PHOENIX TRANSPORTATION 2050
Building our Future

Recommended Solutions Report

Mobility Area 8: Roosevelt Neighborhoods

Prepared For

City of Phoenix

Prepared By

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1.0 Introduction

The Transportation 2050 (T2050) Mobility Improvements Program, as part of the City of Phoenix T2050 Plan, is intended to plan, program, and implement new projects that improve multimodal connectivity and mobility throughout the City. Each study area has defined geographic areas which have been identified as having the greatest mobility deficiencies and needs. This study focuses on the Roosevelt Neighborhoods study area. Deficiencies were documented in the recently completed Current Conditions Report (CCR). The purpose of this Recommended Solutions Report (RSR) is to identify mobility improvements for Mobility Area 9 - Roosevelt Neighborhoods study area, providing solutions to the previously identified mobility deficiencies.

1.1 Study Purpose, Vision and Goals

The goal of the RSR is to facilitate safe, convenient bicycle and pedestrian connections between neighborhoods and local destinations. The vision of the RSR will focus on promoting health and safety, and connectivity for all users.

Based on the recommended solutions analysis, a prioritized list of mobility improvements will be developed and presented to the public. Public feedback will be used to reprioritize the projects and the team will develop a final list of recommended projects, as well as developing a scoring criteria and cost estimates. The CCR serves as a guiding document to identify recommended mobility solutions.

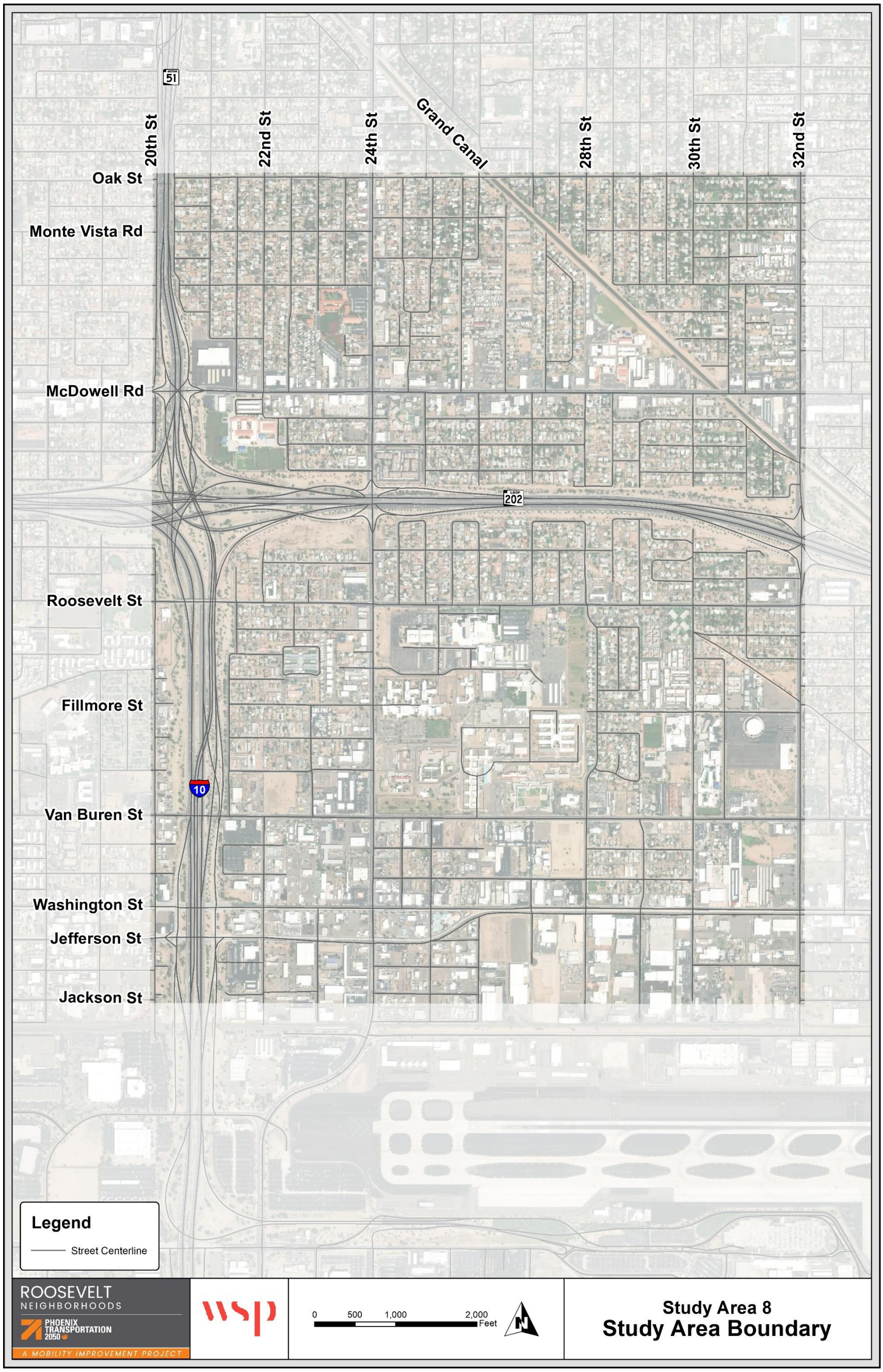
1.2 Overview of Mobility Area 8 – Roosevelt Neighborhoods

Mobility Area 8 – Roosevelt Neighborhoods is a three-square mile area bounded by Oak Street, 32nd Street, Jackson Street and 20th Street (**Figure 1-1**). The area is divided by three major highways, including Interstate 10 (1-10), State Route 202 (Loop 202), and State Route 51 (SR 51).

Field reviews were conducted as part of the CCR to document the existing conditions of infrastructure and community destinations as well as provide a snapshot of the auto-oriented and pedestrian oriented activity taking place within the study area. The field reviews indicated a mix of uses within the study area including residential, commercial, and industrial. The study area is mostly residential with commercial uses concentrated along arterials. The largest facilities for employment within the study area are the Maricopa County Hospital and Arizona State Hospital located east of 24th Street between Roosevelt and Van Buren Streets. Industrial facilities are concentrated along Washington and Jefferson Streets, with the largest facility being the Phoenix Sky Harbor Airport, which is just south of the study area boundary.

The Roosevelt Neighborhoods study area is adjacent to several other major neighborhoods and areas near major destinations including Downtown Phoenix, Eastlake-Garfield, and Arcadia. This study area is also adjacent to the Eastlake/Garfield Neighborhood Mobility Area.

Figure 1-1: Study Area



1.3 Current Conditions Summary

The CCR analysis identified key mobility infrastructure and community assets within and adjacent to the study area in addition to gaps and constraints in the mobility infrastructure. Two key findings for the Roosevelt Neighborhoods are the lack of connectivity between the northern and southern areas of the study area and safe street crossings- both at intersections and informal mid-block crossings. While there are high concentration of bicycle and pedestrian facilities, there is a lack of connectivity throughout the study area. Bicycle facilities often do not connect to other bicycle infrastructure or major destinations. Pedestrian facilities are lacking connectivity between neighborhoods. While most sidewalks occur along major and minor arterials there is a lack of connectivity between neighborhoods and destinations.

The CCR was prepared to document the current pedestrian and bicycle infrastructure, community assets, and identify the areas where the infrastructure is missing and the opportunities to strengthen and expand on existing assets. The CCR assessments are categorized in three areas: Socioeconomic Characteristics, Existing Transportation Infrastructure, and Land Use and Infrastructure.

Socioeconomic Characteristics

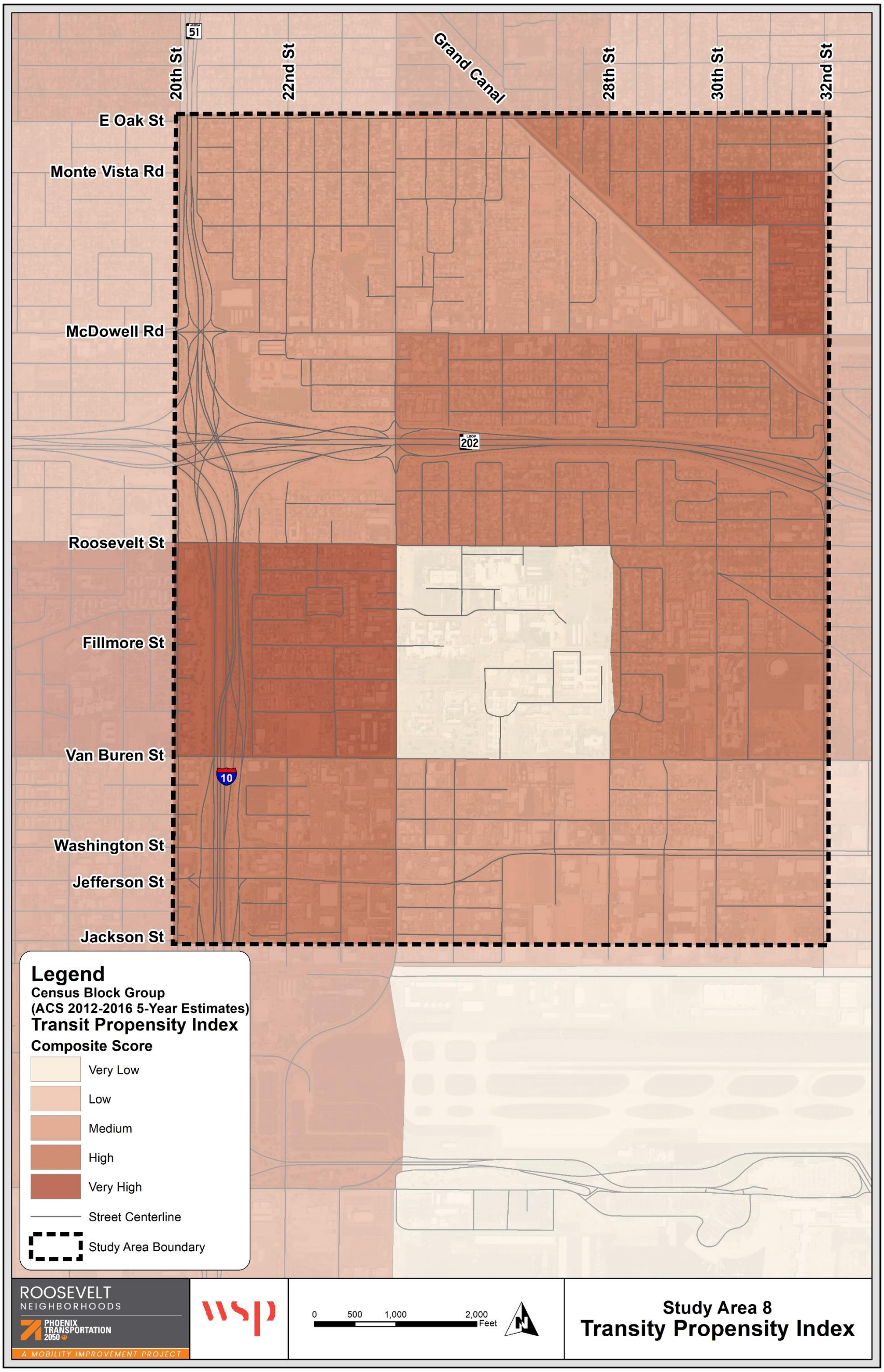
Socioeconomic characteristics looked at the different characteristics that would be most likely to use transportation facilities, including Population Density, Ages 17 and Younger, Ages 65+, Low-Income Households, Transit-Dependent Households, Bike to Work, and Walk to Work. **Figure 1-2** shows all socioeconomic data computed to develop a Transit Propensity Analysis which indicates areas of current transit demand. The demographic data was calculated into percentages, except for population, and then utilized at block group level to inform the transit propensity analysis. The purpose of this map is to summarize the socioeconomic disparities and demographic makeup of the study area identified as part of CCR analysis. **Figure 1-2** shows that areas along McDowell Road, Roosevelt Street, and Van Buren Street have the highest transit propensity. This indicates that these areas are most likely to utilize alternative modes of transportation including walking, bicycling, and public transit.

A comparison of the demographics of the Roosevelt Neighborhoods area to the overall demographics of Phoenix was completed as part of the CCR (**Table 1-1**). The comparison shows that the study area has higher percentages of people who are people 17 and younger, low-income, transit-dependent households compared to the city average. The study area also has a density of 1,190 people per square mile, compared to the City of Phoenix average of 3,008 people per square mile.

Table 1-1: Demographics Comparison: Phoenix vs. Study Area

Demographics	Phoenix City	Roosevelt Neighborhoods
Population Ages 17 and Younger	26.80%	34.28%
Population Ages 65 and Older	9.80%	7.05%
Low-Income Households	17.67%	46.43%
Transit-Dependent Households	8.81%	23.70%
Population Walking to Work	0.70%	0.77%
Population Bicycling to Work	1.76%	1.29%
Population Taking Public Transportation to Work	3.35%	2.49%

Figure 1-2: Propensity Need



Existing Transportation Facilities

Analysis of the current multimodal transportation infrastructure included streets, roadways, right-of-way (ROW), public transportation facilities, bicycle and pedestrian facilities, and supportive streetscape infrastructure. The purpose of identifying these facilities was to identify where infrastructure is lacking, insufficient, or is not accessible. Overall, the major mobility concerns include safety, gaps in infrastructure, and a lack of crossings.

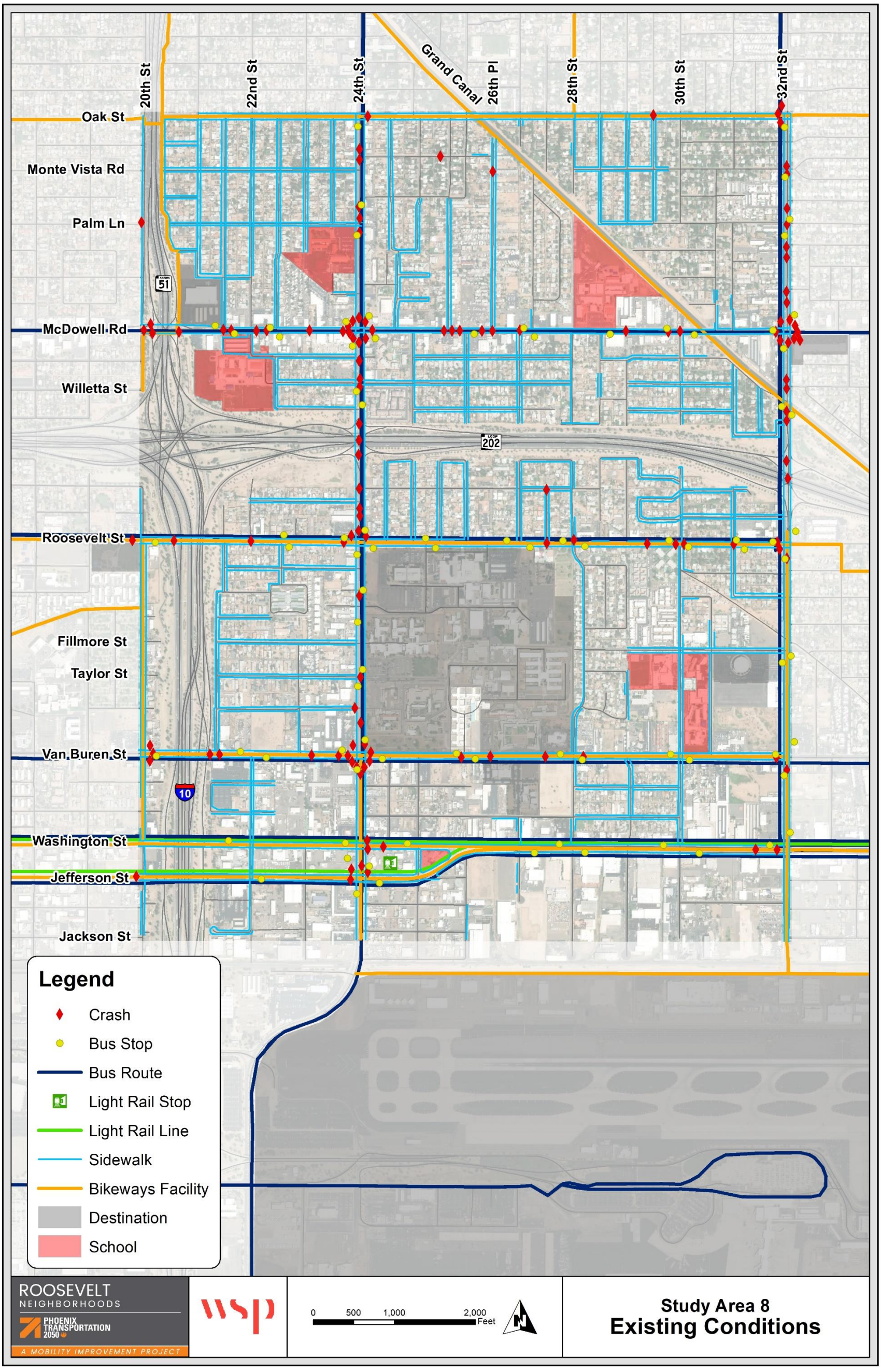
The existing transportation facilities within Mobility Area 8 show a high number of pedestrian and bicycle crashes (69 total crashes). Major gaps in infrastructure included sidewalks and bicycle facilities. There were also a limited number of bicycle facilities, including only one north/south connection. Crossings were also a concern at major streets and intersections. The study area also has connections to transit, including both bus and light rail service.

Land-Use and Infrastructure Constraints

In reviewing the current land-use, zoning, infrastructure including ROW, drainage structures and utilities, and environmental constraints for the CCR, existing development and existing policy were considered. Most zoning within the study area is single-family residential, multi-family residential, commercial, and industrial. Single-family and multi-family residential is the most prevalent zoning classification within the study area. Land-use designations are mostly residential, commercial, and quasi-public. In comparison to zoning, land-use shows more commercial area where current residential zones exist.

Other constraints include infrastructure which looks at drainage concern area, utilities, and environmental/cultural resources. There are currently no drainage concerns areas within the study area. Drainage infrastructure such as curb and gutter will be mentioned as potential projects. Major utilities with the study area include the Grand Canal. Environmental and cultural resources do not pose significant constraints for the recommended solutions. While cultural resources exist within the study area, the recommended solutions will not affect these resources. **Figure 1-3** summarizes the existing infrastructure within the study area, highlights the gaps in mobility, and areas of concern.

Figure 1-3: Existing Conditions



2.0 Recommended Solutions

This section discusses the recommended solutions to support and improve the mobility and connection issues identified through the CCR. The recommended solutions are intended to create or improve pedestrian and bicycle connections to local and regional destinations and improve safety to all transportation modes.

During the solution vetting process, some recommendations were identified on a broader scale and deemed more appropriate for the City to consider as a future policy or guideline. This includes the lack of trees within neighborhoods, sidewalks four-feet or less in width, and pedestrian-scale street lighting in neighborhoods. The **Policy Recommendations** section below briefly discusses existing programs or partnerships with the City for neighborhood tree plantings, regional sidewalk width standards, and a suggestion for pedestrian level street lighting within neighborhoods and at transit stops.

Each road in the study area was vetted for solutions based on its current conditions as well as how it connected to residential areas, local and regional destinations, and transit stops. Each corridor has a set of one-to-five recommended solutions. The solutions fall into the project categories of *Bike, Pedestrian, Traffic Calming,* or *Health & Safety.* The solutions within each corridor are bundled by application feasibility such as linear projects including adding bike lanes and sidewalks together, or spot treatment projects such as bundled intersection improvements and lighting. Each bundle has a number and each solution within in the bundle as a letter such as 1a. The solutions were evaluated by predetermined criteria utilized by the T2050 Mobility Improvement Program and includes a planning level cost estimate.

This section includes the table of scored solutions (**Table 2-1**), a solutions map (**Figure 2-1)**, and summary sheets for each corridor including solution descriptions, project type, a corridor map, overall cost estimates, and example graphics of the recommended solutions. The second part of this section discusses the cost estimates, scoring, and tier process in detail.

Project score is a based off a scoring criteria provided by the City of Phoenix (See **Appendix F**). Each study area is 10 additional points as bonus/equity considerations are also applied to the scoring criteria. A total of 110 points are possible. Standards provide a range of potential points that a project can score. Scores depend upon the scoring criteria and the standards of that criteria.

Policy Recommendations

- Neighborhood Tree Planting Policy
    - Salt River Project (SRP) & Phoenix “Right Tree/Right Place”[1]: A City of Phoenix and SRP partnership to remove 400 trees from around the city

[1] SRP and Phoenix Partner to plant 1,200 Trees, Parks and Recreation Department, April 10, 2018 https://www.phoenix.gov/news/parks/2000

that encroach on power lines and replace them with up to 1,200 trees in parks, schools, and public areas. The Right Tree/Right Place Program will remove encroaching trees from dangerous areas and either replant them in place with appropriate power-line friendly trees or, when that is not possible, plant replacement trees at city parks, schools or neighborhoods located near the removal.

