

2030

Transit Master Study

Presentation to the LCMG

February 6, 2008

2020 Transit Master Study

- Prepared in 1999 in response to state legislation
- Planned for a strengthened bus system
- Evaluated 29 corridors for commuter rail, light rail, busways, and dedicated bus shoulders
- Addressed development issues that affect transit
- Basis for the transit policies of 2025 (adopted 2001) and 2030 (adopted 2004) Transportation Policy Plans

2030

Transitway System Adopted 2004

Tier 1

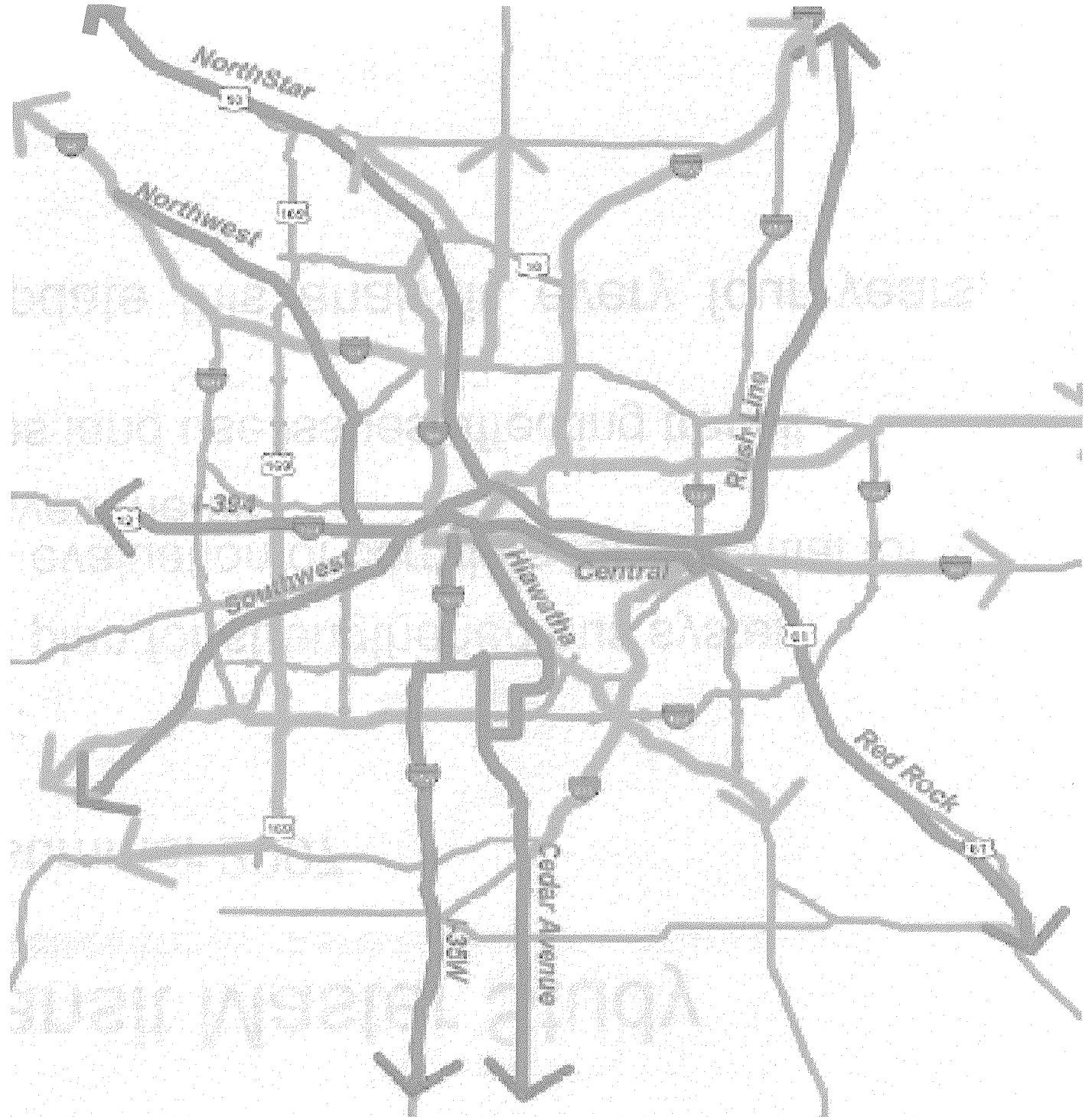
- Northstar
- Northwest (Bottineau)
- Cedar Avenue BRT
- I-35W BRT
- Central Corridor

Tier 2

- Red Rock
- Rush Line
- Southwest

Transit ways on
Dedicated ROW 

Express Commuter
Bus System 



2030 Transit Master Study

- Began in summer 2007
- This study:
 - Updates plan for strengthened bus system
 - Updates evaluation of corridors for potential for transit investments
 - Examines land use issues affecting transit
- Plan to update this analysis every four years, with TPP

