





## MIDTOWN CORRIDOR ALTERNATIVES ANALYSIS

# Universe of Alternatives and **Initial Screening Results**

**Public Open Houses** 

May 21 and 23, 2013









- Open house feedback
- Study process
- Universe of alternatives
- Initial screening criteria
- Initial screening results and recommendations
- Study next steps



## **Comment Themes from January Public Meetings**

- Support for both Lake St or Greenway
- Need for fast and reliable service between transitways
- Desire for fewer transit stops
- Transit service extends further east to river & St. Paul
- Local service on Lake St needs to be maintained
- Efficient access to Lake St provided
- Better connections between Lake St and Greenway
- Minimize impacts to Greenway
- A rail mode would spur development







## **Promotion and Outreach**

- Community Advisory Council meetings in February and April: neighborhood and businesses represented
- Presentation provided at Mercado Central for 20-30 Lake St business owners
- Project staff present at Breakfast with Gary Schiff: April 26 at Mercado Central
- Coordinated with Mpls Neighborhood Outreach Staff to distribute open house flyer to Somali, Latino, American Indian communities
- Project staff present at 5th Precinct Open House: May 14
- Coordinating with Horn Towers (31<sup>st</sup> St and Blaisdell Ave) to outreach with Somali residents

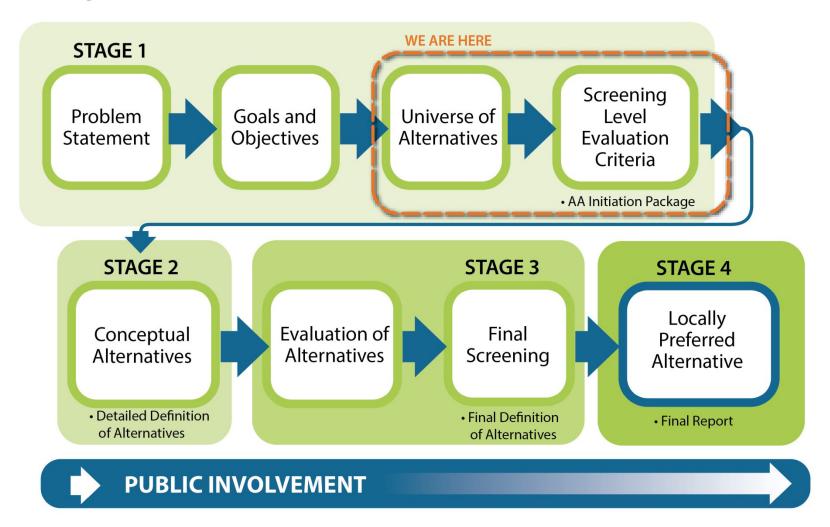








# **Study Process**











# **Study Process Steps**

- 1. Determine 'universe of alternatives'
  - All possible mode and alignment combinations
- 2. Develop initial screening criteria
- 3. Apply those criteria to the universe of alternatives
- 4. Advance best alternatives for more detailed study









# **Alignment Options**













# **Mode Options**

















# Lake Street

**Enhanced Bus** 



**Dedicated Busway** 



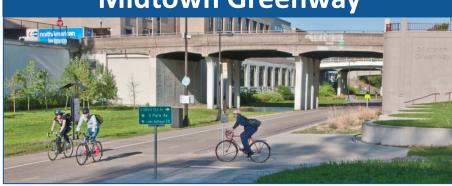
**Streetcar** 



**Light-Rail Transit** 



**Midtown Greenway** 



**Dedicated Busway** 



Double-Track Streetcar



**Double/Single-Track Streetcar** 



**Double-Track Light-Rail Transit** 











### **Lake Street**

- 1. Enhanced bus
- 2. Streetcar
- 3. Light-rail transit (LRT)
- 4. Dedicated busway

## Midtown Greenway

- 5. Double/single-track streetcar
- 6. Full double-track LRT/streetcar
- 7. Dedicated busway
- 8. Streetcar Lake Street/Greenway loop
- 9. Personal rapid transit
- 10. Commuter rail









# **Purpose of Initial Screening**

- To evaluate the full range of alternatives against project development criteria.
- Only alternatives that meet the overall project purpose and need will be advanced to the next level of analysis

> — STUDY PROCESS — >					
Stage 1  Initial Universe of Alternatives	Set of Conceptual Alternatives	Stage 3  Most Promising Alternatives	Locally Preferred Alternative		
LOW — LEVEL OF DETAIL — HIGH					