  - Community Tree and Shade Blueprint [2]: This guide explains how to design and implement a volunteer-led tree planting project. It also reviews the rules and procedures for planting trees in Phoenix.
  - SRP Plant Saving with Free Trees[3]: SRP's Shade Tree Program provides customers up to two free desert-adapted trees to plant in energy-saving locations around your home. Participants must be current SRP customers and are required to attend a free workshop on tree care.

- Per the Maricopa Association of Governments Sidewalk Specs and Details, *Sidewalks shall be constructed to a depth of one (1) inch and at five-foot intervals on sidewalk and curb & gutter widths of six (6) feet and eight-foot intervals on sidewalk widths of four (4) feet.*
- Lighting (mostly pedestrian): Street lighting exists along most streets in the study area, however the findings of the CCR indicate that areas predominantly used by pedestrians like bus stops or crosswalks are illuminated at the automobile level and not the pedestrian level. For this report, the analysis indicates that areas near bus stops, and neighborhoods need pedestrian level street lighting. This process may be better supported with an overall city policy than an individual spot treatment.

[2] City of Phoenix Community Tree Shade Blueprint is intended as a guide for communities. https://www.phoenix.gov/volunteersite/Documents/Tree%2BShade%2BBlueprint.pdf

[3] SRP Shade Tree Program providing free 4 to 6 foot saplings to current customers to reduce cooling costs, improve air quality, and use less water. https://www.srpnet.com/energy/rebates/shadeTrees.aspx

Table 2-1: Recommended Solutions

KEY
(#): see policy notation at bottom of report

Score	Name	Map Area	Map ID	Recommended Solution	Solution Type	Description	Location	Cost	Tier
92	28th Street: Pedestrian and Bicycle Improvements	8	8a	Lighting	Public Health & Safety	Install seven streetlights, two bollard lights, and upgrade three streetlights with pedestrian lighting **(4)**	28th St. from Van Buren St. to Roosevelt St., and at McDowell Rd.	$412,910.02	1
92	28th Street: Pedestrian and Bicycle Improvements	8	8b	Bike Route	Bicycle	Paint shared road markings to indicate vehicles and bicycles share the road **(8)**	28th St. from Roosevelt St. to Van Buren St.	$412,910.02	1
87	30th Street: Pedestrian Improvements	18	18a	Sidewalks	Pedestrian	Construct six-foot sidewalks with ADA ramps, curb and gutter. Ensure driveways are at-grade where conflicts occur **(1,6&7)**	30th St. from Roosevelt St. to Fillmore St.	$500,716.76	1
87	30th Street: Pedestrian Improvements	18	18b	Curb Extensions	Pedestrian	Extend curbs for pedestrians at near Wilson Primary and Wilson Elementary School	30th St. and Fillmore St.	$500,716.76	1
87	30th Street: Pedestrian Improvements	18	18c	Trees & Lighting	Public Health & Safety	Plant 12 trees and install seven streetlights, 12 bollard lightings and upgrade 15 streetlight with pedestrian arm attachment **(3&4)**	30th St. from Roosevelt St. to Van Buren St.	$500,716.76	1
85	McDowell Road: Pedestrian and Traffic Calming Improvements	12	12a	Lighting	Public Health & Safety	Install eight bollard lights and upgrade three streetlights with pedestrian lighting **(4)**	Intersections of McDowell Rd. and 21st Pl., 24th St., 28th St., 32nd St., and at Grand Canal	$877,254.85	1
85	McDowell Road: Pedestrian and Traffic Calming Improvements	12	12b	Mid-Block Crossing and Pedestrian Refuge Island	Pedestrian	Install HAWK signal with high-visibility crosswalk with ladder striping and pedestrian refuge island within existing medians near Excelencia School	McDowell Rd. and 21st Pl.	$877,254.85	1
85	McDowell Road: Pedestrian and Traffic Calming Improvements	12	12c	Canal Crossing	Pedestrian	Construct canal crossing with high-visibility crosswalk with ladder striping and RRFB signal at Grand Canal **(8)**	McDowell Rd. and Grand Canal between 30th St. and 31st St.	$877,254.85	1
85	McDowell Road: Pedestrian and Traffic Calming Improvements	12	12d	Intersection Improvements	Traffic Calming	Upgrade intersections with high-visibility crosswalks using ladder striping	Intersections of McDowell Rd. and 21st Pl., 24th St., and 28th St.	$877,254.85	1
85	20th Street: Pedestrian, Bicycle and Public Health & Safety Improvements	17	17a	Intersection Improvements	Traffic Calming	Upgrade intersections with high-visibility crosswalks using ladder striping	Intersections of 20th St. and McDowell Rd., Roosevelt St., and Van Buren St.	$68,357.07	1
85	20th Street: Pedestrian, Bicycle and Public Health & Safety Improvements	17	17b	Trees	Public Health & Safety	Plant five trees south of pedestrian bridge at Oak St. **(3)**	20th St. from Oak St. to north of McDowell Rd.	$68,357.07	1
82	24th Street Bicycle, Public Health & Safety, Traffic Calming and Pedestrian Improvements	1	1a	Lighting	Public Health & Safety	Install three streetlights, two bollard lights, and upgrade 17 streetlights with pedestrian arm attachment **(4)**	Intersections of 24th St. and Palm Ln., McDowell Rd., Roosevelt St., and Van Buren St., and Jefferson St.	$1,462,901.24	2
82	24th Street Bicycle, Public Health & Safety, Traffic Calming and Pedestrian Improvements	1	1b	Cycle Track	Bicycle	Extend planned two-way cycle track to Roosevelt St. with striping, road markings with bike symbol, and directional arrow **(8)**	24th St. from Van Buren St. to Roosevelt St.	$1,462,901.24	2
82	24th Street Bicycle, Public Health & Safety, Traffic Calming and Pedestrian Improvements	1	1c	Multi-Use Path	Pedestrian	Upon easement acquisition, construct multi-use path under SR 202L **(2)**	24th St. and SR 202L	$1,462,901.24	2

Score	Name	Map Area	Map ID	Recommended Solution	Solution Type	Description	Location	Cost	Tier
82	24th Street Bicycle, Public Health & Safety, Traffic Calming and Pedestrian Improvements	1	1d	Bike Lane	Bicycle	Add striping, road markings with bike symbol, and directional arrow **(8)**	24th St. from Roosevelt St. to Oak St.	$1,462,901.24	2
82	24th Street Bicycle, Public Health & Safety, Traffic Calming and Pedestrian Improvements	2	2a	Intersection Improvements	Traffic Calming	Upgrade intersections with high-visibility crosswalks using ladder striping	Intersections of 24th St. and Oak St., Roosevelt St., and Van Buren St.	$319,153.15	2
82	24th Street Bicycle, Public Health & Safety, Traffic Calming and Pedestrian Improvements	2	2b	Mid-Block Crossing	Pedestrian	Install RRFB signal with high-visibility crosswalk with ladder striping	24th St. and Palm Ln. northeast corner of St. Agnes School	$319,153.15	2
82	Van Buren Street: Pedestrian and Public Health & Safety Improvements	15	15a	Multi-Use Path	Pedestrian	Upon easement acquisition, construct multi-use path under I-10 **(2)**	Van Buren St. and I-10	$114,059.80	2
82	Van Buren Street: Pedestrian and Public Health & Safety Improvements	15	15b	Trees	Public Health & Safety	Plant 17 trees to current vacant tree boxes **(3)**	Van Buren St. from 20th St. to 32nd St.	$114,059.80	2
81	Roosevelt Street: Pedestrian and Bicycle Improvements	13	13a	Speed Cushions	Traffic Calming	Install eight speed cushions along Roosevelt Street	Roosevelt St. from 20th St. to 32nd St.	$199,860.02	2
81	Roosevelt Street: Pedestrian and Bicycle Improvements	13	13b	Trees & Lighting	Public Health & Safety	Plant seven trees near the County Hospital, install one streetlight, and upgrade four streetlights with pedestrian arm attachment **(3&4)**	Roosevelt St. from 20th St. to 32nd St.	$199,860.02	2
79	32nd Street: Pedestrian, Bicycle, and Public Health & Safety Improvements	4	4a	Intersection Improvements	Traffic Calming	Upgrade intersections with high-visibility crosswalks using ladder striping	Intersection of 32nd St. and Roosevelt St., Van Buren St., and Washington St.	$536,188.63	2
79	32nd Street: Pedestrian, Bicycle, and Public Health & Safety Improvements	4	4b	Canal Crossing	Pedestrian	Construct canal crossing with high-visibility crosswalk with ladder striping and RRFB signal at Grand Canal **(8)**	32nd St. and Grand Canal north of SR 202L	$536,188.63	2
79	32nd Street: Pedestrian, Bicycle, and Public Health & Safety Improvements	4	4c	Mid-Block Crossing	Pedestrian	Install RRFB signal with high-visibility crosswalk with ladder striping	32nd St. and Palm Ln., Monte Vista St., Hubbell St., Fillmore St.	$536,188.63	2
79	Monte Vista Street: Traffic Calming Improvements	19	19	Speed Humps	Traffic Calming	Add five speed humps along Monte Vista Street	Monte Vista St from 21st Pl. to 24th St. and 28th St. to 32nd St.	$91,270.23	2
76	McDowell Road: Pedestrian and Traffic Calming Improvements	11	11a	Medians	Traffic Calming	Construct raised medians with turn lanes and five trees	McDowell Rd. from 21st Pl. to 22nd Pl.	$239,399.44	2
76	McDowell Road: Pedestrian and Traffic Calming Improvements	11	11b	Multi-Use Path	Pedestrian	Upon easement acquisition, construct multi-use path under SR 51 **(2)**	McDowell Rd. and SR 51	$239,399.44	2
74	32nd Street: Pedestrian, Bicycle, and Public Health & Safety Improvements	3	3a	Bike Lane	Bicycle	Add striping, road markings with bike symbol, and directional arrow **(8)**	32nd St. from Oak St. to the north side of SR 202L	$1,016,191.73	3
74	32nd Street: Pedestrian, Bicycle, and Public Health & Safety Improvements	3	3b	Trees & Lighting	Public Health & Safety	Plant 24 trees, install seven streetlights, 12 bollard lights and upgrade 15 streetlights with pedestrian arm attachment **(3&4)**	Intersections of 32nd St. and Palm Ln., Monte Vista Rd., Hubbell St., Roosevelt St., Fillmore St., and Van Buren St.	$1,016,191.73	3
74	32nd Street: Pedestrian, Bicycle, and Public Health & Safety Improvements	3	3c	Multi-Use Path	Pedestrian	Upon easement acquisition, construct multi-use path under the SR 202L **(2)**	32nd St. and SR 202L	$1,016,191.73	3
74	Oak Street: Bicycle and Public Health & Safety Improvements	5	5	Sidewalks	Pedestrian	Construct six-foot sidewalks with ADA ramps, curb, and gutter. Ensure driveways are at-grade where conflicts occur **(1,6&7)**	Oak St. from 21st St. to 20th Pl.	$124,234.91	3

Score	Name	Map Area	Map ID	Recommended Solution	Solution Type	Description	Location	Cost	Tier
74	Roosevelt Street: Pedestrian and Bicycle Improvements	14	14	Mid-Block Crossing	Pedestrian	Install RRFB signal with high-visibility crosswalk with ladder striping	Roosevelt St. and 25th Pl.	$296,371.78	3
73	28th Street: Pedestrian and Bicycle Improvements	9	9a	Intersection Improvements	Traffic Calming	Upgrade intersections with high-visibility crosswalks using ladder striping	Intersections of 28th St. and Van Buren St. and Jefferson St.	$260,939.25	3
73	28th Street: Pedestrian and Bicycle Improvements	9	9b	Multi-Use Path	Pedestrian	Upon easement acquisition, construct multi-use path on north side of Creighton Elementary School to create connection between the school and surrounding neighborhoods to Grand Canal **(2)**	27th Pl. and Grand Canal	$260,939.25	3
73	28th Street: Pedestrian and Bicycle Improvements	9	9c	Mid-Block Crossing	Pedestrian	Install RRFB signal with high-visibility crosswalk with ladder striping	28th St. and Roosevelt St.	$260,939.25	3
73	Neighborhood 1: Traffic Calming Improvements	20	20	Speed Humps	Traffic Calming	Add three speed humps along Monroe Street and three Speed humps along Adams Street	Between 28th St. and 30th St. along Monroe St. and Adams St.	$102,078.32	3
72	20th Street: Pedestrian, Bicycle and Public Health & Safety Improvements	16	16a	Bike Lane	Bicycle	Add striping, road markings with bike symbol, and directional arrow **(8)**	20th St. from Oak St. to McDowell Rd.	$186,752.51	3
72	20th Street: Pedestrian, Bicycle and Public Health & Safety Improvements	16	16b	Sidewalks	Pedestrian	Construct five-foot sidewalks with ADA ramps, curb and gutter. Ensure driveways are at-grade where conflicts occur **(1,6&7)**	20th St. from Van Buren St. to Washington St.	$186,752.51	3
69	Oak Street: Bicycle and Public Health & Safety Improvements	7	7	Pedestrian Bridge	Pedestrian	Improve pedestrian bridge with lighting and design **(8)**	Existing bridge at Oak St. and SR 51	$1,009,199.29	3
68	28th Street: Pedestrian and Bicycle Improvements	10	10	Pedestrian Bridge	Pedestrian	Install new pedestrian bridge with lighting and design over SR 202L to connect 28th Street **(8)**	28th St. and SR 202L	$9,963,742.86	3
59	Oak Street: Bicycle and Public Health & Safety Improvements	6	6	Canal Crossing	Pedestrian	Construct canal crossing with high-visibility crosswalk with ladder striping and RRFB signal at Grand Canal **(8)**	Oak St. and Grand Canal between 26th St. and 26th Pl.	$296,425.82	3

1 Maricopa Association of Governments Uniform Standard Specifications and Details for Public Works Construction document recommends the implementation of 6 ft. sidewalks.
2 Easement would require coordination with the City of Phoenix and existing land owner to acquire land
3 Trees were implemented within 160 feet from a high ridership bus stop, a total of four trees - 40 feet on center are planted near every higher ridership bus stop.
4 New lighting included new light posts, pedestrian lighting attachment to existing poles and bollard pedestrian lighting. New lighting was designated at higher ridership bus stops, along major pedestrian routes, and near schools.
5 Neighborhood tree policy encourages land owners to plant trees within their own right-of-way to provide shade for sidewalks and other mobility facilities.
6 Driveway consolidation policy recommend driveways to be consolidated in prevent redundancy and driveways to be flush with sidewalks to meet ADA requirements
7 Where new sidewalks are implemented near to at existing bus stops, bus stops could be updated to provide shelters, benches or other features
8 Maricopa Association of Governments Valley Path Brand & Wayfinding Signage Guidelines provides guidance bike and wayfinding signage

Figure 2-1: Recommended Solutions

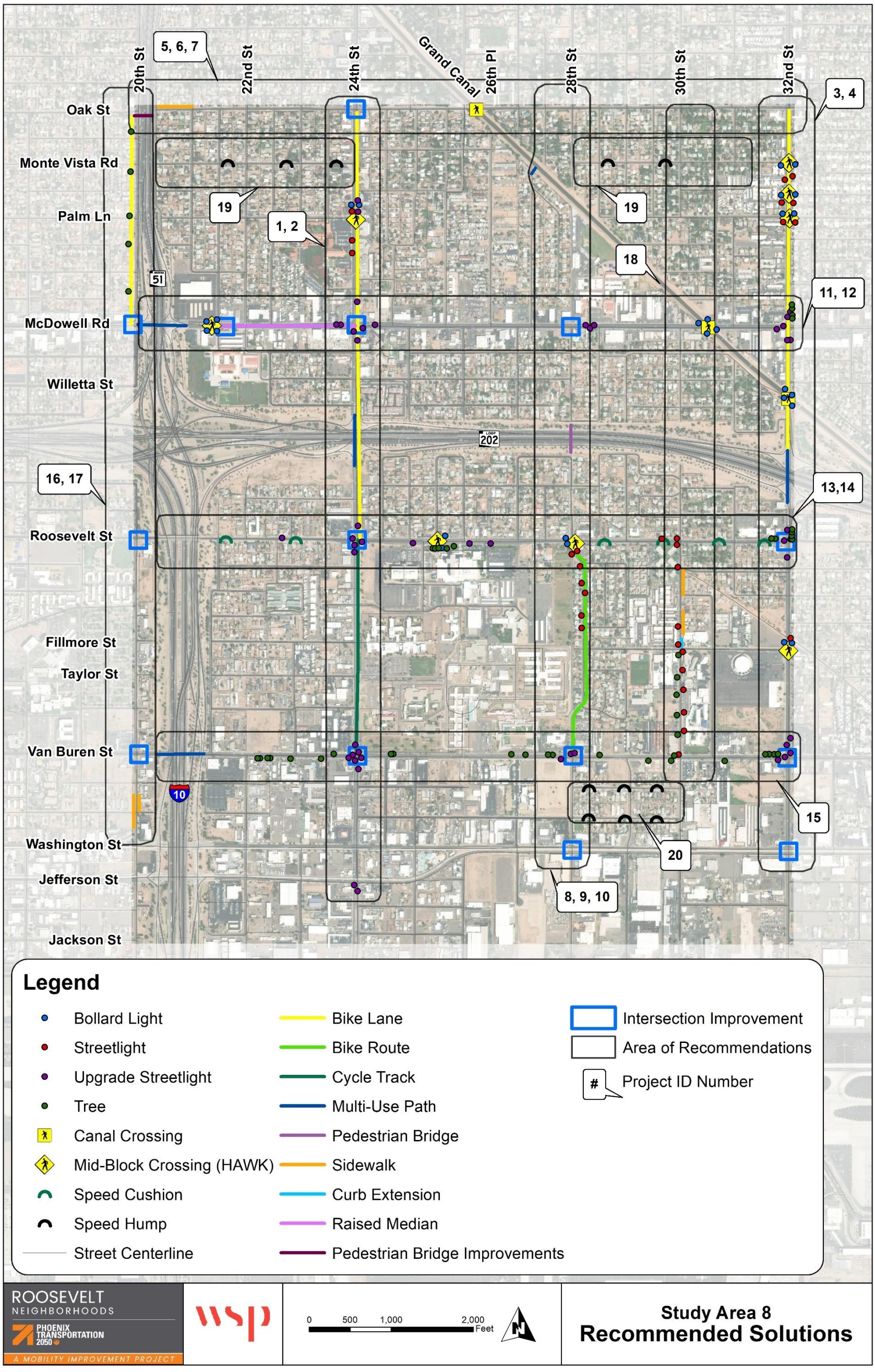
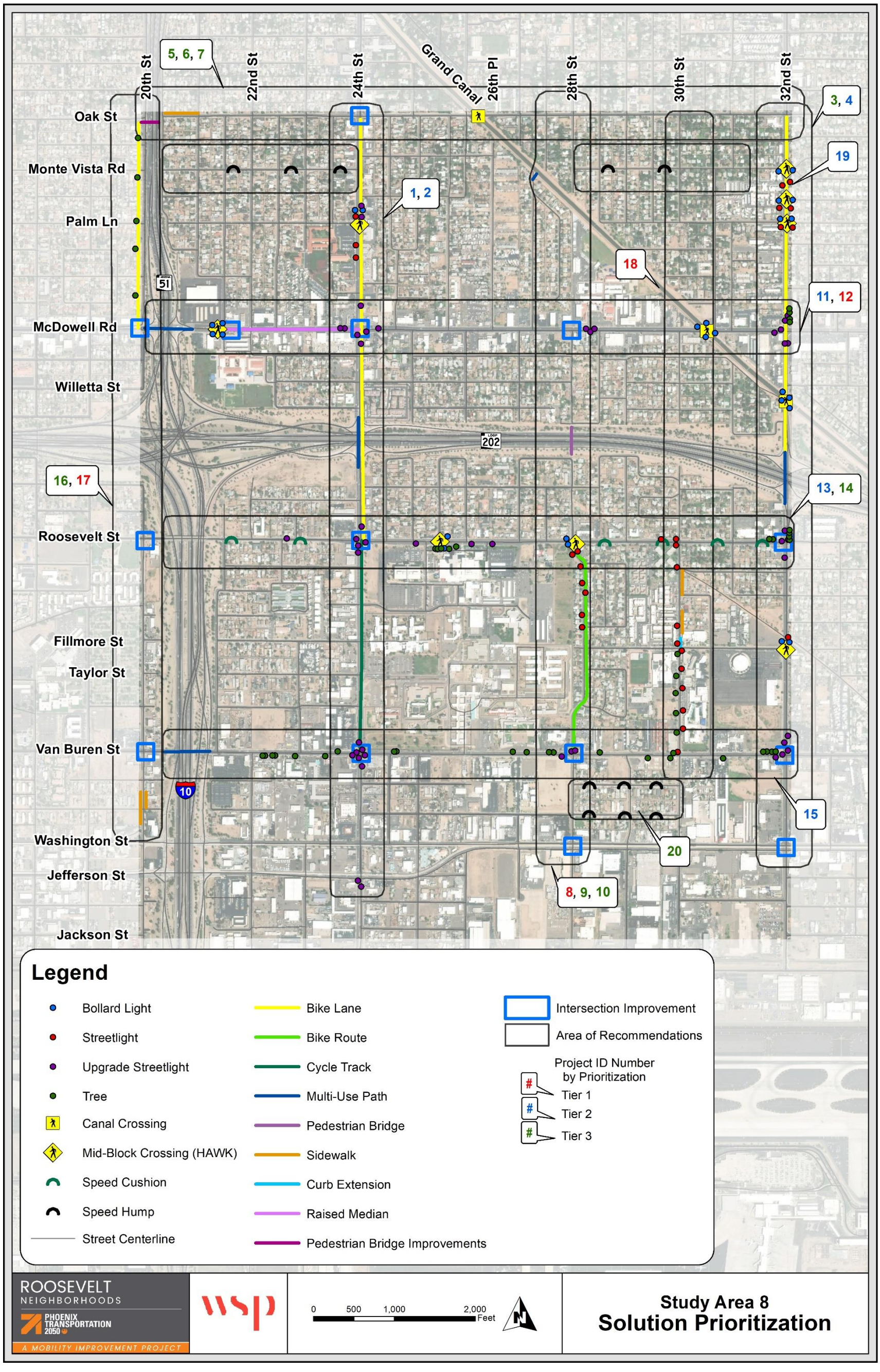


Figure 2-2: Solution Prioritization by Tier



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Footnotes provided below are referenced in the project descriptions provide context or more detailed information on projects and methods related to proposed projects. Footnotes include references to other documents, policies, and recommendations for sidewalk width, signage, ADA requirements, and transit facilities. Footnotes also provide methodologies for solutions including easement acquisition and placement of trees and lighting.

