



# **FY 2016–2040**

# **Program of Projects**

**City of Glendale, Arizona**

**September 3, 2015**



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## **ACKNOWLEDGEMENTS**

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## ***EXECUTIVE SUMMARY***

This is the 14<sup>th</sup> annual update of the Glendale Onboard (GO) 25-year Transportation Program. The GO Program began in 2001 when voters approved a half-cent sales tax for transportation improvements in the City of Glendale. The GO Program has been implemented in accordance with commitments defined in the half-cent sales tax ballot. This update of the GO Program incorporates:

- Approved FY 2016 Budget.
- Update of all costs and revenues.
- Schedule adjustments to meet construction and bonding realities.

### **MAJOR PROGRESS MADE IN IMPLEMENTING THE GO PROGRAM**

While there have been delays for some GO projects due to revenue shortfalls, all of the project commitments to voters in 2001 have been completed or are programmed for completion. 83<sup>rd</sup> Avenue fixed route bus service is not funded in the GO Program since approval of the FY 2011-2035 Program of Projects.

GO Program milestones include:

- Bus service has been expanded to include evenings and weekends.
- Dial-A-Ride service has been expanded.
- Express bus services are operational.
- All ongoing programs are operational.
- Design Concept Reports have been completed for all GO projects.
- Sixty-six projects have been completed.
- Four projects are under construction.
- Fourteen projects are in design.

#### **Transit** - Since 2001:

- Transit ridership has increased 85%.
- Weekend and evening bus service has been implemented on all active city bus routes and weekday 30 minute service is operational on all active routes, except Union Hills (RT 186).
- The local Glendale Urban Shuttle (GUS) circulator service has been expanded along with Dial-A-Ride services. Service areas have been expanded on two scheduled service routes and a program for taxi subsidies for special needs residents is operational.

- Three transit capital projects are completed to date, while two projects are under construction. Funds are programmed for one future transit capital project.

Transit revenues are lower since the 2008 economic slowdown, which includes lower GO sales tax collections, partial loss of State Local Transportation Assistance Fund (LTAF), and a significant reduction in regional transit funding. Since FY 2008, reduced revenues have caused some reduction in transit service. However, all reduced transit services are scheduled for reinstatement by FY 2030 in the GO Program.

**Streets** - Since 2001:

- Design Concept Reports have been completed for all original street projects identified in 2001.
- Thirty-four street projects have been completed.
- The remaining six street projects are in various stages of design including the Northern Parkway from Dysart Road to Grand Avenue.

**Bicycle and Pedestrian** - Since 2001:

- Construction of 16 bicycle projects has been completed.
- One project (Maryland Avenue Spot Improvements for bike facilities) is under construction.
- Six bicycle/pedestrian projects are in various stages of design.

**Airport** - Since 2001:

Transportation sales tax funds in the GO Program are used as leverage to secure federal and state grants for airport projects. Matching funds are programmed for airport projects that secure federal and state funds.

- To date, 13 airport projects have been completed using matching funds from the GO Program.
- Two Airport capital projects are currently underway with matching funds from the GO Program.

**Ongoing Programs** – Active ongoing GO programs include:

- Neighborhood Traffic Mitigation
- Transportation Systems Management (formerly Intelligent Transportation System)
- Travel Demand Management Program

- Education Program (includes Bicycle Coordination, Transit Marketing, Traffic Education)
- GO Program Administration

All ongoing programs are operational, maintaining assurances made to the voters in 2001.

## **GO PROGRAM FINANCIALLY BALANCED**

A commitment was made to voters in 2001 to maintain a financially balanced, long-range program with expenditures matching anticipated revenues. Accordingly, the FY 2016-2040 GO Program, as listed in Appendix A, is financially balanced

**Costs:** Major cost increases that were common in the initial years of the GO Program have been minimal due to low inflation rates since 2008. Allocations of costs by transportation mode are reflected in Figure EX-1.

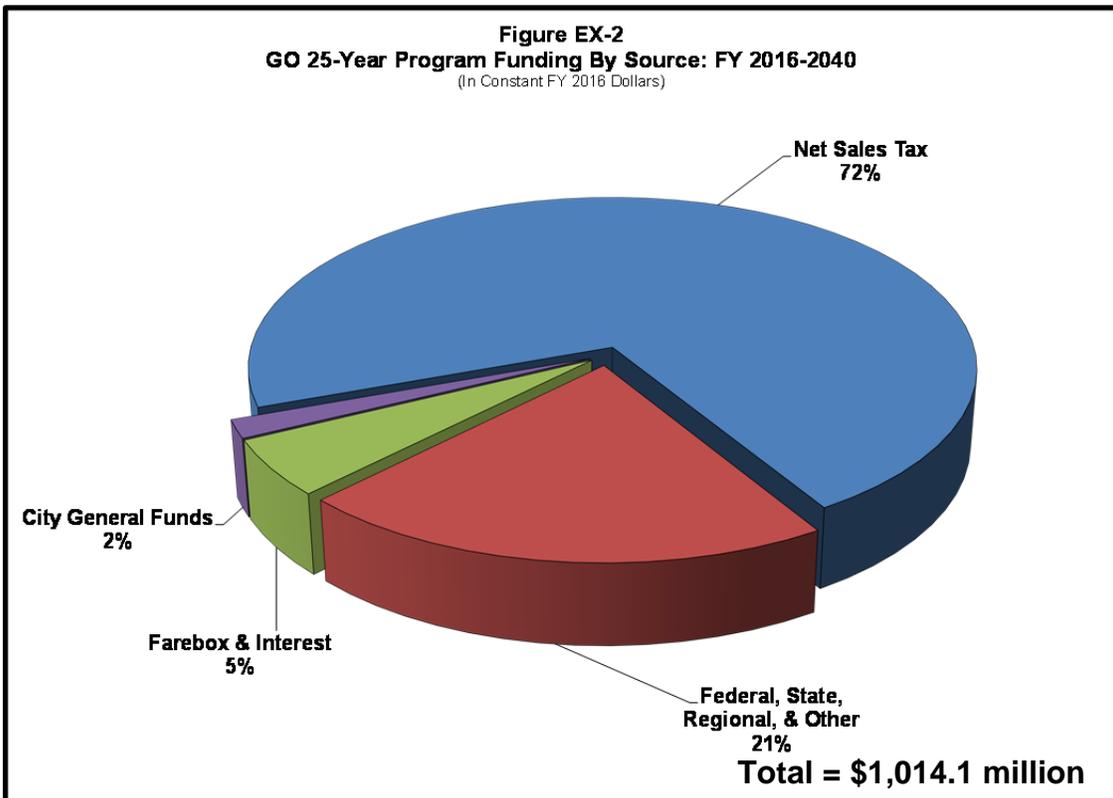
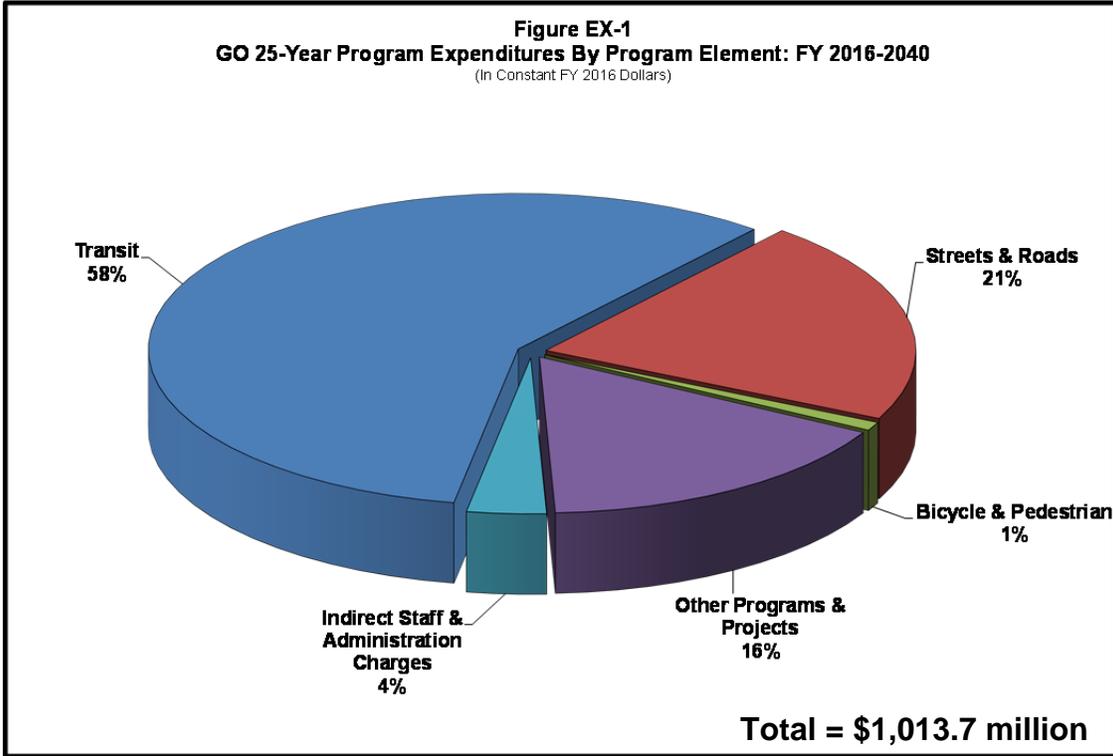
**Revenues:** Annual revenue collections have shown a consistent growth pattern over the recent seven year period (FY 2009-2015) after declining for three years (FY 2008-2010). Over the 25-year period, revenues from transportation sales tax are projected to be strong due to Glendale's continued growth. Apart from the General Fund, other significant funding sources that contribute to the GO Program are the Public Transportation Fund (PTF) and the Local Transportation Assistance Fund (LTAF II). PTF is part of the regional transportation sales tax and is showing reasonable growth but is well below the projections of 2005 when the tax was implemented. LTAF II, after reinstatement in 2012, is expected to be constant. Annual contribution from the City General Fund is assumed to continue over the life of the GO Program with little or no growth. Allocation of funding by revenue sources is shown in Figure EX-2.

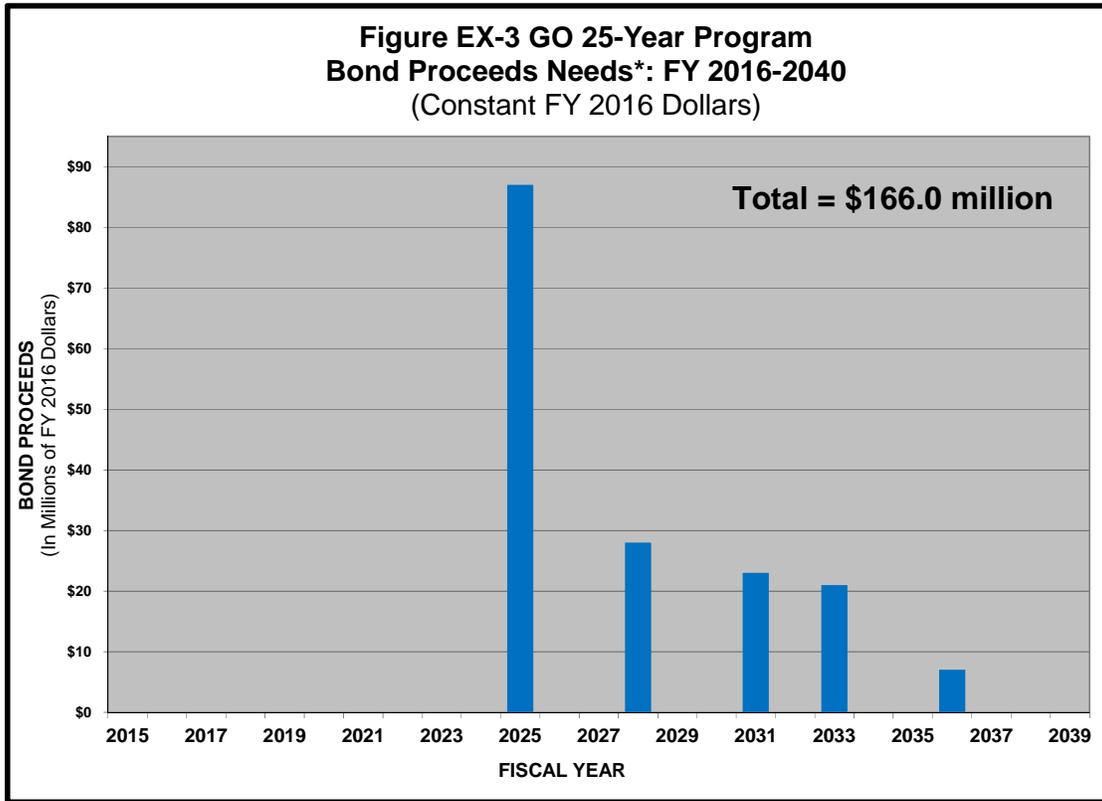
**Bonding:** The first GO Program bond issuance was in 2007. Five additional issuances are planned to meet commitments made in the GO Program. A total of \$166.0 million in bonds are planned over the FY 2016-2040 period. The 2007 Bond Issue carries with it an annual debt service of approximately \$7.1 million. The 2007 Bond Issue received an AA rating from Standard & Poor's with a requirement to meet 2.0 or better gross cumulative debt coverage ratio. Moody's originally rated the 2007 bonds at A2, which has since been revised down to A3 in 2013. This bond issue is scheduled to be paid off in FY 2032. All the future planned bond issues must meet the gross cumulative debt coverage requirements of 2.0 or better. Refer to Figure EX-3 for planned individual bonding amounts over the next 25 years.

