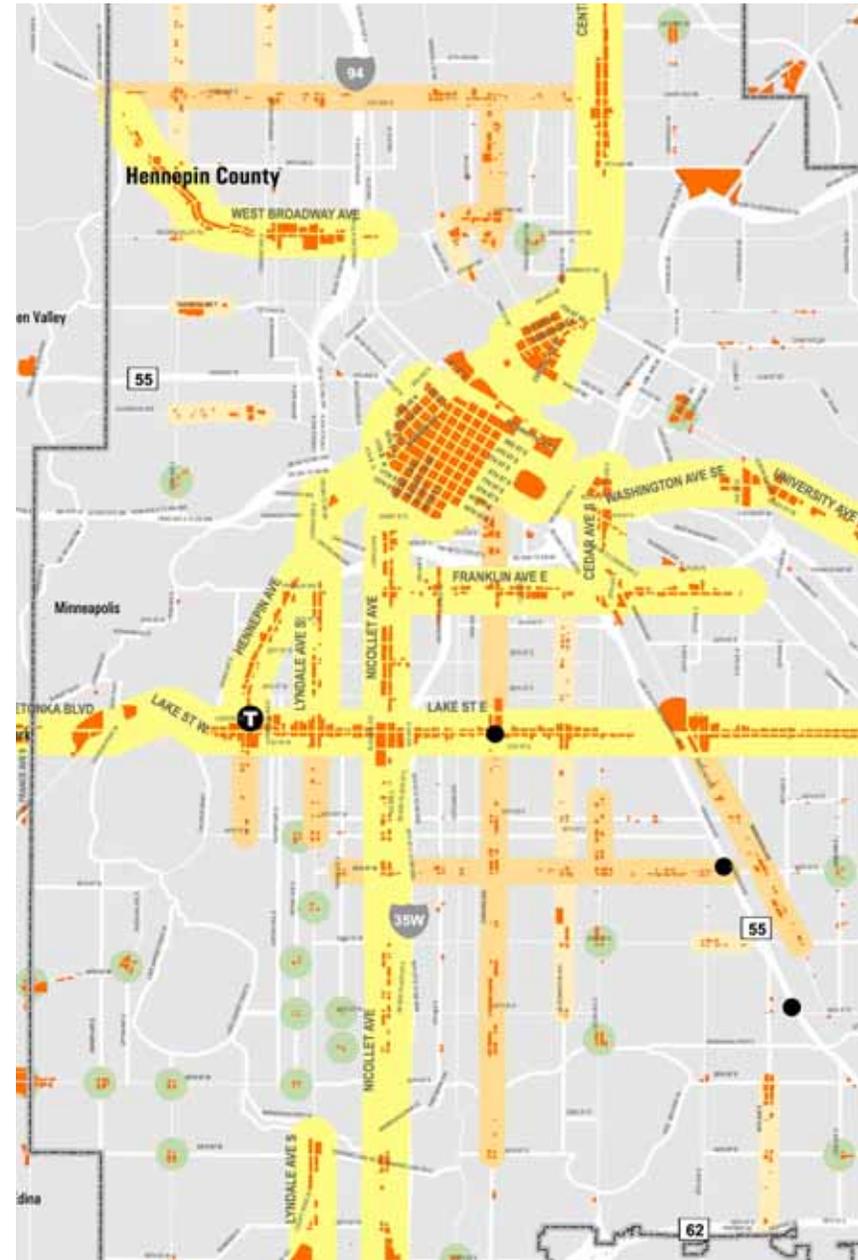


Place-based Network Design

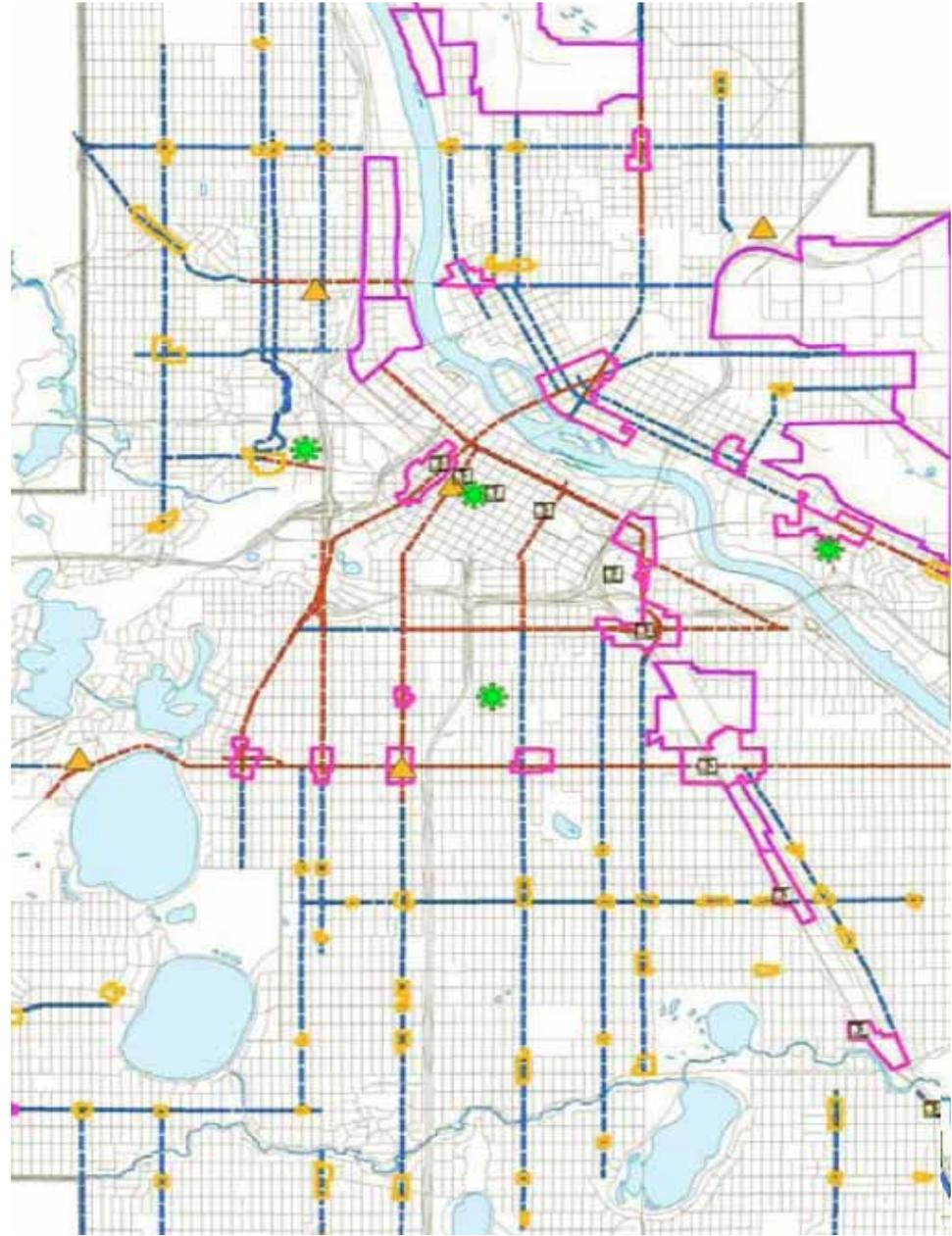
Framework for Minneapolis

Presenter: Fred Dock

- Minneapolis, MN
- Place-based network used to redirect transportation plan
- Retrofit of existing network in a built urban environment



- Drew from existing Place Types in Minneapolis Plan
 - Activity Centers
 - Growth Centers
 - Commercial Corridors
 - Community Corridors
 - Neighborhood Commercial Nodes
 - Neighborhoods



- Introduced concept of Place-based street types as an alternate to Functional Class
- Street Types developed from
 - Inventory of existing rights of way
 - Analysis of form and function
- Nine types developed
 - Commuter Street
 - Commercial Street
 - Activity Area Street
 - Community Connector
 - Neighborhood Connector
 - Industrial Connector
 - Parkway Street
 - Local Street
 - Alley

Design Guidance

Activity Center Street - 100' Right-of-way

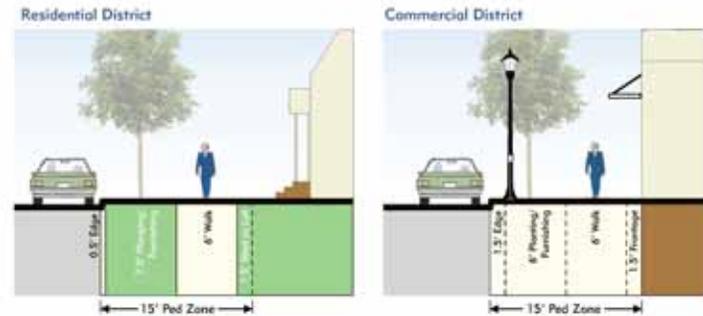
Width, Right-of-way 100'
 Equivalent Functional class Varies
 Target Operating Speed 30 mph
 Through Traffic Lanes 2 - 4
 Turn Lanes Optional
 Curb Parking Yes

Curb Extensions Yes
 Land Use Activity Center
 Median Optional with turn lanes
 Transit Local - some may be an PTN
 Bike Lanes Optional - if on bike plan
 Pedestrian Zone 20' desirable, 15' minimum



Activity Center Street - 80' Right-of-way

Pedestrian Zone Dimensions



Alternative Cross-sections

80' R.O.W. (Commerce St, Community Connector and Two-Way Activity Center St) - 3 Lanes

12' Ped Zone	8' Park	8' Bike	11' Travel Lane	10' Turn Lane	11' Travel Lane	8' Bike	8' Park	12' Ped Zone
14' Ped Zone	8' Park	11' Travel Lane	10' Turn Lane	11' Travel Lane	8' Bike	8' Park	14' Ped Zone	
