

CITY OF MINNEAPOLIS

# Hennepin/First Transportation Study

Study Advisory Committee  
December 21, 2015

# Meeting Agenda

- Introductions
  - Agenda Review
  - Meeting #1 Minutes
  - Study Questions
- Study Overview
- Evaluation Process
  - SAC Objectives
  - Fatal Flaws and Screening Evaluation
- Concept Development
  - Approach and Phasing/Staging
  - Design Considerations
  - One-Way Concepts
  - Two-Way Concepts
- Next Steps



# 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)



Source: Nicollet Island-East Bank  
Neighborhood Association

# Study Overview

General Study Area

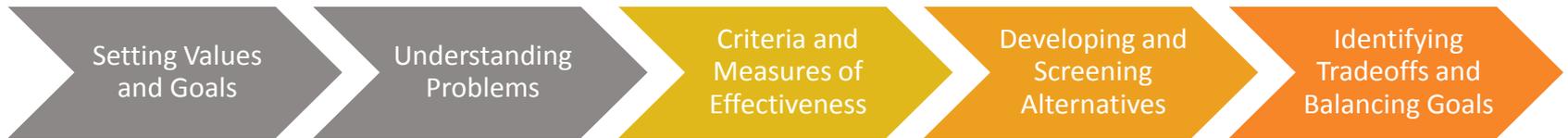


Study Area  
One-Way Streets

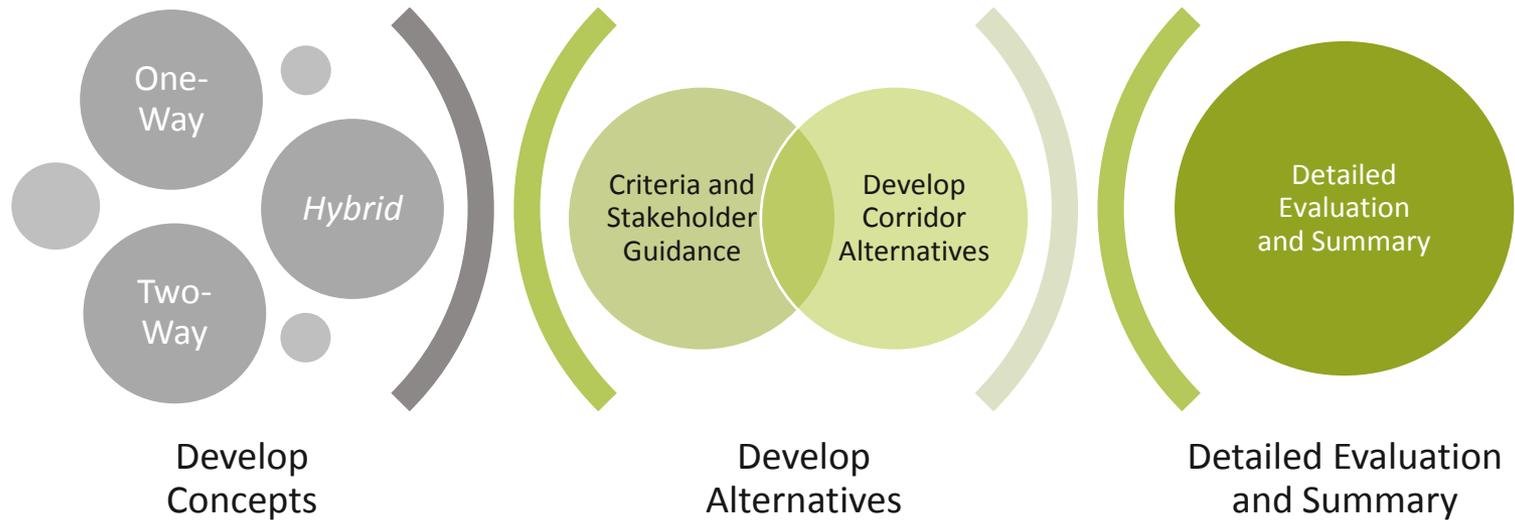


# Study Overview

## Approach



## Process



# Study Overview

## Key tasks:

- ✓ • Data Collection
- ✓ • Existing Conditions Inventory and Analysis
- ✓ • Concept Development and Screening
  - Develop Corridor Alternatives
  - Detailed Evaluation and Summary
  - Documentation and Final Report

