State Street Corridor Transportation Study

Presentation to:
Ann Arbor Transportation Commission
May 9, 2018

S. State Street Transportation Plan

- Planning Process Overview
  - Project Goals
  - Alternatives Considered
  - Evaluation
- Recommended Plan
  - Key Design Features
  - Operations
- Next Steps

PROJECT GOALS


Safety: Provide safe conditions for all travelers


Entry: Create a more attractive entry to the city


Pedestrians: Improve conditions for pedestrians along/across State St


Bicycles: Provide a safe place for bicyclists separate from travel lanes


Transit: Enhance transit conditions through traffic flow, stop accessibility


Vehicles: Maintain reasonable traffic operations along the corridor


Land Use: Support planned land use described in S. State St. Corridor Plan

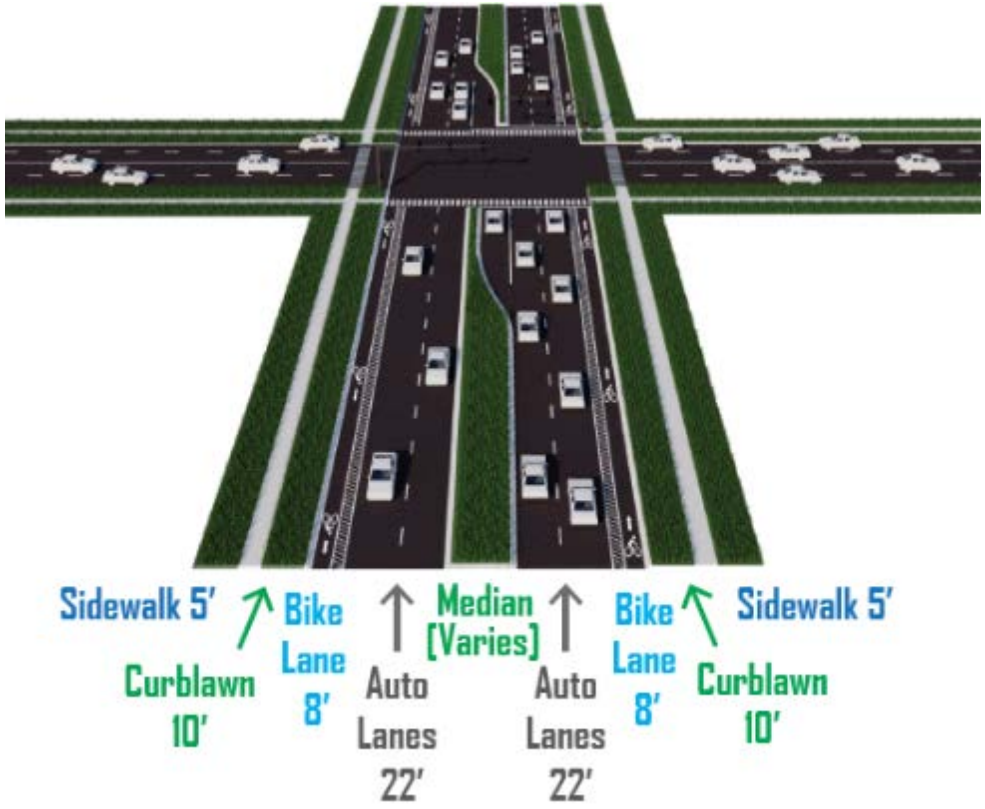

Access: Ease accessibility of corridor businesses

Alternatives Considered

- Alternative 1: Narrow Median with Direct Left Turns
- Alternative 2: Narrow Median with Roundabout Intersections
- Alternative 3: Wide Median with Indirect (“Michigan”) Left Turns

