

**CITY OF PHOENIX
CITIZENS TRANSPORTATION COMMISSION**

Pursuant to Arizona Revised Statutes, A.R.S. Section 38-431.02, notice is hereby given to the members of the **CITY OF PHOENIX CITIZENS TRANSPORTATION COMMISSION** and to the general public, that the **CITIZENS TRANSPORTATION COMMISSION** will hold a meeting open to the public on **May 25, 2017, at 5:00 p.m. located in the 7th Floor Conference Room, Public Transit Building, 302 N. 1st Avenue, Phoenix, Arizona.**

One or more commission members may participate via teleconference. Agenda items may be taken out of order.

The agenda for the meeting is as follows:

1.	Call to Order	Chairperson Pastor
2.	Approval of the minutes of the Mar. 30, 2017 meeting <i>This item is for information, discussion and possible action.</i>	Commission members
3.	T2050 Financial Update This report shows the total amount collected for the most recent month, the total spent in that same month, the total collected year to date, and the total spent year to date. <i>This item is for information only.</i>	Report Only No Presentation
4.	Upcoming T2050 Related Public Meetings/Events This report provides a list of upcoming T2050 related public meetings/events held by Public Transit and Streets Transportation Departments, and Valley Metro. <i>This item is for information only.</i>	Report Only No Presentation
5.	T2050 Annual Report Outline This report provides information about the suggested standard report outline to be used for the Transportation 2050 (T2050) Program. <i>This item is for information only.</i>	Report Only No Presentation
6.	Fare Policy Amendment This report requests approval of an amendment to the regional fare policy and City of Phoenix Public Transit Fare Ordinance to expand the U.S. Airways Center (now Talking Stick Resort Arena) Light Rail Event Day program to allow other qualifying venues and events to participate in similar ticket partnerships. <i>This item is for information, discussion and possible action.</i>	Public Transit

7.	<p>October 2017 Service Changes This report requests approval on the proposed bus service improvements to be implemented in October 2017.</p> <p><i>This item is for information, discussion and possible action.</i></p>	Public Transit
8.	<p>T2050 Security Improvements This report requests approval for additional safety and security enhancements for bus and rail operations.</p> <p><i>This item is for information, discussion and possible action.</i></p>	Public Transit
9.	<p>Major Streets Pavement Maintenance Program This report requests approval of the proposed Transportation 2050 (T2050) funded major streets pavement maintenance program for fiscal years 2020 and 2021, and provides information about the proposed Arizona Highway User Revenue (AHUR) funded pavement maintenance program for all other City streets for fiscal years 2020 and 2021.</p> <p><i>This item is for information, discussion and possible action.</i></p>	Street Transportation
10.	<p>Bicycle Program Update This report provides information about tracking and implementation of proposed bikeway improvements.</p> <p><i>This item is for information only.</i></p>	Street Transportation
11.	<p>Call to the Public Consideration, discussion, and concerns from the public. Those wishing to address the Commission need not request permission in advance. Action taken as a result of the public comment will be limited to directing staff to study the matter or rescheduling the matter for further consideration and decision at a later date.</p>	Chairperson Pastor
12.	<p>Request for Future Agenda Items Committee member request for information, follow-up or future agenda items.</p>	Chairperson Pastor
13.	<p>Adjournment</p>	Chairperson Pastor
<p><u>FUTURE AGENDA ITEMS:</u> Chair/Vice Chair elections (Aug) 5-year T2050 plan review (Sept) T2050 Performance Measures (Aug)</p>		

For further information, please call Megan Neal, Management Assistant II, Public Transit Department at 602-534-6192.

Persons paid to lobby on behalf of persons or organizations other than themselves shall register with the City Clerk prior to lobbying or within five business days thereafter, and must register annually to continue lobbying. If you have any questions about registration or whether or not you must register, please contact the City Clerk's Office at 602-262-6811.

To request reasonable accommodations, call Megan Neal at Voice/602-534-6192 or TTY/7-1-1 as early as possible to coordinate needed arrangements.

**CITY OF PHOENIX
CITIZENS TRANSIT COMMISSION
MEETING MINUTES
MARCH 30, 2017**

Public Transit Department
302 N. First Avenue, 7th Floor

Commission Present	Public Present	City Staff Present
Ed Pastor	Steven Wilcox	Ray Dovalina
Patrick Brennan (phone and in person)	David Rutkowski	Maria Hyatt
Sue Glawe	Mark Wavering	Mario Paniagua
Gail Knight	Patrizia Gonella	Joe Bowar
Jennifer Mellor (phone)	Greg Haggerty	Kini Knudson
Roy Miller	Jake Speck	Albert Santana
Rick Naimark	Carrie Cote	Dan Brown
William "Sparky" Smith	Natalie Carrick	Jesus Sapien
		Herb Muñoz
		Victoria Kayiwa
		Megan Neal
		Brenda Yanez
		Jorie Bresnahan
		Carla Khan
		Eileen Yazzie
		Ted Mariscal
		Justin Feek
		Ken Kessler
		Angel Borrego

Commission Absent
David Adame
Bret Aldieri
David Martin
Phil Pangrazio
Mario Trejo Romero
Quinn Whissen

1. Call to Order
Chairperson Pastor called the meeting to order at 5:06 pm. with a quorum present.

2. Approval of the minutes of the Feb. 23, 2017 meeting
Chairperson Pastor asked for a motion to approve the minutes.

Commissioner Miller asked when the five-year plan would be presented to the commission. Deputy City Manager Mario Paniagua stated it would be presented after the commission's summer break.

Vice Chair Naimark moved to approve the minutes, seconded by Commissioner Knight. The minutes were approved unanimously.

3. T2050 Financial Update
Chairperson Pastor informed the commission this agenda item was a report only, and opened for questions.

There were no comments.

4. Upcoming T2050 Related Public Meetings
Chairperson Pastor informed the commission this agenda item provides information regarding future public meetings and events related to Transportation Plan 2050 (T2050); and opened for any comments.

Vice Chair Naimark inquired about the April 28 pub crawl. Public Transit Director Maria Hyatt explained the details and noted that the event is a more accurately called a restaurant crawl and was designed to commemorate the new April service changes.

Commissioner Miller expressed concern that the commission may not be receiving notices about meetings pertaining to T2050.

Chairperson Pastor stated the reason for this agenda item is to provide the commission with upcoming public meetings and events. He asked staff if there had been any public meetings since the last commission meeting. Deputy City Manager Paniagua stated there have not been any public meetings regarding T2050.

Commissioner Miller asked if there have been any non-public meetings. Deputy City Manager Paniagua confirmed that there have been, but that the notification is to inform the Commission of public meetings involving T2050.

Quorum was temporarily lost at 5:16 pm and reestablished at 5:18 pm via phone connection with Commissioner Mellor.

5. Project Management Consultant (PMC) Update
Chairperson Pastor informed the commission this agenda item was a report only, and opened for any comments.

There was discussion of the PMC's plan element to include a downtown circulator as an important piece of downtown business and the DASH is in need of improvements. The PMC is working on current needs and staff will request re-evaluating the DASH, downtown circulator.

Commissioner Miller inquired as to the amount that has been spent out of the 5-million-dollar budget for the PMC. Deputy City Manager Paniagua stated about \$250,000 dollars.

6. Public Outreach for October 2017 Service Changes

Chairperson Pastor informed the commission this agenda item was a report only, and opened for any comments.

Vice Chair Naimark expressed his contentment to the new service changes to Happy Valley Road in providing a direct connection to the Happy Valley Town Center.

There was discussion regarding the increase of buses and frequency to Thomas Road. Commission Miller expressed his thoughts that the service changes will not improve congestion on Thomas Road.

7. Shaded Bus Stops

Deputy City Manager Paniagua introduced Public Transit Deputy Director Joe Bowar to present on this item. Mr. Bowar provided a brief review of what was presented at January's CTC meeting on this subject. He mentioned the proposed bus stop shade improvements plan is a key element of "Moving Phoenix Forward" provided through T2050. Mr. Bowar provided additional cost information regarding the bus shade contract for fiscal year FY17/18 of \$1.8 million dollars. He explained the funding breakdown, which includes new bus stops, refurbishment, maintenance, repair, and bus pads. Mr. Bowar went on to explain progress with the ASU partnership.

Commissioner Glawe mentioned there is transient traffic and homesteading at bus stops along 19th Ave. Mr. Bowar explained police has increased patrols and coordination with the Desert Horizon precinct.

There was discussion regarding the new bus stop enhancements contract that has been delayed due to a procurement process protest and appeal and an outcome is forthcoming. The new contract will proceed with the installation of 80 new shelters of the current design from FY 17/18. It is expected to move forward with a new design early in 2018. When asked by Chairperson Pastor what the new shelter cost parameters were, Mr. Bowar indicated they would be within \$9,000 to \$11,000 dollars.

Chairperson Pastor inquired about cost effectiveness of new shelters and noted there are bus stops lacking shelters in the Encanto area. He noted a specific stop on 19th Ave. and Virginia Ave. Transit Superintendent Herb Muñoz stated the location will be reviewed for vertical panels. He mentioned the narrow right-of-way in the Encanto area creates impediments when providing shade structures at bus stops.

Commissioner Brennan requested a matrix prioritizing safety of bus stops adjacent to intersections or high traffic areas. He asked the distance of bus stops for an intersection. Mr. Bowar stated 120 feet.

Commissioner Smith asked to be included in the process with ASU. Mr. Bowar responded affirmatively.

Quorum was temporarily lost at 5:33 pm, as Commissioner Brennan left the call. Quorum was reestablished as Commissioner Brennan then arrived in person to the meeting at 5:37 pm.

8. T2050 Mobility Program Prioritization

Special Projects Administrator Eileen Yazzie presented on the item and recapped recommendations previously presented at February's meeting. The first recommendation was for approval to conduct additional project assessments for major street sidewalk improvements funded by T2050 and also brought forth to the Transportation and Infrastructure (T&I) Subcommittee. She stated the item being presented is the second half of the recommendation for the approval of locations for area mobility assessments focused on pedestrian and bicycle facilities improvements. She noted that the recommendation included three factors requested by the commission to be added to the current eight factors. Ms. Yazzie stated there was little change to the top ten locations discussed at February's meeting. She mentioned the change is to include the top 11 locations versus ten; and recommended moving the 20th ranked location to 11. Ms. Yazzie stated a mobility and accessibility HUD grant opportunity was obtained for the 20th ranked area (boundaries east of I-10 to 9th Street, and the north boundary of 1-10 to Jackson Street).

There was discussion regarding cost and the five-year plan of the program. Yazzie stated the cost for each mobility study is estimated to be between \$60,000 to \$125,000 dollars based on the size of the mobility area. The program is included in Street Transportation Capital Improvement Plan (CIP). Staff noted the five-year T2050 implementation plan was provided at a previous meeting and the dollar allocation for the mobility program totals \$23 million dollars (line item number 16).

Commissioner Smith inquired about the cost of the assessment. Ms. Yazzie explained the assessment entailed research, data analysis, work already completed, and an inventory of gaps.

Vice Chair Naimark inquired about a request brought forth by Commissioner Aldieri at February's meeting regarding numbers 21 and 22 on the list. Ms. Yazzie responded that Commissioner Aldieri received his information after the meeting from Assistant Street Transportation Director Kini Knudson.

Vice Chair Naimark motioned the Citizens Transportation Commission recommend Transportation and Infrastructure (T&I) Subcommittee approve the top scoring locations for area mobility assessments focused on pedestrian and

bicycle facilities improvements; seconded by Commissioner Brennan. The motion carried approved unanimously.

9. Call to the Public

Chairperson Pastor called for public comment.

There were no comments.

10. Request for Future Agenda Items

Next agenda items agreed upon by the commission included:

1. Bike lanes in low income areas (April/May)
2. October Services Changes (May)
3. 5-year T2050 plan review (Aug/Sept)
4. Chair/Vice Chair elections (Aug)

Deputy City Manager Mario Paniagua stated the April meeting could be postponed to May with only one item on the agenda.

Commissioner Miller requested more clarification of the five-year plan and what would be presented. Deputy City Manager Mario Paniagua stated a strategic plan is forthcoming, including updates on improvements for the past year and a half, revenues and expenditures, projections, and costs. He mentioned there will be an opportunity to review any possible changes.

Commissioner Miller mentioned he would like to address the lack of officers with police. He requested an agenda item regarding transferring funds to aid police. Chairperson Pastor informed Commissioner Miller that the Transit Enforcement Unit (TEU) with the Police Department presented at the March meeting. He mentioned TEU would be returning in the future.

Commissioner Miller requested a future vote to transfer funds to aid police. Chairperson Pastor stated the commission will have to wait for the item to be put on the agenda as an action item to vote on.

Commissioner Mellor expressed interest in providing additional assistance to Police and mentioned researching technology that could better aid Police.

11. Adjournment

Chairperson Pastor asked for motion to adjourn the meeting.

Commissioner Smith motioned to adjourn the meeting at 6:31 pm; seconded by Commissioner Glawe.

Mar. 30, 2017

CITIZENS TRANSPORTATION COMMISSION REPORT

TO: Mario Paniagua
Deputy City Manager

FROM: Maria Hyatt
Public Transit Director

Ray Dovalina
Street Transportation Director

SUBJECT: TRANSPORTATION 2050 FINANCIAL UPDATE

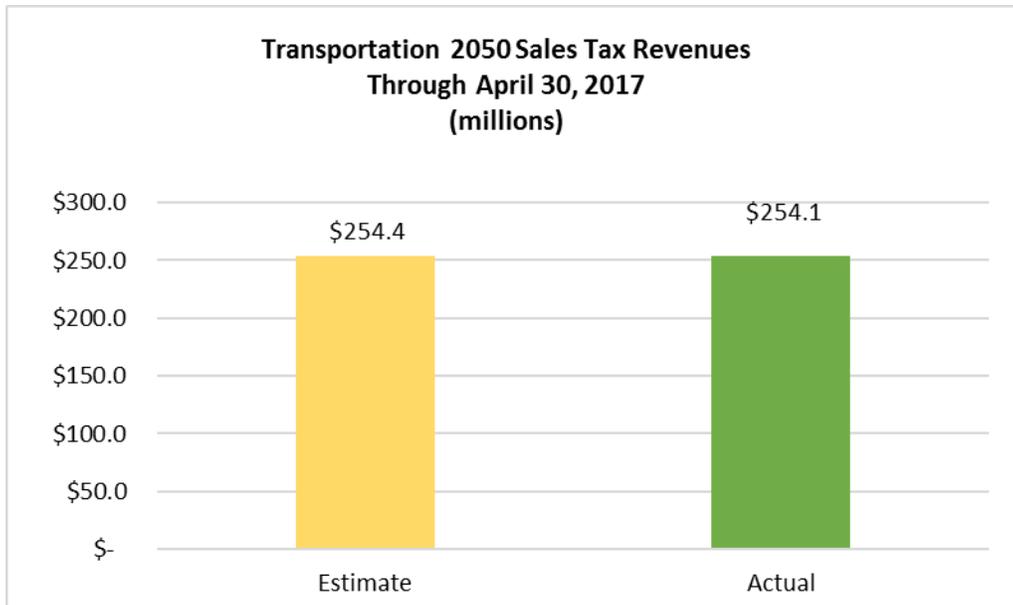
This report provides a financial update on Transportation 2050 (T2050), passed by voters on August 25, 2015. Included in this report is a summary of the sales tax revenue collections and the use of those revenues for projects within the plan.

THE ISSUE

T2050 is a 35-year multi-modal transportation plan that includes street improvements, bus and paratransit service enhancements, and light rail expansion. These broad categories are broken down into specific plan elements, and within these elements are specific projects planned to be implemented over the course of the 35-year plan.

OTHER INFORMATION

The sales tax revenues are being used in both the Public Transit and Street Transportation Departments' budgets to implement projects in the T2050 plan. The T2050 sales tax became effective January 1, 2016, and with the one month lag in sales tax reporting and collections, there have been fifteen months of revenue collected by the City through April 2017. The following graph provides estimated and actual sales tax through April 30, 2017. Estimates are based on a consistent annual growth rate. Some months and years will see a higher or lower return, however, the differences are anticipated to balance over time.



The attached table (Attachment A) shows T2050 sales tax revenue collections and T2050 project expenditures through April 30, 2017.

RECOMMENDATION

This report is for information and discussion only.

Attachment A

T2050 SALES TAX REVENUES:

FY 2015-16	\$ 98,593,239
FY 2016-17 Through April 2017	155,522,344
TOTAL	<u>254,115,583</u>

EXPENDITURES:

Project	Total Expenditures	T2050 Expenditures	Other (1) Expenditures	Total Commit	T2050 Commit	Other (1) Commit	Total Actual + Commit	T2050 Actual + Commit	Other (1) Actual + Commit
Transit Ops and Administration	\$ 155,378,454	\$ 26,005,365	\$ 129,373,089	\$ 32,284,523	\$ 2,522,459	\$ 29,762,064	\$ 187,662,977	\$ 28,527,824	\$ 159,135,153
Bus Purchases	285,154	-	285,154	8,000	-	8,000	293,154	-	293,154
DAR Vehicle Purchases	1,388,924	-	1,388,924	-	-	-	1,388,924	-	1,388,924
50 th St./Washington LRT Station	1,873,211	1,873,211	-	18,369,327	18,369,327	-	20,242,538	20,242,538	-
16th St. Station Study	7,125	7,125	-	52,875	52,875	-	60,000	60,000	-
Bus Stop Improvements	192,562	35,769	156,793	-	-	-	192,562	35,769	156,793
TEU K-9 Infrastructure	42,041	42,041	-	174	174	-	42,215	42,215	-
Small Capital – North Facility	134,791	134,791	-	169,204	169,204	-	303,995	303,995	-
South Facility Upgrades	629,866	481,841	148,025	2,500,000	2,500,000	-	3,129,866	2,981,841	148,025
Bus Pullouts	371,220	371,209	11	32,706	32,706	-	403,926	403,915	11
Transit Technology	651,389	651,389	-	28,827	28,827	-	680,216	680,216	-
South Central LRT	1,716,865	1,715,884	981	-	-	-	1,716,865	1,715,884	981
Capital/I-10 West LRT	16,369	16,369	-	-	-	-	16,369	16,369	-
West Phoenix/Central Glendale LRT	29,490	7,144	22,346	-	-	-	29,490	7,144	22,346
Other Transit Capital	470,226	392,129	78,097	234,913	234,913	-	705,139	627,042	78,097
Project/Construction Mgmt	204,304	204,304	-	581,443	581,443	-	785,747	785,747	-
T2050 Cement Repair	2,081,352	2,081,352	-	1,101,745	1,101,745	-	3,183,097	3,183,097	-
T2050 Crack Seal	3,265,930	3,265,930	-	553,782	553,782	-	3,819,712	3,819,712	-
T2050 Major Street Overlay	4,549,093	4,549,093	-	4,118,090	4,118,090	-	8,667,183	8,667,183	-
T2050 Arterial TRMSS	439,398	439,398	-	393,254	393,254	-	832,652	832,652	-
T2050 Arterial Micro Surfacing	1,603,661	1,603,661	-	54,650	54,650	-	1,658,311	1,658,311	-
T2050 Arterial Microseal	50	50	-	-	-	-	50	50	-
Major Streets Project Assessments	927,202	927,202	-	-	-	-	927,202	927,202	-
Major Street Transportation Projects	260	260	-	-	-	-	260	260	-
Traffic Signal Pole Painting	274,999	274,999	-	-	-	-	274,999	274,999	-
Left Turn Arrows	17,308	17,308	-	25,522	25,522	-	42,830	42,830	-
Illuminated Street Name Signs	300,760	300,760	-	-	-	-	300,760	300,760	-
Pedestrian and Bicycle	12,324	12,324	-	-	-	-	12,324	12,324	-
TOTAL	\$ 176,864,329	\$ 45,410,909	\$ 131,453,420	\$ 60,509,034	\$ 30,738,970	\$ 29,770,064	\$ 237,373,363	\$ 76,149,879	\$ 161,223,484

(1) Other (non-T2050) sources include transit fares, Transit 2000 (T2000), federal, regional, AZ Lottery, and 302 building revenues.

(2) T2000 fund balance is \$17.5 million (including reductions for committed funds), and is anticipated to be depleted by June 30, 2017.

CITIZENS TRANSPORTATION COMMISSION REPORT

TO: Mario Paniagua
Deputy City Manager

FROM: Maria Hyatt
Public Transit Director

Ray Dovalina
Street Transportation Director

SUBJECT: UPCOMING T2050 RELATED PUBLIC MEETINGS/EVENTS

This report provides the Citizens Transportation Commission (CTC) with a list of upcoming T2050 related public meetings by Public Transit Department, Streets Transportation and Valley Metro.

This item is for information only.

Upcoming T2050 Related Public Meetings/Events

Meeting Date and Time	Location	Topic	Department/Agency
Valley Metro – Public Meeting May 24, 2017 5 p.m.	Ability360 – Conference Center 5025 E. Washington St	50th Street Light Rail Station – 90% Design and Pre-construction	Public Transit/Valley Metro
City of Phoenix – Paradise Valley Village Planning Committee June 5, 2017 6 p.m.	Paradise Valley Community Center – Multi-purpose Room 14702 N. 40th St.	Northeast Light Rail Expansion – Project Update	Public Transit
Valley Metro – 50th Street Light Rail Station Groundbreaking Event June 7, 2017 8 a.m.	Ability360 – Rooftop 5025 E. Washington St	50th Street Light Rail Station	Public Transit/Valley Metro

CITIZENS TRANSPORTATION COMMISSION REPORT

TO: Mario Paniagua
Deputy City Manager

FROM: Ray Dovalina, Jr., PE
Street Transportation Director

SUBJECT: TRANSPORTATION 2050 (T2050) ANNUAL REPORT OUTLINE

This report provides information to the Citizens Transportation Commission (CTC) on the development of the Transportation 2050 (T2050) annual report that will be presented to the CTC and the public in September 2017.

THE ISSUE

At the Nov. 16, 2016 CTC meeting, staff presented information regarding the T2050 annual report that will provide information on the program status, financial information, annual accomplishments and the status of the major projects within the program.

Since the City operates on a fiscal year calendar, all financial data, including the information in the T2050 Annual Report, will align on a fiscal year basis. As the T2050 tax started on Jan. 1, 2016, the first T2050 annual report will include 18 months of data to capture all activities since the inception of the T2050 tax. All future reports will cover the previous fiscal year's activities.

OTHER INFORMATION

Staff has been working with the Program Management Consultant (PMC) to create an outline that is now currently being used to develop the T2050 annual report. The complete proposed report structure and format is shown in Attachment A. Short descriptions of each report chapter are as follows:

- **Chapter 1 - Introduction**

An overview of the development of the T2050 program, the goals and objectives of the T2050 program, and the organization of the report.

- **Chapter 2 - Progress**

Discusses the projects, programs and activities that have been accomplished for the initial T2050 program activities for the time period between Jan 1, 2016 and June 30, 2017.

- **Chapter 3 – T2050 Program Funding and Financial Plan**

Covers the various funding sources contributing to the T2050 program, the assumptions used in the development of the overall financial plan, and the status of the 35-year life-cycle program.

- **Chapter 4 – Annual Financial Report**

An overview of the budgeted and actual revenues and expenditures for the various public transit operations and capital costs, as well as T2050-funded street improvements for the time period between January 1, 2016 and June 30, 2017.

- **Chapter 5 – Five Year Implementation Plan**

Summary of the Public Transit Department five-year operations and capital programs, and the Street Transportation Department five-year program for T2050 investment categories.

RECOMMENDATION

This information is presented for information and discussion only.

Attachment:

A. Proposed T2050 Annual Report Outline

ATTACHMENT A

PROPOSED OUTLINE

Annual Report Table of Contents

January 1, 2016 through June 30, 2017

Cover Sheet

Letter from the Mayor

Letter from CTC Chair

Executive Summary

1.0 Introduction

1.1 Background

1.2 Report Purpose and Organization

1.2.1 Purpose of the Annual Report

1.2.2 Report Organization

1.3 Clarifications Regarding Data, Terminology and Other Methodological Factors

2.0 Progress

2.1 Introduction

2.2 Bus and Dial-A-Ride

2.3 High Capacity Transit

2.4 Streets (includes Bicycles and Pedestrians)

3.0 Transportation 2050 Funding Program Overview

3.1 Transportation 2050 Program Funding

3.1.1 Summary of T2050 Funding Sources

3.2 Transportation 2050 Program Elements

3.2.1 Summary of T2050 Program Elements

3.2.2 Transit Programs

3.2.3 Street Programs

3.3 Transportation 2050 Life-Cycle Program

3.3.1 Revenues, Expenditures and Life Cycle Programming

3.3.2 Life Cycle Programming Assumptions

3.4 Transportation 2050 Program Future Fiscal Status

4.0 Annual Financial Report

4.1 Introduction

4.2 Financial Summary – Total T2050 Program

4.3 Bus and Dial-A Ride Summary

4.4 High Capacity Transit Summary

4.5 Streets Summary (includes Bicycles and Pedestrians)

5.0 Five-Year Implementation Plan

5.1 5-Year Implementation Plan

5.1.1 Bus and Dial-A Ride

5.1.2 High Capacity Transit

5.1.3 Streets (includes Bicycles and Pedestrians)

Appendixes

- 5-Year Programs

- Bus and Dial-A-Ride

- High Capacity Transit

- Streets (includes Bicycles and Pedestrians)

CITIZENS TRANSPORTATION COMMISSION REPORT

TO: Mario Paniagua
Deputy City Manager

FROM: Maria Hyatt
Public Transit Director

SUBJECT: FARE POLICY AMENDMENT TO LIGHT RAIL TICKET PARTNERSHIP PROGRAM

This report requests the Citizens Transportation Commission recommend the Transportation and Infrastructure Subcommittee (T&I) support the amendment of the regional fare policy and City of Phoenix Public Transit Fare Ordinance to expand the U.S. Airways Center (now Talking Stick Resort Arena) Light Rail Event Day program to allow other venues and events, such as the upcoming Lost Lake Festival at Steele Indian School Park in October 2017, to participate in similar ticket partnerships, as well as allow for ticket partnerships to include both bus and light rail.

THE ISSUE

The current ticket partnership program in the fare policy is specific to light rail and Talking Stick Resort Arena (TSRA) and was originally approved as a pilot by City Council on September 30, 2009. The pilot was subsequently extended through June 30, 2015 to allow adequate time to gather sufficient data to accurately evaluate the program. The program was permanently adopted into the fare policy by City Council on September 2, 2015. Other events and event venues have expressed interest in a similar partnership to serve as a benefit to their attendees, support parking limitations, mitigate event congestion, generate positive public relations and align with sustainability initiatives.