## Outreach to Date:

- Neighborhood Associations:
  - ✓ • Nicollet-Island/East Bank
  - ✓ • Marcy Holmes
  - ✓ • Northeast Business Association
  - ✓ • Nicollet-Central Modern Streetcar Team
- Study Advisory Committee Meetings:
  - ✓ • SAC #1: October
  - ✓ • SAC #2: December
  - SAC #3: TBD



# Evaluation Process

## SAC Objectives and Evaluation Categories

- SAC's objectives adapted into qualitative and quantitative technical metrics

### Pedestrian/Biking

- Improve connectivity for pedestrian, bicycling, and transit throughout the corridor
- Bicycle facilities should not be overlooked, part of greater network of connectivity to downtown, regional park system, and University of Minnesota campus
- Evaluate opportunities to address "free-flowing" right turns that encourage speeding and present conflicts with bicyclists and pedestrians

### Mobility/Safety

- Allow emergency access and truck operations for businesses
- Enhance non-motorized and motorized safety conflicts
- Reduce the number of complex intersection to increase safety
- Improve sight distances for non-motorized users
- Seek opportunities to address complex intersections (5th/Hennepin/Central, 7th/1st/Central, and 7th/Hennepin)

### Streetcar/Transit

- Encourage transit use
- Streetcar is important improvement for the neighborhood and should be implemented in a way that maintain consistency with local and regional visions

### Quality of Life

- Expand the pedestrian and bicycling facility
- Improve pedestrian and biking by using traffic calming techniques
- Influence travel behavior to reduce speeds before it enters the study area (e.g., Hennepin Bridge and Central Ave)
- Address signal timing that encourages speeding

### Economic Development

- Parking will be accessible for residents and visitors
- Improve connections to businesses with access to and from destinations
- Limit speeding
- Promote traffic calming

### Operations

- Reduce complexity of the transportation network
- Address mixture of one-way and two-way streets
- Motorized throughput and congestion should not be driving factor
- Evaluate inconsistencies with parking bays and bump-outs

# Evaluation Process

## Technical and Design “Fatal Flaws”

- All day no-parking both sides
- Less than 2 travel lanes (one-way concepts)
- Shared bicycle facilities only
- Less than 11 foot travel lane (through lanes)
- Hennepin and First Avenue bridges two-way operation
- Does not maintain streetcar “couplet” alignment
- Minimum dimensions for all modes of travel (i.e., vehicle/transit, bicycle, and parking)
- Reduction of space in pedestrian zone



# Evaluation Process

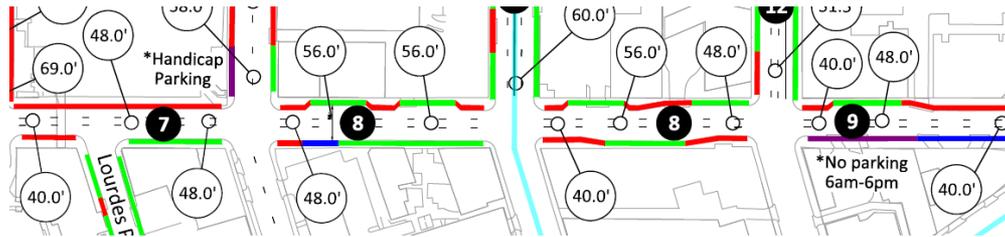
## Screening Evaluation Process

- Converted SAC Objectives to Technical Criteria (Qualitative/Quantitative)
- Summarized/Reviewed by Categories
  - Quality of Life, Economic Development, Transit, Bike/Ped, Mobility/Safety, Operations
- TAC Reviewed and Discussed Potential Concepts
- TAC Identified “Leading Concepts”
  - Adherence to SAC Objectives, Ability to Phase Improvements, Engineering Viability, Consistency with Adopted Plans
  - Provide safe and attractive option for all street users, Enhance the public realm, Reduce travel speeds