## **VOTER ASSURANCES ARE WORKING**

These oversight mechanisms are in place to ensure timely implementation of transportation projects and programs in a cost effective manner.

- **Citizen Transportation Oversight Commission (CTOC):** As specified on the 2001 ballot, CTOC was established in 2002. This 11-member commission typically meets bimonthly (monthly if agenda dictates) to provide citizen oversight of the GO Program as well as approval of the 25-year Program, the annual report, and any program audits.
- **Maps of Projects:** Maps providing locations of projects for voters on the 2001 ballot became part of the GO Program. The Program of Projects is subject to adjustments by CTOC and the City Council. This program forms the basis of the annual budget and the Capital Improvement Program (CIP) as acted on by City Council.
- **Financially Balanced Program:** A commitment was made to voters in 2001 to maintain a financially balanced, 25-year program. Maintaining this balance has proven to be an effective tool to manage the GO Program; if something is added to the program then something needs to be deleted, delayed, or additional funds need to be allocated.
- **Audit:** All City of Glendale finances, including the GO Program, are audited annually. In addition, a performance audit of the GO Program is required every three years. Three performance audits of the GO Program have been completed to date. The third performance audit was completed in March 2015. The fourth audit of the GO Program is underway, which is anticipated to be complete during FY 2016.





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## **1.0 INTRODUCTION**

### **1.1 OVERVIEW**

The voters of Glendale approved a half-cent sales tax for transportation purposes on November 6, 2001. To help ensure the delivery of proposed projects as presented to voters, commitments were made to establish the Citizens Transportation Oversight Commission (CTOC), to issue an annual report, and to annually update the 25-year program of projects. This is the 14<sup>th</sup> annual update to the Glendale Onboard (GO) Transportation Program.

### **1.2 GO PROGRAM BACKGROUND**

The GO Program was established in 2002 pursuant to a vote of Glendale residents held on November 6, 2001. The ballot initiative, labeled Proposition Number 402, was titled:

**An Ordinance for a Comprehensive Transportation Plan to Improve Traffic Flow, Relieve Traffic Congestion, Increase Transportation Choices, Reduce Air Pollution, Promote Economic Vitality, and Provide Regional Transit Connections.**

Ballot language creating the GO Program also included the following specifications (abridged):

*To accomplish this measure, Chapter 21.1 of the Glendale Code shall be amended where applicable to increase the privilege and excise tax rate (known as the sales tax) by one-half of one penny per dollar of sales. The new revenue raised by this measure, which may be used to support bonds to expedite the completion of transportation projects, will be placed in a separate fund that shall be used for transportation purposes only including the following:*

- 1. Intersection Improvements*
- 2. Street Projects*
- 3. Expansion of Existing Bus Service*
- 4. Increased Dial-a-Ride Service*
- 5. Express Bus Service*
- 6. Regional Light Rail Connections*
- 7. Pedestrian and Bicycle Improvements*
- 8. Airport Projects*
- 9. Safety Improvements*

*A Citizens’ Transportation Oversight Commission (CTOC) shall be established. The CTOC shall monitor the transportation fund expenditures to ensure that the voter approved projects in accordance with this measure are completed in a timely and cost-effective manner, and may recommend adjustments to projects when warranted to serve the best interests of the public.*

### **1.3 REPORT PURPOSE, SCOPE, AND ORGANIZATION**

The FY 2016-2040 Program of Projects is the 14<sup>th</sup> in a series that documents the status of the GO Program. A 25-year program of projects can be found in Appendix-A. This Report addresses the following elements, in the order shown:

- Status of GO Program
- Major Accomplishments
- Program Management
- Funding Projections
- Cost Estimates
- 25-Year Program of Projects

## **2.0 STATUS OF GO PROGRAM AND MAJOR ACCOMPLISHMENTS**

### **2.1 INTRODUCTION**

This section reviews the status of commitments that were made to the voters as part of the Proposition 402 ballot language. These commitments were detailed in the Transportation Election Brochure mailed to each household and the Transportation Election Package endorsed by the Citizens Advisory Committee for Transportation Issues (CACTI).

Since 2001, major accomplishments have been made in implementing commitments to voters.

- The half-cent sales tax revenue is being collected and managed in an exclusive fund, independent of other City funds.
- Weekend and evening public transit service has been implemented.
- As of July 1, 2015, 66 projects have been completed, 14 projects are in design, and four projects are under construction.
- All ongoing programs are operational.

All original project commitments to voters remain part of the GO Program. Decline in revenues since establishment of the Program has resulted in some delays, however:

- Recent transit service reductions are planned to be restored in FY 2030.
- Most remaining street projects are programmed for completion by FY 2026.
- Budgets for ongoing programs remain in the Program.
- Completion of Light Rail Transit (LRT) is planned for FY 2027.
- 83<sup>rd</sup> Avenue fixed route bus service is not funded in the GO Program since approval of the FY 2011-2035 Program of Projects.

### **2.2 TRANSIT PROJECTS AND SERVICES**

Transit services and facilities in Glendale remain a major component of the GO Program. Transit services include:

1. Evening and weekend bus service on all routes and expansion of Dial-a-Ride service within five years have been fully implemented.
2. A taxi subsidy program has been implemented to provide enhanced transportation alternatives to residents with special needs.
3. Luke Link has been replaced with Route 70.
4. Service has been extended on Route 60 to 83<sup>rd</sup> Avenue.

5. Funding to implement new bus service remains in the funded 25-year Program.
6. Express bus routes 573 and 575 to downtown Phoenix are operational.
7. City of Glendale and Valley Metro Rail are working jointly on future LRT service in Glendale including a study that is underway to identify the location of Glendale’s portion of LRT.
8. Below is a breakdown of transit ridership information by service
  - a. Dial-A-Ride -- 76,886
  - b. Glendale Urban Shuttles -- 103,528
  - c. Fixed Routes -- 2,596,704
  - d. Taxi Services -- 7,226
  - e. Total Glendale transit -- 2,784,504

Some transit services have been either delayed or scaled back due to a decline in transit funding from various State and Regional sources. They are:

1. Route 122, the fixed route bus service along Cactus Road, was eliminated.
2. The reverse commute trips from Downtown Phoenix on express route 573 have been eliminated.
3. The regional takeover of some local Glendale transit routes has been delayed or eliminated.
4. Restoration of eliminated services is scheduled in FY 2030.
5. Completion of LRT has been programmed to FY 2027.

The following transit capital projects have been completed to date with half-cent sales tax funding:

1. A parking facility on 91<sup>st</sup> Avenue, between Glendale Avenue and Northern Avenue.
2. New transit management office at Myrtle Avenue and 63<sup>rd</sup> Avenue.
3. Loop 101 and Glendale Avenue park-and-ride lot.

In addition to projects that are complete, the following projects are in the development process:

1. Bus stop accessibility improvements are under construction.
2. Loop 101/Bell Road transit center is under construction
3. Loop 101/Bell Road park-and-ride is under design.

## **2.3 STREET PROJECTS**

A major goal of the GO Program has been to complete street projects including intersection improvements, safety improvements, removal of scalloped streets, Transportation Systems Management (formerly Intelligent Transportation System) projects, and bus pullouts.

Additionally, the Northern Parkway project is a long-term commitment to tie together the western and central portions of Glendale. This facility will extend from Loop 303 to Grand Avenue near downtown Glendale. Local funds have been programmed to match regional funds needed to complete this project. These regional funds are included in the Regional Transportation Plan (RTP) approved by the voters of Maricopa County in 2004. A design concept report for the Northern Parkway is complete, along with an approved Environmental Assessment from Federal Highway Administration. Construction of grade separation bridges at Reems and Litchfield and landscape of the segment between Sarival Avenue and Dysart Road is complete. Design of Phase II between Dysart Road and 111<sup>th</sup> Avenue is currently on hold pending a study to review the Parkway project.

The following street/intersection projects are completed to date with half-cent sales tax funding include:

1. 75<sup>th</sup> Avenue from Rose Garden Lane to Deer Valley Road.
2. Bus bay on Union Hills Drive east of 59<sup>th</sup> Avenue.
3. Bridge crash barrier on northbound 83<sup>rd</sup> Avenue at Loop 101 freeway.
4. 83<sup>rd</sup> Avenue scalloped street north of Bell Road to Loop 101.
5. Bridge crash barrier on westbound Thunderbird Road west of 59<sup>th</sup> Avenue.
6. Safety improvements on Thunderbird Road between 56th Avenue and 57th Drive.
7. Bridge crash barrier on westbound Cactus Road west of 51st Avenue.
8. Bridge crash barrier on eastbound Cactus Road west of 51st Avenue.
9. Intersection Improvements at 67th Avenue and Peoria Avenue.
10. Traffic Management Center on 59th Avenue between Olive Avenue & Peoria Avenue.
11. Bus bay on 59th Avenue north of Northern Avenue.
12. Street and sidewalk improvements on Northern Avenue west of 43rd Avenue.
13. Street and sidewalk improvements on Bethany Home Road between 47th Avenue and 48th Avenue.
14. Bethany Home Road between 91st Avenue and 99th Avenue.
15. Maryland Avenue between 95th Avenue and 99th Avenue, including a bridge over Loop 101.
16. 95th Avenue between Maryland Avenue and Bethany Home Road.

17. 67th Avenue intersections improvements at Bell Road, Glendale Avenue and Camelback Road.
18. 75th Avenue intersections improvements at Glendale Avenue, Bethany Home Road, and Camelback Road.
19. Median improvements on Grand Avenue from 43rd Avenue to 57th Drive.
20. Scalloped Street improvements on Glendale Avenue from 67th Avenue to 91st Avenue, on 75th Avenue from Glendale Avenue to south of Bethany Home Road, and on 83rd Avenue from Glendale Avenue to Camelback Road.
21. Street widening on Greenbrier Drive from 59th Avenue to 64th Avenue.
22. Street improvements on Glendale Avenue from 43rd Avenue to 67th Avenue.
23. 43rd Avenue intersections improvements at Peoria Avenue, Olive Avenue, Northern Avenue, Glendale Avenue, and Bethany Home Road.
24. 51st Avenue intersections improvements at Peoria Avenue and Glendale Avenue.
25. 51<sup>st</sup> Avenue and Northern Avenue intersection improvements.
26. 51<sup>st</sup> Avenue and Camelback Road intersection improvements.
27. Street widening on Myrtle Avenue from 59th Avenue to 62nd Avenue.
28. 67th Avenue intersections improvements at Thunderbird Road, Cactus Road, and Olive Avenue.
29. 57<sup>th</sup> Avenue bridge at Skunk Creek.
30. Northern Parkway from Sarival Avenue to Dysart Road.
31. Grand Avenue access control and beautification from 43rd Avenue to 71st Avenue.
32. Loop 101 HOV ramps at Maryland Avenue.
33. 67<sup>th</sup> Avenue Safety Improvement at Missouri Avenue.
34. Northern Parkway: landscaping between Sarival Avenue and Dysart Road, and grade separation bridges at Reems and Litchfield roads.