1	Maricopa Association of Governments Uniform Standard Specifications and Details for Public Works Construction document recommends the implementation of six-foot sidewalks.
2	Easement would require coordination with the City of Phoenix and existing land owner to acquire land
3	Trees (four total, 40-foot on center) were planned within 160 feet of every high ridership bus stop.
4	New lighting includes new light posts, pedestrian lighting attachment to existing poles and bollard pedestrian lighting. New lighting was designated at higher ridership bus stops, along major pedestrian routes, and near schools.
5	Neighborhood tree policy encourages land owners to plant trees within their own ROW to provide shade for sidewalks and other mobility facilities.
6	Driveway consolidation policy recommends driveways to be consolidated in prevent redundancy and driveways to be flush with sidewalks to meet ADA requirements
7	Where new sidewalks are implemented near or at existing bus stops, bus stops could be updated to provide shelters, benches or other features
8	Maricopa Association of Governments Valley Path Brand & Wayfinding Signage Guidelines provides bike and wayfinding signage guidance

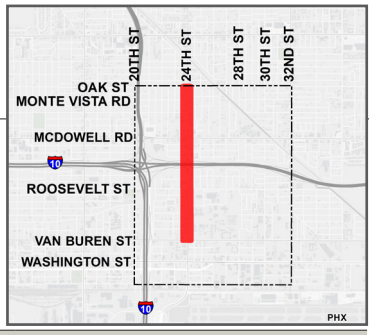
In addition, the fees associated with ROW, Design, and Construction were applied once to the total material cost of a solution bundle, and solution bundles were determined by project type and constructability together. The material cost (excluding ROW, Design, and Construction fees) of each solution was calculated to show the value of each solution before it is bundled for construction.

24th Street: Oak Street - Van Buren Street

Project ID: 1a, 1b, 1c, 2a, 2b

Project Name

24th Street: Bicycle, Public Health & Safety, Traffic Calming and Pedestrian Improvements



▶ Destinations

St. Agnes Parochial School Arizona State Hospital

Fillmore Gardens

ID	Type	Current Conditions	Solutions	Description	Benefits
1a		Lack of street lights	Lighting	Install three streetlights, two bollard lights, and upgrade 17 streetlights with pedestrian arm attachment (4)	Provides additional security and visibility by illuminating dark areas of the corridor
1b		Planned cycle track from Washington St. to Van Buren St.	Cycle Track	Extend planned two-way cycle track to Roosevelt St. with striping, road markings with bike symbol, and directional arrow (8)	Cycle track builds on existing planning project and creates north/south bike route
1c		Six-foot path under the SR 202L and no barrier between pedestrians and vehicles	Multi-Use Path	Upon easement acquisition, construct multi-use path under SR 202L (2)	Provides additional safety and security pedestrians and bicyclist crossing intersection at 24th St. and SR 202L
1d		Limited north/south bike routes for bicyclists	Bike Lane	Add striping, road markings with bike symbol, and directional arrow (8)	Bike lane would create a designated north/south route for bicyclists
2a		Lack of designated crosswalks	Intersection Improvements	Upgrade intersections with high-visibility crosswalks using ladder striping	Improves safety and visibility of people crossing the street
2b		No crossing near school and next available crossing is at McDowell Road	Mid-Block Crossing	Install RRFB signal with high-visibility crosswalk with ladder striping	Enhances safety near St. Agnes Parochial School

▶ Project Delivery Constraints

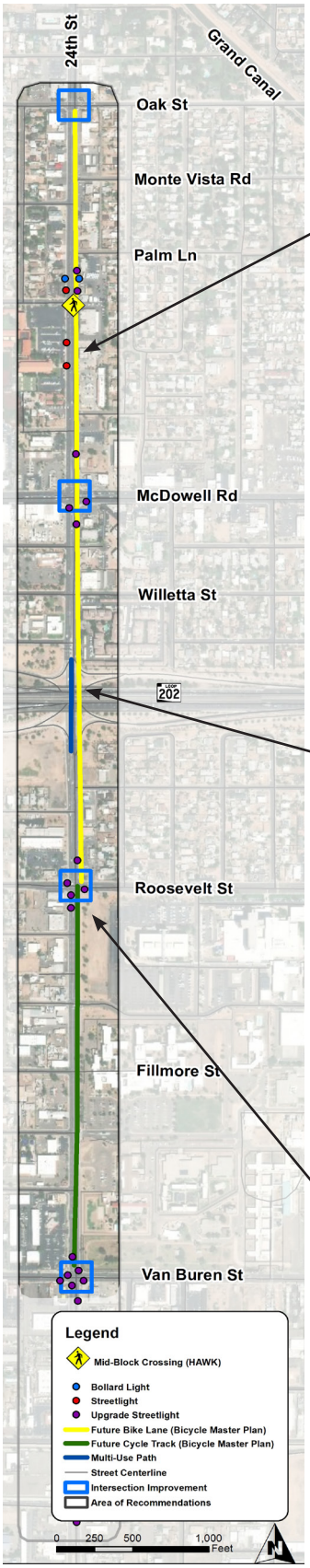
Cycle track/buffered bicycle lane may require minor adjustments to ROW. Multi-use path will require coordination with ADOT for ROW acquisition.

Project Costs	1 (a,b,c,d)	2 (a,b)
Design	$266,391.17	$106,491.77
ROW	$67,885.75	$0
Construction Phase	$1,046,628.24	$183,619.40
	(a) $104,635.00	(a) $2,080.00
	(b) $389,020.00	(b) $112,225.00
	(c) $78,000.00	
	(d) $83,272.00	
TOTAL	**$1,462,901.24**	**$319,153.15**

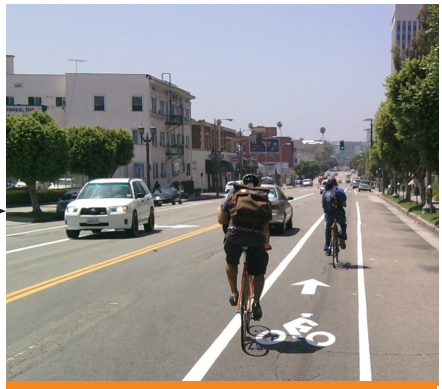
24th Street: Oak Street - Van Buren Street

Project ID:
1a, 1b, 1c, 2a, 2b

Existing condition photos with examples of recommendations



Limited north/south bike routes for bicyclists



Example of a bike lane

Narrow path under SR 202L and no barrier between pedestrians and vehicles

Example of a multi-use path

Lack of clearly marked crosswalk

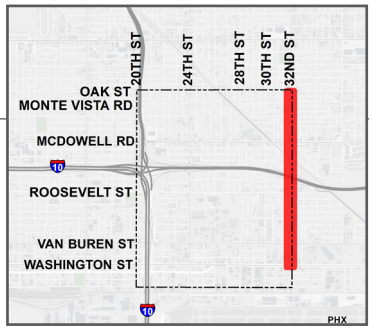
Example of a high-visibility crosswalk

32nd Street : Van Buren Street - Oak Street

Project ID: 3a, 3b, 3c, 4a, 4b, 4c

Project Name

32nd Street: Pedestrian, Bicycle, and Public Health & Safety Improvements



▶ Destinations

Celebrity Theatre	Arizona State Braille and Talking Book Library
Food City	

ID	Type	Current Conditions	Solutions	Description	Benefits
3a		Limited north/ south bike routes for bicyclists	Bike Lane	Add striping, road markings with bike symbol, and directional arrow (8)	Bike lane would create a designated north/south route for bicyclists
3b		Lack of trees and street lighting	Trees & Lighting	Plant 24 trees, install seven streetlights, 12 bollard lights and upgrade 15 streetlights with pedestrian arm attachment (3&4)	Provides additional security and visibility for pedestrians and bicyclists
3c		Six-foot path under the SR 202L and no barrier between pedestrians and vehicles	Multi-Use Path	Upon easement acquisition, construct multi-use path under the SR 202L (2)	Provides additional safety and security pedestrians and bicyclist crossing intersection at 32nd St. and SR 202L
4a		Lack of designated crosswalks	Intersection Improvement	Upgrade intersections with high-visibility crosswalks using ladder striping	Improves safety and visibility of people crossing the street
4b		Lack of designated crosswalk at Grand Canal	Canal Crossing	Construct canal crossing with high-visibility crosswalk with ladder striping and RRFB signal at Grand Canal (8)	Improves safety and visibility of pedestrians and bicyclist crossing at Grand Canal
4c		High volume road and few intersections to cross 32nd St.	Mid-Block Crossing	Install RRFB signal with high-visibility crosswalk with ladder striping	Provide designated, high-visibility crossing between Celebrity Theatre, Wilson Elementary and Wilson Primary School

▶ Project Delivery Constraints

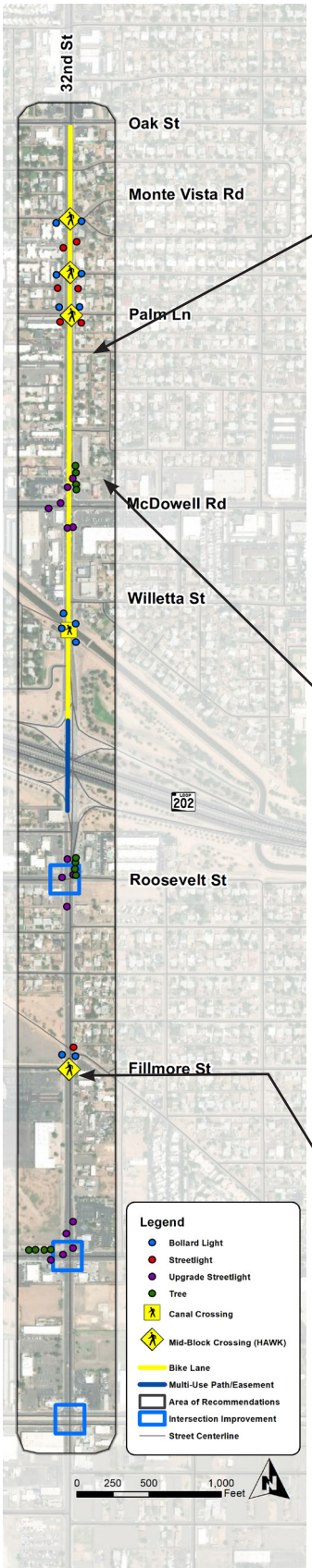
Bike lane may require minor adjustments to ROW. Canal crossing will need to be coordinated with Grand Canalscape improvements. Multi-use path will require coordination with ADOT for ROW acquisition.

Project Costs	3 (a,b,c,)	4 (a,b,c)
Design	$201,780.34	$124,665.72
ROW	$0	$0
Construction Phase	$699,835.74	$320,239.25
	(a) $81,849.60	(a) $1,950.00
	(b) $319,040.00	(b) $128,830.00
	(c) $78,000.00	(c) $103,890.00
TOTAL	**$1,016,191.73**	**$536,188.63**

32nd Street : Van Buren Street - Oak Street

Project ID:
3a, 3b, 3c, 4a, 4b, 4c

Existing condition photos with examples of recommendations

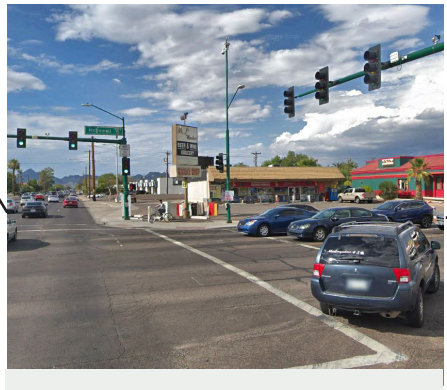


Limited north/south bike routes for bicyclists

Example of a bike lane

Lack of shade and street lighting

Example of shade and street lights



Lack of clearly marked crosswalk

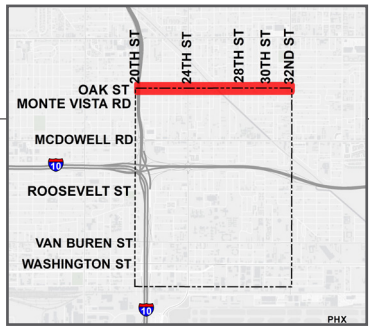
Example of a mid-block crossing

Oak Street : 20th Street - 32nd Street

Project ID: 5, 6, 7

Project Name

Oak Street: Bicycle and Public Health & Safety Improvements



▶ Destinations

St. Agnes Parochial School Creighton Elementary School

Food City

ID	Type	Current Conditions	Solutions	Description	Benefits
5		Gaps in sidewalk infrastructure	Sidewalks	Construct six-foot sidewalks with ADA ramps, curb, and gutter. Ensure driveways are at-grade where conflicts occur **(1,6&7)**	Provides continuous and connected sidewalks along the corridor
6		Lack of designated crosswalk at Grand Canal	Canal Crossing	Construct canal crossing with high-visibility crosswalk with ladder striping and RRFB signal at Grand Canal **(8)**	Improves safety and visibility of pedestrians and bicyclist crossing at Grand Canal
7		Pedestrian bridge lacks lighting and is a small enclosed walkway	Pedestrian Bridge	Improve pedestrian bridge with lighting and design **(8)**	Upgraded pedestrian bridge improves safety and visibility to pedestrians and bicyclists

▶ Project Delivery Constraints

Pedestrian bridge improvement will require coordination with ADOT for ROW acquisition and utility improvement. Canal crossing will need to be coordinated with Grand Canalscape Improvements.

Project Costs	5	6	7
Design	$69,272.97	$83,691.77	$183,945.00
ROW	$0	$0	$0
Construction Phase	$51,784.45	$200,435.37	$777,544.29
TOTAL	**$124,234.91**	**$296,425.82**	**$1,009,199.29**

Oak Street : 20th Street - 32nd Street

Project ID:
5, 6, 7

Existing condition photos with examples of recommendations

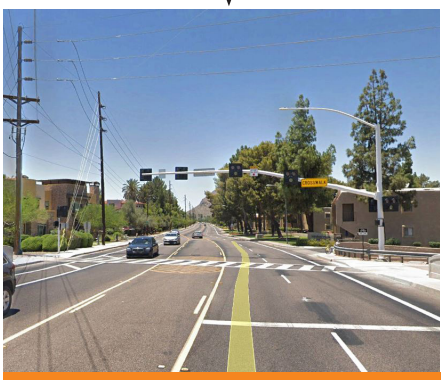
Pedestrian bridge lacks lighting and is a small enclosed walkway

Gaps in sidewalk infrastructure

Lack of designated crosswalk at Grand Canal

Example of a pedestrian bridge

Example of sidewalk



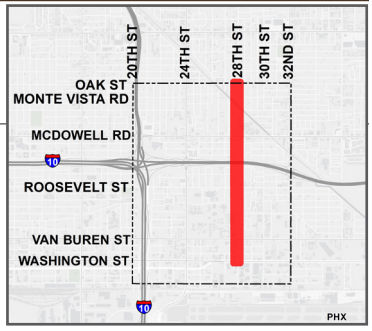
Example of a canal crossing

28th Street: Washington Street - Oak Street

Project ID: 8a, 8b, 9a, 9b, 9c, 10

Project Name

28th Street Pedestrian and Bicycle Improvements



▶ Destinations

Salvation Army Herberger Campus	Creighton Elementary School
Arizona State Hospital	

ID	Type	Current Conditions	Solutions	Description	Benefits
8a		Lack of street lighting	Lighting	Install seven streetlights, two bollard lights, and upgrade three streetlights with pedestrian lighting (4)	Provides additional security and visibility by illuminating dark areas of the corridor
8b		No north/south bike route south of the 202L	Bike Route	Paint shared road markings to indicate vehicles and bicycles share the road (8)	Bike route would create a designated north/south route south of SR 202L
9a		Lack of designated crosswalks	Intersection Improvement	Upgrade intersections with high-visibility crosswalks using ladder striping	Improves safety and visibility of people crossing the street
9b		No connection between Grand Canal, neighborhood, and Creighton Elementary School	Multi-Use Path	Upon easement acquisition, construct multi-use path on north side of Creighton Elementary School to create connection between the school and surrounding neighborhoods to Grand Canal (2)	Provides connectivity to Grand Canal and Creighton Elementary School
9c		Lack of crossing at Roosevelt St near Wilson Elementary and Wilson Primary School	Mid-Block Crossing	Install RRFB signal with high-visibility crosswalk with ladder striping	Provide designated, high visibility crossing between destinations
10		Lack of connection both north/south of the SR 202L	Pedestrian Bridge	Install new pedestrian bridge with lighting and design over SR 202L to connect 28th Street (8)	Pedestrian bridge improves connection across SR 202L, safety, and visibility

▶ Project Delivery Constraints

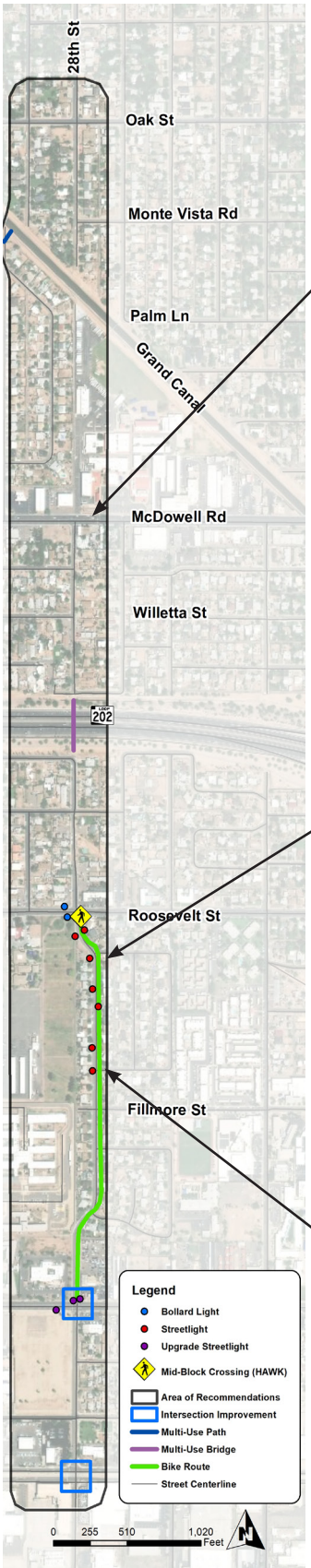
Multi-use path will require coordination with ADOT for ROW acquisition.