# Concept Development

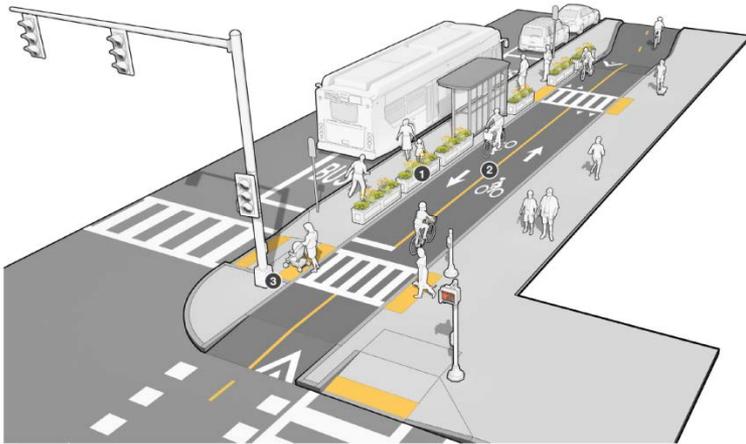
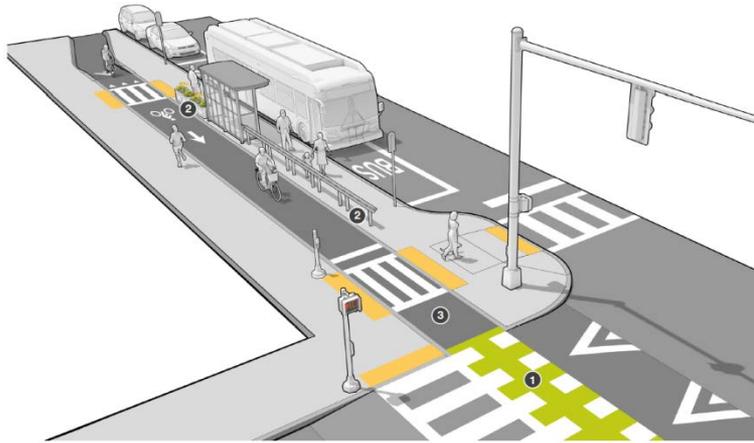
- “Balanced Approach”
  - Same cross-section for Hennepin and First
  - Provide quality of life, economic development, safety, circulation, and multimodal mobility benefits to both corridors
- Phasing/Staging of Concepts:
  - Align with min. (40’) and max (56’) cross-section envelopes along Hennepin



- Smaller-Scale Solutions:
  - Potential Short-Term Project
  - Retrofit: Maintain Existing Geometry with Restriping
- Larger-Scale Solutions:
  - Potential Mid- to Long-Term Project
  - Reconstruction: Fill Parking Bays, Modify Curb Extensions, Protected Bikeway, Sidewalk Expansion, and/or Signal and Signage Modifications

# Concept Development

- Transit and Bicycles Design Considerations



# Concept Development

- Bicycle Facility Design Considerations



# One-Way Concepts

## Concept 1-1A Two-Lanes (Smaller-Scale)



### Summary

- Pedestrian Realm: 12'
- Bicycles: Buffered Bike Lane
- Transit: Streetcar Compatible
- ▲ Travel Lanes: 2
- Parking: Both Sides
- Implementation: Retrofit

Buffer Example:



