

# City of Ann Arbor Jurisdictional Transfer Study

February 2024

# Agenda

1. Project Background
2. Background Research
3. Benefit-Cost Analysis
4. Overall Results
5. Next Steps
6. Discussion

# Project Background

- Four prominent corridors in Ann Arbor are state-owned
- 7.8 total centerline miles (17% within DDA)
- Current design prioritizes motor vehicle traffic
- Design contradicts city goals:
  - VMT Reduction
  - Carbon Neutrality
  - Vision Zero



# Project Background

## Jurisdictional Transfer

- Transfer ownership to the city
- Complete control of design and operations
- Potential to unlock changes that align with goals and yield benefits



# Project Background

## Background Research

- Policy and process review
- Funding implications
- Peer city interviews

## Benefit-Cost Analysis

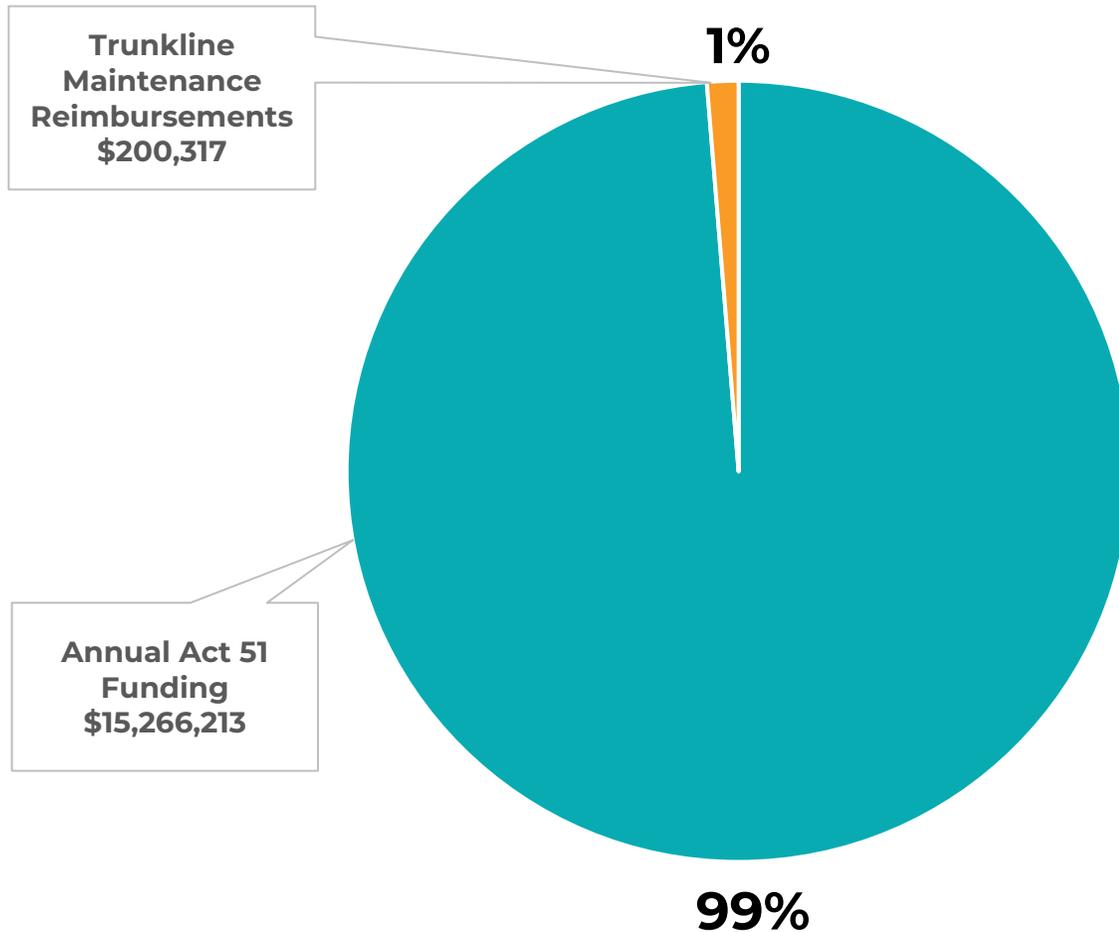
- Development of hypothetical concepts
- Quantitative benefits
- Costs
- Qualitative benefits

## Documentation

- Process overview
- Discussion of costs and benefits
- Summary of next steps

# Background Research

## MDOT Funding for Ann Arbor Roadways (2022)



- Jurisdictional transfer of trunklines would result in a reduction of annual maintenance reimbursement
- Reduction would account for ~1% of annual MDOT roadway funding
- City would be responsible for maintaining 2.5% more roadway mileage