16' Ped Zone	8' Park	11' Travel Lane	10' Turn Lane	11' Travel Lane	8' Park	16' Ped Zone		
19' Ped Zone	8' Park	11' Travel Lane	10' Turn Lane	11' Travel Lane	8' Park	19' Ped Zone		
18' Ped Zone	8' Park	11' Travel Lane	10' Turn Lane	11' Travel Lane	8' Bike	18' Ped Zone		
22' Ped Zone	8' Park	11' Travel Lane	10' Turn Lane	11' Travel Lane	8' Park	22' Ped Zone		

80' R.O.W. (Community Connector or Activity Center) - 2 Lanes

15' Ped Zone	8' Planting	8' Bike	11' Travel Lane	11' Travel Lane	8' Bike	8' Planting	15' Ped Zone
18' Ped Zone	8' Planting	8' Bike	11' Travel Lane	11' Travel Lane	8' Bike	8' Planting	18' Ped Zone
21' Ped Zone	8' Planting	11' Travel Lane	11' Travel Lane	8' Planting	21' Ped Zone		
22' Ped Zone	8' Bike	11' Travel Lane	11' Travel Lane	8' Bike	22' Ped Zone		

80' R.O.W. (Commerce Street or Activity Center) - 4 Lanes

12' Ped Zone	8' Park	10.5' Travel Lane	10.5' Travel Lane	10.5' Travel Lane	10.5' Travel Lane	8' Park	12' Ped Zone
13' Ped Zone	8' Park	11' Travel Lane	11' Travel Lane	11' Travel Lane	11' Travel Lane	8' Park	13' Ped Zone
12' Ped Zone	8' Park	11' Travel Lane	11' Travel Lane	11' Travel Lane	11' Travel Lane	8' Park	12' Ped Zone
12' Ped Zone	8' Park	10.5' Travel Lane	10.5' Travel Lane	10.5' Travel Lane	10.5' Travel Lane	8' Park	12' Ped Zone
16' Ped Zone	8' Park	11' Travel Lane	11' Travel Lane	11' Travel Lane	11' Travel Lane	8' Park	16' Ped Zone

☐ = Curb & Gutter

Design Guidance

Neighborhood / Community Connector Street - 80' Right-of-way

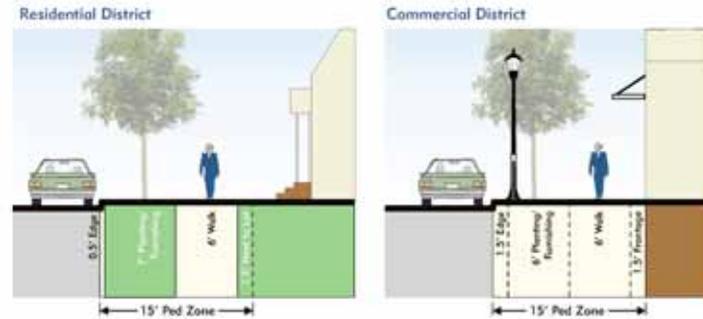
Width, Right-of-way: 80'
 Equivalent Functional class: B minor Arterials and Collector
 Target Operating Speed: 30 mph
 Through Traffic Lanes: 2
 Turn Lanes: Optional on Community Connector
 Curb Parking: Yes