OTHER INFORMATION

The current program allows TSRA event attendees to use their event ticket as their light rail pass four hours prior to the start of the event through the end of the transit day. This provides convenient transportation to those who attend TSRA events, and helps mitigate parking limitations and event traffic congestion. Valley Metro Rail receives fare revenue from TSRA at 31 cents per event attendee, which supports the regional fare recovery goal of 25 percent. The fare revenue per attendee is periodically reviewed by Valley Metro Rail staff to ensure the amount continues to support the regional fare recovery goal. Valley Metro Rail also finds additional benefit in ticket partnerships of this kind, including:

- Supporting fare collection from reliable funding sources.
- Easing boarding and fare inspection, and increasing the focus on safety and security, during events.
- Further integrating light rail into nightlife/entertainment activities and reputable brands.
- Helping to attract ridership and positive attention to the system.

The event expressing current interest is the Lost Lake Festival, operated by Cactus Festival, LLC, taking place at Steele Indian School Park in central Phoenix on October 20 – 22, 2017. This is a three-day music festival that has committed to the Phoenix area over the next several years. Due to the location, Valley Metro Rail will be the primary transportation solution to connect the tens of thousands of daily attendees to this event. The event organizer is committed to supporting the fare revenue required for their attendees to ride at no charge with their event ticket in hand.

With this and other opportunities in mind, staff is requesting approval to amend the regional fare policy to give Valley Metro the ability to execute ticket partnerships that meet the region's fare recovery goal, while supporting the interests of new events and event venues.

With the Ticket Partnership Program, patrons possessing tickets or identifiable media issued by event officials from a participating event will be able to ride Valley Metro Rail on the day of the event at no additional charge. Event tickets will be honored as valid Valley Metro Rail fare for a pre-determined time in advance of the event and through the end of the transit day. Participating event venues/events pay an amount per attendee commensurate with the current average fare to support regional fare recovery goal. As with the current TSRA partnership, all ticket partnerships' fare revenue calculations will also be reviewed periodically to ensure continued support of the region's fare recovery goal.

A qualifying event generates a minimum of 5,000 attendees; similarly, for a venue, a single event at this facility must generate a minimum of 5,000 attendees. This program can be extended to bus route(s) if the aforementioned criteria is maintained and the service can be supported by operations. The City of Phoenix and/or Valley Metro must receive notice of interest in the Ticket Partnership Program from event organizers at least four months in advance of the event, and agreements must be completed by 60 days prior to the event.

RECOMMENDATION

Staff requests the Citizens Transportation Commission recommend Transportation and Infrastructure Subcommittee (T&I) and City Council approval of an amendment to the regional fare policy and City of Phoenix Public Transit Fare Ordinance to allow for additional ticket partnerships with events and event venues to operate similar to the arrangement with Talking Stick Resort Arena.

CITIZENS TRANSPORTATION COMMISSION REPORT

TO: Mario Paniagua
Deputy City Manager

FROM: Maria Hyatt
Public Transit Director

SUBJECT: OCTOBER 2017 PROPOSED BUS SERVICE IMPROVEMENTS

This report provides information to the Citizens Transportation Commission on the proposed bus service improvements to be implemented in October 2017. The proposed improvements are elements of “Moving Phoenix Forward” provided through Phoenix’s Transportation 2050 (T2050) plan.

THE ISSUE

The Public Transit Department is focused on improving the efficiency and reliability of Phoenix’s transit system to best serve our passengers’ needs. The department reviews passenger input and routes semiannually to determine if improvements can be made to transit services. Improvements can include modifications such as schedule changes, service efficiencies, or adding route connections. Bus service changes are coordinated regionally and occur in April and October of each year. The proposed October 2017 bus service changes are described below.

Increased Frequencies

Route 29 (Thomas Road) – Increase Off-Peak Frequency to 15 minutes

Staff proposes increasing the off-peak service frequency during weekdays in the higher ridership segment of the route. Route 29, the highest ridership route in the region, operates from 91st Avenue on the west end, to Pima Park in Scottsdale (86th Street) on the east end. Currently, the high ridership segment, between 51st Avenue and 44th Street, operates at eight-minute frequency during peak service periods and 20-minute frequency during off-peak times. The proposed improvement is to increase the midday and early evening frequency from 20 minutes to 15 minutes, and to extend the higher frequency segment further west, from Desert Sky Transit Center to 44th Street. With the improvement, Route 29 will have a minimum service frequency of every 15 minutes from 6 AM – 7 PM Monday through Friday between Desert Sky Transit Center and 44th Street. Current eight-minute peak frequency will remain unchanged. The overall impact is reduced wait times between bus connections in the off-peak period for the region’s busiest route.

As a result of the proposed improvements in Phoenix, Route 29 off-peak frequency in Scottsdale, between 56th Street and 86th Street, will be modified to either 15 minutes or 30 minutes. Staff is currently working with City of Scottsdale staff to determine service frequency for this route segment, as final schedule decisions will determine overall route

operations. By way of example, should Scottsdale choose to improve off-peak frequency to 15 minutes, off-peak frequency in Phoenix between 44th Street and 56th Street will also need to improve to 15 minutes. Conversely, should Scottsdale choose 30-minute service, frequency for this segment would operate accordingly. The annual cost of \$388,000 assumes higher frequency operations with Scottsdale funding their portion of the route in any scenario. Should Scottsdale service operate at a lower frequency, final costs will be reduced proportionally.

Route 50 (Camelback Road) – Increase Off-Peak Frequency to 15 minutes

Staff proposes increasing the off-peak service frequency during weekdays for the higher ridership segment of the route. Route 50, the sixth highest ridership route in the region, operates from 107th Avenue on the west end to Scottsdale Road on the east end. Currently, the high ridership segment (between 67th Avenue and 44th Street) operates at 10-minute frequency during peak service periods and 15- to 30-minute frequency during off-peak times. Route 50 has the least frequent off-peak service of all core east-west routes. The proposed service improvement is to increase the midday and early evening frequency from 30 minutes to 15 minutes. With the improvement, Route 50 will have a minimum service frequency of every 15 minutes from 6 AM – 7 PM Monday through Friday for the high ridership segment of the route. Current 10-minute peak frequency will remain unchanged. The overall impact is reduced wait times between bus connections in the off-peak period.

Route Extensions

Route 19 (19th Avenue) - Extension to Happy Valley Road

Staff proposes extending the north end of the route from its current terminus at Pinnacle Peak Road and 23rd Avenue to Happy Valley Road and 23rd Avenue. The one-mile extension will provide a direct connection to the Happy Valley Towne Center, create a new connection with Route 35 (35th Avenue), and provide new service to residential and commercial areas along 23rd Avenue. This route extension would not require expansion to the bus fleet. Service to Happy Valley Road on Route 19 would be operated at a 30-minute frequency. Based on total weekday boardings, Route 19 is currently the fourth most utilized route in the region.

Route 60 (Bethany Home)- Extension to 24th Street & Camelback Road

Staff proposes extending the east end of the route from its current terminus at 16th Street and Bethany Home Road to Camelback Road and 24th Street via 16th Street, Missouri Avenue, 20th Street, and Camelback Road. The route extension will connect Bethany Home Road to residential areas along Missouri Avenue and 20th Street, create a connection with Routes 70 (24th Street/Glendale Avenue) and 50 (Camelback Road), and serve shopping destinations on Camelback Road between 20th Street and 24th Street. Extending the route would reinstate Route 60 service to 24th Street and Camelback Road that were eliminated in July 2012 due to budgetary constraints. Service to 24th Street and Camelback on Route 60 would be operated at a 30-minute frequency. Based on total weekday boardings, Route 60 is currently the 24th most utilized route in the region.

The original proposal on the Route 60 extension was to terminate the route at 20th Street and Camelback Road. After receiving numerous suggestions from the public on

extending service to 24th Street, and examining operational needs in the area (bus layover and turnaround needs), staff recommends extending Route 60 to 24th Street and Camelback Road.

In addition to the proposed changes in Phoenix, Glendale is proposing to eliminate the one-mile segment of Route 60 service on 83rd Avenue between Bethany Home Road and Glendale Avenue to avoid duplicative service with the proposed Route 83 extension. In October 2017, the cities of Glendale and Peoria are proposing to fund an extension for Route 83 on 83rd Avenue from Camelback Road to Arrowhead Transit Center. Neither route extension would require expansion to the bus fleet.

New Route

Route 140 (Ray Road)

Valley Metro is proposing to implement a new route on Ray Road between 48th Street in Phoenix and Gilbert Road in Gilbert. The new Route 140 will service Phoenix, Tempe, Chandler, and Gilbert on Ray Road and connect to nine local routes in the region. Route 140 would operate Monday through Saturday at a 30-minute frequency. Phoenix's portion of the new route is one-half mile on Ray Road between 48th Street and Interstate 10.

PUBLIC INPUT PROCESS

The Public Transit Department used the locally adopted process for public outreach for the October 2017 proposed bus service changes. Staff coordinated closely with Valley Metro staff in communicating and conducting public outreach on the proposed service changes which included the Phoenix and regional proposed bus service changes. From April 17 through May 19, Public Transit and Valley Metro staff provided multiple opportunities for public comment on service changes, including a public hearing in downtown Phoenix on May 15, 2017, public outreach events including signs on major bus stops on routes 29 and 50, signs along the proposed route 19 and 60 extensions, in-person contacts, and through social media/email. Staff also utilized local newspapers, social media, on-board bilingual bus announcements, the Valley Metro website, and the Public Transit Department website to solicit input from the public.

For service changes within Phoenix, approximately 91 comments were received from the public regarding bus service changes proposed for October 2017. The following bullets summarize the feedback by route (at this report's writing):

- Route 19 (19th Avenue): For the proposed changes = 19; Against = 1
- Route 29 (Thomas Toad): For = 15; Against = 2
- Route 50 (Camelback Road): For = 17; Against = 1
- Route 60 (Bethany Home Road): For =17; Against =1
- Route 140 (Ray Road): For = 17; Against =1

As required, a Title VI analysis for the proposed October 2017 service changes was prepared and finalized. Per the City's Title VI policies, the report identified 'major' service changes potentially impacting low-income and/or minority populations for the new Route 140. The impacts on Route 140 are positive, thus no mitigation is

necessary. As per the Title VI protocol, no ‘major’ impacts were identified for the staff-recommended service changes for Route 19, 29, 50, or 60.

The following table provides the cost of the recommended October 2017 service changes:

Bus Service Description	Annual Cost
Route 19 (19 th Avenue): Extension to Happy Valley Road	\$242,000
Route 29 (Thomas Road): Improve mid-day service frequency	\$388,000
Route 50 (Camelback Road): Improve mid-day service frequency	\$345,000
Route 60 (Bethany Home Road): Extension to 24 th St. & Camelback Road	\$375,000
Route 140 (Ray Road): New Route on Ray Road from 48 th Street to Gilbert Road	\$48,000
TOTAL COST OF OCTOBER 2017 BUS SERVICE IMPROVEMENTS	\$1,398,000

When seeking FY17 service changes (October 2016/April 2017) and relaying 5-year financial plan cost estimates for those bus changes, PTD staff estimated these costs at a maximum of \$31.3M. Final costs for FY17 major service improvements came in at \$27.6M; as such, the proposed October 2017 service changes are within the capacity of the overall T2050 program.

OTHER INFORMATION

The process for successfully implementing the proposed service enhancements beginning in October 2017 includes the following:

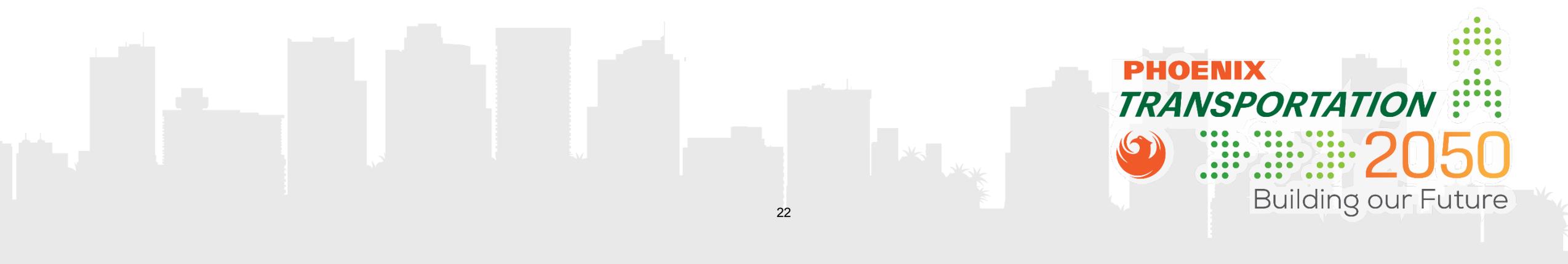
- Conduct required public outreach and public hearing (regional effort) – April/May 2017 - Completed
- Seek Citizen Transportation Commission approval: May 25, 2017.
- Seek Transportation and Infrastructure Subcommittee and City Council approval of final proposed bus service changes by June 21, 2017.
- Prepare transit books, develop operational logistics, and coordinate operators: August through October 2017.
- Implement approved bus service improvements: October 23, 2017.

RECOMMENDATION

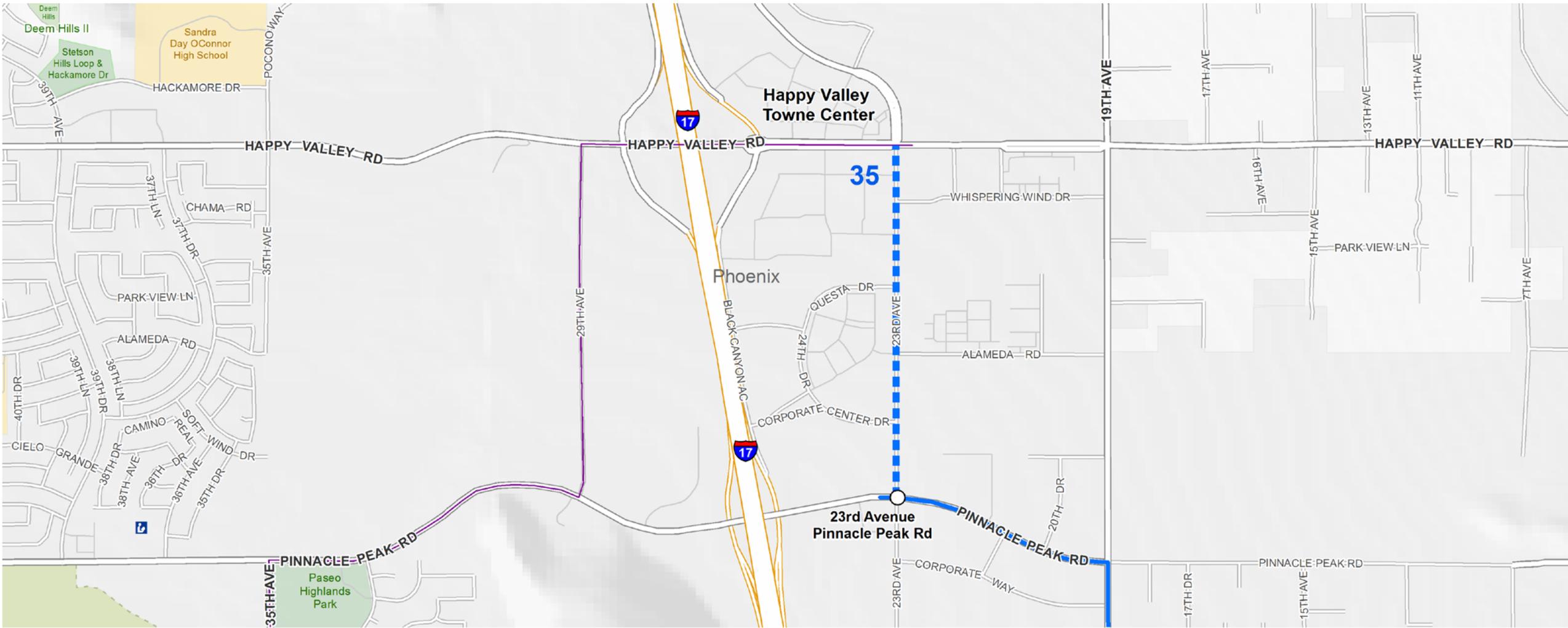
This report is for discussion and approval. Staff requests the Citizens Transportation Commission recommend approval of the staff-recommended October 2017 bus service changes to the Transportation and Infrastructure Subcommittee.

Proposed October 2017 Bus Service Changes

Citizens Transportation Commission
May 25, 2017



Route 19 (19th Avenue) - Extension to Happy Valley Road



23



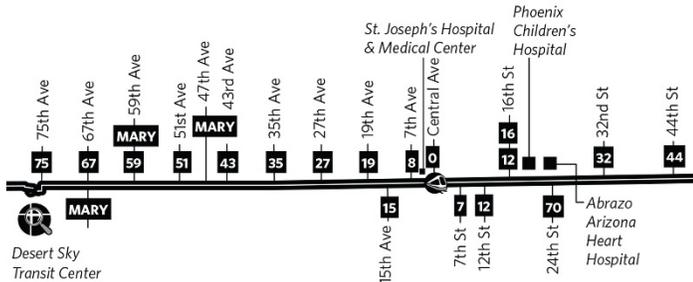
— Current Route 19 - - - Proposed 19 Extension — Other Local Routes **35** New Connections



PROPOSED: OCTOBER SERVICE CHANGE

Route 29

The city of Phoenix proposes to increase frequency of Route 29 to 15 minutes or less* between Desert Sky Mall Transit Center and 44th Street.



* Current 8 minute frequency will not change

YOUR VOICE COUNTS!

Submit comments to:
valleymetro.org/servicechanges
by May 19, 2017.

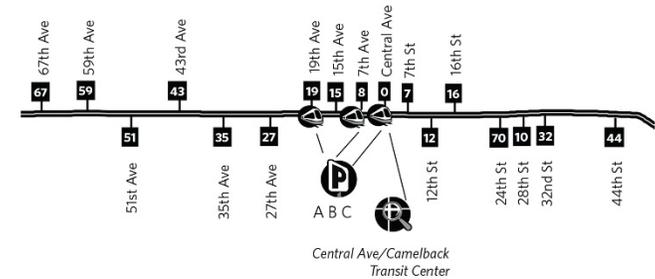
Frequency Improvement



PROPOSED: OCTOBER SERVICE CHANGE

Route 50

The city of Phoenix proposes to increase frequency of Route 50 to 15 minutes or less* from 67th Avenue to 44th Street.

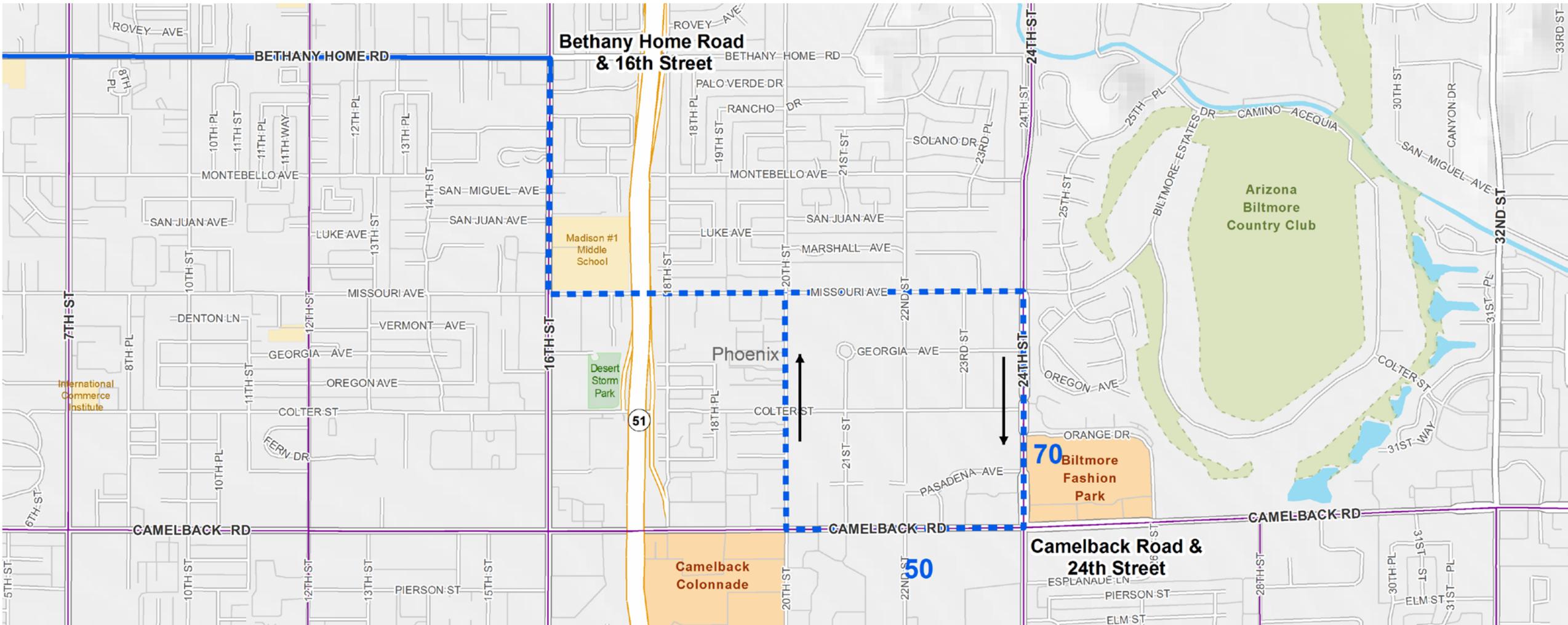


*Current 10 minute frequency will not change

YOUR VOICE COUNTS!

Submit comments to:
valleymetro.org/servicechanges
by May 19, 2017.

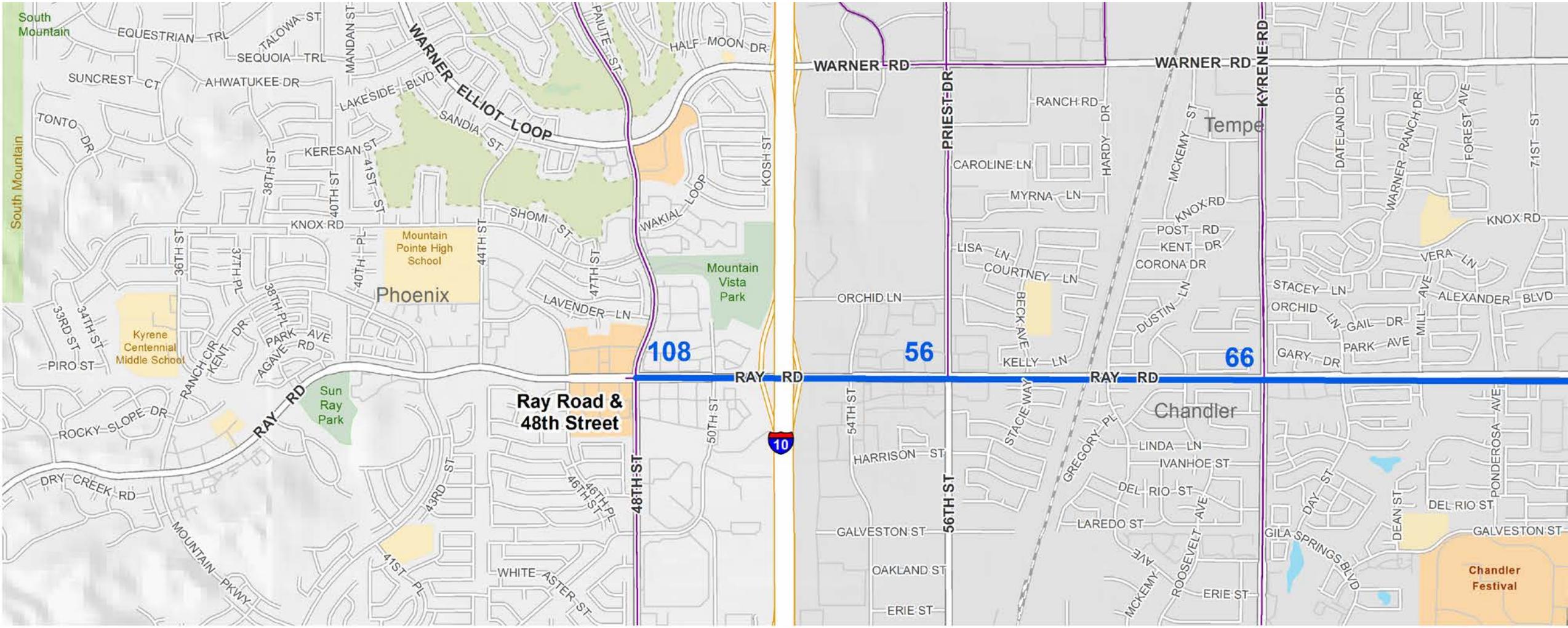
Route 60 (Bethany Home Road) - Extension to 24th St. & Camelback Road



--- Proposed 60 Extension — Current Route 60 — Other Local Routes 50, 70 New Connections



Route 140 (Ray Road) - New Route on Ray Road



— New Route 140 — Other Local Routes **108, 56, 66** New Connections

Public Input Process – April 17 – May 19, 2017

➤ Public notification

➤ Public hearing: May 15, 2017

➤ Public feedback through email, in-person contacts, social media = 91 (to date)

- Route 19 (19th Avenue): For the proposed changes= 19; Against = 1
- Route 29 (Thomas Toad): For= 15; Against = 2
- Route 50 (Camelback Road): For = 17; Against = 1
- Route 60 (Bethany Home Road): For=17; Against=1
- Route 140 (Ray Road): For 17; Against =1



Bus Service Description	Annual Cost
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Route 60 (Bethany Home Road): Extension to 24 th St. & Camelback Road	\$375,000
Route 140 (Ray Road): New Route on Ray Road from 48 th Street to Gilbert Road (Phoenix miles only)	\$48,000
TOTAL COST OF OCTOBER 2017 BUS SERVICE IMPROVEMENTS	\$1,398,000



Recommendation

Staff requests the Citizens Transportation Commission recommend to the City Council approval of the staff-recommended October 2017 service changes.

CITIZENS TRANSPORTATION COMMISSION REPORT

TO: Mario Paniagua
Deputy City Manager

FROM: Maria Hyatt
Public Transit Director

SUBJECT: TRANSIT SAFETY AND SECURITY

This report provides information from the Police and Public Transit Departments in response to the Citizens Transportation Commission's request for an analysis of transit safety and security needs. Safety and security along the transit system is provided through multiple layers, including the Phoenix Police Department precincts and the Transit Enforcement Unit (TEU), a section of the Phoenix Police Department specifically focused on public transit, and Valley Metro.