# Benefit-Cost Analysis

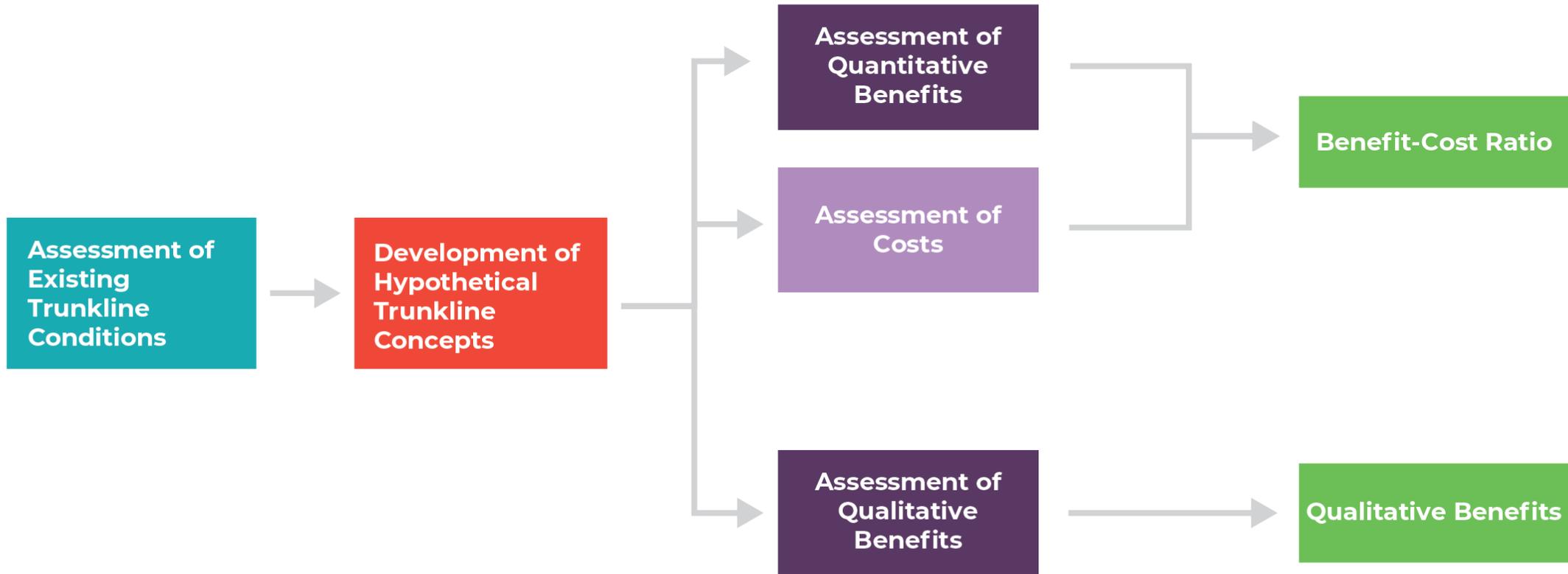
- Benefit-cost analysis was performed for six trunkline segments
- Analysis followed US Department of Transportation Benefit-Cost Analysis Guidance (2023) methodology
- Benefit-cost analysis aims to assess projects by quantifying and comparing benefits and costs in current dollars
- Once benefits and costs are quantified a benefit-cost ratio is calculated
- A benefit-cost ratio **greater than 1** indicates a project where benefits outweigh costs
- A benefit-cost ratio **less than 1** indicates a project where costs outweigh benefits

$$\text{Benefit Cost Ratio} = \frac{\text{Benefits (\$)}}{\text{Costs (\$)}}$$

## Segments

- N Main St  
(M-14 – Huron)
- Jackson Ave  
(I-94 – Huron)
- Huron St  
(Jackson – 1<sup>st</sup>)
- Huron St  
(1<sup>st</sup> – Washtenaw)
- Washtenaw Ave  
(Huron – E Stadium)
- Washtenaw Ave  
(E Stadium – US-23)

