3rd Avenue and 5th Avenue Multimodal Analysis

Study Overview and Potential Concepts

MARICOPA ASSOCIATION of GOVERNMENTS

City of Phoenix

WILSON & COMPANY

CHEN RYAN

Topics Covered

- Study overview and location
- Project goals
- Existing conditions
- Alignment with current plans and projects
- Potential improvements - cross-sections
- Additional roadway improvement opportunities
- Next steps and project timeline

Study Overview

- Builds off a MAG regional Multimodal Level of Service (MMLOS) Study (2015-2016)
- MAG and the city of Phoenix seek to apply best practices from the study to a local application
- Assess the bicycle and pedestrian environment along 3rd Avenue and 5th Avenue

Study Area

Primary Study Corridors :

3rd and 5th Avenue from McDowell Road to Thomas Road

Secondary Study Corridors:

3rd Avenue from Thomas Road north to the Grand Canal

5th Avenue from Thomas Road north to the Hospital Driveway

Project Goals

- Acts as the initial step for potential inclusion in the Street Transportation Department Capital Improvement Program.
- Aligns with numerous city initiatives, including:
  - Complete Streets Policy (2017)
  - Transportation 2050 Program (2015)
  - Bicycle Master Plan (2014)
  - The planning of low-volume, low stress corridors for pedestrians and bicyclists through our Five-Year Bike Program (FY 2018-2022)
  - Key Corridors Master Plan (Future)
- Potential link with improvements that are currently under final design south of McDowell Road.

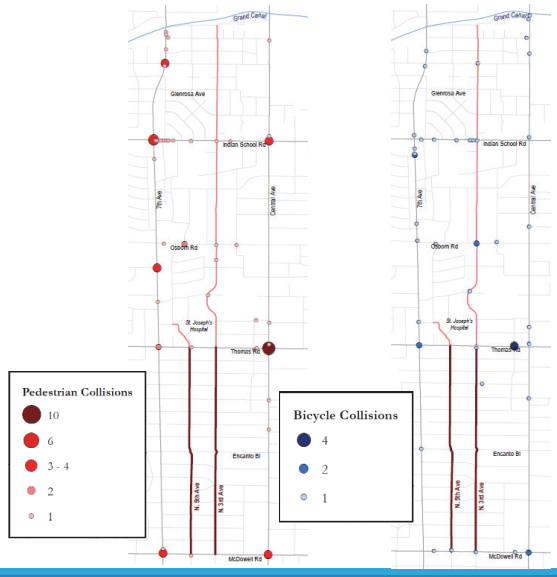
Previous Plans and Projects

- City of Phoenix Bicycle Master Plan
- Grand Canalscape Shared-Use Path Project
- Downtown Phoenix Comprehensive Transportation Study
- Transportation 2050
- Reinvent Phoenix

Existing Conditions Findings

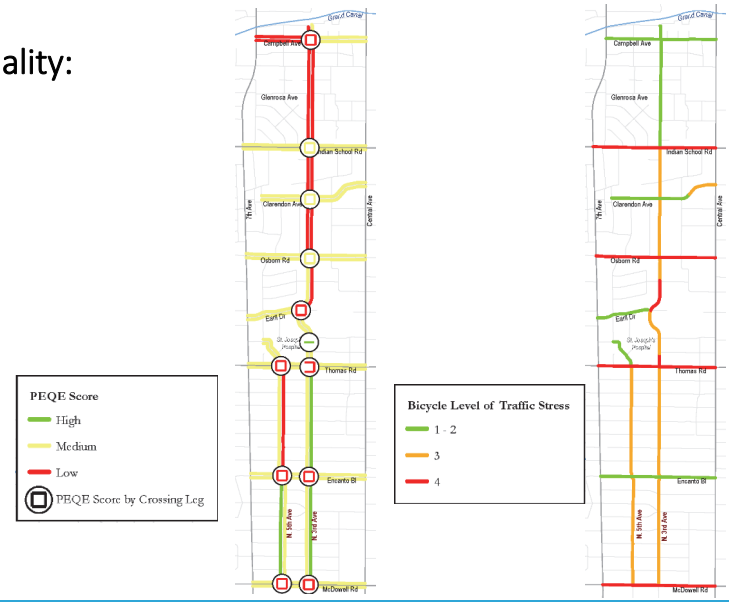
Safety:

- Nine intersections experienced two or more pedestrian-involved collisions
- Five intersections experienced two or more bicycle-involved collisions



