MINNESOTA JURISDICTIONAL REALIGNMENT PROJECT

Minnesota City Engineers Association

2/1/2013
The purpose of this project is to assess, develop and structure a risk-based plan to address jurisdictional realignment of roadways in the State of Minnesota. The intended outcomes will identify programs of specific routes as potential transfers in order to meet changing demands and to ensure ownership, maintenance and function are aligned.
Steering Committee Team

Gary Pedersen – Minnesota Association of Townships
Kyle Hartnett – Minnesota Association of Townships
Tim Murray – City of Fairbault
Paul Oehme – City of Chanhassen
Rich Sanders – Polk County
Mark Krebsbach – Dakota County
Mark Schoenfelder – MNDOT District 6 Rochester
Shiloh Wahl – MNDOT District 4 Detroit Lakes
Phil Barnes – MNDOT Policy, Research and Innovation
Mark Nelson – MNDOT Multimodal Planning
Peggy Reichert – MNDOT Capital Programs and Performance Measures
Denise Hesselroth – MNDOT Transportation Data Analysis
Cyrus Knutson – State Aid
Greg Coughlin – State Aid

Engineering Consultant – Parsons Brinkerhoff
David Rose – New York office
Glenn Schreiner – Minneapolis office
Keyur Shah – Seattle office
Why transfer roadways?

- Enhance the Quality of Life of communities and their surroundings
  - Roadway function
  - Modal Choices
  - Mobility vs Access

- Maximize efficiencies and minimize resources
  - Maintenance
  - Level of Service

- Support regional development and economics
  - Economic Competitiveness
  - Business access
Study Guiding Principles

- Holistic approach
- Focus on system alignment
- Collaborative approach
- Data driven
- Risk analysis methodology
- Low/med/high transfer probabilities
- Implementable approach & recommendations
- Funding strategies
Project Phases

- **Phase 1**
  - Established a model to identify candidate segments, data collection, solidified transportation data inventory, risk-based analysis, developed problem statement, tiered approach, phase 1 report.
  - Schedule: April 2012 – December 2012

- **Phase 2 (Current Phase)**
  - Involve MnDOT districts, counties, cities and townships
  - Establish a register with a list of candidate transfer segments and associated risks for each transfer, phase II report.
  - Schedule: January 2012 – May 2013

- **Phase 3**
  - Implementation Strategies, review roadway existing conditions and needs, review design standards, programming and funding strategies, policy changes, statute changes, phase III report.
  - Schedule: After Phase 2, To Be Determined
Prior Literature Review

Started discussion on jurisdictional alignment. Argued for MnDOT’s focus on “core highway system”.

Twin Cities effort. Encouraged local jurisdictional alignment, for state enabling legislation, and for state to reconsider funding mechanisms.

Encouraged regions to engage in jurisdiction alignment and to make state funds available.

Minnesota Legislative Changes (1985)
Required MnDOT to establish and direct a series of jurisdictional alignment studies at the regional level.

Minnesota Experience With Jurisdiction studies (1989)
Summarized previous efforts. Found inconsistencies in turnback methodologies, no uniform criteria, and that mileage returned to localities was very small.

MnDOT Jurisdictional Realignment Project (2012)

State Aid Mission Study (2009)

Established a vision for turnback program and addressed funding gap issues. Recommended new jurisdictional alignment model away from first-come first-serve.
How is this study different?

- Three phased approach
- Holistic Statewide View – all jurisdictions
- Data Driven with Model
- Practical and implementable
- Prioritized Transfer Register
Key Project Team Discussions

- Level of service
- Primary function – mobility vs access
- Link between functional class and ownership
- Challenges in roadway transfers – Funding
- Jurisdictional approach not always consistent
- Risks in doing business as usual
- No forced transfers – Mutual interest & support for jurisdictional transfers
Step 1: Analysis Tiers

- Tier 1 (High probability)
- Tier 2 (Medium probability)
- Tier 3 (Low probability)
# Tiered Approach

<table>
<thead>
<tr>
<th>Route System</th>
<th>Owner</th>
<th>Interstate</th>
<th>Principal Arterial</th>
<th>Principal Arterial</th>
<th>Minor Arterial</th>
<th>Major Collector</th>
<th>Minor Collector</th>
<th>Local</th>
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<tbody>
<tr>
<td>Interstate Trunk Highway</td>
<td>MnDOT</td>
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<td>Trunk Highway</td>
<td>MnDOT</td>
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<td>County State-Aid Highway</td>
<td>Counties</td>
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<td>Unorganized Township Road</td>
<td>Counties</td>
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<td>Municipal State-Aid Street</td>
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<td>Municipal Street</td>
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<tr>
<td>Township Road</td>
<td>Townships</td>
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## Legend

<table>
<thead>
<tr>
<th>Tier</th>
<th>Misalignment Probability</th>
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<tbody>
<tr>
<td>Tier 1</td>
<td>High</td>
</tr>
<tr>
<td>Tier 2</td>
<td>Medium</td>
</tr>
<tr>
<td>Tier 3</td>
<td>Low</td>
</tr>
<tr>
<td>Not Applicable</td>
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</tbody>
</table>
Tier 1 Metrics

- Road system continuity (Logical Termini)
- Location (entire segment within a city/town?)
- Minimum length of segment/road
- High volume truck traffic (Heavy vehicle AADT) as a percentage of traffic volume
- Sites of national or state interest?
- Road restrictions
- Traffic volume – current and projected (VMT or AADT)
- Multi-modal aspects (e.g. bike path)
- Road surface type (paved, unpaved)
Tier 2 Metrics