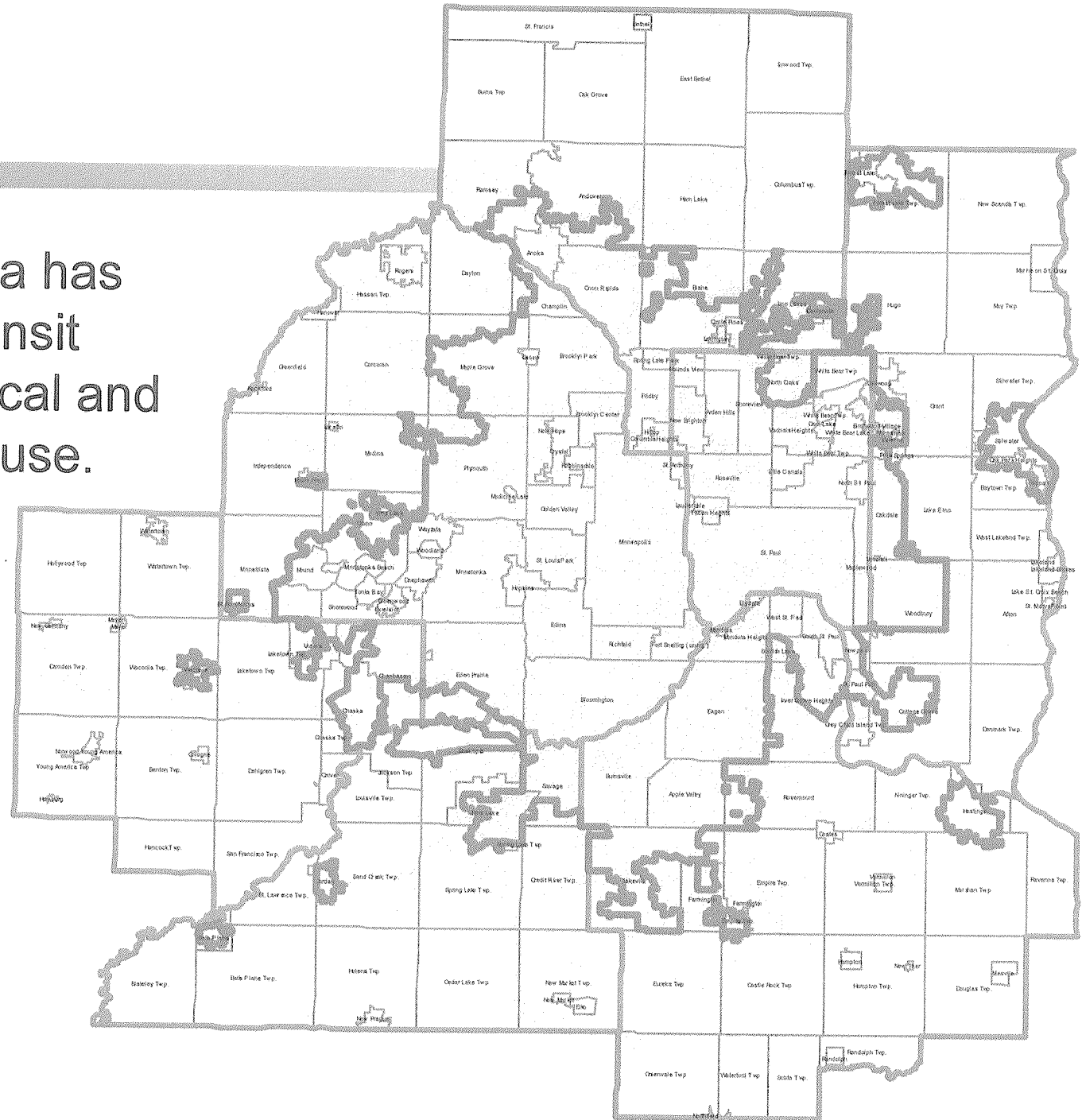
Bus System Improvements

Bus Plan Development

- Based on past planning efforts including 2020 MVST Spending Plan
- Reviewed population and employment growth projections (not limited to current TTD)
- Considered factors that make transit attractive: cost, travel time, convenience
- Solicited input from regional transit providers, MnDOT, counties, cities
- Identified opportunities for service improvements
 - New routes, expanded coverage
 - Increased frequency and hours of service
 - Integration with existing and planned transitways
- Maintained balance between equity and efficiency

MUSA

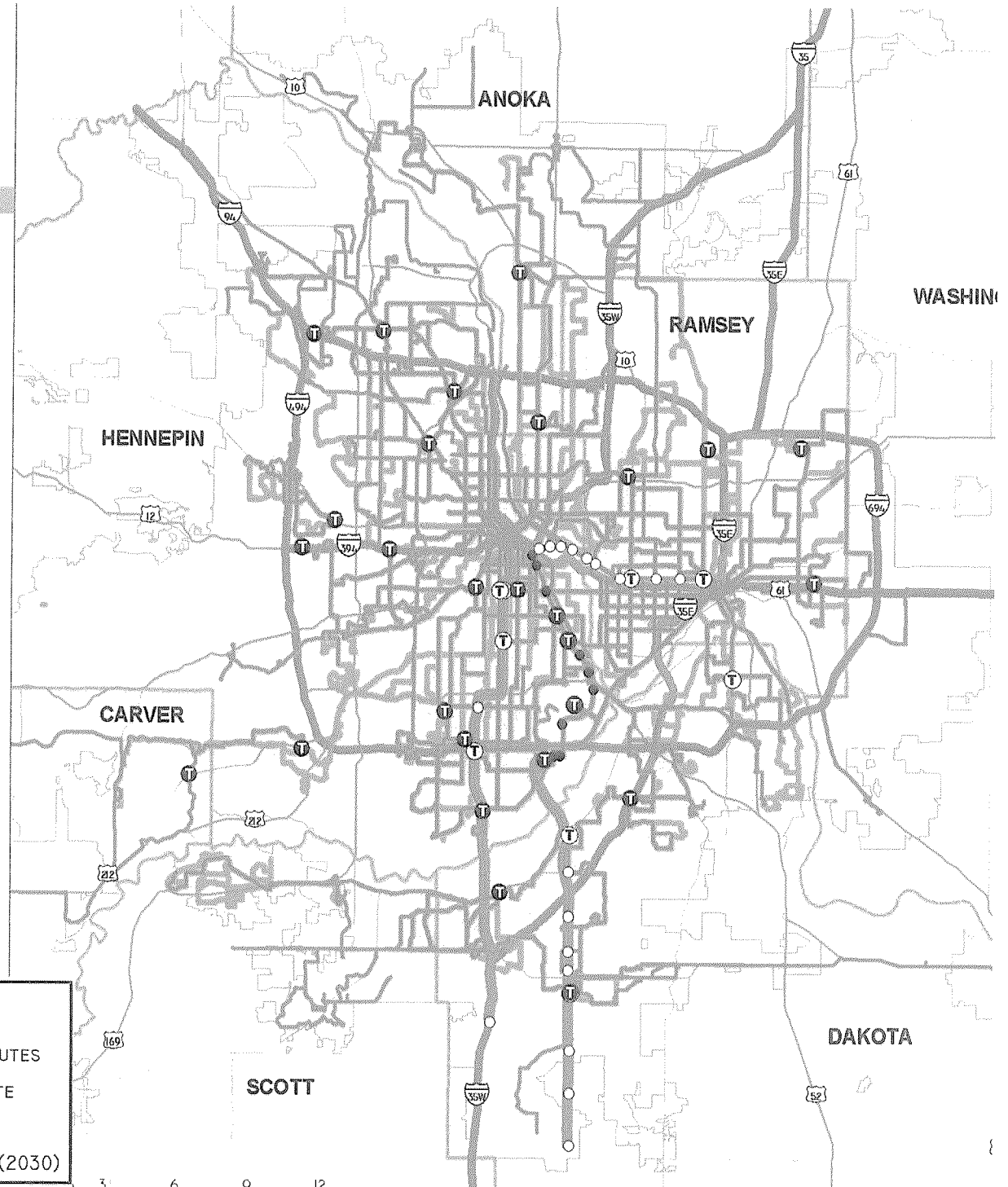
Urbanized area has the highest transit potential for local and arterial transit use.



