Napier Corridor

Pedestrian and Bicycle Feasibility and Conceptual Engineering Plan

Southwest Michigan Planning Commission
July 20, 2017

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01

Intro and Project Team

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Today's Presenters

Jeromie
Winsor, AICP

Project Manager
AECOM

Josh
Bocks, MBA

Deputy Project Manager
AECOM

Lynee
Wells, AICP

Public Engagement
Williams&Works

Hank
Kelley, AICP

Planning & Analysis
AECOM

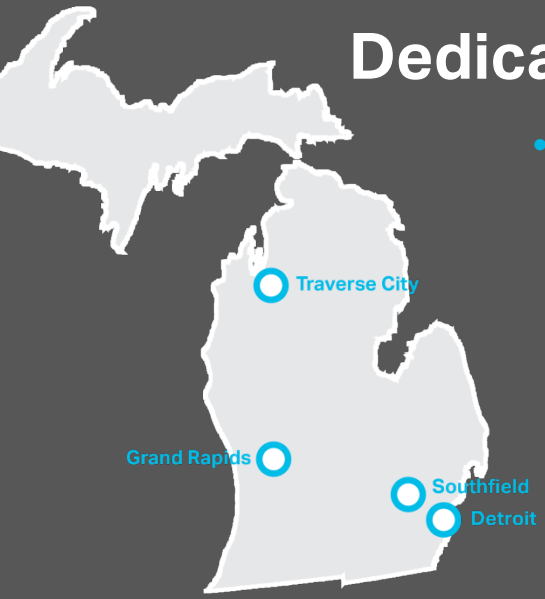
Jen
Byle, PE

Conceptual Design
AECOM

Phil
Vogelsang, PE

Design Engineering
AECOM

About AECOM



Dedicated, Local Staff

- Key Capabilities
  - Corridor Planning
  - Public and Stakeholder Outreach
  - Roadway and Traffic Analysis
  - Non-Motorized Planning and Analysis
  - Transit Planning and Analysis
  - GIS and Mapping

2017 ENR Ranking

#1	Design Firm
#1	Transportation
#1	Highways
#2	Bridges
#1	Mass Transit + Rail
#1	Airports
#1	Marine + Port Facilities

2016 Revenue $ MIL (global)

Supporting Team Members

williams&works
engineers | surveyors | planners

- Frequent collaborator with AECOM
- Local planning and outreach experience
- Dynamic engagement approaches

- Nationwide aerial photography and digital mapping products
- Long-standing relationship, successful delivery on other projects
- Investment in new technology

