Madison & Anchorage

How to Create a Truly Multi-Modal Transportation System in a Winter City

Mayor Paul R. Soglin
April 5, 2017
### Madison & Anchorage: Two birds of a feather?

3,435 miles or $450 round trip between the two!

<table>
<thead>
<tr>
<th>MADISON</th>
<th>ANCHORAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>UW Students: 43,300</td>
<td>UAA Students: 21,000</td>
</tr>
<tr>
<td>Big Wheels of Cheese</td>
<td>Gigantic vegetables</td>
</tr>
<tr>
<td>Lots of room for growth and redevelopment??</td>
<td>Lots of room for growth and redevelopment??</td>
</tr>
</tbody>
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[Image of Big Wheels of Cheese in Madison]

[Image of gigantic vegetables in Anchorage]
Climate Map Comparison

- Madison: 5a
- Anchorage: 4b
Climate Comparison

MADISON
- 43” Annual Snowfall

ANCHORAGE
- 75.5” Annual Snowfall
Surface. Parking. Lots. How did we get here?

MADISON
- 1960’s Urban Renewal

ANCHORAGE
- 1964 Good Friday Earthquake
1960s Urban Renewal In Madison

CENTRAL AREA TRAFFIC LOOP AND JOHNSON STREET EXPRESSWAY
State Street vs. 4th Avenue

- 1960s State Street
- 2010s State Street
State Street vs. 4th Avenue

- 1960s 4th Avenue
- 2010s 4th Avenue
State Street vs. 4th Avenue

- Madison: Capitol Square Dane County Farmers Market
- Anchorage: Farmers market on 15th Street
State Street vs. 4th Avenue

- Madison: Festivals
- Anchorage: Festivals
View of 4th Avenue before Earthquake
Good Friday 1964 Earthquake – 4th Avenue
4th Avenue is immune from surface parking lots due to its importance in Anchorage’s tourism, culture, and history.
How do we go from

This ............. To ................... This?
“Old model”
Reactive

- Doesn't pay for it self
- Promotes sprawl
- Traffic problems & level of service drives reactive transportation policies
- Doesn't reward innovative thinking
New model - Reflective not reactive!

- Transportation policy based on reflecting community priorities & finding balance
New model - Reflective not reactive!

- Considers benefits of
  - Density/compactness/mixed use,
  - Underground parking
  - Downtown population growth,
  - Demographic changes
  - Strong transit, bicycling and walking conditions/options
“OLD Model” thinking

CENTRAL AREA TRAFFIC LOOP
AND
JOHNSON STREET EXPRESSWAY
“OLD Model” thinking

“NEW Model” thinking
<table>
<thead>
<tr>
<th>Year</th>
<th>People</th>
<th>Assessment Value:</th>
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<tbody>
<tr>
<td>2000</td>
<td>22,168</td>
<td>$613 Million</td>
</tr>
<tr>
<td></td>
<td></td>
<td>$860 Million adjusted for inflation</td>
</tr>
<tr>
<td>2010</td>
<td>24,009</td>
<td>$1.04 Billion</td>
</tr>
<tr>
<td></td>
<td></td>
<td>$1.15 Billion adjusted for inflation</td>
</tr>
<tr>
<td>2017</td>
<td>25,600</td>
<td>$1.86 Billion</td>
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</table>
Anchorage Surface Parking Lots
Madison’s Redevelopment of Underused Parcels over last 35 years
Madison’s Redevelopment of Underused Parcels over last 35 years
Madison’s Redevelopment of Underused Parcels over last 35 years
Madison’s Current Surface Parking Lots
Madison’s Current Surface Parking Lots

[Map showing current parking lots and proposed projects]
Downtown Redevelopment: Civic
Downtown Redevelopment: Office
Downtown Redevelopment: Residential
Downtown Redevelopment: Residential
Madison Surface Parking Lots: Capitol East District

Parking Lots
Madison Surface Parking Lots: Capitol East District
Capitol East District Redevelopment
Law Park / John Nolen Drive c1957

Photos: Wisconsin Historical Society Collection
Monona Terrace Opened in 1997

Annual Economic Impact from 2007-2014:
$41,581,300 or roughly 62% of total construction costs
Metro Transit