■ More Space

▲ Less Space

○ No Change

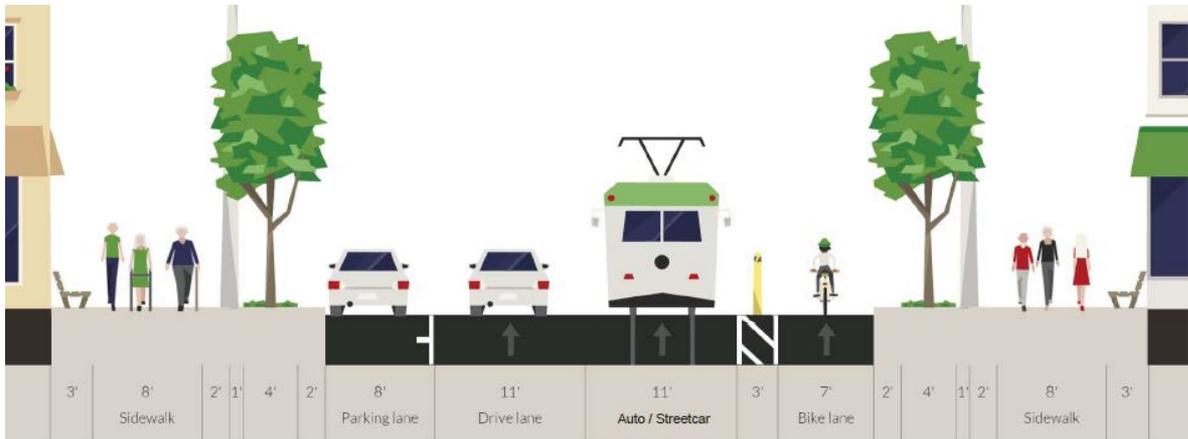
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# One-Way Concepts

## Concept 1-1B Two-Lanes (Larger-Scale)

### Summary

- Pedestrian Realm: 20'
- Bicycles: Protected Bike Lane
- Transit: Streetcar Compatible
- ▲ Travel Lanes: 2
- ▲ Parking: One Side
- Implementation: Reconstruction



Delineator Post Example:



■ More Space

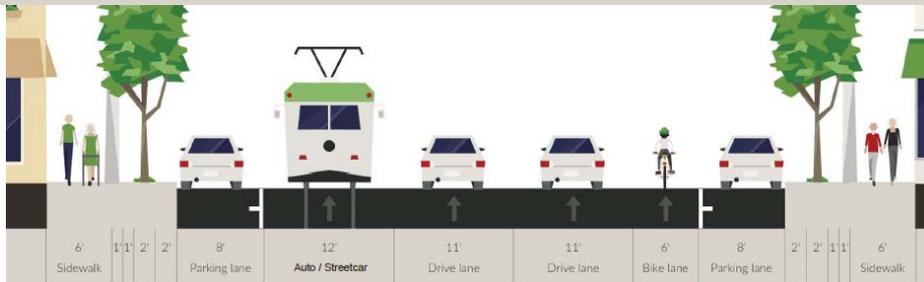
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# One-Way Concepts

## Concept 1-2A Three-Lanes (Smaller-Scale)



### Summary

- Pedestrian Realm: 12'
- Bicycles: Standard Bike Lane
- Transit: Streetcar Compatible
- Travel Lanes: 3
- Parking: Both Sides
- Implementation: Retrofit

■ More Space

▲ Less Space

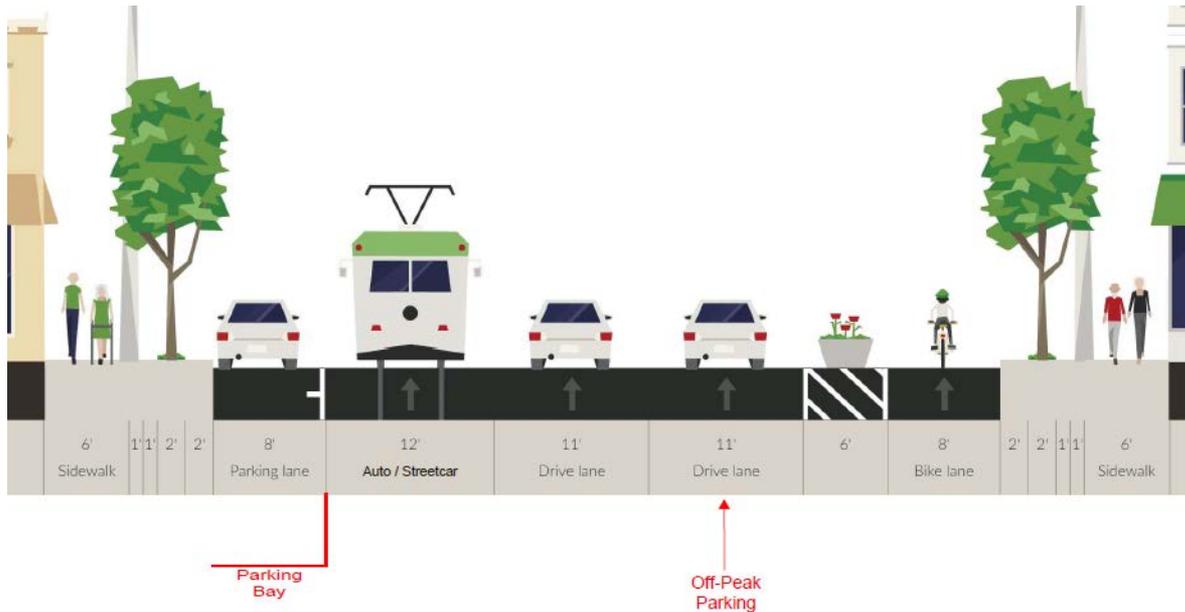
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# One-Way Concepts

