Meeting Agenda

- Introductions (5 Mins)
  - Agenda Review
  - Meeting #2 Minutes
  - Study Questions
- Study Overview (5 Mins)
- Traffic Analysis (15 Mins)
- Evaluation Summary and Conceptual Layouts (60 Mins)
  - Overview
  - One-Way Concepts Discussion
  - Two-Way Concepts Discussion
- Next Steps (5 Mins)
Study Overview

- Evaluate existing transportation system and range of alternatives along the Hennepin and First Avenue corridors
- City leading in coordination with County, Metro Transit, and MnDOT
- Examine one-way, two-way, and hybrid roadway configurations
- Identify potential roadway concepts and document impacts (pros and cons) associated with potential implementation
- Consideration for quality of life, access, safety, connectivity, and mobility for all modes
- Currently no improvements are programmed, nor has any funding been identified for such improvements*

*MnDOT Projects:
University/4th Ped Improvements (2016-18)
Central Avenue Bridge (2019-20)
Study Overview

Approach

Setting Values and Goals → Understanding Problems → Criteria and Measures of Effectiveness → Developing and Screening Alternatives → Identifying Tradeoffs and Balancing Goals

Process

One-Way → Hybrid → Two-Way

Develop Concepts → Criteria and Stakeholder Guidance → Develop Corridor Alternatives

Detailed Evaluation and Summary
Concepts Moving Forward

- **Leading One-Way Concepts**
  - 1-1B: Two Lanes (Transit Right Side)
  - 1-2B: Three Lanes with Off-Peak Parking (Streetcar Left Side)
  - 1-2C: Three Lanes (Transit Right Side)

- **Leading Two-Way Concepts**
  - 2-1A: Three Lanes (Interim Re-striping)
  - 2-1B: Three Lanes and One-Sided Parking (Transit Right Side)
  - 2-1C: Three Lanes and Two-Sided Parking (Transit Right Side)
Traffic Patterns

- **Origin-Destination Data Collection:**
  - Collected during summer of 2015
  - Necessary element of two-way conversion studies
  - Prominent directional/peaking characteristics
  - Different patterns than Hennepin and First Avenues in downtown CBD
Traffic Analysis

• Detailed Simulation Model
  • Transit schedules and stop locations
  • Bicycle and Pedestrian interactions

• Concepts Modeled:
  • Year 2015:
    • Existing
    • 2-Way Concept (2-1A, 2-1B, 2-1C)
  • Year 2035:
    • Existing
    • 1-Way Two Lanes w/ Right Side Streetcar (1-1B)
    • 1-Way Three Lanes w/ Left Side Streetcar (1-2B)
    • 1-Way Three Lanes w/ Right Side Streetcar (1-2C)
    • 2-Way Concept (2-1A, 2-1B, 2-1C)
Traffic Analysis: Operations

• **Morning Peak and Mid-Day/Off-Peak:**
  - Acceptable operations at all intersections
  - Minimal difference in travel time across all concepts
  - Southbound morning peak better for “metering” traffic, intersection spacing, no bottleneck, and no 3-legged intersections
  - Two lanes on 1st Ave provide acceptable operations during peak directional period
Traffic Analysis: Travel Time

- **Morning Peak:**
  - Minimal difference in travel time across all concepts
  - Transit travel times (bus/streetcar) comparable

Hennepin Ave (First St S to 8th St SE)

First Ave (Central Ave to Main St NE)
Traffic Analysis: Travel Time

**Mid-Day/Off-Peak:**
- Minimal difference in travel time across all concepts
- Transit travel times (bus/streetcar) comparable

Hennepin Ave (First St S to 8th St SE)

First Ave (Central Ave to Main St NE)
Traffic Analysis: Operations

• **Afternoon Peak:**
  - Hennepin Ave (eastbound) is dominant direction
  - Limited bridge crossings from downtown (i.e., “Disconnected Grid”)
  - One-Way 3-Lane (2015 and 2035) Concepts: Acceptable operations at all intersections

**Expected Congestion:**

- One-Way 2-Lane and Two-Way (2035) Concepts: Long delays at Hennepin/ Main intersection
- Hennepin/Main intersection represents bottleneck into Northeast
- Higher demand out of downtown, travel concentrated at same period
Traffic Analysis: Travel Time

• **Afternoon Peak:**
  
  • Travel times provide better indication of congestion along corridors
  
  • Hennepin Ave with 2-Lanes: Transit (bus and streetcar) travel times double and motor vehicle travel time triple (queues across bridge)
Traffic Analysis: Travel Time

ONE-WAY 2 LANE RIGHT SIDE STREETCAR - 2035

NOTE: 1. VEHICLE DELAYS ARE EXPECTED TO EXTEND NEAR THE DOWNTOWN CBD AREA.