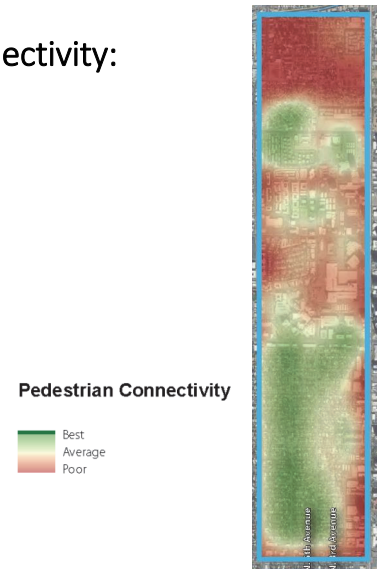
Existing Conditions Findings

Quality:



Existing Conditions Findings

Connectivity:

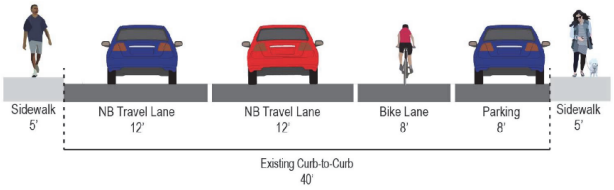


Potential Cross-Sections

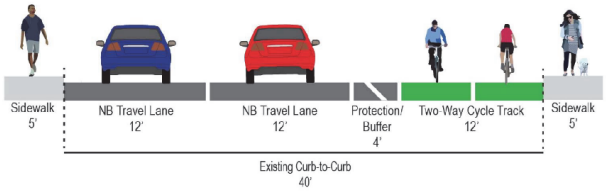
- Tradeoff: parking
- No anticipated engineering constraints

Existing

3rd Avenue – McDowell Road to Thomas Road



Conceptual Two-Way Cycle Track



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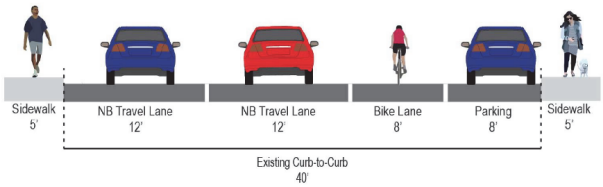
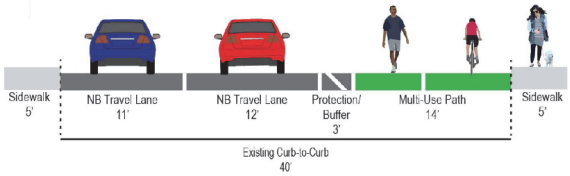
Existing

3rd Avenue – McDowell Road to Thomas Road



Conceptual Protected Multi-Use Path

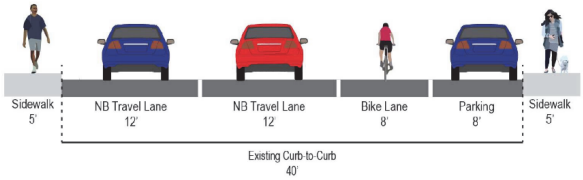


Potential Cross-Sections

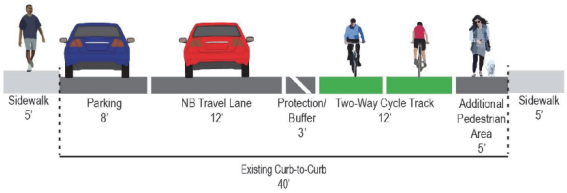
- Tradeoff: one travel lane
- No anticipated engineering constraints

Existing

3rd Avenue – McDowell Road to Thomas Road



Conceptual Protected Bicycle/Pedestrian Paths

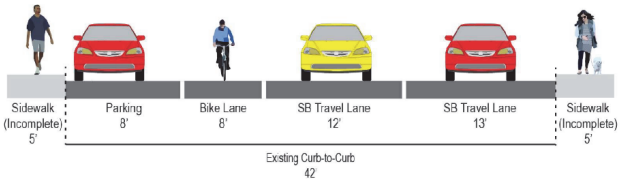


Potential Cross-Sections

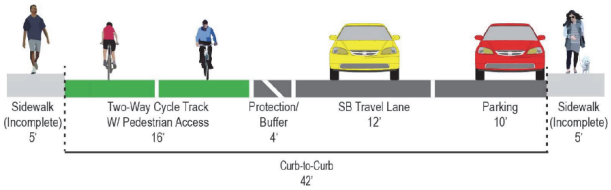
- Tradeoff: one travel lane
- No anticipated engineering constraints

