



ANNUAL PROGRESS REPORT FY 2021

JULY 1, 2020 THROUGH JUNE 30, 2021

A MESSAGE FROM LEADERSHIP



Mayor Kate Gallego



Councilmember Debra Stark
Chair, Transportation, Infrastructure
and Planning Subcommittee



Commissioner Jennifer Mellor
Chair, Citizens Transportation
Commission

"T2050 is more than just a plan; it's an investment in our community, to get our residents more connected. As we reemerge from the pandemic, improving our infrastructure is critical to creating jobs and connecting every resident to economic, education and social opportunities across our city. I'm proud of the work we've done this year to increase light rail, extend and add bus services, and pave more miles of street than ever before. Robust, inclusive transportation options for Phoenix are becoming a reality with the help of the smart, long-range planning of T2050."

"T2050 allows Phoenix to continue investing in our growing city's future. Among the many accomplishments in the last year, Phoenix has upgraded dozens of buses and Dial-a-Ride vehicles, added bus service to underserved areas and broken ground to expand light rail service to Northwest Phoenix. These efforts ensure reliable transit and promote connectivity for Phoenix residents, while also supporting economic development. T2050 investments not only strengthen our transportation system — they directly impact the daily life of Phoenicians."

"Improving Phoenix's transit system and city streets has always been a top priority for the residents of Phoenix, as proven when T2050 was approved by voters in 2015. As part of that ballot initiative, the Citizens Transportation Commission was created to provide transparency, oversight and guidance in how T2050 is implemented. The city just marked a T2050 milestone in the completion of the first five years of the plan, and now, more than ever, each of the 15 commissioners relish the opportunity to work with the public and city staff to continue to fulfill the T2050 vision."

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1.0

Program
Overview

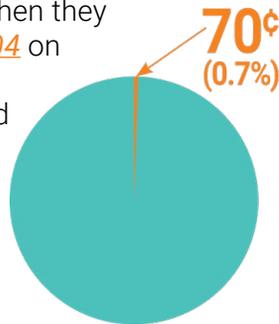


PROGRAM OVERVIEW



Transportation 2050 (T2050) is Phoenix's 35-year plan dedicated to improving multiple modes of transportation in Phoenix, including bus, light rail,

Dial-a-Ride (DAR), streets, bikes lanes, and active transportation. Phoenix voters made T2050 possible when they approved [Proposition 104](#) on August 25, 2015. The measure, which replaced the previous 0.4% sales tax with a 0.7% sales tax, became effective Jan. 1, 2016, and allocates 70 cents of



each \$100 spent to the city's transportation needs. Approximately 86% of funds support public transit and 14% supplement street maintenance and improvement funds.

T2050 revenues supplement other sources of transportation funding, allowing the city to accomplish more. This report recognizes T2050 accomplishments for July 1, 2020, to June 30, 2021 (FY 2021). In addition, the report identifies cumulative progress, since the start of the program, and provides an overview of improvements planned for the next five years.

T2050 celebrated its fifth anniversary during FY 2021 by publishing the first [Long-Term Performance Metrics Report](#) and creating a video summary of [key milestones](#).

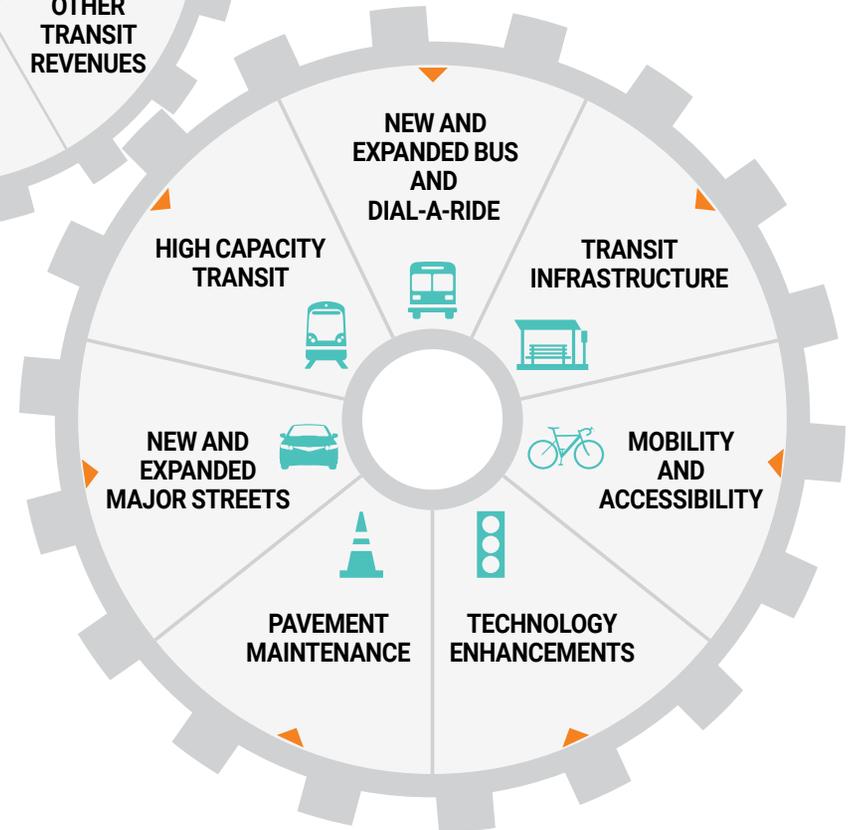
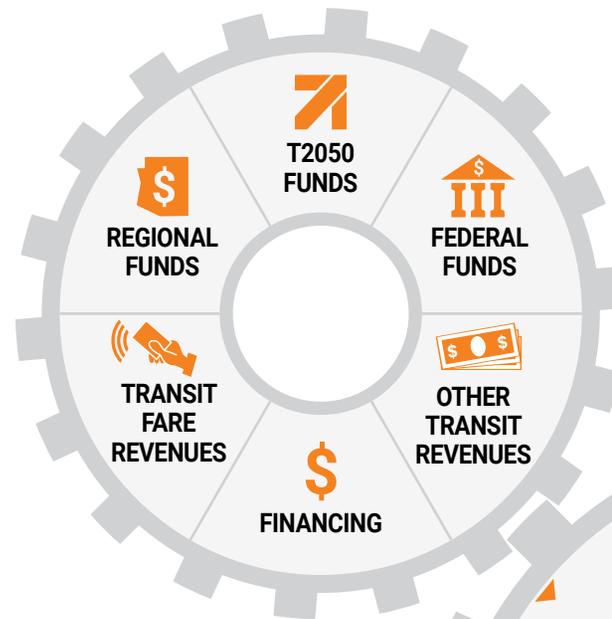
Lifecycle Revenues

Over the course of 35 years, Phoenix expects sales tax revenue to generate over half of the estimated \$31.5 billion in overall T2050 funding. Federal, state, regional and local funding sources will provide the remaining funding. shows funding sources as established at the launch of the program.

In addition to these funds, Public Transit and Street Transportation department staff pursue opportunities to reduce costs through innovation and efficient project delivery methods.

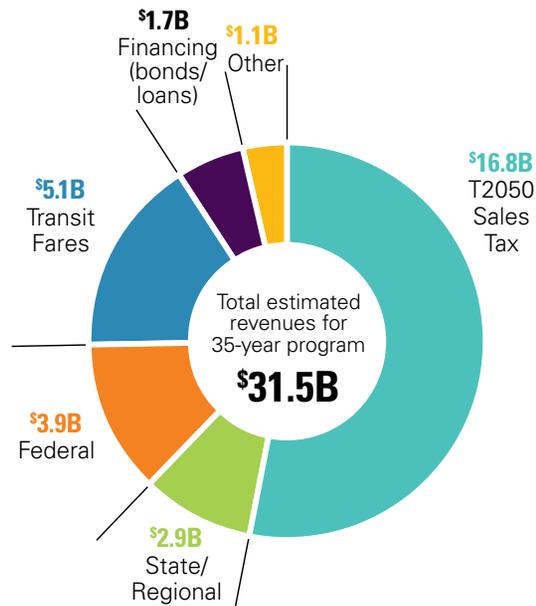
More information on program assumptions can be found in the appendix, with projected and actual sales tax revenue shown in [Table A.1](#). For additional information on regional and federal funding, visit phoenix.gov/T2050/Funding.

T2050 FUNDING



T2050 PROGRAM AREAS

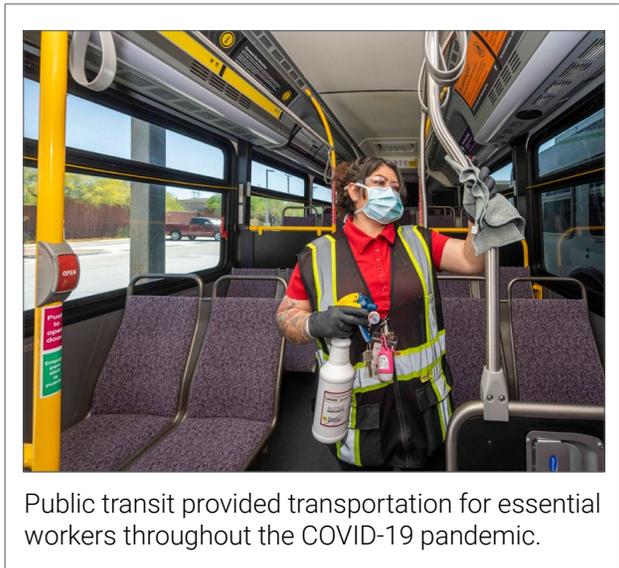
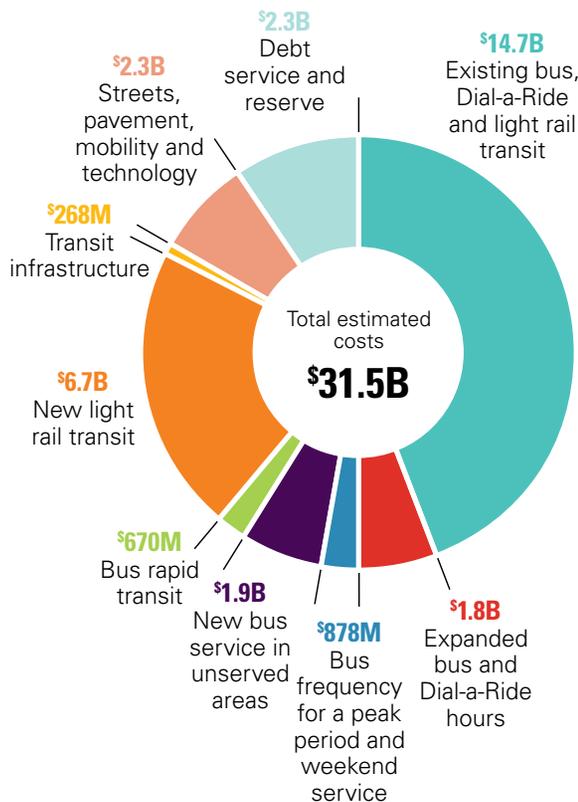
Figure 1.1 Sources of Funds



Lifecycle Expenditures

At times, projected revenue for T2050 will exceed projected expenditures for a given year. This helps to ensure that the plan has available funds in future years for large capital projects such as light rail construction, park-and-ride facilities, and to ensure a fund balance is maintained whenever possible during the life of the plan. [Table A.1](#) shows planned uses of funds as established at the launch of the program.