Curb Extensions: Yes
 Land Use: Low density residential w/ commercial nodes
 Median: Optional with turn lanes
 Transit: May be on PTN
 Bike Lanes: Optional - if in bike plan
 Pedestrian Zone: Desirable 15', minimum 12'



Neighborhood / Community Connector Street - 80' Right-of-way

Pedestrian Zone Dimensions



Alternative Cross-sections

80' R.O.W. (Commerce St, Community Connector and Two-Way Activity Center St) - 3 Lanes

12' Ped Zone	7' Park	11' Travel Lane	10' Turn	11' Travel Lane	7' Park	12' Ped Zone
14' Ped Zone	7' Park	11' Travel Lane	10' Turn Lane	11' Travel Lane	7' Park	14' Ped Zone
16' Ped Zone	7' Park	11' Travel Lane	10' Turn	11' Travel Lane	7' Park	16' Ped Zone
19' Ped Zone	7' Park	11' Travel Lane	11' Travel Lane	11' Travel Lane	7' Park	19' Ped Zone
18' Ped Zone	7' Park	11' Travel Lane	10' Turn	11' Travel Lane	7' Park	18' Ped Zone
22' Ped Zone	7' Park	11' Travel Lane	10' Turn	11' Travel Lane	7' Park	22' Ped Zone

80' R.O.W. (Community Connector) - 2 Lanes

12' Ped Zone	7' Park	11' Travel Lane	11' Travel Lane	7' Park	12' Ped Zone
19' Ped Zone	7' Park	11' Travel Lane	11' Travel Lane	7' Park	19' Ped Zone
21' Ped Zone	7' Park	11' Travel Lane	11' Travel Lane	7' Park	21' Ped Zone
22' Ped Zone	7' Park	11' Travel Lane	11' Travel Lane	7' Park	22' Ped Zone

☐ = Curb & Gutter

Network Basis

- Commuter Street
- Commercial Street
- Activity Area Street
- Connector Street
- Community Connector
- Neighborhood Connector
- Industrial Connector
- Parkway Street
- Local Street
- Alley
- Boulevard
- Avenue
- Local (T5/T6)
- Connector
- Connector
- Connector (Local)
- Special (Local)
- Special (Local)
- Local (T4)
- Alley

Network Connectivity

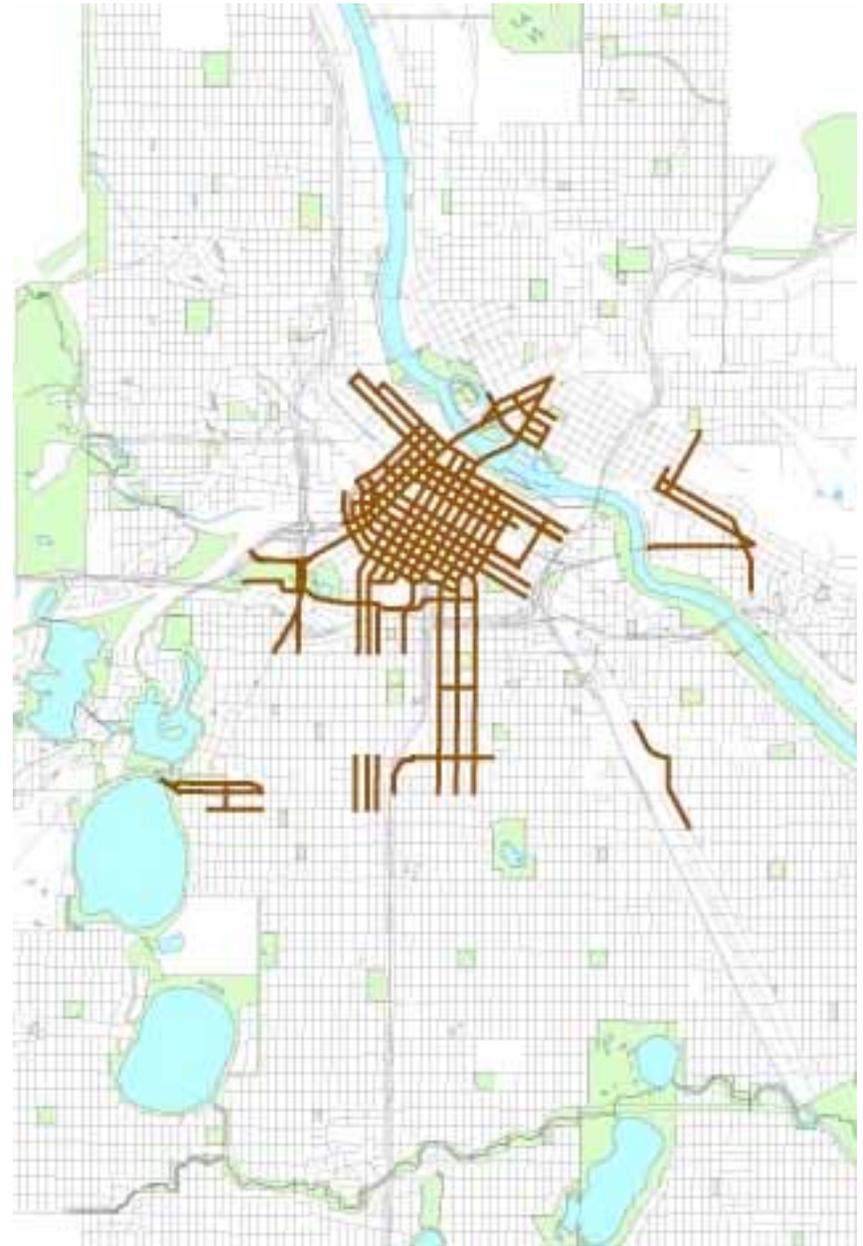
- Commuter Street
- **Commercial Street**
- Activity Area Street
- Connector Street
- **Community Connector**
- **Neighborhood Connector**
- Industrial Connector
- Parkway Street
- **Local Street**
- Alley
- Boulevard
- Avenue
- Local (T5/T6)
- Connector
- Connector
- Connector (Local)
- Special (Local)
- Special (Local)
- Local (T4)
- Alley

Street Network

- Two Grid Systems
 - 300 by 600 feet
 - 300 by 300 feet
- Rights of Way
 - 60 feet
 - 66 feet
 - 80 feet
 - 100 feet