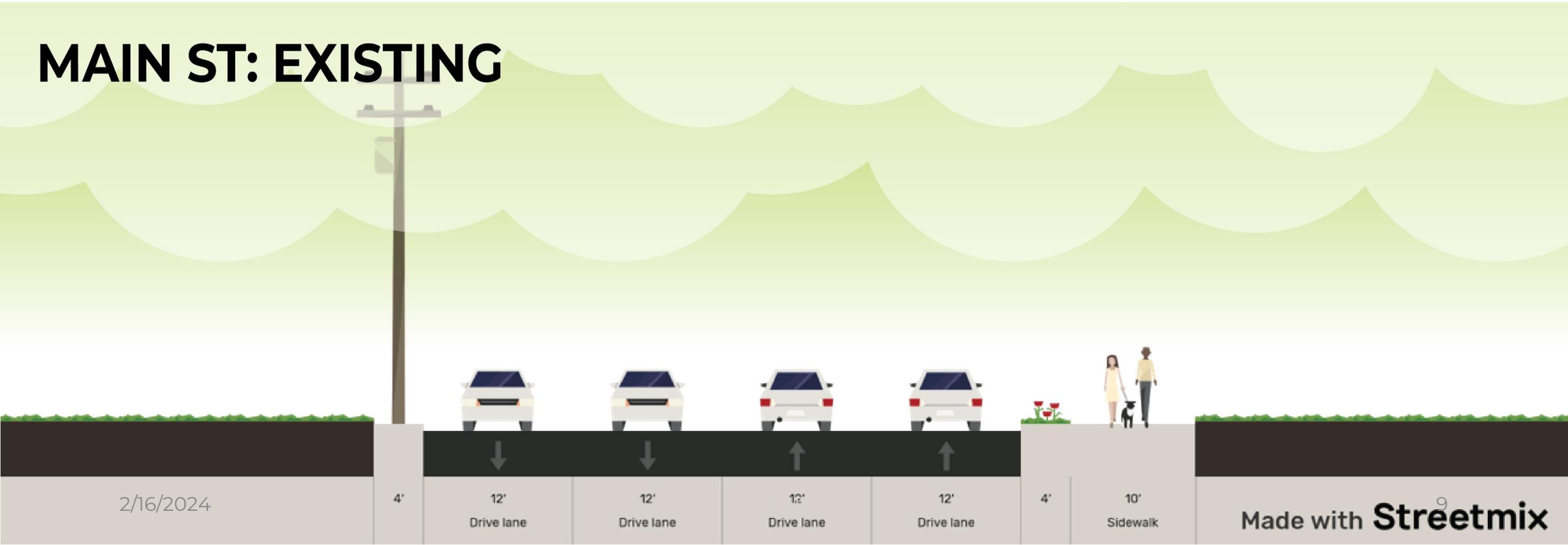
# Benefit-Cost Analysis – Flow Chart



# Benefit-Cost Analysis

## Assessment of Existing Trunkline Conditions

### MAIN ST: EXISTING



2/16/2024

4'

12'

Drive lane

12'

Drive lane

12'

Drive lane

12'

Drive lane

4'

10'