Figure 1.2 Planned Uses of Funds



Public transit provided transportation for essential workers throughout the COVID-19 pandemic.

Impact of COVID-19

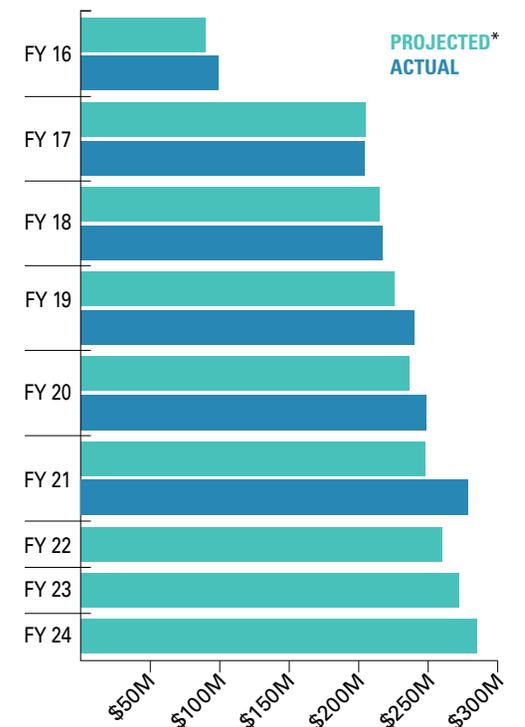
The COVID-19 virus resulted in a global pandemic beginning in 2020 and significantly shifted consumer demands. Ridership numbers steeply declined because social distancing requirements changed travel patterns. Ridership has been progressively increasing since the initial decline. However, it still remains below pre-pandemic levels.

This report notes the effects of changes due to the pandemic within each program area.

FY 2021 Financial Summary and Projection

The total operating and capital budgets for FY 2021 are \$1.029 billion. [Table A.2](#) in the appendix details budgeted and actual revenues and expenditures. [Table A.3](#) provides projected and actual sales tax revenue, as well as short-term projected revenue figures. [Table A.3](#) in the appendix outlines the FY 2021–2025 five-year financial plan.

Figure 1.3 T2050 Sales Tax Revenue Summary



*Projected sales tax revenues reflect the initial T2050 plan.

Public Outreach

To understand residents' transportation needs, staff members engage with the public regularly at open houses and public meetings. They also attend community events to provide information and gather input on a variety of topics, including increasing transit access; planning bus routes and extensions, future light rail station locations and potential bus rapid transit routes; building and improving roads; and creating and improving bike lanes.

Due to the pandemic, staff members utilized a mixture of in-person and virtual meeting platforms to conduct outreach and receive community input throughout the year. Staff members hosted virtual public meetings, accessible by phone or computer. Virtual meetings included presentations, a variety of speakers and public question-and-answer segments.

Formal Oversight

The mayor and Phoenix City Council established the Citizens Transportation Commission (CTC) in 2015 to oversee the T2050 program. The Phoenix City Council appoints a total of 15 commission members to address street and transit needs, provide oversight on the expenditure of funds and make recommendations on plan elements.



Transportation, Infrastructure and Planning Subcommittee Members: (top row, left–right): Councilmember Debra Stark, Chair; Councilmember Laura Pastor; (second row, left–right): Councilmember Betty Guardado; Councilmember Ann O'Brien.

CTC members represent various facets of the community. As of June 30, 2021, CTC members include:

- Chair Jennifer Mellor
- Vice Chair Rick Naimark
- David Adame
- Sue Glawe
- Luis Heredia
- Gail Knight
- Gabriel Loyola
- David Martin
- Roy Miller
- David Moody
- Brookelynn Nisenbaum
- Phil Pangrazio
- William Smith
- Frank Steinmetz

The Phoenix City Council's Transportation, Infrastructure and Planning subcommittee provides policy guidance on issues related to infrastructure, transportation, transit, streets, aviation/airport, water, technology, smart cities, innovation and sustainability.

The Phoenix City Council provides additional oversight, and its meetings also provide opportunities for public input.

35-Year Goals Established at the Onset of T2050

The voter-approved 35-year sales tax became effective on January 1, 2016. The following dashboard provides an overview of T2050 progress. City leaders established these goals based on the [Proposition 104](#) ballot language, with the expectation that goals may evolve as the program progresses. Use the interactive links included throughout this report to access additional information.

T2050
Goals
Dashboard
on next
page

This dashboard represents progress from Jan. 1, 2016, through June 30, 2021.

EXPECTED PROGRESS AT 5.5 YEARS

T2050 GOALS ESTABLISHED AT PROGRAM ONSET

35 YEARS	CONTINUE local bus, RAPID commuter bus, neighborhood circulator and Dial-a-Ride service FOR 35 YEARS	
15 MIN	PROVIDE 15-MINUTE FREQUENCY on half of all bus routes	
	EXTEND & ADD new RAPID service	
	PURCHASE NEW buses and Dial-a-Ride vehicles	
	EXTEND bus and Dial-a-Ride service hours TO MATCH LIGHT RAIL HOURS	
	EXTEND & ADD BUS SERVICE to unserved major streets	
	ADD NEW circulator service	
	BUILD NEW park-and-ride lots	
	BUILD additional bus bays	
	CONTINUE 17 MILES of light rail service	
	PROVIDE 75 MILES of new bus rapid transit service	
	ADD 42 MILES of new light rail in Phoenix	
	BUILD NEW light rail station at 50th Street (completed April 25, 2019, and operational since then)	
	680 MILES of new overlays on arterial/major streets	
	2,000 new streetlights	
	\$240 MILLION for new roads and upgraded bridges	
	1,080 MILES of new bike lanes	
	135 MILES of new sidewalks	
	ENHANCE technology	

Below expected target Approaching expected target At or above expected target



2.0

Bus and
Dial-a-Ride

BUS AND DIAL-A-RIDE

 **CUMULATIVE PROGRESS** JAN. 1, 2016–JUNE 30, 2021

EXTENDED SERVICE HOURS

for bus and Dial-a-Ride to **MATCH LIGHT RAIL HOURS (FY 2017)**



INCREASED FREQUENCY*

off-peak to **15 MIN** on five routes:



41

Indian School
Road
(FY 2019)

19

19th
Avenue
(FY 2018)

3

Van Buren
Street
(FY 2018)

50

Camelback
Road
(FY 2018)

29

Thomas
Road
(FY 2018)

**Weekday service levels
on five holidays reinstated**
(previously on a Sunday schedule)

RAPID service
frequency increases

Weekdays and weekends
to 30 MIN or better

EXTENDED BUS ROUTES

51 51st Avenue Lower Buckeye Road to Baseline Road (FY 2017)

60 16th Street Bethany Home Road & 16th Street to Camelback Road & 24th Street (FY 2018)

19 23rd Avenue Happy Valley Road to Pinnacle Peak Road (FY 2018)

39 Shea Boulevard Dreamy Draw Park-and-Ride to 40th Street (FY 2017)

122 Cactus Road ASU West Campus to 19th Avenue/Dunlap Avenue Light Rail (FY 2017)

ORDERED

 **403** Local Buses

 **44** Rapid Buses

 **122** Dial-a-Ride Vehicles

 **6** Circulator Buses

INSTALLED

 **6** Bus Bays

 **49** Bus Stops

 **349** Bus Shelter Shade Structures

ADDED BUS ROUTES

32 32nd Street Camelback Road to Baseline Road & Priest Drive (FY 2017)

140 Ray Road 48th Street to Gilbert Road (FY 2018)

** On May 4, 2020, service was temporarily reduced due to the COVID-19 pandemic and its impact on transit demand.*

BUS AND DIAL-A-RIDE

 **CUMULATIVE PROGRESS** JAN. 1, 2016–JUNE 30, 2021

OTHER IMPROVEMENTS COMPLETED

\$250 MILLION RECEIVED
in Federal Transit Administration (FTA) formula grants for Phoenix transit (5.5-year total)

\$16 MILLION RECEIVED in competitive grant funding to purchase buses (5.5-year total)

 **LIQUEFIED NATURAL GAS**
contract saves \$2 million in fuel costs each year (FY 2018)

 **WEST TRANSIT FACILITY**
awarded contract (FY 2019)

 **NORTH AND SOUTH FACILITIES**
awarded contract (FY 2020)

 **ALTERNATIVE TRANSPORTATION SERVICES**
technology enhancements include: ADA Ride, Senior Ride and Senior Center Shuttle, Employment Transportation and Medical Trip (FY 2019)

 **TRIPSPARK**
customer web portal for Dial-a-Ride reservations (FY 2018)

 **SECURITY**
K-9 Security Unit Grant (FY 2017)

 **REGIONAL DIAL-A-RIDE IMPLEMENTED**
eliminating transfers (FY 2017)

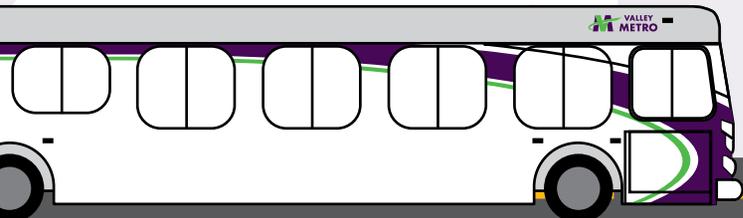
 **SOUTH TRANSIT FACILITY**
refurbished (FY 2019)

 **COMPUTER-AIDED DISPATCH/AUTOMATED VEHICLE LOCATION** upgrades installed (FY 2020)

 **AUDIO ON DIGITAL BUS SIGNS** (FY 2018)

 **FARE COLLECTION SYSTEM** awarded contract (FY 2020)

 **OPERATIONS CONTROL CENTER**
awarded contract (FY 2020)





BUS AND DIAL-A-RIDE



Public transportation options available to Phoenix residents include fixed route bus and light rail service, neighborhood circulators, express commuter buses and alternative transportation services such as DAR for people who are unable to utilize local bus service due to a disability.