In addition to projects that are completed, the following projects have funding identified in the GO Program:

1. Northern Parkway improvements from Dysart Road to Grand Avenue.
2. 59<sup>th</sup> Avenue and Olive Avenue safety improvement.
3. 51<sup>st</sup> Avenue and Bell Road intersection improvements.
4. Bethany Home Road and 65<sup>th</sup> Avenue HAWK safety improvements.
5. 59th Avenue intersections improvements at Bethany Home Road and Camelback Road.

6. 59th Avenue medians and beautification improvements from Grand Avenue to Loop 101, including improvements at seven intersections.

## **2.4 BICYCLE AND PEDESTRIAN PROJECTS**

Numerous Bicycle and pedestrian projects presented to voters in 2001 have been completed or are in the design phase. Listed below are the bicycle and pedestrian projects that have been completed:

1. Bike/pedestrian path on 67<sup>th</sup> Avenue between Isabell Lane and Pinnacle Peak Road.
2. Bike/pedestrian bridge over 71<sup>st</sup> Avenue wash at Skunk Creek.
3. Bike lanes on Cholla Street west of 59th Avenue.
4. Bicycle/pedestrian bridge over Grand Canal at Missouri Avenue and 79<sup>th</sup> Avenue.
5. Glendale Avenue bridge widening at New River for bicycle/pedestrian path.
6. 51<sup>st</sup> Avenue and Cactus Road bicycle/pedestrian underpass at Arizona Canal/ Diversion Channel.
7. 71<sup>st</sup> Avenue channel bicycle/pedestrian pathway from Camino San Xavier to Skunk Creek.
8. Skunk Creek bicycle/pedestrian pathway under Bell Road.
9. Downtown pedestrian enhancements.
10. 51<sup>st</sup> Avenue sidewalk and landscape improvements from north of Camelback Road to south of Grand Avenue.
11. Catlin Court Alley beautification.
12. Old Roma Alley pedestrian enhancements.
13. 63<sup>rd</sup> Avenue bike lanes from Grand Avenue to Olive Avenue.
14. 63<sup>rd</sup> Avenue bike/pedestrian overpass at Loop 101.
15. Skunk Creek bicycle/pedestrian pathway under Union Hills Drive.
16. New River bicycle/pedestrian pathway from Northern Avenue to Bethany Home Road.

The following bicycle/pedestrian project is under construction:

1. Maryland Avenue spot improvements between 67<sup>th</sup> Avenue and 83<sup>rd</sup> Avenue.

The following bicycle/pedestrian projects are in design:

1. Downtown Alley pedestrian enhancements; to the alley west of 57th Avenue between Glenn Drive and Glendale Avenue.

2. Grand Canal bicycle/pedestrian pathway from Loop 101 Avenue to New River.
3. Myrtle Avenue Improvements from 62<sup>nd</sup> Avenue to 65<sup>th</sup> Avenue.
4. New River north shared use pathway; along east bank of New River north of Hillcrest Boulevard to drainage channel north of Paraiso Drive.
5. 55th Avenue widening for bike lanes and sidewalk; south of Cactus Road to north of Riviera Drive.
6. Neighborhood connections to shared use pathways; connect multiuse pathway along Arizona Canal Diversion Channel to neighborhood bike routes at Sweetwater Avenue, Hearn Road and Sunset Vista Park; and connect multiuse pathway along Skunk Creek to neighborhood bike route at 71st Avenue.

## **2.5 OTHER GO PROGRAMS AND PROJECTS**

Ongoing GO programs include Neighborhood Traffic Mitigation, Transportation Systems Management (formerly Intelligent Transportation System), Travel Demand Management, Program Education (includes Bicycle Coordination, Transit marketing, and Traffic Education) and administration of the GO Program. Each of these programs has been established and funds are committed to continue them over the next 25 years.

Airport capital projects are also a part of the GO Program. GO funds are used to leverage federal and state funds by using half-cent sales tax monies as match.

The following airport projects have been completed to date:

1. STARS air control system.
2. Pavement preservation-avigation easement.
3. Airport eastside access road.
4. Security fence replacement.
5. Airport property (Riviera) acquisition.
6. Airport Master Plan update.
7. Eastside Parallel Taxiway Connector.
8. Airport tower and radio upgrade.
9. Improved Runway Safety Area (Dust, weed and erosion control for runway and taxiway).
10. Runway extension.
11. Airport Blast Pad and Blast Fence.
12. Airport RPZ Land Environmental Assessment (EA).
13. Asphalt apron and lighting improvements.

GO Program funds are programmed to match approved and potential federal and state funding for projects at the Glendale Municipal Airport. The following Airport projects are currently underway:

1. Airport Layout Plan Narrative.
2. Airport Runway Protection Zone (RPZ) Land Acquisition.

## **3.0 GO PROGRAM MANAGEMENT AND FINANCIAL PERSPECTIVE**

### **3.1 INTRODUCTION**

Financial management is an essential aspect of the GO Program to ensure that GO Program revenues and expenditures are in balance and citizens are notified of changes to the program. In this regard, commitments were made to voters to ensure the financial integrity of the GO Program by establishing a Citizens Transportation Oversight Commission (CTOC), requiring an annual report, maintaining a financially balanced 25-year program, and completing an audit every three years.

### **3.2 GO PROGRAM MANAGEMENT OVERSIGHT**

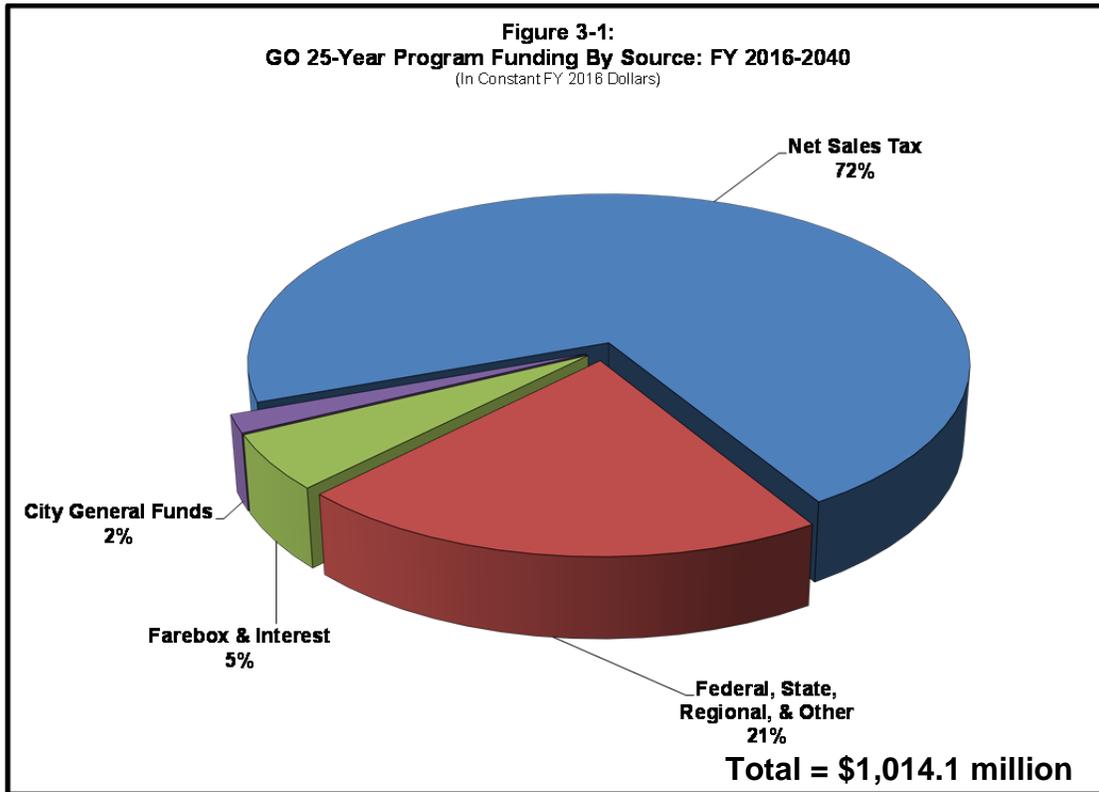
In order to implement the GO Program, program management is needed. The program management process monitors and modifies the GO Program as appropriate. These activities have included the following:

- bimonthly (monthly if agenda dictates) CTOC meetings
- Weekly meetings with the General Engineering Consultant
- Monitoring of GO Program accounting fund
- Preparing a financially balanced 25-Year program of projects
- Annual financial audits
- Performance audit every three years

### **3.3 PROJECTED GO PROGRAM REVENUE, BY SOURCE**

#### **Summary**

Since 2001, funding in the GO Program has had an overall increase. In particular, federal funding has increased with commitments for Northern Parkway, LRT, Transportation Systems Management (formerly Intelligent Transportation System), and bicycle projects, while regional funds have been added for bus operations. However, since the start of the Program a downturn in the economy in 2008 has reduced state and regional funding for transit. Overall, annual funding levels for transit have been reduced, mostly due to elimination of one category of lottery funds (LTAF) and lower regional transit funding. Figure 3-1 identifies sources of funds in the GO Program. Changes since last year are illustrated in Table 3-1 and Figure 3-2. Details of financial assumptions are outlined in Appendix B.

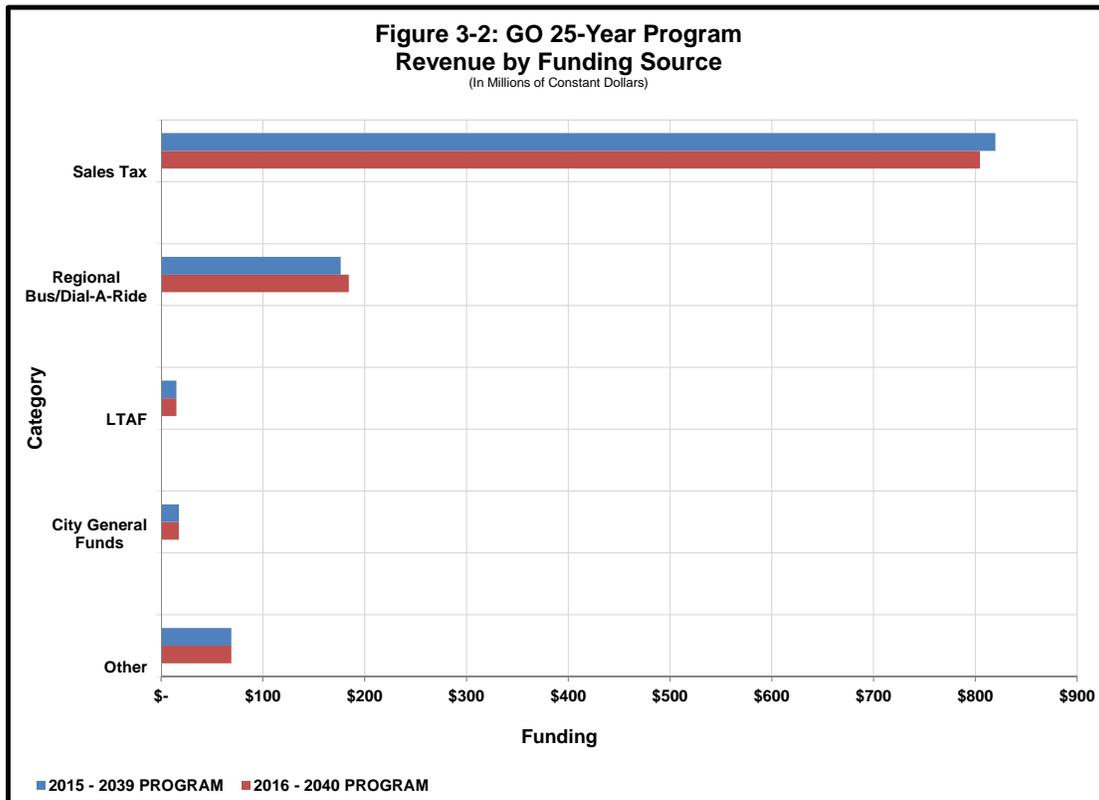


**Table 3-1: GO 25-Year Program Comparison of Current/Proposed & FY 2015-2039 Report Funding Projections**  
(Millions of Constant Dollars)