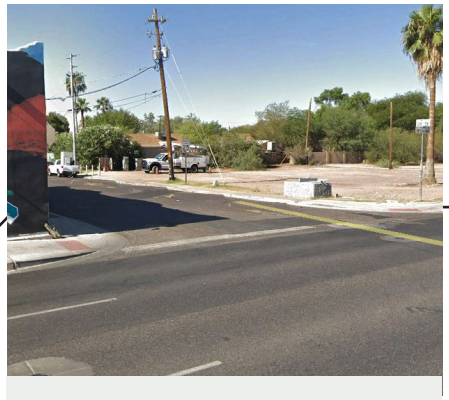
Project Costs	8 (a,b)	9 (a,b,c)	10
Design	$93,445.84	$80,720.22	$1,696,950.00
ROW	$0	$0	$0
Construction Phase	$268,340.17	$137,145.12	$1,427,592.86
	(a) $156,055.00	(a) $780.00	
	(b) $37,500.00	(b) $4,550.00	
		(c) $103,860.00	
TOTAL	**$412,910.02**	**$260,939.25**	**$9,963,742.86**

28th Street: Washington Street - Oak Street

Project ID:
8a, 8b, 9a, 9b, 9c, 10

Existing condition photos with examples of recommendations





Lack of clearly marked crosswalk

Example of a high-visibiliy crosswalk

No north and south bike route south of SR 202L

Example of a bike route

Lack of street lighting

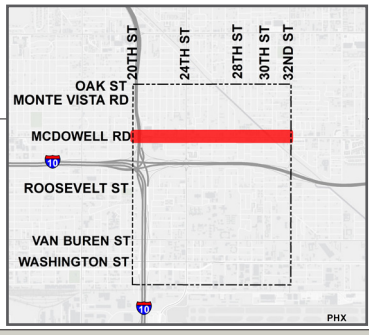
Example of street lights

McDowell Road: 20th Street - 32nd Street

Project ID:
11a, 11b, 12a, 12b, 12c, 12d

Project Name

McDowell Road: Pedestrian and Traffic Calming Improvements



▶ Destinations

Food City (21st Pl & 32nd St)	Creighton Elementary School
Excelencia School	

ID	Type	Current Conditions	Solutions	Description	Benefits
11a		High volume road and high concentration of destinations from SR 51 to 22nd Pl	Medians	Construct raised medians with turn lanes and five trees	Road safety measures will visually encourage reduced speeds near both recommended crossings
11b		Six-foot path under the SR 51 and no barrier between pedestrians and vehicles	Multi-Use Path	Upon easement acquisition, construct multi-use path under SR 51 (2)	Provides additional safety and security pedestrians and bicyclist at SR 202L
12a		Lack of street lighting	Lighting	Install eight bollard lights and upgrade three streetlights with pedestrian lighting (4)	Provides additional security and visibility by illuminating dark areas of the corridor
12b		No crossing near destinations and wide street with high volume	Mid-Block Crossing and Pedestrian Refuge Island	Install HAWK signal with high-visibility crosswalk with ladder striping and pedestrian refuge island within existing medians near Excelencia School	Provides connectivity for pedestrians to Excelencia School and other destinations
12c		Lack of designated crosswalk at Grand Canal	Canal Crossing	Construct canal crossing with high-visibility crosswalk with ladder striping and RRFB signal at Grand Canal (8)	Provides connectivity for bicyclists and pedestrians
12d		Lack of designated crosswalks	Intersection Improvement	Upgrade intersections with high-visibility crosswalks using ladder striping	Improves safety and visibility of people crossing the street

▶ Project Delivery Constraints

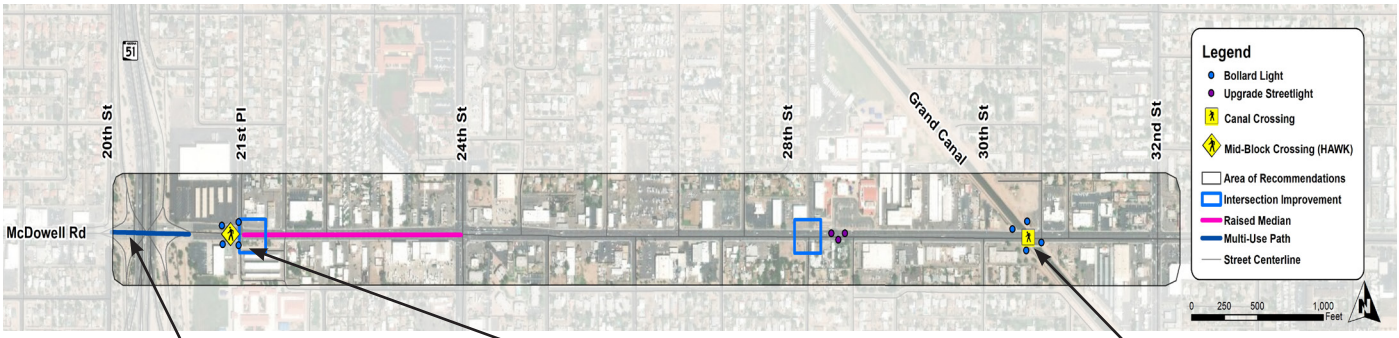
Raised medians may cause limited access to destinations. Multi-use path will require coordination with ADOT for ROW acquisition.

Project Costs	11 (a,b)	12 (a,b,c,d)
Design	$88,079.16	$169,735.46
ROW	$0	$0
Construction Phase	$142,572.08	$666,615.93
	(a) $7,181.00	(a) $163,007.50
	(b) $84,500.00	(b) $132,780.00
		(c) $128,890.00
		(d) $1,560.00
TOTAL	**$239,399.44**	**$877,254.85**

McDowell Road: 20th Street - 32nd Street

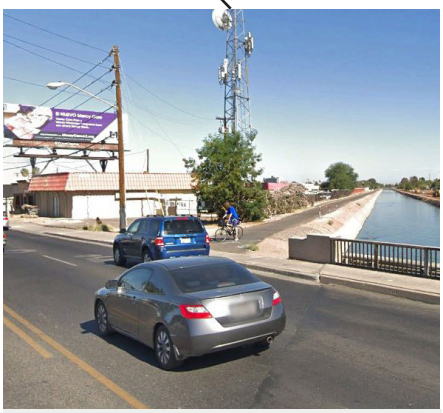
Project ID:
11a, 11b, 12a, 12b, 12c, 12d

Existing condition photos with examples of recommendations

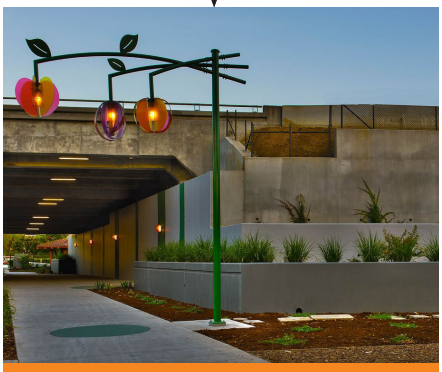


Narrow path under the SR 51 and no barrier between pedestrians and vehicles

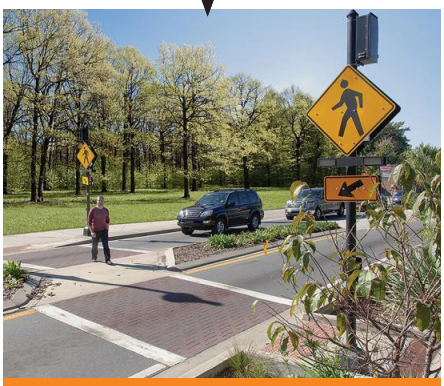
No crossing near destinations and wide street with high volume



Lack of designated crosswalk at Grand Canal



Example of a multi-use path



Example of a pedestrian refuge island

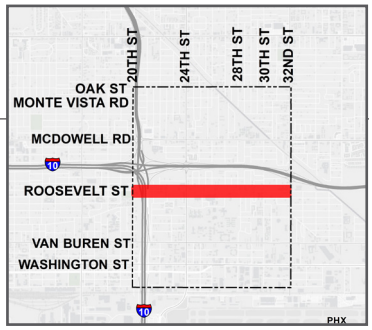
Example of a canal crossing

Roosevelt Street: 20th Street - 32nd Street

Project ID: 13a, 13b, 14

Project Name

Roosevelt Street: Pedestrian and Bicycle Improvements



▶ Destinations

Fillmore Gardens	Edison Park
Arizona State Hospital	

ID	Type	Current Conditions	Solutions	Description	Benefits
13a		Connection to neighborhoods and County Hospital	Speed Cushions	Install eight speed cushions along Roosevelt Street	Slows traffic and improves safety for pedestrians and bicyclists
13b		Lack of shade and street lighting	Trees & Lighting	Plant seven trees near the County Hospital, install one streetlight, and upgrade four streetlights with pedestrian arm attachment (3&4)	Provides additional security and visibility for pedestrians and bicyclists
14		No signalized crossing at hospital	Mid-Block Crossing	Install RRFB signal with high-visibility crosswalk with ladder striping	Provide designated, high visibility crossing between destinations

▶ Project Delivery Constraints

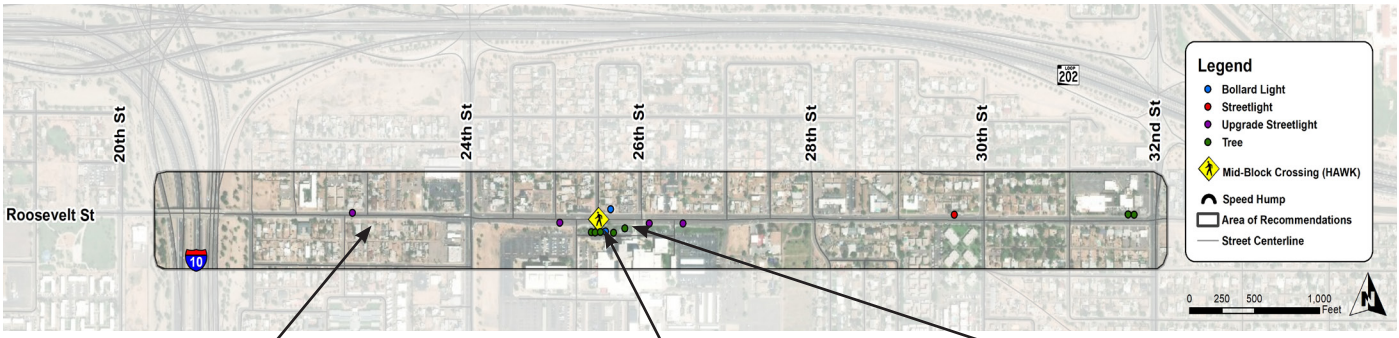
Rectangular rapid flashing beacon (RRFB) may require utility work.

Project Costs	13 (a,b)	14
Design	$75,605.61	$83,687.24
ROW	$0	$0
Construction Phase	$106,188.46	$189,506.21
	(a) $24,000.00	
	(b) $51,282.50	
TOTAL	**$199,860.02**	**$296,371.78**

Roosevelt Street: 20th Street - 32nd Street

Project ID:
13a, 13b, 14

Existing condition photos with examples of recommendations



Connection to neighborhoods and County Hospital

No signalized crossing at hospital

Lack of shade and street lighting

Example of a speed cushion

Example of an RRFB

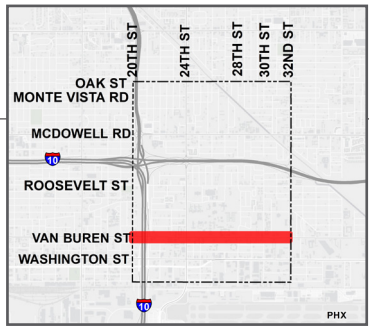
Example of shade and street lights

Van Buren Street: 20th Street - 32nd Street

Project ID: 15a, 15b

Project Name

Van Buren Street: Pedestrian and Public Health & Safety Improvements



▶ Destinations

Arizona State Hospital

Salvation Army Herberger Campus

ID	Type	Current Conditions	Solutions	Description	Benefits
15a		Six-foot path under the I-10 and no barrier between pedestrians and vehicles	Multi-Use Path	Upon easement acquisition, construct multi-use path under I-10 (2)	Provides additional safety and security pedestrians and bicyclist at I-10
15b		Lack of shade	Trees	Plant 17 trees to current vacant tree boxes (3)	Provides additional security and visibility for pedestrians and bicyclists

▶ Project Delivery Constraints

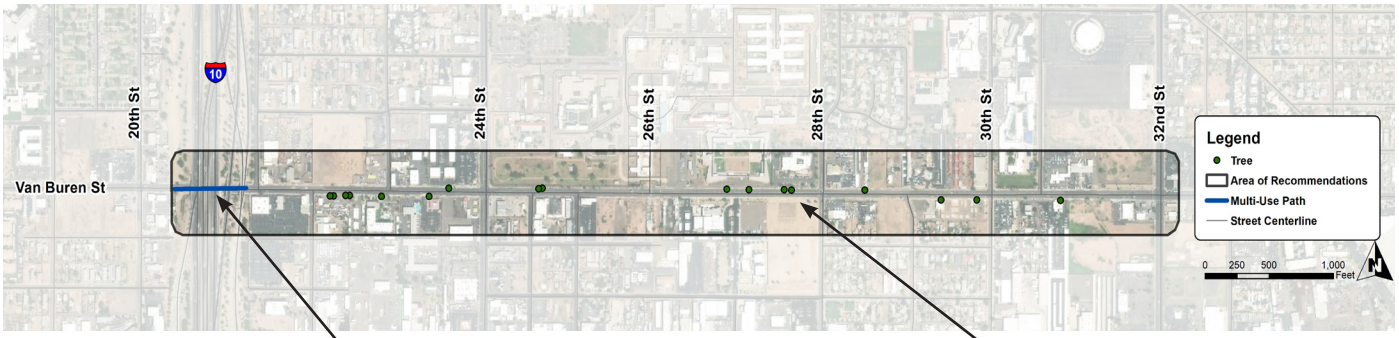
Multi-use path will require coordination with ADOT for ROW acquisition.

Project Costs	15 (a,b)
Design	$77,583.56
ROW	$0
Construction Phase	$34,367.46
	(a) $13,000.00
	(b) $9,100.00
TOTAL	**$114,059.80**

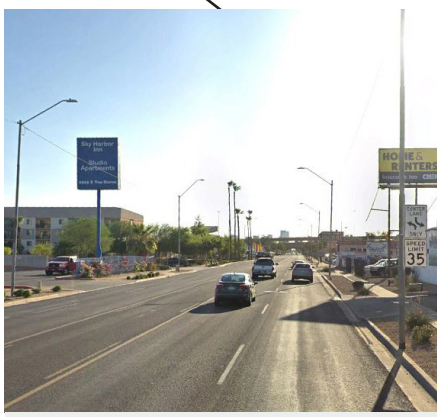
Van Buren Street: 20th Street - 32nd Street

Project ID:
15a, 15b

Existing condition photos with examples of recommendations

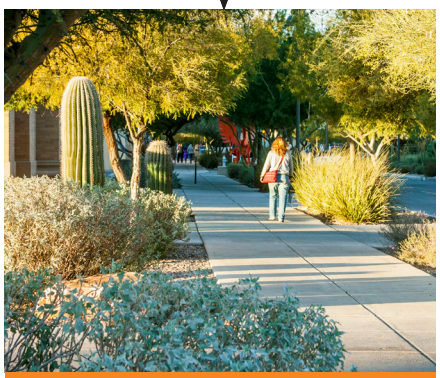


Narrow path under the I-10 and no barrier between pedestrians and vehicle



Lack of shade

Example of a multi-use path



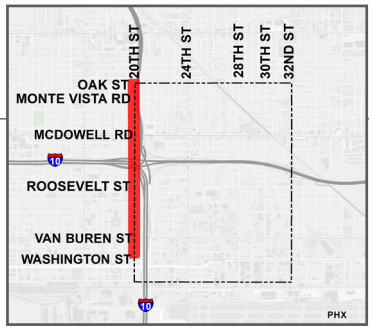
Example of shade

20th Street: Washington Street - Oak Street

Project ID: 16a, 16b, 17a, 17b

Project Name

20th Street Pedestrian, Bicycle and Public Health & Safety Improvements



▶ Destinations

Edison Park

ID	Type	Current Conditions	Solutions	Description	Benefits
16a		Limited north/south bike routes for bicyclists	Bike Lane	Add striping, road markings with bike symbol, and directional arrow (8)	Bike lane would create a designated north/south route for bicyclists
16b		Gaps in sidewalk infrastructure	Sidewalks	Construct five-foot sidewalks with ADA ramps, curb and gutter. Ensure driveways are at-grade where conflicts occur (1,6&7)	Provides continuous and connected sidewalks along the corridor
17a		Lack of designated crosswalks	Intersection Improvements	Upgrade intersections with high-visibility crosswalks using ladder striping	Improves safety and visibility of people crossing the street
17b		Lack of shade	Trees	Plant five trees south of pedestrian bridge at Oak St. (3)	Provides additional security and visibility for pedestrians and bicyclists

▶ Project Delivery Constraints

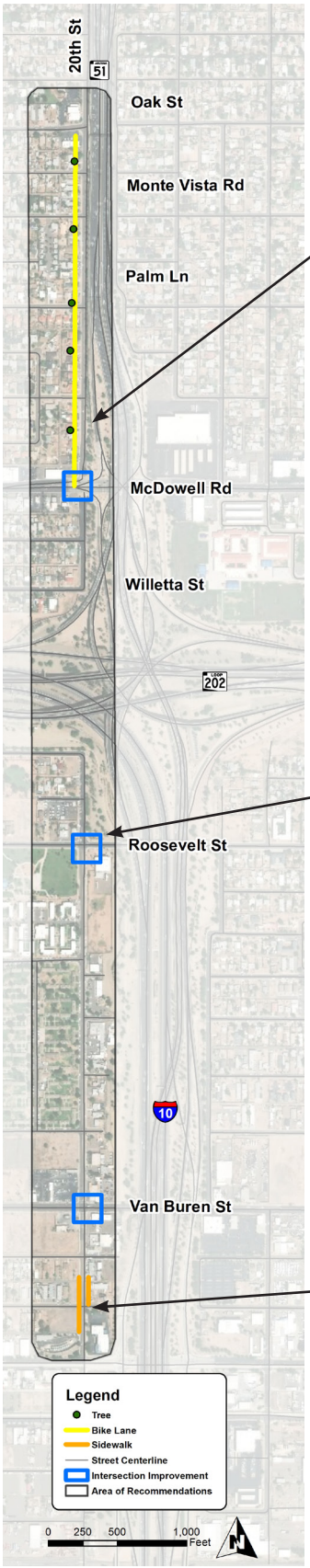
Bicycle lane will have minor adjustments to ROW.

Project Costs	16 (a,b)	17 (a,b)
Design	$74,508.03	$64,593.92
ROW	$0	$0
Construction Phase	$105,755.35	$3,545.60
	(a) $29,096.00	(a) $780.00
	(b) $38,910.00	(b) $1,500.00
TOTAL	**$186,752.51**	**$68,357.07**

20th Street: Washington Street - Oak Street

Project ID:
15a, 15b, 16a, 16b

Existing condition photos with examples of recommendations



Limited north/south bike routes for bicyclists

Example of a bike lane

Lack of clearly marked crosswalk

Example of a high-visibiliy crosswalk

Gaps in sidewalk infrastructure

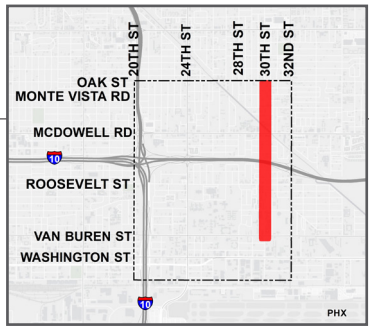
Example of sidewalks

30th Street: Filmore Street - Oak Street

Project ID: 18a, 18b, 18c

Project Name

30th Street Pedestrian Improvements



▶ Destinations

Wilson Elementary School	Celebrity Theatre

ID	Type	Current Conditions	Solutions	Description	Benefits
18a		Gaps in sidewalk infrastructure	Sidewalks	Construct six-foot sidewalks with ADA ramps, curb and gutter. Ensure driveways are at-grade where conflicts occur (1,6&7)	Provides continuous and connected sidewalks along the corridor
18b		High volume pedestrian traffic and high amount of on-street parking	Curb Extensions	Extend curbs for pedestrians at near Wilson Primary and Wilson Elementary School	Ensures visibility and more space for pedestrians
18c		Lack of shade and street lighting	Trees & Lighting	Plant 12 trees and install seven streetlights, 12 bollard lightings and upgrade 15 streetlight with pedestrian arm attachment (3&4)	Provides additional security and visibility for pedestrians and bicyclists

▶ Project Delivery Constraints

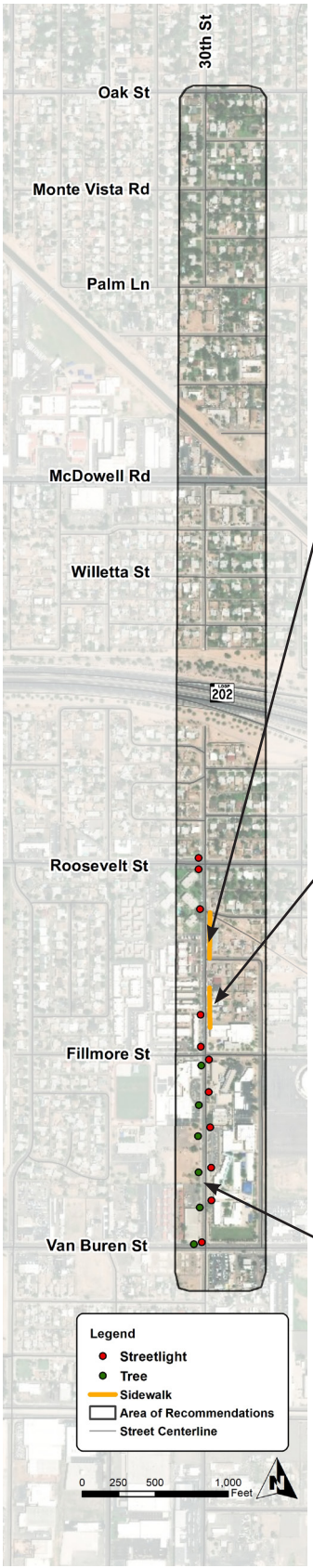
Curb extensions will require ROW acquisition.