The department focuses on operating services that allow riders to have a safe ride while knowing there is much value in physically connecting our communities. With the available services, riders are able to get to schools, health facilities, jobs, grocery stores, pharmacies and many other critical connections. The Phoenix Public Transit Department (PTD) works in partnership with Valley Metro, the regional public transportation agency that provides coordinated transit services to riders in the metro area. For

additional transit information, visit phoenix.gov/publictransit.

Funding and Budget

Bus and DAR receive T2050 sales tax revenues, funding from federal grants, fare revenues, transit advertising and the Regional Public Transportation Fund.

PTD used \$240.0 million in FY 2021 to support ongoing operations and system improvements, which included greater bus frequency, additional and extended bus routes, new vehicles, shaded bus stops and security and technology enhancements. Phoenix plans to use \$1.5 billion in the next five years to continue bus and DAR operations, make capital investments to ensure that the system remains in a state of good repair and further expand and enhance the system.



Since T2050's inception, Phoenix has ordered 122 DAR vehicles. By the end of FY 2026, the city expects to order an additional 240 buses.

COVID-19 Response

In May 2020, previous [Executive Order 2020-18](#), issued on March 30, 2020 was rescinded. The order limited the use of public transportation to only when necessary to conduct or participate in essential activities or attend work in an essential function. In February 2021, the Centers for Disease Control and Prevention (CDC) issued an order requiring all travelers on public transit wear a face covering. This federal mandate remains in place until at least January 18, 2022. Valley Metro encourages riders to wear face coverings while at stops to communicate with operators that they are ready to board, and operators may ask a rider to deboard at the next stop due to non-compliance with the mask mandate. PTD regularly updates staff members and contractors about health and safety protocols as CDC guidelines change.



Phoenix operates around 397,689 miles of bus service weekly. That's enough service to go around the world 16 times.

In addition to face coverings, PTD, Valley Metro and other transit partners maintain a variety of safety measures designed to protect passengers and employees, including:

- Limiting seating on buses to accommodate social distancing measures recommended by national and local health agencies.
- Making face masks available for riders at the Central Station; the Ed Pastor, Metrocenter and Sunnyslope transit centers; and the Burton Barr, Cesar Chavez, Desert Sage, Harmon, Palo Verde, Saguaro and Yucca libraries.
- Installing barriers between the operator and passengers on buses.
- Promoting social distancing by placing signs on buses and at bus stops, and posting messages on websites and social media platforms that provide information on passenger limits and the use of rear-door boarding procedures.

Additional preventive measures include providing hand sanitizer on buses, using visual fare inspections, and employing enhanced cleaning procedures in transit vehicles and on assets throughout the transit system.

Phoenix ridership fell due to the pandemic and increased teleworking. As a result, PTD implemented bus service reductions and partial restorations approved by the Phoenix City Council. City leaders continuously monitor ridership and expect to adjust service hours as ridership patterns change.

Local Fixed Route

Local fixed route bus service is the cornerstone of the public transportation network. Riders can easily navigate to desired locations across the Valley using the grid system on which buses operate. Bus services were available nearly 24 hours per day prior to reductions in service due to the pandemic.

In FY 2021, more than 14 million bus boardings occurred in Phoenix. Throughout the pandemic, riders continued to use public transit for essential trips. PTD communicated with passengers about safety measures put in place throughout the transit environment.

Dial-a-Ride and Alternative Transportation Services

Phoenix's alternative transportation options include DAR, ADA Ride, Senior Ride and Senior Center Shuttle, Employment Transportation and Medical Trip.

DAR provides federally required paratransit service to individuals unable to ride the bus or light rail. This service complements fixed route bus service by operating during the same service hours. DAR passengers can schedule a ride by phone or TripSpark, an online reservation tool launched in 2018.

Circulator Service

Four circulator routes connect local area residents with key neighborhood destinations, including libraries, grocery stores and community centers. Phoenix's routes are ALEX (Ahwatukee Local Explorer), DASH (Downtown Area Shuttle), MARY (Maryvale Area Ride for You) and SMART (Sunnyslope Multi-Access Residential Transit).

RAPID Commuter

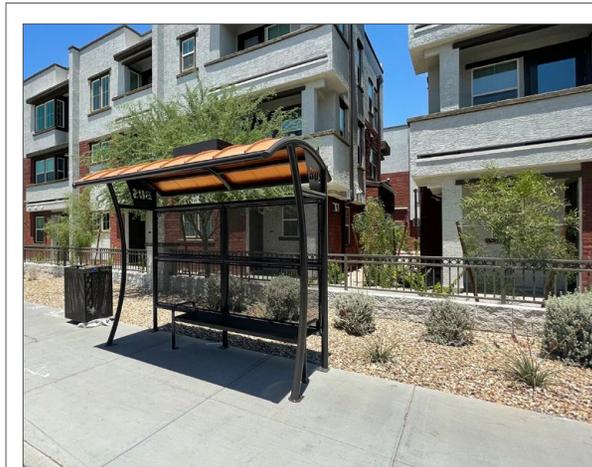
Six RAPID routes provide residents in suburban areas with an alternative to driving to downtown Phoenix.

Park-and-Ride

Park-and-ride facilities provide free parking for transit users. PTD maintains and operates nine park-and-ride facilities, including the Sunnyslope, Metrocenter and Desert Sky transit centers. In addition, Valley Metro manages five light rail park-and-ride locations along the Phoenix portion of the light rail alignment.

Bus Stops and Shelters

PTD added 92 shade structures to existing bus stops during the past fiscal year. Over the next five fiscal years, Phoenix plans to install 80 additional shade structures at existing bus stops each year, totaling 400 new shade structures by FY 2026.



Bus shelter shade structures at stops provide protection from common local environmental elements, such as extreme heat and seasonal monsoons.

Table 2.1 T2050 Bus and Dial-a-Ride

Completed FY 2021 (July 1, 2020–June 30, 2021)

Fund existing bus, RAPID commuter bus, neighborhood circulator and Dial-a-Ride service for 35 years

- Continue to provide safe and reliable services.
- Maintain bus and DAR service hours to match light rail hours. (Note: Valley Metro adjusted light rail hours in response to the COVID-19 pandemic.)

Improve bus frequency

- Partially restored transit services that had been cut due to the COVID-19 pandemic and its impact on transit demand and the transit workforce.

New buses and Dial-a-Ride vehicles

- Ordered 91 buses, three circulator buses and 25 DAR vehicles.

Extend and add bus service to unserved major streets

- Split Route 0A from Route 0 in response to continued light rail construction on Central Avenue.
- Completed outreach on proposed service change that would increase frequency to Route 7.
- Completed outreach on proposed service change that would extend Route 8 to Central Avenue, which would connect it to Route 0A.

Bus bays

- Bus bay installation paused due to COVID-19

Bus stops

- Installed 92 new shade structures at existing bus stops.

Incorporate technology

- Finalized implementation of the Computer-Aided Dispatch/Automated Vehicle Location (CAD/AVL) upgrade on entire fleet.
- Kicked off Regional Fare Collection System (FCS) Improvement Project on August 31, 2020.

Increase security

- Modified security hours at transit centers due to the pandemic and related decreased bus service hours.

Other progress

- New contractor agreements commenced at North and South facilities on July 1, 2020.
- New contractor agreements commenced at Operations Control Center on July 1, 2020.

Technology

Phoenix finalized the conversion of its regional transit fleet to the new Computer-Aided Dispatch/Automated Vehicle Location (CAD/AVL) system supplied by Clever Devices Ltd. The conversion helped in updating the bus system technology and added new features to optimize transit system operations, dispatching and asset tracking.

The Regional Fare Collection System (FCS) Improvement Project kicked off in August 2020 and will offer transit customers increased fare flexibility options such as the ability to store value and use mobile passes. Additional innovative FCS options include fare capping, mobile ticketing and time- and location-based fare products.

Operations and Maintenance

Phoenix uses three facilities for bus maintenance, fueling and cleaning: the West, North and South Transit Facilities. First Transit, Inc., began providing transit services from the West Facility under a new agreement beginning July 1, 2018. Transdev began providing transit services from the North and South facilities under a new agreement beginning July 1, 2020. Transdev also began providing services at the Operations Control Center on July 1, 2020, adding three new controllers to provide increased system support and oversight.