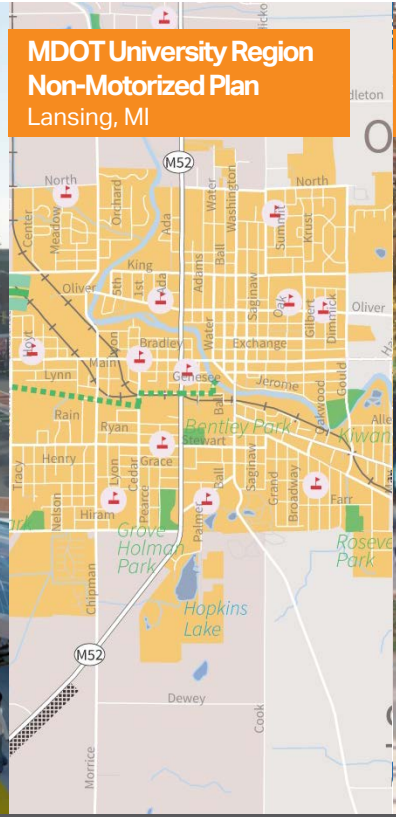
Our Experience

Successfully delivering similar planning projects

KATS Pedestrian Greenway & Transit Plan
Kalamazoo

I-94 Huron St. Crossing
Ypsilanti, MI

RTA Michigan Ave. Transit Corridor Study
Detroit, MI



MDOT University Region Non-Motorized Plan
Lansing, MI

Laker Line BRT A/E Services
Grand Rapids, MI

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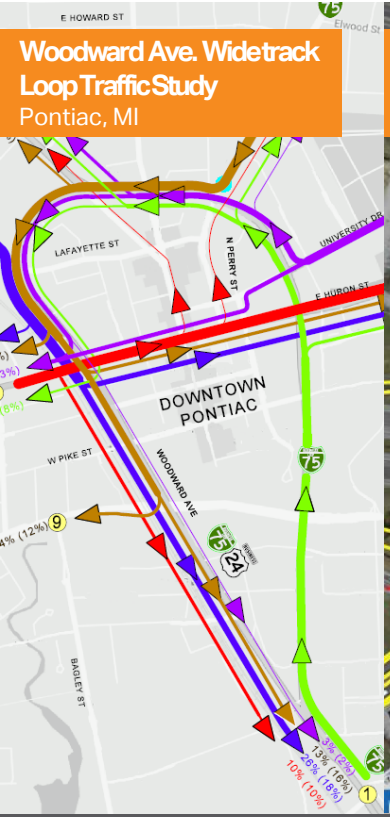
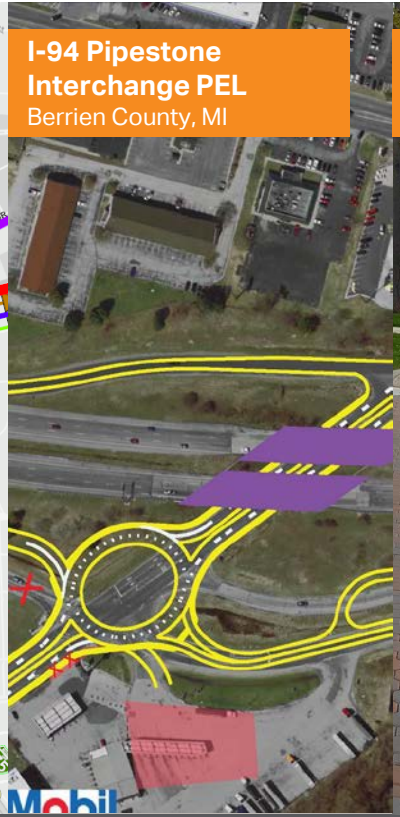
Our Experience