2030 Local Routes

Increased frequency,
span of service,
coverage

- Improved service on over half of existing local routes
- Add 40+ new routes, primarily in suburban markets



Ⓧ	TRANSIT CENTER	——	NEW/IMPROVED ROUTES
●	TRANSITWAY STATION	——	FUTURE BRT ROUTE
Ⓧ	FUTURE TRANSIT CENTER	---	CURRENT ROUTES
○	FUTURE TRANSITWAY STATION	□	MUSA BOUNDARY (2030)

2030 Arterial Network

Midday service 20 minutes or better

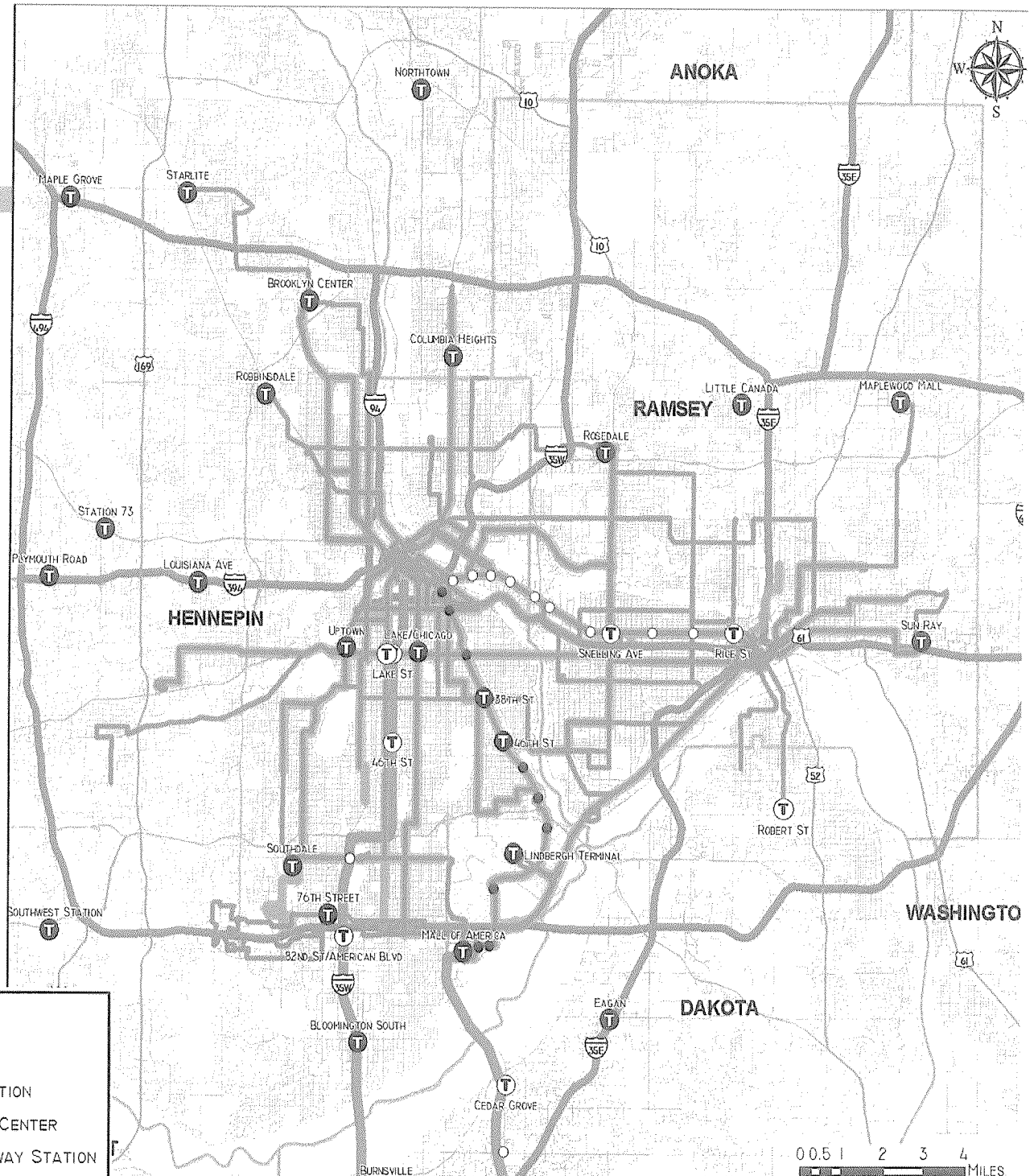
Connects regional centers

Expanded network








Better frequency & span of service

More limited stop routes

Identified future transit centers



REGIONAL TRANSIT MASTER PLAN

- | | |
|-----------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------|
|  NEW/IMPROVED ARTERIAL ROUTES |  TRANSIT CENTER |
|  PLANNED BRT ROUTE |  TRANSITWAY STATION |
|  CURRENT ARTERIAL NETWORK |  FUTURE TRANSIT CENTER |
| |  FUTURE TRANSITWAY STATION |