Table 2.2 T2050 Bus and Dial-a-Ride

Planned for FY 2022
Fund existing bus, RAPID commuter bus, neighborhood circulator and Dial-a-Ride service for 35 years
<ul style="list-style-type: none"> Continue to provide safe and reliable services. Maintain bus and DAR service hours to match light rail hours.
Improve bus frequency
<ul style="list-style-type: none"> Restore transit services that had been cut due to the COVID-19 pandemic.
New buses and Dial-a-Ride vehicles
<ul style="list-style-type: none"> Order 40 buses, five circulator buses and 25 DAR vehicles.
Extend and add bus service to unserved major streets
<ul style="list-style-type: none"> Implement service change that would increase frequency to Route 7. Implement service change that would extend Route 8 to Central Ave., which would connect it to Route 0A.
Bus stops
<ul style="list-style-type: none"> Install 80 new shade structures at existing bus stops.
Increase security
<ul style="list-style-type: none"> Increase security as service expands.
Incorporate technology
<ul style="list-style-type: none"> Continue work on the future launch of FCS mobile application.

Table 2.3 T2050 Bus and Dial-a-Ride

Planned for FY 2023–2026
Fund existing bus, RAPID commuter bus, neighborhood circulator and Dial-a-Ride service for 35 years
<ul style="list-style-type: none"> Continue to provide safe and reliable services. Maintain bus and DAR service hours to match light rail hours.
New buses and Dial-a-Ride vehicles
<ul style="list-style-type: none"> Order buses: 40 (FY 2022), 40 (FY 2023), 40 (FY 2024), 60 (FY 2025), 60 (FY 2026). Order circulator buses: 5 (FY 2022), 3 (FY 2023), 3 (FY 2024), 3 (FY 2025), 3 (FY 2026). Order 25 DAR vehicles each fiscal year.
Extend and add bus service to unserved major streets
<ul style="list-style-type: none"> FY 2023: Add peak hour frequency on at least three local routes. FY 2023: Extend bus service to Lower Buckeye Road.
Circulator Service
<ul style="list-style-type: none"> FY 2023: Improve MARY and ALEX service to every 30 minutes.
Bus stops
<ul style="list-style-type: none"> Install 400 new shade structures at existing bus stops.
Increase security
<ul style="list-style-type: none"> Increase security as service expands.
Incorporate technology
<ul style="list-style-type: none"> FY 2022: Launch FCS mobile application. FY 2023: Launch reloadable smart cards and reduced fare registration program.



3.0

High Capacity
Transit

HIGH CAPACITY TRANSIT



CUMULATIVE PROGRESS JAN. 1, 2016–JUNE 30, 2021

LRT Ongoing Projects

NORTHWEST EXTENSION PHASE II

- Began construction in August 2020.
- Awarded three allocations for the FTA Capital Investment Grants program (\$50.6 million in August 2020, \$49.4 million in December 2020 and \$58 million in May 2021).
- Awarded \$1 million for Transit Oriented Development (TOD) Planning Pilot Grant from the FTA.

SOUTH CENTRAL EXTENSION/DOWNTOWN HUB

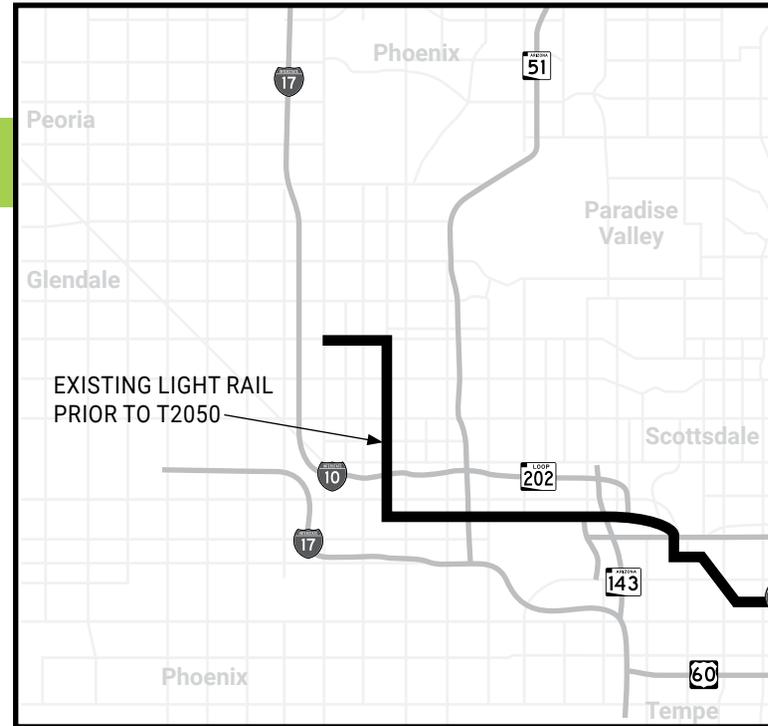
- Awarded \$530 million Full Funding Grant Agreement from the FTA.
- Began track and electrical installation work.
- Launched \$2.3 million Small Business Financial Assistance Program (SBFAP) pilot to provide direct financial assistance to small businesses directly on the construction route.

CAPITOL EXTENSION

- Continued preparing the federally required Environmental Assessment.
- Began preliminary design, which includes identifying station areas.
- Awarded \$2.4 million grant to perform TOD planning along Capitol and I-10 West Extensions from the FTA.

I-10 WEST EXTENSION

- Continued analysis of transit types, funding opportunities and evaluation of extending the line to the Desert Sky Transit Center.
- Awarded \$2.4 million grant to perform TOD planning along Capitol and I-10 West Extensions from the FTA.



Light Rail Transit (LRT) Completed Projects

50TH STREET STATION

- Opened April 25, 2019.
- Received Sustainable Infrastructure Award from Arizona State University's Metis Center.

NORTHWEST EXTENSION PHASE I

- Service began March 19, 2016.

BRT SERVICE

- Finalized the public education and community outreach campaign seeking input on six potential corridors.

LRT Deferred Projects

NORTHEAST EXTENSION

- Deferred to end of T2050 program by Phoenix City Council (2018).

WEST PHOENIX TRANSIT CORRIDOR STUDY

- Deferred to end of T2050 program by Phoenix City Council (2019).

- CTC recommended Phoenix City Council approval of the initial BRT corridor of 35th Avenue/Van Buren Street.





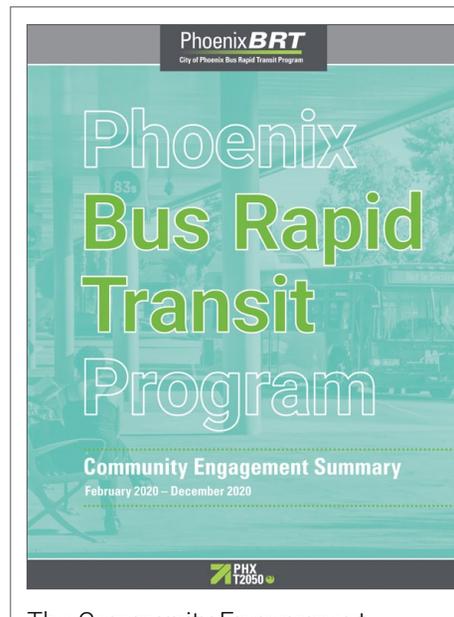
HIGH CAPACITY TRANSIT



High capacity transit (HCT) serves more customers than traditional bus service because it uses larger-capacity vehicles. HCT also offers faster travel because it bypasses vehicular traffic.

For instance, Phoenix's light rail service is able to operate at faster travel speeds because it runs in an exclusive guideway with prioritized traffic signaling. The 16.5 miles of light rail service within the city of Phoenix is a substantial portion of the existing 28.2-mile Valley Metro Rail light rail system. Residents use the system to connect between the downtown areas of Phoenix, Tempe and Mesa, as well as Sky Harbor Airport and many other key destinations in between.

In addition to light rail, bus rapid transit (BRT) is a key component of continuing to expand the city's HCT network. The BRT program completed an 11-month public education and community outreach campaign, which ran from February to December 2020. The information from this outreach effort, in addition to the transit analysis, was used to identify the recommended initial BRT corridor, which will offer improved speed, reliability and convenience. To accomplish this, BRT potential plans include transit signal priority and queue jump lanes, which give buses a "head start" at intersections. BRT will also use the input gathered to evaluate dedicated bus lanes throughout the corridor or in selected areas.



The Community Engagement Summary identifies outreach tools and materials used to engage and educate the public and solicit feedback about BRT.

Funding and Budget

The cities of Phoenix, Tempe and Mesa share the funding obligations for the ongoing operations and maintenance of light rail. Expenses include vehicle operations, security and fare collection, and vehicle and system maintenance and administration.

Phoenix allocated \$231.1 in FY 2021 to support ongoing light rail operations and expansion. T2050 includes an investment of more than \$2 billion to expand and improve the city's HCT network over the next five years. The plan includes light rail improvements and expansion and development of BRT. In addition to revenues generated by the city's T2050 sales tax, other funding sources include federal grants, the Regional Public Transportation Fund, fares and advertising.

COVID-19 Response

In FY 2020, Valley Metro modified light rail hours in response to the COVID-19 pandemic, and these modifications remained in place through FY 2021. The first full trip on light rail began at approximately 4:45 a.m. with the last trip starting at 11 p.m. Adjustments included a 15-minute frequency from 5 a.m.–6 p.m. with no late-night service on Friday or Saturday. Sunday service remained the same.

Construction activities continued as planned.

Table 3.1 T2050 High Capacity Transit

Completed FY 2021 (July 1, 2020–June 30, 2021)
Increase light rail in Phoenix
Northwest Extension Phase II
<ul style="list-style-type: none"> Began construction in August 2020. Awarded two budget allocations from Capital Investment Grants from the FTA (\$50.6 million in August 2020 and \$49.4 million in December 2020). Awarded \$1 million for Transit Oriented Development (TOD) Planning Pilot Grant from the FTA.
South Central Extension/Downtown Hub
<ul style="list-style-type: none"> Awarded \$530 million full funding grant agreement from the FTA. Track and electrical installation work began. Launched \$2.3 million Small Business Financial Assistance Program (SBFAP) pilot to provide direct financial assistance to small businesses directly on the construction route.
Capitol Extension
<ul style="list-style-type: none"> Began preliminary design, which includes identifying station areas. Continued preparing the federally required Environmental Assessment. Awarded \$2.4 million FTA grant to conduct TOD and affordable housing planning around the light rail stations along the Capitol and I-10 West Extensions.
I-10 West Extension
<ul style="list-style-type: none"> Continued analysis of transit types, funding opportunities and evaluation of extending the line to the Desert Sky Transit Center. Awarded \$2.4 million FTA grant to conduct TOD and affordable housing planning around the light rail stations along the Capitol and I-10 West Extensions.
Begin Bus Rapid Transit Program
<ul style="list-style-type: none"> Finalized the public education and community outreach campaign seeking input on six potential corridors. CTC recommended Phoenix City Council approval of the initial BRT corridor of 35th Avenue/Van Buren Street.