Criteria	Requirements			
Consistency with regional and local plans	<ul> <li>Mode characteristics are consistent with Metropolitan Council recommendations stated in the <i>Transportation Policy Plan</i> and in the <i>Regional Transitway Guidelines</i></li> <li>Mode characteristics are consistent with local and other plans and policies</li> </ul>			
2. Level of access provided to jobs and residents	<ul> <li>Mode station spacing guidelines provide sufficient numbers of stations within the study area to adequately serve major destination and activity centers</li> </ul>			
3. Ability to provide desired transit capacity and speed increases	<ul> <li>Mode design characteristics allow for transit speed increases</li> <li>Mode is appropriate scale current ridership levels but also provides room for growth</li> </ul>			
4. Compatibility with existing transportation modes and infrastructure	Mode integrates well with existing transportation infrastructure and systems.			
5. Potential ROW impacts	Mode requires minimal right-of-way			
6. Community and stakeholder sentiment	<ul> <li>Does not require reconstruction of Lake Street</li> <li>Does not remove a travel lane or greatly impact parking on Lake Street</li> <li>Minimizes impacts to Greenway historic and cultural resources</li> <li>Minimizes impacts to Greenway bicycle and pedestrian facilities</li> <li>Mode is felt to have potential to spur economic development</li> </ul>			











# **Initial Screening Results Table**

		Lake Street			Midtown Greenway			Both	
	Screening Criteria	Enhanced Bus	Streetcar	LRT	Dedicated Busway	Double / Single- Track	Full Double- Track	Dedicated Busway	Streetcar Loop
1	Consistency with regional and local plans	Very Good	Fair	Good	Good	Very Good	Good	Good	Good
2	Level of access provided to jobs and residents	Fair	Good	Fair	Fair	Fair	Fair	Fair	Poor
3	Ability to provide desired transit capacity and speed increases	Fair	Fair	Good	Good	Good	Very Good	Good	Fair
4	Compatibility with existing transportation modes and infrastructure	Very Good	Good	Poor	Poor	Good	Poor	Good	Fair
5	Potential right of way impacts	Very Good	Fair	Poor	Poor	Good	Good	Good	Poor
6	Community and stakeholder sentiment	Good	Fair	Poor	Poor	Very Good	Poor	Poor	Fair
	Overall rating	Good	Fair	Poor	Poor	Good	Fair	Fair	Poor
		Alternative				Δlternative			



## **Enhanced Bus on Lake Street**

#### **Enhanced Screening Criteria** Bus Consistency with regional Good and local plans Level of access provided Fair to jobs and residents Ability to provide desired 3 transit capacity and Fair speed increases Compatibility with 4 existing transportation Good modes and infrastructure Very Potential right of way Good impacts Community and Good stakeholder sentiment **Overall rating** Good

- One of the best performing corridors in the Arterial Transitway Corridors Study
- Allows for modest speed and capacity increases
- Least impact and is most compatible with existing and planned transportation infrastructure
- Least ROW impacts of all alternatives
- Bus is only felt to have 'some potential' instead of 'high potential' to spur economic development

**Advance for further study** 











#### **Screening Criteria** Streetcar Consistency with regional Fair and local plans Level of access provided Good to jobs and residents Ability to provide desired 3 transit capacity and Fair speed increases Compatibility with Good 4 existing transportation modes and infrastructure Potential right of way Fair impacts Community and Fair stakeholder sentiment **Overall rating** Fair

- Provides best access for jobs and residents
- Allows for modest speed and capacity increases
- Requires additional infrastructure at both ends for layover and turnaround, requiring some right-of-way
- Construction impacts on Lake Street
- Is felt to have high potential to spur economic development









## **LRT on Lake Street**

#### **Screening Criteria LRT** Consistency with regional Good and local plans Level of access provided Fair to jobs and residents Ability to provide desired 3 transit capacity and Good speed increases Compatibility with Poor 4 existing transportation modes and infrastructure Potential right of way Poor impacts Community and Poor stakeholder sentiment **Overall rating**

- Major impacts to parking and vehicular and pedestrian traffic on Lake Street
- Requires additional infrastructure at both ends for layover and turnaround, requiring some right-of-way
- Possible clearance issue under I-35W bridge
- Lack of strong community support due to concerns about reconstruction of Lake Street and impacts to existing vehicular traffic



# **Dedicated Busway on Lake Street**

#### **Dedicated Screening Criteria** Busway Consistency with regional Good and local plans Level of access provided Fair to jobs and residents Ability to provide desired 3 transit capacity and Good speed increases Compatibility with Poor 4 existing transportation modes and infrastructure Potential right of way Poor impacts Community and Poor stakeholder sentiment **Overall rating**

- Major impacts to parking and vehicular and pedestrian traffic on Lake Street
- Requires a significant amount of ROW
- Lack of strong community support due to concerns about reconstruction of Lake Street and impacts to existing vehicular traffic