Project Costs	18 (a,b,c)
Design	$100,798.53
ROW	$0
Construction Phase	$336,867.96
	(a) $39,870.00
	(b) $5,600.00
	(c) $196,830.00
TOTAL	**$500,716.76**

30th Street: Filmore Street - Oak Street

Project ID:
18a, 18b, 18c

Existing condition photos with examples of recommendations



Gaps in sidewalk infrastructure

Example of sidewalks

High volume pedestrian traffic and high amount of on street parking

Example of curb extensions

Lack of shade and street lighting

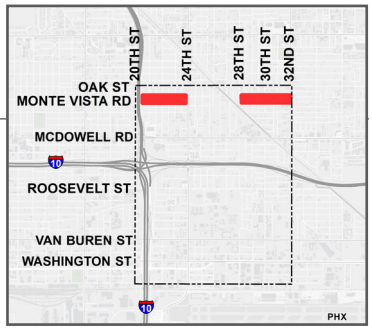
Example of shade and street lights

Monte Vista Street: 28th Street - 32nd Street

Project ID: 19

Project Name

Monte Vista Street Traffic Calming Improvements



▶ Destinations

Food City

ID	Type	Current Conditions	Solutions	Description	Benefits
19		Traffic calming features do not exist	Speed Humps	Add five speed humps along Monte Vista Street	Slows traffic and improves safety for pedestrians and bicyclists

▶ Project Delivery Constraints

Project will require coordination with City of Phoenix Speed Hump Program

Project Costs	19
Design	$66,512.60
ROW	$0
Construction Phase	$23,326.33
TOTAL	**$91,270.23**

Monte Vista Street: 28th Street - 32nd Street

Project ID: 19

Existing condition photos with examples of recommendations

Lack of infrastructure to slow traffic

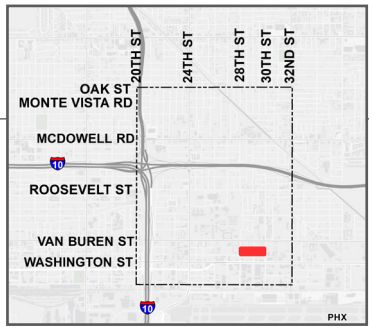
Example of a speed hump

29th Street: Monroe Street - Adams Street

Project ID: 20

Project Name

29th Street Traffic Calming Improvements



▶ Destinations

Salvation Army Ledbetter Center	American Paintball Coliseum
Hilaria Rodriguez Park	

ID	Type	Current Conditions	Solutions	Description	Benefits
20		Traffic calming features do not exist	Speed Humps	Add three speed humps along Monroe Street and three Speed humps along Adams Street	Slows traffic and improves safety for pedestrians and bicyclists

▶ Project Delivery Constraints

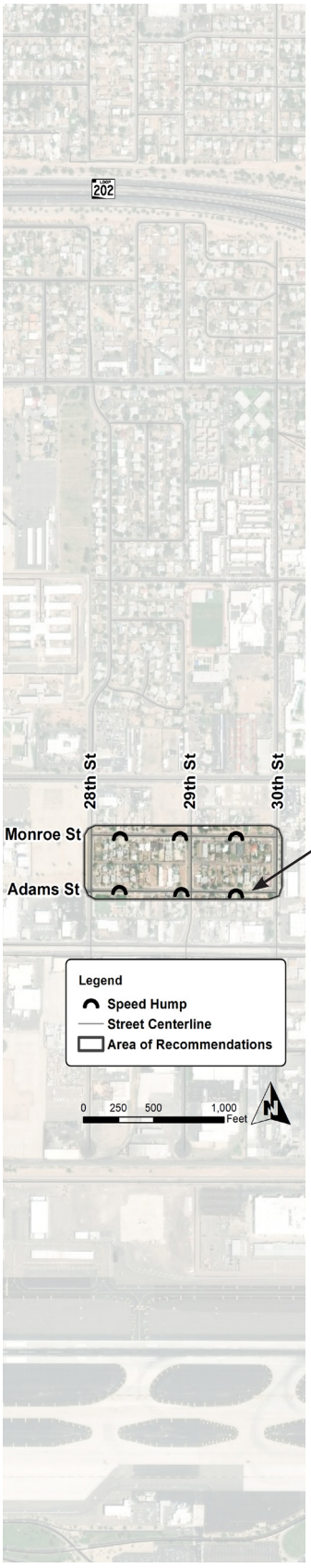
Project will require coordination with City of Phoenix Speed Hump Program.

Project Costs	20
Design	$67,417.64
ROW	$0
Construction Phase	$32,656.86
TOTAL	**$102,078.32**

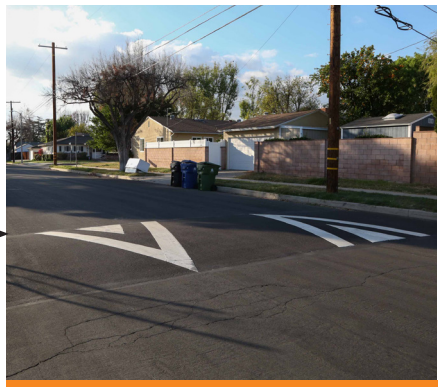
29th Street: Monroe Street - Adams Street

Project ID: 20

Existing condition photos with examples of recommendations



Lack of infrastructure to slow traffic



Example of a speed hump

2.1 Cost Estimates

Costs for materials, ROW, design, and construction were provided by the City to estimate the planning level cost of each solution bundle. The bundled cost can be found in the *Cost* column of **Table 2-1**. The fees associated with ROW, Design, and Construction were applied once to the total material cost of a solution bundle. Solution bundles were determined by both project type and constructability. The material cost (excluding ROW, design, and construction fees) of each solution was calculated to show the value of each solution before it is bundled for construction. These detailed costs can be found in **Appendix C.**

2.2 Project Scoring Criteria

Solution bundles were scored on public input and how each bundle addressed the needs of the community. Each bundle scored on a 100-point scale using the following categories:

- Safety (23 points)
- Connectivity (22 points)
- Public Input (20 points)
- Deliverability/Constructability (10 points)
- Cost (10 points)
- Roadway Stress Level (15 points)

10 additional points for bonus/equity is also applied to the scoring criteria. A total score of 110 points is possible for projects. Standards provide a range of potential points that a project can score. Scores depend upon the scoring criteria and the standards of that criteria. These criteria and thresholds are included in **Appendix F**.

2.3 Project Prioritization

The scored solutions were split into three tiers. Solutions with the highest scores were placed in Tier 1 for highest priority, Tier 2 for medium priority solutions, and Tier 3 for low priority solutions.

It is important to note that despite the scores and priority given to the solutions, all solutions described in this report are important to create a safer and more accessible environment for all users. The solutions are listed by tier in **Table 2-1**.

3.0 Conclusion

The solutions presented in this report are intended to address the mobility needs identified in the CCR. Analysis of the Roosevelt Neighborhoods indicated a lack of streetlights and pedestrian-level lights along heavily trafficked corridors, a lack of northbound and southbound bike facilities, and low-visibility crosswalks at major intersections. Many of the recommended solutions included installing streetlights, adding pedestrian-level lights to some existing streetlights, restriping crosswalks, and installing signalized crosswalks such as HAWKS or RRFBs.

Once the solutions were vetted, they were scored and prioritized into three tiers. The purpose of the tiered list is to provide data-backed solutions by level of need and benefit to the community.

Public Participation Summary

A public meeting was held on Wednesday, October 24, 2018, at the Wilson Elementary School which provided information on proposed projects for Mobility Area 8. The purpose of the meeting was to get public input on proposed projects, including types of projects and gauge community opinions regarding mobility improvements.

The following list summarizes comments on proposed projects made by the public:

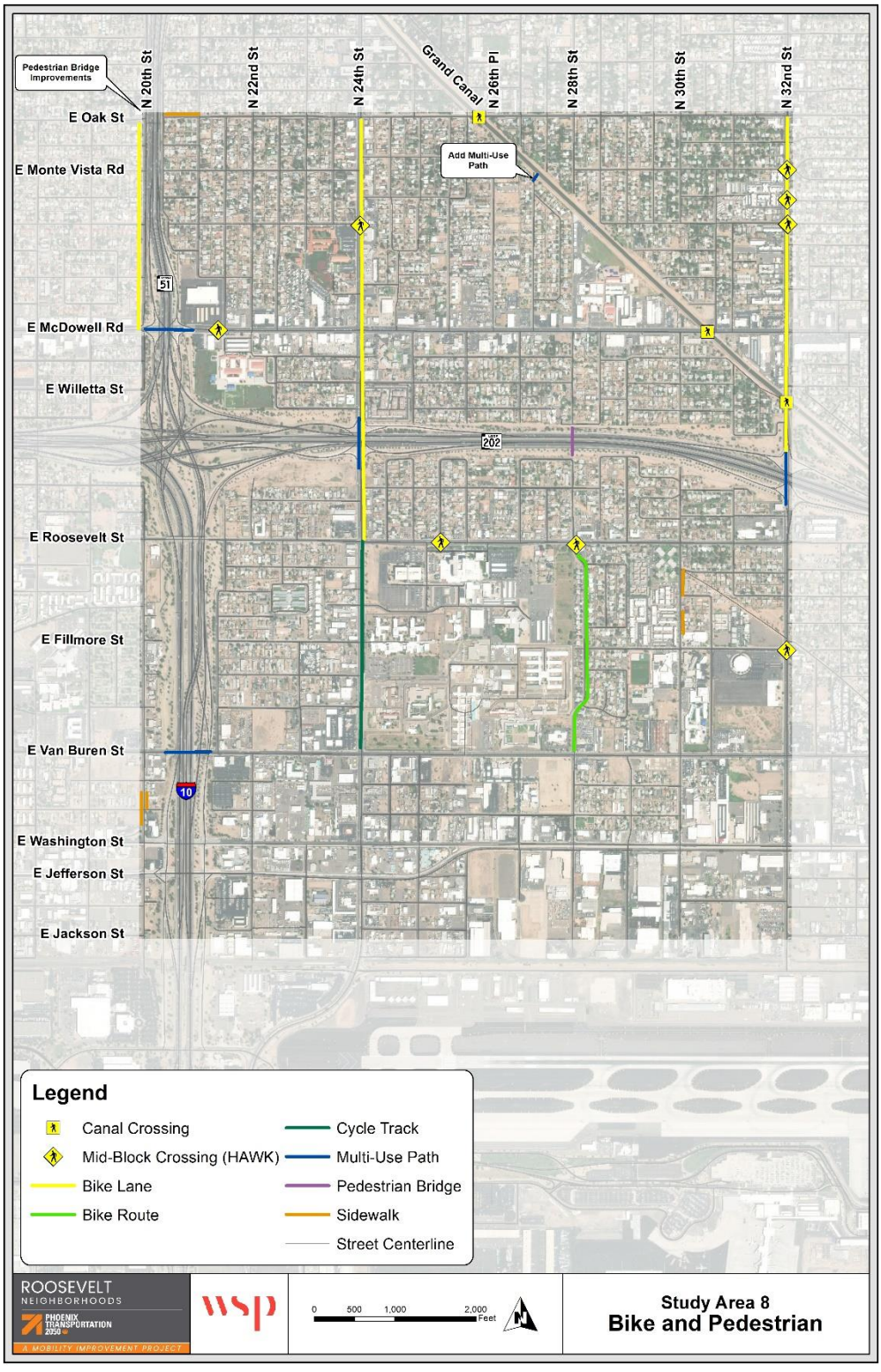
- Utilize speed cushions near the hospital to slow traffic through neighborhoods, yet still provide access for emergency vehicles
- Provide sidewalks on both sides of the street near schools
- Buffered bike lanes are preferred on high volume roads and arterials
- Multi-use paths under freeways provide safer environments and higher visibility for pedestrians and bicyclists
- Other projects that were important to the public included designated canal crossings and trees/shade
- The types of projects that were most important to the public were bicycle facilities, ADA curb ramps, sidewalks, and crossings

The public also stated that they generally did not feel safe walking or bicycling through the study area, furthering concerns regarding access to destination and overall safety considerations.

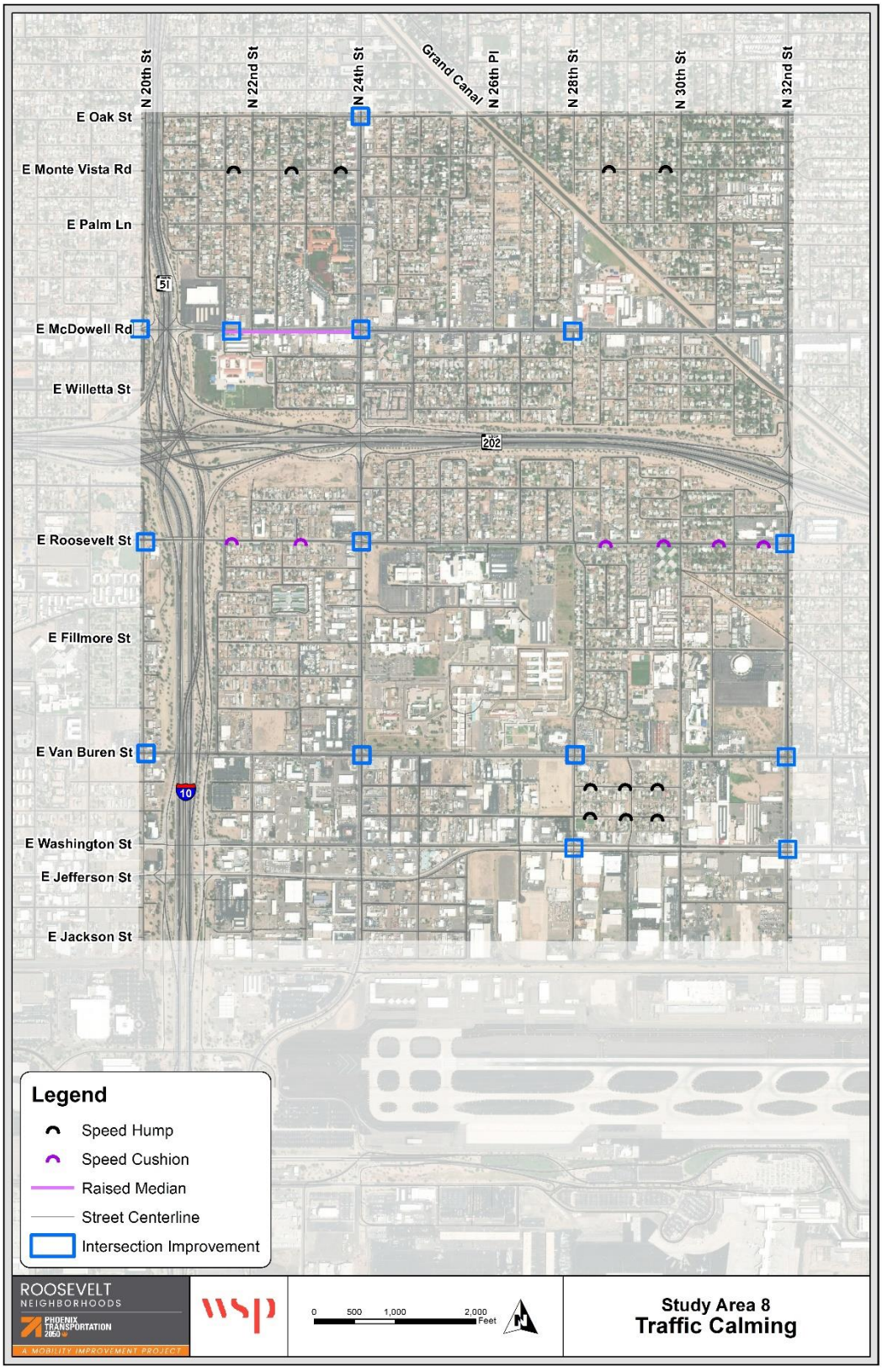
Some reasons the public indicated why they can’t get to destinations include busy intersections, minimal shade, insufficient street lights, stray/aggressive animals, drivers not obeying traffic laws, vehicles driving too fast, and too few bike lanes