Funding Source	2015-2039 Report	2016-2040 Forecast	Difference	
			Amt.	Pct.
<b>Sales Tax**</b>	\$ 819.7	\$ 804.5	\$ (15.2)	-1.9%
<b>NET Bond Proceeds*</b>	(82.0)	\$ (76.2)	\$ 5.8	-7.0%
<b>City General Funds</b>	17.6	\$ 17.4	(0.2)	-1.1%
<b>Fares, Interest &amp; Other</b>	50.3	\$ 53.7	3.4	6.9%
<b>Federal, State &amp; Regional</b>	210.1	\$ 214.7	4.6	2.2%
<b>TOTAL</b>	<b>\$1,015.7</b>	<b>\$1,014.1</b>	<b>\$ (1.6)</b>	<b>-0.2%</b>

\*\* Includes carryover funding from FY 2015

\* Proceeds less cumulative debt service



**Glendale Transportation Sales Tax**

Approximately 72.0% of GO funds are projected to come from the Transportation Sales Tax. Transportation Sales Tax revenue in the GO Program is projected to be 1.9% lower than was anticipated in the previous Program. Current estimates of sales tax revenues are expected to grow at modest to good rates in FY 2016 and beyond. Sales tax funds for the first year (FY 2016) are based on actual collections from the City of Glendale for prior fiscal year (FY 2015) and a projected growth rate from the Management and Budget Division. A growth rate of 3.3% was used for FY 2016 over previous year’s estimate. Elliott D. Pollack & Company projected the remaining 24 years of growth rates for transportation sales tax.

**Federal/State/Regional and Other Funds**

Non-Glendale funding in the GO Program is leveraged using local sales tax revenues to obtain Federal, State and regional funding contributions. These non-Glendale sources now account for 21.0% of all funds in the GO Program. Since the last update of the 25-year GO Program, additional regional and federal highway funds are expected, while other funds have been expended.

Federal funding for Northern Parkway and LRT have not changed, but the LRT local match assumptions are higher due to cost increases. Funding for both the projects from non-Glendale sources is not listed in this GO Program. MCDOT will be receiving and

expending all funds for Northern Parkway capital project. Valley Metro will be receiving and expending all funds for LRT capital project.

### **City General Funds**

By policy, general funds transferred to the GO Program are frozen at \$900,000 per year. This category accounts for two percent of all Program funding. This funding has never been adjusted for inflation since start of the GO Program. To reflect this reality, the funding source is programmed to reflect lost value over time due to inflation.

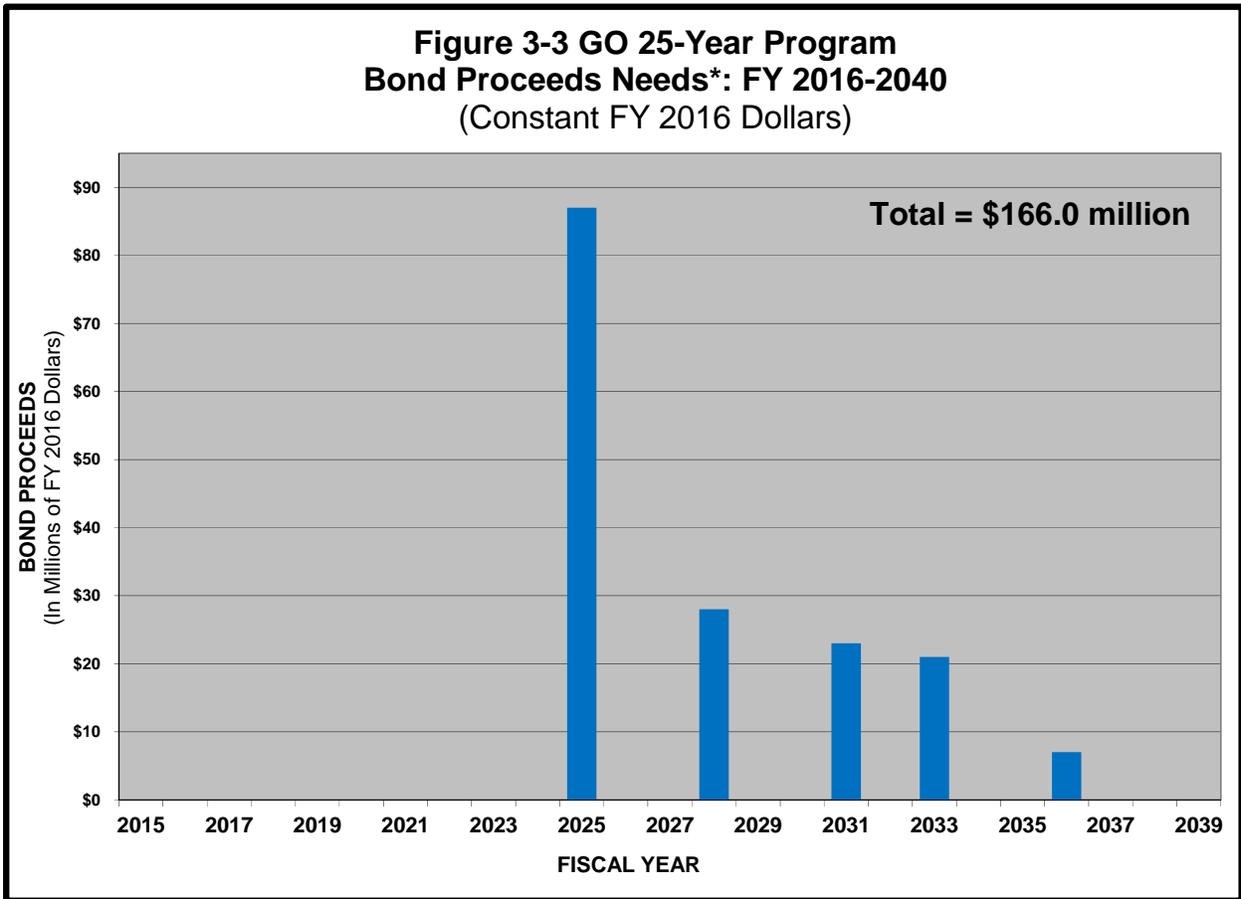
### **Other Funds**

Other funds include interest accrued and transit fares collected. This category of funding is up 6.9% over previous program, due to higher fare revenue projections in the Program.

### **Bonding**

Bonding or other borrowing mechanisms are necessary to accomplish GO Program goals, (i.e., to ensure the timely delivery of planned projects). Given low government interest rates, the cost of borrowing is relatively low. In the 25-year program, bonding is essential to implement major capital projects, such as LRT, Northern Parkway, and street projects.

The planning model used to complete this analysis projects the need for a total of \$166.0 million in bonds over the 25-year Program. The amount and timing could vary substantially based on more detailed cash flow analysis and the long-term dynamics of this GO Program. The years and amount of anticipated GO Program bonding are illustrated in Figure 3-3.



\*Actual bond issuances will be refined and a more detailed cash flow analysis will be done each year

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## 4.0 GO PROGRAM COSTS AND PROJECT SCHEDULES

### 4.1 INTRODUCTION

The total cost of the FY 2016-2040 Program of Projects is \$1,013.7 million. About 58.0% of these costs are for transit, and 21.0% are for street projects. Bicycle, pedestrian, airport, and other projects and ongoing programs account for 21.0% of the Program.

All costs have been updated to reflect the latest design concepts and updated unit costs based on comparable bids. Figure 4-1, Figure 4-2 and Table 4-1 show current cost estimates for each of the major elements of the GO Program as well as changes from last year.

The costs not paid for by Glendale for Northern Parkway and LRT are not included in the GO Program. There have been major cost increases since the start of the GO Program, but over the last seven years cost increases have been nominal. Earlier increases were a function of inflation and shortage of material. Since the downturn in the economy in 2008 increases have been minimal.

### 4.2 PROGRAM CHANGES

Elimination of one subset of state lottery funds (LTAF) and a reduced projection of regional transportation sales tax (Public Transportation Fund - PTF) funds have forced the City of Glendale to reduce the cost of its transit operations over the past four years to maintain a balanced budget.

The proposed changes to transit operations starting FY 2015 through FY 2039 include:

- All restoration of reduced services and start of new services are programmed for FY 2030.
- About \$34.7 million cost increase in fixed route bus service due to a higher cost per revenue mile from service providers.
- Approximately \$5.2 million cost increase for light rail operations programmed for FY 2027-2040.

Changes to street and bicycle/pedestrian modes include:

- Added \$0.6 million towards 59<sup>th</sup> Avenue and Olive Avenue intersection improvements in FY2016/2017.
- Added the 65<sup>th</sup> Avenue and Bethany Home Road HAWK at \$0.4 million in FY 2016. This project replaced the Bethany Home Road between 59<sup>th</sup> and 67<sup>th</sup> avenues. This HAWK along with another currently construction at 60<sup>th</sup> Avenue and Bethany Home Road as well as some striping changes and ADA bus stop enhancements address the current documented safety concerns.

- Added \$0.9 million for street O&M in FY 2016-2040
- Reduced \$2.6 million towards Northern Parkway in FY 2016-2025.
- Reduced \$17.1 million towards Northern Parkway O&M in FY 2016-2040.
- About \$0.9 million cost added to Transportation Systems Management in FY 2016-2040.
- Reduced \$1.5 million cost towards Traffic Mitigation in FY 2016-2040.
- Reduced \$2.3 million towards Program Management in FY 2016-2040.
- Reduced \$0.2 million towards GO streetlights in FY 2016-2040.
- Reduced \$0.2 million towards GO traffic signals in FY 2016-2040.

### **4.3 TRANSIT PROJECTS AND SERVICES**

Approximately 58.0% of GO Program expenditures are projected to be spent on transit projects and services. Overall, transit costs are up \$31.7 million due to a higher cost per revenue mile for transit services and higher operating expenses due to an additional operational year in the Program.

The voter approved plan included expansion of bus service on existing routes within five years, and completion of new routes between year five and 20. Some of these existing and planned transit improvements have been eliminated/delayed due to the loss of regional transit funding and one component of state lottery funding (LTAF).

### **4.4 STREET PROJECTS**

Nearly 21.0% of GO expenditures are projected to be for street projects. Street projects include intersection improvements (e.g., turn lanes, landscaping, medians, and bus pullouts), removal of scalloped streets, and operation of the Transportation Systems Management. Funds are committed to major corridor improvements along Northern and 59<sup>th</sup> avenues. Voter commitments were to complete arterial street improvements within five years and to complete the Northern Parkway within 25 years.

Thirty-four street projects have been completed, since the start of GO Program. The 59<sup>th</sup> Avenue project is now scheduled for completion in FY 2026; Pavement Management cost includes \$32.5 million for street overlays. Funding for Pavement Management in the Program runs through FY 2031.

At \$65.5 million, Northern Parkway is the most expensive GO street project. Approximately \$11.5 million of the local match costs are planned between FY 2016 and 2026, and the remaining \$54.0 million of the local match costs are planned between FY 2027 and 2036. The project will provide a high speed, high capacity link from central Glendale to the emerging western portion of the City. The design concept report and environmental assessment have been reviewed and approved by ADOT and FHWA. Following multiple State and Federal reviews, a finding of no significant impact (FONSI) has been issued by the FHWA. The segment between Sarival Avenue and Dysart

Road is complete including the grade separation bridges at Reems and Litchfield roads along with installation of landscape between Sarival Avenue and Dysart Road. Design of the segment between Dysart Road and 111<sup>th</sup> Avenue is currently on hold pending a study to review the Parkway project.