Light Rail Service

Northwest Extension Phase II

Phase II of the Northwest Extension will bring light rail nearly to Metrocenter. The extension will run west on Dunlap Avenue from 19th Avenue, north on 25th Avenue and west on Mountain View across I-17, terminating near Metrocenter.

Construction began in August 2020 and the extension is currently scheduled to open in 2024, which is three years earlier than originally anticipated.

The project has received three budget allocations from Capital Investment Grants from the FTA (\$50.6 million in August 2020, \$49.4 million in December 2020 and \$58 million in May 2021). These funds signify ongoing federal support for Phoenix's projects, and the importance of transit to the growing metro Phoenix area.

South Central Extension/Downtown Hub

This extension adds 5.5 miles to the light rail system and connects South Phoenix residents to downtown Phoenix and the light rail network. The project includes a hub in downtown Phoenix, two park-and-rides and public art.

Construction began on the South Central Extension in October 2019 and the new line is expected to be operational by 2024.

The FTA awarded the project a full funding grant agreement of \$530 million in August 2020.

In January 2021, the Small Business Financial Assistance Program (SBFAP) was launched. It is a one-year pilot to provide direct financial assistance to locally owned, small businesses immediately adjacent to construction activities along the corridor.

Street, track and utility relocation work continues, with station platform work scheduled to start in August 2021.



Rail construction continues on the South Central Extension/Downtown Hub.

Capitol Extension

The 1.4-mile Capitol Extension, originally known as Capitol/I-10 West Phase I, will connect the existing light rail system in downtown Phoenix to the Arizona state capitol.

In November 2020, the project’s Environmental Assessment (EA) and preliminary design began. The EA evaluates the environmental aspects of the project and provides a detailed analysis of how light rail would operate along the route.

Next steps will include continued design work, identification of station locations and continued community outreach. The project is currently scheduled to be completed in 2026.

I-10 West Extension

The I-10 West light rail extension will connect downtown Phoenix and the state capitol to the 79th Avenue Park-and-Ride in Maryvale. The project is expected to be completed in 2030.

The project analysis, which began in 2020, includes an analysis of transit types and funding opportunities, and an evaluation of extending the line to the Desert Sky Transit Center.

In March 2021, the project team had completed outreach to West Valley communities, gaining valuable input about project plans.

Next steps will include finalizing the project analysis and continuing community outreach.

Table 3.2 T2050 High Capacity Transit

Planned for FY 2022
Increase light rail in Phoenix
Northwest Extension Phase II
<ul style="list-style-type: none"> Continue utility relocation and rail construction.
South Central Extension/Downtown Hub
<ul style="list-style-type: none"> Continue utility relocation and rail construction.
Capitol Extension
<ul style="list-style-type: none"> Develop loop options and receive public input. Present a route recommendation to Phoenix City Council by late fall 2021.
I-10 West Extension
<ul style="list-style-type: none"> Continue analysis of the transit type and potential extension to Desert Sky Transit Center, with a recommendation expected by mid-2021. Continue evaluating portions to expedite the project.
Begin Bus Rapid Transit program
<ul style="list-style-type: none"> Obtain approval of the initial BRT corridor.

Table 3.3 T2050 High Capacity Transit

Planned for FY 2023–26
Increase light rail in Phoenix
Northwest Extension Phase II
<ul style="list-style-type: none"> Complete construction, with anticipated opening in 2024.
South Central Extension/Downtown Hub
<ul style="list-style-type: none"> Complete construction, with anticipated opening in 2024.
Begin Bus Rapid Transit program
<ul style="list-style-type: none"> Begin planning, design and construction of one or more BRT corridors. Timing and schedule to be determined by the CTC and Phoenix City Council.

Bus Rapid Transit

Phoenix will develop the BRT program based on where current and future transit riders need service most. The project team identified the following six potential BRT corridors based on three factors – demographic and socioeconomic data, transit performance and forecasted ridership:

- Camelback Road and 24th Street
- Indian School Road and 24th Street
- Thomas Road and 44th Street
- McDowell Road and 44th Street
- 19th Avenue and Van Buren Street
- 35th Avenue and Van Buren Street

In February 2020, the Phoenix BRT team launched an 11-month community outreach campaign to educate and engage the public on the program. The goal was to solicit input on the six potential BRT corridors and four potential network scenarios. During this time, the team held 26 in-person or virtual meetings, connected with more than 1,200 people and fielded/answered nearly 600 questions and comments.

Some tools the Phoenix BRT team used to gather this input included:

- Shape Your BRT survey, which ran from June 2020 through December 2020
- Online meeting at meetphoenixbrt.com
- Two live virtual meetings, one in English on Nov. 10, 2020, and one in Spanish on Nov. 17, 2020

On May 27, 2021, the CTC recommended the Phoenix City Council approve the initial BRT corridor of 35th Avenue and Van Buren Street. The next step is to present the results from community engagement efforts and technical

analysis to the Phoenix City Council for consideration in fall 2021.

In FY 2022, the Phoenix BRT Program will focus on obtaining approval of the initial corridor. The BRT Program will then advance this corridor into detailed planning, conceptual design and corridor-specific outreach. The primary efforts will include the identification of the BRT alignments and stations, development of the operating plan, completion of the funding plan and selection of the BRT vehicle. The BRT webpage, [Phoenix.gov/BRT](https://phoenix.gov/BRT), provides information about the new program, including frequently asked questions.

BRT vs. RAPID/Express

BRT takes the capacity and speed of light rail and combines it with the flexibility and simplicity of a bus system.

	Areas served	Users	Operating hrs	Frequency	Capacity
BRT	 major roads	 all users	12H DAILY all day	approximately every 10 minutes during the day	 100-150 passengers per bus
RAPID/ Express Bus	 Park-and-Ride service to downtown	 specifically for commuters	AM&PM RUSH HOUR during peak "rush" hour	approximately every 10 to 30 min during peak "rush" hour depending on routes	 60-80 passengers per bus



4.0

Street
Maintenance and
Improvements

STREET MAINTENANCE AND IMPROVEMENTS



CUMULATIVE PROGRESS JAN. 1, 2016–JUNE 30, 2021

IMPROVED/INSTALLED

20,693

ADA RAMPS



69 MILES OF NEW SIDEWALKS



STREET MAINTENANCE AND IMPROVEMENTS



The Street Transportation Department works to provide a safe and sustainable transportation network for everyone, including pedestrians, bicyclists and motorists.

To ensure that people and goods move efficiently through the transportation network, the department's work includes the pavement preservation program, asphalt and pothole repair and installation of street signs, traffic signals, streetlights, bikeways and Americans with Disabilities Act (ADA)-compliant ramps and sidewalks.

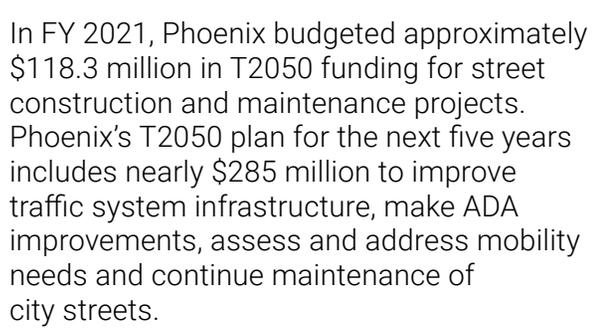
Due to a well-defined scope, the Street Maintenance Division plans and executes many street improvement projects such as resurfacing and striping changes. However, larger-scale, more complex projects require a project assessment phase prior to design and construction. Examples of these more complex projects include turn lane improvements, lane additions and drainage studies.

The Street Transportation Department also conducts plan reviews for private development projects, construction inspections, materials testing and implementation of technology enhancements such as Geographic Information Systems (GIS). Visit phoenix.gov/streets for additional information.



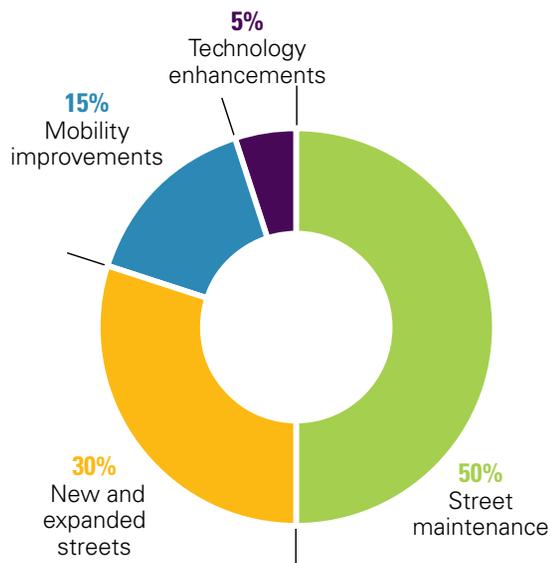
Dunlap Avenue between 7th Street and 15th Street received mill and overlay work, which includes removal of the top layer of a street (milling) followed by laying new asphalt (overlying).

Funding and Budget

Phoenix streets receive funding from a variety of sources, including 13.8% of T2050 sales tax, the state-collected motor fuel tax, city's general fund, regional/Maricopa Association of Governments (MAG) funds, federal funds, grants and impact fees.  shows the distribution of T2050 funds within the Street Transportation Department.