## Concept 1-2B

### Flexible Peak/Off-Peak Lanes (Larger-Scale)



### Summary

- Pedestrian Realm: 12'
- 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

### Planter-Protected Example:



■ More Space

▲ Less Space

○ No Change

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# One-Way Concepts

## Concept 1-2C Three Lanes (Larger-Scale)

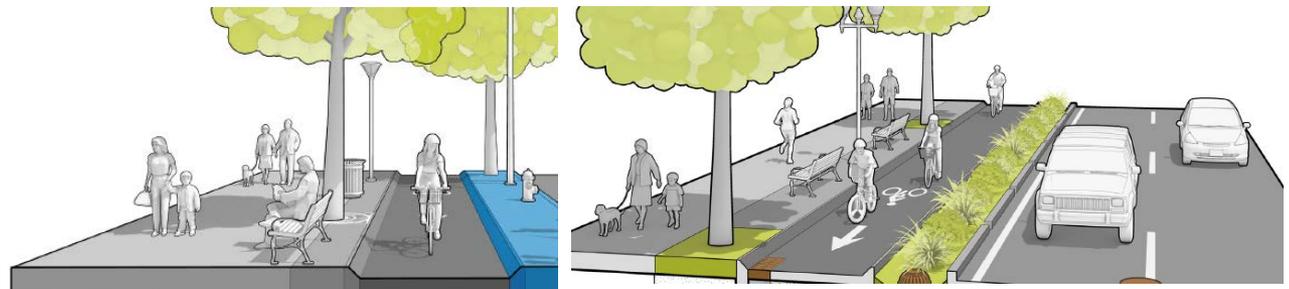


### Summary

- Pedestrian Realm: 12'
- Bicycles: Protected Bike Lane
- Transit: Streetcar Compatible
- Travel Lanes: 3
- ▲ Parking: One Side

Implementation: Retrofit and Reconstruction

### Raised Median Examples:



■ More Space

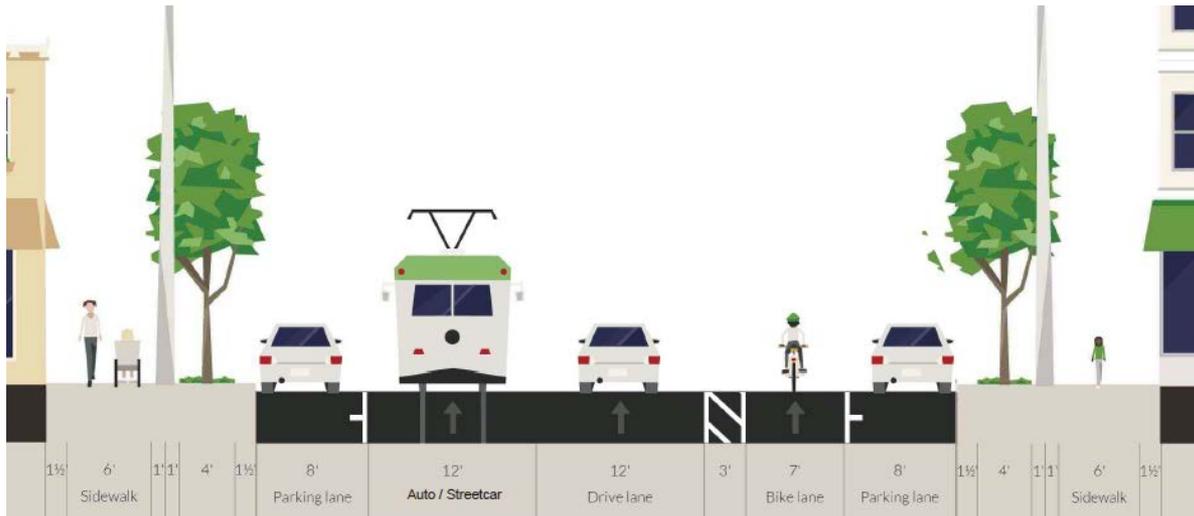
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# One-Way Concepts