Appendix A: Project Type Maps

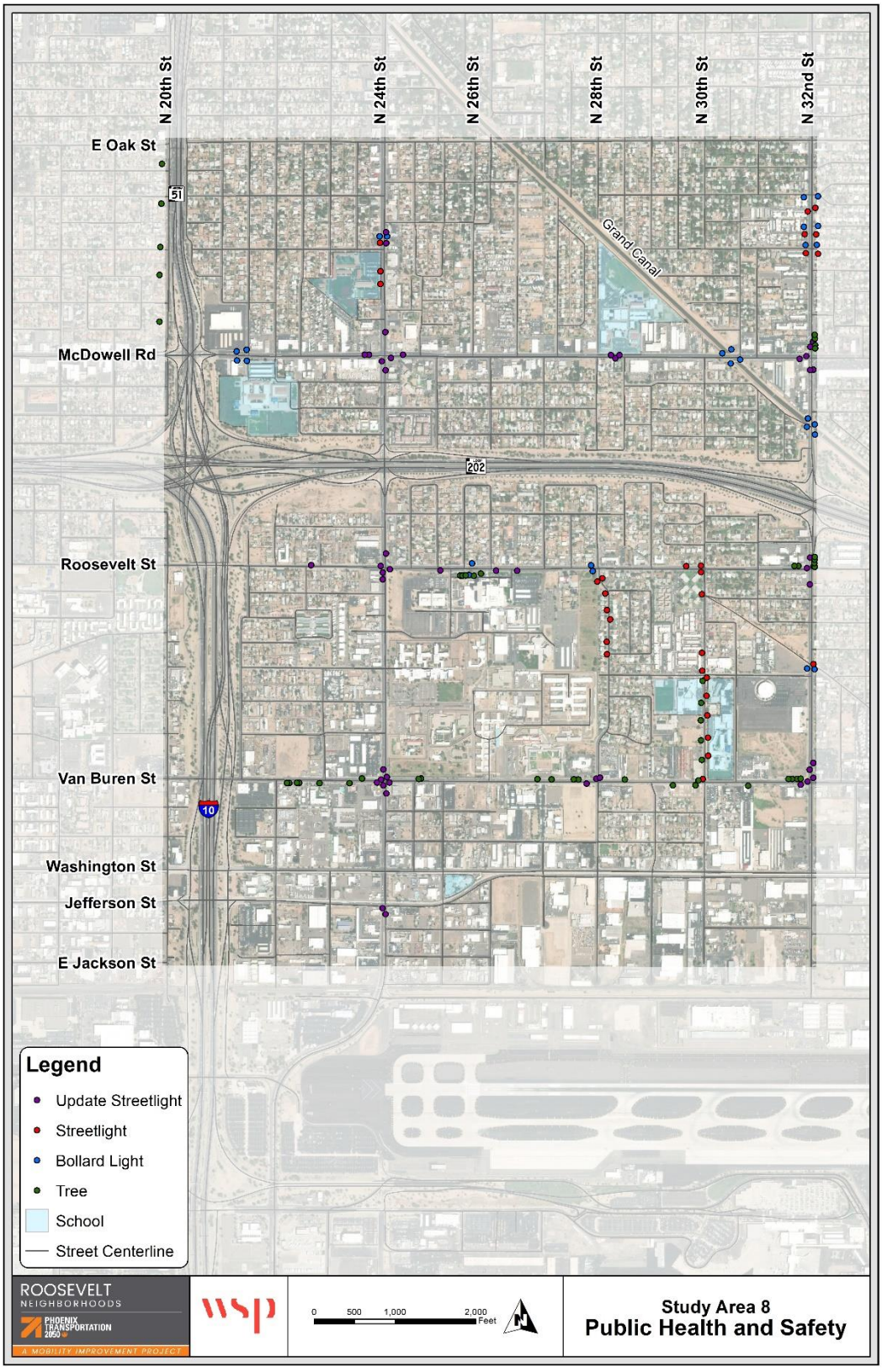
Bicycle and Pedestrian Improvements



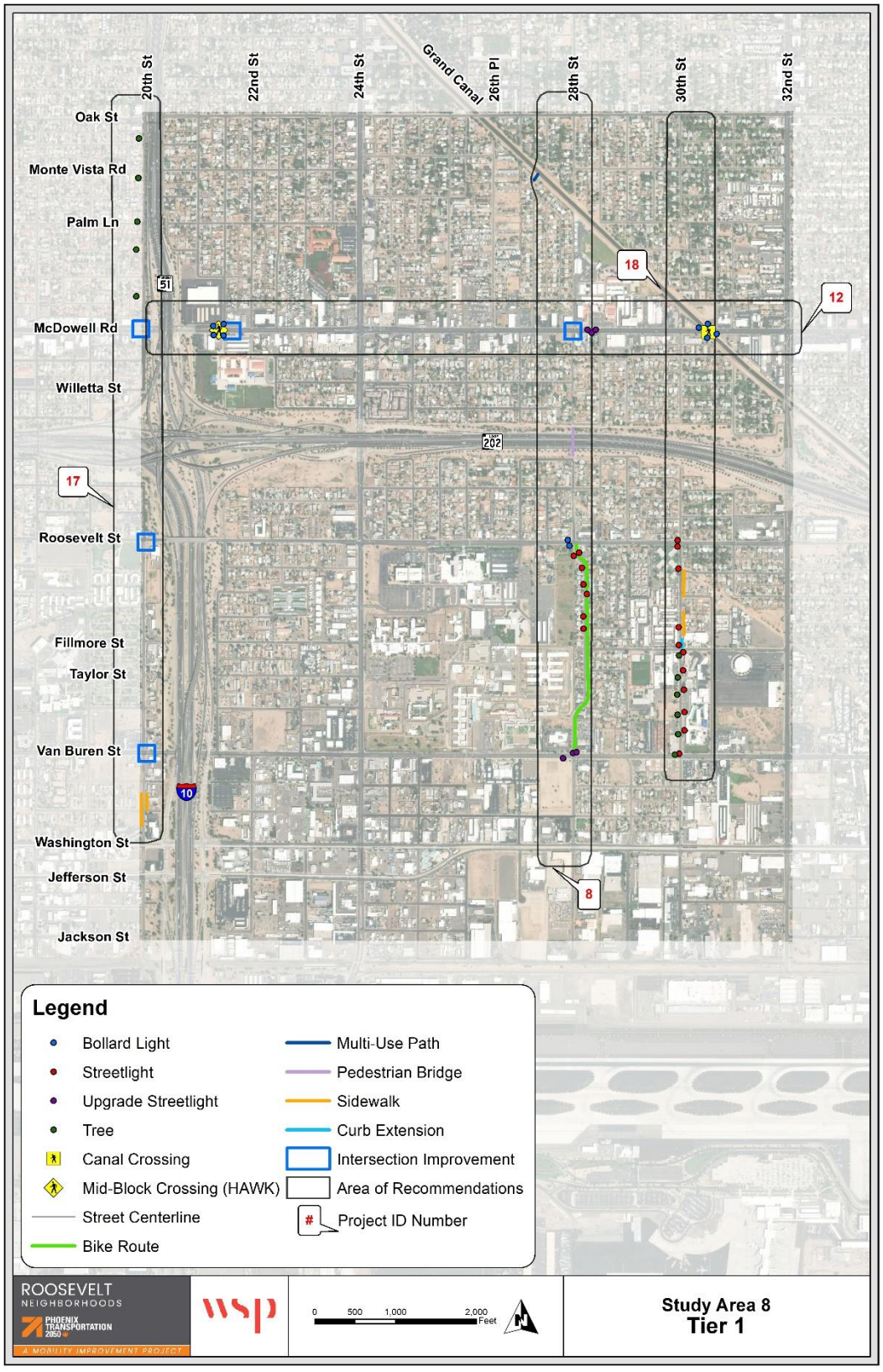
Traffic Calming Improvements



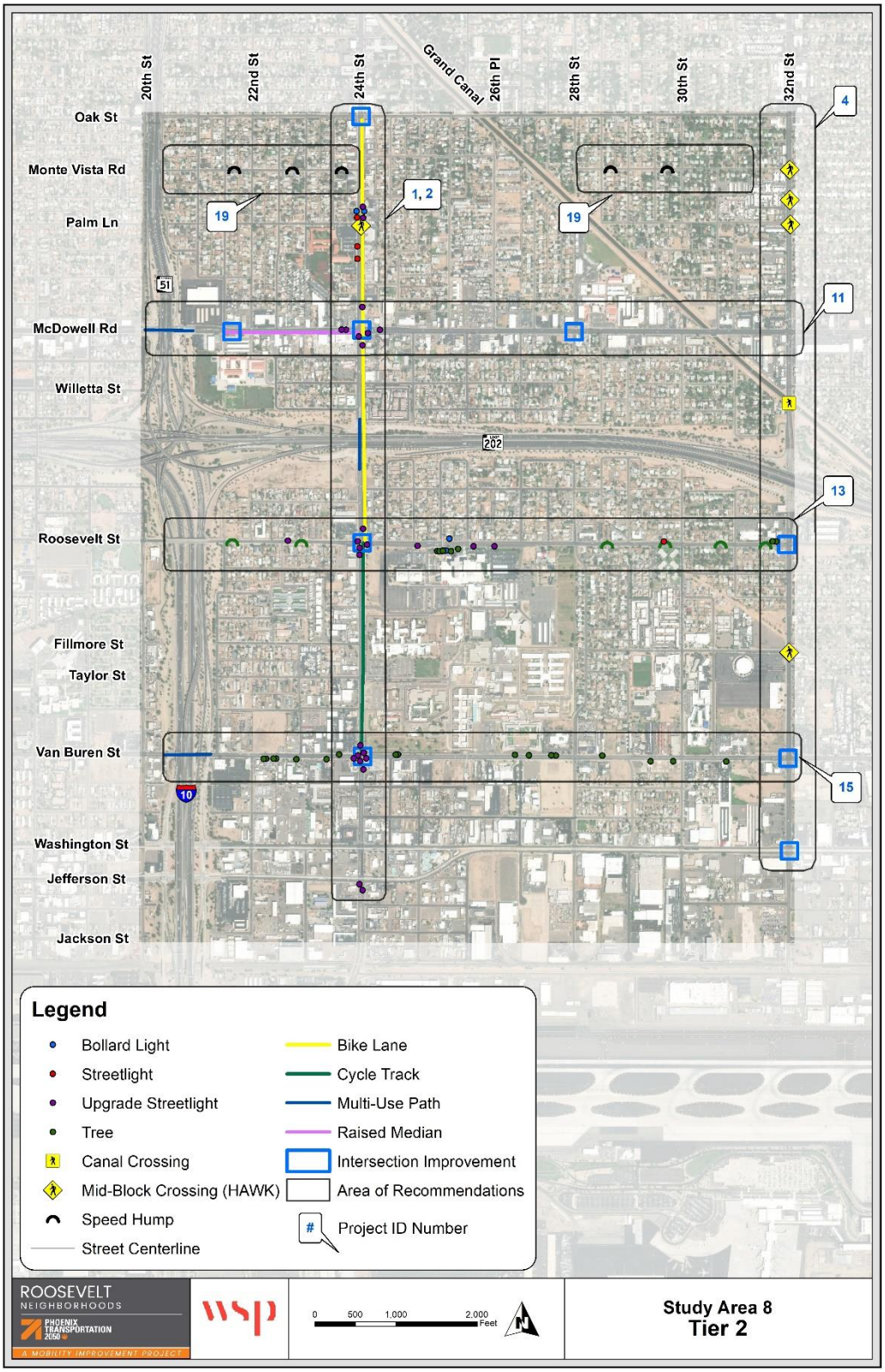
Public Health and Safety Improvements



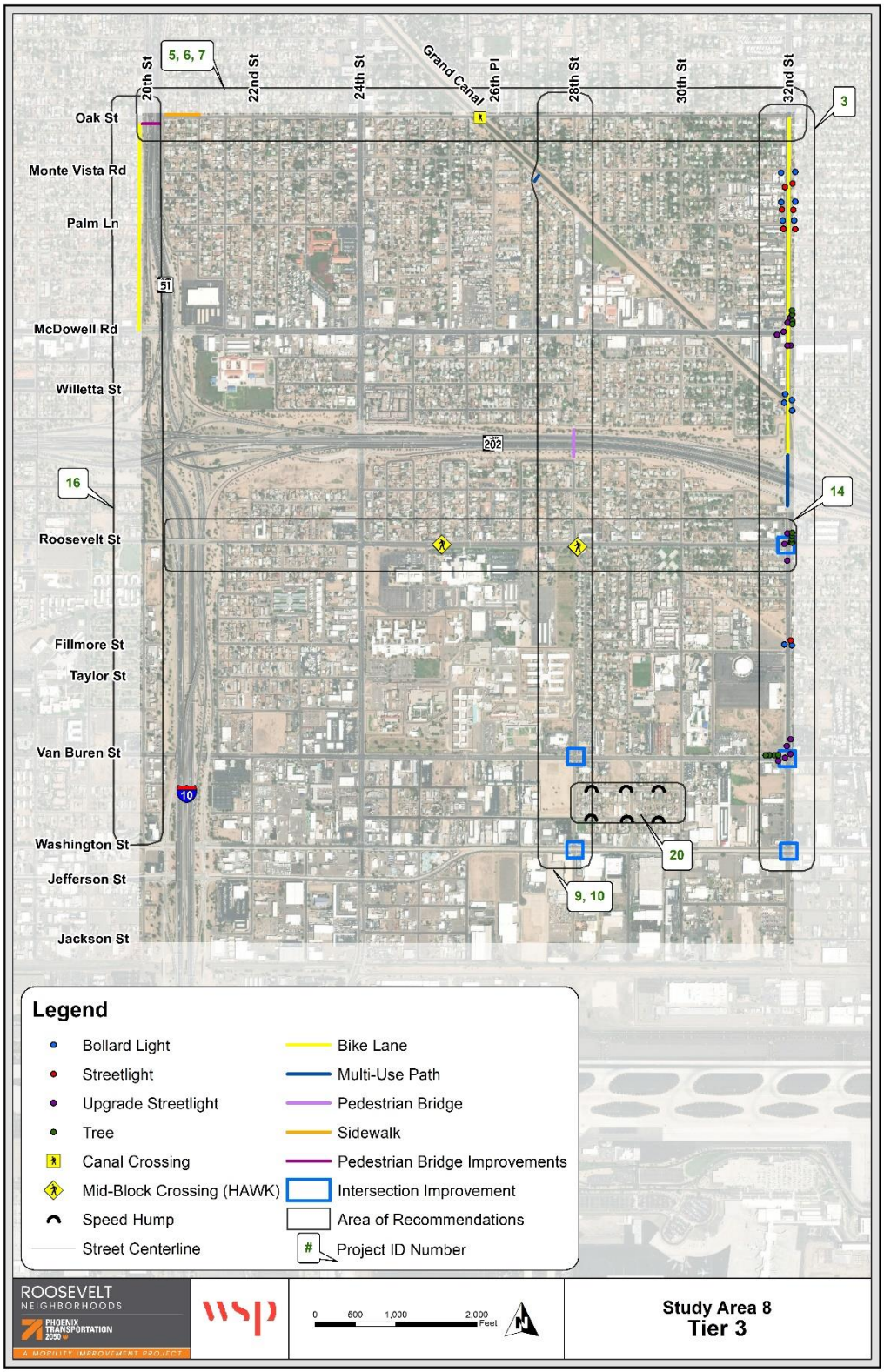
Tier 1 Solutions



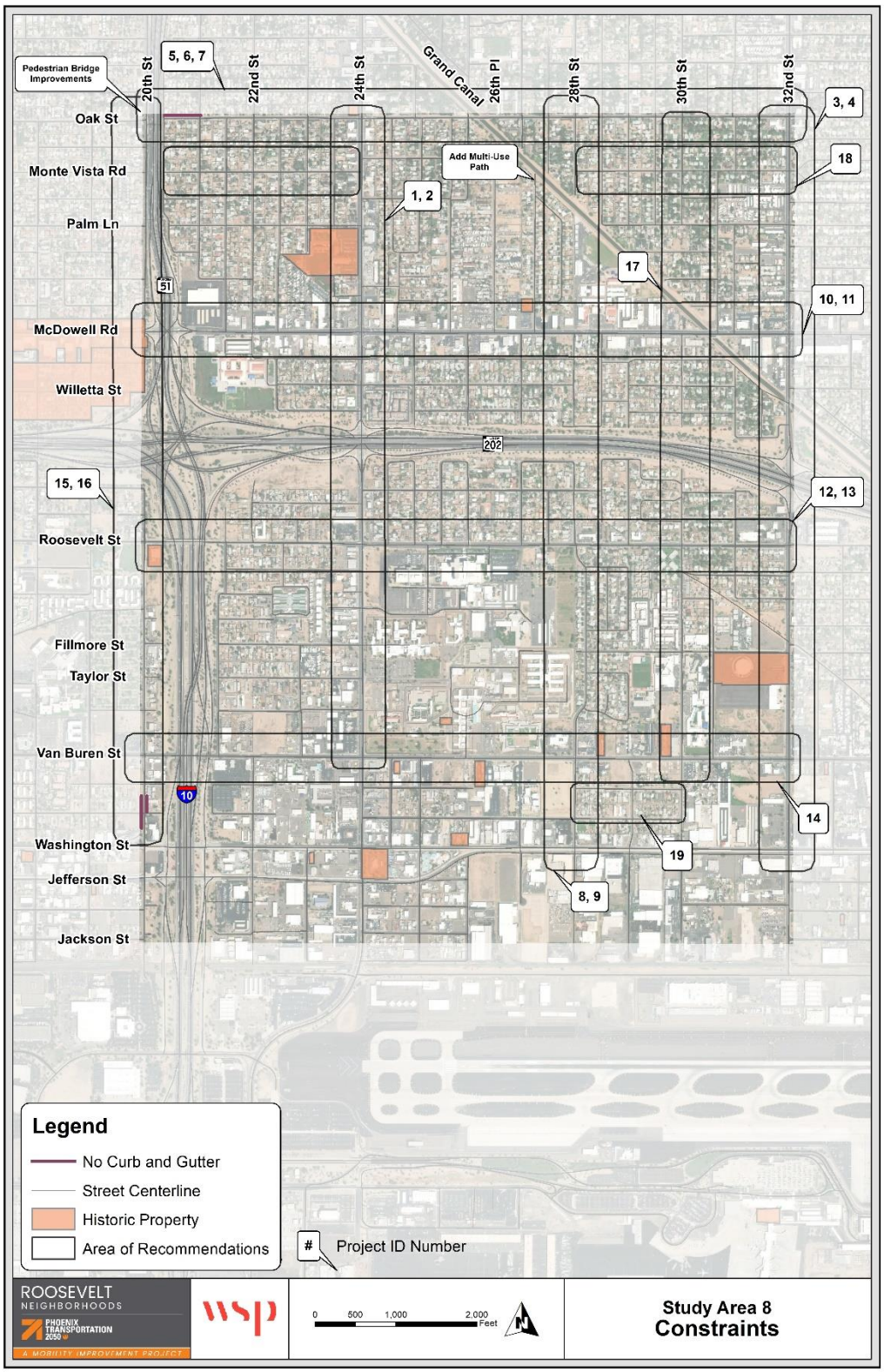
Tier 2 Solutions



Tier 3 Solutions

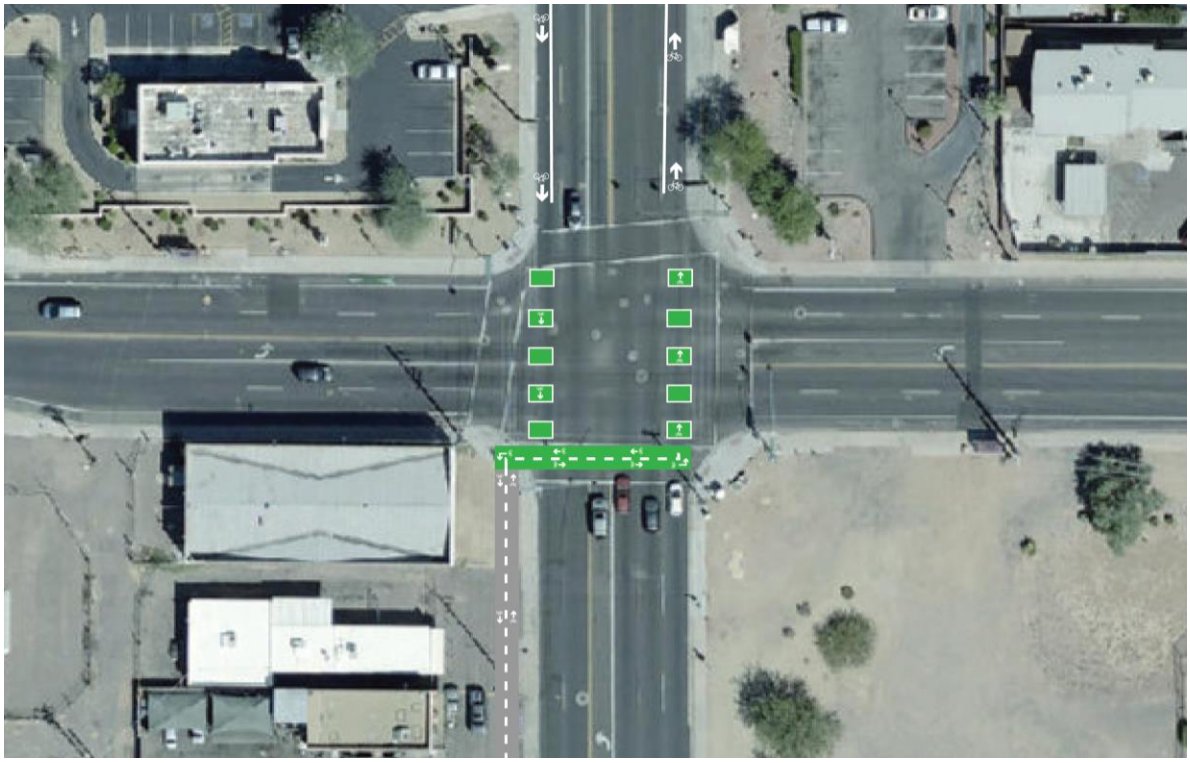


Project Constraints



Appendix B: Project Renderings, Cross Sections, and Images

24th Street Bicycle Improvements/Transition



McDowell Road Raised Medians

32nd Street HAWK Signal


STOP ON RED
PEDESTRIAN CROSSING

Appendix C: Summary Table

KEY
(#): see policy notation at bottom of report

Tier	Project Name	Map Area	Map ID	Recommended Solution	Solution Type	Description	Location	Itemized Cost	Total Cost	Score
1	28th Street: Pedestrian and Bicycle Improvements	8	8a	Trees/Lighting	Public Health & Safety	Install seven light posts, three pedestrian lighting to existing light posts and two bollards lights **(4)**	28th St from Oak St to Washington St	$156,055.00	$412,910.02	92
1	28th Street: Pedestrian and Bicycle Improvements	8	8b	Bike Route	Bicycle	Paint sharrows to indicate vehicles and bicycles share the road **(8)**	28th St from Roosevelt St to Van Buren St	$37,500.00	$412,910.02	92
1	30th Street: Pedestrian Improvements	18	18a	Sidewalks	Pedestrian	Construct six-foot sidewalks with ADA ramps, curb and gutter. Ensure driveways are at-grade where conflict ones occur **(1,6&7)**	30th St from Oak St to Van Buren St	$39,870.00	$500,716.76	87
1	30th Street: Pedestrian Improvements	18	18b	Curb Extensions	Pedestrian	Extend curbs for pedestrians at Fillmore Street and 30th Street	30th St from Oak St to Van Buren St	$5,600.00	$500,716.76	87
1	30th Street: Pedestrian Improvements	18	18c	Trees/Lighting	Public Health & Safety	Plant 12 trees and install seven light posts, 15 pedestrian lighting to existing light posts and 12 bollards lights **(3&4)**	30th St from Oak St to Van Buren St	$196,830.00	$500,716.76	87
1	McDowell Road: Pedestrian and Traffic Calming Improvements	12	12a	Lighting	Public Health & Safety	Install three pedestrian scale lighting to existing light posts and eight bollard lights **(4)**	McDowell Rd from 20th St to 32nd St	$163,007.50	$877,254.85	85
1	McDowell Road: Pedestrian and Traffic Calming Improvements	12	12b	Mid-Block Crossing	Pedestrian	Install HAWK signal with ladder striping and warning signage and pedestrian refuge island within existing medians near Excelencia School	McDowell Rd and 21st Pl	$132,780.00	$877,254.85	85
1	McDowell Road: Pedestrian and Traffic Calming Improvements	12	12c	Canal Crossing	Pedestrian	Construct canal crossing with ladder striping wayfinding and RRFB signal at Grand Canal **(8)**	McDowell Rd and Grand Canal (between 30th St and 31st St)	$128,890.00	$877,254.85	85
1	McDowell Road: Pedestrian and Traffic Calming Improvements	12	12d	Intersection Improvements	Traffic Calming	Upgrade crosswalk with high-visibility ladder striping	McDowell Rd and 20th St, 21st Pl, 24th St & 28th St	$1,560.00	$877,254.85	85
1	20th Street: Pedestrian, Bicycle and Public Health & Safety Improvements	17	17a	Intersection Improvements	Pedestrian	Upgrade crosswalk with high-visibility ladder striping	20th St and McDowell Rd, Roosevelt St, and Van Buren St	$780.00	$68,357.07	85
1	20th Street: Pedestrian, Bicycle and Public Health & Safety Improvements	17	17b	Trees/Lighting	Public Health & Safety	Plant five trees near pedestrian bridge at Oak St. **(3)**	20th St from Oak St to Palm Ln	$1,500.00	$68,357.07	85
2	24th Street Bicycle, Public Health & Safety, Traffic Calming and Pedestrian Improvements	1	1a	Lighting	Public Health & Safety	Install light posts and pedestrian scale lighting at high ridership bus stops and crossing near St. Agnes School **(4)**	24th St from Oak St to Van Buren St	$104,635.00	$1,462,901.24	82
2	24th Street Bicycle, Public Health & Safety, Traffic Calming and Pedestrian Improvements	1	1b	Cycle Track	Bicycle	Extend planned two-way cycle track to Roosevelt St. with striping, road markings with bike symbol, directional arrow **(8)**	24th St from Van Buren St to Roosevelt St	$389,020.00	$1,462,901.24	82
2	24th Street Bicycle, Public Health & Safety, Traffic Calming and Pedestrian Improvements	1	1c	Multi-Use Path	Pedestrian	Upon easement acquisition, construct multi-use path under the SR 202L	24th St and SR 202L	$78,000.00	$1,462,901.24	82
2	24th Street Bicycle, Public Health & Safety, Traffic Calming and Pedestrian Improvements	1	1d	Bike Lane	Bicycle	Add striping, road markings with bike symbol and directional arrow **(8)**	24th St from Roosevelt St to Oak St	$83,272.00	$1,462,901.24	82