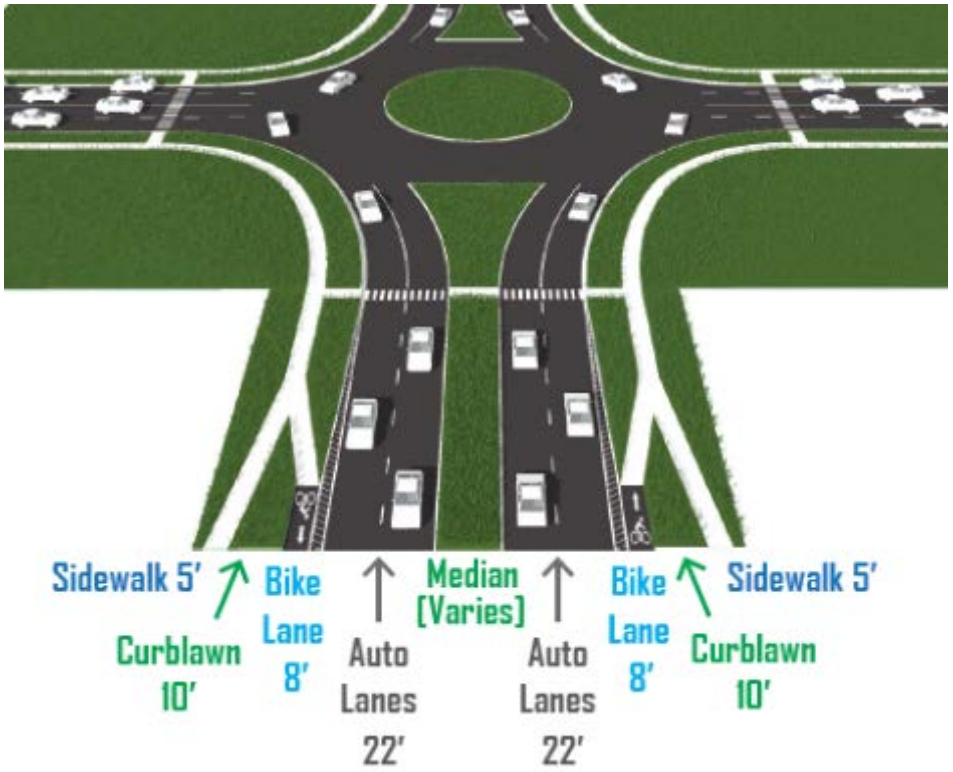
Alternative 1 - Narrow Median

- Direct left-turns
- No u-turns
- Plantable median space



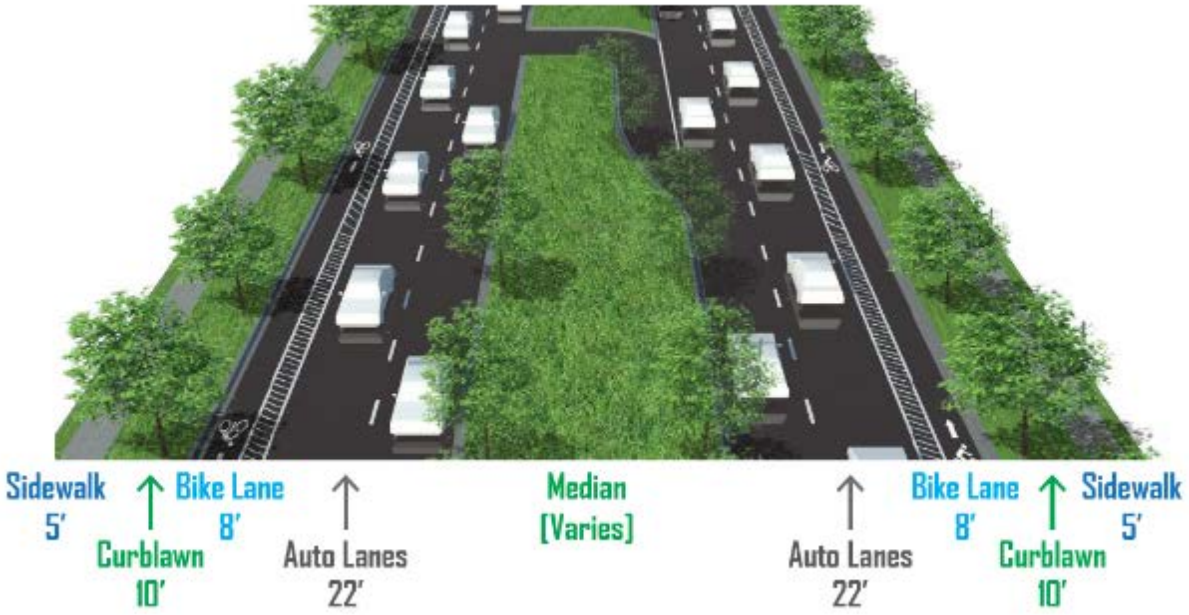
ALTERNATIVE 2 - ROUNDABOUTS

- Roundabout intersections
- Plantable narrow median space

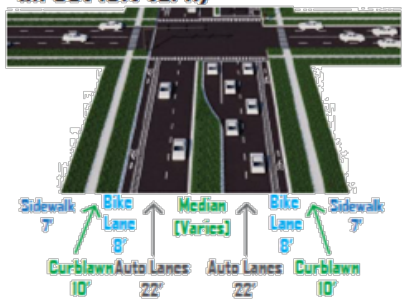
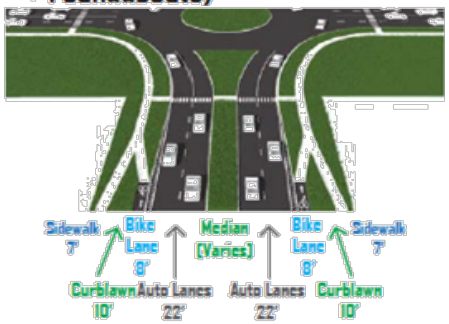
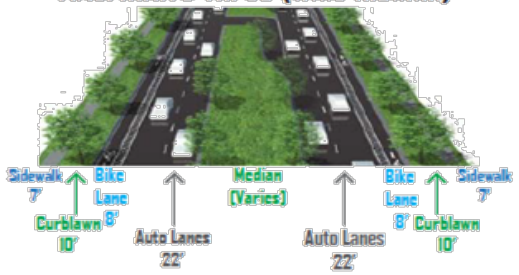


Alternative 3 – Wide Median

- Indirect ("Michigan") left turns
- Plantable wide median space



ALTERNATIVE SCORING

	SAFETY	ENTRY	PEDESTRIANS	BICYLES	TRANSIT	LAND USE	VEHICLES	ACCESS
Alternative One (narrow median + direct left turn) 	⊖	⊕	⊕	⊕	⊕	⊕	⊖	⊕