Successfully delivering similar design projects



Woodward Ave. Widetrack Loop Traffic Study
Pontiac, MI



I-94 Pipestone Interchange PEL
Berrien County, MI

9th St. Water, Sewer, Snowmelt Project
Holland, MI

M6 Non-Motorized Path, Kent to Paul Henry Trails
Kent County, MI

2-way St. Conversion
Jackson, MI

02

Project Understanding

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Project Elements

Documenting the Need

Multi-Modal Thinking

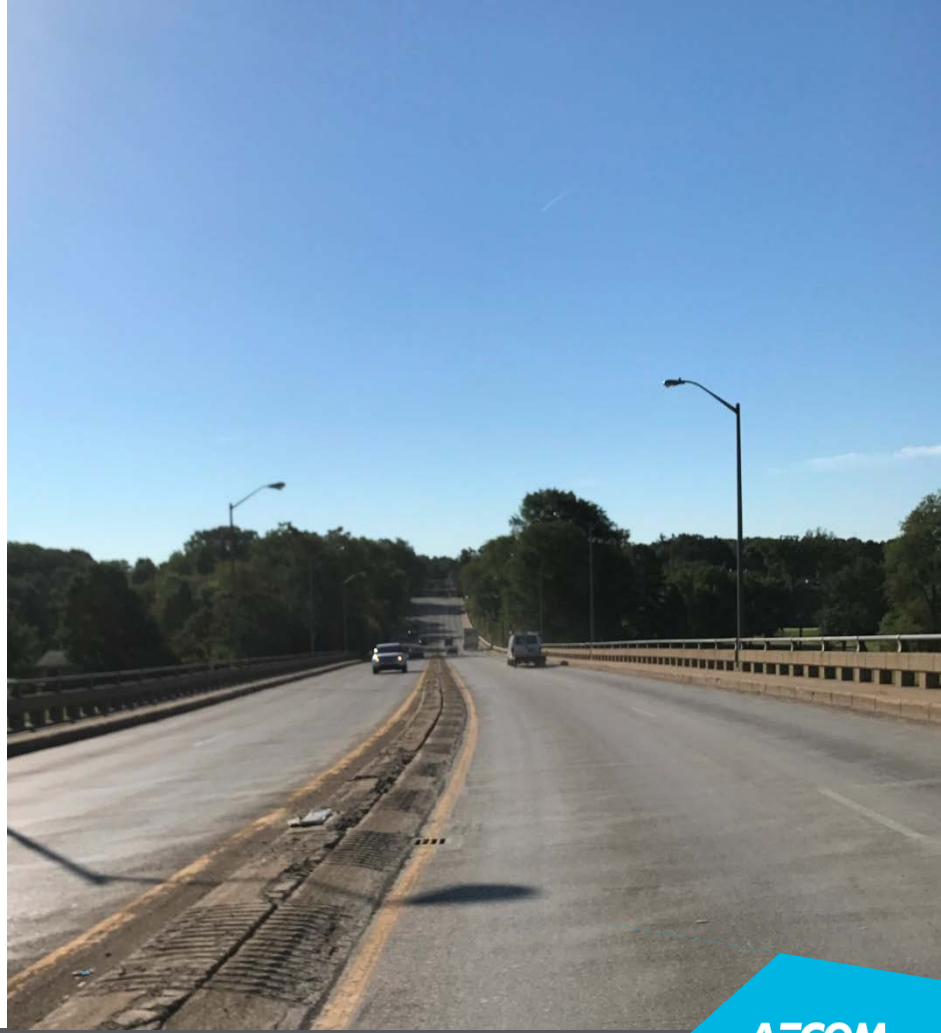
Feasibility & Constructability

Engaging Stakeholders

Project Schedule

Documenting the Need

- Understand vehicular travel patterns
- Review non-motorized travel needs on Napier and adjacent areas
- Link to larger community needs for economic sustainability and equity
- Identify major safety concerns
- Understand access barriers for transit dependent residents



Multi-Modal Thinking

- Lack of continuous sidewalks, bike lanes and trails
- Limited fixed route transit along Napier
- Many serious non-motorized injuries and fatalities
- Improvements to walking / biking safety prepares for future transit
- Embrace “Complete Street” approach

Feasibility & Constructability

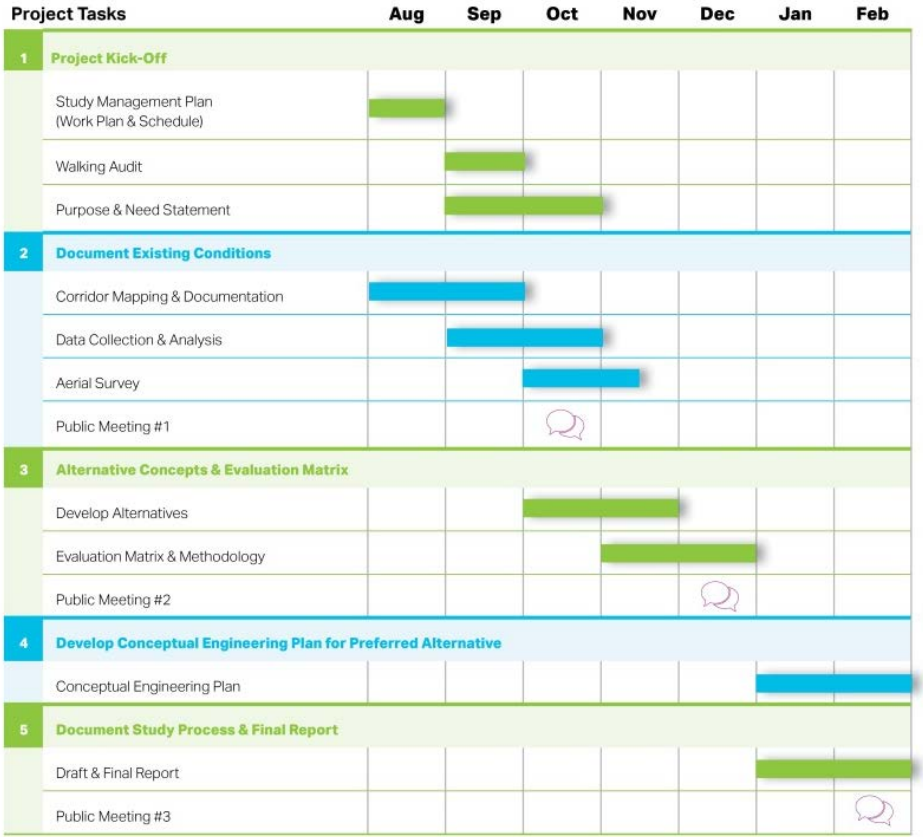
- Understanding of design standards
- Understanding of funding options
- Preferred alternative developed from the ground up as a feasible, constructible plan