- City of Madison Acquired Madison Bus Company in 1970
- Serves Metro Area, 256,000 (158th nationally)
- 215 buses (67th nationally)
  - 194 diesel, 21 hybrid diesel-electric
- 14,000 annual boardings (70th)
Historical Ridership

- Steady ridership growth since 1990
- Ridership declines in 2015 and 2016
# Ridership per Capita

## Top 20 United States Bus Systems with 50 or more Buses

**Ranked by Transit Trips Per Capita, 2015**

<table>
<thead>
<tr>
<th>Rank</th>
<th>System Name</th>
<th>Primary City</th>
<th>Buses in Fleet</th>
<th>Service Area (Sq mi)</th>
<th>Service Population</th>
<th>Bus Unlinked Passenger Trips</th>
<th>UPT per Capita</th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>CyRide</td>
<td>Ames, IA</td>
<td>111</td>
<td>15</td>
<td>58,100</td>
<td>6,699,351</td>
<td>115.3</td>
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<tr>
<td>2</td>
<td>San Francisco Municipal Railway</td>
<td>San Francisco, CA</td>
<td>525</td>
<td>49</td>
<td>836,620</td>
<td>95,005,347</td>
<td>113.6</td>
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<tr>
<td>3</td>
<td>Univ of Michigan Parking and Transp Services</td>
<td>Ann Arbor, MI</td>
<td>58</td>
<td>12</td>
<td>66,641</td>
<td>7,256,729</td>
<td>108.9</td>
</tr>
<tr>
<td>4</td>
<td>University of Georgia Transit System</td>
<td>Athens, GA</td>
<td>68</td>
<td>14</td>
<td>119,648</td>
<td>11,413,231</td>
<td>95.4</td>
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<tr>
<td>5</td>
<td>Champaign-Urbana Mass Transit District</td>
<td>Champaign-Urbana, IL</td>
<td>102</td>
<td>30</td>
<td>141,471</td>
<td>13,391,124</td>
<td>94.7</td>
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<tr>
<td>6</td>
<td>MTA New York City Transit</td>
<td>New York, NY</td>
<td>4,284</td>
<td>321</td>
<td>8,550,405</td>
<td>743,763,755</td>
<td>87.0</td>
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<tr>
<td>7</td>
<td>Chicago Transit Authority</td>
<td>Chicago, IL</td>
<td>2,102</td>
<td>314</td>
<td>3,345,983</td>
<td>274,288,766</td>
<td>82.0</td>
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<tr>
<td>8</td>
<td>Chapel Hill Transit</td>
<td>Chapel Hill, NC</td>
<td>100</td>
<td>62</td>
<td>80,218</td>
<td>6,533,944</td>
<td>81.5</td>
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<tr>
<td>9</td>
<td>City and County of Honolulu DOT Services</td>
<td>Honolulu, HI</td>
<td>523</td>
<td>277</td>
<td>953,207</td>
<td>69,327,213</td>
<td>72.7</td>
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<td>10</td>
<td>Centre Area Transportation Authority</td>
<td>State College, PA</td>
<td>72</td>
<td>89</td>
<td>104,360</td>
<td>7,325,851</td>
<td>70.2</td>
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<tr>
<td>11</td>
<td>Gainesville Regional Transit System</td>
<td>Gainesville, FL</td>
<td>128</td>
<td>76</td>
<td>163,990</td>
<td>10,251,248</td>
<td>62.5</td>
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<tr>
<td>12</td>
<td>Blacksburg Transit</td>
<td>Blacksburg, VA</td>
<td>55</td>
<td>28</td>
<td>63,661</td>
<td>3,699,328</td>
<td>58.1</td>
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<tr>
<td>13</td>
<td>Metro Transit System</td>
<td>Madison, WI</td>
<td>215</td>
<td>72</td>
<td>256,150</td>
<td>14,358,261</td>
<td>56.1</td>
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<tr>
<td>14</td>
<td>King County Metro</td>
<td>Seattle, WA</td>
<td>1,371</td>
<td>2,134</td>
<td>2,117,125</td>
<td>102,302,980</td>
<td>48.3</td>
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<tr>
<td>15</td>
<td>Metropolitan Atlanta Rapid Transit Authority</td>
<td>Atlanta, GA</td>
<td>647</td>
<td>504</td>
<td>1,373,958</td>
<td>62,868,806</td>
<td>45.8</td>
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<tr>
<td>16</td>
<td>Southeastern Pennsylvania Transportation Authority</td>
<td>Philadelphia, PA</td>
<td>1,531</td>
<td>839</td>
<td>3,797,325</td>
<td>171,287,633</td>
<td>45.1</td>
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<tr>
<td>17</td>
<td>Milwaukee County Transit System</td>
<td>Milwaukee, WI</td>
<td>412</td>
<td>237</td>
<td>956,406</td>
<td>39,313,139</td>
<td>41.1</td>
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<tr>
<td>18</td>
<td>Santa Monica's Big Blue Bus</td>
<td>Santa Monica, CA</td>
<td>188</td>
<td>51</td>
<td>458,506</td>
<td>18,748,868</td>
<td>40.9</td>
</tr>
<tr>
<td>19</td>
<td>Tompkins Consolidated Area Transit</td>
<td>Ithaca, NY</td>
<td>53</td>
<td>476</td>
<td>103,617</td>
<td>4,185,394</td>
<td>40.4</td>
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<tr>
<td>20</td>
<td>Tri-Met</td>
<td>Portland, OR</td>
<td>683</td>
<td>534</td>
<td>1,560,803</td>
<td>62,114,041</td>
<td>39.8</td>
</tr>
</tbody>
</table>

