Northstar Rail Corridor
Post-Pandemic Study

Cole Hiniker and Steve Elmer
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Background

Northstar Commuter Rail

Existing Service
• Commuter rail service -- Big Lake to Minneapolis (40 miles)
• Operated by Metro Transit, BNSF -- opened in Nov. 2009
• Peak-oriented commuter service and special events (2009-2019)

Project Development
• Commuter rail to St. Cloud identified as need in MnDOT study in 1998
• During environmental process, route was cut back from St. Cloud to Big Lake for federal funding eligibility and political reasons
• Developed through local, state, federal partnership and led by local governments
• Constructed by MnDOT (2007-2009)
Northstar Capital Cost History

- Original capital investment: $320M
- Funding partners:
  - Federal Transit Admin (FTA)
  - State of Minnesota (MnDOT)
  - Metropolitan Council
  - Minnesota Twins
  - Northstar Corridor Development Authority (NCDA)
  - Anoka County (68.3%)
  - Hennepin County (15.6%)
  - Sherburne County (16.1%)

Northstar Corridor Commuter Rail Capital Funding Sources (in $ millions):

- State of Minnesota, $99M, 31%
- NCDA, $51M, 16%
- FTA New Starts, $157M, 49%
- Other Federal, $5M, 2%
- Minnesota Twins, $2.6M, 1%
- Anoka County, $35M, 11%
- Hennepin County, $8M, 2%
- Sherburne County, $8M, 2%
- Met Council, $6M, 2%
- Other Federal, $5M, 2%
Northstar Annual Ridership, 2009 to 2022

Annual Ridership by Day Type

Saturday 16,439 74,739 55,527 51,030 42,258 41,892 39,345 31,212 35,900 40,613 37,481 2,429 0 0
Sunday 7,523 68,888 46,318 44,917 40,739 35,976 36,250 33,712 38,827 34,283 35,898 1,697 0 0
Background (4)

Original Ridership Forecasts (circa 2007)

- Actual ridership less than half of original projections
- Service plan used for forecasts included some additional trips relative to implementation
- Ridership building strategies included new connecting bus routes, extensive promotion of service and transit passes
Background (5)

Study Scope

• Documentation of corridor history and existing conditions
• Peer rail corridor comparisons
• Development of transit service operating scenarios
• Evaluation of service scenarios
• Considerations for decision making

Study’s purpose is to analyze transit service scenarios to inform future decisions; it is not intended to identify or select a preferred alternative or transit service type.
Northstar’s Peer Rail Corridors

Corridors Reviewed

- **Downeaster** (Portland, Maine to Boston, Intercity/Commuter Rail hybrid service)
- **Frontrunner** (Salt Lake City, Commuter Rail)
- **Sounder** (Seattle, Commuter Rail)
- **COASTER** (San Diego, Commuter Rail)
- **Trinity Railway Express** (Dallas/Fort Worth, Commuter Rail)
Peer Corridors Review (2)

Northstar’s Peer Rail Corridors

Key Comparisons

• Northstar has lower ridership than peers, but comparable productivity (riders per hour)
• Northstar has highest per-passenger subsidy and lowest fare recovery
• Most rail agencies have restored more service since 2020 while others seek to expand
• Generally in the U.S., intercity rail has seen greater recovery in pandemic era than commuter rail service
Scenarios Analyzed

Transit Service Scenarios Analyzed

1. Commuter Rail--Base, at current service level
   (4 trips per day + restore special events)
2. Commuter Rail--High, at pre-Covid service level
   (12 trips per day + special events)
3. Extend Rail Service to St. Cloud--Base
   (4 trips per day)
4. Extend Rail Service to St. Cloud--High
   (9 trips per day)
5. Express Bus--Base
   (replace rail service with 30-min peak commuter)
6. Express Bus--High
   (replace rail service with 15-min peak commuter)
2040 Ridership Forecasts

Note: Lines above bars show Year 2040 growth potential.
## Financial and Ridership Results

<table>
<thead>
<tr>
<th>Evaluation Category</th>
<th>Northstar Actuals (2022)</th>
<th>Commuter Rail Base</th>
<th>Commuter Rail High</th>
<th>Extend Rail Base</th>
<th>Extend Rail High</th>
<th>Express Bus Base</th>
<th>Express Bus High</th>
</tr>
</thead>
<tbody>
<tr>
<td>Capital Costs (2025$)</td>
<td>N/A</td>
<td>None</td>
<td>None</td>
<td>$36M+*</td>
<td>$67M+*</td>
<td>$7M</td>
<td>$13M</td>
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<tr>
<td>Risk of FTA Repayment</td>
<td>N/A</td>
<td>Unlikely</td>
<td>Unlikely</td>
<td>Possible</td>
<td>Possible</td>
<td>Likely (est. ~ $75M)</td>
<td>Likely (est. ~ $75M)</td>
</tr>
<tr>
<td>Annual Operating Costs (2023$)</td>
<td>$11.9M</td>
<td>$12M</td>
<td>$23M</td>
<td>$17M+*</td>
<td>$26M+*</td>
<td>$2M</td>
<td>$3.5M</td>
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<tr>
<td>Ridership Potential (# of weekday riders)</td>
<td>275</td>
<td>600</td>
<td>1,000</td>
<td>1,200</td>
<td>1,500</td>
<td>700</td>
<td>700</td>
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<tr>
<td>Subsidy per Passenger</td>
<td>est. $150</td>
<td>$60</td>
<td>$67</td>
<td>$41</td>
<td>$52</td>
<td>$8</td>
<td>$14</td>
</tr>
</tbody>
</table>

*Costs for Extending Rail to St. Cloud scenarios are preliminary and could increase depending on future project decisions and operating arrangements.

*Green* shading denotes better-than-median values of all scenarios.

*Gray* shading denotes median values among all scenarios.

*Red* shading denotes worse-than-median values of all scenarios.
## Other Evaluation Factors

<table>
<thead>
<tr>
<th>Evaluation Criteria</th>
<th>Commuter Rail</th>
<th>Extend Rail</th>
<th>Express Bus</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accessibility and Equity*</td>
<td>Moderate</td>
<td>High</td>
<td>Low</td>
</tr>
<tr>
<td>Community Development Potential*</td>
<td>Moderate</td>
<td>Moderate</td>
<td>Low</td>
</tr>
<tr>
<td>Environmental Sustainability*</td>
<td>Moderate</td>
<td>Moderate</td>
<td>Moderate</td>
</tr>
</tbody>
</table>

* Full quantitative results for these evaluation categories are available in the Final Report.
Next Steps in Decision-Making Process

**Stakeholder Conversations**

**Funding Partners**
- Additional questions and/or study needed?
- Level of interest in continuing funding
- Coordinate with MnDOT rail planning

**Corridor Cities**
- Station-area investments
- Support for corridor service types/scenarios
- Potential funding partnerships

**Policymakers**
- Public engagement and analysis needs
- Pros/cons of corridor scenarios and levels of service
- Other considerations

**Federal and Railroad Involvement**

**FTA Conversations**
- Funding opportunities
- Potential repayment requirements

**FRA/Amtrak/BNSF**
- Potential for rail extension including possible conversion to Amtrak service
- Identifying capital improvements or expenditures needed
- Ridership/revenue forecasting refinements
- Funding opportunities

**Further Analysis**

**Survey Research and Engagement**
- Corridor-specific market surveys to determine customer preferences
- Annual on-board transit surveys
- Analysis of pandemic-era travel patterns and transit demand

**Schedule Optimization**
- Consideration of transit for commute markets and potential for all-day service

**Funding**
- Review of potential funding sources for each transit service type
Contacts

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