- All metrics in Tier 1
- New alternative route that has, or may, alter traffic patterns significantly (e.g. A new highway that bypasses a city would result in an old state road to become a city road)
- Review and identify potential efficiency gains through transfer (feedback from jurisdictions, long range planning, funding, access, agency controls, community values, maintenance)
- Review design standards – consistent with current functional class/jurisdiction standards?
- Other considerations based on location, geography, etc.
Tier 3 Metrics

- Identify routes through feedback from jurisdictions/ long range plans
- Review all Tier 1 and Tier 2 metrics
- Formal bottom-up analysis
### Tiers / System Data

<table>
<thead>
<tr>
<th>Route System</th>
<th>Owner</th>
<th>Interstate</th>
<th>Principal Arterial</th>
<th>Principal Arterial</th>
<th>Minor Arterial</th>
<th>Major Collector</th>
<th>Minor Collector</th>
<th>Local</th>
<th>Total</th>
<th>Total by Jurisdiction</th>
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</thead>
<tbody>
<tr>
<td>Interstate Trunk Highway</td>
<td>State</td>
<td>913.91</td>
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<tr>
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<td></td>
<td>5,560.66</td>
<td>1,045.61</td>
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<td>17.76</td>
<td>8.83</td>
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<td>County State-Aid Highway</td>
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<td>166.23</td>
<td>4,143.32</td>
<td>2,863.14</td>
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<td>10,027.89</td>
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<td>30,584.31</td>
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<td>Counties</td>
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<td>Unorganized Territory Road</td>
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<td>Municipal State-Aid Street</td>
<td>Cities</td>
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<td>31.72</td>
<td>610.34</td>
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<td>1,420.97</td>
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<td>Municipal Street</td>
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<td>41.14</td>
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<td>Township Road</td>
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<td>76.40</td>
<td>354.56</td>
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<td>53,267.60</td>
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<tr>
<td>Parks &amp; Other Roads</td>
<td>Parks or Private</td>
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<td>0.95</td>
<td>63.91</td>
<td>163.18</td>
<td>4,100.98</td>
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<td>4,329.03</td>
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<tr>
<td><strong>Total</strong></td>
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<td>913.91</td>
<td>166.26</td>
<td>4,255.95</td>
<td>9,178.14</td>
<td>18,422.39</td>
<td>12,030.24</td>
<td>93,734.87</td>
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<td>138,701.76</td>
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<tr>
<td><strong>Total w/o Interstate and Parks &amp; Other Roads</strong></td>
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<td>133,459</td>
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**Tier 1 (State Owned), Tier 1 (Principal Arterials), Tier 2 (State Owned)**
## Tiers 1, 2, 3 Output

<table>
<thead>
<tr>
<th></th>
<th>MnDOT</th>
<th>Counties</th>
<th>Cities</th>
<th>Townships</th>
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</thead>
<tbody>
<tr>
<td>Tier 1</td>
<td>27.5</td>
<td>14,983.1</td>
<td>31.6</td>
<td>18.7</td>
<td>15,061.0</td>
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<td>Tier 2</td>
<td>6,603.0</td>
<td>10,021.8</td>
<td>648.5</td>
<td>420.5</td>
<td>17,693.7</td>
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<tr>
<td>Tier 3</td>
<td>4,311.8</td>
<td>21,591.3</td>
<td>21,578.3</td>
<td>53,250.8</td>
<td>100,732.1</td>
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<tr>
<td>Total</td>
<td>10,942.3</td>
<td>46,596.1</td>
<td>22,258.4</td>
<td>53,690.0</td>
<td>133,486.8</td>
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</tbody>
</table>

- Roughly 11% High Probability of Misalignment
- Roughly 13% Medium Probability of Misalignment
- Pilot in 2 Counties
Mapping–Piloted D4, D6

• Tier 1 (State Owned Minor Collector & Local)
• Tier 1 (Locally Owned Principal Arterials)
• Tier 2 (State Owned Minor Arterial & Major Collector)
Segment Identification – District 6

- Tier 1 (State owned local and minor collector)
Tier 2 (State Owned minor arterials & major collectors) 879.7 mi.

- US 14, 61, 63, 65, 69, 218
- MN 3, 13, 16, 19, 20, 21, 26, 30, 42, 43, 44, 56, 57, 58, 60, 74, 76, 80, 99, 105, 109, 139, 246, 247, 248, 250, 251, 292, 843, 860, 956
Tier 2 (State Owned)
Through the AADT Lens
Tier 2 (State Owned) Example

- MN 105
  - Major collector (~10 miles)
  - Minor arterial (~2 miles)
## Phase 2 Schedule

<table>
<thead>
<tr>
<th>Task</th>
<th>Jan</th>
<th>Feb</th>
<th>Mar</th>
<th>Apr</th>
<th>May</th>
<th>Jun</th>
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<tbody>
<tr>
<td>Identify district champions and review process for roadway identification</td>
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<tr>
<td>Conduct preliminary segment review with district champions</td>
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<tr>
<td>Establish realignment teams in each district and conduct district system reviews</td>
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<td>Consolidate transfer candidate information to prepare formal transfer register</td>
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<tr>
<td>Prepare preliminary transfer program findings</td>
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<tr>
<td>Conduct pilots with two counties to test approach</td>
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</tbody>
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*Steering committee meetings*  
*Project meetings*
What we need from you!

- Your continued involvement, many questions still remain
- Participation on district realignment teams (Reps from Counties, Cities, and townships)
- Discussion on how this project impacts your city
- What are the city, county or region benefits of transfers?
- What are your potential issues/concerns?
Concerns Noted to Date:

- Cannot be a trickle down affect with no additional resources
- Locals may receive one-time funding, but what about long term maintenance costs?
- If the jurisdictional miles change significantly, will the formula change?
- Will MN Statute changes be needed?
Questions/Comments/Concerns

Website for Phase I Report:


Shiloh Wahl, Project Manager
218-846-3630