Tier	Project Name	Map Area	Map ID	Recommended Solution	Solution Type	Description	Location	Itemized Cost	Total Cost	Score
2	24th Street Bicycle, Public Health & Safety, Traffic Calming and Pedestrian Improvements	2	2a	Intersection Improvements	Traffic Calming	Update crosswalks with high-visibility crosswalk with ladder striping	24th St and Oak St, McDowell Rd, Roosevelt St, and Van Buren St	$2,080.00	$319,153.15	82
2	24th Street Bicycle, Public Health & Safety, Traffic Calming and Pedestrian Improvements	2	2b	Mid-Block Crossing	Pedestrian	Install RRFB signal with ladder striping	24th St and Palm Ln (northeast corner of St. Agnes School)	$112,225.00	$319,153.15	82
2	Van Buren Street: Pedestrian and Public Health & Safety Improvements	15	15a	Multi-Use Path	Pedestrian	Upon easement acquisition, construct multi-use path under I-10 **(2)**	Van Buren St and I-10	$13,000.00	$114,059.80	82
2	Van Buren Street: Pedestrian and Public Health & Safety Improvements	15	15b	Lighting	Public Health & Safety	Plant 17 trees to current vacant tree boxes **(3)**	Van Buren St from 20th to 32nd St	$9,100.00	$114,059.80	82
2	Roosevelt Street: Pedestrian and Bicycle Improvements	13	13a	Speed Humps	Traffic Calming	Install eight speed cushions along Roosevelt Street	Roosevelt St from 20th St to 32nd St	$24,000.00	$199,860.02	81
2	Roosevelt Street: Pedestrian and Bicycle Improvements	13	13b	Shade/ Trees/Lighting	Public Health & Safety	Plant seven trees near the County Hospital and install one light post, four pedestrian scale lighting to existing light post and two bollard lights **(3&4)**	Roosevelt St from 20th St to 32nd St	$51,282.50	$199,860.02	81
2	32nd Street: Pedestrian, Bicycle, and Public Health & Safety Improvements	4	4a	Intersection Improvements	Traffic Calming	Upgrade crosswalk with high-visibility ladder striping	32nd St and Roosevelt St, Van Buren St, and Washington St	$1,950.00	$536,188.63	79
2	32nd Street: Pedestrian, Bicycle, and Public Health & Safety Improvements	4	4b	Canal Crossing	Pedestrian	Construct canal crossing with ladder striping and RRFB signal at Grand Canal **(8)**	32nd St and Grand Canal (north of SR 202L)	$128,830.00	$536,188.63	79
2	32nd Street: Pedestrian, Bicycle, and Public Health & Safety Improvements	4	4c	Mid-Block Crossing	Pedestrian	Install RRFB signal with ladder striping	32nd St and Palm Ln, Monte Vista St, Hubbell St, Fillmore St	$103,890.00	$536,188.63	79
2	Monte Vista Street: Traffic Calming Improvements	19	19	Speed Humps	Traffic Calming	Add five speed humps along Monte Vista Street	Monte Vista St from 20th St to 32nd St	$15,000.00	$91,270.23	79
2	McDowell Road: Pedestrian and Traffic Calming Improvements	11	11a	Medians	Traffic Calming	Construct raised medians with five trees	McDowell Rd from 21st Pl to 22nd Pl	$7,181.00	$239,399.44	76
2	McDowell Road: Pedestrian and Traffic Calming Improvements	11	11b	Multi-Use Path	Pedestrian	Upon easement acquisition, construct multi-use path under SR 51 **(2)**	McDowell Rd and SR 51	$84,500.00	$239,399.44	76
3	32nd Street: Pedestrian, Bicycle, and Public Health & Safety Improvements	3	3a	Bike Lane	Bicycle	Add striping, road markings with bike symbol and directional arrow **(8)**	32nd St from Oak St to the north side of SR 202L	$81,849.60	$1,016,191.73	74
3	32nd Street: Pedestrian, Bicycle, and Public Health & Safety Improvements	3	3b	Trees/Lighting	Public Health & Safety	Plant 24 trees and install seven street lights, 15 pedestrian lights/bulbs to existing street lights and 12 bollard lights **(3&4)**	32nd St from Oak St to Van Buren St	$319,040.00	$1,016,191.73	74
3	32nd Street: Pedestrian, Bicycle, and Public Health & Safety Improvements	3	3c	Multi-Use Path	Pedestrian	Upon easement acquisition, construct multi-use path under the SR 202L **(2)**	32nd St and SR 202L	$78,000.00	$1,016,191.73	74
3	Oak Street: Bicycle and Public Health & Safety Improvements	5	5	Sidewalks	Pedestrian	Construct six-foot sidewalks with ADA ramps, curb and gutter. Ensure driveways are at-grade where conflict ones occur **(1,6&7)**	Oak St from 20th St to 32nd St	$33,300.00	$124,234.91	74
3	Roosevelt Street: Pedestrian and Bicycle Improvements	14	14	Mid-Block Crossing	Pedestrian	Install RRFB signal with ladder striping and warning signage	Roosevelt St and 25th Pl	$128,860.00	$296,371.78	74

Tier	Project Name	Map Area	Map ID	Recommended Solution	Solution Type	Description	Location	Itemized Cost	Total Cost	Score
3	28th Street: Pedestrian and Bicycle Improvements	9	9a	Intersection Improvements	Traffic Calming	Upgrade crosswalk with high-visibility with ladder striping	28th St and McDowell Rd, Van Buren St, and Washington St	$780.00	$260,939.25	73
3	28th Street: Pedestrian and Bicycle Improvements	9	9b	Multi-Use Path	Pedestrian	Upon easement acquisition, construct multi-use path on north side of Creighton Elementary School to create connection between the school and surrounding neighborhoods to Grand Canal **(2)**	27th Pl and Grand Canal	$4,550.00	$260,939.25	73
3	28th Street: Pedestrian and Bicycle Improvements	9	9c	Mid-Block Crossing	Pedestrian	Install RRFB signal with ladder striping	28th St and Roosevelt St	$103,860.00	$260,939.25	73
3	Neighborhood 1: Traffic Calming Improvements	20	20	Speed Humps	Traffic Calming	Add three speed humps along Monroe Street and three Speed humps along Adams Street	29th St from Monroe St to Adams St	$21,000.00	$102,078.32	73
3	20th Street: Pedestrian, Bicycle and Public Health & Safety Improvements	16	16a	Bike Lane	Bicycle	Add striping, road markings with bike symbol and directional arrow **(8)**	20th St from Oak St to McDowell Rd	$29,096.00	$186,752.51	72
3	20th Street: Pedestrian, Bicycle and Public Health & Safety Improvements	16	16b	Sidewalks	Pedestrian	Construct five-foot sidewalks with ADA ramps, curb and gutter. Ensure driveways are at-grade where conflict ones occur **(1,6&7)**	20th St from Oak St to Washington St	$38,910.00	$186,752.51	72
3	Oak Street: Bicycle and Public Health & Safety Improvements	7	7	Pedestrian Bridge	Pedestrian	Improve pedestrian bridge with signage, lighting, and design	Oak St and SR 51 (existing bridge)	$500,000.00	$1,009,199.29	69
3	28th Street: Pedestrian and Bicycle Improvements	10	10	Pedestrian Bridge	Pedestrian	Install new pedestrian bridge with signage, lighting, and design over the SR 202L to connect 28th Street	28th and SR 202L	$5,000,000.00	$9,963,742.86	68
3	Oak Street: Bicycle and Public Health & Safety Improvements	6	6	Canal Crossing	Pedestrian	Construct canal crossing with ladder striping wayfinding and RRFB signal at Grand Canal	Oak St and Grand Canal (between 26th St and 26th Pl)	$128,890.00	$296,425.82	59

1 Maricopa Association of Governments Uniform Standard Specifications and Details for Public Works Construction document recommends the implementation of six-foot sidewalks.
2 Easement would require coordination with the City of Phoenix and existing land owner to acquire land
3 Trees were implemented within 160 feet from a high ridership bus stop, a total of four trees - 40 feet on center are planted near every higher ridership bus stop.
4 New lighting included new light posts, pedestrian lighting attachment to existing poles and bollard pedestrian lighting. New lighting was designated at higher ridership bus stops, along major pedestrian routes, and near schools.
5 Neighborhood tree policy encourages land owners to plant trees within their own right-of-way to provide shade for sidewalks and other mobility facilities.
6 Driveway consolidation policy recommend driveways to be consolidated in prevent redundancy and driveways to be flush with sidewalks to meet ADA requirements
7 Where new sidewalks are implemented near to at existing bus stops, bus stops could be updated to provide shelters, benches or other features
8 Maricopa Association of Governments Valley Path Brand & Wayfinding Signage Guidelines provides guidance bike and wayfinding signage

Appendix D: Recommendation Typologies

BIKE LANE

- 4’ bike lane
- 4” reflective pavement marking
- Reflective pavement marking (bike symbol and arrow)
- Bike symbol and arrow placed 300 feet on center

BIKE BOX

- Designated at intersections where bicyclists are turning left onto an arterial or special intersection configuration
- Green thermoplastic
- Reflective pavement marking (bike symbol and arrow)

BUFFERED BIKE LANE

- 4’ bike lane
- Two 4” reflective pavement marking
- Reflective pavement marking (bike symbol and arrow)
- Candlesticks/bollards placed every 30 feet on center
- Bike symbol and arrow placed 300 feet on center

SHARED LANE MARKING (SHARROWS)

- Reflective pavement marking for bike symbol and arrow
- Bike symbol and arrow placed 300 feet on center

SIDEWALK


- 6’ sidewalk
- New curb and gutter where new sidewalk is constructed
- New ADA curb ramps constructed at street corners or intersections where new sidewalk is constructed

MULTI-USE PATH


- 10’ multi-use path
- Travels in both directions
- New curb and gutter where new sidewalk is constructed
- New ADA curb ramps constructed at street corners or intersections where new sidewalk is constructed

MID-BLOCK CROSSING


- Longitudinal striping
- New ADA curb ramps
- Bollard pedestrian lighting or pedestrian lighting attachment to existing light post

HIGH INTENSITY CROSSWALK (HAWK)


- Warning signage
- Flashing beacons
- Stop bar
- Pedestrian signal
- Longitudinal striping

RECTANGULAR RAPID-FLASHING BEACON (RRFB)


- Warning signage
- Flashing beacons
- Stop bar
- Pedestrian signal
- Longitudinal striping

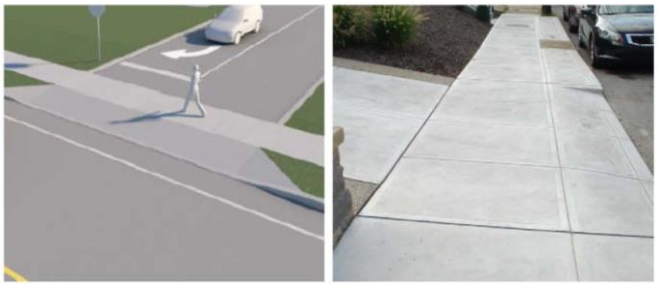
LONGITUDINAL STRIPING


- White paint
- Both longitudinal and horizonal striping through intersection or crossing
- New striping at intersections or where crossing does not formally exist

PEDESTRIAN BRIDGE

- Span
- Superstructure
- Truss
- Pedestrian barrier
- Deck
- Lighting
- ADA Ramps & Stairs

ADA COMPLIANT DRIVEWAY



- 5’-6’ ft. sidewalk
- Drivewways flush with sidewalk

BOLLARD LIGHTING

- Height 45”
- LED lights preferred

STREET LIGHTING

- Pole height varies based on road classification
  - Local: 30'-6"
  - Collector: 38'-6"
  - Arterial: 38'-6"
- Two lights are preferred
  - One facing the street and one facing the sidewalk

CURB AND GUTTER


- Curb and gutter standards are determined from MAG Uniform Standard Specifications and Details for Public Works Construction

SHADE


- Palo Verde and Mesquite trees recommended
- Preferred for resiliency in desert climates, canopy, and low cost maintenance

SPEED HUMP


- 30 ft in length

SPEED CUSHIONS


- 2, 6’-7’speed cushions
- One in each lane

CURB EXTENSIONS


- 10 ft. traffic lanes
- 9 ft. parking lane
- 7 ft. curb extension

PEDESTRIAN REFUGE ISLAND


- 30 X 9 ft.
- 2 ADA ramps
- 40 ft. of metal fencing
- Longitudinal striping

RAISED MEDIANS


- 12 X 200 ft.
- 10 (5 gallon) plants
- Yellow striping
- Decorative pavement

ELEPHANTS FEET


- Green thermoplastic
- Reflective pavement marking (bike symbol and arrow)

SCHOOL CROSSING


- Yellow longitudinal striping
- Warning singage

LINEAR PARK

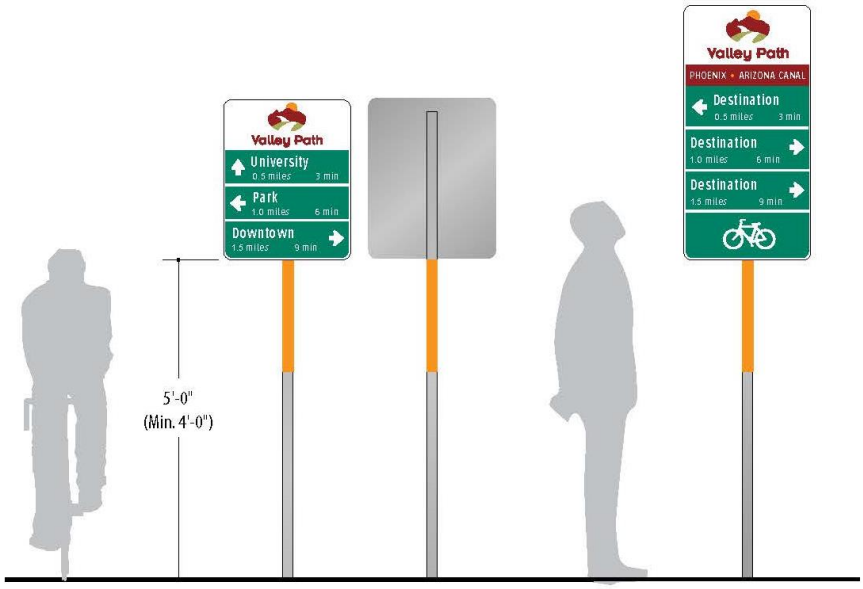

- Trees/structural shade
- Vegetation
- Sidewalks
- Recreational facilities
- Fancing

MULTI-USE PATH AT HIGHWAY


- 10 ft. sidewalk
- Striping with shared lane marking

Appendix E: MAG Branding & Wayfinding Signage Guidelines

MUTCD Signs



BIKE.1
Decision Sign
with distances

Back
of sign

BIKE.2
Decision Sign
In Existing Park

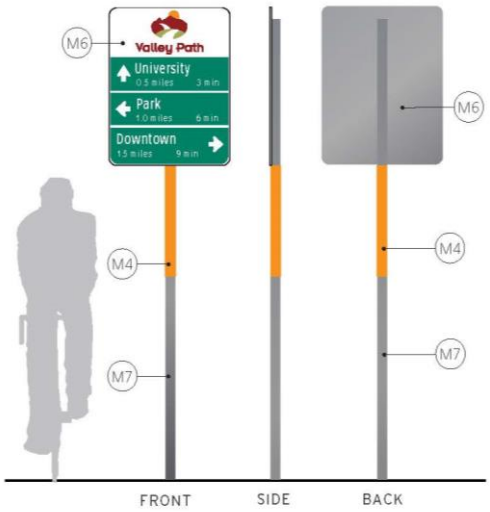
Bike Signs

BIKE.3
Path Confirmation
Sign

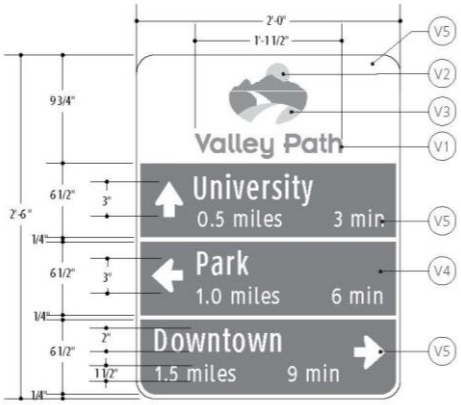
BIKE.4
Turn Sign
Preferred Design

BIKE.5
Turn Sign
Alternate

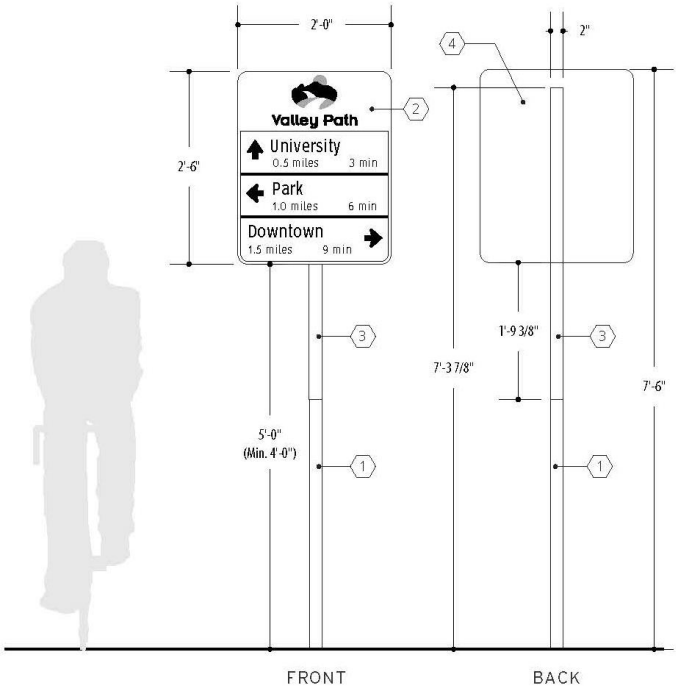
MUTCD Sign Drawings



1 Color Schedule - BIKE.1
Scale: 3/8"=1'



Bike 1 Elevation



1 Elevations BIKE.1
scale: 1/2"=1'-0"

1. Unpainted aluminum 2" sq tube*
2. 0.80 aluminum panel (or greater) with reflective vinyl graphics, mechanically fastened to 2" aluminum sq tube
3. 2" wide reflective tape to best match standard MUTCD Yellow
4. Unpainted aluminum with protective clear coat applied

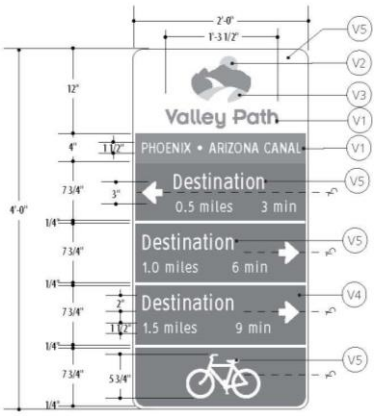
NOTES:
Locate sign at least 2 ft from edge of sign panel to trail edge.