Engaging Stakeholders

- Regular public and community input
- The AECOM Team will work with SWMPC and the project steering committee
- Sequence of outreach that informs and engages
- Focus on education and gaining public input
- Identify a range of alternatives and evaluation criteria

Project Schedule

- Public Engagement Throughout
- On Budget, On time
- Seven Month Timeframe



03

Approach Overview | Public Engagement

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WALK THE TALK

Community Engagement

Respect the past

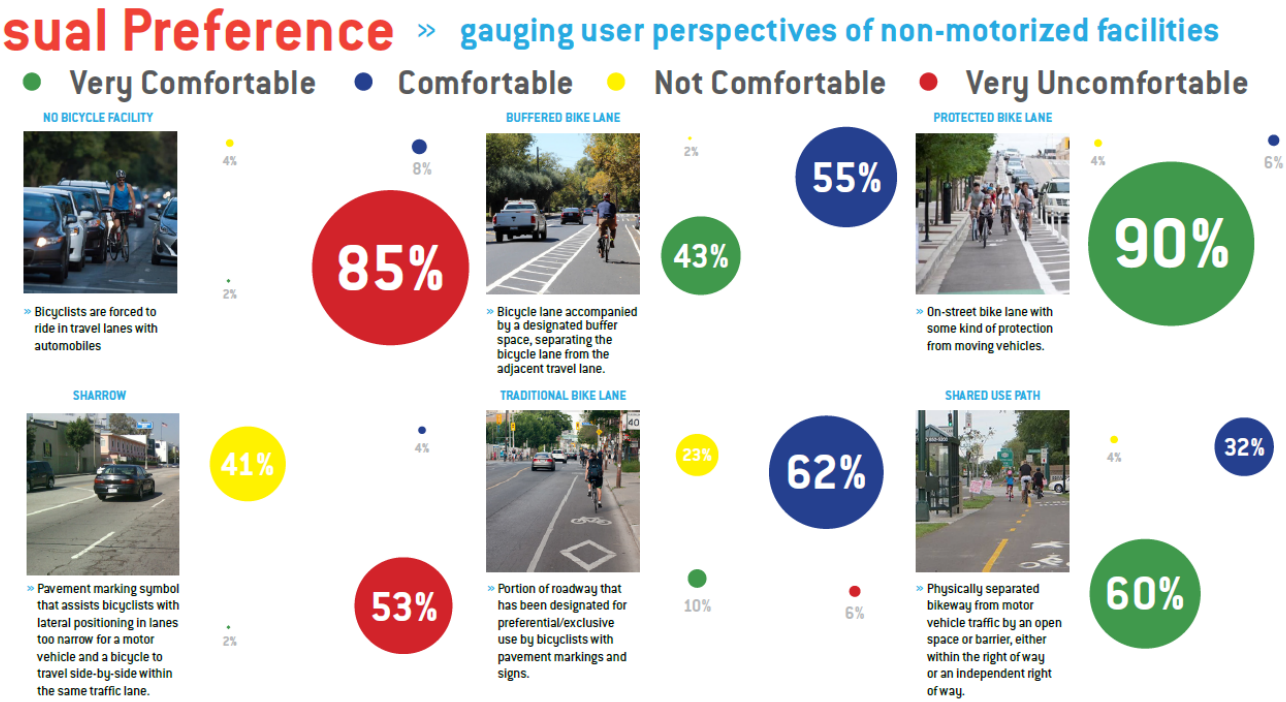
Community Engagement

Low-tech/High touch

Community Engagement

Many hands, many voices

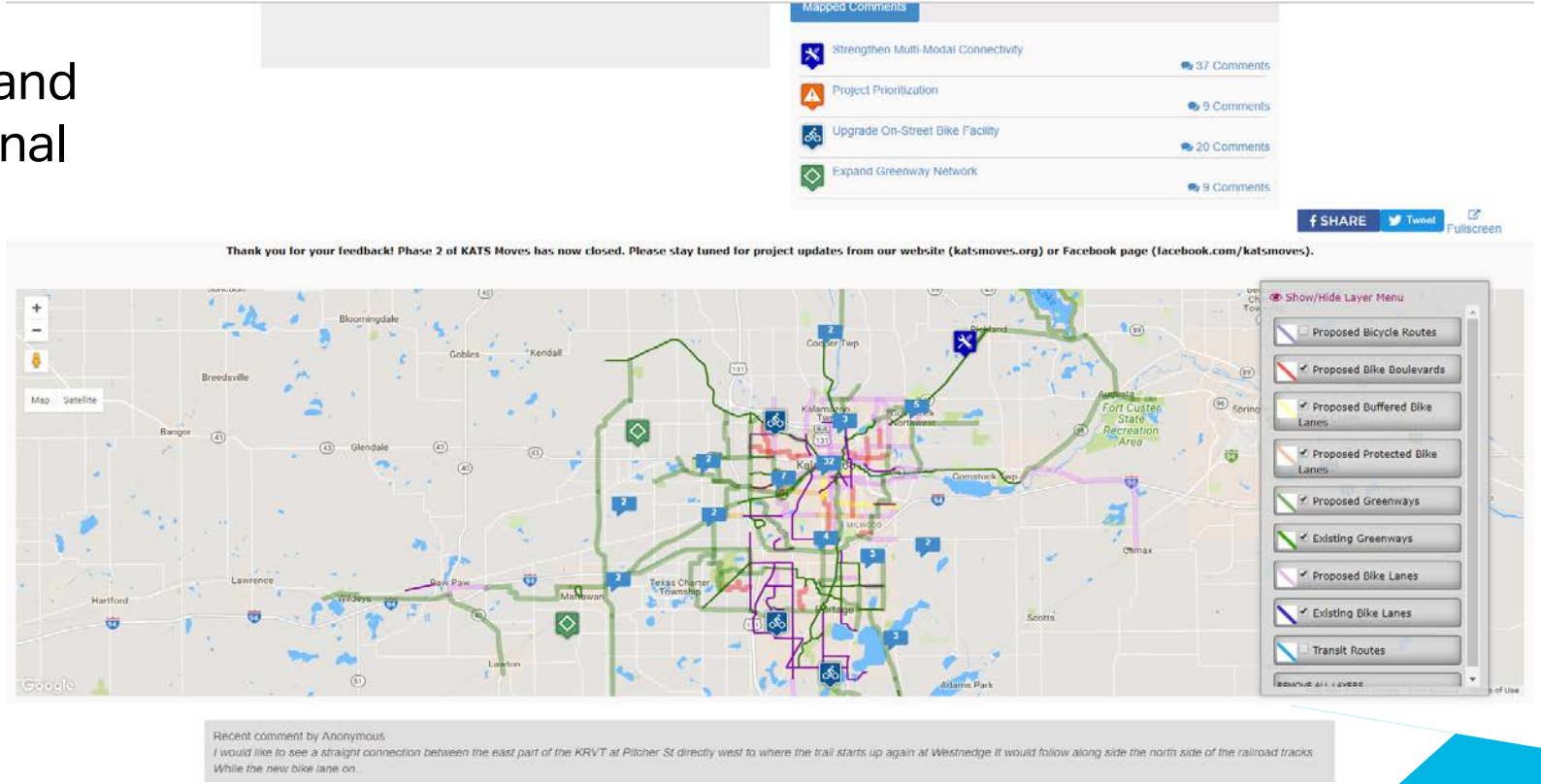
Online / Other Engagement



Graphics-rich

Online / Other Engagement

Digital and traditional



04

Approach Overview | Planning & Analysis

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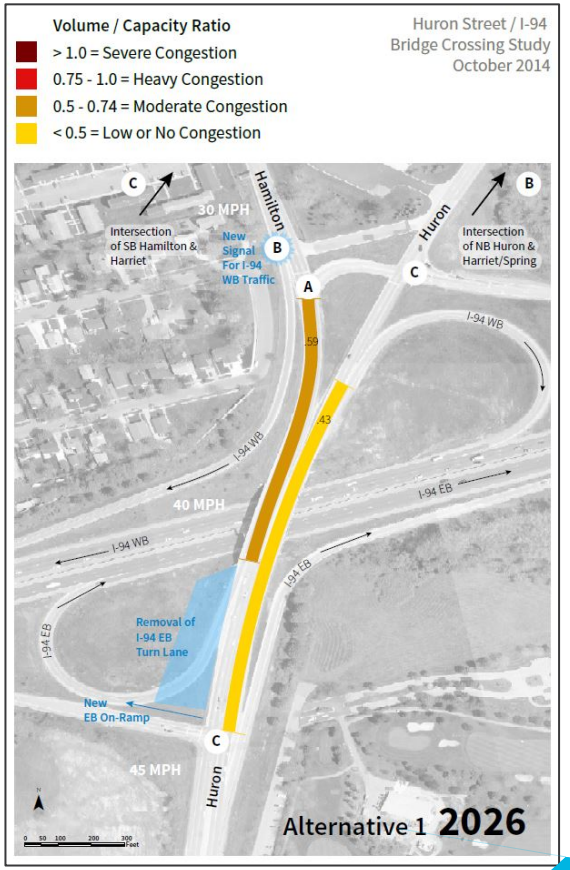
Corridor Mapping & Data Collection