Alternative Two (narrow median + roundabouts) 	⊕	⊕	⊕	⊕	⊖	⊕	⊖	⊕
Alternative Three (wide median) 	⊕	⊕	⊕	⊕	⊕	⊖	⊖	⊕

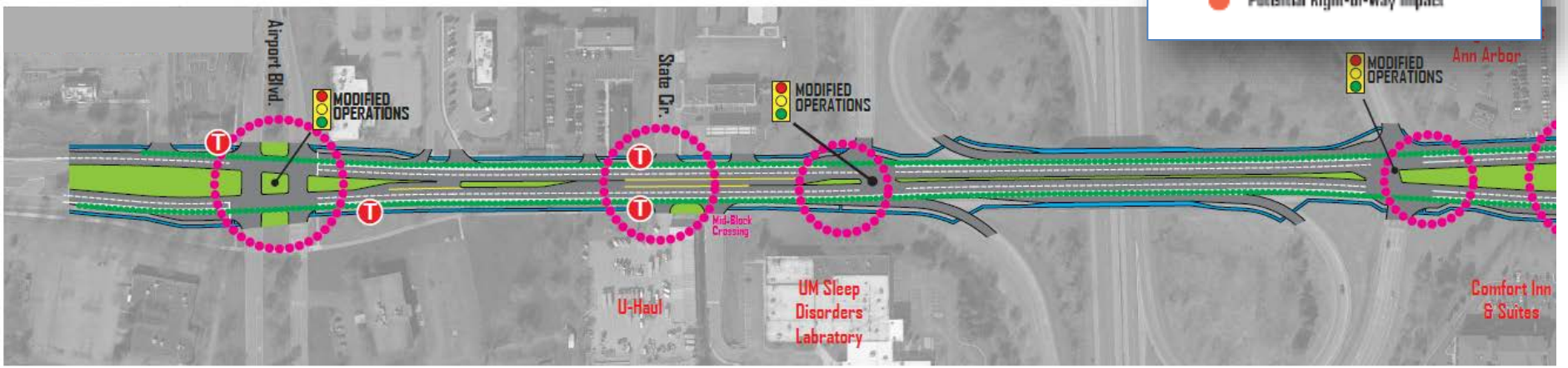
Scoring Guide: ⊕ BEST; ⊕ BETTER THAN EXISTING; ⊖ SIMILAR TO EXISTING; ⊖ WORSE THAN EXISTING

Recommended Plan

- A hybrid solution drawing from narrow and wide median alternatives
- Common non-motorized elements throughout the corridor:
  - Buffered bike lanes
    - Bike lane configuration across I-94 similar to Ann Arbor-Saline Road
  - Continuous sidewalks along entire corridor
  - Additional pedestrian crossings