## Concept 1-3 One-Way: Two-Lanes (Larger-Scale)



### Summary

- Pedestrian Realm: 15'
- Bicycles: Buffered Bike Lane
- Transit: Streetcar Compatible
- ▲ Travel Lanes: 2
- Parking: Both Sides
- Implementation: Reconstruction

### On-Street Buffer Example:



■ More Space

▲ Less Space

○ No Change

★ Varies

# One-Way Concepts

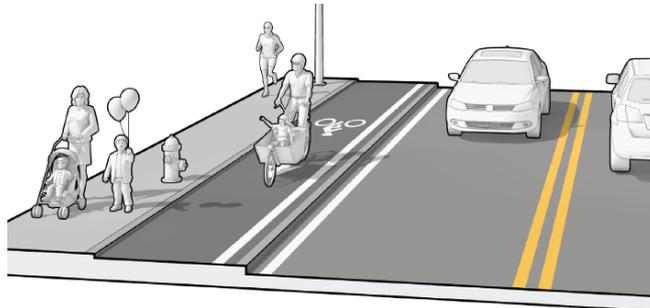
## Concept 1-4 One-Way: Three-Lanes (Larger-Scale)



### Summary

- Pedestrian Realm: 15'
- Bicycles: Protected Bike Lane
- Transit: Streetcar Compatible
- Travel Lanes: 3
- ▲ Parking: One Side
- Implementation: Reconstruction