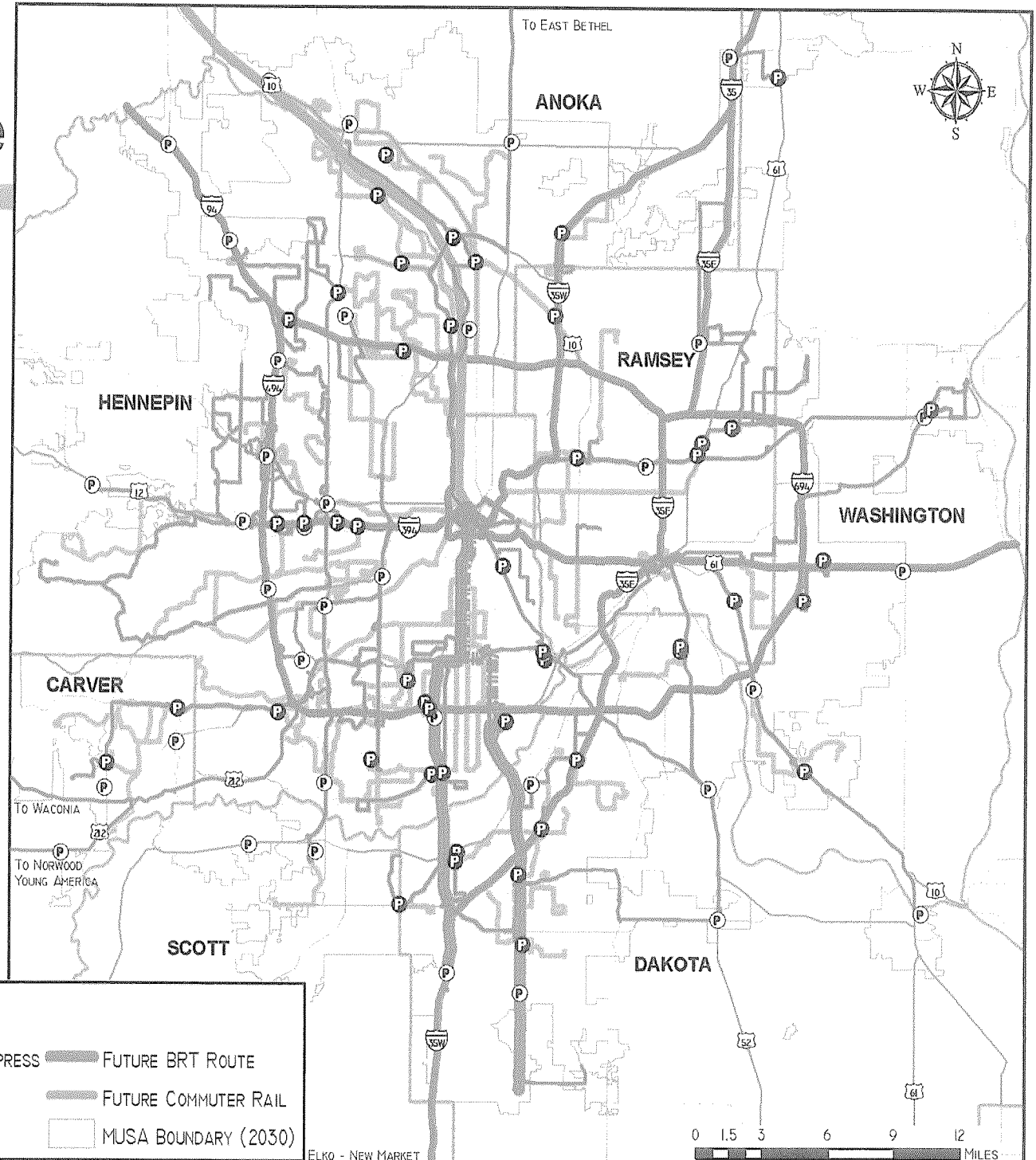
2030 Express Service

Increase service on existing routes to meet demand

Add service to new park & rides

Extend service beyond Transit Taxing District

Uses bus shoulders where available

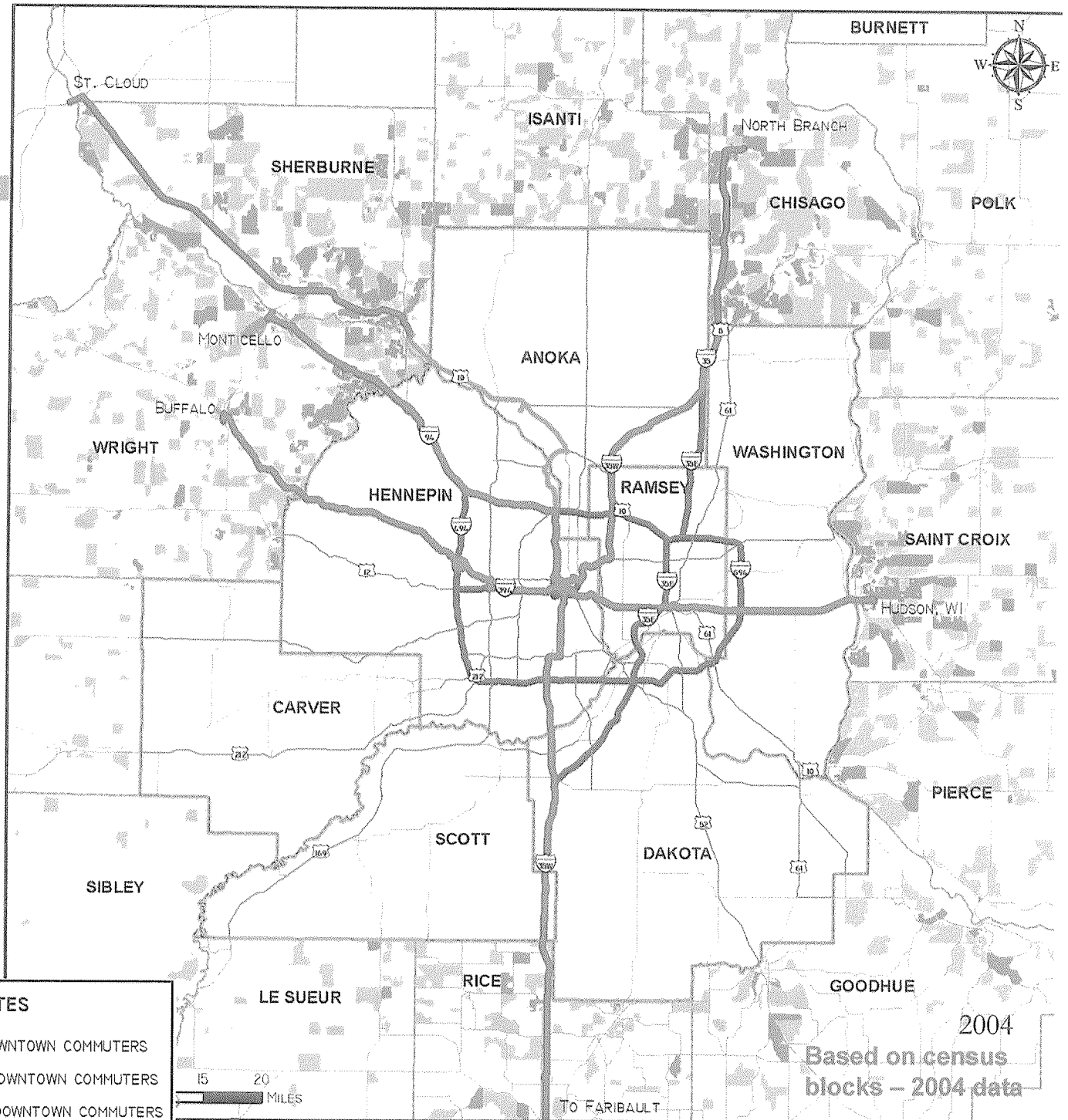


Long Distance Express Service

- Defined as routes outside the 7-county metro area
- Developed in coordination with MnDOT
- Limited to routes with the highest potential for ridership outside the 7-county area
- Not a commitment to funding
- Opens coordination with collar counties

Potential Long Distance Routes

Routes
 Monticello
 Buffalo
 Faribault
 Hudson
 North Branch
 Saint Cloud
 (Northstar)





Corridor Evaluation

Corridor Identification

- Corridors in implementation (Northstar, Central, I-35W, Cedar Avenue) were not analyzed
- Used results of studies conducted by RRAs for Southwest, Red Rock and Robert St. corridors
- Regional Railroad Authorities, central cities & MnDOT helped identify 29 additional corridors for analysis

Process for Corridor Analysis

- Agreed on modes to analyze for each corridor
- Agreed on criteria to evaluate corridors
 - Cost: Operating and Capital
 - Ridership
- Consultant conducted cost and ridership analysis
- Considered other implementation issues (i.e. right-of-way availability)
- Shared draft results with partners in December

Transitway Corridor Modes

Commuter Rail: 5 mile station spacing, diesel locomotive power, rural or suburban

Light Rail: 1 mile station spacing, electric power, urban or suburban, all day service

Bus Rapid Transit: ½ -5 mile station spacing, usually urban or suburban

- Arterial Streets
- Limited Access Highways
- Dedicated Busways

High Occupancy Vehicle (HOV)/High Occupancy Toll (HOT) Lanes: Dedicated highway lanes for buses, HOVs or tolled-single occupant vehicles