#### **4.5 BICYCLE AND PEDESTRIAN PROJECTS**

One percent of GO Program costs are programmed for bicycle and pedestrian projects. Like street projects, bicycle and pedestrian projects will not be fully completed in the first five years of the GO Program as originally anticipated. However, 16 bicycle and pedestrian projects have been completed, one is under construction and six projects are under design.

#### **4.6 OTHER PROGRAMS AND PROJECTS**

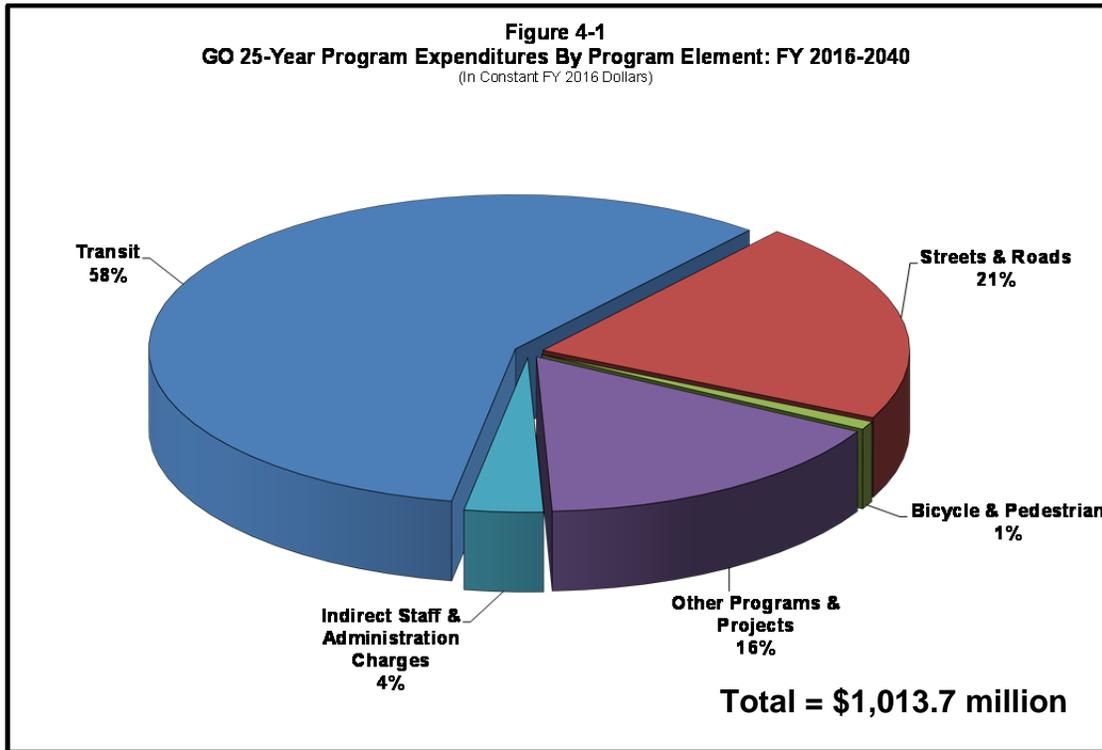
Approximately 20.0% of the costs of the GO Program are allocated to other programs and projects including matching funds for airport projects, indirect costs, and the following ongoing programs:

- Neighborhood traffic mitigation
- Transportation Systems Management (formerly known as Intelligent Transportation System)
- Traffic education (includes Bicycle coordination)
- Travel demand management
- Transit management
- Management of the GO Program, including program education and transit marketing

#### **4.7 CONTINGENCY AND INDIRECT SUPPORT SERVICES**

To offset the uncertainty in sales tax and other revenues due to the state of the economy an approximate five percent contingency is included in program costs. The balance at the end of the 25-year period is \$0.5 million, which is about 0.04% of overall GO Program costs. Standard engineering contingencies are programmed for individual projects.

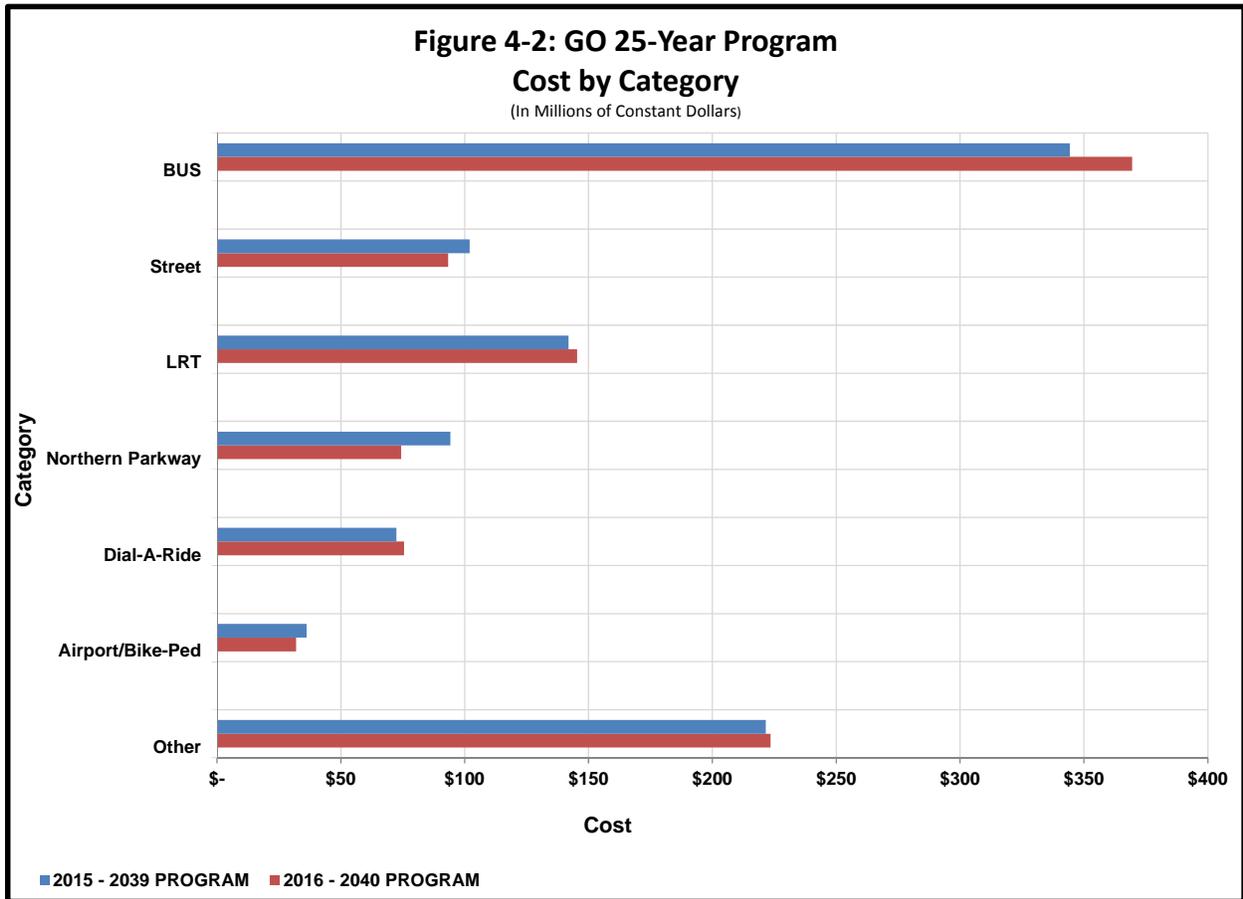
A portion of GO funding is set aside for citywide support services such as administration, finance, budget, legal support and marketing. In the FY 2016-2040 Program of Projects, indirect costs total \$35.1 million or 3.5% of total costs. Five-percent funding contingency at the Program level has been restored in the FY 2016-2040 Program. This amounts to approximately \$71.9 million over the 25-year period.



**Table 4-1: GO 25-Year Program Comparison of Current and FY 2015-2039 Program Cost Estimates**  
(In Millions of Constant Dollars)

Program Element	2015-2039 Program	2016-2040 Forecast	Difference	
			Amount	% Change
Transit O&M	\$ 433.9	\$ 468.5	\$ 34.7	8%
Transit Capital	\$ 124.8	\$ 121.9	\$ (2.9)	-2%
Streets & Roads O&M	\$ 73.6	\$ 58.2	\$ (15.4)	-21%
Streets & Roads Capital	\$ 164.5	\$ 156.4	\$ (8.2)	-5%
Bicycle & Pedestrian O&M	\$ 0.9	\$ 0.9	\$ 0.0	2%
Bicycle & Pedestrian Capital	\$ 11.5	\$ 7.9	\$ (3.6)	-31%
Other Programs/Projects O&M	\$ 143.7	\$ 141.1	\$ (2.5)	-2%
Other Programs/Projects Capital	\$ 24.7	\$ 23.7	\$ (1.0)	-4%
<b>Total Indirect Costs</b>	<b>\$ 35.1</b>	<b>\$ 35.1</b>	<b>\$ -</b>	<b>0%</b>
<b>Total O&amp;M</b>	<b>\$ 652.0</b>	<b>\$ 668.8</b>	<b>\$ 16.7</b>	<b>3%</b>
<b>Total Capital</b>	<b>\$ 325.5</b>	<b>\$ 309.8</b>	<b>\$ (15.7)</b>	<b>-5%</b>
<b>GRAND TOTAL</b>	<b>\$1,012.6</b>	<b>\$ 1,013.7</b>	<b>\$ 1.1</b>	<b>0%</b>

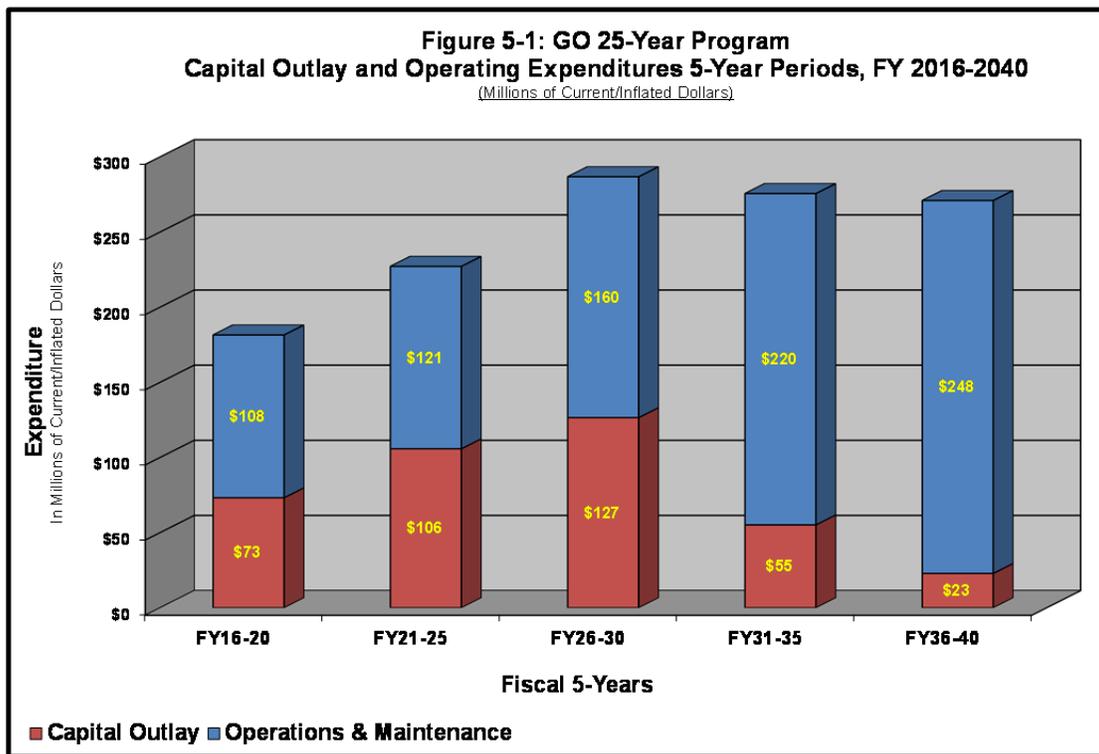
Note: All figures include contingency and indirect/support costs.