In FY 2021, Phoenix budgeted approximately \$118.3 million in T2050 funding for street construction and maintenance projects. Phoenix's T2050 plan for the next five years includes nearly \$285 million to improve traffic system infrastructure, make ADA improvements, assess and address mobility needs and continue maintenance of city streets.

Figure 4.1 T2050 Funds for Street Improvement



COVID-19 Response

Street paving, pothole patching, sign replacement, lane striping, traffic signal servicing and installation and streetlight repair continued through COVID-19 because they were considered essential city services. During weeks with fewer people driving, crews were able to work on major roads.

Throughout this fiscal year, planning and design continued with community engagement occurring on virtual platforms. The shift to virtual engagement has resulted in high levels of engagement and valuable input for the project teams.

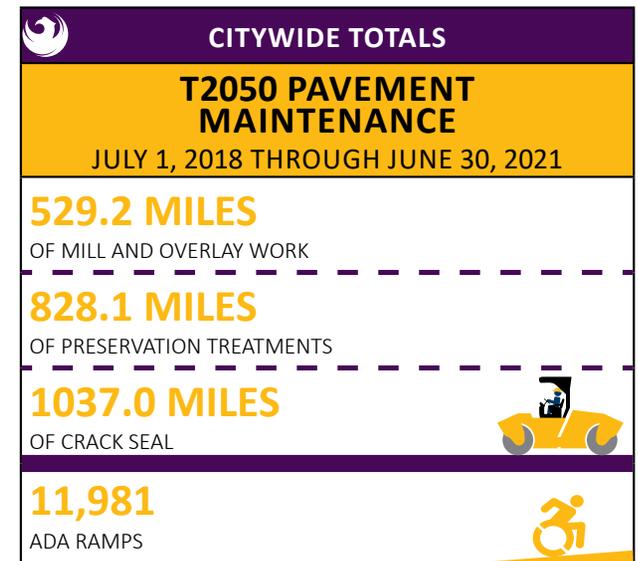
Updates about health and safety protocols were regularly distributed to project teams and road crews, allowing schedules to be updated accordingly. Health and safety remain a top priority for the department.

Accelerated Pavement Maintenance Program

In 2018, the Phoenix City Council created the Accelerated Pavement Maintenance Program (APMP) and allocated \$200 million of additional funding over five years.

In June 2021, APMP celebrated passing the 500 mile mark of mill and overlay in just three years. In FY 2021 alone, the department performed mill and overlay treatment on 128 miles of streets, 436 miles of pavement preservation and 220 miles of crack seal in preparation for future work. The 2021 paving season currently has 79 miles of overlay planned.

The annual Pavement Condition Report details the paving assessment process, pavement treatments and current conditions. The reports are available on the city's [website](#).



Active Transportation Program

The Active Transportation Program (ATP) strives to connect, improve and expand the city's pedestrian and bicycle network. Active transportation and transit are highly interconnected because users depend on active transportation to navigate between light rail, BRT and bus routes.

As the Street Transportation Department repaves streets, the ATP identifies opportunities to update striping plans to add or widen bike lanes, add buffers to existing bike lanes and add markings in the intersections on major bikeways. Buffered bike lanes and protected bike lanes create more space between sidewalks and vehicle travel lanes, improving the walking experience.

The ATP also advocates for multi-use paths and street crossings. Projects along canals and other off-street trails strengthen the active transportation network and create a better quality of life for everyone.

The Active Transportation Plan, which includes a Bicycle Master Plan update, will launch its public outreach process in fall 2021. The ATP looks forward to hearing residents' priorities for enhancing the active transportation network.

Mobility Studies

The Street Transportation Department conducts mobility studies to identify barriers for pedestrians and bicyclists as they travel to neighborhood destinations. Phoenix identified 39 locations for study at the inception of T2050 and has completed 12 studies.

To improve safety, convenience and quality of life, the studies' recommendations have included opportunities for constructing new sidewalks, installing or improving ADA curb ramps and installing streetlights, bicycle facilities, traffic signals, shade trees and connections to transit stops.

In FY 2022, the Street Transportation Department will partner with the Neighborhood Services Department to use Phoenix's federal Community Development Block Grant to install 305 ADA ramps recommended by the mobility studies.

Pilot Programs

Recycled Asphalt Program

The City of Phoenix Recycled Asphalt Pavement (RAP) Program launched in March 2020. Asphalt millings generated from mill and overlay projects are crushed and screened to an engineered specification for reuse. By using RAP, the city reduces the use of mined materials. The project team also expects to realize cost savings through these sustainable practices.

Phoenix is currently replacing virgin aggregate with 100% RAP in slurry seal and microsurfacing projects, and 20% RAP in overlay projects.

RAP Program Summary

Project Type	Number of Locations	Percentage of RAP Used	Tons of RAP Used	Miles Paved with RAP
Slurry Seal	17	100%	6,500	41
Microsurfacing	7	100%	2,500	5
Overlay	5	20%	2,500	4.5

Since the program began, approximately 11,500 tons of aggregate have been recycled.

Cool Pavement

In October 2020, the Street Transportation Department applied cool pavement coating to selected streets in eight neighborhoods and one city park. The coating, which is lighter in color than traditional asphalt coatings, reflects sunlight and retains less heat compared to traditional asphalt coatings. Therefore, cool pavement has the potential to offset rising nighttime temperatures in Phoenix. The pilot program will study the effectiveness and durability of the material and the ability of the coating to extend the life of the existing pavement. The Street Transportation Department expects to announce initial study results in early FY 2022. For more information about the pilot program, visit phoenix.gov/streets/coolpavement.



Cool pavement is a water-based asphalt treatment that is applied on top of the existing asphalt pavement.

**Table 4.1
T2050 Street Maintenance and Improvements**

Completed FY 2021 (July 1, 2020–June 30, 2021)

Street projects

- 30 major street projects in the project assessment phase, with two assessments completed.
- 12 major street projects in design.
- 28 major street projects in construction.
- 31 major street projects completed.

Street pavement and overlays

- Continued the Accelerated Pavement Maintenance Program, for which the Phoenix City Council authorized an additional \$200 million to fast-track pavement maintenance through FY 2024.
- 74.3 miles of new asphalt pavement on major streets.
- 146.5 miles of other pavement treatments, such as crack and fog sealing, on major collector streets.
- 53.5 miles of local street paving.
- 509.9 miles of other pavement treatments, such as crack and fog sealing, on local streets.

Bicycle lanes

- Installed 32.2 miles of lanes.
- Upgraded 1 mile of existing bike lane miles to protected bike lanes.
- Upgraded 34.5 miles of existing bike lanes to buffered bike lanes.
- Installed 6 linear miles of new multi-use paths.

Streetlights

- Installed 999 new streetlights.

Sidewalks

- Constructed 12.2 miles of sidewalks.

Mobility studies

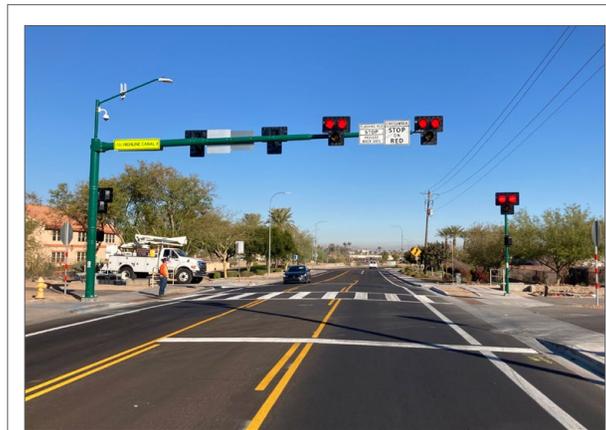
- Completed one mobility study.

Intersection technology enhancements

- Replaced 230 street signs at major intersections with illuminated signs.
- Repainted all signal poles at 97 major intersections to extend their lifecycles.
- Installed 74 new left-turn arrows at warranted intersections.
- Installed two pedestrian High-intensity Activated crossWalks (HAWKs).

Intersection and Technology Enhancements

Phoenix uses a variety of technology enhancements, ranging from rapid flashing beacons and enhanced illumination to installing High-intensity Activated crossWalks (HAWKs). Other T2050 technology enhancements include improving and maintaining traffic control equipment, adding left-turn arrows at warranted intersections, replacing street name signs with retroreflective signs that feature light-emitting diode (LED) lighting and installing updated signals, signage, detection equipment and traffic management and monitoring systems.



HAWKs enhance pedestrian safety at busy intersections and mid-block locations.

The city leveraged T2050 funding as a match for federal funding for fiber optic cable installation projects. The FY 2022 project will install 12 miles of fiber along Indian School Road and will provide connections between the Maricopa County Department of Transportation, the City of Glendale and the City of Phoenix. The FY 2023 project will install 12 miles of fiber along Baseline Road and will provide connections for: the Arizona Department of Transportation between State Route 202 and Interstate 10; the City of Tempe for three signals west of Interstate 10; and the City of Phoenix for all Phoenix-managed signals on Baseline Road.

These projects augment the city's fiber backbone. The traveling public benefits because the Traffic Management Center (TMC) can better monitor traffic with cameras that send full streaming video back to the TMC. In addition, intelligent devices installed at intersections transmit traffic performance metrics to the TMC, allowing the TMC to adjust traffic signal timing to improve traffic flow and better serve the public. Similarly, the expanded fiber backbone provides for improved, integrated connections between stations for emergency responders such as fire and police.

Information Technology and GIS

The Management Services Division digitizes, validates and reports on assets. The division uses GIS technology to catalogue location data and maintenance records on bikeways, pavement, lighted street signs and ADA curb ramps. Ultimately, the data allow for more efficient planning, analysis and reporting.

Recent improvements in these processes have included:

- Creating field staff applications for reporting condition and improvement needs related to assets such as traffic signals, pavement, curb ramps, sidewalks and streetlights.
- Improving the accuracy, usefulness and availability of existing traffic signal data for the entire department.
- Leveraging pavement condition data, with underlying soil condition data, to provide engineers with a broader understanding of problematic areas.
- Using data sources from the city, county and Arizona State University to identify and map tree and shade prioritization areas.
- Updating bikeways, Key Corridors Master Plan and Mobility Studies data to give the ATP team accurate information for planning and implementing improvements.
- Researching and editing thousands of ADA ramp records to build and update the database.