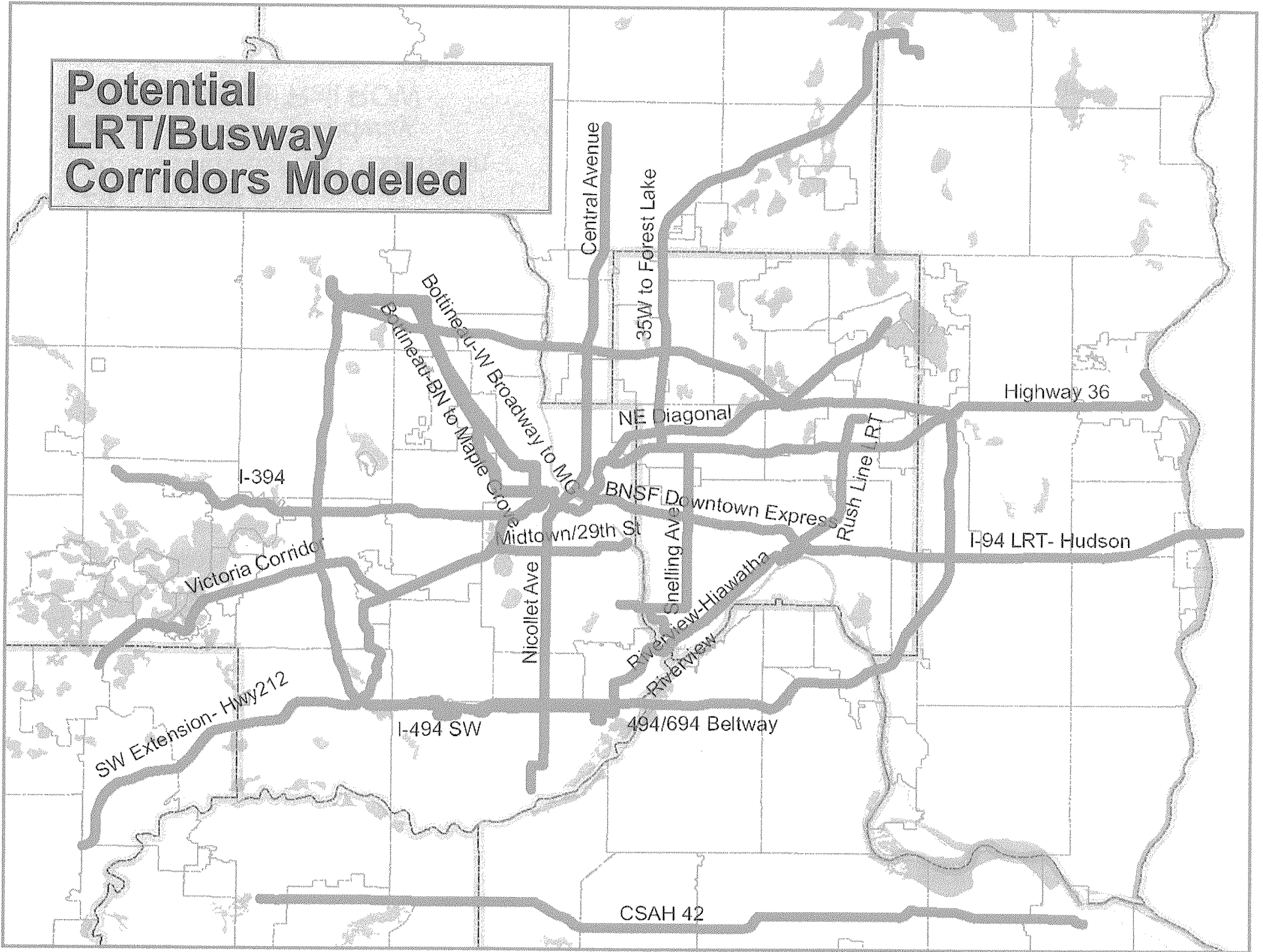
BRT Characteristics

- **Service Operations:** High frequency, all day service
- **Running way:** Dedicated busway, HOT, HOV, dynamic shoulders, dynamic parking lanes, bus shoulders, or mixed traffic
- **Technology:** Signal priority, customer information displays, driver technology
- **Identity/Brand:** Unique branding = transit “line”
- **Stations:** Branded design, limited stops
- **Vehicles:** Unique design, fast boarding, convenient
- **Fare Collection:** Off-board where possible

Ridership Modeling

- Used Regional Forecast Model
- Used Adopted 2030 population/employment forecasts
- Used model adjusted for 2005 Transit On-board Survey (Hiawatha LRT & bus riders)
- Does not assume development induced by transit
- Assumes increasing levels of congestion over time