## 5.0 25-YEAR PROGRAM AND PROCESS

### 5.1 GO PROGRAM 25-YEAR SUMMARY

A 25-year summary of GO Program capital and operating expenditures in five (5) year increments is illustrated in Figure 5-1 in terms of current/inflated dollars. As previously noted, the total cost of this GO Program is \$1,013.7 million in terms of constant FY 2016 dollars. Including inflation brings the total estimated GO Program cost to \$1.3 billion. The complete, financially balanced, 25-Year projects and programs comprising the GO Program is listed in Appendix A.



When the GO Program was initiated, street and bicycle/pedestrian projects were to be completed in the first five (FY 2003–2007) years along with implementation of weekend transit service. Transit service has been expanded and most bicycle/pedestrian and intersection projects have been completed. Over the next five years, the focus will be on providing matching funds to complete Northern Parkway between Loop 303 and Loop 101. In the FY 2024-2027 period, light rail transit capital project will be completed and operational, and the remaining street projects will be completed. Some transit operations that continue to be at reduced levels in FY 2016 are planned for restoration and expansion in FY 2030.

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***APPENDIX A***

**25-YEAR  
PROGRAM OF PROJECTS**

**EXPENDITURES  
BY PROJECT AND YEAR**

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## **25-YEAR PROGRAM:** **EXPENDITURES BY PROJECT AND YEAR**

The following tables display all planned expenditures for projects and programs in the GO Program over the 25-year period from FY 2016-2040. The tables are organized as follows:

• Table A-1	Transit Projects and Services	Page A-5
• Table A-2	Street Projects	Page A-7
• Table A-3	Bicycle and Pedestrian Projects	Page A-9
• Table A-4	Other Programs and Projects	Page A-11
• Table A-5	Summary – Totals by Category	Page A-13

Expenditure information is provided annually for the first four years and in grouped multiple years thereafter. All figures in these tables are expressed in terms of ***current (inflated) dollars***.

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Table A-1

Glendale Onboard 25-Year Transportation Program

## Transit Operations and Capital Outlay: FY 2016-2040

Inflated Dollars in Thousands (\$000)

Location	Type of Work	FY 16	FY 17	FY 18	FY 19	FY 20-24	FY 25-29	FY 30-34	FY 35-40	TOTAL
<b>TRANSIT OPERATIONS</b>										
Bus Stop Maint./Equip Maint./Insurance/Additional DAR & fixed route costs/ Taxi Subsidy program/Security Guard @ P&R	Additional Costs/Supplementals	\$459	\$469	\$480	\$492	\$2,644	\$2,955	\$3,277	\$4,422	\$15,197
West Valley ADA Service	Trip Destinations Outside City Limits	\$60	\$61	\$63	\$64	\$346	\$386	\$428	\$578	\$1,986
Dial-A-Ride	Regular Citywide Service	\$2,671	\$2,754	\$2,848	\$2,949	\$16,342	\$19,208	\$22,390	\$31,941	\$101,102
GUS # 1	Neighborhood Circulator	\$355	\$362	\$371	\$380	\$2,042	\$2,283	\$2,531	\$3,416	\$11,739
GUS #2	Neighborhood Circulator	\$192	\$196	\$201	\$206	\$1,108	\$1,239	\$1,374	\$1,854	\$6,371
GUS #3	Neighborhood Circulator	\$159	\$162	\$166	\$170	\$913	\$1,021	\$1,132	\$1,528	\$5,250
GUS 99th Ave/West Gate (NEW)	Neighborhood Circulator	\$121	\$124	\$127	\$130	\$699	\$781	\$866	\$1,169	\$4,017
RT 70	Local Bus Service	\$2,382	\$2,431	\$2,484	\$2,542	\$13,702	\$15,286	\$21,478	\$29,004	\$89,309
RT 59	Local Bus Service	\$1,727	\$1,764	\$1,800	\$1,842	\$9,935	\$11,074	\$13,294	\$17,950	\$59,385
RT 60	Local Bus Service	\$952	\$972	\$992	\$1,015	\$5,475	\$6,102	\$7,777	\$10,500	\$33,784
RT 67	Local Bus Service	\$1,487	\$1,519	\$1,550	\$1,586	\$8,555	\$9,534	\$11,404	\$15,399	\$51,033
RT 80	Local Bus Service	\$369	\$377	\$384	\$393	\$2,122	\$2,364	\$3,491	\$4,714	\$14,214
RT 90	Local Bus Service	\$539	\$550	\$562	\$575	\$3,101	\$3,457	\$4,225	\$5,705	\$18,715
RT 106	Local Bus Service	\$474	\$484	\$494	\$506	\$2,728	\$3,042	\$3,372	\$4,554	\$15,655
RT 138	Local Bus Service	\$187	\$191	\$195	\$199	\$1,124	\$1,334	\$1,479	\$1,997	\$6,706
RT 170	Local Bus Service	\$570	\$582	\$594	\$608	\$2,570	\$2,377	\$2,635	\$3,558	\$13,495
RT 186	Local Bus Service	\$483	\$492	\$504	\$516	\$2,779	\$3,104	\$6,507	\$8,786	\$23,171
RT 51 South Half	Local Bus Service	\$805	\$822	\$839	\$858	\$4,631	\$5,162	\$5,807	\$7,842	\$26,766
RT 51 (NEW) North Half	Local Bus Service	\$0	\$0	\$0	\$0	\$0	\$0	\$7,569	\$10,220	\$17,789

**Table A-1**

Glendale Onboard 25-Year Transportation Program

**Transit Operations and Capital Outlay: FY 2016-2040**

Inflated Dollars in Thousands (\$000)

Location	Type of Work	FY 16	FY 17	FY 18	FY 19	FY 20-24	FY 25-29	FY 30-34	FY 35-40	TOTAL
RT 75 (NEW)	Local Bus Service	\$0	\$0	\$0	\$0	\$0	\$0	\$6,208	\$8,382	<b>\$14,590</b>
RT 91 (NEW)	Local Bus Service	\$0	\$0	\$0	\$0	\$0	\$0	\$4,139	\$5,588	<b>\$9,727</b>
RT 122	Local Bus Service	\$0	\$0	\$0	\$0	\$0	\$0	\$1,306	\$1,764	<b>\$3,070</b>
RT 154 (NEW)	Local Bus Service	\$0	\$0	\$0	\$0	\$0	\$0	\$4,948	\$6,681	<b>\$11,629</b>
Loop 101/Glendale Park and Ride Lot	Park & Ride Maintenance	\$35	\$35	\$36	\$37	\$199	\$223	\$247	\$333	<b>\$1,146</b>
GO Transit Capital	Operations and Maintenance	\$29	\$29	\$30	\$31	\$166	\$188	\$215	\$1,172	<b>\$1,860</b>
Loop 101/Bell Road Park-and-Ride and Transit Center	Transit Center Maintenance	\$25	\$25	\$26	\$26	\$141	\$158	\$175	\$236	<b>\$812</b>
Light Rail System	Light Rail Service	\$0	\$0	\$0	\$0	\$0	\$13,146	\$28,383	\$41,893	<b>\$83,422</b>
<b>TOTAL TRANSIT OPERATIONS</b>		<b>\$14,081</b>	<b>\$14,402</b>	<b>\$14,744</b>	<b>\$15,125</b>	<b>\$81,321</b>	<b>\$104,423</b>	<b>\$166,657</b>	<b>\$231,187</b>	<b>\$641,941</b>
<b>TRANSIT CAPITAL</b>										
Bus Stops and Shelters	Citywide 65013	\$210	\$115	\$118	\$114	\$612	\$684	\$758	\$1,024	<b>\$3,635</b>
Buses/Vans	Citywide 65004	\$1,892	\$1,421	\$892	\$276	\$1,482	\$1,657	\$1,837	\$2,480	<b>\$11,937</b>
Transit Support Capital	Citywide 65014	\$143	\$168	\$172	\$165	\$889	\$994	\$1,102	\$1,488	<b>\$5,121</b>
Park & Ride and Transit Center	Bell/L101 65080	\$15,922	\$0	\$0	\$0	\$0	\$0	\$0	\$0	<b>\$15,922</b>
Light Rail System - Capital	3.5 Miles 65017	\$0	\$1,000	\$0	\$0	\$32,095	\$77,823	\$0	\$0	<b>\$110,918</b>
<b>TOTAL TRANSIT CAPITAL</b>		<b>\$18,166</b>	<b>\$2,705</b>	<b>\$1,182</b>	<b>\$555</b>	<b>\$35,078</b>	<b>\$81,159</b>	<b>\$3,698</b>	<b>\$4,991</b>	<b>\$147,533</b>
<b>TRANSIT OTHER</b>										
										<b>\$0</b>
<b>TOTAL TRANSIT OTHER</b>		<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>
<b>GRAND TOTAL TRANSIT</b>		<b>\$32,247</b>	<b>\$17,107</b>	<b>\$15,927</b>	<b>\$15,680</b>	<b>\$116,399</b>	<b>\$185,582</b>	<b>\$170,355</b>	<b>\$236,178</b>	<b>\$789,474</b>

Table A-2

Glendale Onboard 25-Year Transportation Program

**Street and Road Projects: FY 2016-2040**

Inflated Dollars in Thousands (\$000)

Location	Type of Work	FY 16	FY 17	FY 18	FY 19	FY 20-24	FY 25-29	FY 30-34	FY 35-40	TOTAL
<b>STREET OPERATIONS</b>										
Intelligent Transportation System	ITS 16570	\$700	\$714	\$731	\$750	\$4,029	\$4,505	\$4,994	\$6,741	<b>\$23,164</b>
GO Capital Maintenance	Past Projects	\$1,174	\$1,198	\$1,227	\$1,258	\$6,759	\$7,557	\$8,378	\$11,308	<b>\$38,859</b>
GO Street Capital Maintenance	Future Program/Projects	\$65	\$67	\$68	\$71	\$380	\$719	\$885	\$1,202	<b>\$3,457</b>
Northern Parkway Capital Maintenance	Maintenance	\$0	\$134	\$138	\$141	\$758	\$1,440	\$4,517	\$5,728	<b>\$12,857</b>
<b>TOTAL STREET OPERATIONS</b>	<b>\$1,939</b>	<b>\$1,939</b>	<b>\$2,114</b>	<b>\$2,165</b>	<b>\$2,219</b>	<b>\$11,927</b>	<b>\$14,220</b>	<b>\$18,774</b>	<b>\$24,979</b>	<b>\$78,336</b>