Source: National Transit Database
Service population, thousands

Peer Cities are Larger
Madison has the highest ridership in this group

<table>
<thead>
<tr>
<th>WisDOT Peer Cities</th>
<th>Service Population, thousands</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dayton, OH</td>
<td>559</td>
</tr>
<tr>
<td>Akron, OH</td>
<td>542</td>
</tr>
<tr>
<td>Syracuse, NY</td>
<td>467</td>
</tr>
<tr>
<td>Spokane, WA</td>
<td>409</td>
</tr>
<tr>
<td>Baton Rouge, LA</td>
<td>389</td>
</tr>
<tr>
<td>Des Moines, IA</td>
<td>375</td>
</tr>
<tr>
<td>Reno, NV</td>
<td>328</td>
</tr>
<tr>
<td>Lansing, MI</td>
<td>288</td>
</tr>
<tr>
<td>Madison, WI</td>
<td>256</td>
</tr>
<tr>
<td>Urbana, IL</td>
<td>141</td>
</tr>
<tr>
<td>Ann Arbor, MI</td>
<td>67</td>
</tr>
</tbody>
</table>

Source: National Transit Database
“The modern university is a collection of faculty, staff and students held together by a common grievance over parking”

-Clark Kerr (UC-Berkeley, 1960)
University Parking Policies

Selected Big Ten and Peer Universities
Parking Spaces Per Person (employees and students)

Source: UW Campus Master Plan (2017)
UW: Strong Parking and TDM Policies

- **Restricted Parking**
  - Total spaces capped at 13,000 for 43,300 Students and 21,600 Faculty/staff
  - Pricing strategies

- **Geographic Restrictions/Land Use Policies**
  - Additional building space through densification and conversion of surface parking
  - Limited acquisition of surrounding private development

- **Vanpool Program**
  - Access to surrounding communities
UW: Strong Parking and TDM Policies

- Bicycle Infrastructure Investments
- Emphasis on Pedestrian Safety and Infrastructure
- Perceived “Free” Metro Transit
  - Students receive Bus Pass as part of tuition/fees
- Deeply Reduced Cost Metro Transit
  - Faculty and Staff
- Education and Support Programs
  - Emergency ride home, promotional/informational campaigns, etc.
University Complete Streets Policy

UNIVERSITY AVENUE
Proposed Section

- Two-way protected bike lane on the south side
- North side transit lane reserved for future Bus Rapid Transit
- Planted median between protected bike lane and motor vehicle traffic
- Protected motor vehicle left turn lane at intersections

Source: UW Campus Master Plan (2017)
Key City Parking Policies

Parking Rates

- No discounts for increasing lengths of stay
- No early bird discounts
- On-street parking priced higher than off-street parking
- Rates are set to coax cost sensitive customers to less used facilities
- Long term lease agreements require TDM Plans
- Partner with private sector to share parking as a way to reduce over building, for example hotel parking provided in evening and overnight.
Key City Parking Practices