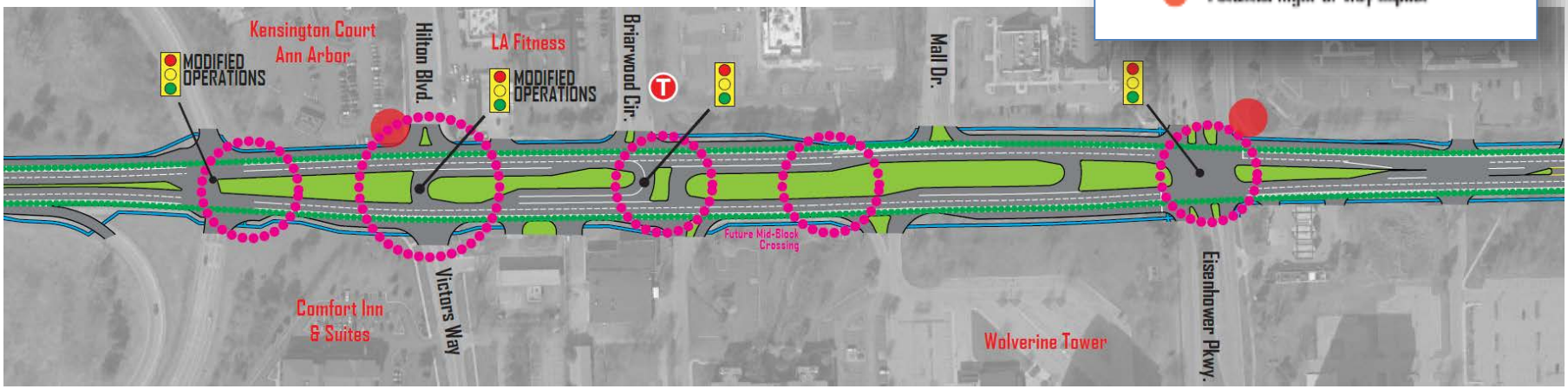
State Street - Recommended Plan
South of I-94

- All indirect left turns at Airport/Research diverted to east and west crossovers
- Geometric improvements to discourage direct left turns at Airport/Research
- Desired potential mid-block crossing near State Circle, coinciding with transit stops
- Full signalization of ramp intersections (both directions of State Street stop)



State Street – Recommended Plan
North of I-94

- Indirect left-turns; accommodates all driveway movements
- Addition of two traffic signals; split direction signals minimize impact on State St.
- New pedestrian crossings:
  - Briarwood Circle
  - Hilton/Victors
  - I-94 WB Ramps
  - Potential for additional mid-block crossing south of Mall Drive



Recommended Plan Improvements

Goal	Feature	No-Build Condition	Recommended Alternative
	Bike lanes and sidewalks along full corridor	NO	YES
	Number of pedestrian crossing points	2	8
	Number of left-turns requiring merging or yielding in the median	6	0
	Left-turn access to/from side streets and major driveways between I-94 and Eisenhower (% of possible movements)	50% (6 of 12)	92% (11 of 12)
	Median treatment north of I-94	Paved	Landscaped, with potential to incorporate water absorption/rain garden features
	Total end-to-end peak travel time along State Street ***(non-peak will be minimally affected)***		
	AM Northbound	4-5 minutes	5-7 minutes
	PM Southbound	4-5 minutes	4-6 minutes

Vehicle Safety Improvements

Location	5-Year Crashes	Crash Reduction From	Estimated Crash Reduction Potential
State St between I-94 EB and WB Ramps	24	Elimination of left-hand merging movements	90%
State St at Hilton/Victors Way	128	Removing direct left turn, adding signalization	40%
State St at Mall Dr	27	Removing direct left turn, adding signalization	60%

Cost Estimate

ITEM	COST
Roadway Removal and Construction	$22,550,000
Bridge Deck Replacement	$9,450,000
Signage and Operational Improvements	$100,000
TOTAL (City Costs)	**$32,100,000**

Note: preliminary design-level cost estimate, includes 20% contingency.

Next Steps

- Include in City's CIP – priority and funding
- Secure funding – federal, state, local
- Incorporate in the Transportation Improvement Program (TIP)
- Conduct final design and construction

THANK YOU

- Questions
- For more information:

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