- Activity Area Streets
 - Can be One-Way
 - Can be more than two lanes



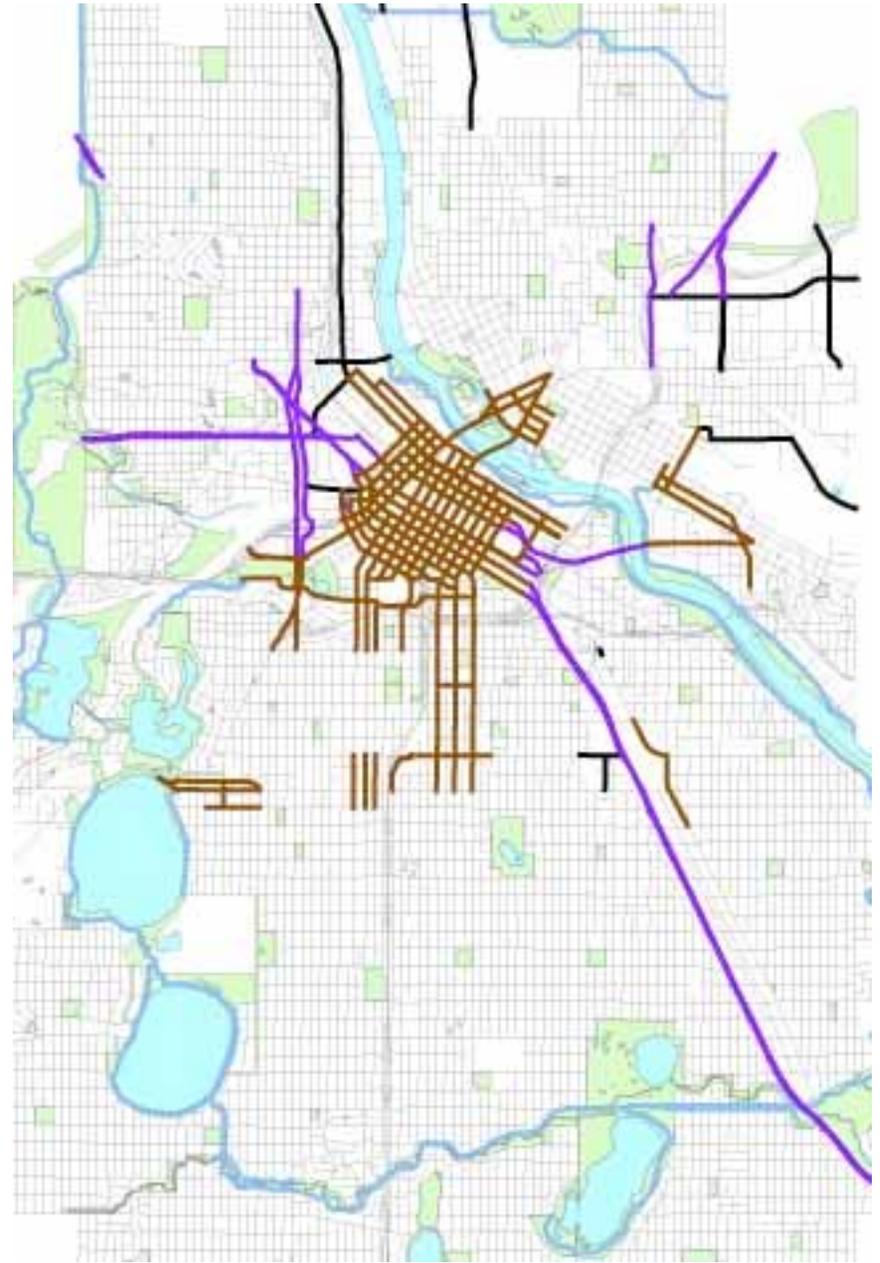
- Activity Area Streets
- Commuter Streets
 - No Frontage



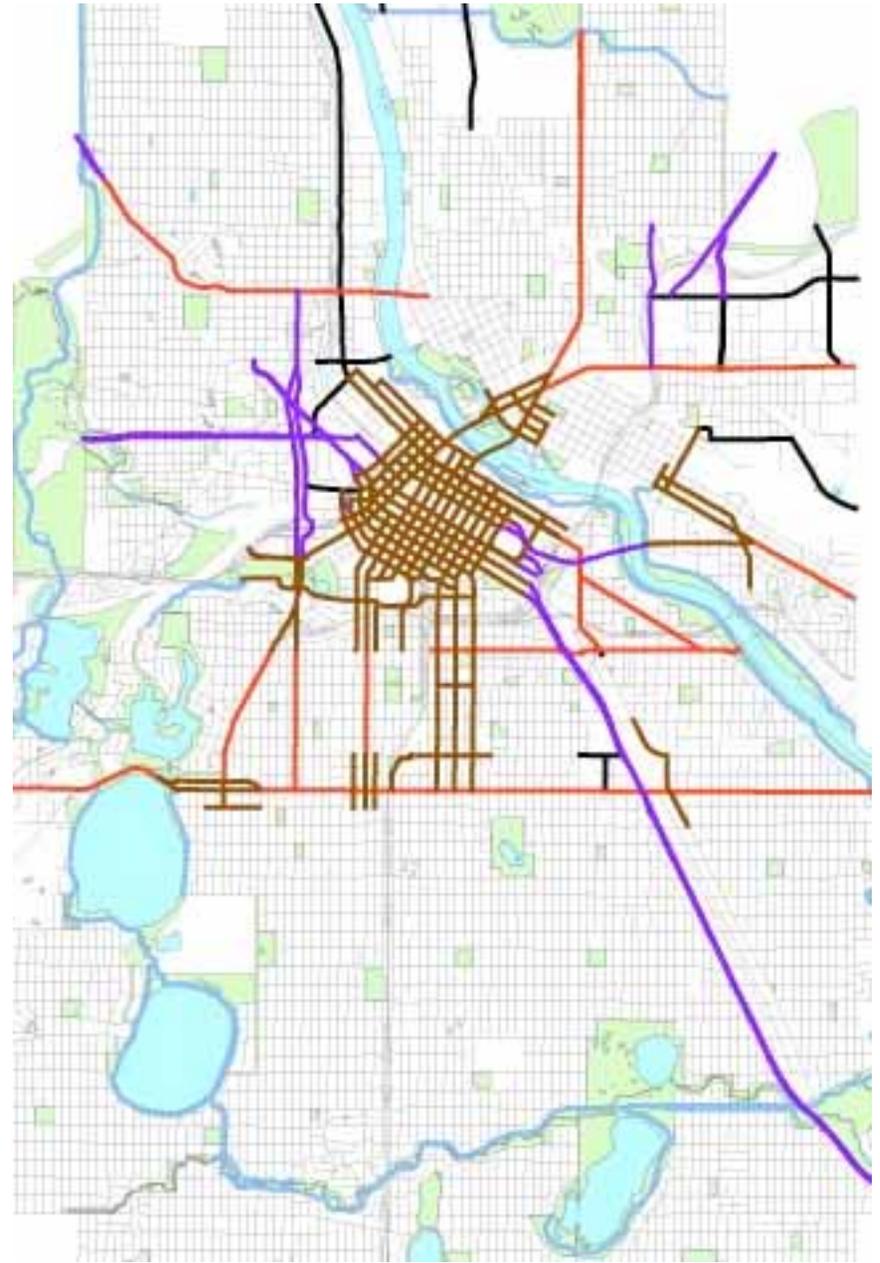
- Activity Area Streets
- Commuter Streets
- Industrial
 - Accommodate Trucks