<b>STREET CAPITAL</b>										
Bus Pullouts	Bus Pullouts 65006	\$0	\$0	\$0	\$327	\$1,759	\$1,966	\$2,180	\$2,942	<b>\$9,173</b>
Expanded Safety Program	Safety-Mitigation 65072	\$113	\$116	\$118	\$114	\$613	\$685	\$759	\$1,025	<b>\$3,543</b>
Intersection Improvements	Intersection Improvements 65008	\$557	\$0	\$0	\$0	\$0	\$0	\$0	\$0	<b>\$557</b>
65th Ave & Bethany Home Rd HAWK	Non-CIP 16580	\$405	\$0	\$0	\$0	\$0	\$0	\$0	\$0	<b>\$405</b>
Smart Traffic Signals	Smart Traffic Signals (ITS) 65005	\$2,183	\$2,682	\$0	\$0	\$0	\$0	\$0	\$0	<b>\$4,866</b>
Glendale Sports Facilities	Variable Message Signs (ITS) 65062	\$470	\$0	\$0	\$0	\$0	\$0	\$0	\$0	<b>\$470</b>
51st Ave. & Bell Rd.	Intersection Improvement 65042	\$0	\$0	\$0	\$0	\$724	\$716	\$0	\$0	<b>\$1,440</b>
Speed Cushions	Replace Modified Humps w/ Cushions 65083	\$662	\$0	\$0	\$0	\$0	\$0	\$0	\$0	<b>\$662</b>
59th Ave.: Grand to Loop 101	Intersections, Lanes, Medians & Beautification 65023	\$0	\$0	\$0	\$0	\$4,083	\$32,529	\$0	\$0	<b>\$36,612</b>
59th Ave & Bethany Home/59th Ave & Camelback	Intersection Improvement 65051	\$0	\$0	\$0	\$0	\$2,722	\$2,694	\$0	\$0	<b>\$5,417</b>
59th Ave & Olive Ave Safety	Intersection and 59th Ave north of intersection	\$525	\$2,179	\$0	\$0	\$0	\$0	\$0	\$0	<b>\$2,704</b>
Grand Ave.: 43rd Ave. - 71st Ave.	Access	\$500	\$0	\$0	\$0	\$0	\$0	\$0	\$0	<b>\$500</b>

Table A-2

Glendale Onboard 25-Year Transportation Program

**Street and Road Projects: FY 2016-2040**

Inflated Dollars in Thousands (\$000)

	Control/Beautification 65007									
Loop 303 Landscape and Design	65090	\$212	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$212
Intelligent Transportation System (Match)	Matching Funds for ITS projects	\$0	\$0	\$167	\$171	\$918	\$1,026	\$1,138	\$1,535	\$4,954
Pavement Management	Arterial & Residential/Collector 65089	\$3,782	\$2,000	\$2,000	\$2,000	\$10,413	\$12,876	\$5,533	\$0	\$38,604
Northern Parkway	Glendale Share of Total Project Cost (14 \$s)	\$4,666	\$1,666	\$666	\$666	\$3,331	\$22,627	\$38,544	\$16,593	\$88,761
<b>TOTAL STREET CAPITAL</b>		<b>\$14,076</b>	<b>\$8,643</b>	<b>\$2,951</b>	<b>\$3,278</b>	<b>\$24,563</b>	<b>\$75,120</b>	<b>\$48,154</b>	<b>\$22,095</b>	<b>\$198,880</b>

<b>STREET OTHER</b>										
										\$0
<b>TOTAL STREET OTHER</b>		<b>\$0</b>								

<b>GRAND TOTAL STREET</b>		<b>\$16,015</b>	<b>\$10,757</b>	<b>\$5,116</b>	<b>\$5,497</b>	<b>\$36,489</b>	<b>\$89,340</b>	<b>\$66,928</b>	<b>\$47,074</b>	<b>\$277,216</b>
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Table A-3

Glendale Onboard 25-Year Transportation Program

## Bicycle and Pedestrian Projects: FY 2016-2040

Inflated Dollars in Thousands (\$000)

Location	Type of Work	FY 16	FY 17	FY 18	FY 19	FY 20-24	FY 25-29	FY 30-34	FY 35-40	TOTAL
<b>BICYCLE/PEDESTRIAN OPERATIONS</b>										
GO Bike/Ped Capital Maintenance	Future Program/Projects	\$34	\$34	\$35	\$36	\$195	\$221	\$252	\$345	\$1,152
<b>TOTAL BICYCLE/PEDESTRIAN OPERATIONS</b>		<b>\$34</b>	<b>\$34</b>	<b>\$35</b>	<b>\$36</b>	<b>\$195</b>	<b>\$221</b>	<b>\$252</b>	<b>\$345</b>	<b>\$1,152</b>

<b>BICYCLE/PEDESTRIAN CAPITAL</b>										
55th Ave. Widening for Bike Lanes/Sidewalks	Bike lanes, Curb, Gutter & Sidewalk	\$264	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$264
New River North Shared Use Pathway	Bridge, Pathway & Landscape	\$578	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$578
Neighborhood Connections to Shared Use Pathways	Pathway, Signage & Landscape	\$163	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$163
Myrtle Avenue Improvements	Curb, gutter, and sidewalk 65094	\$409	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$409
Grand Canal - 91st to New River - Multi-use Pathway	Multiuse Bike/Ped Pathway 65030	\$1,607	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$1,607
New River - Missouri to Northern - Multi-use Pathway	Multiuse Bike/Ped Pathway 65063	\$1,633	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$1,633
Downtown Alley: Between 57th Ave. & 57th Dr. north of Glendale	Ped Enhancements 65088	\$391	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$391
Maryland Avenue Spot Improvements	Between 67th and 83rd Avenues 65092	\$369	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$369
Bike Ongoing Program (Match)	Matching Funds for Bike/Pedestrian projects	\$0	\$0	\$111	\$114	\$613	\$685	\$759	\$1,025	\$3,307
<b>TOTAL BICYCLE/PEDESTRIAN CAPITAL</b>		<b>\$5,414</b>	<b>\$0</b>	<b>\$111</b>	<b>\$114</b>	<b>\$613</b>	<b>\$685</b>	<b>\$759</b>	<b>\$1,025</b>	<b>\$8,722</b>

<b>BICYCLE/PEDESTRIAN OTHER</b>										
										\$0
<b>TOTAL BICYCLE/PEDESTRIAN OTHER</b>		<b>\$0</b>								

<b>GRAND TOTAL BICYCLE/PEDESTRIAN</b>		<b>\$5,448</b>	<b>\$34</b>	<b>\$146</b>	<b>\$150</b>	<b>\$808</b>	<b>\$906</b>	<b>\$1,011</b>	<b>\$1,370</b>	<b>\$9,874</b>
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Table A-4

Glendale Onboard 25-Year Transportation Program

**Other Programs and Projects: FY 2016-2040**

Inflated Dollars in Thousands (\$000)

Location	Type of Work	FY 16	FY 17	FY 18	FY 19	FY 20-24	FY 25-29	FY 30-34	FY 35-40	TOTAL
<b>OTHER PROJECTS AND PROGRAMS - COSTS</b>										
GO Program Performance Audit	One Time 16510	\$250	\$0	\$277	\$0	\$618	\$341	\$749	\$851	<b>\$3,086</b>
Indirect Staff & Administration Charges	Indirect Costs 16510	\$1,405	\$1,435	\$1,469	\$1,506	\$8,093	\$9,047	\$10,031	\$13,539	<b>\$46,525</b>
Traffic Education	Education 16520	\$216	\$220	\$225	\$231	\$1,241	\$1,387	\$1,538	\$2,076	<b>\$7,135</b>
Neighborhood Traffic Mitigation	Mitigation 16580	\$301	\$307	\$314	\$322	\$1,732	\$1,936	\$2,146	\$2,897	<b>\$9,954</b>
GO Traffic Signals	Northern Parkway Signals 16610	\$10	\$10	\$11	\$11	\$58	\$65	\$72	\$97	<b>\$333</b>
Transportation - Program Management	Management 16510	\$841	\$859	\$879	\$901	\$4,843	\$5,414	\$6,003	\$8,102	<b>\$27,842</b>
GO Signs & Markings	Northern Parkway Signs 16620	\$54	\$55	\$56	\$58	\$310	\$346	\$384	\$518	<b>\$1,782</b>
GO Street Light Management	Northern Parkway Street Lights 16630	\$499	\$510	\$522	\$535	\$2,874	\$3,213	\$3,563	\$4,808	<b>\$16,523</b>
Travel Demand Management	Trip Reduction Incentive Program (TRIP) 16550	\$40	\$41	\$42	\$43	\$232	\$259	\$288	\$388	<b>\$1,334</b>
Rail Transit	Valley Metro Membership 16640	\$55	\$56	\$57	\$59	\$250	\$0	\$0	\$0	<b>\$478</b>
Transit Management	Administration 16525	\$414	\$423	\$433	\$444	\$2,386	\$2,667	\$2,957	\$3,991	<b>\$13,717</b>
FY 2015 BUDGET BALANCES	POTENTIAL PAYMENTS PENDING	\$1,922	\$0	\$0	\$0	\$0	\$0	\$0	\$0	<b>\$1,922</b>
Bond Issuance Cost	@ Senior 2.5%/Junior 4.5%	\$0	\$0	\$0	\$0	\$0	\$3,603	\$1,568	\$272	<b>\$5,443</b>
HURF Debt	Bonds for Transportation Projects	\$1,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	<b>\$1,000</b>
<b>TOTAL OTHER PROJECTS AND PROGRAMS-OPERATIONS</b>		<b>\$7,007</b>	<b>\$3,916</b>	<b>\$4,286</b>	<b>\$4,109</b>	<b>\$22,636</b>	<b>\$28,281</b>	<b>\$29,299</b>	<b>\$37,539</b>	<b>\$137,072</b>
<b>OTHER CAPITAL</b>										
Airport	Matching Funds for Airport Grants 65078	\$763	\$221	\$226	\$232	\$1,247	\$1,394	\$1,545	\$2,086	<b>\$7,714</b>
Airport	RPZ Land Acquisition- Conair	\$6,628	\$0	\$0	\$0	\$0	\$0	\$0	\$0	<b>\$6,628</b>
General Engineering Consultant	Preliminary Engineering 65022	\$729	\$587	\$592	\$271	\$1,442	\$1,610	\$1,784	\$2,408	<b>\$9,423</b>

Table A-4

Glendale Onboard 25-Year Transportation Program

**Other Programs and Projects: FY 2016-2040**

Inflated Dollars in Thousands (\$000)

Location	Type of Work	FY 16	FY 17	FY 18	FY 19	FY 20-24	FY 25-29	FY 30-34	FY 35-40	TOTAL
Transportation Plan Update	Transportation Plan Update 65069	\$621	\$0	\$0	\$666	\$749	\$833	\$924	\$1,030	<b>\$4,824</b>
Contingency	5%	\$4,384	\$2,119	\$2,016	\$1,961	\$11,157	\$13,080	\$15,978	\$22,086	<b>\$72,780</b>
<b>TOTAL, OTHER PROJECTS AND PROGRAMS-CAPITAL</b>		<b>\$13,125</b>	<b>\$2,927</b>	<b>\$2,834</b>	<b>\$3,129</b>	<b>\$14,595</b>	<b>\$16,916</b>	<b>\$20,232</b>	<b>\$27,610</b>	<b>\$101,369</b>
<b>TOTAL OTHER PROJECTS AND PROGRAMS - COSTS</b>		<b>\$20,132</b>	<b>\$6,842</b>	<b>\$7,120</b>	<b>\$7,238</b>	<b>\$37,231</b>	<b>\$45,197</b>	<b>\$49,531</b>	<b>\$65,149</b>	<b>\$238,441</b>
<b>OTHER PROJECTS AND PROGRAMS - OTHER</b>										
										<b>\$0</b>
<b>TOTAL OTHER PROJECTS AND PROGRAMS - OTHER</b>		<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>
<b>GRAND TOTAL OTHER PROJECTS AND PROGRAMS</b>		<b>\$20,132</b>	<b>\$6,842</b>	<b>\$7,120</b>	<b>\$7,238</b>	<b>\$37,231</b>	<b>\$45,197</b>	<b>\$49,531</b>	<b>\$65,149</b>	<b>\$238,441</b>

Table A-5

Glendale Onboard 25-Year Transportation Program

**Summary - All Programs and Projects: FY 2016-2040**

Inflated Dollars in Thousands (\$000)

	FY 16	FY 17	FY 18	FY 19	FY 20-24	FY 25-29	FY 30-34	FY 35-40	TOTAL
<b>TRANSIT</b>	\$32,247	\$17,107	\$15,927	\$15,680	\$116,399	\$185,582	\$170,355	\$236,178	<b>\$789,474</b>
<b>STREET</b>	\$16,015	\$10,757	\$5,116	\$5,497	\$36,489	\$89,340	\$66,928	\$47,074	<b>\$277,216</b>
<b>BICYCLE / PEDESTRIAN</b>	\$5,448	\$34	\$146	\$150	\$808	\$906	\$1,011	\$1,370	<b>\$9,874</b>
<b>OTHER PROJECTS AND PROGRAMS</b>	\$20,132	\$6,842	\$7,120	\$7,238	\$37,231	\$45,197	\$49,531	\$65,149	<b>\$238,441</b>
<b>GRAND TOTAL ALL PROGRAMS AND PROJECTS</b>	<b>\$73,842</b>	<b>\$34,741</b>	<b>\$28,309</b>	<b>\$28,565</b>	<b>\$190,928</b>	<b>\$321,025</b>	<b>\$287,825</b>	<b>\$349,771</b>	<b>\$1,315,006</b>

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# **2016 Financial Update**

## **Financial Factors and Projections**

**Prepared By**

**Elliott D. Pollack & Company**

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## Executive Summary

The purpose of this report is to provide the FY2016 annual update of the Glendale Onboard (GO) Program Financial Report and Capital Program. The report will provide a forecast of the GO Program’s half-cent sales tax revenue through FY2040. The sales tax is the single largest source of funding for GO projects and. Key findings include the following.