Sidewalk

Made with **Streetmix**

# Benefit-Cost Analysis

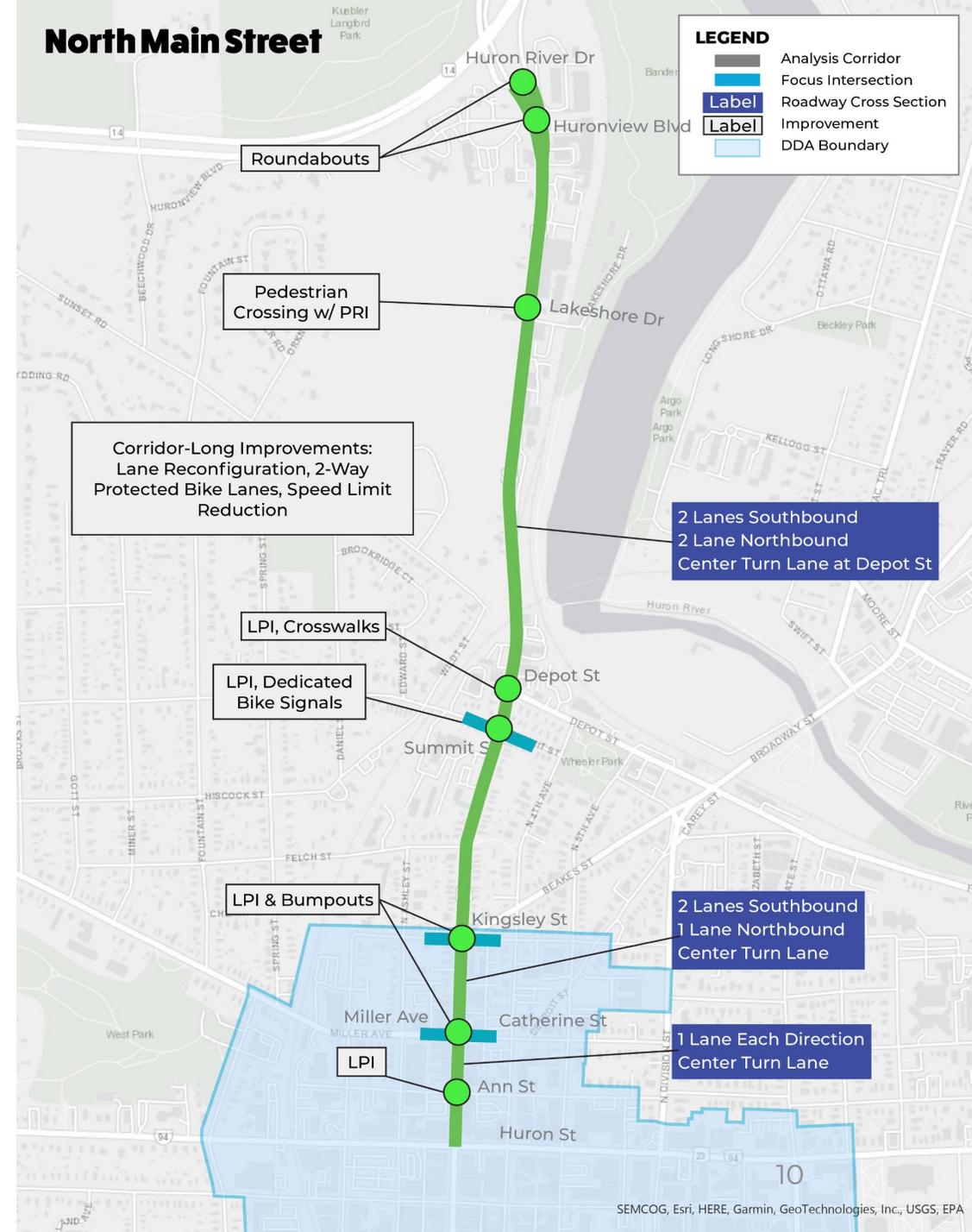
## Hypothetical Trunkline Concept

### *N. Main Street Improvements*

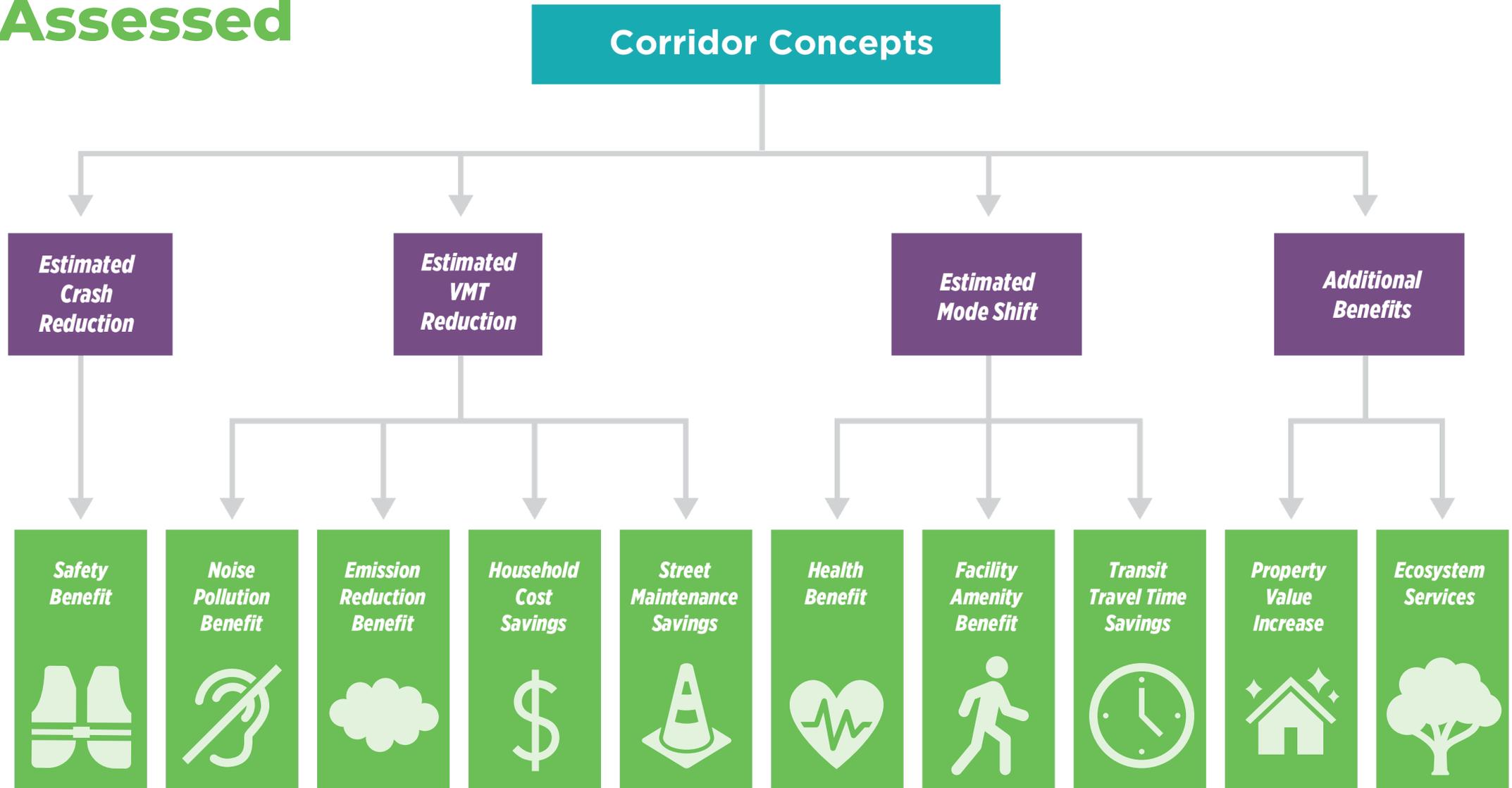
- Lane reconfiguration w/ 2-way protected bike lanes
- Speed limit reduction
- Leading pedestrian intervals
- Marked crossing with pedestrian refuge island
- Bumpouts
- Roundabouts