BACKGROUND INFORMATION

Implementation of Transit 2000 added significant new transit service. To alleviate the impact new service would have on the Phoenix Police Department, the TEU was created to provide dedicated service to public transit. The Public Transit Department funds this unit. With the passage of Transportation 2050 (T2050) and expansion of bus and light rail service over the 35-year program, the T2050 financial plan allocates additional funding where needed to provide safety and security to passengers, employees, revenue, and property along the transit system.

The TEU presence enhances citizens' perception of security with an emphasis on crime suppression through trained, skilled, and uniformed staff. Currently, TEU is supported by a police commander, a lieutenant and six sergeants who provide oversight to the following staff:

Position	Role	# of Staff
Sworn Officers	Responsible for transit service calls and crime suppression	16
Sworn Officers/K9 Handlers	Provide platform sweeps, and high visibility on transit property and light rail in partnership with Transportation Security Administration (TSA) National Explosives Detection Canine Team	3
Police Assistants (PAs)	Provide service and assistance to police officers during transit related calls for service and crime suppression programs.	23
Municipal Security Guards (MSGs)	Responsible for fixed post security	24

Position	Role	# of Staff
	at the West, North and South Transit Facilities and Central Station.	

Public Transit contracts with a private security firm to provide security at park-and-rides and transit centers. This firm also augments MSGs to provide fixed post security at the West, North and South Transit Facilities.

Light rail security is provided through a partnership with Valley Metro’s security service provider Allied Universal. They are responsible for security and fare inspection, administrator/trainer, fixed post security personnel, platform/Park-and-Rides, dispatch and control and supervisors. Valley Metro also works closely with the police departments within the cities light rail travels through.

SAFETY AND SECURITY

Police Officers

With transit reaching all parts of Phoenix, it is necessary for transit service calls to be responded to by both Police precincts and the TEU, with primary response by Phoenix Police Department precincts. The TEU will respond or replace precinct officers on complex or time-consuming transit service calls. The relationship is seamless between precincts and the TEU, which is part of the Central City Precinct. In addition to transit service calls, TEU officers focus on crime suppression efforts. The Phoenix Police Department uses a data-driven process. Statistical analysis and information from internal/external partnerships are used to determine the appropriate geographical areas to focus enforcement efforts and social services to reduce crimes as well as improve quality of life. Depending on the goal of the overall project several, different tactics can be used to accomplish the mission including a “zero tolerance” approach, high visibility enforcement, K-9 patrol, “covert” plain clothes, and/or bicycle patrol. Projects are typically run for a specified time limit then evaluated for success. After the evaluation phase the plan may be readjusted or, if determined to be successful, a maintenance period may be implemented. During the maintenance phase, enforcement will be gradually scaled back until services are returned to normal. After a determined time period another evaluation will be performed to assess the overall success of the project or a need to return to targeted enforcement.

In partnership with Valley Metro, the TEU is currently managing an extra duty program for an additional 120 hours per week of police officer coverage focused on light rail in Phoenix, with an emphasis on providing a high visibility deterrent along the 19th Avenue Corridor. The extra duty program provides a more targeted resource by deploying police officers at varying hours and days determined by the data driven process. Officers work in conjunction with Police Assistants and private security. This targeted deployment will allow TEU duty squads to be freed up to conduct more proactive enforcement operations. The additional \$262,000 for these extra officer hours has already been allocated from T2050 funds.

There has been discussion of hiring additional officers for TEU. Based on TEU's crime suppression, targeted focus, the Police Department believes that additional extra duty efforts beyond those hours dedicated for light rail purposes could be highly effective. Police Chief Jeri Williams has indicated that her focus is on filling precinct positions at this time. However, using extra duty officers until there is an opportunity to add additional officers is an effective enforcement option. The cost for a full-time equivalent officer is \$150,000 per year. It is important to note that finding additional officers or extra duty hours would mean that less funds are available to use for other future transit security uses such as enhanced technology or equipment.

Private Security

Private security is used for transit centers, park-and-rides and augmenting MSG's at the three bus facilities. T2050 has expanded bus operating hours and as a result, private security guard staffing will increase, resulting in an additional \$1.1 million in security costs for FY 17/18.

The TEU recommends the equivalent of up to four additional officers be added using extra duty officers. This would increase the safety and security budget by an additional \$600,000 in FY 2017/18 which is available in the T2050 Fund and within the overall long-term T2050 financial plan.

RECOMMENDATION

Staff requests the Citizens Transportation Commission provide guidance on safety and security improvements using extra duty officers for crime suppression and enforcement efforts.

CITIZENS TRANSPORTATION COMMISSION REPORT

TO: Mario Paniagua
Deputy City Manager

FROM: Ray Dovalina, P.E.
Street Transportation Director

SUBJECT: TRANSPORTATION 2050 (T2050) MAINTENANCE OF PAVEMENT FOR
ARTERIAL AND MAJOR COLLECTOR STREETS AND BICYCLE
FACILITIES FOR FISCAL YEARS 2020 AND 2021

This report provides information to the Citizens Transportation Commission (CTC) on the proposed Transportation 2050 (T2050) fiscal years (FY) 2020 and 2021 arterial and major collector streets pavement maintenance program. It also provides information about the proposed Arizona Highway User Revenue (AHUR) funded pavement maintenance program for all other City streets for fiscal years 2020 and 2021. Staff requests the CTC recommend Transportation and Infrastructure Subcommittee and City Council approval of the proposed T2050-funded arterial and major collector streets pavement maintenance program for FY 2020 and 2021.

The proposed maintenance is based on the currently forecasted estimates included in the T2050 long-term financial plan and AHUR estimates for FY 2020 and 2021. The proposal aligns with the T2050 plan to address pavement maintenance of City streets.

THE ISSUE

On Aug. 25, 2015, City of Phoenix voters approved the passage of Proposition 104 (T2050), which provides a 0.3 percent increase in the transaction privilege and use tax rate to fund citywide transportation projects, including the construction and maintenance of City streets. Collection of T2050 sales tax began on Jan. 1, 2016.

The proposed FY 2020 and 2021 arterial and major collector streets pavement maintenance program funded with T2050 funds (Attachments A and B) were developed and prioritized using the Street Transportation Department's existing Pavement Management System (PMS).

OTHER INFORMATION

Phoenix's Street Network

Phoenix has a comprehensive roadway network of more than 4,860 miles of public streets. Phoenix's roadway network is made up of arterial, collector, and local streets. Arterials are major streets, which are typically the major north/south and east/west transportation corridors spaced at each mile. Collectors are important mid-level transportation corridors, which are generally on the ½-mile north/south and east/west streets between the arterial streets. Local streets are typically in residential areas, and provide connectivity between the collectors and arterials for local traffic.

The arterial and major collector streets pavement maintenance program is funded by T2050, while the minor collector and local streets pavement maintenance program is funded by Arizona Highway User Fund Revenues (AHUR).

The City’s public transit system primarily utilizes the arterial and major collector streets for its bus and rail lines, and T2050 funds allocated to Street Transportation are an essential part of proper pavement maintenance along these transit corridors.

Table 1 shows the citywide distribution of the various street classifications and which street classifications are eligible for resurfacing projects using T2050 and AHUR funding. **Table 2** illustrates the distribution of street classification types across the City’s eight council districts.

Table 1: Street Classification Distribution

Street Classification	Total Miles	Funding
Arterial	729	T2050
Major Collector	140	T2050
Minor Collector	491	AHUR
Local	3,503	AHUR
TOTAL	4,863	

Table 2: Street Classification Centerline Miles by Council District

Council District								
	1	2	3	4	5	6	7	8
Arterial	94	130	64	61	54	87	121	118
Collector	18	20	12	18	6	24	16	29
Minor	75	67	71	35	51	55	64	72
Local	502	488	439	363	352	471	428	459

Total	689	705	585	477	463	637	629	678
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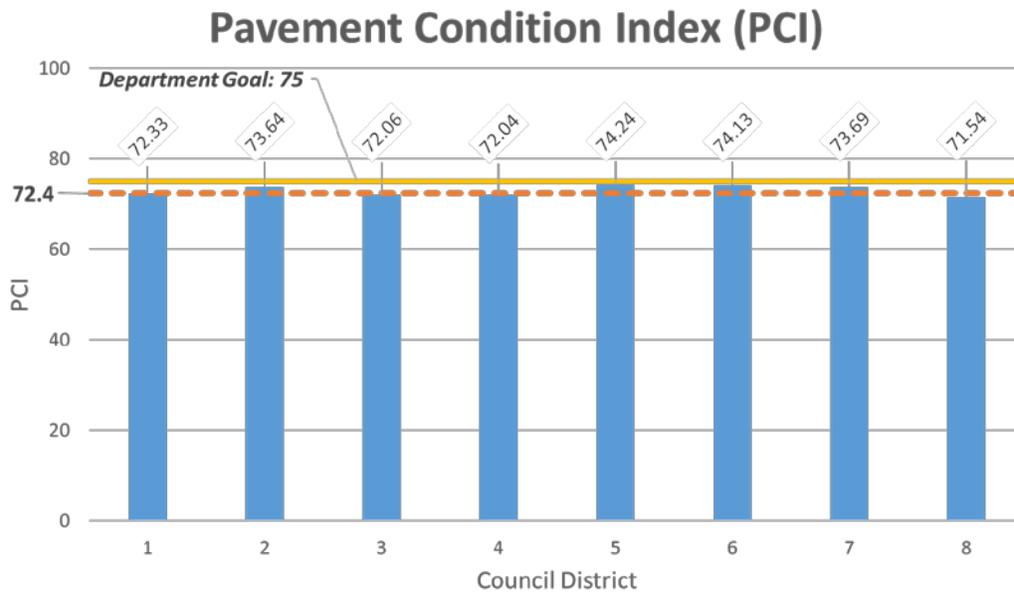
Pavement Management System and Pavement Condition Index

Street Transportation is tasked with planning, programming and executing the City's street maintenance program. The department developed and implemented the Pavement Management System (PMS) to determine the condition of roadways to establish priorities of streets to receive maintenance treatments and pavement overlays. The foundation of PMS is field data obtained using a high-tech pavement management vehicle, which measures and records the condition of roads, evaluating them on surface roughness, environmental stresses, and structural condition. Based on the resulting pavement condition index (PCI) rating, which is tracked and mapped in the department's PCI database, staff uses these objective measurements of roadway conditions to develop an initial list of roads to receive asphalt overlay.

The average PCI rating for each council district is demonstrated in **Figure 1**, with a citywide average PCI rating of 72.4.

Using the most recently recorded PCI data, only 61 percent of City streets are classified in good condition, while 29 percent are in fair condition and 10 percent are in poor or very poor condition.

Figure 1: Pavement Condition Index

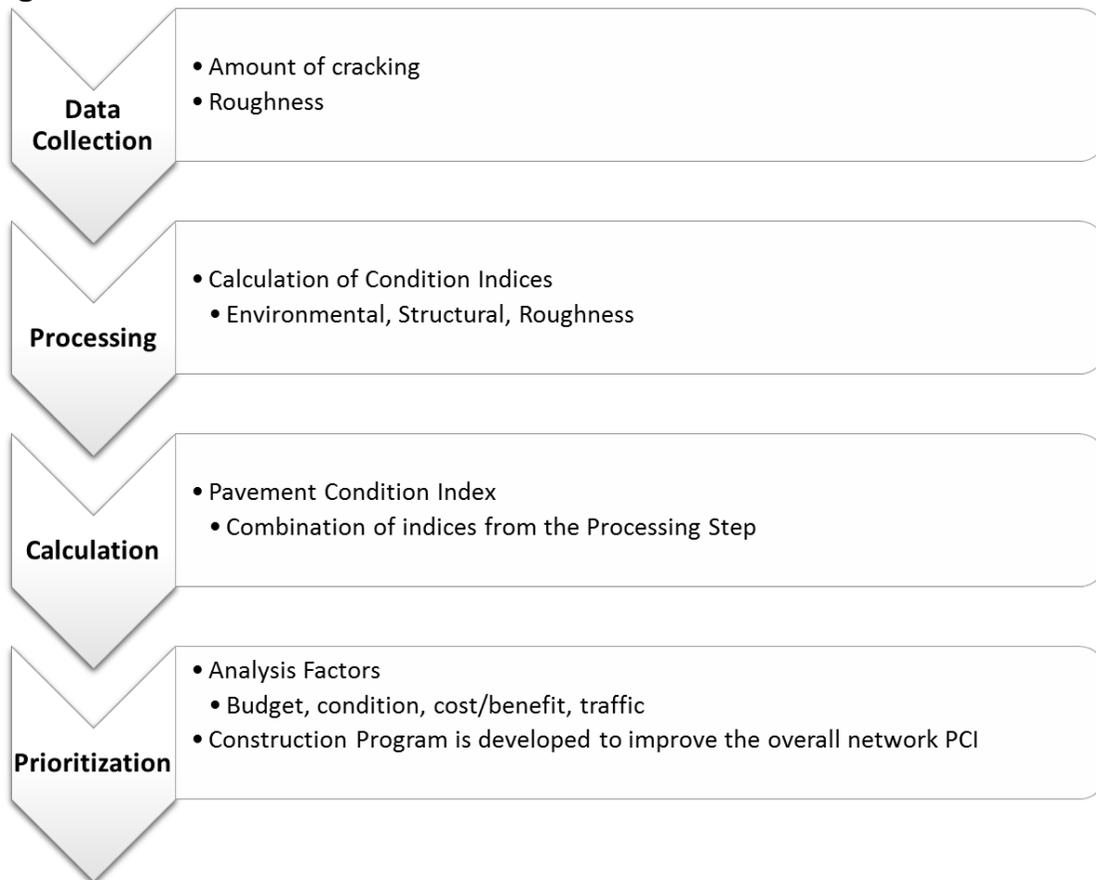


Once the pavement maintenance list is developed, the initial list of roads is put through a rigorous coordination review, which is summarized in **Figure 2**, and includes evaluating the following:

- Americans with Disabilities Act compliance.
- Conflicts with other city projects.
- Right of way concerns.

- Environmental issues.
- Utility issues or conflicts.
- Field visual inspections.
- Pavement age.
- Roadway traffic volumes.
- Alternate pavement treatments.

Figure 2: PCI Calculation and Prioritization



Staff may also consider adjacent or related economic development opportunities in developing the recommended pavement maintenance project list in addition to the standard evaluation criteria.

Pavement Treatment Types

Based on the final pavement treatment location list and the respective PCI data for each street, the appropriate pavement treatments are then determined. **Table 3** outlines and describes the four main types of pavement maintenance treatments, including whether roadway striping activities are included, which would trigger options for new bicycle facilities.

Table 3: Types of Maintenance Treatments

Name	Description	Are Roadway Striping Activities Included?
Overlay	Milling the existing pavement surface in fair to poor condition and installing a layer of hot polymer modified asphalt rubber mix over the existing base layer to provide a new wearing surface.	Yes
Micro-seal	Application of coarse sand aggregate and a polymer modified emulsion mixture, on arterial and collector streets that are in fair to good conditions to provide a new wearing surface.	Yes
Crack Seal	Filling cracks in the pavement with modified asphalt rubber on streets in relatively good condition.	No
Tire Rubber Modified Surface Sealant (TRMSS)	Thin spray of emulsified asphalt that is used to rejuvenate pavement that is starting to oxidize. Adds a small amount of binder to the top of the asphalt to help hold pavement together.	No

Comprehensive Pavement Preservation Program

Prior to FY 2015, due to declining revenues associated with the economic downturn, the Street Transportation pavement maintenance program only consisted of overlay treatments, which significantly limited the effectiveness and reach of the pavement maintenance program. A pavement overlay is the most complete maintenance treatment option available, but is also the most expensive at a cost per mile of approximately \$880,000 (see **Table 4**).

Table 4: Characteristics of City of Phoenix Arterial Streets Pavement Treatment

Treatment Name	Cost per Mile	Average Life of Treatment (years)	% Cost per Mile of Treatment, Compared to Overlay	Miles Treated Per Cost of One Mile of Overlay	Ideal Applicability
Overlay	\$880,000	11	100%	1	For Pavement in Fair to Poor Condition

Treatment Name	Cost per Mile	Average Life of Treatment (years)	% Cost per Mile of Treatment, Compared to Overlay	Miles Treated Per Cost of One Mile of Overlay	Ideal Applicability
Microsurfacing	\$401,000	7.5	45.6%	2.2	For Pavement in Good to Fair Condition to extend life cycle of street
TRMSS	\$79,000	5	8.99%	11.1	For Pavement in Good Condition to extend life cycle of street
Crack Seal	\$42,000	4	4.78%	20.9	For Pavement in Good to Very Good Condition to extend life cycle of street with cracks

Previously, with reduced maintenance funding and pavement overlays being the sole treatment option (without interim pavement treatment options to extend the pavement life), the City's streets underwent a more rapid deterioration of the pavement condition, resulting in a higher number of roads being in poor or failing conditions.

In FY 2016, voter approval of additional resources through T2050 enabled expanded options for the pavement maintenance program, including the following pavement maintenance treatments: crack seal, tire rubber modified surface seal (TRMSS) and microsurfacing. The use of these treatments provides multiple benefits to the pavement preservation program, including:

1. Lower cost of treatment per mile initially, and over the pavement life cycle.
2. Increased quantity of roadways that receive treatments annually.
3. Higher number of roadway miles maintained in fair to very good condition.
4. Increased number of roadway miles maintained appropriately, extending pavement life cycle.

The comprehensive pavement preservation program will allow T2050 funded arterials and major collectors to be treated approximately every 10 years with the current budget projections. Arizona Highway User Revenue (AHUR) funded minor collectors and local streets will be treated approximately every 10-12 years based on state funding levels.

Pavement Maintenance Goals and Budgets

With the pavement maintenance funding (AHUR and T2050) of the City's street network allocated based on the street classification type, the miles of roadway treated on an annual basis should be reported and evaluated in the same manner. **Table 5** below shows the number of roadway miles scheduled to be treated through the recommended FY2020 and FY2021 programs. As noted earlier, AHUR funding is allocated to minor collector and local streets and T2050 funding is allocated to arterial and major collector streets, which total 3,993 miles and 869 miles across the City, respectively.

Table 5

Funding and Treatment Types	Fiscal Year	
	2020	2021
AHUR	Miles Treated	
Overlay	71.30	75.34
PMM	24.38	25.70
Slurry Seal	81.63	66.86
Crack Seal	49.92	45.11
FAST	16.20	15.23
Microseal	2.42	2.92
TRMSS	4.01	4.34
Sub-Total	249.86	235.50
<i>Total Minor Collector and Local Street Mileage = 3,993 miles</i>		
<i>Average for 10-year Treatment Cycle = 399.3 miles</i>		
Funding and Treatment Types	Fiscal Year	
	2020	2021
T2050	Miles Treated	
Overlay	13.00	13.60
Micro Seal	14.75	16.49
Crack Seal	24.95	23.50
TRMSS	18.39	19.18
Sub-Total	71.09	72.77
<i>Total Arterial and Major Collector Street Mileage = 869 miles</i>		
<i>Average for 10-year Treatment Cycle = 86.9 miles</i>		

Impact of T2050 Funding

T2050 is anticipated to provide more than \$2.3 billion to maintain existing City streets and to build and improve the roadway network to better support public transit, bicycling, and pedestrian activities. To meet the T2050 goal of treating 680 miles of arterial and major collector streets, Street Transportation will propose roadways under the comprehensive pavement maintenance program using its existing PMS to prioritize locations.

Street Transportation will focus its existing non-T2050 pavement maintenance budget generally on the City's minor collector and residential streets.

Attachments A and B list the proposed locations, proposed bicycle facilities, and overall totals for each treatment of the FY 2020 and 2021 pavement maintenance program funded with T2050.

Attachments C and D list the proposed locations, proposed bicycle facilities, and overall totals for each treatment of the FY 2020 and 2021 pavement maintenance program funded with AHUR.

Information about existing and proposed bicycle facilities for the 2020 and 2021 Pavement Maintenance Program will be reported in the 5 Year Bicycle Facility Plan, which will be heard at the May 2017 CTC meeting.

Attachments E and F provide maps showing the locations of all proposed FY 2020 and 2021 pavement maintenance projects.

RECOMMENDATION

Staff requests the CTC recommend Transportation and Infrastructure Subcommittee and City Council approval of the proposed T2050-funded arterial and major collector streets pavement maintenance program for FY 2020 and FY2021.

Attachments:

- A. Proposed: T2050 FY 2020 Arterial and Major Collector Streets Pavement Maintenance Program
- B. Proposed: T2050 FY 2021 Arterial and Major Collector Streets Pavement Maintenance Program
- C. Proposed: AHUR FY 2020 Minor Collector and Local Streets Pavement Maintenance Program
- D. Proposed: AHUR FY 2021 Minor Collector and Local Streets Pavement Maintenance Program
- E. Proposed FY 2020 Pavement Maintenance Program Map
- F. Proposed FY 2021 Pavement Maintenance Program Map

Attachment A
PROPOSED: FY2020 STREETS PAVEMENT MAINTENANCE PROGRAM T2050

On Street	From	To	Council Districts	Bicycle Master Plan Priority #	Roadway Miles	Existing Bike Facility Miles	Bi-Directional Miles of Existing Bike Facility	Miles of New Bike Facility	Bi-Directional Miles of New Bike Facility	Existing Bike Facility	Post-Treatment Bike Facility	Pavement Treatment Type	Funding
56 ST	N/O PINNACLE VISTA DR	S/O DYNAMITE BLVD	2	n/a	0.50	0	0	0	0	None	None	Crack Seal	T2050
59 AVE	S/S DOBBINS RD	S/S BASELINE RD	8	n/a	0.95	0	0	0	0	None	None	Crack Seal	T2050
64 ST	N/O MESCAL ST	S/O CACTUS RD	2	n/a	0.69	0.5	1	0	0	Bike Lane: 4 - 6 foot	Bike Lane: 4 - 6 foot	Crack Seal	T2050
DOVE VALLEY RD	E/O 22 AVE	E/O 16TH AVE	2	n/a	0.73	0.4	0.8	0	0	Bike Lane: 4 - 6 foot	Bike Lane: 4 - 6 foot	Crack Seal	T2050
GLENDALE AVE	E/O 19 AVE	E/O 7 AVE	3/5	n/a	0.98	0	0	0	0	None	None	Crack Seal	T2050
HAPPY VALLEY RD	W/O 35 AVE	W/O BLACK CANYON FRWY	1	n/a	0.91	0.91	1.82	0	0	Bike Lane: 4 - 6 foot	Bike Lane: 4 - 6 foot	Crack Seal	T2050
SONORAN DESERT DR	W/O NORTH VALLEY PKWY	E/O PALOMA PKWY	2	n/a	0.69	0	0	0	0	None	None	Crack Seal	T2050
THUNDERBIRD RD	E/O 40 ST	W/O TATUM BLVD	2/3	n/a	1.04	1.04	2.08	0	0	Bike Lane: 4 - 6 foot	Bike Lane: 4 - 6 foot	Crack Seal	T2050
WASHINGTON ST	E/O 20 ST	W/O 12 ST	8	8a	1.00	1	2	0	0	Bike Lane: 4 - 6 foot	Bike Lane: 4 - 6 foot	Crack Seal	T2050
35 AVE	N/O SOUTHERN AVE	BRIDGE	7/8	n/a	1.18	1.18	2.36	0	0	Bike Lane: 4 - 6 foot	Bike Lane: 4 - 6 foot	Crack Seal	T2050
WASHINGTON ST	W/O 7 ST	E/O 7 AVE	7/8	8a	1.02	0	0	0	0	None	None	Crack Seal	T2050
107 AVE	N/O BROADWAY RD	S/O LOWER BUCKEYE RD	7	n/a	1.01	0	0	0	0	None	None	Crack Seal	T2050
107 AVE	N/O SOUTHERN AVE	S/O BROADWAY RD	7	n/a	0.99	0	0	0	0	None	None	Crack Seal	T2050
32 ST	S/O CACTUS RD	N/O THUNDERBIRD RD	3	n/a	1.00	0	0	0	0	None	None	Crack Seal	T2050
51 AVE	N/O DOBBINS RD	N/O BASELINE RD	8	n/a	1.01	1.01	2.02	0	0	Bike Lane: 4 - 6 foot	Bike Lane: 4 - 6 foot	Crack Seal	T2050
51 AVE	N/O ESTRELLA DR	S/O DOBBINS RD	8	n/a	2.00	0.25	0.5	0	0	Bike Lane: 4 - 6 foot	Bike Lane: 4 - 6 foot	Crack Seal	T2050
59 AVE	S/O SOUTH MOUNTAIN AVE	N/O BASELINE RD	8	n/a	0.50	0.35	0.7	0	0	Bike Lane: 4 - 6 foot	Bike Lane: 4 - 6 foot	Crack Seal	T2050
67 AVE	S/O BROADWAY RD	N/O ELWOOD ST	7	n/a	0.52	0	0	0	0	None	None	Crack Seal	T2050
7 ST	N/O DUNLAP AVE	S/O PEORIA AVE	3	n/a	0.95	0	0	0	0	None	None	Crack Seal	T2050
BASELINE RD	W/O 35 AVE	E/O 27 AVE	8	27	0.94	0.94	1.88	0	0	Bike Lane: 4 - 6 foot	Bike Lane: 4 - 6 foot	Crack Seal	T2050
BROADWAY RD	E/O 107 AVE	W/O 99 AVE	7	n/a	0.99	0.4	0.8	0	0	Bike Lane: 4 - 6 foot	Bike Lane: 4 - 6 foot	Crack Seal	T2050
BROADWAY RD	E/O 55 AVE	W/O 51 AVE	7	35	0.53	0	0	0	0	None	None	Crack Seal	T2050

**Attachment A
PROPOSED: FY2020 STREETS PAVEMENT MAINTENANCE PROGRAM T2050**

On Street	From	To	Council Districts	Bicycle Master Plan Priority #	Roadway Miles	Existing Bike Facility Miles	Bi-Directional Miles of Existing Bike Facility	Miles of New Bike Facility	Bi-Directional Miles of New Bike Facility	Existing Bike Facility	Post-Treatment Bike Facility	Pavement Treatment Type	Funding
CACTUS RD	E/O 40 ST	W/O TATUM BLVD	3	n/a	0.94	0	0	0	0	None	None	Crack Seal	T2050
GREENWAY RD	BLACK CANYON FRWY	E/O 19 AVE	3	n/a	0.94	0	0	0	0	None	None	Crack Seal	T2050
SHEA BLVD	W/O TATUM BLVD	W/O 56 ST	3	n/a	1.00	0	0	0	0	None	None	Crack Seal	T2050
SOUTHERN AVE	W/O 67 AVE	E/O 59 AVE	7	n/a	1.00	0	0	0	0	None	None	Crack Seal	T2050
VAN BUREN ST	W/O 27 AVE	E/O 19 AVE	7	n/a	0.94	0	0	0	0	None	None	Crack Seal	T2050
Totals					24.95	7.98	15.96	0.00	0.00				
									Total Cost of Crack Seal		\$ 782,400		