- Detailed mapping supports analysis, decision-making, development of alternatives and public outreach
- Example maps:
  - ✓ Demographics
  - ✓ Transportation facilities
  - ✓ Crash locations
  - ✓ Land use
  - ✓ Walkability audit data



Walkability Audit

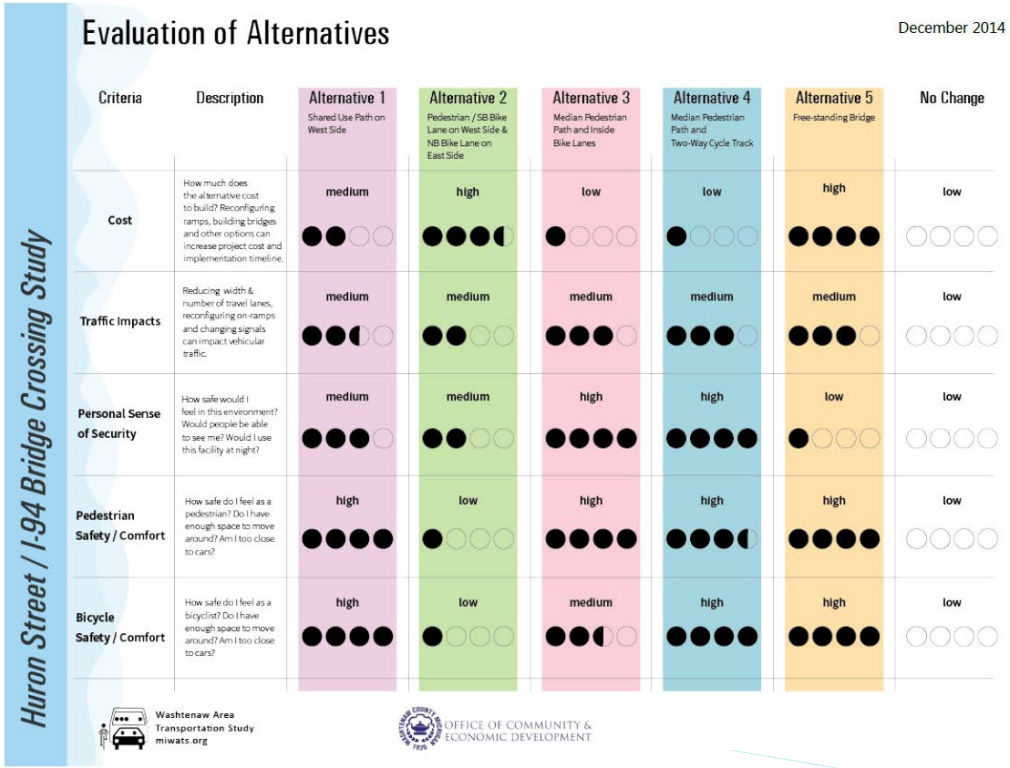
- Core component of existing conditions analysis
- Assists in identifying pedestrian concerns for safety, access, comfort and convenience
- Customized audit is based on instrument from the Center for Disease Control