Potential LRT/Busway Corridors Modeled



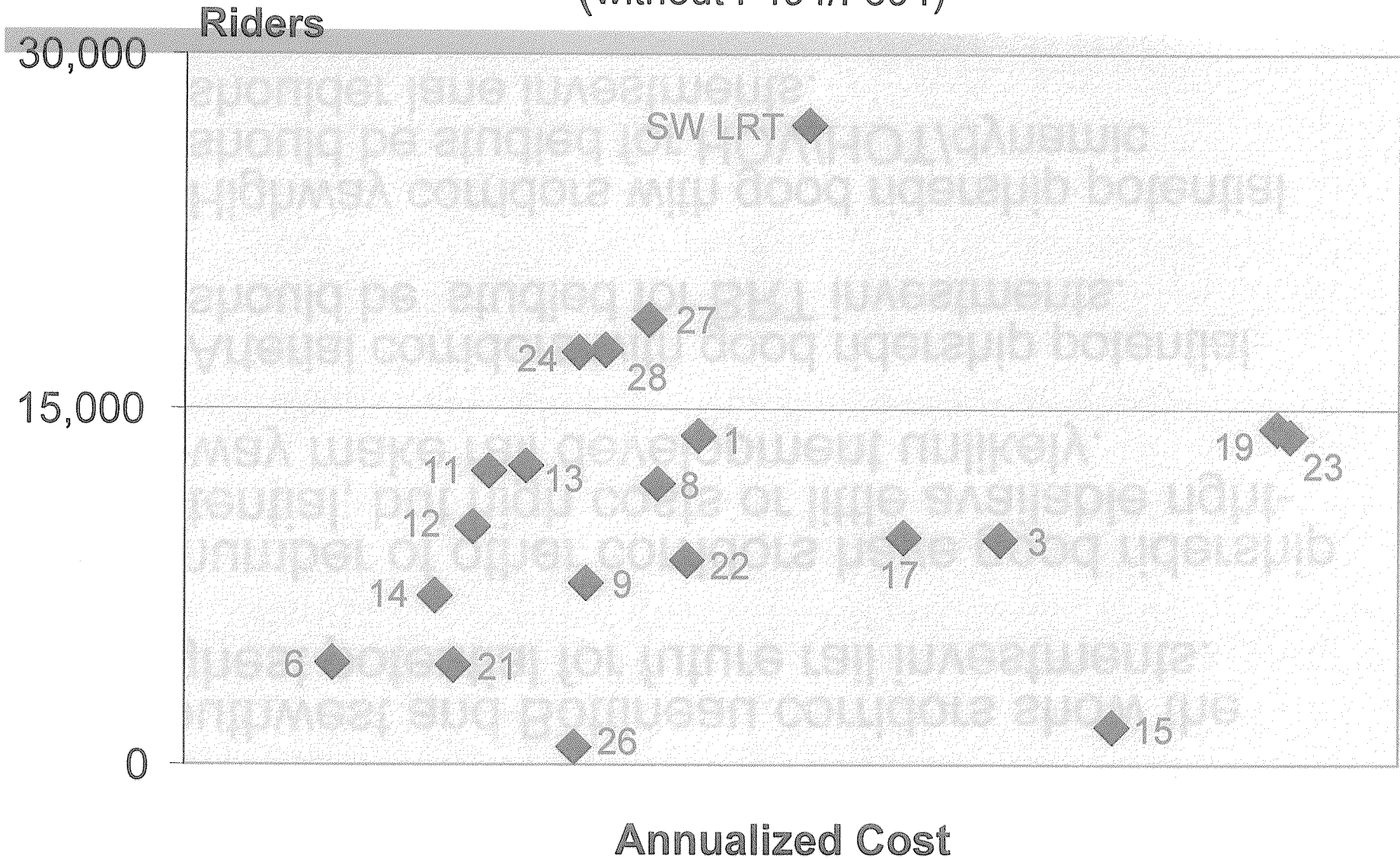
Results of LRT/Busway Analysis

		Riders If LRT	Cost If LRT
1	Central Avenue	Medium	Medium
3	I-394	Medium	High
6	Midtown/29th St	Low	Low
8	Victoria Corridor	Medium	Medium
9	I-494 Southwest Quadrant	Low	Medium
10	I-494/I-694 Beltway LRT	Medium	Very High
11	Riverview Corridor - to MOA	Medium	Low
12	Riverview Corridor - to Hiawatha	Medium	Low
13	Snelling Ave & Ford Pkwy	Medium	Low
14	Rush Line LRT Corridor	Low	Low
15	CSAH 42	Low	High
17	I-94 East	Medium	High
19	Hwy 36	Medium	High
21	BNSF Between Downtowns	Low	Low
22	NE Diagonal	Medium	Medium
23	I-35W to Forest Lake	Medium	High
24	Nicollet Ave	High	Medium
26	Southwest LRT Extension	Low	Medium
27	Bottineau: Roadway	High	Medium
28	Bottineau: Rail ROW	High	Medium

Excludes ROW Costs

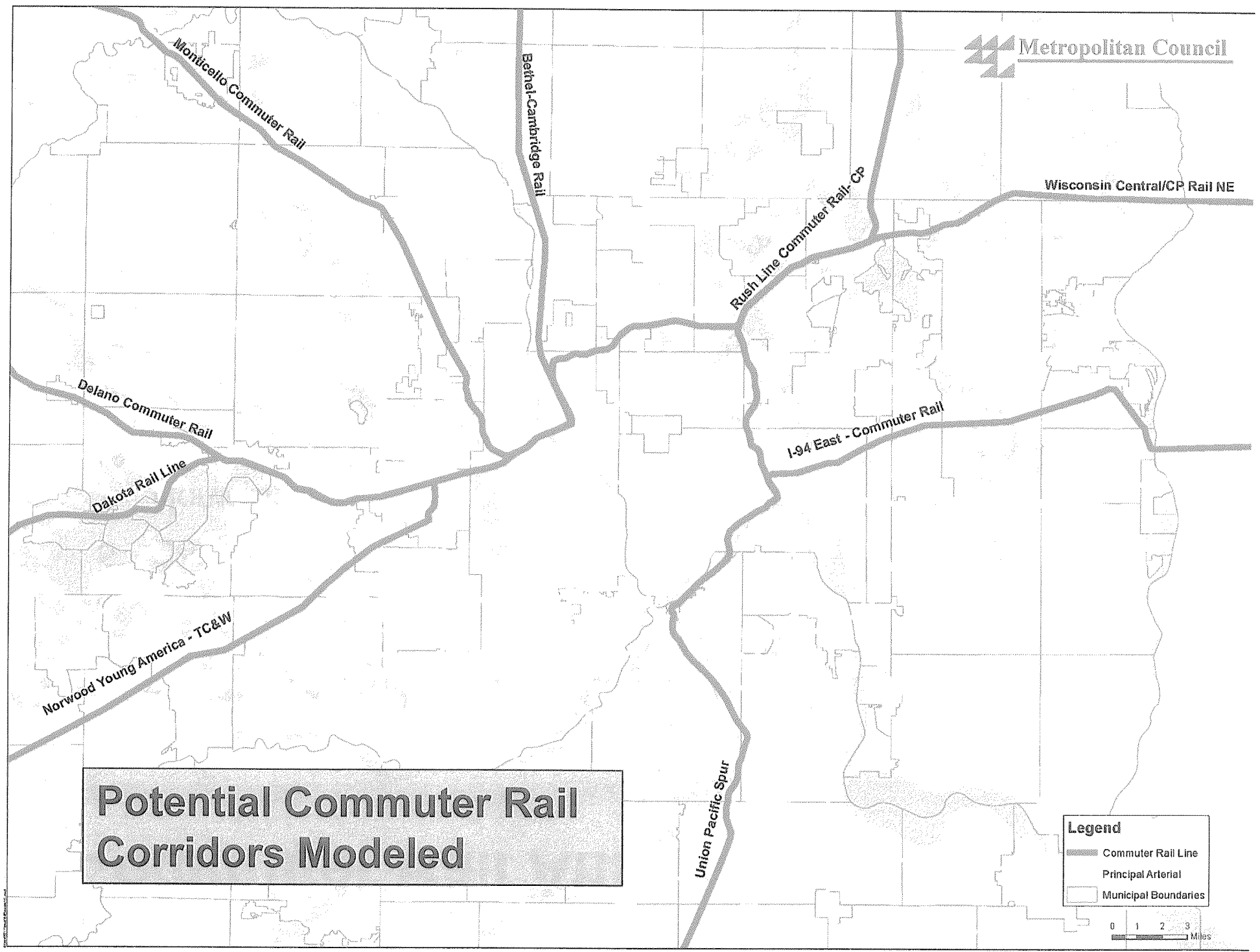
LRT/Busway Corridors

(without I-494/I-694)