### *Other Segments Improvements*

- Dedicated bus lanes
- Bus signal prioritization
- Hardened centerline



# Benefits Assessed



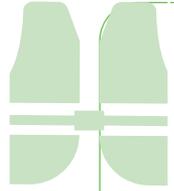
*\*Note: project scope did not include modeling, and potential disbenefits of private vehicle delay were not included.*

# Benefits Recipients

While the BCA monetizes benefits, most are not direct monetary benefits to the City.

Benefit	Direct Monetary Benefit to the City	Indirect Monetary Benefit to the City	Public Benefit
Safety Benefit		✓	✓
Emissions Reduction			✓
Noise Reduction Benefit			✓
Facility Amenity Benefit		✓	✓
Transit Travel Time Savings		✓	✓
Health Benefits		✓	✓
Household Cost Savings		✓	✓
Street Maintenance Savings	✓		
Property Values		✓	✓
Ecosystem Services			✓

# Benefit-Cost Analysis



Safety Benefit | **\$16.5M**  
Lane Reconfiguration, roundabouts



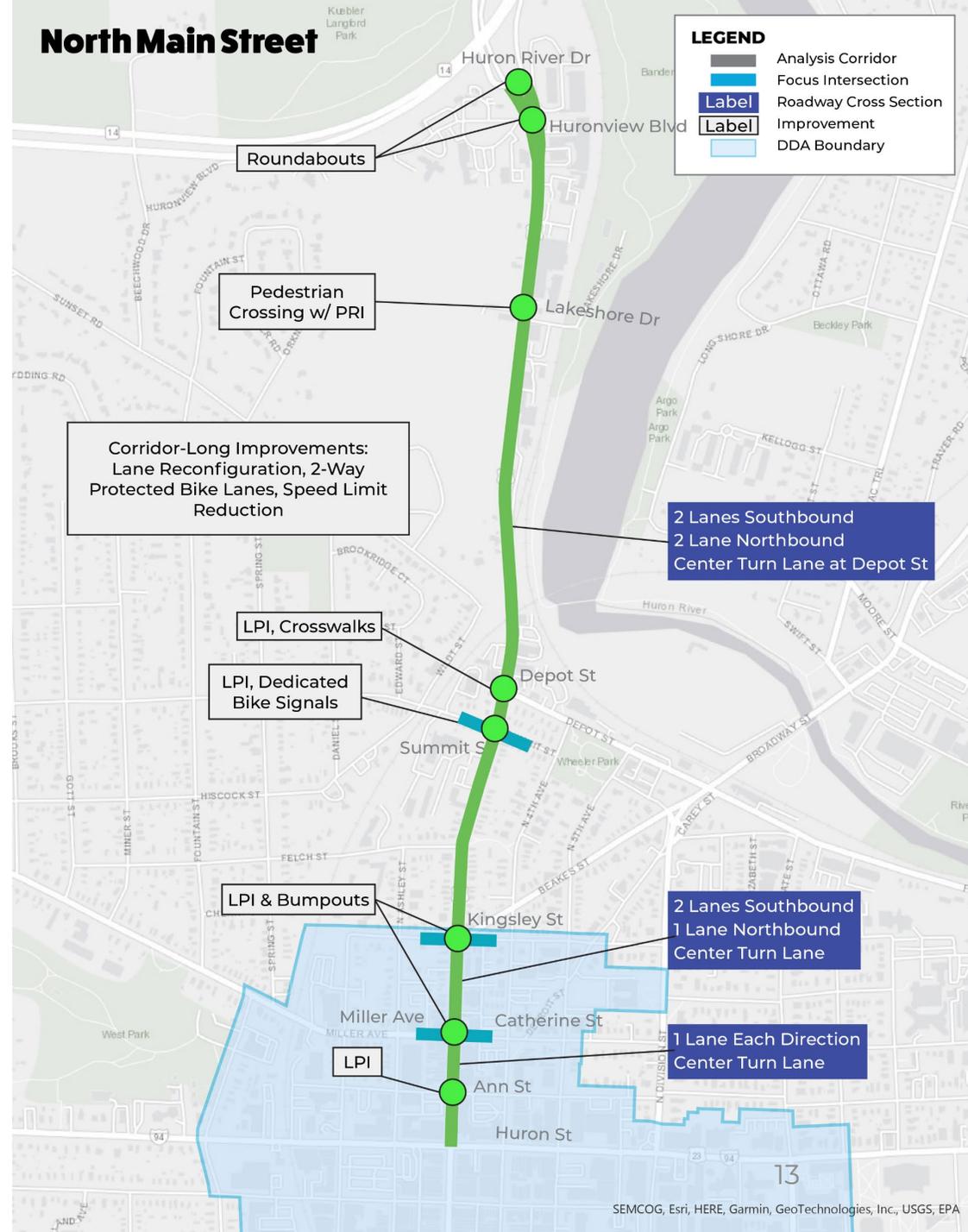
Health Benefit | **\$1.9M**  
Protected bike lanes, sidewalk infill



