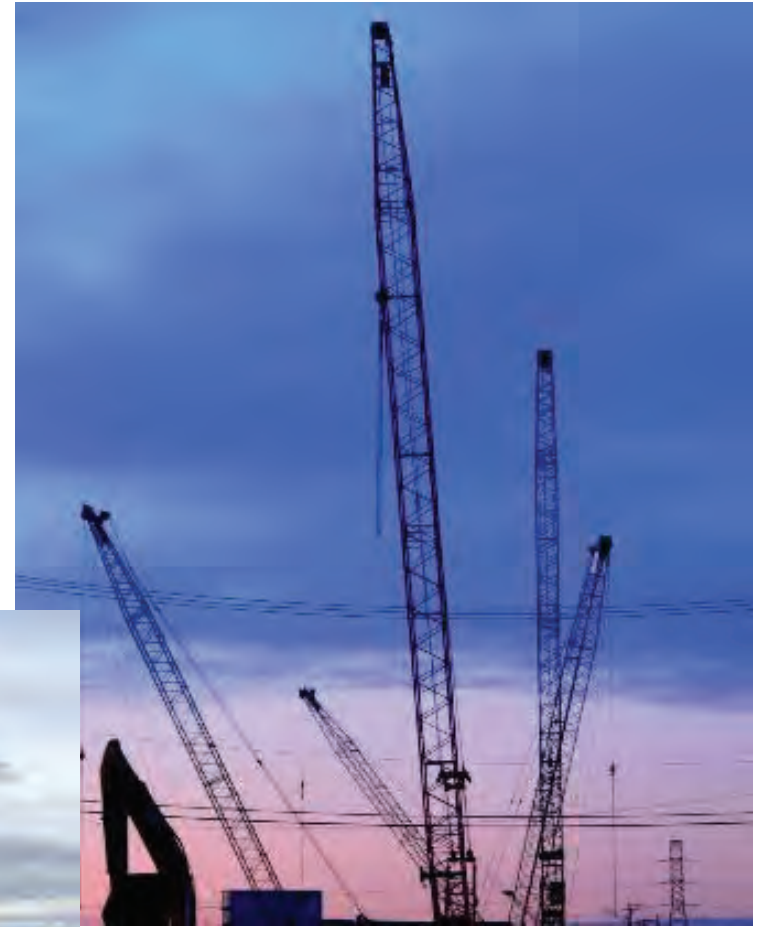


# Construction – I-694 Weekend Closure





# Construction - Cranes



# Construction – Concrete Pours



## Cost and Funding

- Costs
  - Design and construction administration - \$4.2m
  - Right-of-way acquisition - \$5.0m
  - Construction - \$23.7m
  - Century Link - \$809k
  - Total - \$33.7m
  
- Funding
  - Federal funds - \$7.0m
  - LRIP Earmark funds - \$20.5m
  - CSAH/CTB funds - \$6.2m
  - City/Other - \$7,000
  - Total - \$33.7m

# Video



## Lessons Learned

- A little too optimistic on how much can complete in one construction season
- You can't engage your local businesses enough during construction.
  - Had to close Rice St north of project due to road flooding
- Large utility relocations need constant meetings during design and construction.
- During design check the cross section on every driveway for slope issues.
- Coordinate your MnDOT freeway closures with other MnDOT projects so 2 projects don't detour to one gridlocked freeway.
- Temporary roundabouts are an option.
- Minimize/avoid use of federal or state bond funds on right of way
- Can't plan for everything
  - A record setting wet year, then early cold snap with snow, then a pandemic.

# Questions?