On Street	From	To	Council Districts	Bicycle Master Plan Priority #	Roadway Miles	Existing Bike Facility Miles	Bi-Directional Miles of Existing Bike Facility	Miles of New Bike Facility	Bi-Directional Miles of New Bike Facility	Existing Bike Facility	Post-Treatment Bike Facility	Pavement Treatment Type	Funding
7 AVE	S/O BETHANY HOME RD	N/O NORTHERN AVE	3/5/6	n/a	2.00	0	0	0	0	None	None	TRMSS	T2050
CAVE CREEK RD	S/O GREENWAY RD	N/O BELL RD	2/3	34	0.98	0	0	0.98	1.96	None	Bike Lane: 4 - 6 foot	TRMSS	T2050
NORTHERN AVE	E/O 43 AVE	E/O 35 AVE	1/5	n/a	1.00	0	0	0	0	None	None	TRMSS	T2050
PINNACLE PEAK RD	E/O CENTRAL AVE	W/O 7TH ST	1	n/a	0.60	0	0	0	0	None	None	TRMSS	T2050
THUNDERBIRD RD	W/O TATUM BLVD	E/O 56 ST	2/3	n/a	1.00	0.5	1	0	0	Bike Lane: 4 - 6 foot	Bike Lane: 4 - 6 foot	TRMSS	T2050
BROADWAY RD	E/O 7 ST	E/O 16 ST	8	35	1.01	0	0	0	0	None	None	TRMSS	T2050
40 ST	S/O BELL RD	S/O UNION HILLS DR	2	n/a	1.00	1	2	0	0	Bike Lane: 4 - 6 foot	Bike Lane: 4 - 6 foot	TRMSS	T2050
59 AVE	N/O BROADWAY RD	S/O LOWER BUCKEYE RD	7	n/a	1.00	0	0	0	0	None	None	TRMSS	T2050
7 ST	N/O VAN BUREN ST	N/O MCDOWELL	8	n/a	0.97	0	0	0	0	None	None	TRMSS	T2050
CACTUS RD	E/O 24 ST	E/O 32 ST	3	n/a	1.00	0	0	0	0	None	None	TRMSS	T2050
CACTUS RD	E/O 35 AVE	W/O 31 AVE	1	n/a	0.50	0	0	0	0	None	None	TRMSS	T2050
CAMELBACK RD	E/O 113 DR (450' E/O BRIDGE)	W/O 107 AVE	5	n/a	0.74	0.74	1.48	0	0	Bike Lane: 4 - 6 foot	Bike Lane: 4 - 6 foot	TRMSS	T2050
JEFFERSON ST	E/O 7 ST	W/O 16 ST	8	8b	1.00	0.51	1.02	0	0	Bike Lane: 4 - 6 foot	Bike Lane: 4 - 6 foot	TRMSS	T2050

**Attachment A
PROPOSED: FY2020 STREETS PAVEMENT MAINTENANCE PROGRAM T2050**

On Street	From	To	Council Districts	Bicycle Master Plan Priority #	Roadway Miles	Existing Bike Facility Miles	Bi-Directional Miles of Existing Bike Facility	Miles of New Bike Facility	Bi-Directional Miles of New Bike Facility	Existing Bike Facility	Post-Treatment Bike Facility	Pavement Treatment Type	Funding
JEFFERSON ST	W/O 16 ST	W/O 20 ST	8	8b	0.51	1	2	0	0	Bike Lane: 4 - 6 foot	Bike Lane: 4 - 6 foot	TRMSS	T2050
NORTHERN AVE	E/O 7 ST	E/O 16 ST	6	n/a	0.97	0	0	0	0	None	None	TRMSS	T2050
WASHINGTON ST	E/O 32 ST	W/O 40 ST	8	8a	1.01	1.01	2.02	0	0	Bike Lane: 4 - 6 foot	Bike Lane: 4 - 6 foot	TRMSS	T2050
WASHINGTON ST	E/O 44 ST	W/O SR143	8	8a	0.26	0.26	0.52	0	0	Bike Lane: 4 - 6 foot	Bike Lane: 4 - 6 foot	TRMSS	T2050
WASHINGTON ST	E/O 7 ST	W/O 16 ST	8	8a	1.00	1	2	0	0	Bike Lane: 4 - 6 foot	Bike Lane: 4 - 6 foot	TRMSS	T2050
WASHINGTON ST	E/O SR143	W/O 48 ST	8	8a	0.16	0.16	0.32	0	0	Bike Lane: 4 - 6 foot	Bike Lane: 4 - 6 foot	TRMSS	T2050
WASHINGTON ST	W/O 40 ST	W/O 44 ST	8	8a	0.48	0.48	0.96	0	0	Bike Lane: 4 - 6 foot	Bike Lane: 4 - 6 foot	TRMSS	T2050
INDIAN SCHOOL RD	E/O 35 AVE BRIDGE	CONCRETE W/O I-17	4	n/a	1.20	0	0	0	0	None	None	TRMSS	T2050
Totals					18.39	6.66	13.32	0.98	1.96				
									Total Cost of TRMSS	\$	1,173,600		

On Street	From	To	Council Districts	Bicycle Master Plan Priority #	Roadway Miles	Existing Bike Facility Miles	Bi-Directional Miles of Existing Bike Facility	Miles of New Bike Facility	Bi-Directional Miles of New Bike Facility	Existing Bike Facility	Post-Treatment Bike Facility	Pavement Treatment Type	T2050
75 AVE	N/O LOWER BUCKEYE RD	S/O BUCKEYE RD	7	n/a	0.98	0.98	1	0	0	Bike Lane	Bike Lane: 4 - 6 foot	Microseal	T2050
BELL RD	E/O 43 AVE	E/O 35 AVE	1	n/a	1.00	1	0	0	0	None	None	Microseal	T2050
BROADWAY RD	W/O 99 AVE	E/O 91 AVE	7	35	0.99	0.99	0	0	0	None	None	Microseal	T2050
BUCKEYE RD	W/O 67 AVE	E/O 59 AVE	7	n/a	0.99	0.99	0	0	0	None	None	Microseal	T2050
CAMELBACK RD	W/O 23 AVE	E/O 19 AVE	4	n/a	0.49	0.49	0	0	0	None	None	Microseal	T2050
DOBBINS RD	E/O 51 AVE	W/O 43 AVE	8	32	1.00	1	0	1	2	None	Bike Lane: 4 - 6 foot	Microseal	T2050
LOWER BUCKEYE RD	E/O 107 AVE	W/O 99 AVE	7	n/a	0.98	0.98	1.96	0	0	Bike Lane & Path	Bike Lane: 4 - 6 foot	Microseal	T2050
TATUM BLVD	S/O JOMAX RD	N/O DYNAMITE BLVD	2	n/a	1.00	1.00	0	0	0	None	None	Microseal	T2050
THUNDERBIRD RD	W/O 32 ST	E/O 40 ST	3	n/a	1.04	1.04	2.08	0	0	Bike Lane	Bike Lane: 4 - 6 foot	Microseal	T2050

Attachment A
PROPOSED: FY2020 STREETS PAVEMENT MAINTENANCE PROGRAM T2050

On Street	From	To	Council Districts	Bicycle Master Plan Priority #	Roadway Miles	Existing Bike Facility Miles	Bi-Directional Miles of Existing Bike Facility	Miles of New Bike Facility	Bi-Directional Miles of New Bike Facility	Existing Bike Facility	Post-Treatment Bike Facility	Pavement Treatment Type	Funding	
CHANDLER BLVD	W/O 24 ST	W/O RAY RD	6	31	0.38	0.38	0.6	0	0	Bike Lane	Bike Lane: 4 - 6 foot	Microseal	T2050	
WASHINGTON ST	E/O 48 ST	W/O SR202 HOHOKAM EXPWY	6	8a	0.54	0.54	1.08	0	0	Bike Lane	Bike Lane: 4 - 6 foot	Microseal	T2050	
RAY RD	S/O CHANDLER BLVD	E/O 32 ST	6	16	0.74	0.74	0.5	0	0	Bike Lane	Bike Lane: 4 - 6 foot	Microseal	T2050	
7 AVE	N/O PAPAGO FRWY I-10	S/O THOMAS RD	4/7	n/a	1.30	1.3	0	0	0	None	None	Microseal	T2050	
BELL RD	E/O 51 AVE	W/O 43 AVE	1	n/a	1.00	1	0	0	0	None	None	Microseal	T2050	
CAVE CREEK RD	N/O SHARON DR	S/O GREENWAY RD	3	34	1.12	1.12	2.24	0	0	Bike Lane	Bike Lane: 4 - 6 foot	Microseal	T2050	
SOUTHERN AVE	W/O 59 AVE	E/O 50 AVE	7/8	30	1.20	1.2	2.4	0	0	Bike Lane & Path	Bike Lane: 4 - 6 foot	Microseal	T2050	
Totals					14.75	14.75	11.86	1.00	2.00					
										Total Cost of Microseal				\$ 3,993,500

On Street	From	To	Council Districts	Bicycle Master Plan Priority #	Roadway Miles	Existing Bike Facility Miles	Bi-Directional Miles of Existing Bike Facility	Miles of New Bike Facility	Bi-Directional Miles of New Bike Facility	Existing Bike Facility	Post-Treatment Bike Facility	Pavement Treatment Type	Funding
19 AVE	S/O BUCKEYE RD	N/O VAN BUREN ST	7/8	n/a	1.00	0	0	0	0	None	None	Mill & Overlay	T2050
35 AVE	N/O BUCKEYE RD	S/O VAN BUREN ST	7	n/a	1.00	0	0	0	0	None	None	Mill & Overlay	T2050
GLENDALE AVE	E/O 27 AVE	W/O 19 AVE	5	n/a	1.00	0	0	0	0	None	None	Mill & Overlay	T2050
MCDOWELL RD	E/O 67 AVE	W/O 59 AVE	7	n/a	0.98	0	0	0	0	None	None	Mill & Overlay	T2050
MCDOWELL RD	E/O 48 ST	E/O 52 ST	6	n/a	0.50	0	0	0	0	None	None	Mill & Overlay	T2050
MCDOWELL RD / 35 AVE	N/O I-10	220' E/O 27 AVE	4	n/a	1.12	0	0	0	0	None	None	Mill & Overlay	T2050
75 AVE	N/O VAN BUREN ST	PAPAGO FRWY	7	n/a	0.70	0.5	1	0	0	Bike Lane: 4 - 6 foot	Bike Lane: 4 - 6 foot	Mill & Overlay	T2050
43 AVE	N/O BETHANY HOME RD	S/O GLENDALE AVE	5	n/a	1.00	0	0	0	0	None	None	Mill & Overlay	T2050
INDIAN SCHOOL RD	E/O 91 AVE	E/O 83 AVE	5	n/a	1.00	0	0	0	0	None	None	Mill & Overlay	T2050
INDIAN SCHOOL RD	W/O 56 ST	E/O 60 ST	6	n/a	0.54	0.54	1.08	0	0	Bike Lane: 4 - 6 foot	Bike Lane: 4 - 6 foot	Mill & Overlay	T2050

**Attachment A
PROPOSED: FY2020 STREETS PAVEMENT MAINTENANCE PROGRAM T2050**

On Street	From	To	Council Districts	Bicycle Master Plan Priority #	Roadway Miles	Existing Bike Facility Miles	Bi-Directional Miles of Existing Bike Facility	Miles of New Bike Facility	Bi-Directional Miles of New Bike Facility	Existing Bike Facility	Post-Treatment Bike Facility	Pavement Treatment Type	Funding
THOMAS RD	E/O 51 AVE	W/O 43 AVE	4	n/a	1.00	0	0	0	0	None	None	Mill & Overlay	T2050
THOMAS RD	W/O 24 ST	E/O 32 ST	8	n/a	1.00	0	0	0	0	None	None	Mill & Overlay	T2050
19 AVE	S/O GREENWAY RD	N/O BELL RD	3	n/a	1.00	0	0	0	0	None	None	Mill & Overlay	T2050
83 AVE	N/O I-10 PAPAGO FRWY	S/O THOMAS RD	7	n/a	1.16	0	0	0	0	None	None	Mill & Overlay	T2050
Totals					13.00	1.04	2.08	0.00	0.00				
Total Cost of Overlay										\$ 10,350,500			

Program Totals	Roadway Miles	Existing Bike Facility Miles	Bi-Directional Miles of Existing Bike Facility	Miles of New Bike Facility	Bi-Directional Miles of New Bike Facility
	71.09	30.43	43.22	1.98	3.96
	Total Cost of FY2020 T2050 Pavement Maintenance Program				\$ 16,300,000

Notes

BMP#: Bicycle Master Plan Priority Number
 TRMSS: Tire Rubber Modified Surface Sealant
 FAST: Fractured Aggregate Surface Treatment
 PMM: - Polymer Modified Microseal
 W/O = West Of
 N/O = North Of
 E/O = East Of
 S/O = South Of

W/S = West Side
 N/S = North Side
 E/S = East Side
 S/S = South Side

**Attachment B
PROPOSED: FY2021 STREETS PAVEMENT MAINTENANCE PROGRAM T2050**

On Street	From	To	Council Districts	Bicycle Master Plan Priority #	Roadway Miles	Existing Bike Facility Miles	Bi-Directional Miles of Existing Bike Facility	Miles of New Bike Facility	Bi-Directional Miles of New Bike Facility	Existing Bike Facility	Post-Treatment Bike Facility	Pavement Treatment Type	Funding
PEORIA AVE	400 FT E/O 43 AVE	E/O 35 AVE	1	n/a	0.93	0	0	0	0	None	None	Crack Seal	T2050
LOWER BUCKEYE RD	W/O 51 AVE	E/O 35 AVE	7	n/a	2.01	2.01	4.01	0	0	Bike Lane: 4 - 6 foot	Bike Lane: 4 - 6 foot	Crack Seal	T2050
24 ST	N/O JEFFERSON ST	S/O VAN BUREN ST	8	2	0.28	0	0	0	0	None	None	Crack Seal	T2050
32 ST	N/O SR51	N/O SHEA BLVD	3	n/a	0.33	0.23	0.46	0	0	Bike Lane: 4 - 6 foot	Bike Lane: 4 - 6 foot	Crack Seal	T2050
35 AVE	S/O ALAMEDA RD	750' N/O HACKAMORE DR	1	n/a	0.63	0.11	0.22	0	0	Bike Lane: 4 - 6 foot	Bike Lane: 4 - 6 foot	Crack Seal	T2050
35 AVE	S/O BELL RD	N/O UNION HILLS DR	1	n/a	1.03	0.86	1.72	0	0	Bike Lane: 4 - 6 foot	Bike Lane: 4 - 6 foot	Crack Seal	T2050
35 AVE	S/O DEER VALLEY RD	S/O PINNACLE PEAK RD	1	n/a	1.00	1	2	0	0	Bike Lane: 4 - 6 foot	Bike Lane: 4 - 6 foot	Crack Seal	T2050
51 AVE	S/O LOWER BUCKEYE RD	N/O BUCKEYE RD	7	n/a	0.95	0.94	1.88	0	0	Bike Lane: 4 - 6 foot	Bike Lane: 4 - 6 foot	Crack Seal	T2050
67 AVE	S/O CAMPBELL AVE	S/O CAMELBACK RD	5	n/a	0.50	0	0	0	0	None	None	Crack Seal	T2050
67 AVE	S/O BUCKEYE RD	N/O VAN BUREN ST	7	n/a	0.99	0.99	1.98	0	0	Bike Lane: 4 - 6 foot	Bike Lane: 4 - 6 foot	Crack Seal	T2050
75 AVE	N/O BASELINE RD	COP BNDY	7	n/a	0.62	0	0	0	0	None	None	Crack Seal	T2050
75 AVE	S/O BUCKEYE RD	N/O VAN BUREN ST	7	n/a	1.00	1	2	0	0	Bike Lane: 4 - 6 foot	Bike Lane: 4 - 6 foot	Crack Seal	T2050
83 AVE	S/O ELWOOD ST	N/O BROADWAY RD	7	n/a	0.52	0	0	0	0	None	None	Crack Seal	T2050
BELL RD	W/O TATUM BLVD	E/O 56 ST	2	n/a	1.01	0	0	0	0	None	None	Crack Seal	T2050
CAMELBACK RD	W/O 19 AVE	E/O 7 AVE	4	n/a	1.00	0	0	0	0	None	None	Crack Seal	T2050
CENTRAL AVE	N/O THOMAS RD	S/O INDIAN SCHOOL RD	4	3	1.00	0	0	0	0	None	None	Crack Seal	T2050
CENTRAL AVE	S/O BETHANY HOME RD	N/O GLENDALE AVE	6	3	1.00	0	0	0	0	None	None	Crack Seal	T2050
CENTRAL AVE	S/O INDIAN SCHOOL RD	N/O CAMELBACK RD	4	3	1.00	0	0	0	0	None	None	Crack Seal	T2050
DOBBINS RD	E/O 59 AVE	W/O 57 AVE	8	n/a	0.26	0.26	0.26	0	0	Bike Lane: 4 - 6 foot	Bike Lane: 4 - 6 foot	Crack Seal	T2050
DOVE VALLEY RD	W/O NORTH VALLEY PKWY	E/O 22ND AVE	2	n/a	0.64	0.64	1.28	0	0	Bike Lane: 4 - 6 foot	Bike Lane: 4 - 6 foot	Crack Seal	T2050
ELLIOT RD / WARNER RD	S/OEQUESTRIAN TR	W/O 44 ST	6	n/a	0.89, 0.79	0.89	1.78	0	0	Bike Lane: 4 - 6 foot	Bike Lane: 4 - 6 foot	Crack Seal	T2050
INDIAN SCHOOL RD	E/O 60 ST	W/O 64 ST	6	n/a	0.52	0.52	1.04	0	0	Bike Lane: 4 - 6 foot	Bike Lane: 4 - 6 foot	Crack Seal	T2050

Attachment B
PROPOSED: FY2021 STREETS PAVEMENT MAINTENANCE PROGRAM T2050

On Street	From	To	Council Districts	Bicycle Master Plan Priority #	Roadway Miles	Existing Bike Facility Miles	Bi-Directional Miles of Existing Bike Facility	Miles of New Bike Facility	Bi-Directional Miles of New Bike Facility	Existing Bike Facility	Post-Treatment Bike Facility	Pavement Treatment Type	Funding
JEFFERSON ST	E/O 20 ST	180' E/O 26 ST	8	8b	0.57	0	0	0	0	None	None	Crack Seal	T2050
LONE MOUNTAIN RD	E/O 40 ST	W/O CAVE CREEK RD	2	n/a	0.79	0	0	0	0	None	None	Crack Seal	T2050
MAYO BLVD	End of Road	W/O TATUM BLVD	2	n/a	0.39	0.39	0.39	0	0	None	None	Crack Seal	T2050
MCDOWELL RD	W/O 83 AVE	E/O 75 AVE	7	n/a	1.00	0.91	1.82	0	0	Bike Lane: 4 - 6 foot	Bike Lane: 4 - 6 foot	Crack Seal	T2050
NORTH VALLEY PKWY	N/O DOVE VALLEY RD	END OF ROAD	2	n/a	0.67	0.67	1.34	0	0	Bike Lane: 4 - 6 foot	Bike Lane: 4 - 6 foot	Crack Seal	T2050
PALOMA PKWY	N/O SONORAN BLVD	N/O DOVE VALLEY RD	2	n/a	0.97	0.48	0.96	0	0	Bike Lane: 4 - 6 foot	Bike Lane: 4 - 6 foot	Crack Seal	T2050
BELL RD	W/O CAVE CREEK RD	E/O 32 ST	2	n/a	1.00	0	0	0	0	None	None	Crack Seal	T2050
Totals					22.61	11.90	23.14	0.00	0.00				
Total Cost of Crack Seal										\$ 820,800			

On Street	From	To	Council Districts	Bicycle Master Plan Priority #	Roadway Miles	Existing Bike Facility Miles	Bi-Directional Miles of Existing Bike Facility	Miles of New Bike Facility	Bi-Directional Miles of New Bike Facility	Existing Bike Facility	Post-Treatment Bike Facility	Pavement Treatment Type	Funding
16 ST	N/O BASELINE RD	S/O SOUTHERN AVE	8	n/a	1.03	0	0	1.03	2.06	Bike Lane: 4 - 6 foot	Bike Lane: 4 - 6 foot	TRMSS	T2050
24 ST	N/O PECOS RD	S/O CHANDLER BLVD	6	n/a	0.94	0.8	1.6	0	0	Bike Lane: 4 - 6 foot	Bike Lane: 4 - 6 foot	TRMSS	T2050
35 AVE	N/O AGUA FRIA FRWY	N/O DEER VALLEY RD	1	n/a	1.05	1	2.05	0	0	Bike Lane: 4 - 6 foot	Bike Lane: 4 - 6 foot	TRMSS	T2050
40 ST	End of Road	S/O DEER VALLEY RD	2	n/a	0.87	0.8	1.67	0	0	Bike Lane: 4 - 6 foot	Bike Lane: 4 - 6 foot	TRMSS	T2050
43 AVE	N/O NORTHERN AVE	S/O DUNLAP AVE	1	n/a	0.99	0	0	0	0	None	None	TRMSS	T2050
43 AVE	N/O ANTHEM WY	END OF ROAD	1	n/a	0.52	0	0	0	0	None	None	TRMSS	T2050
56 ST	N/O INDIAN SCHOOL RD	S/O CAMELBACK RD	6	n/a	0.89	0.4	0.8	0	0	Bike Lane: 4 - 6 foot	Bike Lane: 4 - 6 foot	TRMSS	T2050
56 ST	N/O THOMAS RD	S/O INDIAN SCHOOL RD	6	n/a	0.62	0.56	1.18	0	0	Bike Lane: 4 - 6 foot	Bike Lane: 4 - 6 foot	TRMSS	T2050
7 AVE	MARICOPA FRWY	N/O BUCKEYE RD	8	n/a	0.49	0	0	0	0	None	None	TRMSS	T2050
7 ST	S/O CORAL GABLES DR	S/O GREENWAY PKWY	3	n/a	0.82	0	0	0	0	None	None	TRMSS	T2050
99 AVE	N/O BROADWAY RD	N/O LOWER BUCKEYE RD	7	n/a	1.01	0.77	0.77	1	2	Bike Lane: 4 - 6 foot	Bike Lane: 4 - 6 foot	TRMSS	T2050

**Attachment B
PROPOSED: FY2021 STREETS PAVEMENT MAINTENANCE PROGRAM T2050**

On Street	From	To	Council Districts	Bicycle Master Plan Priority #	Roadway Miles	Existing Bike Facility Miles	Bi-Directional Miles of Existing Bike Facility	Miles of New Bike Facility	Bi-Directional Miles of New Bike Facility	Existing Bike Facility	Post-Treatment Bike Facility	Pavement Treatment Type	Funding
99 AVE	MOBILE LN (COP BNDY)	N/O BROADWAY RD	7	n/a	0.50	0	0	0.5	1	Bike Lane: 4 - 6 foot	Bike Lane: 4 - 6 foot	TRMSS	T2050
BUCKEYE RD	BLACK CANYON FRWY	E/O 19 AVE	7	n/a	0.44	0	0	0	0	None	None	TRMSS	T2050
CAMELBACK RD	W/O 107 AVE	W/O 99 AVE	5	n/a	1.01	1.01	2.02	0	0	Bike Lane: 4 - 6 foot	Bike Lane: 4 - 6 foot	TRMSS	T2050
DEER VALLEY RD	W/O 7 ST	E/O 16 ST	2	36	1.07	1.07	2.14	0	0	Bike Lane: 4 - 6 foot	Bike Lane: 4 - 6 foot	TRMSS	T2050
DEER VALLEY RD	W/O BLACK MTN PKWY/36 ST	E/O 40 ST	2	36	0.99	0.99	1.98	0	0	Bike Lane: 4 - 6 foot	Bike Lane: 4 - 6 foot	TRMSS	T2050
LOWER BUCKEYE RD	W/O 91 AVE	W/O 83 AVE	7	n/a	0.99	0.77	1.76	0	0	Bike Lane: 4 - 6 foot	Bike Lane: 4 - 6 foot	TRMSS	T2050
SOUTHERN AVE	W/O 35 AVE	E/O 27 AVE	8	30	0.99	1	2	0	0	Bike Lane: 4 - 6 foot	Bike Lane: 4 - 6 foot	TRMSS	T2050
NEW RIVER RD	MILE MARKER 4	MILE MARKER 5	1	n/a	1.00	0	0	0	0	None	None	TRMSS	T2050
NEW RIVER RD	MILE MARKER 9	PHX SIGN/CATTLE GUARD	1	n/a	1.08	0	0	0	0	None	None	TRMSS	T2050
WARNER RD	N/O EQUESTRIAN TR	W/O 48 ST	6	n/a	1.00	1	2	0	0	Bike Lane: 4 - 6 foot	Bike Lane: 4 - 6 foot	TRMSS	T2050
PINNACLE VISTA DR	W/S INSPIRATION MOUNTAIN PKWY	E/S PYRAMID PEAK PKWY	1	n/a	0.88	0.88	1.96	0	0	Bike Lane: 4 - 6 foot	Bike Lane: 4 - 6 foot	TRMSS	T2050
Totals					19.18	11.05	21.93	2.53	5.06				
										Total Cost of TRMSS		\$ 1,231,200	

On Street	From	To	Council Districts	Bicycle Master Plan Priority #	Roadway Miles	Existing Bike Facility Miles	Bi-Directional Miles of Existing Bike Facility	Miles of New Bike Facility	Bi-Directional Miles of New Bike Facility	Existing Bike Facility	Post-Treatment Bike Facility	Pavement Treatment Type	Funding
99 AVE (E 1/2)	S/O THOMAS RD	N/O INDIAN SCHOOL RD	5	n/a	1.00	0	0	1	2	None	Bike Lane: 4 - 6 foot	Microseal	T2050
91 AVE	SALT RIVER (COP BNDY)	S/O BROADWAY RD	7	n/a	1.60	0	0	0	0	None	None	Microseal	T2050
83 AVE	S/O ELWOOD ST	S/O LOWER BUCKEYE RD	7	n/a	0.47	0	0	0	0	None	None	Microseal	T2050
27 AVE	N/O BUCKEYE RD	S/O VAN BUREN ST	7	n/a	0.98	0	0	0	0	None	None	Microseal	T2050
7 AVE	N/O CAMELBACK RD	N/O BETHANY HOME RD	4/6	n/a	1.00	0	0	0	0	None	None	Microseal	T2050
7 AVE	N/O GLENDALE AVE	N/O NORTHERN AVE	3/6	n/a	1.00	0	0	0	0	None	None	Microseal	T2050