### Raised Bike Lane Examples:



■ More Space

▲ Less Space

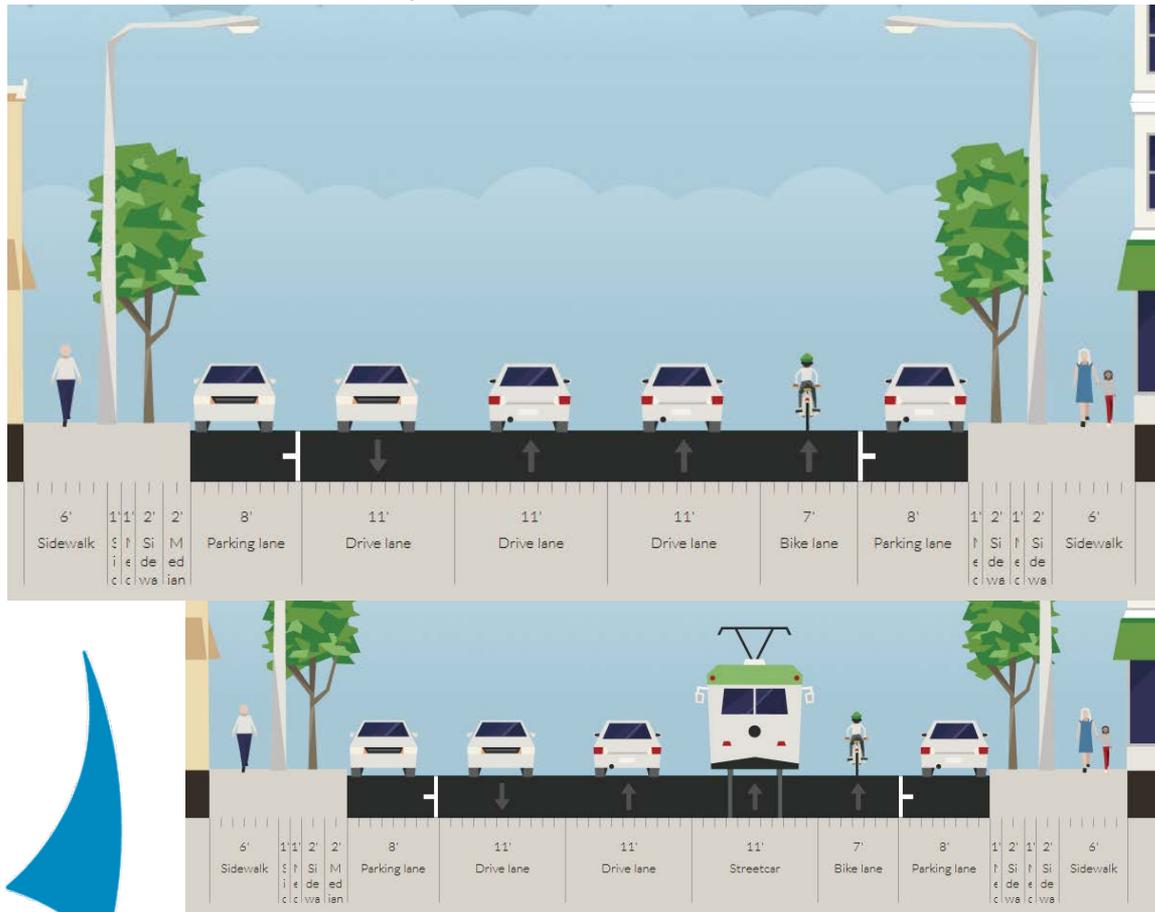
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# Two-Way Concepts

## 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

■ More Space

▲ Less Space

○ No Change

★ Varies

# Two-Way Concepts

## Concept 2-1B Two-Way: Three-Lanes (Larger-Scale)



### Summary

- Pedestrian Realm: 12'
- Bicycles: Protected Bike Lane
- Transit: Streetcar Compatible
- Travel Lanes: 3
- ▲ Parking: One Side
- Implementation: Reconstruction

### Planter-Protected Example:



■ More Space

▲ Less Space

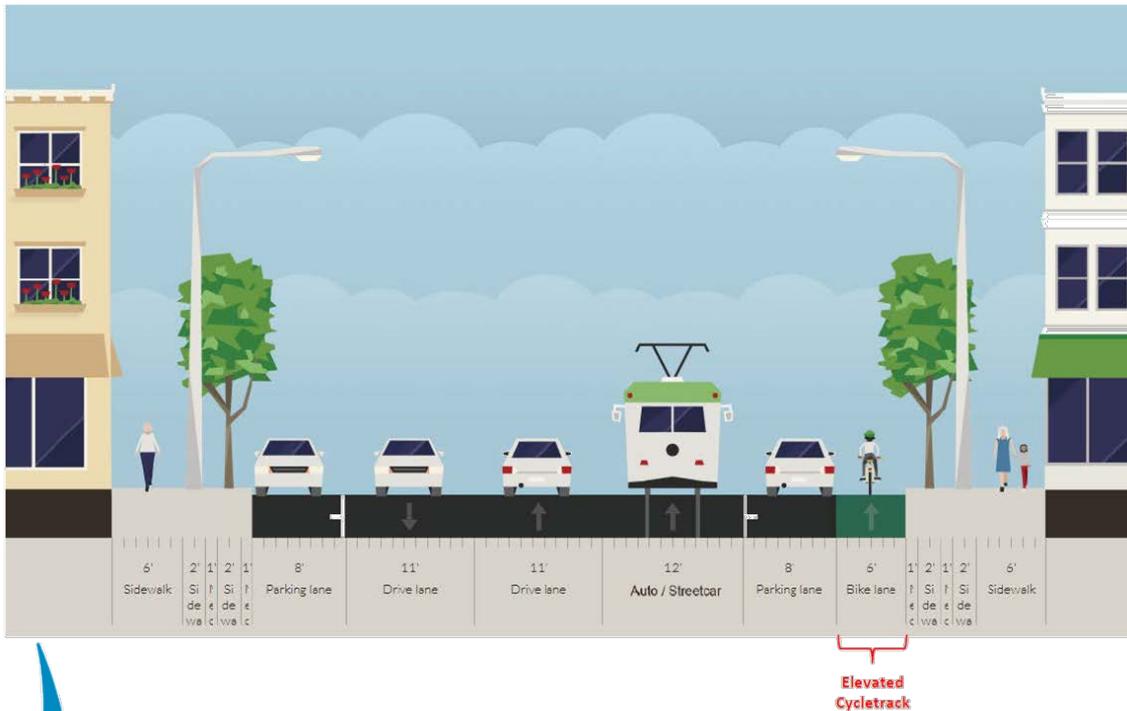
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# Two-Way Concepts