Facility Amenity Benefit | **\$1.0M**  
Added crosswalk, protected bike lanes, pedestrian crossing w/ PRI



Household Cost Savings | **\$0.1M**  
Protected bike lanes, sidewalk infill

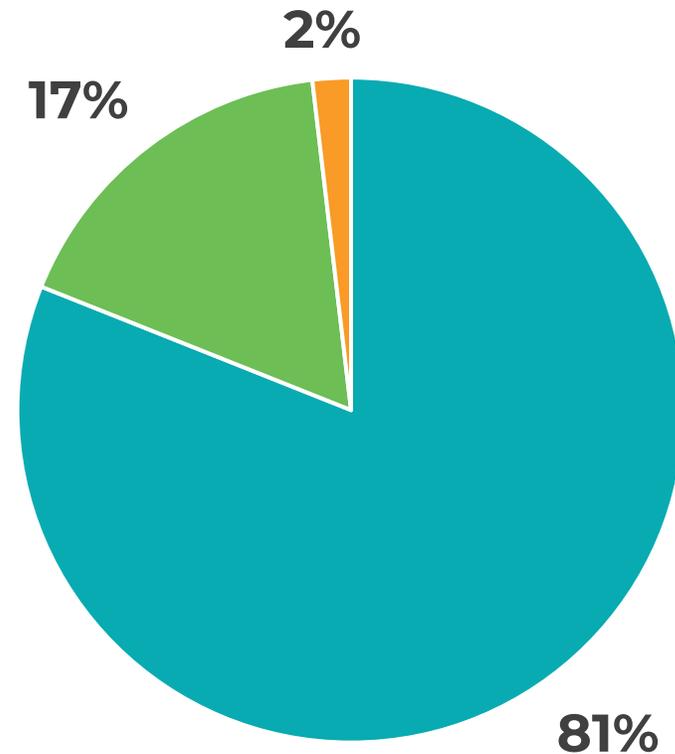


# Benefit-Cost Analysis

## Costs Estimates



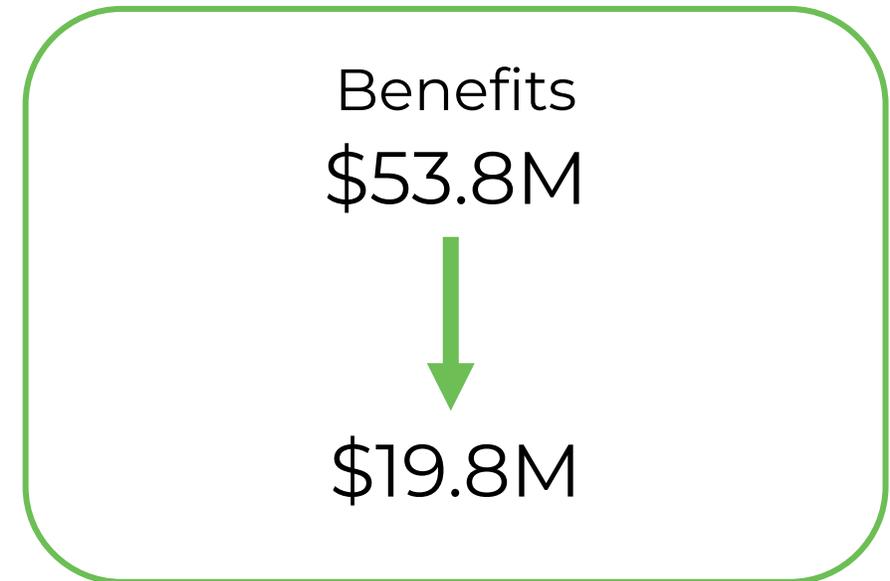
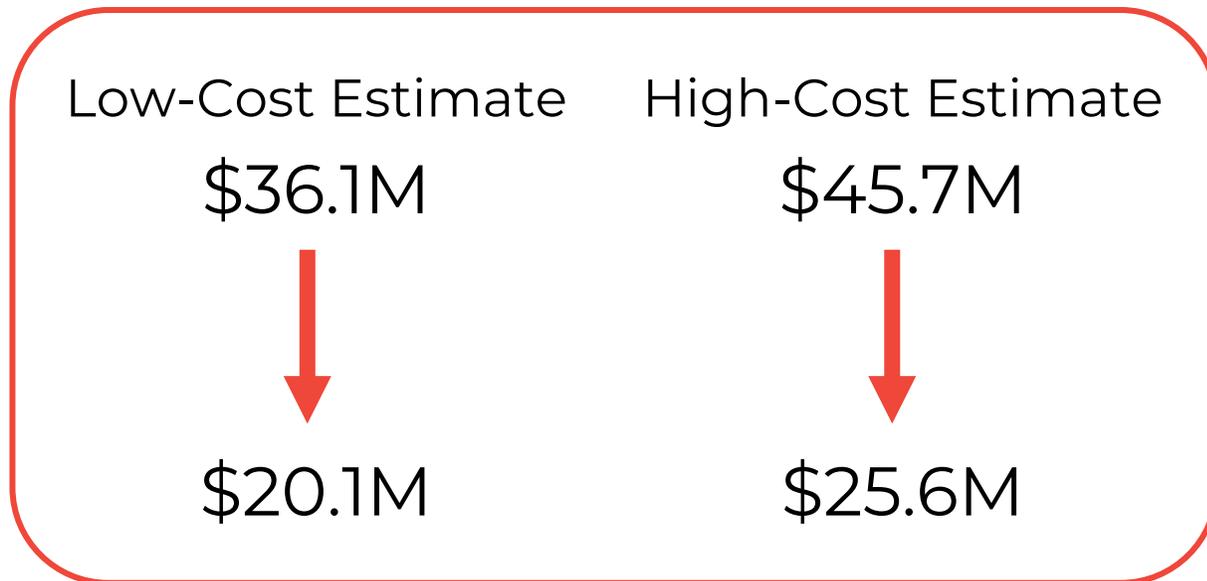
N. Main St Cost Shares



# Benefit-Cost Analysis

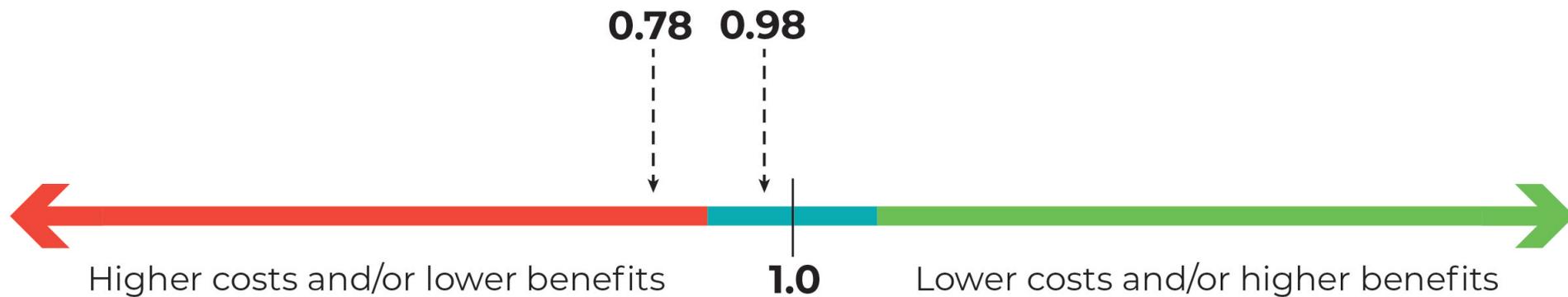
## Cost and Benefit Discounting

- All costs and benefits must be brought down to a base year to make an apples-to-apples comparison.
- USDOT guidance is for 7% annual discount to 2021 \$s.