See page 2.25 for ADOT post foundation guidelines for installing this sign.

* Or equal (2" sq aluminum tube)

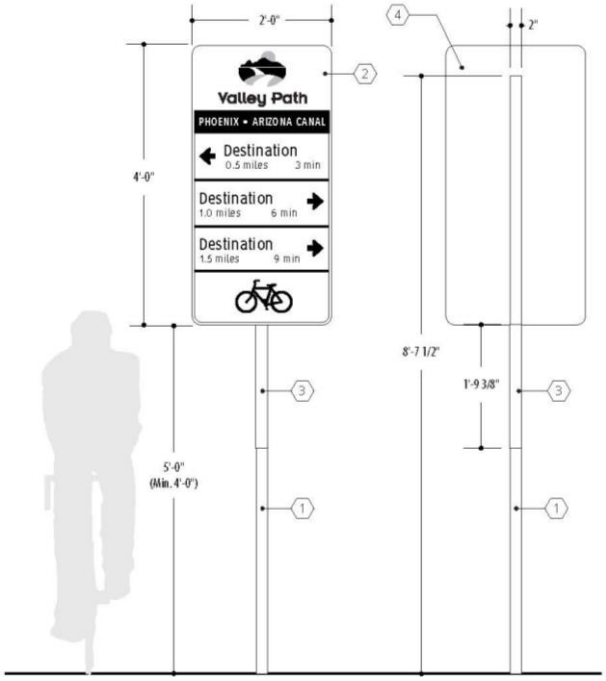
MUTCD Sign Drawings

1 Color Schedule - BIKE.2
Scale: 3/8"=1'



2 Typical Layout Guidelines - BIKE.2
Scale: 3/4"=1'

Bike 2 Elevation



1 Elevations BIKE.2
scale: 1/2"=1'-0"

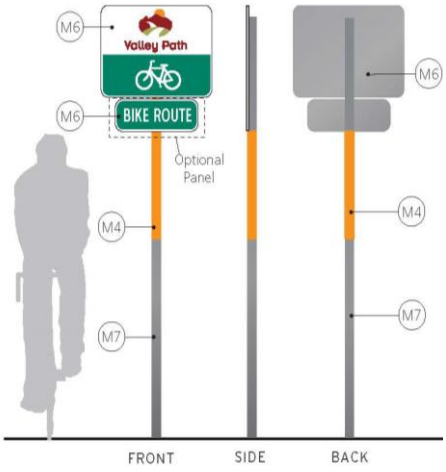
1. Unpainted aluminum 2" sq tube*
2. 0.80 aluminum panel (or greater) with reflective vinyl graphics, mechanically fastened to 2" aluminum sq tube
3. 2" wide reflective tape to best match MUTCD standard yellow
4. Unpainted aluminum with protective clear coat applied

NOTES:
Locate sign at least 2 ft from edge of sign panel to trail edge.

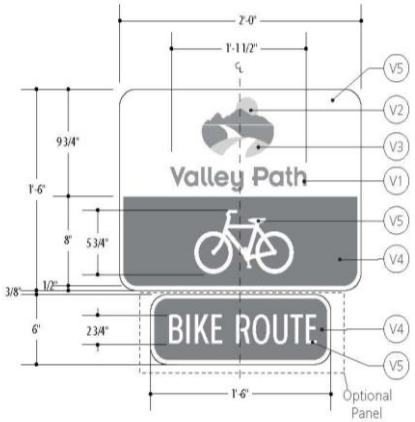
See page 2.25 for ADOT post foundation guidelines for installing this sign.

* Or equal (2" sq aluminum tube)

Bike Sign Drawings

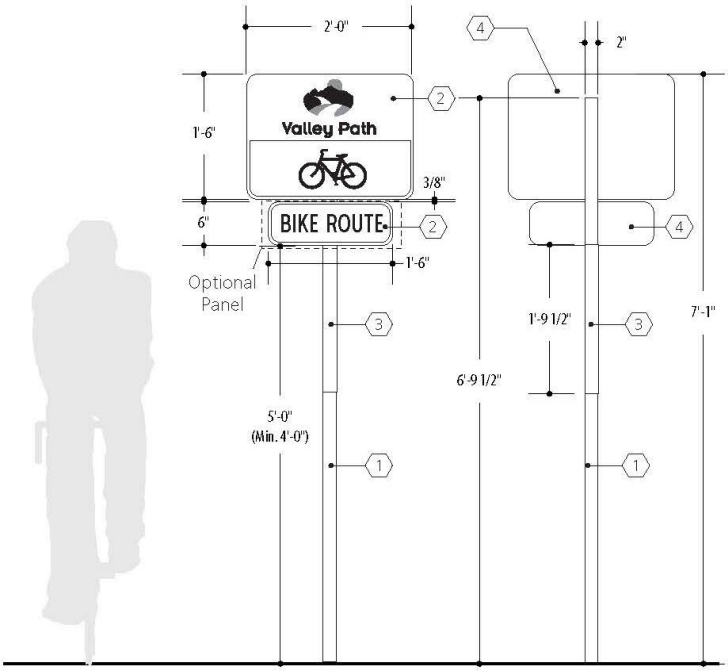


1 Color Schedule - BIKE.3
Scale: 3/8"=1'



2 Typical Layout Guidelines - BIKE.3
Scale: 1"=1'

Bike 3 Elevation



1 Elevations BIKE.3
scale: 1/2"=1'-0"

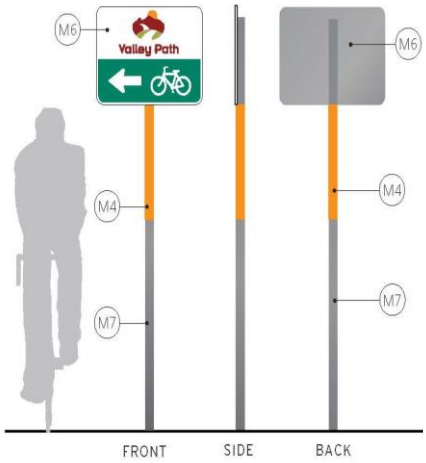
1. Unpainted aluminum 2" sq tube*
2. 0.80 aluminum panels (or greater) with reflective vinyl graphics, mechanically fastened to 2" aluminum sq tube
3. 2" wide reflective tape to best match MUTCD Standard yellow
4. Unpainted aluminum with protective clear coat applied

NOTES:
Locate sign at least 2 ft from edge of sig panel to trail edge.

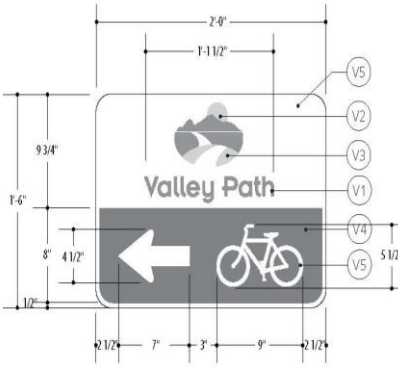
See page 2.25 for ADOT post foundatior guidelines for installing this sign.

* Or equal (2" sq aluminum tube)

Bike Sign Drawings

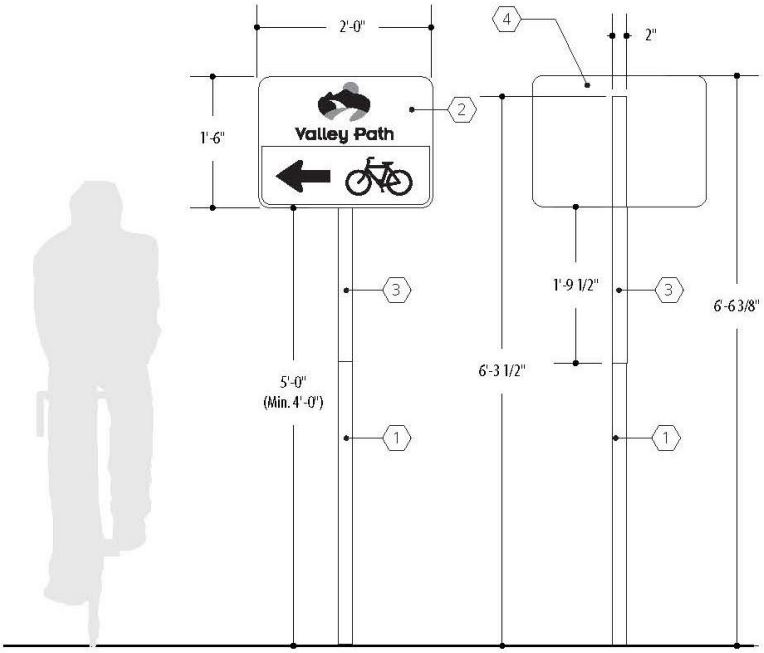


1 Color Schedule - BIKE.4
Scale: 3/8"=1'



2 Typical Layout Guidelines - BIKE.4
Scale: 1"=1'

Bike 4 Elevation



1 Elevations BIKE.4
scale: 1/2"=1'-0"

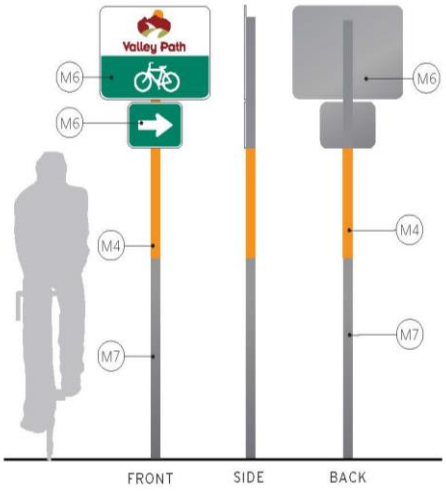
1. Unpainted aluminum 2" sq tube*
2. 0.80 aluminum panel (or greater) with reflective vinyl graphics, mechanically fastened to 2" aluminum sq tube
3. 2" wide reflective tape to best match MUTCD Standard yellow
4. Unpainted aluminum with protective clear coat applied

NOTES:
Locate sign at least 2 ft from edge of si
panel to trail edge.

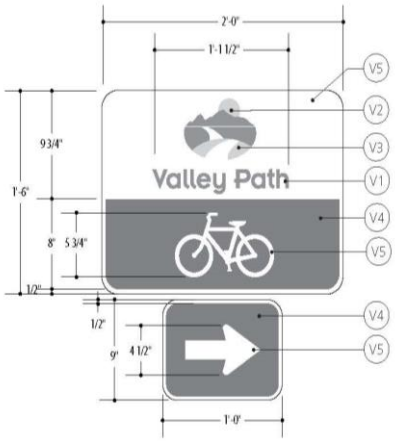
See page 2.25 for ADOT post foundati
guidelines for installing this sign.

* Or equal (2" sq aluminum tube)

Bike Sign Drawings

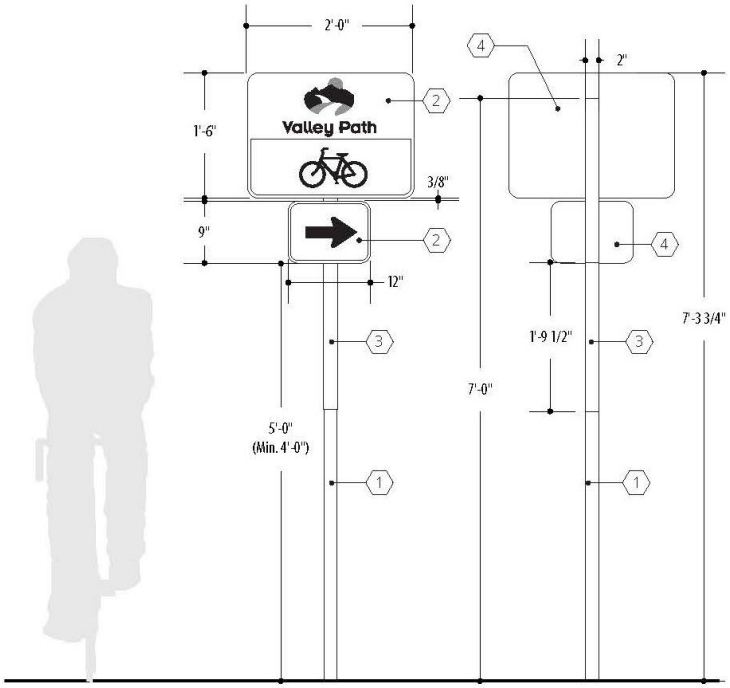


1 Color Schedule - BIKE.5
Scale: 3/8"=1'



2 Typical Layout Guidelines - BIKE.5
Scale: 1"=1'

Bike 5 Elevation



1 Elevations BIKE.5
scale: 1/2"=1'-0"

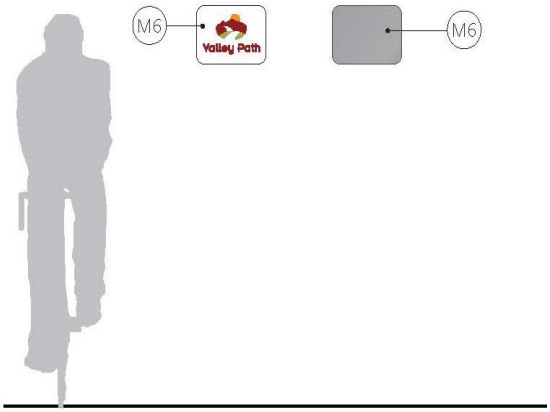
1. Unpainted aluminum 2" sq tube*
2. 0.80 aluminum panels (or greater) with reflective vinyl graphics, mechanically fastened to 2" aluminum sq tube
3. 2" wide reflective tape to best match MUTCD Standard yellow
4. Unpainted aluminum with protective clear coat applied

NOTES:
Locate sign at least 2 ft from edge of sig panel to trail edge.

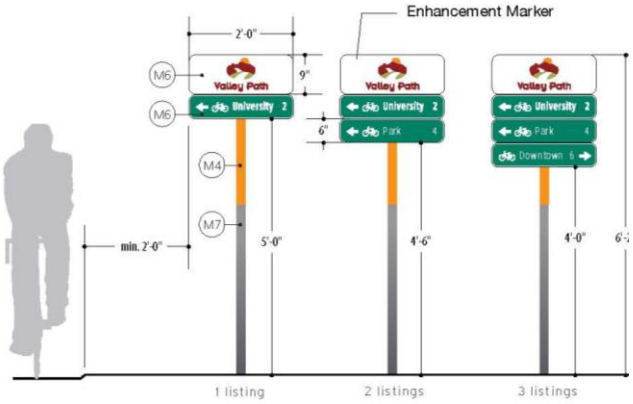
See page 2.25 for ADOT post foundatio guidelines for installing this sign.

* Or equal (2" sq aluminum tube)

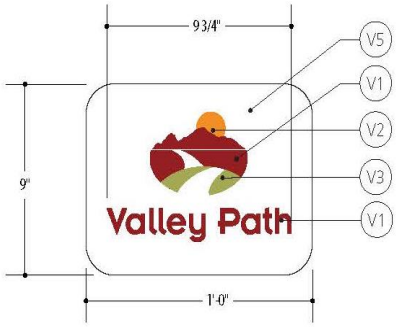
Sign Drawings



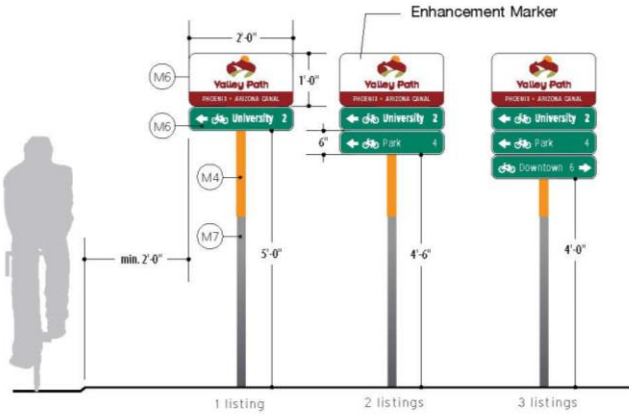
1 Color Schedule - BIKE.6
Scale: 3/8"=1'



1 Modular Option - BIKE.1
Scale: 3/8"=1'



2 Typical Layout Guidelines - BIKE.6
Scale: 1"=1'



1 Modular Option - BIKE.2
Scale: 3/8"=1'

Appendix F: T2050 Mobility Project Prioritization Criteria

Safety* (23 points max.)

Proximity of proposed project to >= 1 documented pedestrian/ bicycle injury within past 5 years			
>1.0 mi.	0.5 mi.-1.0 mi.	0.25 mi.-0.5 mi.	<0.25 mi.
0	1	5	7

Proximity of proposed project to >= 1 documented pedestrian/ bicycle fatality within past 5 years			
>1.0 mi.	0.5 mi.-1.0 mi.	0.25 mi.-0.5 mi.	<0.25 mi.
0	2	7	10

Is the project location within 0.5 miles of >= 5 pedestrian/ bicycle injuries or fatalities?			
	No	Yes	
Points	0	3	

Does the proposed project have a positive Crash Reduction Factor (CRF) assigned by FHWA's Crash Modification Factors Clearinghouse? (* = derived from FHWA CMF Clearinghouse)					
No	Yes	CRF value*	Current Condition*	Proposed Condition*	Crash Type*
0	3				

Roadway User Stress Level (15 points max.)

Stress Level based on the functional classification of the roadway on which project is recommended				
Functional classification	Highway	Arterial 5-6 lanes and/or >40 mph and/or >10,000 ADT	Collector 3-4 lanes and/or >=35 mph and/or >=5,000 ADT	Local 1-2 lanes and/or >=25 mph and/or <5,000 ADT
Points	0	5	10	15

Connectivity Between Project and Destinations* (22 points max.)

Total number of connections the project creates/improves to destinations, within 1/4 mile of the project (1/2 mi. for bike projects). This includes eliminating sidewalk and bikeway system gaps.								
# of cnxns	<3	3-5	6-8	9-11	12-14	15-17	18-19	20+
Points	0	1	2	3	4	5	6	7

Select all destination types that the project creates/improves connections to, within 1/4 mile of the project (1/2 mi. for bike projects). (Sum all points selected in this block, up to 21 points)						
Destinations	Job/transit (Employment, transit)	Food/ Dining (Restaurants, coffee shops)	Errands (Food shop-ping, other shopping)	Health/ Community (Doctor/clinic, places of worship, community centers)	Schools (Any school)	Parks (Any park)
Points	(1-6)	(1-6)	(1-6)	(1-6)	(1-6)	(1-6) TBD by

	TBD by public	TBD by public	TBD by public	TBD by public	TBD by public	public

Proximity to existing or planned bus, BRT, or light rail line			
Proximity	>1/2 mi.	1/2-1/4 mi.	1/4-0 mi.
Points	0	1	2

Public Input (20 points max.)

Public Input rank					
Rank	1 (low)	2	3	4	5 (high)
Points	4	8	12	16	20

Deliverability/Constructability (10 points max.)

Is the project included in -- or does it abut -- an existing or programmed project/DCR			
	No	Yes	
Points	0	2	

Does the project incorporate shade?					
Trees added	<5	5-10	11-15	16-20	>20
Points	0	1	2	3	4

Does the project have utility constraints (water, sewer, gas, electric, fiber, etc.)				
# of constraints	>7	7-9	4-6	0-3
Points	0	1	2	3

Ease/cost of maintenance		
	Low ease/high cost	High ease/low cost
Points	0	1

Cost (10 points max.)

Estimated total project cost (including ROW)						
Cost	>$2.5M	$2.5M-$2.0M	$2.0M-$1.5M	$1.5M-$1M	$1M-$500k	<$500k
Points	0	1	2	3	4	5

Estimated cost of required ROW takes						
ROW takes	>$1.0M	$750k-$1.0M	$500k-$750k	$250k-$500k	>$0-$250k	$0
Points	0	1	2	3	4	5

Bonus/Equity (10 points max.)

Score based on staff's initial needs-based analysis and resulting Mobility Area # rank						
Mobility Area #	11	9-10	7-8	5-6	3-4	1-2
Points	5	6	7	8	9	10

Summary

Criteria		Score
Safety*	(23)	
Roadway User Stress Level	(15)	
Connectivity*	(22)	
Public Input	(20)	
Deliverability/Constructability	(10)	
Cost	(10)	
Sub Total	(100)	
Bonus/Equity	(10)	
TOTAL		

** This is a key component of Complete Streets*