## Concept 2-1C

Two-Way: Three-Lanes (Larger-Scale)



### Summary

- Pedestrian Realm: 12'
- Bicycles: Protected Bike Lane
- Transit: Streetcar Compatible
- Travel Lanes: 3
- Parking: Both Side
- Implementation: Reconstruction

■ More Space

▲ Less Space

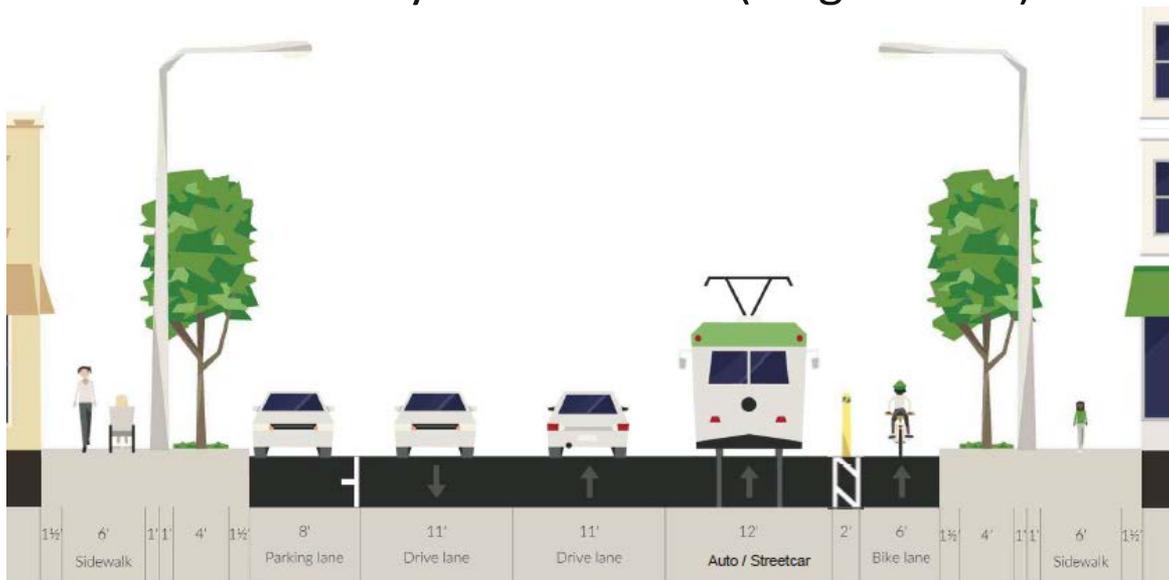
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# Two-Way Concepts

## Concept 2-2

Two-Way: Three-Lanes (Larger-Scale)



### Summary

- Pedestrian Realm: 15'
- Bicycles: Protected Bike Lane
- Transit: Streetcar Compatible
- Travel Lanes: 3
- ▲ Parking: One Side
- Implementation: Reconstruction



■ More Space

▲ Less Space

○ No Change

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# Next Steps

- Develop Corridor Alternatives
  - Prepare Configurations for Corridors
  - One-Way and Two Way Alternatives
- Detailed Evaluation and Summary
  - Conduct Detailed Traffic Analysis
  - Summarize Modal/ROW Accommodations
  - Document Pros and Cons