**Attachment B
PROPOSED: FY2021 STREETS PAVEMENT MAINTENANCE PROGRAM T2050**

On Street	From	To	Council Districts	Bicycle Master Plan Priority #	Roadway Miles	Existing Bike Facility Miles	Bi-Directional Miles of Existing Bike Facility	Miles of New Bike Facility	Bi-Directional Miles of New Bike Facility	Existing Bike Facility	Post-Treatment Bike Facility	Pavement Treatment Type	Funding
CENTRAL AVE	GUARD STATION	S/O MINERAL RD	8	3	0.90	0	0	0	0	None	None	Microseal	T2050
16 ST	N/O BUCKEYE RD	N/O GRANT ST	8	n/a	0.31	0	0	0	0	None	None	Microseal	T2050
24 ST	N/O BUCKEYE RD	S/O JEFFERSON ST	8	2	0.84	0	0	0	0	None	None	Microseal	T2050
TATUM BLVD	N/O PIMA FRWY	N/O DEER VALLEY RD	2	n/a	0.49	0.49	0.98	0	0	Bike Lane: 4 - 6 foot	Bike Lane: 4 - 6 foot	Microseal	T2050
40 ST	S/O PECOS RD	N/O CHANDLER BLVD	6	n/a	0.94	0.94	1.88	0	0	Bike Lane: 4 - 6 foot	Bike Lane: 4 - 6 foot	Microseal	T2050
CHANDLER BLVD	W/O 48 ST	MARICOPA FRWY	6	31	0.46	0	0	0	0	None	None	Microseal	T2050
BASELINE RD	E/O 19 AVE	W/O 7 AVE	7/8	27	1.00	1	2	0	0	Bike Lane: 4 - 6 foot	Bike Lane: 4 - 6 foot	Microseal	T2050
SOUTHERN AVE	E/O 24 ST	W/O 32 ST	8	30	1.03	1.03	2.06	0	0	Bike Lane: 4 - 6 foot	Bike Lane: 4 - 6 foot	Microseal	T2050
LOWER BUCKEYE RD	E/O 99 AVE	W/O 91 AVE	7	n/a	0.98	0.18	0.36	0	0	Bike Lane: 4 - 6 foot	Bike Lane: 4 - 6 foot	Microseal	T2050
VAN BUREN ST	E/O 39 AVE	W/O 27 AVE	4/7	n/a	1.48	0	0	0	0	None	None	Microseal	T2050
NORTHERN AVE	E/O 19 AVE	E/O 7 AVE	3/5	n/a	1.00	0	0	0	0	None	None	Microseal	T2050
THUNDERBIRD RD	W/O 51 AVE	W/O 43 AVE	1	n/a	1.00	0	0	0	0	None	None	Microseal	T2050
Totals					16.49	3.64	7.28	1.00	2.00				
									Total Cost of Microseal	\$ 4,189,500			

On Street	From	To	Council Districts	Bicycle Master Plan Priority #	Roadway Miles	Existing Bike Facility Miles	Bi-Directional Miles of Existing Bike Facility	Miles of New Bike Facility	Bi-Directional Miles of New Bike Facility	Existing Bike Facility	Post-Treatment Bike Facility	Pavement Treatment Type	Funding
67 AVE	S/O THOMAS RD	S/O INDIAN SCHOOL RD	5/7	n/a	1.00	0	0	0	0	None	None	Mill & Overlay	T2050
59 AVE	S/O INDIAN SCHOOL RD	S/O CAMELBACK RD	5	n/a	1.00	0	0	0	0	None	None	Mill & Overlay	T2050
51 AVE	I-10	N/O THOMAS RD	4	n/a	1.16	0	0	0	0	None	None	Mill & Overlay	T2050
51 AVE	N/O THOMAS RD	N/O INDIAN SCHOOL RD	4/5	n/a	1.00	0	0	0	0	None	None	Mill & Overlay	T2050
59 AVE	N/O MCDOWELL RD	S/O THOMAS RD	4/7	n/a	1.00	0	0	0	0	None	None	Mill & Overlay	T2050

**Attachment B
PROPOSED: FY2021 STREETS PAVEMENT MAINTENANCE PROGRAM T2050**

On Street	From	To	Council Districts	Bicycle Master Plan Priority #	Roadway Miles	Existing Bike Facility Miles	Bi-Directional Miles of Existing Bike Facility	Miles of New Bike Facility	Bi-Directional Miles of New Bike Facility	Existing Bike Facility	Post-Treatment Bike Facility	Pavement Treatment Type	Funding	
27 AVE	N/O YORKSHIRE DR	N/O ROSE GARDEN LN	1	n/a	0.76	0.33	0.66	0	0	Bike Lane: 4 - 6 foot	Bike Lane: 4 - 6 foot	Mill & Overlay	T2050	
19 AVE	N/O UNION HILLS DR	PIMA FRWY	1	n/a	0.49	0	0	0	0	None	None	Mill & Overlay	T2050	
19 AVE	N/O UNION HILLS DR	PIMA FRWY	3	n/a	0.49	0	0	0	0	None	None	Mill & Overlay	T2050	
16 ST	S/O GLENDALE AVE	S/O NORTHERN AVE	6	n/a	1.11	0	0	0	0	None	None	Mill & Overlay	T2050	
32 ST	S/O UNION HILLS DR	S/O ROSE GARDEN LN	2	24	1.41	1	2	0	0	Bike Lane: 4 - 6 foot	Bike Lane: 4 - 6 foot	Mill & Overlay	T2050	
48 ST	LOOP 202 BRIDGE	S/O CHANDLER BLVD/RAY RD	6	n/a	1.16	1.16	1.32	0	0	Bike Lane: 4 - 6 foot	Bike Lane: 4 - 6 foot	Mill & Overlay	T2050	
SOUTHERN AVE	E/O 16 ST	E/O 24 ST	8	30	1.00	1	2	0	0	Bike Lane: 4 - 6 foot	Bike Lane: 4 - 6 foot	Mill & Overlay	T2050	
VAN BUREN ST	W/O 83 AVE	E/O 75 AVE	7	n/a	0.99	0	0	0	0	None	None	Mill & Overlay	T2050	
MCDOWELL RD	E/O 59 AVE	100' E/O 51 AVE	4	n/a	1.03	0	0	0	0	None	None	Mill & Overlay	T2050	
Totals					13.60	3.49	5.98	0.00	0.00					
										Total Cost of Overlay				\$ 10,858,500

Program Totals	Roadway Miles	Existing Bike Facility Miles	Bi-Directional Miles of Existing Bike Facility	Miles of New Bike Facility	Bi-Directional Miles of New Bike Facility
	71.88	30.08	58.33	3.53	7.06
Total Cost of FY2021 T2050 Pavement Maintenance Program					\$ 17,100,000

Notes
 BMP#: Bicycle Master Plan Priority Number
 TRMSS: Tire Rubber Modified Surface Sealant
 FAST: Fractured Aggregate Surface Treatment
 PMM: - Polymer Modified Microseal
 W/O = West Of
 N/O = North Of
 E/O = East Of
 S/O = South Of

W/S = West Side
 N/S = North Side
 E/S = East Side
 S/S = South Side

**Attachment C
PROPOSED: FY2020 STREETS PAVEMENT MAINTENANCE PROGRAM AHUR**

On Street	From	To	Council Districts	Bicycle Master Plan Priority #	Roadway Miles	Existing Bike Facility Miles	Bi-Directional Miles of Existing Bike Facility	Miles of New Bike Facility	Bi-Directional Miles of New Bike Facility	Existing Bike Facility	Post-Treatment Bike Facility	Pavement Treatment Type	Funding
30-22	CHOLLA ST / CACTUS RD	31 AVE / 27 AVE	6		1.62	0.5	1	0	0	Bike Lane: 4 - 6 foot	Bike Lane: 4 - 6 foot	Crack Seal	AHUR
27-27+	HATCHER RD / CINNABAR AVE	7 AVE / CENTRAL AVE	2		2.87	0.5	1	0	0	Bike Lane: 4 - 6 foot	Bike Lane: 4 - 6 foot	Crack Seal	AHUR
32-38	VILLAGE PKWY. / THUNDERBIRD	44 ST / 48 ST	2		3.79	0.98	1.96	0	0	Bike Lane: 4 - 6 foot	Bike Lane: 4 - 6 foot	Crack Seal	AHUR
40-20	YORKSHIRE DR / BEARDSLEY RD	39 AVE / 35 AVE	3		2.09	0.95	1.9	0	0	Bike Lane: 4 - 6 foot	Bike Lane: 4 - 6 foot	Crack Seal	AHUR
01-18	MOUNTAIN AVE / BASELINE RD	47 AVE / 43 AVE	1		2.53	1.12	2.24	0	0	Bike Lane: 4 - 6 foot	Bike Lane: 4 - 6 foot	Crack Seal	AHUR
3-29	SOUTHERN AVE / ROESER RD	7 ST / 12 ST	8		2.48	1.05	2.1	0	0	Bike Lane: 4 - 6 foot	Bike Lane: 4 - 6 foot	Crack Seal	AHUR
012-33	PECOS RD / SLIVERWOOD DR	24 ST / 28 ST	4		0.96	1.65	3.3	0	0	Bike Lane: 4 - 6 foot	Bike Lane: 4 - 6 foot	Crack Seal	AHUR
012-34	PECOS RD / FRYE RD	28 ST / 32 ST	6		2.25	1.02	2.04	0	0	Bike Lane: 4 - 6 foot	Bike Lane: 4 - 6 foot	Crack Seal	AHUR
08-38	RAY RD / KNOX RD	44 ST / 48 ST	1		2.13	1.44	2.88	0	0	Bike Lane: 4 - 6 foot	Bike Lane: 4 - 6 foot	Crack Seal	AHUR
40-21	YORKSHIRE DR / BEARDSLEY RD	35 AVE / 31 AVE	6		1.90	1.29	2.58	0	0	Bike Lane: 4 - 6 foot	Bike Lane: 4 - 6 foot	Crack Seal	AHUR
33-44	THUNDERBIRD RD / ACOMA DR	68 ST / SCOTTSDALE RD	3		3.71	1	2	0	0	Bike Lane: 4 - 6 foot	Bike Lane: 4 - 6 foot	Crack Seal	AHUR
37-25	BELL RD / GROVERS AVE	19 AVE / 15 AVE	3		2.55	0	0	0	0	Bike Lane: 4 - 6 foot	Bike Lane: 4 - 6 foot	Crack Seal	AHUR
01-11	COP BOUNDARY / BASELINE RD	75 AVE / 71 AVE	5		3.78	0.94	1.88	0	0	Bike Lane: 4 - 6 foot	Bike Lane: 4 - 6 foot	Crack Seal	AHUR
01-12/01-13	COP BOUNDARY / BASELINE RD	71 AVE / 63 AVE	8		5.33	0.72	144	0	0	Bike Lane: 4 - 6 foot	Bike Lane: 4 - 6 foot	Crack Seal	AHUR

Attachment C
PROPOSED: FY2020 STREETS PAVEMENT MAINTENANCE PROGRAM AHUR

On Street	From	To	Council Districts	Bicycle Master Plan Priority #	Roadway Miles	Existing Bike Facility Miles	Bi-Directional Miles of Existing Bike Facility	Miles of New Bike Facility	Bi-Directional Miles of New Bike Facility	Existing Bike Facility	Post-Treatment Bike Facility	Pavement Treatment Type	Funding
02-17/02-18	SOUTH MOUNTAIN AVE	51 AVE / 45 DR	8		5.26	1.62	2.24	0	0	Bike Lane: 4 - 6 foot	Bike Lane: 4 - 6 foot	Crack Seal	AHUR
09-34/09-35	RAY RD / DESERT FLOWER DR	ROCKHILL RD / RANCH CIR	5		3.71	1	2	0	0	Bike Lane: 4 - 6 foot	Bike Lane: 4 - 6 foot	Crack Seal	AHUR
CHERYL DR	E/O 35 AVE	W/O METRO PKWY	1		0.61	0.61	1.1	0	0	Bike Lane: 4 - 6 foot	Bike Lane: 4 - 6 foot	Crack Seal	AHUR
LIBERTY LN	DESERT FOOTHILLS PKWY	15 ST (N BND)	6		0.71	0.71	1.42	0	0	Bike Lane: 4 - 6 foot	Bike Lane: 4 - 6 foot	Crack Seal	AHUR
OAK ST	E/O 24 ST	W/O 32 ST	8		1.00	1	2	0	0	Bike Lane: 4 - 6 foot	Bike Lane: 4 - 6 foot	Crack Seal	AHUR
RIVERVIEW DR	11 PL	16 ST	8		0.64	0	0	0	0	None	None	Crack Seal	AHUR
Totals					49.92	18.10	177.64	0.00	0.00				
Total Cost of Crack Seal										\$ 803,217			

On Street	From	To	Council Districts	Bicycle Master Plan Priority #	Roadway Miles	Existing Bike Facility Miles	Bi-Directional Miles of Existing Bike Facility	Miles of New Bike Facility	Bi-Directional Miles of New Bike Facility	Existing Bike Facility	Post-Treatment Bike Facility	Pavement Treatment Type	Funding
30-25	CHOLLA ST / CACTUS RD	19 AVE / 15 AVE	3		0.65	0	0	0	0	None	None	PMM	AHUR
30-41	CHOLLA ST / CACTUS RD	56 ST/ 60 ST	2		1.41	0.5	1	0	0	None	None	PMM	AHUR
34-26	CORAL GABLES DR	W/O 14 AVE / 7 DR	3		0.94	0.7	1.4	0	0	None	None	PMM	AHUR
35-17	GREENWAY RD / PARADISE LN	51 AVE/ 47 AVE	1		1.04	0.5	1	0	0	Bike Lane: 4 - 6 foot	Bike Lane: 4 - 6 foot	PMM	AHUR
46-33	ROBB LN / QUITE WILLOW LN	DESERT PEAK PRKWY / 27 ST	2		2.16	0.04	0	0	0	Bike Lane: 4 - 6 foot	Bike Lane: 4 - 6 foot	PMM	AHUR
47 AVE	GROVERS AVE	UNION HILLS DR	1		0.50	0.5	1	0	0	Bike Lane: 4 - 6 foot	Bike Lane: 4 - 6 foot	PMM	AHUR
6-3/6-4	COUNTRY PLACE/ LOWER BUCKEYE	104 LN / 99 AVE	7		4.78	2.08	3.92	0	0	Bike Lane: 4 - 6 foot	Bike Lane: 4 - 6 foot	PMM	AHUR
6-38	ELWOOD ST / UNIVERSITY DR	44 ST / 48 ST	8		0.57	0.28	0.5	0	0	Bike Lane: 4 - 6 foot	Bike Lane: 4 - 6 foot	PMM	AHUR
6-5/6-6	LOWER BUCKEYE RD	99 AVE / 91 AVE	7		10.45	2.25	4.5	0	0	Bike Lane: 4 - 6 foot	Bike Lane: 4 - 6 foot	PMM	AHUR
CHOLLA ST	E/O 24 ST	W/O 28 ST	3		0.50	0.00	0	0	0	None	None	PMM	AHUR
CHOLLA ST	E/O 28 ST	W/O 32 ST	3		0.52	0	0	0	0	None	None	PMM	AHUR

**Attachment C
PROPOSED: FY2020 STREETS PAVEMENT MAINTENANCE PROGRAM AHUR**

On Street	From	To	Council Districts	Bicycle Master Plan Priority #	Roadway Miles	Existing Bike Facility Miles	Bi-Directional Miles of Existing Bike Facility	Miles of New Bike Facility	Bi-Directional Miles of New Bike Facility	Existing Bike Facility	Post-Treatment Bike Facility	Pavement Treatment Type	Funding
MOON VALLEY DR	E/O MEDINAN DR	S/O CORAL GABLES DR (N)	3		0.59	0.59	1.18	0	0	Bike Lane: 4 - 6 foot	Bike Lane: 4 - 6 foot	PMM	AHUR
MOUNTAIN VIEW RD	24ST	26 ST	3		0.27	0	0	0	0	None	None	PMM	AHUR
Totals					24.38	7.44	14.50	0.00	0.00				
										Total Cost of PMM \$ 2,202,734			

On Street	From	To	Council Districts	Bicycle Master Plan Priority #	Roadway Miles	Existing Bike Facility Miles	Bi-Directional Miles of Existing Bike Facility	Miles of New Bike Facility	Bi-Directional Miles of New Bike Facility	Existing Bike Facility	Post-Treatment Bike Facility	Pavement Treatment Type	Funding
04-39	ELLIOT RD / MINERAL RD	48 ST / 49 ST	6		3.07	0.5	1	0	0	Bike Lane: 4 - 6 foot	Bike Lane: 4 - 6 foot	Slurry Seal	AHUR
06-35	MOUNTAIN PRESERVE	PRESERVE / BLACKFOOT DR	6		4.09	0.13	0.26	1.49	2.98	None	Bike Lane: 4 - 6 foot	Slurry Seal	AHUR
10-21	HARRISON ST / VAN BUREN ST	35 AVE / 31 AVE	7		2.63	0	0	0	0	None	None	Slurry Seal	AHUR
1-23/1-24	BASELINE RD / VINEYARD RD	27 AVE / 19 AVE	8		7.07	1.5	3	1	2	None	Bike Lane: 4 - 6 foot	Slurry Seal	AHUR
16-37	INDIAN SCHOOL RD	40 ST / 44 ST	6		3.81	0.9	1.8	0	0	Bike Lane: 4 - 6 foot	Bike Lane: 4 - 6 foot	Slurry Seal	AHUR
2-29	VINEYARD RD / SOUTHERN AVE	7 ST / 12 ST	8		2.47	0.5	1	0	0	Bike Lane: 4 - 6 foot	Bike Lane: 4 - 6 foot	Slurry Seal	AHUR
23-32	ORANGEWOOD AVE	SR 51 FRWY / 24 ST	6		6.45	0	0	0.6	1.2	None	Bike Lane: 4 - 6 foot	Slurry Seal	AHUR
28-41	MOUNTAIN VIEW RD / SHEA BLVD	56 ST / 60 ST	2		3.10	0	0	0	0	None	None	Slurry Seal	AHUR
29-26	PEORIA AVE / CHOLLA ST	15 AVE / 7 AVE	3		2.80	0	0	0	0	None	None	Slurry Seal	AHUR
29-33	SHEA BLVD / CHOLLA ST	24 ST / 28 ST	3		7.80	1	2	0.5	1	Bike Lane: 4 - 6 foot	Bike Lane: 4 - 6 foot	Slurry Seal	AHUR
30-33	CHOLLA ST / CACTUS RD	24 ST / 28 ST	3		2.71	0.5	1	0	0	Bike Lane: 4 - 6 foot	Bike Lane: 4 - 6 foot	Slurry Seal	AHUR
3-30	SOUTHERN AVE / ROESER RD	12 ST / 16 ST	8		5.19	0.97	1.94	0	0	Bike Lane: 4 - 6 foot	Bike Lane: 4 - 6 foot	Slurry Seal	AHUR

**Attachment C
PROPOSED: FY2020 STREETS PAVEMENT MAINTENANCE PROGRAM AHUR**

On Street	From	To	Council Districts	Bicycle Master Plan Priority #	Roadway Miles	Existing Bike Facility Miles	Bi-Directional Miles of Existing Bike Facility	Miles of New Bike Facility	Bi-Directional Miles of New Bike Facility	Existing Bike Facility	Post-Treatment Bike Facility	Pavement Treatment Type	Funding
34-17	ACOMA DR / GREENWAY RD	51 AVE / 47 AVE	1		1.99	0	0	0	0	None	None	Slurry Seal	AHUR
34-18	ACOMA DR / GREENWAY RD	47 AVE / 43 AVE	1		1.74	0	0	0	0	None	None	Slurry Seal	AHUR
35-19	GREENWAY RD / PARADISE LN	43 AVE / 39 AVE	1		2.48	1	2	0	0	Bike Lane: 4 - 6 foot	Bike Lane: 4 - 6 foot	Slurry Seal	AHUR
35-24	GREENWAY RD / PARADISE LN	23 AVE / 19 AVE	3		0.59	0	0	0	0	None	None	Slurry Seal	AHUR
35-33	GREENWAY RD / PARADISE LN	CAVE CREEK RD / 28 ST	2		2.29	0.5	1	0	0	Bike Route	Bike Route	Slurry Seal	AHUR
36-27	GREENWAY PRKWY / BELL RD	7 AVE / CENTRAL AVE	3		1.60	0.5	1	0	0	Bike Lane: 4 - 6 foot	Bike Lane: 4 - 6 foot	Slurry Seal	AHUR
36-30	PARADISE LN / BELL RD	12 ST / 16 ST	3		2.24	0.72	1.44	0	0	Bike Lane: 4 - 6 foot	Bike Lane: 4 - 6 foot	Slurry Seal	AHUR
36-37	PARADISE LN / BELL RD	40 ST / 44 ST	2		2.34	1	2	0	0	Bike Lane: 4 - 6 foot	Bike Lane: 4 - 6 foot	Slurry Seal	AHUR
37-33	BELL RD / GROVERS AVE	CAVE CREEK RD / 28 ST	2		2.91	1	2	0	0	Bike Lane: 4 - 6 foot	Bike Lane: 4 - 6 foot	Slurry Seal	AHUR
39-20	UNION HILLS DR / YORKSHIRE DR	39 AVE / 35 AVE	1		2.51	1.5	3	0	0	Bike Lane: 4 - 6 foot	Bike Lane: 4 - 6 foot	Slurry Seal	AHUR
39-35	UNION HILLS DR / UTOPIA RD	32 ST / 36 ST	2		2.34	1.5	3	0	0	Bike Lane: 4 - 6 foot	Bike Lane: 4 - 6 foot	Slurry Seal	AHUR
48-13	TRL / PYRAMID PEAK PRKWY	PRKWY / MOUNTAIN PRESERVE	1		2.90	0	0	0.42	0.84	None	None	Slurry Seal	AHUR
51-24+	TRL / MELVERN TRL	PRKWY / MELVERN TRL	2		3.38	2.45	4.9	0	0	Bike Lane: 4 - 6 foot	Bike Lane: 4 - 6 foot	Slurry Seal	AHUR
5-36	BROADWAY RD / ELWOOD ST	36 ST / 40 ST	8		1.13	0	0	0	0	None	None	Slurry Seal	AHUR
Totals					81.63	16.17	32.34	4.01	8.02				
										Total Cost of Slurry Seal		\$ 3,181,072	

On Street	From	To	Council Districts	Bicycle Master Plan Priority #	Roadway Miles	Existing Bike Facility Miles	Bi-Directional Miles of Existing Bike Facility	Miles of New Bike Facility	Bi-Directional Miles of New Bike Facility	Existing Bike Facility	Post-Treatment Bike Facility	Pavement Treatment Type	Funding
3-24	SOUTHERN AVE/ ROESER RD	19 AVE/ 23 AVE	8		4.40	0.5	1	0	0	Bike Lane: 4 - 6 foot	Bike Lane: 4 - 6 foot	Mill & Overlay	AHUR
23 AVE	N/O SOUTHERN AVE	ROESER RD	8		0.38	0	0	0	0	None	None	Mill & Overlay	AHUR
29-19	PEORIA AVE / CHOLLA ST	43 AVE / 39 AVE	1		4.35	0.51	1.02	0	0	Bike Route	Bike Route	Mill & Overlay	AHUR

**Attachment C
PROPOSED: FY2020 STREETS PAVEMENT MAINTENANCE PROGRAM AHUR**

On Street	From	To	Council Districts	Bicycle Master Plan Priority #	Roadway Miles	Existing Bike Facility Miles	Bi-Directional Miles of Existing Bike Facility	Miles of New Bike Facility	Bi-Directional Miles of New Bike Facility	Existing Bike Facility	Post-Treatment Bike Facility	Pavement Treatment Type	Funding
33-40	THUNDERBIRD RD / ACOMA DR	52 ST / 56 ST	2		3.78	1.5	3	0	0	Bike Lane: 4 - 6 foot	Bike Lane: 4 - 6 foot	Mill & Overlay	AHUR
36-42	BELL RD / PARADISE LN	60 ST / 64 ST	2		4.81	1.02	2.04	0	0	Bike Lane: 4 - 6 foot	Bike Lane: 4 - 6 foot	Mill & Overlay	AHUR
38-18	GROVERS AVE / UNION HILLS DR	47 AVE / 43 AVE	1		4.17	2.02	4.04	1.06	2.12	Bike Lane: 4 - 6 foot	Bike Lane: 4 - 6 foot	Mill & Overlay	AHUR
39 AVE	N/O BUCKEYE RD	S/O BUCHANAN ST	7		0.44	0	0	0	0	None	None	Mill & Overlay	AHUR
ORANGEWOOD AVE	W/O BLACK CANYON FRWY	E/O 19 AVE	5		0.72	0	0	0	0	None	None	Mill & Overlay	AHUR
OSBORN RD	W/O BLACK CANYON FRWY	E/O 19 AVE	4		0.74	0.74	1.48	0	0	Bike Lane: 4 - 6 foot	Bike Lane: 4 - 6 foot	Mill & Overlay	AHUR
SWEETWATER AVE	E/O 28TH ST	W/O 32ND ST	3		0.50	0.4	0.64	0	0	Bike Lane: 4 - 6 foot	Bike Lane: 4 - 6 foot	Mill & Overlay	AHUR
YORKSHIRE DR	W/O 39 AVE	E/O 31 AVE	1		1.01	1.01	2.02	0	0	Bike Lane: 4 - 6 foot	Bike Lane: 4 - 6 foot	Mill & Overlay	AHUR
26-28	LAS PALMARITAS DR / DUNLAP AVE	CENTRAL AVE / 7 ST	3/6		4.13	0	0	1	2	None	Bike Lane: 4 - 6 foot	Mill & Overlay	AHUR
10-13	UNION PACIFIC RR / VAN BUREN	67 AVE / 63 AVE	7		0.80	0.5	1	0	0	Bike Lane: 4 - 6 foot	Bike Lane: 4 - 6 foot	Mill & Overlay	AHUR
11-40	VAN BUREN / ROOSEVELT ST	52 ST / 56 ST	6		0.67	0	0	0	0	None	None	Mill & Overlay	AHUR
14-28	OAK ST / THOMAS RD	CENTRAL AVE / 7 ST	4		2.64	0.5	1	0	0	Bike Lane: 4 - 6 foot	Bike Lane: 4 - 6 foot	Mill & Overlay	AHUR
15-41	INDIAN SCHOOL RD	56 ST / 60 ST	6		1.24	0.5	1	0	0	Bike Lane: 4 - 6 foot	Bike Lane: 4 - 6 foot	Mill & Overlay	AHUR
37-37	BELL RD / GROVERS AVE	40 ST / 44 ST	2		5.81	0.5	1	0	0	Bike Lane: 4 - 6 foot	Bike Lane: 4 - 6 foot	Mill & Overlay	AHUR
16-10	INDIAN SCHOOL RD	79 AVE / 75 AVE	5		5.36	0	0	0	0	None	None	Mill & Overlay	AHUR
18-20/17-20	GLENROSA AVE / CAMELBACK RD	39 AVE / 35 AVE	5		3.94	0	0	0.77	1.54	None	Bike Lane: 4 - 6 foot	Mill & Overlay	AHUR
12 ST	N/O VINEYARD RD	S/O SOUTHERN AVE	8		0.50	0	0	0.5	1	None	Bike Lane: 4 - 6 foot	Mill & Overlay	AHUR
21-21	BETHANY HOME RD	35 AVE / 31 AVE	5		3.70	1	2	1	2	Bike Lane: 4 - 6 foot	Bike Lane: 4 - 6 foot	Mill & Overlay	AHUR
31-39	SWEETWATER AVE	PARADISE VILLAGE PKWY / 52 ST	3		3.26	0.88	1.76	0	0	Bike Lane: 4 - 6 foot	Bike Lane: 4 - 6 foot	Mill & Overlay	AHUR
7 AVE	N/O DOBBINS RD	S/O BASELINE RD	8		1.00	0	0	0	0	None	None	Mill & Overlay	AHUR