Internal and external applications allow staff and, in many cases, residents to access map services and applications with this GIS information. Some of these include a live active [HAWK traffic signal web map](#), the [pavement maintenance dashboard](#), [bikeways map services](#) and [e-scooter facilities mapping](#).

As staff members in the field make live updates, the accumulated data and analysis tools provide for a more efficient workflow and near-real-time analysis and reporting.

Table 4.2
T2050 Street Maintenance and Improvements

Planned for FY 2022
Street projects
<ul style="list-style-type: none"> • Design 10 major street projects. • Continue construction on 24 major street projects.
Street pavement and overlays
<ul style="list-style-type: none"> • Pave 19 miles on major streets.
Bicycle lanes
<ul style="list-style-type: none"> • Install 30 miles of bike lanes and low-stress bikeways.
Streetlights
<ul style="list-style-type: none"> • Install 100 new streetlights.
Sidewalks
<ul style="list-style-type: none"> • Construct 4 miles of new sidewalks.
Mobility studies
<ul style="list-style-type: none"> • Install 305 ADA ramps based on mobility studies.
Intersection technology enhancements
<ul style="list-style-type: none"> • Replace 240 street signs at major intersections with illuminated signs. • Repaint all signal poles at 80 major intersections to extend their lifecycles. • Install 15 pedestrian HAWKs.



Crews install curb ramps to provide a safe route that people with disabilities can use to transition from a curbed sidewalk to roadway and vice versa.

Table 4.3
T2050 Street Maintenance and Improvements

Planned for FY 2023–2026
Street projects
<ul style="list-style-type: none"> • Conduct one major street project assessment. • Design 11 major street projects. • Continue construction on 20 major street projects.
Street pavement and overlays
<ul style="list-style-type: none"> • Pave at least 77 miles of new pavement on major streets.
Bicycle lanes
<ul style="list-style-type: none"> • Install 123 miles of bike lanes and low-stress bikeways.
Streetlights
<ul style="list-style-type: none"> • Install 400 new streetlights.
Sidewalks
<ul style="list-style-type: none"> • Construct 15 miles of new sidewalks.
Intersection technology enhancements
<ul style="list-style-type: none"> • Replace 960 street signs at major intersections with illuminated signs. • Repaint all signal poles at 320 major intersections to extend their lifecycles. • Install 25 pedestrian HAWKs.



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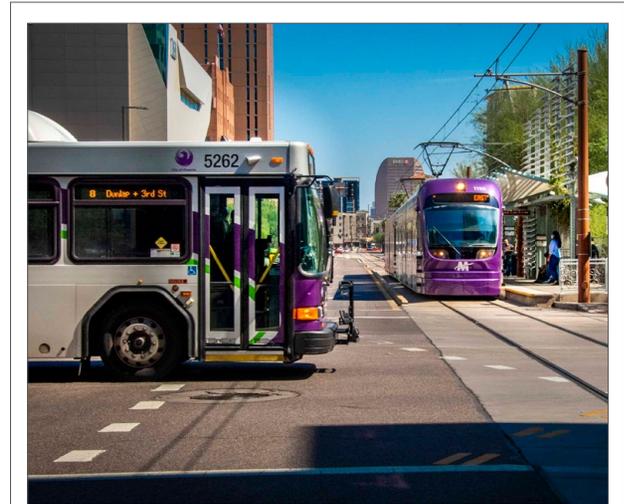
Appendix

APPENDIX

Lifecycle Programming Assumptions

As with any long-term plan, preparation of the financial model for the T2050 program required many assumptions for estimated costs, revenues and timing of projects and new services. Key assumptions of the T2050 program include:

- The implementation of projects and new services is projected to occur over the course of the 35-year plan as funding allows and service demand dictates.
- Capital and operating costs are estimated to grow at average inflation rates of 3–4% annually over the life of the plan. These inflation rates are somewhat higher than the typical annual increases the city has experienced in the large transit contracts, and provide for more conservative cost estimates.
- T2050 sales tax revenues are estimated to grow at an average annual rate of 4.75%, which is slightly lower than the 5.2% average annual growth rate in the Arizona Department of Transportation's most recent forecast prepared in September 2020 for the Proposition 400 Maricopa County Transportation Excise Tax.
- The existing 0.5% Proposition 400 regional tax, currently in place through Dec. 31, 2025, is assumed to be extended for at least 20 years.
- Federal transit formula funds are assumed to continue through the life of the plan, with very modest increases over time, and are consistent with MAG's long-term Regional Transportation Plan.
- The financial model is consistent with Valley Metro assumptions, ranging from 0% to 39%, for the funding level from discretionary federal Capital Investment Grants for light rail capital costs. Discretionary federal Capital Investment Grants, on average, fund more than 40% of total project costs for current rail projects across the country.
- Transit fares are assumed to continue to be lower than the regional fare policy goal of 25% recovery of direct transit operations costs, reflecting the current fare recovery rate. Decreased fare revenues due to the COVID-19 pandemic are assumed to recover very slowly over 20 years.
- Some capital funding is assumed to be provided through financing, as needed, with the corresponding costs estimated using typical municipal bond offerings. Less expensive and more flexible types of financing will be explored to minimize financing costs.
- Other revenues, such as transit advertising and interest earnings on fund balance, are forecasted using very low growth rates.
- An operating reserve equivalent to 15% of annual public transit operating costs is assumed to be maintained throughout the life of the plan.



In FY 2021, Phoenix allocated \$240.0 million to support bus and DAR operations and \$231.1 million to support ongoing light rail operations and expansion.

Impact of COVID-19

Phoenix had expected that the global pandemic, which began in 2020 as a result of the contagious COVID-19 virus, would reduce revenue projections for the coming years because ridership numbers fell significantly in 2020. However, there were some economic drivers that had a positive impact on revenue projection, which city leaders continue to monitor.

This report notes the changes experienced due to the pandemic within each program area.

T2050 Sales Tax Projected Revenue Stream

The following table includes the projected sales tax revenue for each year of the T2050 plan. Additionally, the table shows the anticipated allocation to the Public Transit and Street Transportation departments.

Table A.1 T2050 Sales Tax Projected Revenue Stream

Fiscal Year	Overall T2050 (2015 Forecast)	Actual Overall	Forecasted Public Transit (86.2%)	Actual Public Transit	Forecasted Street Transportation (13.8%)	Actual Street Transportation
2016	\$89,125,000	\$98,593,240	\$76,826,000	\$85,095,392	\$12,299,000	\$13,497,848
2017	\$204,006,000	\$203,352,480	\$175,853,000	\$175,430,201	\$28,153,000	\$27,922,279
2018	\$213,696,000	\$215,805,685	\$184,206,000	\$185,998,894	\$29,490,000	\$29,806,791
2019	\$224,401,000	\$239,179,006	\$193,434,000	\$206,200,341	\$30,967,000	\$32,978,665
2020	\$235,642,000	\$247,592,555	\$203,123,000	\$213,437,765	\$32,519,000	\$34,154,790
2021	\$246,835,000	\$279,348,428	\$212,772,000	\$240,800,097	\$34,063,000	\$38,548,331
2022	\$258,559,000		\$222,878,000		\$35,681,000	
2023	\$270,841,000		\$233,465,000		\$37,376,000	
2024	\$283,706,000		\$244,555,000		\$39,151,000	
2025	\$297,182,000		\$256,171,000		\$41,011,000	
2026	\$311,298,000		\$268,339,000		\$42,959,000	
2027	\$326,085,000		\$281,085,000		\$45,000,000	
2028	\$341,574,000		\$294,437,000		\$47,137,000	
2029	\$357,799,000		\$308,423,000		\$49,377,000	
2030	\$374,794,000		\$323,072,000		\$51,722,000	
2031	\$392,597,000		\$338,419,000		\$54,178,000	
2032	\$411,245,000		\$354,493,000		\$56,752,000	
2033	\$430,779,000		\$371,331,000		\$59,448,000	
2034	\$451,241,000		\$388,970,000		\$62,271,000	
2035	\$472,675,000		\$407,446,000		\$65,229,000	
2036	\$495,127,000		\$426,799,000		\$68,328,000	
2037	\$518,646,000		\$447,073,000		\$71,573,000	
2038	\$543,281,000		\$468,308,000		\$74,973,000	
2039	\$569,087,000		\$490,553,000		\$78,534,000	
2040	\$596,119,000		\$513,855,000		\$82,264,000	
2041	\$624,435,000		\$538,263,000		\$86,172,000	
2042	\$654,095,000		\$563,830,000		\$90,265,000	
2043	\$685,165,000		\$590,612,000		\$94,553,000	
2044	\$717,710,000		\$618,666,000		\$99,044,000	
2045	\$751,801,000		\$648,052,000		\$103,749,000	
2046	\$787,512,000		\$678,835,000		\$108,677,000	
2047	\$824,919,000		\$711,080,000		\$113,839,000	
2048	\$864,102,000		\$744,856,000		\$119,246,000	
2049	\$905,147,000		\$780,237,000		\$124,910,000	
2050	\$948,142,000		\$817,299,000		\$130,844,000	
Total	\$16,679,368,000		\$14,377,615,000		\$2,301,753,000	

FY 2021 Financial Overview

The FY 2021 Financial Overview table summarizes the budgeted and actual revenue and expenditures during FY 2021.