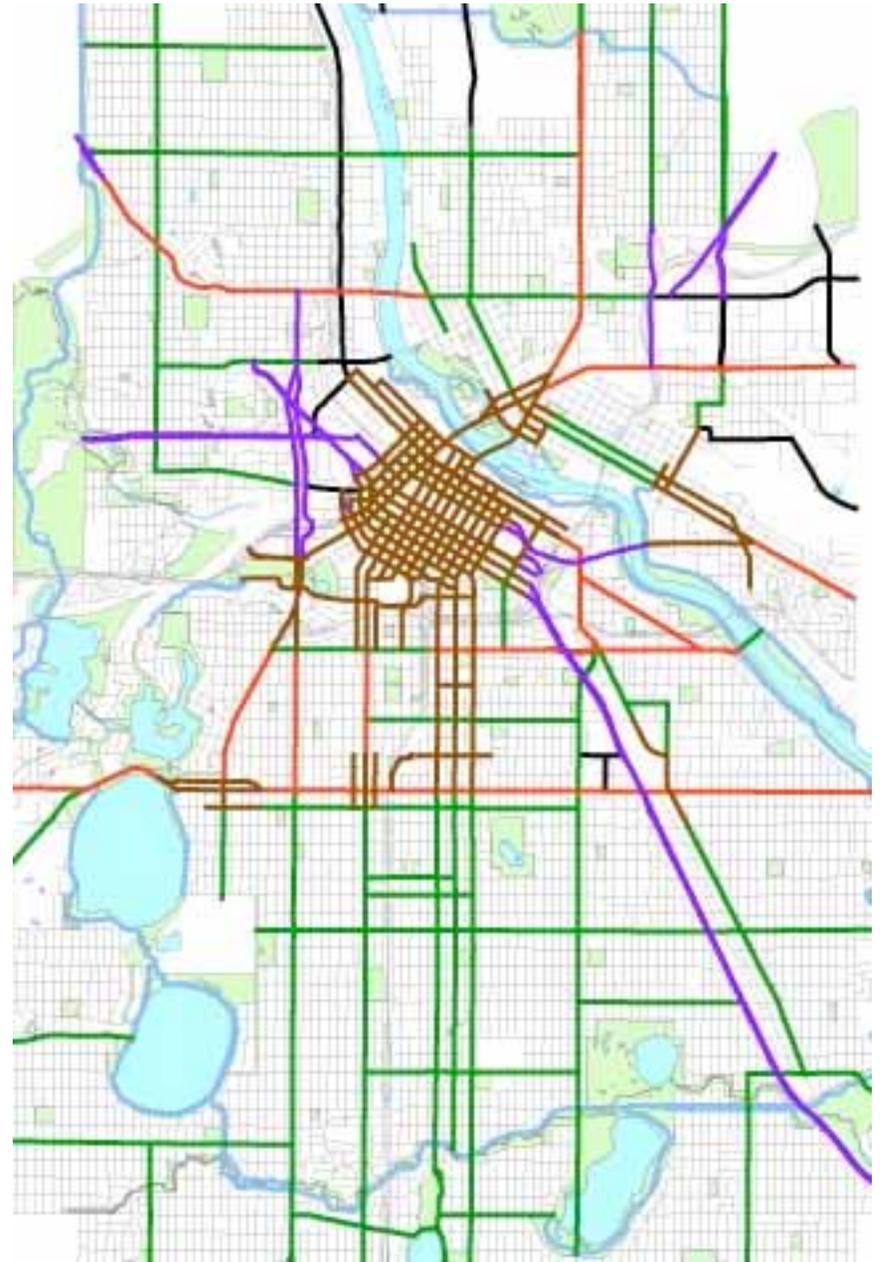
- Activity Area Streets
- Commuter Streets
- Industrial
- Parkway Streets
 - Low Speed
 - No Frontage
 - Adjacent to park land