**Attachment C
PROPOSED: FY2020 STREETS PAVEMENT MAINTENANCE PROGRAM AHUR**

On Street	From	To	Council Districts	Bicycle Master Plan Priority #	Roadway Miles	Existing Bike Facility Miles	Bi-Directional Miles of Existing Bike Facility	Miles of New Bike Facility	Bi-Directional Miles of New Bike Facility	Existing Bike Facility	Post-Treatment Bike Facility	Pavement Treatment Type	Funding
7 AVE	N/O OLNEY AVE	S/O DOBBINS RD	8		0.64	0.5	1	0.5	1	Bike Lane: 4 - 6 foot	Bike Lane: 4 - 6 foot	Mill & Overlay	AHUR
ACOMA DR	E/O 39 AVE	W/O 31 AVE	1		1.01	0	0	1	2	None	Bike Lane: 4 - 6 foot	Mill & Overlay	AHUR
LINDNER DR	BELL RD / GROVERS AVE	51 AVE / 47 AVE	1		2.96	1.35	2.7	0.37	0.76	Bike Lane: 4 - 6 foot	Bike Lane: 4 - 6 foot	Mill & Overlay	AHUR
05-37	MANDAN ST / JICARILA ST	MANDAN ST/ TOMAH ST	6		5.31	0.54	1.08	0	0	Bike Lane: 4 - 6 foot	Bike Lane: 4 - 6 foot	Mill & Overlay	AHUR
36 ST	RANCH CIR N	AHWATUKEE DR	6		1.17	1.09	2.18	0	0	Bike Lane: 4 - 6 foot	Bike Lane: 4 - 6 foot	Mill & Overlay	AHUR
MISSOURI AVE	E/O 7 ST	W/O 16 ST	3		1.01	0	0	0	0	Bike Lane: 4 - 6 foot	Bike Lane: 4 - 6 foot	Mill & Overlay	AHUR
ROSE GARDEN LN	W/O 27 AVE	E/O 19 AVE	1		0.85	0.45	0.8	0	0	Bike Lane: 4 - 6 foot	Bike Lane: 4 - 6 foot	Mill & Overlay	AHUR
Totals					71.30	15.51	30.76	6.20	12.42				
										Total Cost of Mill & Overlay		\$ 21,291,843	

On Street	From	To	Council Districts	Bicycle Master Plan Priority #	Roadway Miles	Existing Bike Facility Miles	Bi-Directional Miles of Existing Bike Facility	Miles of New Bike Facility	Bi-Directional Miles of New Bike Facility	Existing Bike Facility	Post-Treatment Bike Facility	Pavement Treatment Type	Funding
9-28	UNION PACIFIC RAILROAD	CENTRAL AVE / 7 ST	8		3.63	0.5	0.16	0	0	Bike Lane: 4 - 6 foot	Bike Lane: 4 - 6 foot	FAST	AHUR
46-17	HAPPY VALLEY RD	51 AVE / 47 AVE	1		2.07	0.5	1	0	0	Bike Lane: 4 - 6 foot	Bike Lane: 4 - 6 foot	FAST	AHUR
35-37/36-37	GREENWAY RD/BELL RD	40 ST / 44 ST	2		2.45	2	4	0	0	Bike Lane: 4 - 6 foot	Bike Lane: 4 - 6 foot	FAST	AHUR
4-33	ROESER RD / BROADWAY RD	24 ST/28 ST	8		4.44	1.5	3	0.5	1	Bike Lane: 4 - 6 foot	Bike Lane: 4 - 6 foot	FAST	AHUR
8-25	FREEWAY/ BUCKEYE RD	19 AVE/ 15 AVE	8		3.61	0	0	0	0	None	None	FAST	AHUR
Totals					16.20	4.50	8.16	0.50	1.00				
										Total Cost of FAST		\$ 2,437,692	

On Street	From	To	Council Districts	Bicycle Master Plan Priority #	Roadway Miles	Existing Bike Facility Miles	Bi-Directional Miles of Existing Bike Facility	Miles of New Bike Facility	Bi-Directional Miles of New Bike Facility	Existing Bike Facility	Post-Treatment Bike Facility	Pavement Treatment Type	Funding
52 ST	VAN BUREN ST	MCDOWELL RD	6		0.92	0	0	0	0	None	None	Microseal	AHUR
79 AVE	MCDOWELL RD	THOMAS RD	7		1.00	0	0	0	0	None	None	Microseal	AHUR

**Attachment C
PROPOSED: FY2020 STREETS PAVEMENT MAINTENANCE PROGRAM AHUR**

On Street	From	To	Council Districts	Bicycle Master Plan Priority #	Roadway Miles	Existing Bike Facility Miles	Bi-Directional Miles of Existing Bike Facility	Miles of New Bike Facility	Bi-Directional Miles of New Bike Facility	Existing Bike Facility	Post-Treatment Bike Facility	Pavement Treatment Type	Funding
95 AVE	MINNAZONA AVE	S/O CAMELBACK RD	5		0.50	0	0	0.34	0.67	Bike Lane: 4 - 6 foot	Bike Lane: 4 - 6 foot	Microseal	AHUR
Totals					2.42	0.00	0.00	0.34	0.67				
									Total Cost of Microseal		\$ 530,551		

On Street	From	To	Council Districts	Bicycle Master Plan Priority #	Roadway Miles	Existing Bike Facility Miles	Bi-Directional Miles of Existing Bike Facility	Miles of New Bike Facility	Bi-Directional Miles of New Bike Facility	Existing Bike Facility	Post-Treatment Bike Facility	Pavement Treatment Type	Funding
23 AVE	PIMA FRWY	S/O DEER VALLEY RD	1		0.99	0	0	0	0	None	None	TRMSS	AHUR
40 ST	N/O MCDOWELL RD	S/O THOMAS RD	8		1.02	0.7	1.4	0	0	Bike Lane: 4 - 6 foot	Bike Lane: 4 - 6 foot	TRMSS	AHUR
29 AVE	GREENWAY RD	BELL RD	1		1.02	1.02	2.04	0	0	Bike Lane: 4 - 6 foot	Bike Lane: 4 - 6 foot	TRMSS	AHUR
GROVERS AVE	E/O CAVE CREEK RD	W/O 32 ST	2		0.98	0.5	1	0	0	Bike Lane: 4 - 6 foot	Bike Lane: 4 - 6 foot	TRMSS	AHUR
Totals					4.01	2.22	4.44	0.00	0.00				
									Total Cost of TRMSS		\$ 196,304		

Program Totals	Roadway Miles	Existing Bike Facility Miles	Bi-Directional Miles of Existing Bike Facility	Miles of New Bike Facility	Bi-Directional Miles of New Bike Facility
	249.86	63.94	267.84	11.05	22.11
	Total Cost of FY2020 AHUR Pavement Maintenance Program				

Notes
 BMP#: Bicycle Master Plan Priority Number
 TRMSS: Tire Rubber Modified Surface Sealant
 FAST: Fractured Aggregate Surface Treatment
 PMM: - Polymer Modified Microseal
 W/O = West Of
 N/O = North Of
 E/O = East Of
 S/O = South Of

W/S = West Side
 N/S = North Side
 E/S = East Side
 S/S = South Side

**Attachment D
PROPOSED: FY2021 STREETS PAVEMENT MAINTENANCE PROGRAM AHUR**

On Street	From	To	Council Districts	Bicycle Master Plan Priority #	Roadway Miles	Existing Bike Facility Miles	Bi-Directional Miles of Existing Bike Facility	Miles of New Bike Facility	Bi-Directional Miles of New Bike Facility	Existing Bike Facility	Post-Treatment Bike Facility	Pavement Treatment Type	Funding
1-16/2-16	BASILINE RD / SOUTHERN AVE	55 AVE / 51 AVE	8		6.93	0.85	1.7	0	0	Bike Lane: 4 - 6 foot	Bike Lane: 4 - 6 foot	Crack Seal	AHUR
12-32	ROSEVELT ST / MCDOWELL RD	20 ST / 24 ST	8		1.24	0.49	0.49	0	0	Bike Lane: 4 - 6 foot	Bike Lane: 4 - 6 foot	Crack Seal	AHUR
17-16	GLENROSA AVE / CAMPBELL AVE	55 AVE / MARYVALE PKWY	5		0.69	0.48	0.84	0	0	Bike Lane: 4 - 6 foot	Bike Lane: 4 - 6 foot	Crack Seal	AHUR
18-1/18-2	CAMPBELL AVE / CAMELBACK RD	113 DR / 107 AVE	5		7.15	0.73	0.73	0	0	Bike Lane: 4 - 6 foot	Bike Lane: 4 - 6 foot	Crack Seal	AHUR
27-31/28-31	DUNLAP AVE / CHERYL DR	16 ST / 20 ST	3		4.55	0	0	0	0	None	None	Crack Seal	AHUR
29-21	PEORIA AVE / CHOLLA ST	35 AVE / 31 AVE	1		5.66	0.49	0.49	0	0	Bike Lane: 4 - 6 foot	Bike Lane: 4 - 6 foot	Crack Seal	AHUR
34-33	ACOMA DR / GREENWAY RD	CAVE CREEK RD / 27 ST	3		4.51	0.51	0.51	0	0	Bike Lane: 4 - 6 foot	Bike Lane: 4 - 6 foot	Crack Seal	AHUR
57-23/58-23	DOVE VALLEY RD / CAREFREE HWY	27 DR / 21 DR	2		5.61	0.84	0.84	0	0	Bike Lane: 4 - 6 foot	Bike Lane: 4 - 6 foot	Crack Seal	AHUR
7-3/8-3	LOWER BUCKEYE RD / BUCKEYE RD	107 AVE / 103 AVE	7		5.95	0.49	0.49	0	0	Bike Lane: 4 - 6 foot	Bike Lane: 4 - 6 foot	Crack Seal	AHUR
12 ST	N/O CAMELBACK RD	S/O BETHANY HOME RD	6		1.00	0.76	1.13	0	0	Bike Lane: 4 - 6 foot	Bike Lane: 4 - 6 foot	Crack Seal	AHUR
PARADISE VILLAGE PKWY (E)	E/O TATUM BLVD	E/O TATUM BLVD	3		0.98	0	0	0	0	None	None	Crack Seal	AHUR
PATHFINDER DR / MARRIOT DR	TATUM BLVD	DEER VALLEY RD	2		0.84	0	0	0	0	None	None	Crack Seal	AHUR
Totals					45.11	5.64	7.22	0.00	0.00				
Total Cost of Crack Seal										\$ 803,219			

On Street	From	To	Council Districts	Bicycle Master Plan Priority #	Roadway Miles	Existing Bike Facility Miles	Bi-Directional Miles of Existing Bike Facility	Miles of New Bike Facility	Bi-Directional Miles of New Bike Facility	Existing Bike Facility	Post-Treatment Bike Facility	Pavement Treatment Type	Funding
011-31	CLUBHOUSE DR / CHANDLER BLVD	MARKETPLACE WY / 24 ST	6		2.28	0.49	0.49	0	0	None	None	PMM	AHUR
011-36-	FRYE RD / CHANDLER BLVD	35 WY / 40 ST	6		0.73	1.11	1.73	0	0	None	None	PMM	AHUR
012-22+	SHAUGHNESSEY RD	31 AVE / CHANDLER BLVD	6		2.97	0	0	0	0	None	None	PMM	AHUR
012-28	PECOS RD / FRE RD	2 PL / DESERT FOOTHILLS PRKWY	6		1.04	0	0	0	0	None	None	PMM	AHUR
012-30	LIBERTY LN / GLENHAVEN DR	12 ST / 14 ST	6		0.55	0.16	0.32	0	0	Bike Lane: 4 - 6 foot	Bike Lane: 4 - 6 foot	PMM	AHUR

**Attachment D
PROPOSED: FY2021 STREETS PAVEMENT MAINTENANCE PROGRAM AHUR**

On Street	From	To	Council Districts	Bicycle Master Plan Priority #	Roadway Miles	Existing Bike Facility Miles	Bi-Directional Miles of Existing Bike Facility	Miles of New Bike Facility	Bi-Directional Miles of New Bike Facility	Existing Bike Facility	Post-Treatment Bike Facility	Pavement Treatment Type	Funding
012-32	PECOS RD/ LIBERTY LN	18 WY / 24 ST	6		2.50	1.45	2.9	0	0	Bike Lane: 4 - 6 foot	Bike Lane: 4 - 6 foot	PMM	AHUR
01-25	MOUNTAIN AVE / BASELINE RD	19 AVE / 15 AVE	8		1.16	0.4	0.4	0	0	Bike Lane: 4 - 6 foot	Bike Lane: 4 - 6 foot	PMM	AHUR
01-31	MOUNTAIN AVE / BASELINE RD	16 ST / 20 ST	8		2.40	1	1	0	0	Bike Lane: 4 - 6 foot	Bike Lane: 4 - 6 foot	PMM	AHUR
14-26	ENCANTO BLVD / THOMAS RD	15 AVE / 7 AVE	4		1.90	0.49	0.49	0	0	Bike Lane: 4 - 6 foot	Bike Lane: 4 - 6 foot	PMM	AHUR
31-23	THUNDERBIRD RD	I-17/ 25 AVE	3		3.83	0.86	1.26	0	0	Bike Lane: 4 - 6 foot	Bike Lane: 4 - 6 foot	PMM	AHUR
33-35	THUNDERBIRD RD/ HEARN RD	32 ST/ 36 ST	3		1.63	0.9	1.41	0	0	Bike Lane: 4 - 6 foot	Bike Lane: 4 - 6 foot	PMM	AHUR
6-37	ELWOOD ST / UNIVERSITY DR	40 ST / 44 ST	8		1.32	0	0	0	0	None	None	PMM	AHUR
9-29	UNION PACIFIC RAILROAD	7 ST / 12 ST	8		2.55	0.35	0	0	0	Bike Lane: 4 - 6 foot	Bike Lane: 4 - 6 foot	PMM	AHUR
9-30	UNION PACIFIC RAILROAD	12 ST / 16 ST	8		0.84	0	0	0	0	None	None	PMM	AHUR
Totals					25.70	7.21	10.00	0.00	0.00				
Total Cost of PMM										\$ 2,202,740			

On Street	From	To	Council Districts	Bicycle Master Plan Priority #	Roadway Miles	Existing Bike Facility Miles	Bi-Directional Miles of Existing Bike Facility	Miles of New Bike Facility	Bi-Directional Miles of New Bike Facility	Existing Bike Facility	Post-Treatment Bike Facility	Pavement Treatment Type	Funding
011-32	CLUBHOUSE DR / WODLAND DR	23 ST / 24 ST	6		0.46	0.24	0.48	0	0	Bike Lane: 4 - 6 foot	Bike Lane: 4 - 6 foot	Slurry Seal	AHUR
09-29+	DESERT FOOTHILLS	7 ST / 12 ST	6		3.16	0	0	0	0	None	None	Slurry Seal	AHUR
01-35	MOUNTAIN AVE / BASELINE RD	32 ST / 36 ST	8		1.07	0.49	0.49	0	0	Bike Lane: 4 - 6 foot	Bike Lane: 4 - 6 foot	Slurry Seal	AHUR
01-36	MOUNTAIN AVE / BASELINE RD	36 ST / 40 ST	8		1.03	0.49	0.49	0	0	Bike Lane: 4 - 6 foot	Bike Lane: 4 - 6 foot	Slurry Seal	AHUR
01-37	MOUNTAIN AVE / BASELINE RD	40 ST / 44 ST	8		0.70	0	0	0	0	None	None	Slurry Seal	AHUR
2-30	VINEYARD RD / SOUTHERN AVE	12 ST / 16 ST	8		3.32	0.12	0.12	0	0	Bike Lane: 4 - 6 foot	Bike Lane: 4 - 6 foot	Slurry Seal	AHUR
5-34	BROADWAY RD / ELWOOD ST	28 ST / 32 ST	8		2.17	0.49	0.98	0	0	Bike Lane: 4 - 6 foot	Bike Lane: 4 - 6 foot	Slurry Seal	AHUR
12-39	ROOSEVELT ST / MCDOWELL RD	48 ST / 52 ST	6		2.45	0.49	0.49	0	0	Bike Lane: 4 - 6 foot	Bike Lane: 4 - 6 foot	Slurry Seal	AHUR
13-8	MCDOWELL RD / ENCANTO BLVD	86 DR / 83 AVE	7		3.64	0.69	1.14	0	0	Bike Lane: 4 - 6 foot	Bike Lane: 4 - 6 foot	Slurry Seal	AHUR

**Attachment D
PROPOSED: FY2021 STREETS PAVEMENT MAINTENANCE PROGRAM AHUR**

On Street	From	To	Council Districts	Bicycle Master Plan Priority #	Roadway Miles	Existing Bike Facility Miles	Bi-Directional Miles of Existing Bike Facility	Miles of New Bike Facility	Bi-Directional Miles of New Bike Facility	Existing Bike Facility	Post-Treatment Bike Facility	Pavement Treatment Type	Funding
14-6	ENCANTO BLVD / THOMAS RD	93 AVE / 91 AVE	5		2.37	0.65	1.3	0	0	Bike Lane: 4 - 6 foot	Bike Lane: 4 - 6 foot	Slurry Seal	AHUR
14-38	OAK ST / THOMAS RD	44 ST / 48 ST	6/8		3.65	0	0	0	0	None	None	Slurry Seal	AHUR
18-5	CAMPBELL AVE / CAMELBACK RD	99 AVE / 95 AVE	5		2.06	0	0	0	0	None	None	Slurry Seal	AHUR
13-39	MCDOWELL RD / OAK ST	48 ST / 52 ST	6		2.77	0.39	0.39	0	0	Bike Lane: 4 - 6 foot	Bike Lane: 4 - 6 foot	Slurry Seal	AHUR
35-18	GREENWAY RD / PARADISE LN	47 AVE / 43 AVE	1		2.49	0.98	0.98	0	0	Bike Lane: 4 - 6 foot	Bike Lane: 4 - 6 foot	Slurry Seal	AHUR
36-41	PARADISE LN / BELL RD	56 ST / 60 ST	2		4.11	0.98	0.98	0	0	Bike Lane: 4 - 6 foot	Bike Lane: 4 - 6 foot	Slurry Seal	AHUR
43-38	DEER VALLEY RD / CASHMAN DR	40 ST / TATUM BLVD	2		4.61	1	2	0	0	Bike Lane: 4 - 6 foot	Bike Lane: 4 - 6 foot	Slurry Seal	AHUR
17-1	INDIAN SCHOOL / CAMPBELL AVE	113 DR / 111 AVE	5		2.45	0	0	0	0	None	None	Slurry Seal	AHUR
18-14	CAMPBELL AVE / CAMELBACK RD	63 AVE / 59 AVE	5		5.76	0.98	0.98	0	0	Bike Lane: 4 - 6 foot	Bike Lane: 4 - 6 foot	Slurry Seal	AHUR
17-25	RD / CAMPBELL AVE	19 AVE / 15 AVE	4		4.25	0.98	0.98	0	0	Bike Lane: 4 - 6 foot	Bike Lane: 4 - 6 foot	Slurry Seal	AHUR
21-26	RD / MARYLAND AVE	15 AVE / 7 AVE	5		2.76	0.98	0.98	0	0	Bike Lane: 4 - 6 foot	Bike Lane: 4 - 6 foot	Slurry Seal	AHUR
22-26	MARYLAND AVE / GLENDALE AVE	15TH AVE / 7 AVE	5		2.76	0.98	0.98	0	0	Bike Lane: 4 - 6 foot	Bike Lane: 4 - 6 foot	Slurry Seal	AHUR
31-24+	SWEETWATER AVE	24 AVE / 19 AVE	3		4.54	0.49	0.49	0	0	Bike Lane: 4 - 6 foot	Bike Lane: 4 - 6 foot	Slurry Seal	AHUR
53-38	DESRT WILLOW PKWY	CAVE CREEK RD / DIXILETA DR	2		4.28	1.13	2.26	0	0	Bike Lane: 4 - 6 foot	Bike Lane: 4 - 6 foot	Slurry Seal	AHUR
Totals					66.86	12.55	16.51	0.00	0.00				
Total Cost of Slurry Seal										\$ 3,818,082			

On Street	From	To	Council Districts	Bicycle Master Plan Priority #	Roadway Miles	Existing Bike Facility Miles	Bi-Directional Miles of Existing Bike Facility	Miles of New Bike Facility	Bi-Directional Miles of New Bike Facility	Existing Bike Facility	Post-Treatment Bike Facility	Pavement Treatment Type	Funding
22-27	MARYLAND AVE / GLENDALE AVE	7 AVE / CENTRAL AVE	6		2.86	0.49	0.49	0	0	Bike Lane: 4 - 6 foot	Bike Lane: 4 - 6 foot	Mill & Overlay	AHUR
30-18	CHOLLA ST / CACTUS RD	47 AVE / 43 AVE	1		4.72	0.49	0.49	0	0	Bike Lane: 4 - 6 foot	Bike Lane: 4 - 6 foot	Mill & Overlay	AHUR
1-29	BASELINE RD / VINEYARD RD	7 ST / 12 ST	8		2.86	0.49	0.49	0	0	Bike Lane: 4 - 6 foot	Bike Lane: 4 - 6 foot	Mill & Overlay	AHUR
7-30	UNIVERSITY DR / DURANGO ST	12 ST / 16 ST	8		2.85	0	0	0	0	None	None	Mill & Overlay	AHUR

**Attachment D
PROPOSED: FY2021 STREETS PAVEMENT MAINTENANCE PROGRAM AHUR**

On Street	From	To	Council Districts	Bicycle Master Plan Priority #	Roadway Miles	Existing Bike Facility Miles	Bi-Directional Miles of Existing Bike Facility	Miles of New Bike Facility	Bi-Directional Miles of New Bike Facility	Existing Bike Facility	Post-Treatment Bike Facility	Pavement Treatment Type	Funding
15-13	THOMAS RD / OSBORN RD	67 AVE / 63 AVE	7		3.99	0.49	0.49	0	0	Bike Lane: 4 - 6 foot	Bike Lane: 4 - 6 foot	Mill & Overlay	AHUR
15-39	THOMAS RD / OSBORN RD	48 ST / 52 ST	6		4.12	0.98	0.98	0	0	Bike Lane: 4 - 6 foot	Bike Lane: 4 - 6 foot	Mill & Overlay	AHUR
26-38	/ SHADOW ROCK RD	SKYLINE DR / TATUM BLVD	3		1.83	0	0	0	0	None	None	Mill & Overlay	AHUR
36-36	PARADISE LN / BELL RD	36 ST / 40 ST	2		3.00	0.49	0.49	0	0	Bike Lane: 4 - 6 foot	Bike Lane: 4 - 6 foot	Mill & Overlay	AHUR
25-23/26-23	NORTHERN AVE / DUNLAP AVE	27 AVE / 23 AVE	5		4.44	1.96	1.96	0	0	Bike Lane: 4 - 6 foot	Bike Lane: 4 - 6 foot	Mill & Overlay	AHUR
09-32/09-33/010-33	RAY RD / ROCKLEDGE RD	22 ST / ROCKY SLOPE DR	6		3.65	0.71	1.42	0.25	0.5	Bike Lane: 4 - 6 foot	Bike Lane: 4 - 6 foot	Mill & Overlay	AHUR
31-25	SWEETWATER AVE	19 AVE / 15 AVE	3		1.45	0	0	0	0	None	None	Mill & Overlay	AHUR
07-37	WARNER ELLIOT LOOP	40 ST / 44 ST	6		2.88	0.67	0.85	0	0	Bike Lane: 4 - 6 foot	Bike Lane: 4 - 6 foot	Mill & Overlay	AHUR
33-32	SHARON DR / EVANS DR	20 ST / CAVE CREEK RD	3		2.78	0.6	1.2	0	0	Bike Lane: 4 - 6 foot	Bike Lane: 4 - 6 foot	Mill & Overlay	AHUR
35-30	TIERRA BUENA LN / PARADISE LN	12 ST / 16 ST	3		2.14	0	0	0	0	None	None	Mill & Overlay	AHUR
40-18/40-17	YORKSHIRE DR / BEARDSLEY RD	47 AVE / 43 AVE	1		7.41	0.49	0.49	1.1	2.2	Bike Lane: 4 - 6 foot	Bike Lane: 4 - 6 foot	Mill & Overlay	AHUR
ROESER RD	W/O 7 AVE	E/O CENTRAL AVE	7		0.50	0.5	1	0	0	Bike Lane: 4 - 6 foot	Bike Lane: 4 - 6 foot	Mill & Overlay	AHUR
11-19	VAN BUREN / ROOSEVELT ST	43 AVE / 39 AVE	4		1.78	0	0	0	0	None	None	Mill & Overlay	AHUR
16-12	INDIAN SCHOOL RD	71 AVE / 67 AVE	7		2.07	0	0	0	0	None	None	Mill & Overlay	AHUR
29-20/30-20	PEORIA AVE / POINSETTIA DR	39 AVE / 35 AVE	1		8.05	0.98	0.98	0	0	None	None	Mill & Overlay	AHUR
012-35/012-36	PECOS RD / FRYE RD	32 ST / 40 ST	6		10.47	0	0	0	0	None	None	Mill & Overlay	AHUR
OSBORN RD	E/O 19TH AVE	W/O 7TH AVE	4		1.49	0	0	0	0	None	None	Mill & Overlay	AHUR
Totals					75.34	9.34	11.33	1.35	2.70				
										Total Cost of Mill & Overlay		\$ 21,591,903	