Data collection points:

- ✓ Continuous pedestrian facilities
- ✓ Pedestrian conflicts
- ✓ Crosswalk availability
- ✓ Maintenance deficiencies
- ✓ Path width
- ✓ Buffer space
- ✓ ADA accessibility
- ✓ Aesthetics of area
- ✓ Shade availability

Evaluation Matrix & Methodology

- Will work collaboratively to develop evaluation criteria to compare and inform selection of alternatives
- Possible criteria include:
  - ✓ Cost
  - ✓ Traffic Operations
  - ✓ Pedestrian Improvements
  - ✓ Bicyclist Improvements



Huron Street / I-94 Bridge Crossing Study

05

Approach Overview | Concept Design

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Aerial Survey

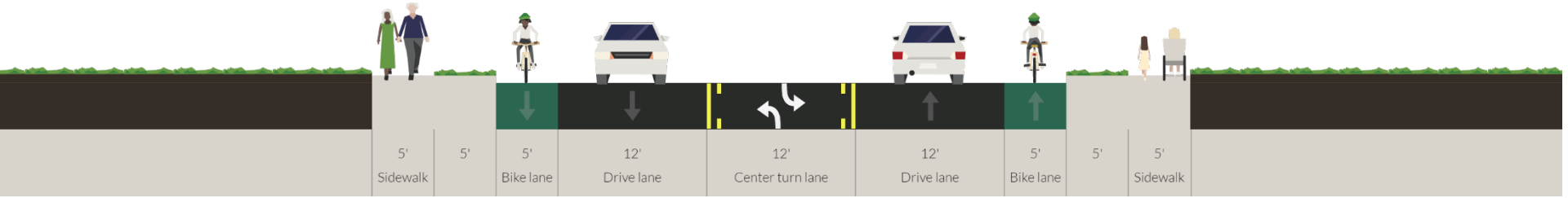
- Capable of collecting wide swath of information in and around project area. Good technique when evaluating alternate pathways
- Provides aerial photograph as base. Excellent for use at public and internal meetings
- Provides very detailed horizontal and vertical information, sufficient for most non-motorized path design purposes
- Very cost efficient compared to conventional design survey

Guiding Design Considerations

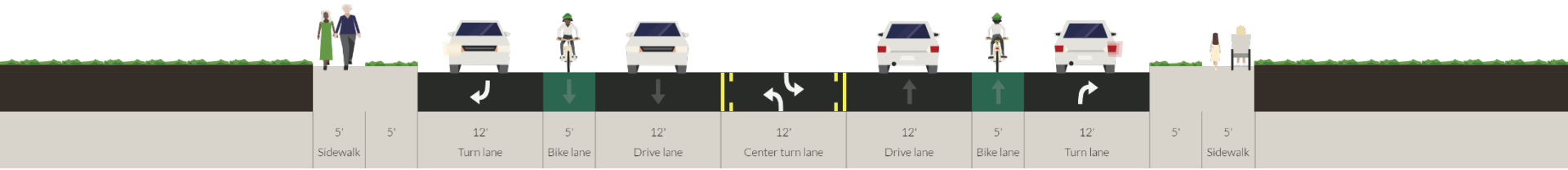
- Safety and crash history
- Right of way constraints and options
- Utility constraints (e.g. high voltage power lines)
- Traffic patterns and volumes (e.g. intersections)
- Linkages of residential and commercial properties to reduce vehicular travel
- Future transit opportunities and locations