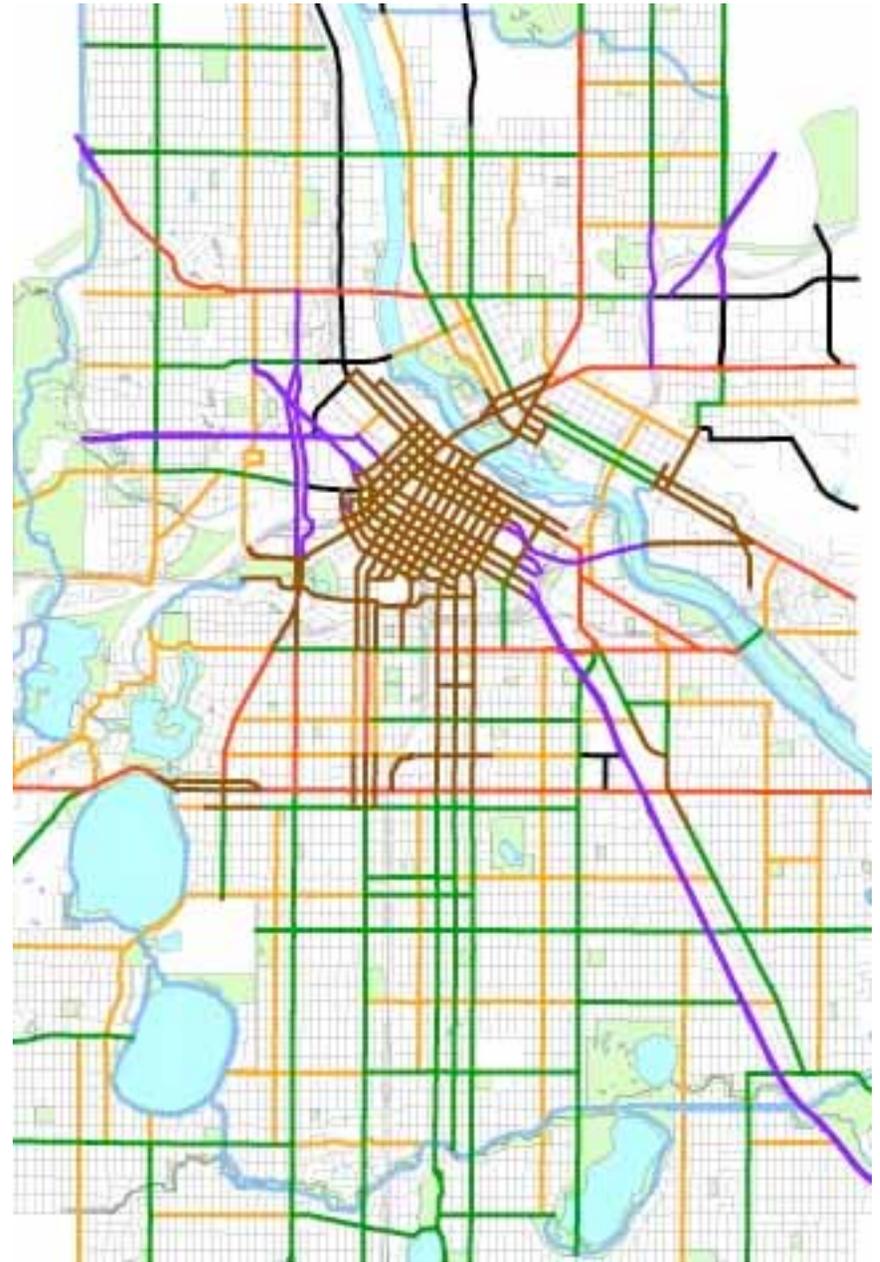
- Activity Area Streets
- Commuter Streets
- Industrial
- Parkway Streets
- Commercial Streets
 - Avenues (four lanes)
 - Commercial Corridors



- Activity Area Streets
- Commuter Streets
- Industrial
- Parkway Streets
- Commercial Streets
- Community Connectors
 - Connect Districts
 - Three lane

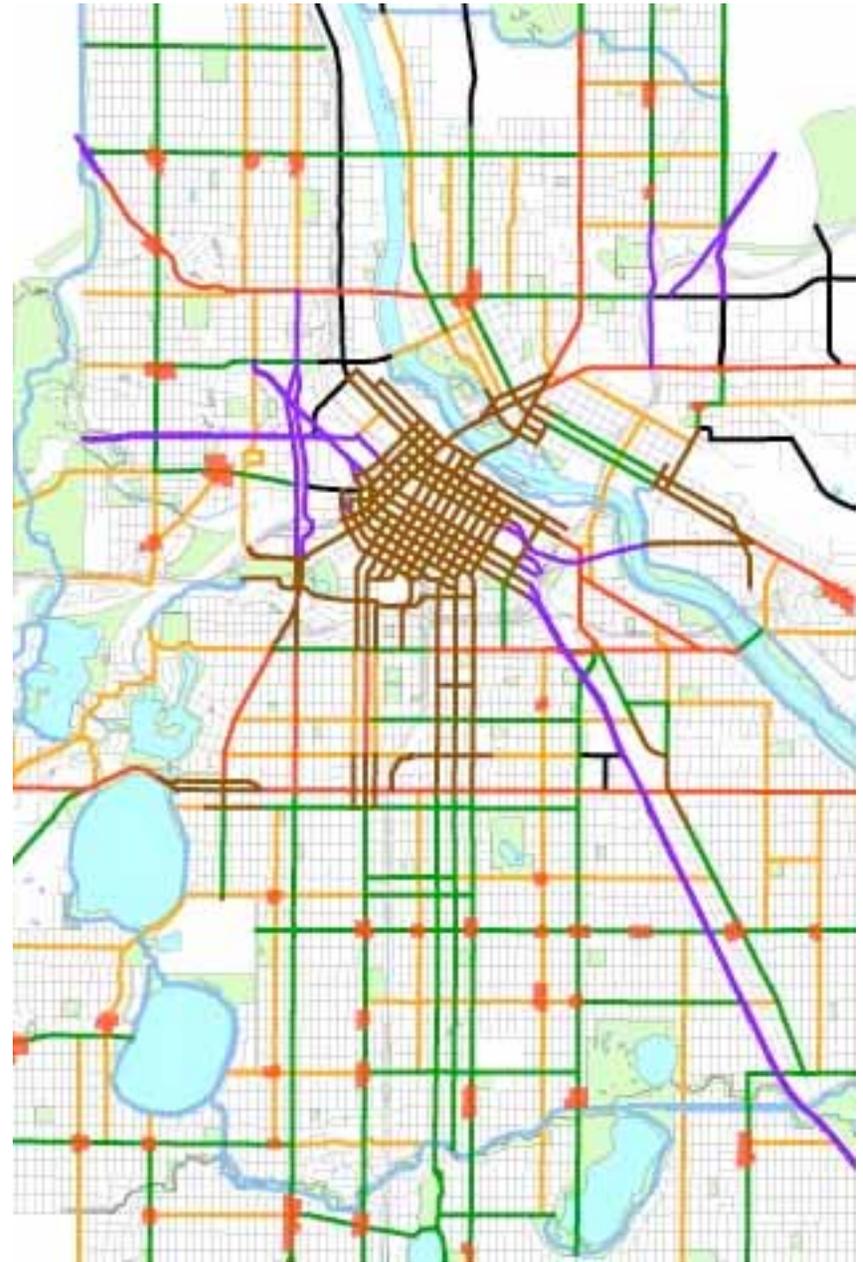


- Activity Area Streets
- Commuter Streets
- Industrial
- Parkway Streets
- Commercial Streets
- Community Connectors
- Neighborhood Connectors
- Local Streets