On Street	From	To	Council Districts	Bicycle Master Plan Priority #	Roadway Miles	Existing Bike Facility Miles	Bi-Directional Miles of Existing Bike Facility	Miles of New Bike Facility	Bi-Directional Miles of New Bike Facility	Existing Bike Facility	Post-Treatment Bike Facility	Pavement Treatment Type	Funding
12-25	ROOSEVELT ST / MCDOWELL RD	19 AVE / 15 AVE	4		3.62	0	0	0	0	None	None	FAST	AHUR

**Attachment D
PROPOSED: FY2021 STREETS PAVEMENT MAINTENANCE PROGRAM AHUR**

On Street	From	To	Council Districts	Bicycle Master Plan Priority #	Roadway Miles	Existing Bike Facility Miles	Bi-Directional Miles of Existing Bike Facility	Miles of New Bike Facility	Bi-Directional Miles of New Bike Facility	Existing Bike Facility	Post-Treatment Bike Facility	Pavement Treatment Type	Funding
17-24	RD / CAMPBELL AVE	23 AVE / 19 AVE	4		2.68	0.77	0.77	0	0	Bike Lane: 4 - 6 foot	Bike Lane: 4 - 6 foot	FAST	AHUR
45-16	PINNACLE PEAK RD / ALAMEDA RD	55 AVE / 51 AVE	1		3.46	0	0	0	0	None	None	FAST	AHUR
45-17	RD / MISTY WILLOW LN	51 AVE / 47 AVE	1		1.94	0.49	0.49	0	0	Bike Lane: 4 - 6 foot	Bike Lane: 4 - 6 foot	FAST	AHUR
50-20	DR / DYNAMITE BLVD	39 AVE / 35 AVE	1		1.68	0	0	0	0	None	None	FAST	AHUR
9-22	UNION PACIFIC RAILROAD	31 AVE / 27 AVE	7		1.85	0	0	0	0	None	None	FAST	AHUR
Totals					15.23	1.26	1.26	0.00	0.00				
Total Cost of FAST										\$ 2,437,699			

On Street	From	To	Council Districts	Bicycle Master Plan Priority #	Roadway Miles	Existing Bike Facility Miles	Bi-Directional Miles of Existing Bike Facility	Miles of New Bike Facility	Bi-Directional Miles of New Bike Facility	Existing Bike Facility	Post-Treatment Bike Facility	Pavement Treatment Type	Funding
23 AVE	N/O GRANDVIEW RD	S/O BELL RD	3		0.39	0	0	0.39	0.78	None	Bike Lane: 4 - 6 foot	Microseal	AHUR
MOHAVE ST	E/O 51ST AVE	W/O 43RD AVE	7		1.01	1.01	2.02	0	0	Bike Lane: 4 - 6 foot	Bike Lane: 4 - 6 foot	Microseal	AHUR
DESERT WILLOW PKWY (E)	N/O DYNAMITE BLVD	S/O DIXILETA DR	2		1.01	1.01	2.02	0	0	Bike Lane: 4 - 6 foot	Bike Lane: 4 - 6 foot	Microseal	AHUR
POINT PKWY / WOOD ST	30TH ST	32ND ST	8		0.51	0.51	1.02	0	0	Bike Lane: 4 - 6 foot	Bike Lane: 4 - 6 foot	Microseal	AHUR
Totals					2.92	2.53	5.06	0.39	0.78				
Total Cost of Microseal										\$ 530,552			

On Street	From	To	Council Districts	Bicycle Master Plan Priority #	Roadway Miles	Existing Bike Facility Miles	Bi-Directional Miles of Existing Bike Facility	Miles of New Bike Facility	Bi-Directional Miles of New Bike Facility	Existing Bike Facility	Post-Treatment Bike Facility	Pavement Treatment Type	Funding
12 ST	N/O CAMELBACK RD	S/S BETHANY HOME RD	6		1.00	1	2	0	0	Bike Lane: 4 - 6 foot	Bike Lane: 4 - 6 foot	TRMSS	AHUR
12 ST	OSBORN RD	INDIAN SCHOOL RD	4		0.50	0.5	1	0	0	Bike Lane: 4 - 6 foot	Bike Lane: 4 - 6 foot	TRMSS	AHUR

**Attachment D
PROPOSED: FY2021 STREETS PAVEMENT MAINTENANCE PROGRAM AHUR**

On Street	From	To	Council Districts	Bicycle Master Plan Priority #	Roadway Miles	Existing Bike Facility Miles	Bi-Directional Miles of Existing Bike Facility	Miles of New Bike Facility	Bi-Directional Miles of New Bike Facility	Existing Bike Facility	Post-Treatment Bike Facility	Pavement Treatment Type	Funding
12 ST	S/O CAMPBELL AVE	S/O CAMELBACK RD	4		0.50	0	0	0	0	Bike Lane: 4 - 6 foot	Bike Lane: 4 - 6 foot	TRMSS	AHUR
23 AVE	N/O PINNACLE PEAK RD	S/O HAPPY VALLEY RD	1		0.84	0.64	1.28	0	0	Bike Lane: 4 - 6 foot	Bike Lane: 4 - 6 foot	TRMSS	AHUR
40 ST	N/O THOMAS RD	S/O INDIAN SCHOOL RD	6/8		1.00	0.8	1.6	0	0	Bike Lane: 4 - 6 foot	Bike Lane: 4 - 6 foot	TRMSS	AHUR
45 AVE	OPPORTUNITY WY	S/O ANTHEM WY	1		0.50	0	0	0.5	1	None	Bike Lane: 4 - 6 foot	TRMSS	AHUR
Totals					4.34	2.94	5.88	0.50	1.00				
										Total Cost of TRMSS		\$ 196,304	

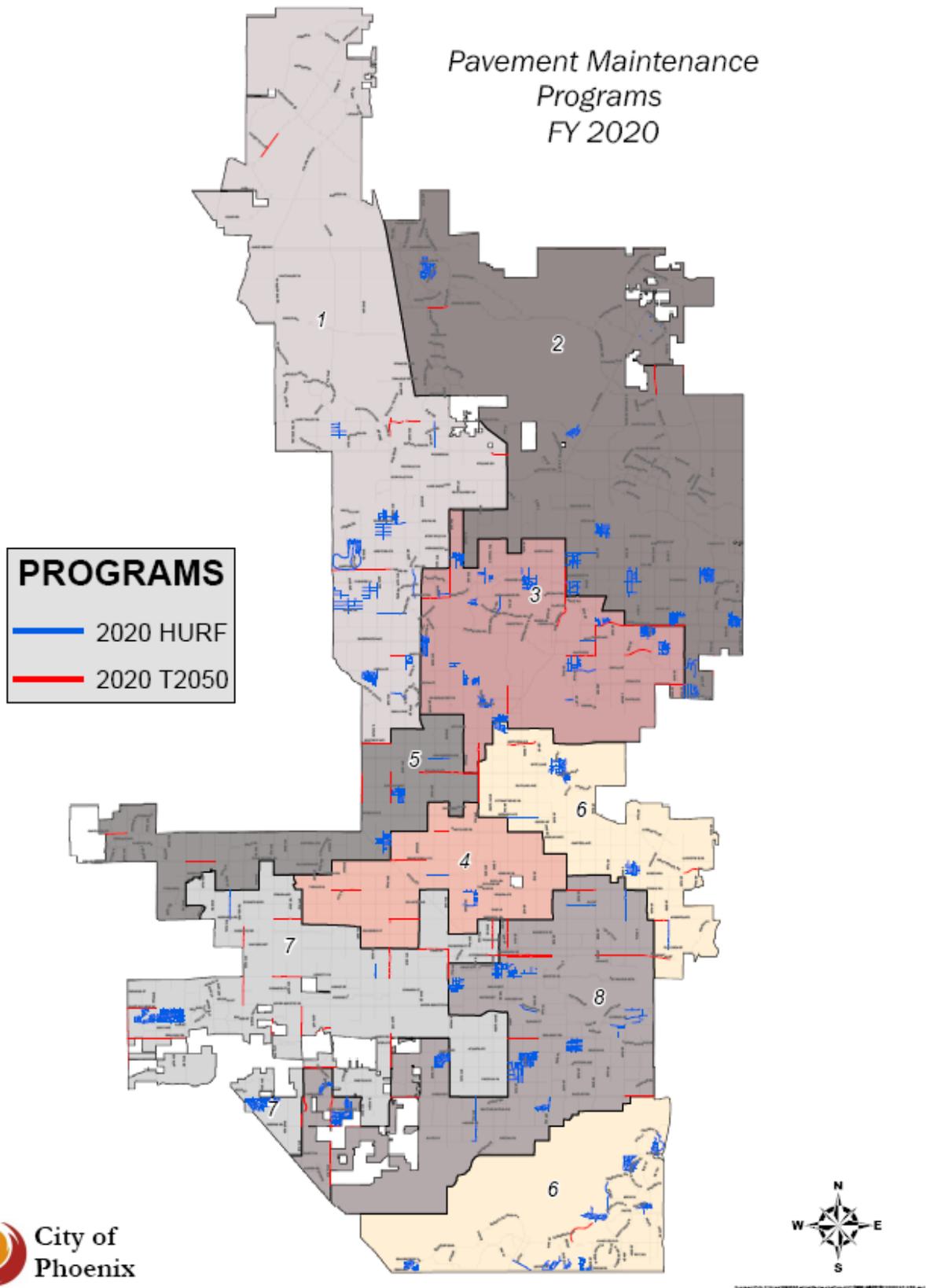
Program Totals	Roadway Miles	Existing Bike Facility Miles	Bi-Directional Miles of Existing Bike Facility	Miles of New Bike Facility	Bi-Directional Miles of New Bike Facility
	235.50	41.47	57.26	2.24	4.48
	Total Cost of FY2021 AHUR Pavement Maintenance Program				\$ 31,580,499

Notes

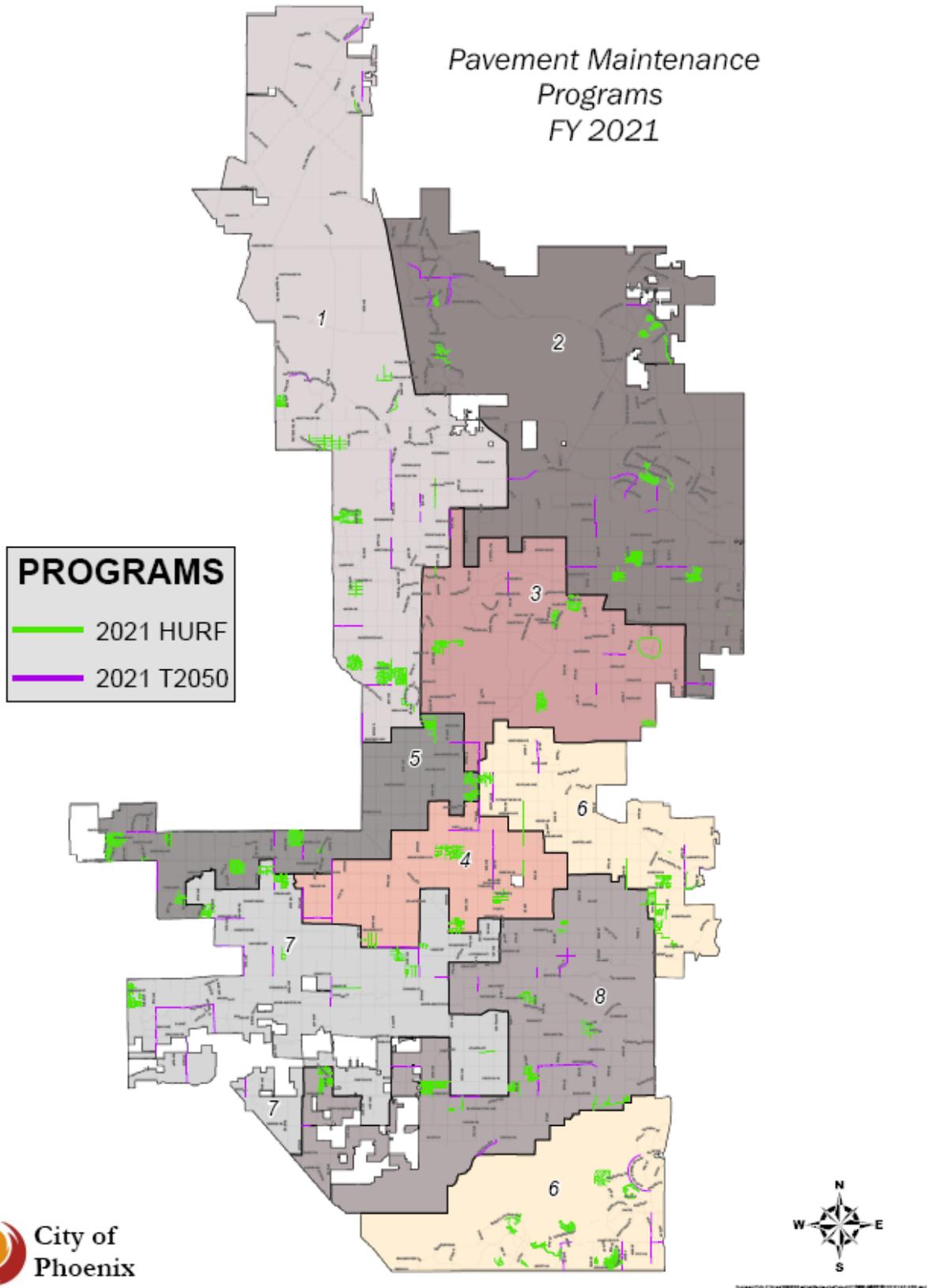
BMP#: Bicycle Master Plan Priority Number
 TRMSS: Tire Rubber Modified Surface Sealant
 FAST: Fractured Aggregate Surface Treatment
 PMM: - Polymer Modified Microseal
 W/O = West Of
 N/O = North Of
 E/O = East Of
 S/O = South Of

W/S = West Side
 N/S = North Side
 E/S = East Side
 S/S = South Side

Attachment E
Proposed FY 2020 Pavement Maintenance Program Map



Attachment F
Proposed FY 2021 Pavement Maintenance Program Map



T2050 Pavement Maintenance Program FY2020 and FY2021 Arterial Streets



May 25, 2017

Citizens Transportation Commission



City of Phoenix – Street Classification Distribution

Street Classification	Total Miles	Funding
Arterial	729	T2050
Major Collector	140	T2050
Minor Collector	491	AHUR
Local	3,503	AHUR
TOTAL	4,863	

Street Classification Centerline Miles by Council District

Street Class.	District 1	District 2	District 3	District 4	District 5	District 6	District 7	District 8
Arterial	94	130	64	61	54	87	121	118
Collector	18	20	12	18	6	24	16	29
Minor	75	67	71	35	51	55	64	72
Local	502	488	438	363	352	471	428	459
Total	689	705	585	477	463	637	629	678

Types of Maintenance Treatments

Treatment Type	Description	Are Roadway Striping Activities Included?
Overlay	Milling the existing pavement surface in fair to poor condition and installing a layer of hot polymer modified asphalt rubber mix over the existing base layer to provide a new wearing surface.	Yes
Micro-seal	Application of coarse sand aggregate and a polymer modified emulsion mixture, on arterial and collector streets that are in fair to good conditions to provide a new wearing surface.	Yes
Crack Seal	Filling cracks in the pavement with modified asphalt rubber on streets in relatively good condition.	No
Tire Rubber Modified Surface Sealant (TRMSS)	Thin spray of emulsified asphalt that is used to rejuvenate pavement that is starting to oxidize. Adds a small amount of binder to the top of the asphalt to help hold pavement together.	No

Characteristics of Different Treatments

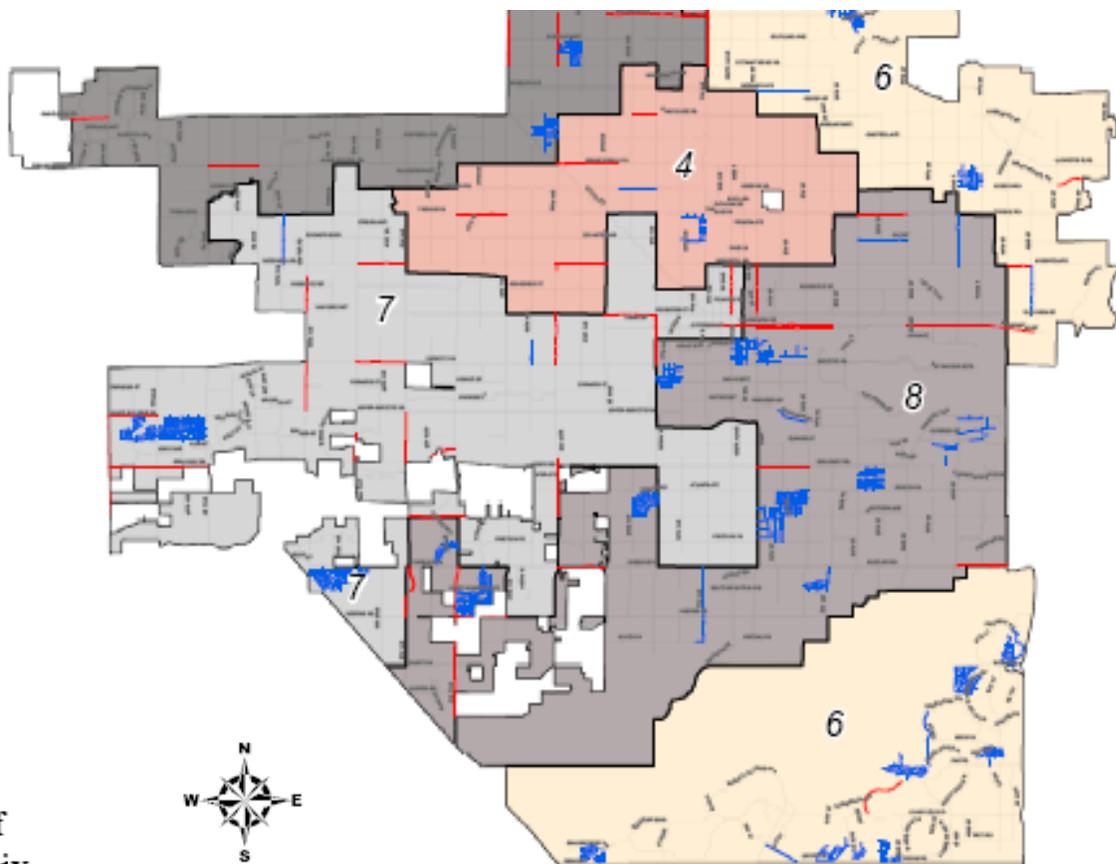
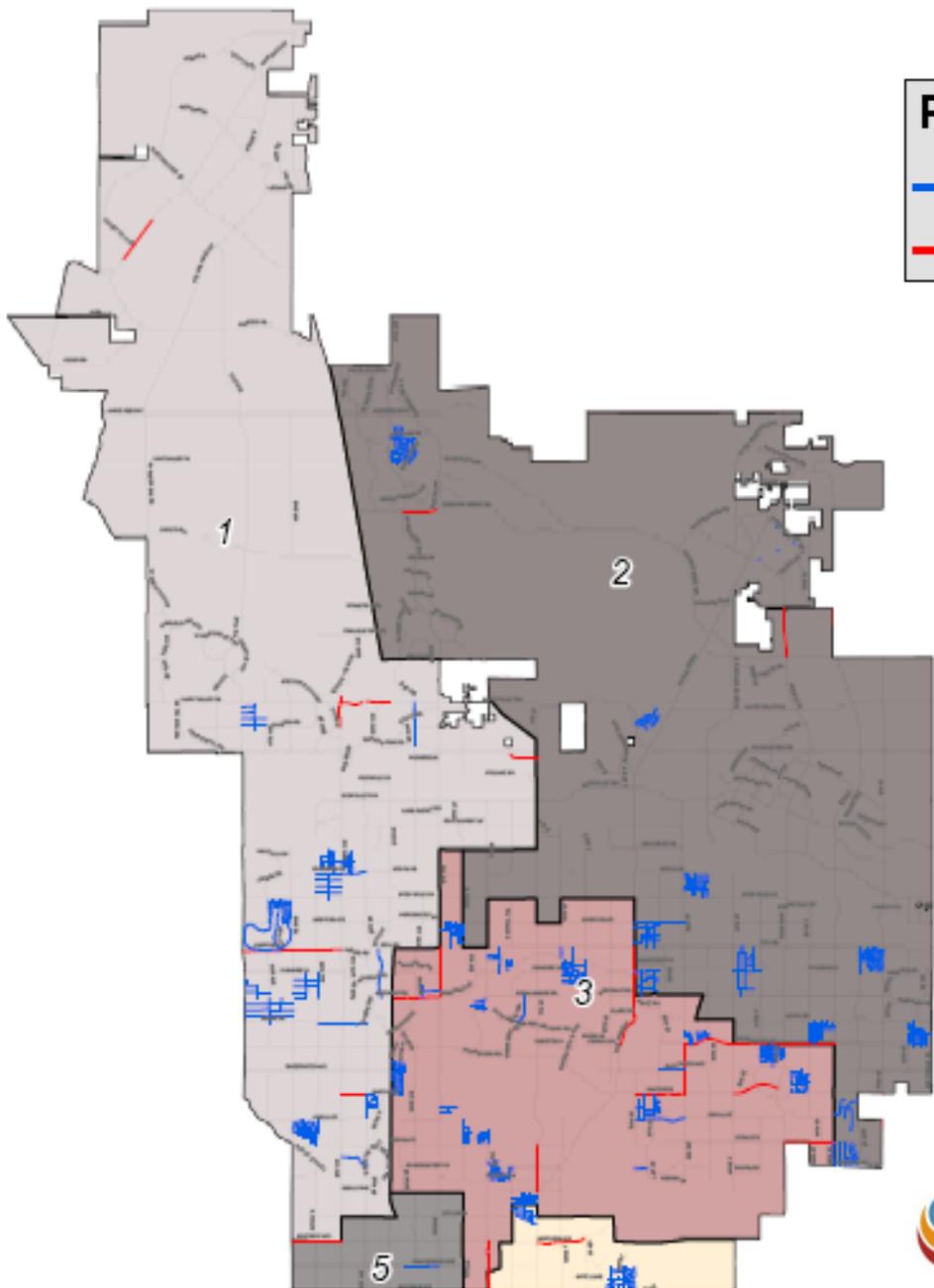
Treatment Name	Cost per Mile	Average Life of Treatment (Years)	% Cost per Mile of Treatment (Compared to Overlay)	Miles Treated Per Cost of One Mile of Overlay	Ideal Applicability
Overlay	\$880,000	11	100%	1.0	Fair to Poor Condition
Micro-surfacing	\$401,000	7.5	45.6%	2.2	Good to Fair Conditions
TRMSS	\$79,000	5	9.0%	11.1	Good Condition
Crack Seal	\$42,000	4	4.8%	20.9	Good to Very Good Conditions

T2050 – FY2020 Arterial Pavement Maintenance Program (Attachment A)

<u>Type of Treatment</u>	<u>Miles</u>	<u>Amount</u>
Crack Seal	13.00	\$ 782,400
Overlay	14.75	\$ 10,350,500
Micro Seal	24.95	\$ 3,993,500
TRMSS	18.39	\$ 1,173,600
Total	71.09	\$ 16,300,000