- Real time parking availability is posted on website
- Carpoolers are given first priority for monthly parking permits
- Long term vehicle storage is not allowed
- Pay on entry for special events encourages carpooling
Incorporate Complete Streets Design into Roadways

- Pedestrian refuges, medians, and curb extensions
- Narrow lanes: calm traffic, create space for additional uses, reduce ped crossing distance & exposure to traffic
- Consider “road diets”, w/two-way left turn lanes (TWLTLs); incl. bicycle and pedestrian accommodations
- Traffic calming tools like traffic circles, speed tables, and speed boards (where appropriate)
- Bicycle facilities for traffic conditions and urban context (shared streets, bike lanes, buffered bike lanes, cycle tracks)
- Exceptions
Complete Streets
A complete street is much more than just a road. It balances the needs of pedestrians, cyclists, transit, automobiles, residents and businesses. The street establishes the basis for a neighborhood’s sense of place, with a canopy of street trees, storefronts, pedestrians and sidewalk cafes. This graphic explains the many parts of great streets.

Source: Boston’s Complete Streets Guidelines
Madison Complete Streets Policy

Street Typologies

Sustainable Madison Transportation Master Plan

Arterial - Cycle Track
Making a Winter City Bike Friendly
Bicycle Policy Beginnings

City of Madison, Wisconsin

RESOLUTION

Presented and introduced Jul 14, 1972

Reported back Aug 14, 1972


Resubmitted Sep 14, 1972

Presented again Oct 14, 1972

Reported back Oct 24, 1972


Resolved on File.

Resolution No. 24-72

File Number 6296-72

WHEREAS, bicycles are being used in increasing numbers as a method of transportation, and

WHEREAS, the City of Madison has an approved Long Range Master Plan Bike Route System and is in the process of constructing Phase One of the Bike Route System, and

WHEREAS, portions of the Bike Route System are located on streets or sidewalks,

NOW, THEREFORE BE IT RESOLVED that prior to initiation of any future street construction or reconstruction project, the Director of Public Works, Director of Transportation and Planning Director provide recommendations to the appropriate body on the necessity of including any part of the Bike Route System on any of the streets in said project as follows:

Aldermen Forster and Soglin
Shared Use Paths – Along Waterfronts
Shared Use Paths – Abandoned Rail Corridor
Shared Use Paths – Active Rail Corridor
Shared Use Paths – Integrated with Development
Shared Use Paths – Night Lighting
Traffic Calmed Streets
Access Restrictions for Cars – Bikes Allowed
Arterial Streets – Buffered Bike Lanes
Arterial Streets – Buffered Bike Lanes
Arterial Streets
Arterial Streets – Cycle Track
Sharrows used to indicate shared use of northbound lane
Grade Separation - Underpass
Grade Separation - Overpass
Parking Integrated with Building
Where we have wider concrete terraces we can install multi-space racks with bicycles parked perpendicular to the street.
On-Street Bicycle Parking – King Street
Meter rings for bicycle parking are being installed on many meter posts when areas are converted from coin operation to pay by space.

Madison's all-time record low was -37 degrees set on Jan. 30, 1951. On average, subzero cold occurs 17 days each year, while subfreezing temperatures occur 152 days a year, there. (Andy Manis/Getty Images)
• Major paths are a top priority for snow and ice control.
• Goal is to have these cleared by 7:00 AM, Monday through Friday, to facilitate users commute to work and school.
• Snow removal operations for these path starts no later than 4:00 AM M – F.
• Crews are also assigned to clear these paths during the workday to ensure that commuters can safely return home from work and school.
• Weekend snow removal operations typically begin at 7:00 AM, Saturday and Sunday.
• This enables crews to remove snow more efficiently and effectively prior to it becoming packed down by bicycle and pedestrian traffic.
• Salt and sand are used sparingly and only as necessary to melt ice and provide traction.
We started experimenting this year with using salt brine as an anti-icing agent on one of our more heavily used paths.

• Applied 24 – 48 hours prior to snow event
• Pavement temp 16 F (+(-9 C +))
• Not recommended if rain/drizzle forecast
• Not recommended if high winds forecast at start of storm
• 40 gallons (151 liters) per lane mile

One 50 pound (22.7 kg) bag of salt treats 4 miles (6.4 km) of 10 foot (3 m) wide shared use path
Growth of State Street Activities
Questions