Conclusions of Light Rail/Busway Analysis

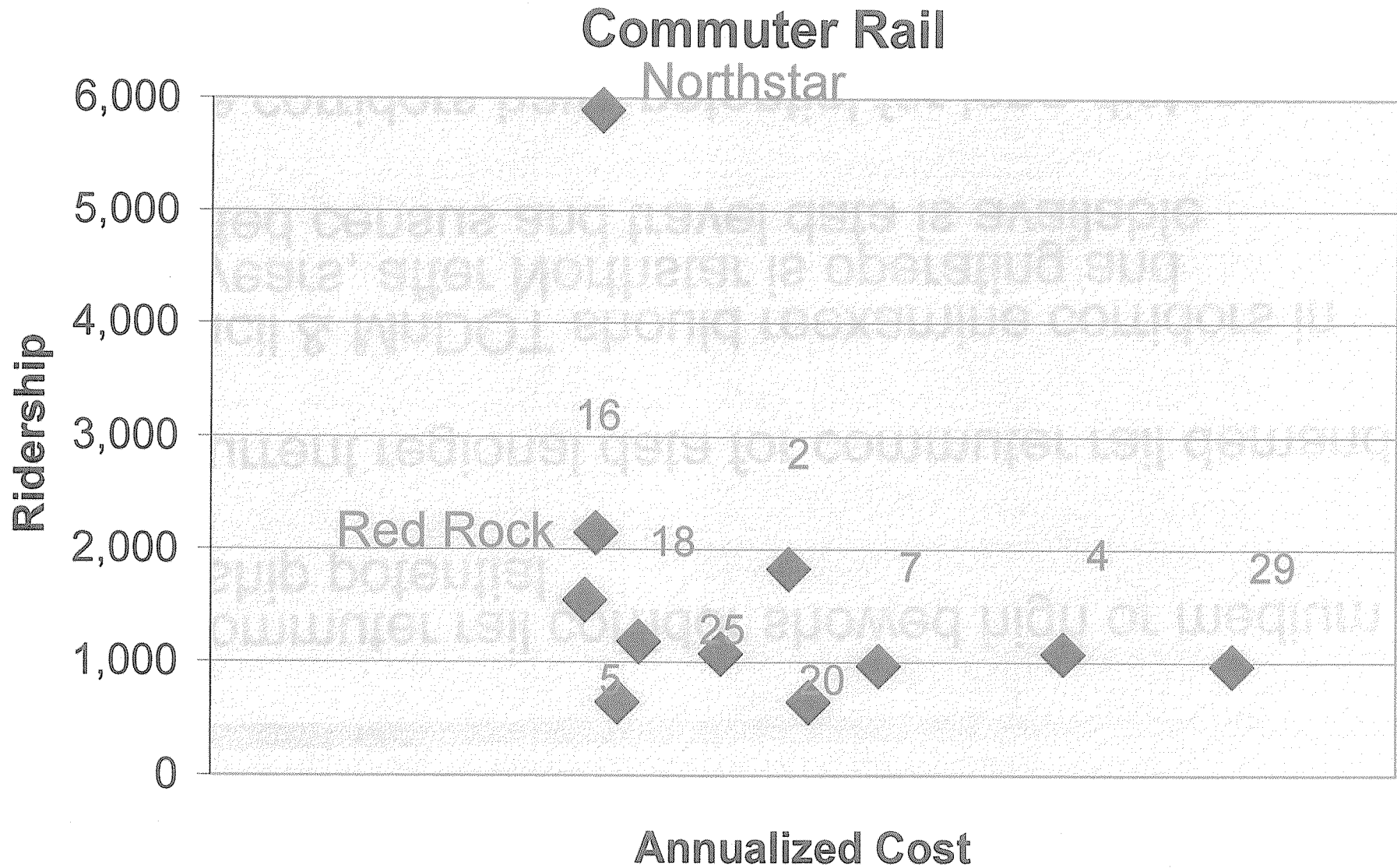
- Southwest and Bottineau corridors show the highest potential for future rail investments.
- A number of other corridors have good ridership potential, but high costs or little available right-of-way make rail development unlikely.
 - Arterial corridors with good ridership potential should be studied for BRT investments.
 - Highway corridors with good ridership potential should be studied for HOV/HOT/dynamic shoulder lane investments.



Commuter Rail Analysis Results

	Results for Commuter Rail	Riders if CR	Cost for CR
2	Bethel-Cambridge	Low	Medium
4	Dakota Rail	Low	High
5	Delano	Low	Medium
7	Norwood YA - TC&W	Low	Medium
16	Union Pacific Spur	Low	Medium
18	I-94 East - Commuter Rail	Low	Medium
20	Wisconsin Central	Low	Medium
25	Monticello	Low	Medium
29	Rush Line Commuter Rail	Low	High

Commuter Rail



Conclusions of Commuter Rail Analysis

- No commuter rail corridor showed high or medium ridership potential
- No current regional data for commuter rail demand
- Council & MnDOT should reexamine corridors in four years, after Northstar is operating and updated census and travel data is available
- Some corridors have potential for long-distance express bus service

Land Use

Factors In Transit Success

- **Population:** Gross numbers of people in corridor
- **Population:** Density of persons
- **Employment:** Gross number of jobs
- **Employment:** Clustering of jobs/job node intensity
- **Fine grain land use:** Conducive to walking
- **Commute sheds split** between the two downtowns
- **Economic incentives** to use transit

Strengthening Corridors for Transit

Put plans in place now to foster transit-supportive development between now and 2030:

- **Intensify employment density** where it makes sense
- **Intensify population density** where it makes sense
- **Develop compact, interconnected, multi-modal, walkable transit nodes**
- **Promote mixed use** to increase transit demand

Assist local units in designing transit-supportive land use policies now to guide development and redevelopment



Recommended Next Steps

Recommended Next Steps

- Present draft results and conclusions to county boards, MnDOT and other interest groups
- Continue corridor analysis with requested adjustments
- Incorporate results of Transit Master Study into TPP update
 - Develop implementation plan for various transit funding scenarios
- Continue and initiate new corridor studies

Recommended Corridor Studies

- **Continue Implementation Studies on:**
 - Southwest Corridor
 - Bottineau Corridor
- **Initiate Corridor Studies on:**
 - I-35W North Corridor
 - TH 36/NE Corridor
 - I-94 East Corridor
 - Rush Line Corridor (AA underway)
- **Begin BRT Studies on:**

– Central Ave	– Nicollet Ave	– Robert Street
– Snelling Ave	– Chicago Ave	– West 7 th Street
– Broadway Ave	– East 7 th Street	– I-494/American Blvd
- **Other Studies**
 - Midtown Greenway: Study after SW complete
 - Commuter rail: Re-examine after Northstar begins

Potential 2030 Transitway System

Complete/In Development
Hiawatha, I-35W BRT,
Cedar BRT, I-394 HOT
Lane, Northstar, Central

Implementation Studies
Southwest, Bottineau

Initial Study
I-35W North, TH 36/NE,
I-94 East, Rush Line

Bus Rapid Transit Studies
Nicollet, Central Ave,
Chicago, I-494/American
Blvd, Broadway, Snelling,
West 7th, East 7th, & Robert

Express Bus Network