Initial Concepts

4 Lane to 3 Lane Roadway Reallocation



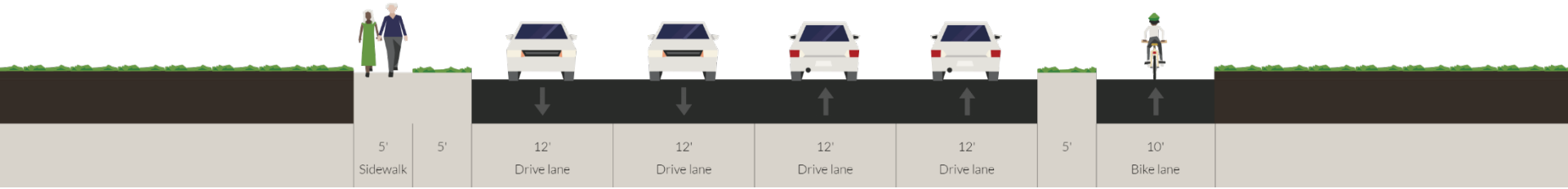
Typical Cross Section



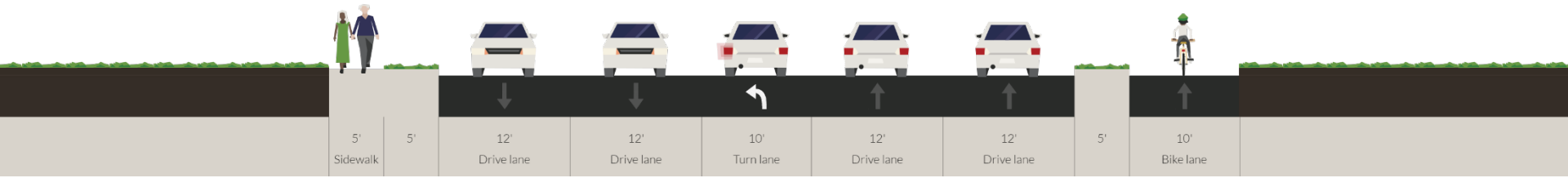
Cross Section at Intersections

Initial Concepts

Sidewalk and Shared Use Path



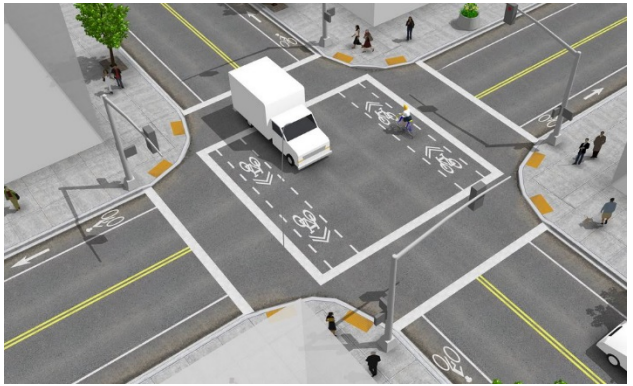
4 Lane Typical Cross Section



5 Lane Typical Cross Section

Final Concepts

- Several preliminary concepts will be developed
- Focus on pedestrian and non-motorized users
- Elements to enhance pedestrian and bicycle safety
- ADA compliance throughout all alternatives
- Look for opportunities to improve the streetscape and include green infrastructure



Why AECOM?

What We Bring

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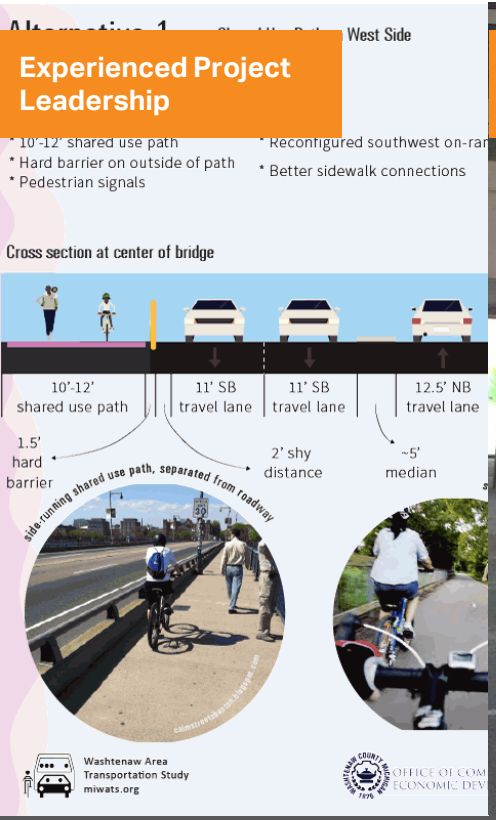
What We Bring

Experienced Project Leadership



Inclusive Public Engagement

Implementation-Oriented Design

Excited and Energetic Team