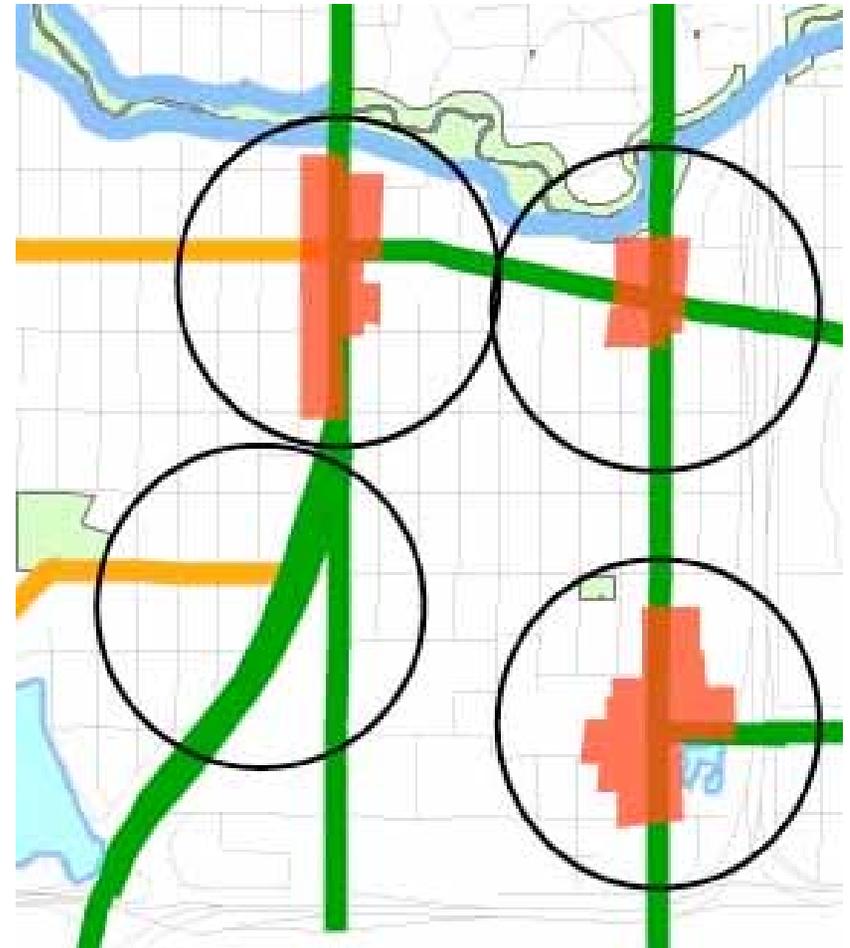
Network Character

- $\frac{1}{2}$ to 1 mile spacing of Connector Streets
- Define corridors that serve neighborhood commercial nodes
- Provide corridors to serve transit network and bicycle network
- Pedestrian network is continuous throughout



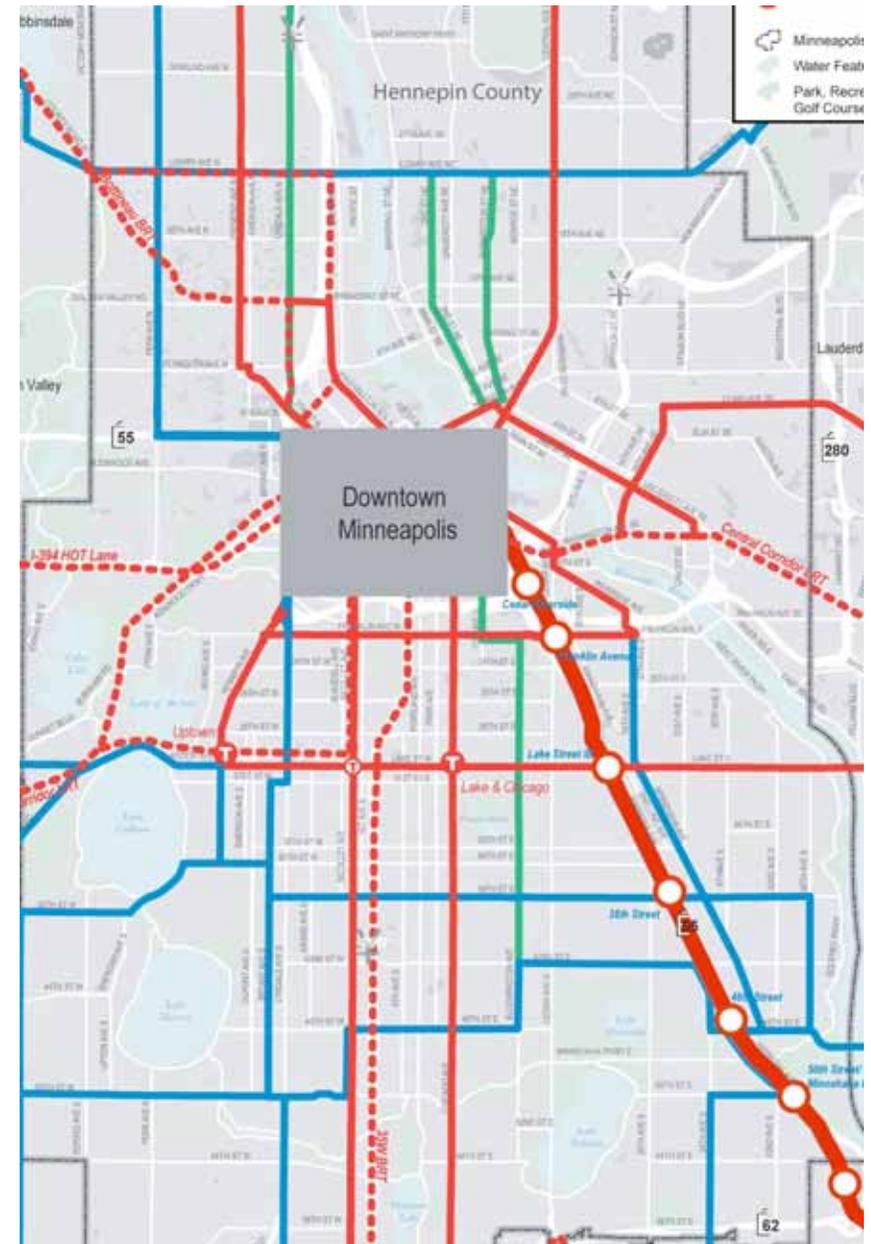
Pedestrian Connectivity

- Neighborhood Commercial Nodes at Connector Intersections
- to mile from neighborhood areas
- Near continuous coverage of walkable access to retail/services