# Benefit-Cost Analysis

## N. Main St. Benefit-Cost Ratio



# Overall Results

## Benefit-Cost Ratio by Segment

Segment	Benefit-Cost Ratio (Low-Cost)	Benefit-Cost Ratio (High-Cost)
N Main St (M-14 – Huron)	0.98	0.78
Jackson Ave (I-94 – Huron)	0.02	0.01
Huron St (Jackson – 1 <sup>st</sup> )	1.88	1.50
Huron St (1 <sup>st</sup> – Washtenaw)	2.03	1.61
Washtenaw Ave (Huron – E Stadium)	1.55	1.23
Washtenaw Ave (E Stadium – US-23)	1.23	0.97

# Recent Examples

- Interviewed Kalamazoo and Grand Rapids
- Terms of jurisdictional transfer can vary widely depending on MOU
- Both cities are happy with the decision despite the costs

	Kalamazoo	Grand Rapids
<b>Year of Transfer</b>	2019	2017
<b>Assets Transferred</b>	Roadways	Roadways, Parcels for Development
<b>Mileage Transferred</b>	12.5 miles	3.6 miles
<b>State of Good Repair Payment from MDOT</b>	\$11,690,000	\$2,414,000 (\$340,000 in cash value & \$2,073,000 in appraised land value)
<b>State of Good Repair Requirement</b>	10 years	5 years
<b>Motivation</b>	Transit, Bicycle, and Pedestrian Safety Improvements, Enhanced Connectivity	Economic Development, Transit, Bicycle, and Pedestrian Safety Improvements, Enhanced Connectivity

# Next Steps

1. Council direction on jurisdictional transfer
  - If “proceed”, continue to 2
2. Approach MDOT with a proposal
  - Request \$82M for 5-year state of good repair funds\*
3. Negotiate with MDOT
  - Both parties must agree on necessary capital improvements before transfer can occur
4. Draft a Memorandum of Understanding (MOU)
  - Documents all conditions of the transfer
5. Pass resolution in City Council to accept terms of MOU
6. Finalize and sign MOU
7. Complete Transfer

*\*State of good repair estimate, not included benefit-cost analysis cost estimates*

# State of Good Repair Estimate

- Estimates for Jackson, Huron, and Washtenaw follow MDOT 23-26 TIP Milling and One Course or Two Course Asphalt Overlay
- Estimate for N. Main uses existing MDOT cost estimate of \$21.6 plus added design, construction and inspection costs
  - N. Main was an existing programmed street for the state
- Cost estimates are meant to serve as a starting point for negotiations with MDOT

Corridor	Lane Miles	Treatment Type	Cost (\$/Lane Mile)	Total Cost
N Main	5.24	Reconstruct	--	\$30,800,000
Jackson: I-94 to Huron	3.76	Resurface	\$ 600 k	\$3,478,000
Huron: Jackson to 1st	3.00	Resurface	\$ 600 k	\$2,775,000
Huron: 1st to N Main	0.65	Resurface	\$ 600 k	\$601,000
Huron: N Main Street to Division	1.20	Rehabilitate	\$ 1.5 M	\$2,775,000
Huron: Division to Washtenaw	2.12	Rehabilitate	\$ 1.5 M	\$4,903,000
Washtenaw: Huron to Stadium	7.84	Rehabilitate	\$ 1.5 M	\$18,132,000
Washtenaw: Stadium - US 23	8.05	Rehabilitate	\$ 1.5 M	\$18,618,000
<b>Total</b>				<b>\$82,083,000</b>

\* All costs include 3% inflation escalation to 2028 \$s

# State of Good Repair Impact on BCA

- Benefit-cost analysis is blind to who is responsible for the costs
- If the potential dollars received from MDOT are included as a negative cost the adjusted B/C are shown to the right.

Segment	Adjusted Benefit-Cost Ratio (High-Cost)
N Main St (M-14 – Huron)	3.94
Jackson Ave (I-94 – Huron)	0.02
Huron St (Jackson – 1 <sup>st</sup> )	2.38
Huron St (1 <sup>st</sup> – Washtenaw)	2.55
Washtenaw Ave (Huron – E Stadium)	1.98
Washtenaw Ave (E Stadium – US-23)	1.51

# Qualitative Considerations

- City would have complete control over roadway design, maintenance, operations and function.
- Potential changes would move Ann Arbor closer to Vision Zero, VMT reduction and carbon neutrality goals.

- Jurisdictional transfer and streetscape improvements come at real costs.
- These costs include both Initial capital costs and ongoing costs/responsibility to maintain



Thank You

Q & A

February 2024