2-WAY RIGHT SIDE STREETCAR - 2035

NOTE: 1. VEHICLE DELAYS ARE EXPECTED TO EXTEND NEAR THE DOWNTOWN CBD AREA.

Speed
All Intervals

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Concept Development

• **Designs are conceptual and for planning purposes only:**
  • Do not include *(but does not preclude)* conversion of 4th Avenue to two-way operations *or* modifications to Hennepin/Central/5th intersection
  • Lourdes Place two-way restoration independent of Hennepin Ave design
  • Require more detailed engineering and interagency coordination
  • Input needed from residents, businesses, neighborhood, advisory committees, etc.
  • Continued coordination with Streetcar EA Study
Hennepin Avenue: One-Way from 5th St SE to 7th St SE

**Pros:**
- Potential for additional green space (Major Strategic Goal – NIEBNA SAP)
- Expansion of space for pedestrian and bicycle infrastructure (Major Strategic Goal – NIEBNA SAP)
- Supports improved and more reliable transit services (Top Priority – NIEBNA SAP)
- Prioritizes non-motorized safety and mobility
- Narrows street and reduces intersection footprint
- Reduces conflicting movements
- Access may be addressed during redevelopment

**Cons:**
- Establishes short one-way segment that may be confusing for visitors
- Does not align with neighborhood expectations (Vision and Strategic Action – NIEBNA)
- Increases route circuity for local access
Concept Modification

Hennepin Avenue: One-Way from 5th St SE to 7th St SE
One-Way Concepts

Concept 1-1B
Two-Lanes

Summary
- Pedestrian Realm: 20’
- Bicycles: Protected Bike Lane
- Transit: Streetcar Compatible
- Travel Lanes: 2
- Parking: One Side
Implementation: Reconstruction
One-Way Concepts

Concept 1-2B
Flexible Peak/Off-Peak Lane

Summary
★ Pedestrian Realm: 12’ – 19’
★ Bicycles: Protected Bike Lane
★ Transit: Streetcar Compatible
★ Travel Lanes: 2 Off-Peak, 3 Peak
★ Parking: One Side Peak, Two Sides Off-Peak

Implementation: Retrofit and Reconstruction
One-Way Concepts

Concept 1-2C
Three Lanes

Summary
- Pedestrian Realm: 12’ – 19’
- Bicycles: Protected Bike Lane
- Transit: Streetcar Compatible
- Travel Lanes: 3
- Parking: One Side
- Implementation: Retrofit and Reconstruction

More Space ▲ Less Space ○ No Change ★★ Varies
Two-Way Concepts

Concept 2-1A
Two-Way: Three-Lanes (Smaller-Scale)

Summary
- Pedestrian Realm: 12’
- Bicycles: Standard Bike Lane
- Transit: Streetcar Compatible
- Travel Lanes: 3
- Parking: Both Sides
- Implementation: Retrofit and Reconstruction
Two-Way Concepts

Concept 2-1B
Three-Lanes

Summary

- Pedestrian Realm: 12’ – 19’
- Bicycles: Protected Bike Lane
- Transit: Streetcar Compatible
- Travel Lanes: 3
- Parking: One Side
- Implementation: Reconstruction
Two-Way Concepts

Concept 2-1C
Three-Lanes Two Sided Parking

Pedestrian Realm: 11’
Bicycles: Protected Bike Lane
Transit: Streetcar Compatible
Travel Lanes: 3
Parking: Both Side
Implementation: Reconstruction
Next Steps

- Prepare Final Documentation
  - Finalize report that will not include recommendations
  - Provide guidance for upcoming MnDOT projects and ongoing Streetcar EA
- Internal Agency Meetings
- External Agency Meetings
  - Neighborhood, NEBA, and Advisory Committee Outreach

Develop Concepts
- One-Way
- Two-Way
- Hybrid

Develop Alternatives
- Criteria and Stakeholder Guidance
- Develop Corridor Alternatives

Detailed Evaluation and Summary