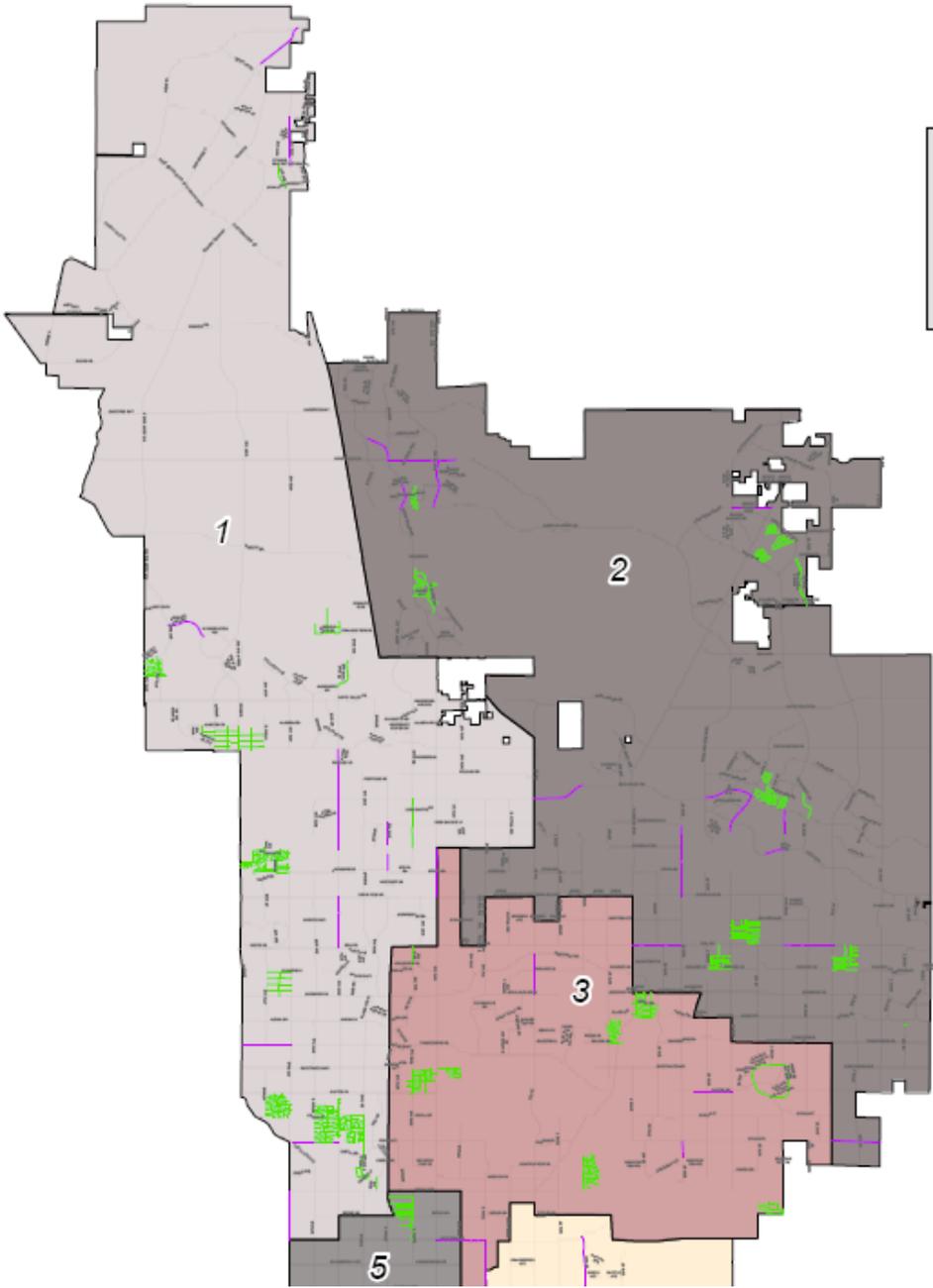
PROGRAMS

- 2020 HURF
- 2020 T2050



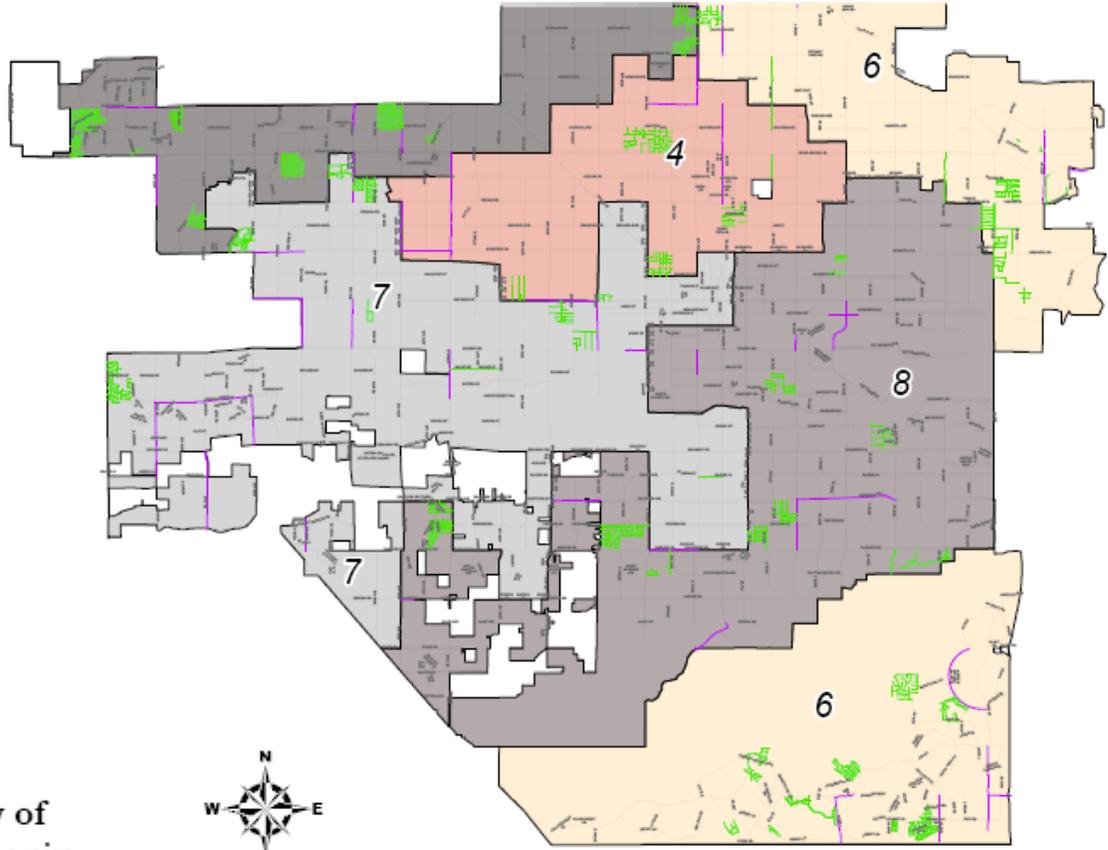
T2050 – FY2021 Arterial Pavement Maintenance Program (Attachment B)

<u>Type of Treatment</u>	<u>Miles</u>	<u>Amount</u>
Crack Seal	13.60	\$ 820,800
Overlay	16.49	\$ 10,858,500
Micro Seal	23.50	\$ 4,189,500
TRMSS	19.18	\$ 1,231,200
Total	72.77	\$ 17,100,000



PROGRAMS

- 2021 HURF
- 2021 T2050



Goals for Miles of Resurfacing Projects

T2050

Funding and Treatment Types	Fiscal Year	
	2020	2021
T2050 Funding	Miles Treated	
Overlay	13.00	13.60
Micro Seal	14.75	16.49
Crack Seal	24.95	23.50
TRMSS	18.39	19.18
Sub-Total	71.09	72.77

Total Arterial and Major Collector Street Mileage = 869 miles

Average for 10-year Treatment Cycle = 86.9 miles

Funding and Treatment Types	Fiscal Year	
	2020	2021
AHUR Funding	Miles Treated	
Overlay	71.30	75.34
PMM	24.38	25.70
Slurry Seal	81.63	66.86
Crack Seal	49.92	45.11
FAST	16.20	15.23
Micro Seal	2.42	2.92
TRMSS	4.01	4.34
Sub-Total	249.86	235.50

Total Minor Collector & Local Street Mileage = 3,993 miles

Average for 10-year Treatment Cycle = 399.3 miles

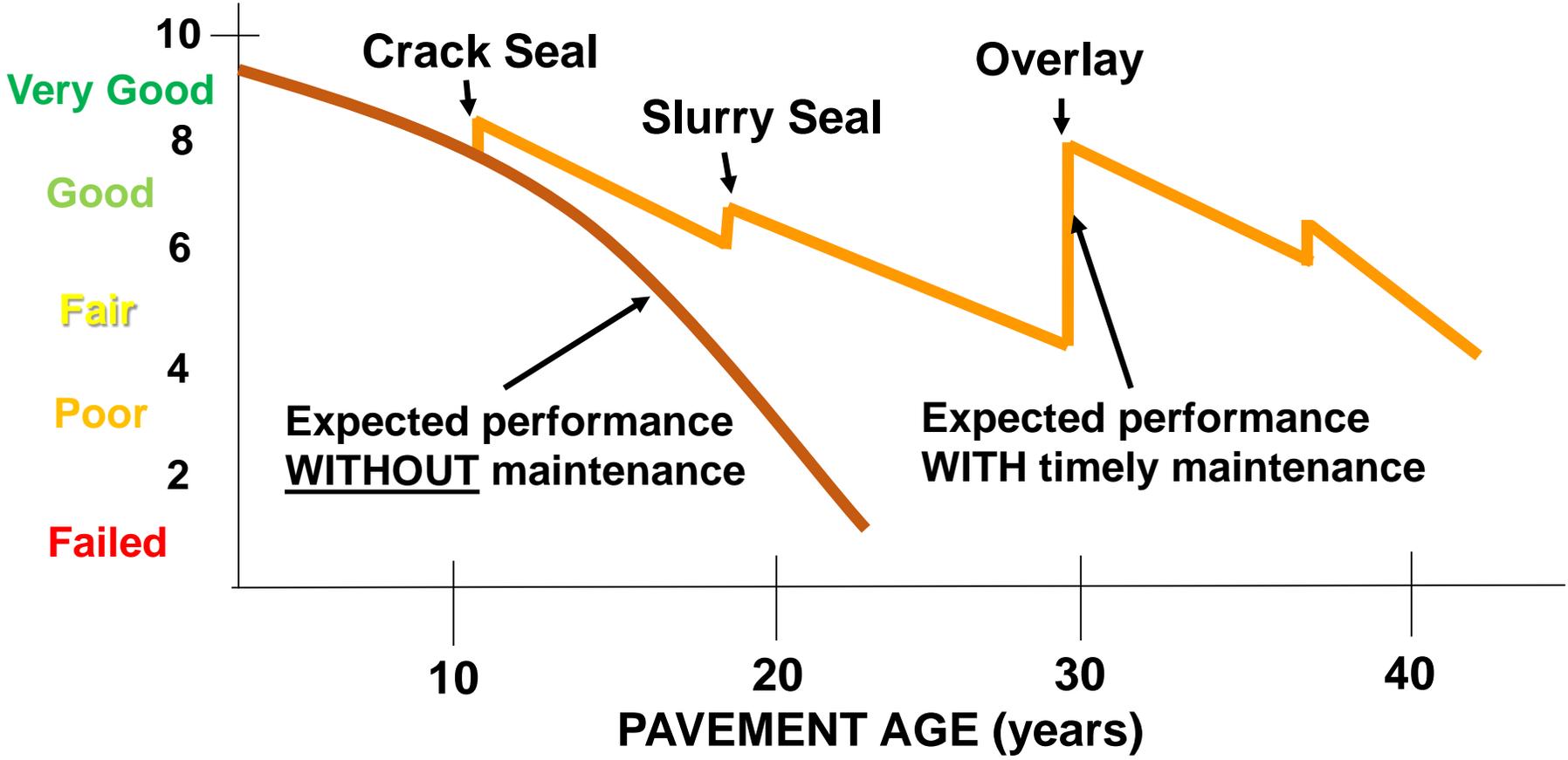
Next Steps

T2050 – FY2020 and FY2021 Arterial and Major Collector Pavement Maintenance Program

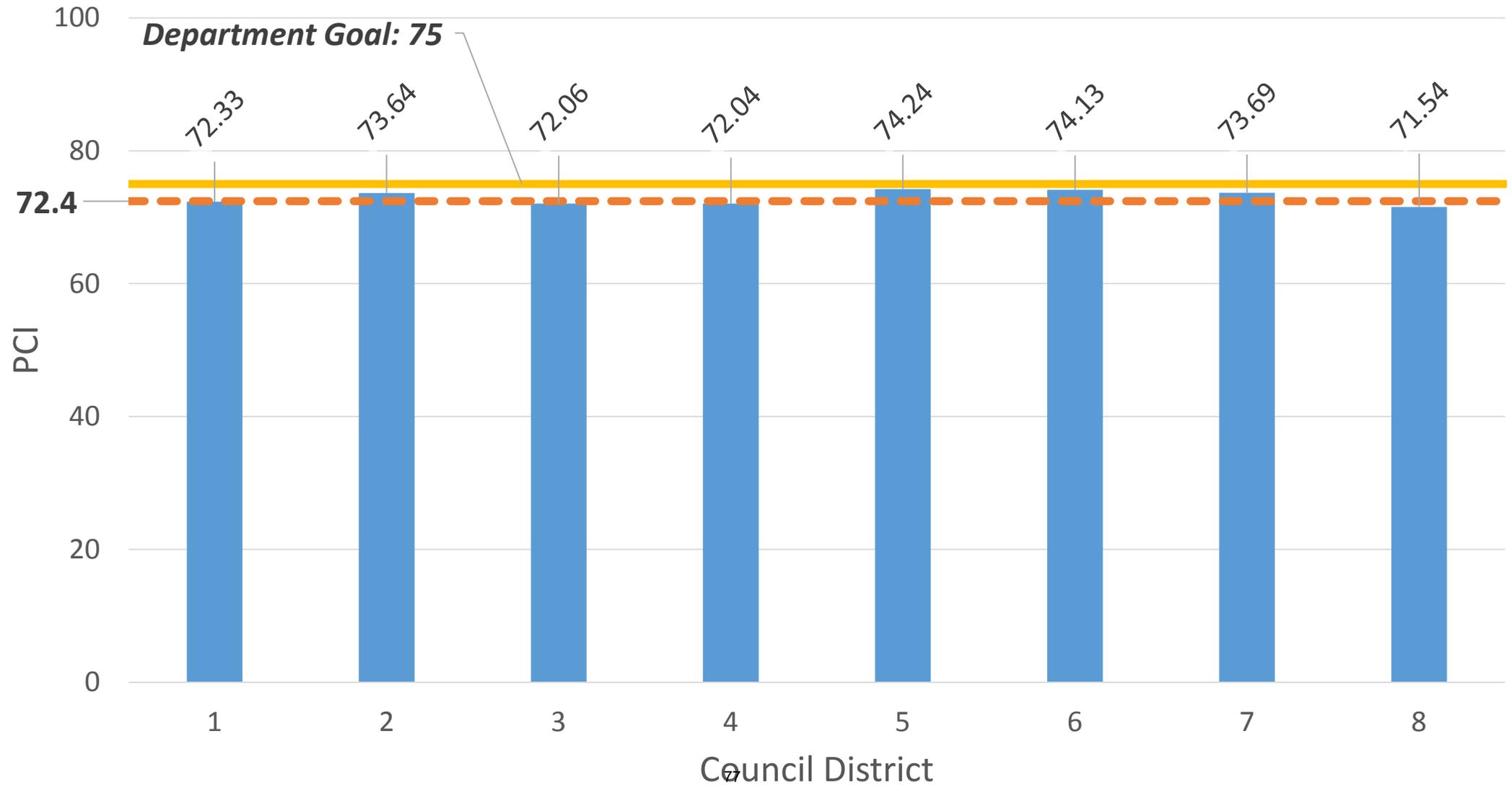
Upcoming Activities	Date	Action
Citizens Transportation Commission	May 25, 2017	<i>Recommend approval of proposed T2050 Funded FY2020 and FY2021 Pavement Maintenance Programs</i>
Transportation & Infrastructure Subcommittee	June 13, 2017	<i>Recommend approval of proposed T2050 and AHUR Funded FY2020 and FY2021 Pavement Maintenance Programs</i>
City Council	June 6, 2017	<i>Approval of Recommended FY2020 and FY2021 Pavement Maintenance Programs</i>

Pavement Preservation

PAVEMENT QUALITY



Pavement Condition Index (PCI)



CITIZENS TRANSPORTATION COMMISSION REPORT

TO: Mario Paniagua
Deputy City Manager

FROM: Ray Dovalina, Jr., P.E.
Street Transportation Director

SUBJECT: BICYCLE PROGRAM UPDATE

This report provides information to the Citizen's Transportation Commission (CTC) about the City's Bicycle Program.

THE ISSUE

In the past three years, there has been significant change in the direction for the City of Phoenix's transportation network. The City of Phoenix has expanded its focus of street design to include the safety and comfort of all users of the public right-of-way (ROW). Bicycle facilities are one of the components of the transportation system that provides choices for residents, connects people to places and other transportation options, and promotes a sustainable transportation option. Major city activities that have occurred in the past couple of years include:

- In July 2014, Phoenix City Council adopted two Complete Streets ordinances aimed at changing the way streets are developed, designed, and constructed.
- In November 2014, Phoenix City Council adopted the Comprehensive Bicycle Master Plan, which sets forth a blueprint for expanding bicycle facilities throughout the city to enhance bicycling as a safe and healthy transportation choice for the community.
- Also in November 2014, the City launched the Grid Bike Share Program, with private funding and started with 250 bicycles at 24 stations. As of Dec. 31, 2016, the program has grown to 49 stations with 500 bicycles in service. The system has three planned expansions in the next five years.
- In August 2015, Phoenix voters approved Transportation 2050 (T2050). This new initiative included a broader and more comprehensive plan placing additional emphasis on street needs including; street maintenance, new pavement, bike lanes, sidewalks and ADA accessibility. All components will complement the increase in transit services. T2050 will include the implementation of 135 miles of new sidewalks and 1,080 miles of new bike lanes.

The City's Bicycle Program is a multi-faceted, yet coordinated effort to ensure the City establishes a well-connected citywide bicycle network, and implements the overarching goals of the T2050 program.

OTHER INFORMATION

This report details the implementation and type of installation for the City's bicycle facilities. Implementation will come from six distinct, yet collaborative work efforts of different divisions and sections in the Street Transportation Department.

The six efforts include:

1. Bicycle Master Plan
2. Mobility Program
3. Pavement Maintenance Program
4. Neighborhood Traffic Management
5. Capital Improvement Program Projects
6. Developer & Partner Agency Projects

Table 1 describes the assortment of bike facilities that the city is currently using or will use in the future.

Table 1 - Bicycle Facility List	
Bike Facility Type	Description
Bike Lane	A bike lane is defined as a portion of the roadway that has been designated by <u>striping, signage, and pavement markings</u> for the preferential or exclusive use of bicyclists.
Extend Bike Lane to Intersection	A continuation of a bike lane that has previously terminated over 50-feet before the intersection.
Through Bike Lanes with Intersection Road Diet	A continuation of a bike lane to the intersection that includes a lane reduction on approaching sides.
Buffered Bike Lane	Buffered bike lanes are conventional bicycle lanes paired with a designated buffer space separating the bicycle lane from the adjacent motor vehicle travel lane and/or parking lane.
Contra-flow Bike Lane	Contra-flow bike lanes are designed to allow bicyclists to ride in the opposite direction of motor vehicle traffic.
Left-Side Bike Lane	Left-side bike lanes are conventional bike lanes placed on the left-side of one-way streets or two-way median divided streets.
One-Way Protected Cycle Track	One-way protected cycle tracks are bikeways that are at street level and use a variety of methods for physical protection from passing vehicles.
Two-Way Cycle Track	Two-way cycle tracks (also known as protected bike lanes, separated bikeways, and on-street bike paths) are physically separated cycle tracks that allow bicycle movement in both directions on one side of the road.
Raised Cycle Track	Raised cycle tracks are bicycle facilities that are vertically separated from motor vehicle traffic.
Bike Box	A bike box is a designated area at the head of a traffic lane at a signalized intersection that provides bicyclists with a safe and visible way to get ahead of queuing traffic during the red signal phase.
Intersection Crossing Markings	Intersection crossing markings indicate the intended path of bicyclists.
Two-Stage Turn Queue Boxes	Two-stage turn queue boxes offer bicyclists a safe way to make left turns at multi-lane signalized intersections from a right-side cycle track or bike lane, or right turns from a left-side cycle track or bike lane.

CONTINUED Table 1 - Bicycle Facility List	
<u>Bike Facility Type</u>	<u>Description</u>
Median Refuge Island	Median refuge islands are protected spaces placed in the center of the street to facilitate bicycle and pedestrian crossings.
Bicycle Detection	Bicycle detection is used at actuated signals to alert the signal controller of bicycle crossing demand on a particular approach. Bicycle detection occurs either using push-buttons or by automated means (e.g., in-pavement loops, video, microwave, etc.).
Bicycle HAWK	A hybrid beacon, also known as a High-intensity Activated Crosswalk (HAWK), consists of a signal-head with two red lenses over a single yellow lens on the major street, and pedestrian and/or bicycle signal heads for the minor street.
Through Bike Lanes	A through bike lane is present in the approach to a part of the road with a turn bay to the right or left.
Through Bike Lanes with Intersection Road Diet	A through bike lane is added at the near side and far side of the intersection by removing add/drop lanes.
Combined Bike Lane / Turn Lane	A combined bike lane/turn lane places a suggested bike lane within a portion of a right turn or left turn only lane. Shared lane markings are typically installed and bicyclists move forward instead of turning.
Cycle Track Intersection Approach	An approach to an intersection from a cycle track that is designed to reduce turn conflicts for bicyclists and/or to provide connections to intersecting bicycle facility types.
Bicycle Boulevard	A bike route which has a combination of shared lane markings, directional markings for wayfinding and traffic control devices that prioritize travel by bicycle.
Shared Lane Marking (Sharrow)	A marking used to indicate a shared lane environment for bicycles and automobiles typically installed in a lane that is 14' wide or less.
Green Colored Pavement	Colored pavement within a bicycle lane increases the visibility of the facility, identifies potential areas of conflict, and reinforces priority to bicyclists in conflict areas and in areas with pressure for illegal parking.
Bike Route	A Bike Route is an undefined a portion of the roadway without pavement markings but may have a sign or stripe to promote use by bicyclists.
Shared Use Path	A paved surface for people walking, riding bicycles and generally anything on wheels not powered by gasoline.
Multi-Use Trail	An UNPAVED surface, typically built from stabilized decomposed granite, for people walking, riding bicycles, riding horses and generally anything on wheels not powered by gasoline.
Bridge / Underpass	A crossing of a heavily traveled thoroughfare or barrier that is not at grade.
Shoulder	The area to the right-side of a road or street that is usually paved but is not typically driven upon by gasoline powered vehicles. It is sometimes called a breakdown lane.

Table 2 outlines the bicycle facilities that the City completed in FY2016 and is planning to complete by Fiscal Year (FY) 2021. Information for FY2016 reports specifically on completed facilities. Information for 2017 documents the work efforts installed to date. A forecast is included for FY2018 through FY2021, and provides the City with opportunities to invest more heavily in bicycle facilities.

Table 2 - Total Bike Facilities Currently Programmed							
Bike Facility	FY2016	FY2017	FY2018	FY2019	FY2020	FY2021	Total FY16-FY21
Bike Lanes (Bi-Directional Miles)	68 miles	18 miles	37 miles	36 miles	55 miles	18 miles	232 miles
Shared Use Paths (Bi-Dir. Miles)	0 miles	0 miles	0 miles	21 miles	0 miles	0 miles	21 miles
Extending bike lanes to intersections (# of Improvements)	20	3	23	17	25	7	95

In 2016, just over 65 miles of new bike lanes were installed throughout the City. Although originally for the current fiscal year (FY2017), 35 bike lane miles had been planned, 18 miles of bicycle lanes are now projected to be installed. The lower number is connected to two FY2017 projects (Missouri Avenue: 19th Avenue to 24th Street, and Osborn Rd: between 19th Avenue to 20th Street and 36th To 40th Streets) not moving forward, which had totaled 17 bi-directional miles of new bike lanes.

Looking forward to FY2018 through FY2021, the City will be utilizing the Pavement Maintenance Program to its full extent in coordinating installation of new bike facilities, which will include new bi-directional bike lane miles and extending bicycle lanes to intersections.

The Bicycle Master Plan will also see completion of 128 individual projects that include full improvements to the Grand Canal between Interstate 17 and the eastern City limits. Bicyclists will be able to ride on 21 miles of new shared-use path and cross streets safely with a variety of treatments that include HAWKs, rapid flashing beacons, and crosswalks.

The T2050 goal of adding 1,080 bi-directional bicycle miles by the year 2050 equates to an annual average of approximately 31 new bi-directional bicycle miles per year. **Table 3** details the City's current forecast for new bi-directional bicycle miles to be installed over the first six-year period of T2050 (FY2016 through FY2021). As additional bike projects are identified and implemented in the six bicycle program efforts, the new bi-directional bicycle miles will increase from the current forecast. However, as Table 3 indicates, the City is currently on track to exceed the targets for the first six-years of the T2050 program.

Table 3 - Total Current Forecast for New Bike Facilities							
	FY2016	FY2017	FY2018	FY2019	FY2020	FY2021	Total
Total Bike Lanes (Bi-Dir. Miles)	68 miles	18 miles	37 miles	36 miles	55 miles	18 miles	232 miles
T2050 Annual Target (Bi-Dir. Miles)	31 miles	31 miles	31 miles	31 miles	31 miles	31 miles	186 miles
Over/Under Target	37	(13)	6	5	24	(13)	46

RECOMMENDATION

This information is presented for information and discussion only.



Bicycle Program Update

Shifting Gears



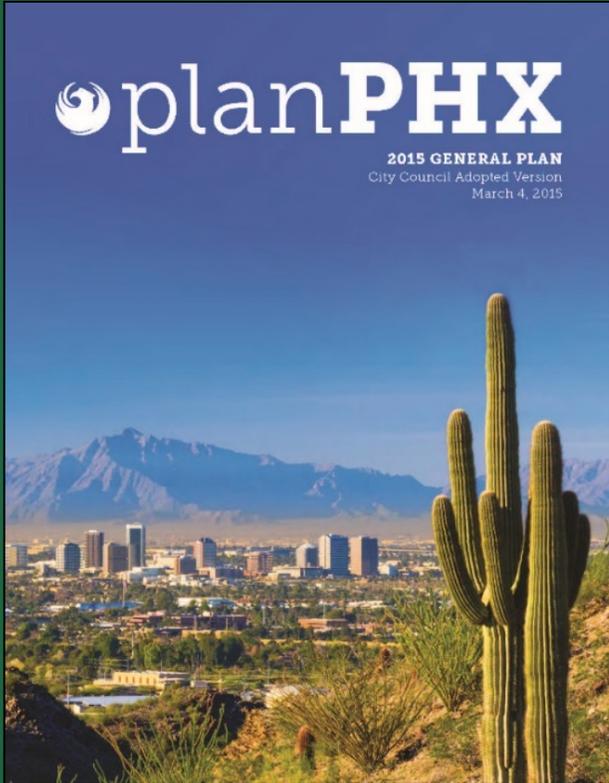
May 25, 2017

Citizens Transportation Commission

Eileen Yazzie

Street Transportation Department

Bicycle Program – Making the Connections



Six Distinct Work Efforts



Types of Bicycle Facilities



Fiscal Years Projects are Identified by Effort

Plan/Program	FY2016	FY2017	FY2018	FY2019	FY2020	FY2021
Neighborhood Traffic Management Program			n/a	n/a	n/a	n/a
Pavement Maintenance Program						
Capital Improvement Program Projects						
Developer Projects			n/a	n/a	n/a	n/a
Bicycle Master Plan Lifecycle						
T2050 Mobility Program			n/a	n/a	n/a	n/a



Bicycle Facility Type Per Fiscal Year (Based on Six Efforts)

Bike Facility	FY2016	FY2017	FY2018	FY2019	FY2020	FY2021	Total - FY2017- 2021
Bike Lanes (Bi-Dir. Miles)	68 miles	18 miles	37 miles	36 miles	55 miles	18 miles	232 miles
Shared Use Paths (Bi-Dir. Miles)	0 miles	0 miles	0 miles	21 miles	0 miles	0 miles	21 miles
Extending bike lanes to intersections (# of Improvements)	20 miles	3 miles	23 miles	17 miles	25 miles	7 miles	95 miles



Projected / Target Comparison

	FY2016	FY2017	FY2018	FY2019	FY2020	FY2021	Total - FY2017- 2021
Total Bike Lanes (Bi-Dir. Miles)	68 miles	18 miles	37 miles	36 miles	55 miles	18 miles	232 miles
T2050 Annual Target	31 miles	31 miles	31 miles	31 miles	31 miles	31 miles	186 miles
Over/Under Target	37	(13)	6	5	24	(13)	46



Prop. 104 Commitments Street Transportation Improvements



1,080 miles of bike lanes