Existing

5th Avenue – McDowell Road to Thomas Road



Conceptual Protected Cycle Track/Shared-Use Path

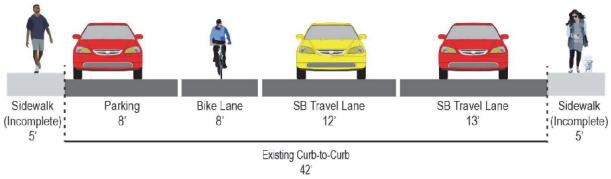


Potential Cross-Sections

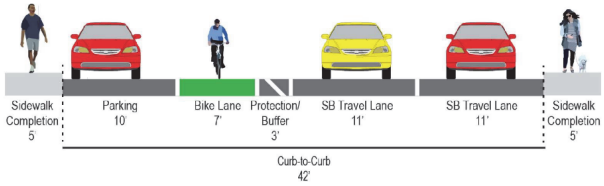
- Anticipated Constraints:
  - Highest cost
  - Utility Relocation
  - Right-of-way acquisition

Existing

5th Avenue – McDowell Road to Thomas Road



Conceptual Buffered Bike Lane (Option 1)

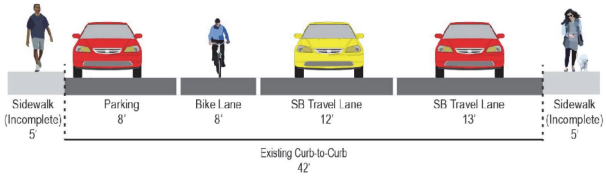


Potential Cross-Sections

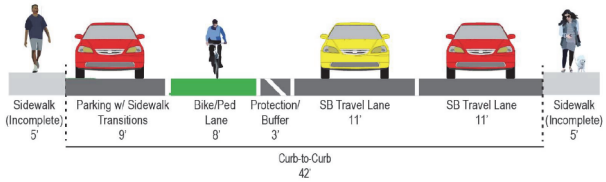
- No anticipated engineering constraints

Existing

5th Avenue – McDowell Road to Thomas Road



Conceptual Buffered Bike Lane (Option 2)



Other Potential Roadway Improvements

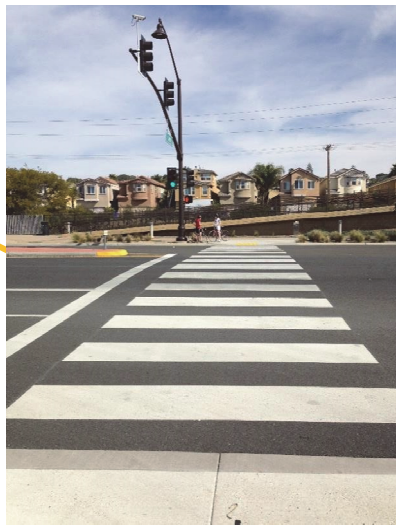
Advanced limit lines at signalized intersections

Advanced limit line

Other Potential Roadway Improvements

High-visibility striping at signalized crosswalks

High-visibility striping



Other Potential Roadway Improvements

ADA-compliant curb ramps

Curb ramps and truncated domes

Other Potential Roadway Improvements

Lead pedestrian intervals and countdowns at signalized crosswalks

Other Potential Roadway Improvements

Use of Green Paint in Areas of Conflict

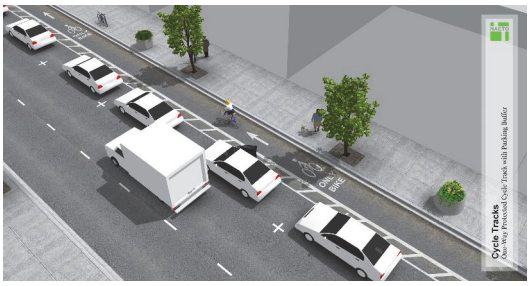
Other Potential Roadway Improvements

Completion of missing sidewalk segments Along 5th Avenue

Missing sidewalks, 5th Avenue

Other Potential Roadway Improvements

Installation of buffer for pedestrians and bikes



Concept: Parking and diagonal striping

Example: Planters (Cannon Beach, OR)

Other Potential Roadway Improvements

Installation of buffer for pedestrians and bikes

Example: “Armadillos” (Barcelona)

Example: Post delineators (Tempe, AZ)

Other Potential Roadway Improvements

Installation of bicycle signal heads at signalized intersections

Next Steps and Project Timeline

- Selection of preferred alternative. Further refinement in next phases.
- Review of quality and connectivity under project conditions
- Final mobility report
- Timeline: October 2017 – Mid 2018

Questions?

Thank You! ☺