Table A.2 FY 2021 Financial Overview (July 1, 2020 - June 30, 2021)

	Budget	Actuals	Amount Over/(Under Budget)	Percent Over/Under Budget	Footnotes
Source of Funds					
Dedicated Sales Tax - T2050	249,230,000	279,348,428	30,118,428	12.1%	1
Local Transportation Assistance	4,300,000	4,220,195	(79,805)	-1.9%	
Bus Fare Revenue	10,928,000	1,862,673	(9,065,327)	-83.0%	2
DAR Fare Revenue	375,000	15,235	(359,765)	-95.9%	2
Rail Fare Revenue	1,672,000	1,023,067	(648,933)	-38.8%	2
Federal Transit Funds	387,644,000	220,192,763	(167,451,237)	-43.2%	3
Regional Transportation Tax	156,242,224	9,034,121	(147,208,103)	-94.2%	3
Debt Proceeds	83,043,000	-	(83,043,000)	-100.0%	4
Other Revenue	8,305,078	11,411,358	3,108,352	37.4%	5
Fund Balance	127,935,017	(33,598,531)	(161,535,620)	-126.3%	6
Total Revenues	\$1,029,674,318	\$493,509,309	\$(536,165,009)	-52.1%	
Use of Funds					
Transit Operations					
Local Fixed Route Bus	\$143,257,689	\$130,249,312	\$(13,008,376)	-9.1%	
RAPID Commuter Bus	7,674,375	1,946,909	(5,727,466)	-74.6%	7
Neighborhood Circulator	5,119,455	3,540,212	(1,579,243)	-30.8%	7
Bus Rapid Transit	-	-	-	N/A	
DAR Operations	20,158,130	18,139,206	(2,018,924)	-10.0%	7
Light Rail Operations	40,217,631	10,296,847	(29,920,784)	-74.4%	8
Security	12,173,570	11,533,717	(639,853)	-5.3%	
Administration & Support	22,792,376	22,703,126	(89,249)	-0.4%	
Total Operations	\$251,393,225	\$198,409,329	\$(52,983,896)	-21.1%	
Debt Service	\$8,074,000	\$1,349,645	\$(6,724,355)	-83.3%	9
Capital Projects					
Bus and DAR Vehicles	26,122,960	17,869,053	\$(8,253,907)	-31.6%	10
Bus Passenger Facilities	12,538,861	767,028	(11,771,833)	-93.9%	11
Bus O & M Facilities	26,579,551	3,633,461	(22,946,090)	-86.3%	12
Bus and DAR Technology	70,124,235	32,752,122	(37,372,113)	-53.3%	12
Other Bus Capital	9,866,722	3,736,463	(6,130,259)	-62.1%	13
South Central LRT	392,355,000	132,707,735	(259,647,265)	-66.2%	14
Northwest Phase II LRT	92,654,000	79,797,929	(12,856,071)	-13.9%	14
Capitol/I-10 West Phase I LRT	12,282,000	33,273	(12,248,727)	-99.7%	15
LRT Other	1,841,457	1,359,545	(481,912)	-26.2%	16
Bus Rapid Transit	7,567,700	6,169	(7,561,532)	0.0%	17
Streets – Major Maintenance	91,263,000	15,344,745	(75,918,255)	-83.2%	18
Streets – Major Transportation Projects	21,190,862	854,226	(20,336,636)	-96.0%	19
Streets – Mobility Projects	2,719,745	1,579,585	(1,140,160)	-41.9%	19
Streets – Other	240,000	1,674,000	1,434,000	597.5%	20
Streets – Technology	2,861,000	1,635,000	(1,226,000)	-42.9%	19
Total Capital Projects	\$770,207,093	\$293,750,335	\$(476,456,758)	-61.9%	
Total Expenditures	\$1,029,674,318	\$493,509,309	\$(536,165,009)	-52.1%	

Footnotes detailing the FY 2021 Financial Overview table found on the preceding page include:

1. Better than expected local economic activity resulted in higher sales tax revenues.
2. Rear door boarding's and no fareboxes being used.
3. Decrease due to Capital Project delays.
4. Transit did not need to finance due to federal pandemic relief funds received from FTA and higher than expected sales tax revenues.
5. Higher than expected interest earnings due to federal pandemic relief funds received from FTA and higher than expected sales tax revenues.
6. Fund balance increased due to federal pandemic relief funds received from FTA and higher than expected sales tax revenues.
7. Reduction in revenue miles due to pandemic.
8. Reduction in payments to Valley Metro Rail due to lower service levels and federal pandemic relief funds received from FTA.
9. Transit did not need to finance due to federal pandemic relief funds received from FTA and higher than expected sales tax revenues.
10. Fleet manufacturers' production delays.
11. Laveen Park-and-Ride delayed and no expenditures for bus pullouts.
12. Projects delayed.
13. Unused contingency.
14. Project funding and costs to be budgeted and expended over multiple years.
15. Project delays.
16. Over programmed budget for disposal of remnant properties, Business Assistance Program, McDowell & Central and City Core Staff - West Phx/Central Glendale. Adjusted at Prelim.
17. Longer than expected public/stakeholder involvement process.
18. Bond program was priority, funds were carried over.
19. Unused capacity for contracted services. Funds were carried over.
20. Includes 5 projects that were not initially budgeted under this category.

Five-Year Implementation Plan

The Five-Year Implementation Plan table summarizes the projected distribution of funds collected over the next five years. The table does not include actual collections. Note: BRT capital and operations expenditures are planned to be incurred during this five-year plan, and the amounts reflected are preliminary, pending the results of the BRT study.

Table A.3 Five-Year Implementation Plan (FY 2022–2026)

	FY 2021-2022	FY 2022-2023	FY 2023-2024	FY 2024-2025	FY 2025-2026
Source of Funds					
Dedicated Sales Tax – T2050	\$274,395,000	\$290,825,000	\$306,254,000	\$323,172,000	\$340,952,000
Local Transportation Assistance	4,300,000	4,300,000	4,300,000	4,300,000	4,300,000
Bus Fare Revenue	17,708,957	22,741,511	31,014,395	36,914,095	39,476,367
DAR Fare Revenue	889,066	889,066	941,364	1,035,216	1,150,240
Rail Fare Revenue	4,794,716	5,960,202	8,026,405	12,063,290	12,183,923
Federal Transit Funds	518,867,287	204,800,688	241,076,926	169,589,687	108,930,469
Regional Transportation Tax	64,266,816	78,386,316	66,025,576	68,363,533	67,468,850
Debt Proceeds	-	-	305,500,000	130,627,305	385,000,000
Other Revenue	8,202,649	8,325,689	8,450,574	8,577,333	8,705,993
Fund Balance	(27,685,940)	156,981,049	(115,056,824)	154,201,843	(322,371,200)
Total Revenues	\$865,738,551	\$773,209,521	\$856,532,415	\$908,844,301	\$645,796,641
Use of Funds					
Transit Operations					
Local Fixed Route Bus	\$150,471,083	\$159,633,300	\$165,816,949	\$172,651,191	\$177,572,890
RAPID Commuter Bus	2,444,566	5,652,065	6,273,594	6,533,127	6,713,734
Neighborhood Circulator	3,748,622	6,888,185	7,159,505	7,463,073	7,676,824
Bus Rapid Transit	-	-	2,101,600	7,188,480	7,406,880
DAR Operations	21,231,800	21,868,754	22,524,817	23,200,561	23,896,578
Light Rail Operations	42,484,798	44,142,582	45,865,442	62,143,766	64,583,539
Security	13,060,602	13,452,500	13,856,145	14,271,739	14,700,492
Administration & Support	27,180,000	27,995,400	28,835,262	29,700,320	30,591,329
Total Operations	\$260,621,472	\$279,632,786	\$292,433,314	\$323,152,258	\$333,142,266
Debt Service	\$21,124,625	\$21,122,375	\$21,122,500	\$22,726,250	\$27,952,467
Capital Projects					
Bus and DAR Vehicles	\$46,712,943	\$46,871,000	\$46,964,000	\$59,975,000	\$49,402,904
Bus Passenger Facilities	14,182,195	5,875,000	3,830,000	3,830,000	3,830,000
Bus O&M Facilities	28,246,735	2,200,000	1,850,000	1,850,000	1,850,000
Bus and DAR Technology	39,712,074	1,020,000	2,620,000	8,250,000	2,520,000
Other Bus Capital	12,056,676	3,906,000	3,941,000	3,876,000	3,622,000
South Central Light Rail	266,474,000	256,946,000	267,891,000	176,289,000	46,625,000
Northwest Phase II Light Rail	103,849,000	79,642,000	10,776,000	7,814,000	-
Capitol/I-10 West Phase I Light Rail	9,970,000	30,360,000	97,440,000	136,230,000	71,870,000
Capitol/I-10 West Phase II Light Rail	-	-	-	5,573,788	11,482,004
Other Light Rail	2,032,000	-	-	-	-
Bus Rapid Transit	6,004,282	18,250,000	79,750,000	123,750,000	61,500,000
Total Public Transit T2050 Capital Projects	\$529,239,905	\$445,070,000	\$515,062,000	\$527,437,788	\$252,701,908
Streets – Major Maintenance	\$17,053,000	\$18,130,000	\$19,790,000	\$19,790,000	\$19,790,000
Streets – Major Transportation Projects	\$21,510,252	\$1,707,000	\$2,247,000	\$13,221,678	\$10,485,000
Streets – Mobility Projects	\$9,308,797	\$3,895,360	\$3,697,601	\$336,327	\$95,000
Streets – Other	\$2,639,500	\$1,470,000	\$1,470,000	\$1,470,000	\$870,000
Streets – Technology	\$4,241,000	\$2,182,000	\$710,000	\$710,000	\$760,000
Total Streets T2050 Capital Projects	\$54,752,549	\$27,384,360	\$27,914,601	\$35,528,005	\$32,000,000
Total Capital Projects	\$583,992,454	\$472,454,360	\$542,976,601	\$562,965,793	\$284,701,908
Total Expenditures	\$865,738,551	\$773,209,521	\$856,532,415	\$908,844,301	\$645,796,641
Year End Fund Balance: Public Transit	\$204,623,433	\$52,695,268	\$171,206,141	\$25,738,317	\$350,863,016
Year End Fund Balance: Streets	55,384,351	50,331,466	46,877,417	38,143,398	35,389,899
Total Fund Balance	\$260,007,784	\$103,026,735	\$218,083,559	\$63,881,716	\$386,252,916