## Double/Single-Track Streetcar in the Greenway

#### Double / **Screening Criteria** Single-Track Very Consistency with regional Good and local plans Level of access provided Fair to jobs and residents Ability to provide desired 3 transit capacity and Good speed increases Compatibility with Good **4** existing transportation modes and infrastructure Potential right of way Good impacts Community and Good stakeholder sentiment **Overall rating** Good

- The Minneapolis Streetcar Feasibility Study recommends streetcar in the Greenway
- Double/single-track operation could affect travel speeds
- Minimal impacts on bicycle and pedestrian facilities in the Greenway
- Requires some ROW
- Consistent with broad community sentiment
- Is felt to have high potential to spur economic development

**Advance for further study** 



## Full Double-Track LRT/Streetcar in the Greenway

#### Full **Screening Criteria** Double-Track Consistency with regional Good and local plans Level of access provided Fair to jobs and residents Ability to provide desired 3 transit capacity and Good speed increases Compatibility with Poor 4 existing transportation modes and infrastructure Potential right of way Good impacts Community and Poor stakeholder sentiment **Overall rating** Fair

- Fastest operating speeds of any alternative
- Modest impacts to existing bicycle and pedestrian facilities in the Greenway
- Likely requires rebuild of bridges over the Greenway
- Requires some ROW
- Is inconsistent with broad community sentiment and specific comments made at stakeholder engagement sessions regarding impacts to Greenway resources



# **Dedicated Busway in the Greenway**

#### Double / **Screening Criteria** Single-Track Consistency with regional Good and local plans Level of access provided Fair to jobs and residents Ability to provide desired 3 transit capacity and Good speed increases Compatibility with Good **4** existing transportation modes and infrastructure Potential right of way Good impacts Community and Poor stakeholder sentiment **Overall rating** Fair

- Double/single-lane operation could affect speeds
- Minimal impacts on bicycle and pedestrian facilities in the Greenway
- Requires some ROW
- Is inconsistent with broad community sentiment and specific comments made at stakeholder engagement sessions









#### Streetcar **Screening Criteria** Loop Consistency with regional Good and local plans Level of access provided **Poor** to jobs and residents Ability to provide desired 3 transit capacity and Fair speed increases Compatibility with Fair 4 existing transportation modes and infrastructure Potential right of way Poor impacts Community and Fair stakeholder sentiment **Overall rating** Poor

- May be confusing and inconvenient for users
- Lake Street speeds affected by operations in mixed traffic and signalized intersections, resulting in imbalanced eastbound and westbound travel time
- Requires a significant amount of ROW to transition between alignments
- Higher capital and operating cost



# **Commuter Rail and PRT on the Greenway**

Consistency with regional and local plans

Level of access provided to jobs and residents

Ability to provide desired

3 transit capacity and speed increases

Compatibility with 4 existing transportation modes and infrastructure

Potential ROW impacts

stakeholder sentiment

Overall rating

Commuter PRT Rail



Fatal

**Flaw** 

Fatal

**Flaw** 

Community and

Commuter rail and PRT on the Greenway are not consistent with the Metropolitan Council recommendations stated in the Transportation Policy Plan and in the Regional Transitway Guidelines.











# **Screening Conclusions**

Advanced for Further Study	Not Advanced for Further Study
<ul> <li>Enhanced bus on Lake Street</li> <li>Single/double-track streetcar in Midtown Greenway</li> <li>Potential alignment combinations</li> </ul>	<ul> <li>Streetcar on Lake Street</li> <li>LRT on Lake Street</li> <li>Dedicated busway on Lake Street</li> <li>Full double-track in Midtown Greenway</li> </ul>
	<ul> <li>Dedicated busway in Midtown Greenway</li> <li>Streetcar loop in Midtown Greenway and Lake Street</li> <li>Commuter rail in Midtown Greenway</li> <li>PRT in Midtown Greenway</li> </ul>











## **Combination of Alternatives**

Streetcar on Greenway and enhanced bus on Lake Street

- Explore a combination of both within the study area
  - Potential to extend enhanced bus east of Hiawatha Ave
- Allows for possible phased implementation
- Evaluate market demand for both alignments











## **Combination of Alternatives**

## Benefits to an enhanced bus extension

- Responding to public interest in transit improvements along entire length Lake Street
- Enhanced bus operates efficiently in longer corridors
- Enables a greater replacement of existing local service
- Full Lake Street enhanced bus build-out scored well in Arterial Transitway Corridors Study
- Additional transitway connections
  - LRT on University Ave
  - Enhanced bus on Snelling Ave









## **Next Steps**

## Detailed definition of alternatives

- Concept design
- Service plans
- Specific routing and station locations
- Travel time and frequency
- Operating cost



# **THANK YOU**

**Presentation will restart shortly**