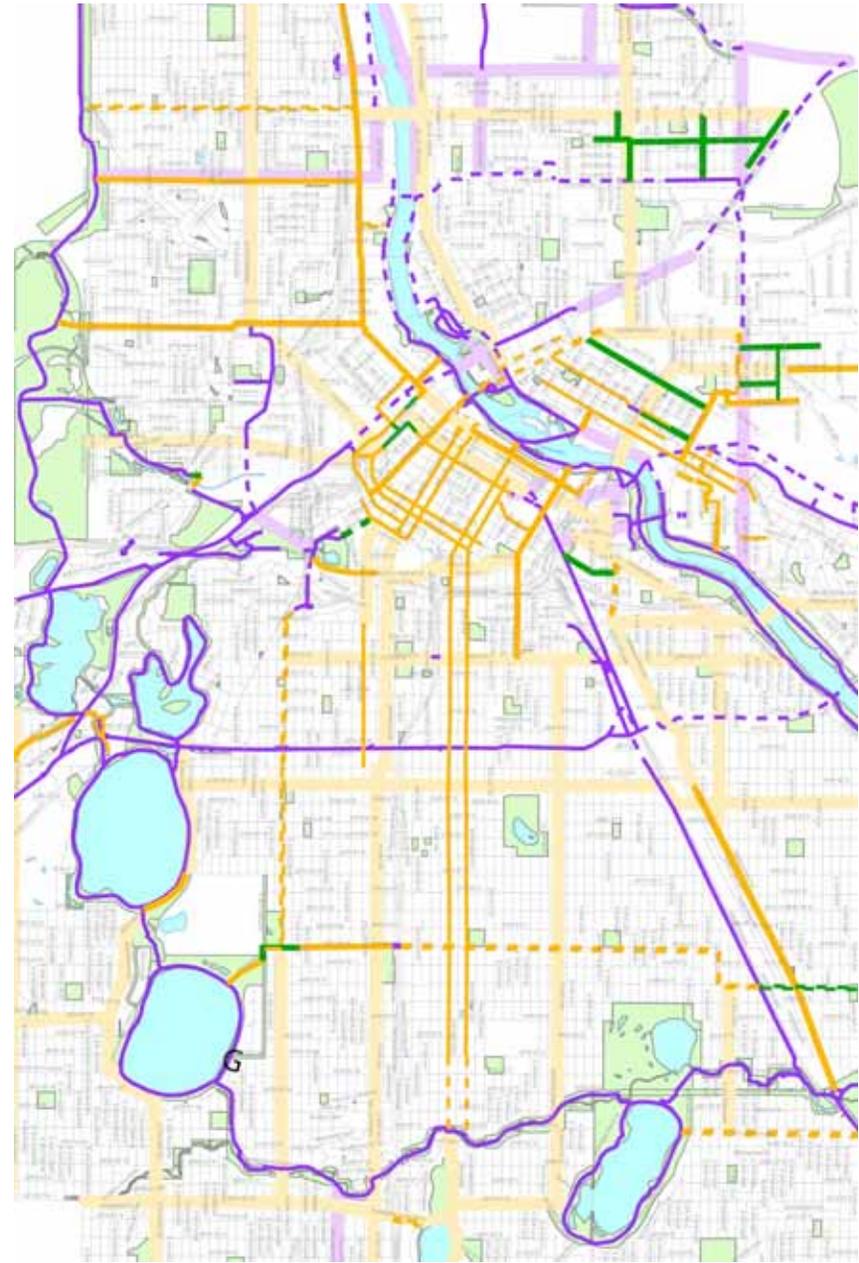
Transit Network

- Primary Network
 - 10 minute headways
- Follows Connector and Commercial Streets
- LRT (and BRT) along Commuter Streets

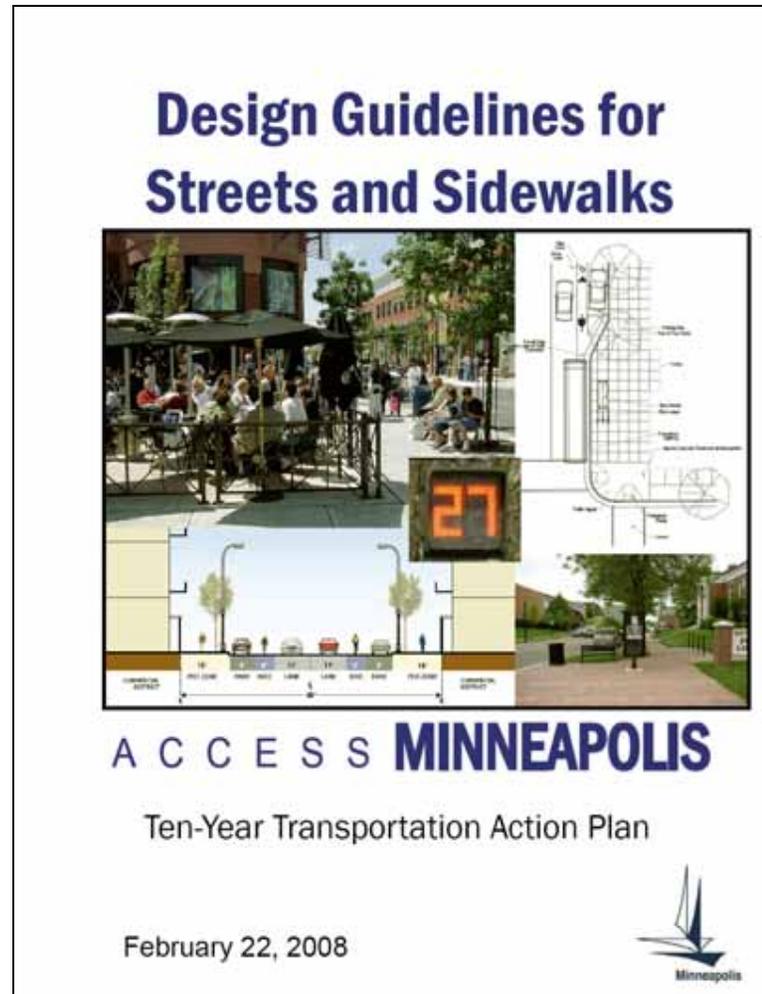


Bicycle Network

- Follows Connectors and Parkways
- Combination of on and off-street



More at



http://www.ci.minneapolis.mn.us/public-works/transportation/DesignGuidelines_StreetsSidewalks_022708.pdf