- The City’s half-cent transportation sales tax which supports the GO Program produces significant revenue for the community’s transportation needs. It has been a stable source of revenue although it is subject to fluctuation depending upon economic conditions. The Great Recession, which lasted from December 2007 to June 2009, had an impact on sales tax receipts through FY2011. Revenue began to increase again in FY2012 and as of June 2015, revenues had recovered to levels equal to those prior to the recession.
- Absent significant shocks to the national and local economy, transportation sales tax revenue should continue to grow at moderate rates above the rate of inflation. While economic cycles will occur periodically in the future, any events would not be expected to rise to the level experienced during the Great Recession
- The tax is forecasted to produce nearly \$1.04 billion in revenue for the community from FY2016 through FY2040.

**Chart A**

Recommended Transportation Sales Tax Revenue Forecast FY 2016 - FY 2040 (Thousands)						
Fiscal Year	Current Dollars	Constant 2016 Dollars		Fiscal Year	Current Dollars	Constant 2016 Dollars
2016*	\$24,206.2	\$24,206.2		2029	\$42,816.9	\$31,915.3
2017	\$25,399.2	\$24,876.8		2030	\$44,527.4	\$32,523.2
2018	\$26,688.0	\$25,528.9		2031	\$45,910.7	\$32,860.1
2019	\$28,060.4	\$26,189.6		2032	\$47,352.7	\$33,197.4
2020	\$29,444.7	\$26,821.8		2033	\$48,879.7	\$33,554.4
2021	\$30,759.2	\$27,354.5		2034	\$50,463.8	\$33,915.9
2022	\$32,112.9	\$27,889.0		2035	\$52,115.4	\$34,291.5
2023	\$33,515.1	\$28,432.9		2036	\$53,815.8	\$34,658.8
2024	\$34,998.8	\$29,012.7		2037	\$55,598.1	\$35,035.7
2025	\$36,472.0	\$29,562.9		2038	\$57,421.5	\$35,404.0
2026	\$37,998.9	\$30,137.5		2039	\$59,288.1	\$35,767.7
2027	\$39,562.5	\$30,729.4		2040	\$61,215.7	\$36,137.3
2028	\$41,162.3	\$31,318.7		<b>Total</b>	<b>\$1,039,786.0</b>	<b>\$771,322.3</b>

Constant dollar estimates based on 2016 prices.  
\*Forecast for 2016 from City of Glendale Tentative FY 15-16 Budget, May 26, 2015



## 1.0 Purpose of Update

The purpose of this report is to prepare the FY2016 annual update of the Glendale Onboard (GO) Program Financial Report and Capital Program. The report will provide a forecast of the GO Program's half-cent sales tax revenue through FY2040. The sales tax is the single largest source of funding for GO projects and programs and a short and long-term forecast is essential to planning for future improvements.

This report will provide a forecast from FY2016 to FY2040 of:

- Inflation as represented by the Consumer Price Index (CPI);
- Short term interest rates and long term bond rates;
- Half-cent sales tax GO program revenue.

## 2.0 Inflation

An integral part any forecast is the impact of inflation on costs as well as revenues. For instance, the effect of inflation on highway and road construction could differ from the impact of goods and services consumed by local residents. However, a limited review of the Federal Highway Administration's construction cost trends shows that the annual increase in construction costs over the long term is lower than the CPI. While there can be much variation in construction costs from year to year depending on economic conditions, between 1995 and 2014, highway construction costs rose at an average annual compounded rate of 1.64%. By comparison, the CPI for the Phoenix metro area rose at a rate of 2.19%. From a conservative forecasting perspective, it is appropriate to use a common index, such as the CPI, for this report.

It should be noted that long term forecasts as outlined in this report are shown as generalized trends and do not attempt to anticipate when a particular economic or business cycle may occur. A reader of this report should focus on the short term forecast of two to five years as most important in determining near term revenues.

In preparing the revenue forecast for this report, several sources of information on inflation were considered including the following:

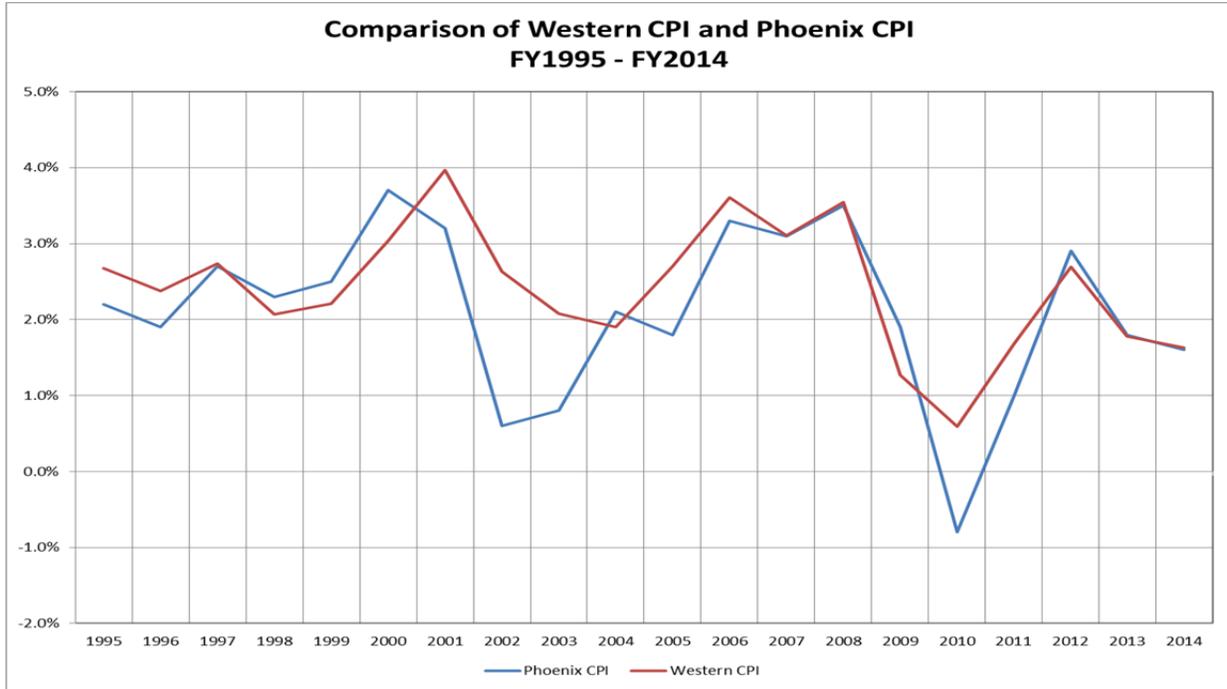
- The 2015 Financial Update for the GO Program prepared by URS Corporation.
- The Maricopa County Transportation Excise Tax Forecasting Process and Results FY2015-FY2026 (September 2014).
- The Western Consumer Price Index produced by the U.S. Bureau of Labor Statistics.
- The Phoenix Consumer Price Index produced by the U.S. Bureau of Labor Statistics.

It is preferable, but not essential, to estimate future inflation for the Phoenix metro area using a local index instead of relying on nationwide indices. The Western and Phoenix CPI track very closely and long term economic forecasts available from the University of Arizona may prove useful for this report for forecasts beyond a ten-year timeframe. Chart 1 demonstrates the



consistency between the two CPI indices. In general, Phoenix has lower low points in inflation and rarely exceeds the high points of the Western CPI.

Chart 1



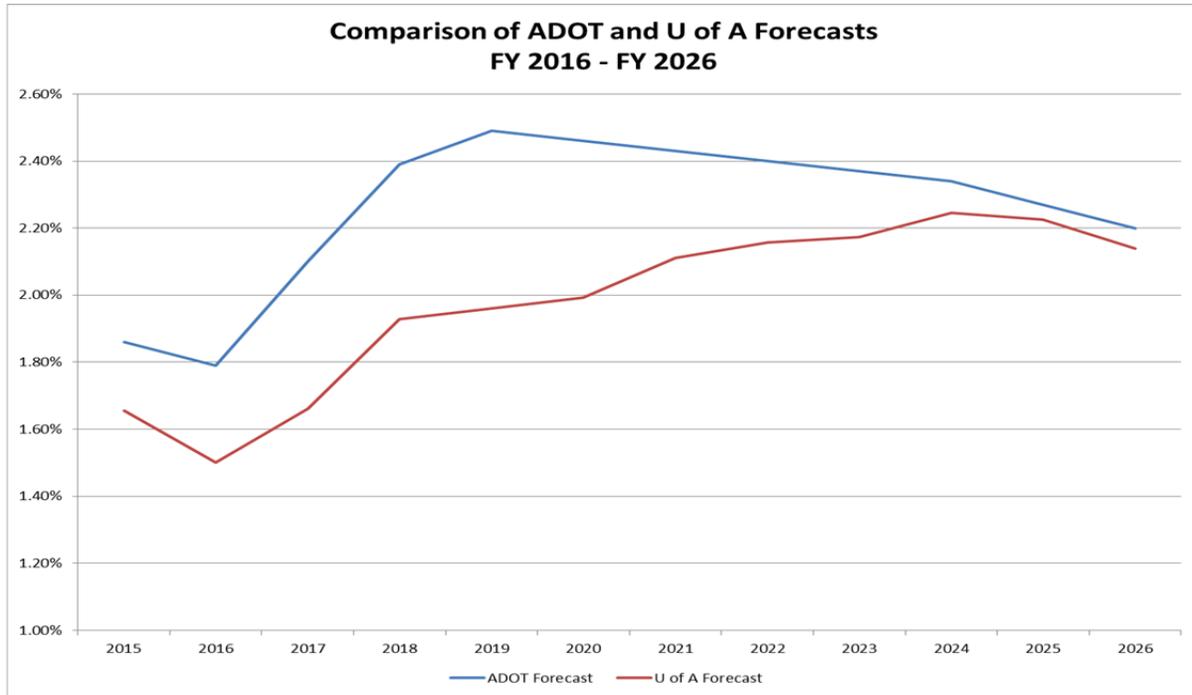
**Forecasts By Others**

ADOT’s forecast for the Regional Area Road Fund (RARF) completed in September 2015 presents a reasonable forecast of inflation through 2026. The forecast is based on the opinions of a panel of experts representing public, private and academic sectors. The results of the panel show expectations for continued modest increases in inflation through the forecast period with rates no higher than 2.50% (occurring in 2019).

The University of Arizona Forecasting Project produces a quarterly forecast of economic conditions through 2040 including a forecast for the Western CPI. For the next ten years from 2016 to 2026, the forecast is more conservative than the ADOT forecast, expecting more moderate inflationary conditions. Chart 2 shows the difference between the two forecasts. In 2026, the forecasts converge on a rate ranging from 2.14% to 2.20%.



**Chart 2**



**Recommended Inflation Assumptions**

Based on the foregoing analysis, a recommended long term inflation forecast for the Glendale GO Program is shown below. The forecast employs the ADOT forecast through FY2026 and the University of Arizona forecast for FY2027 through FY2040.

**Table 1**

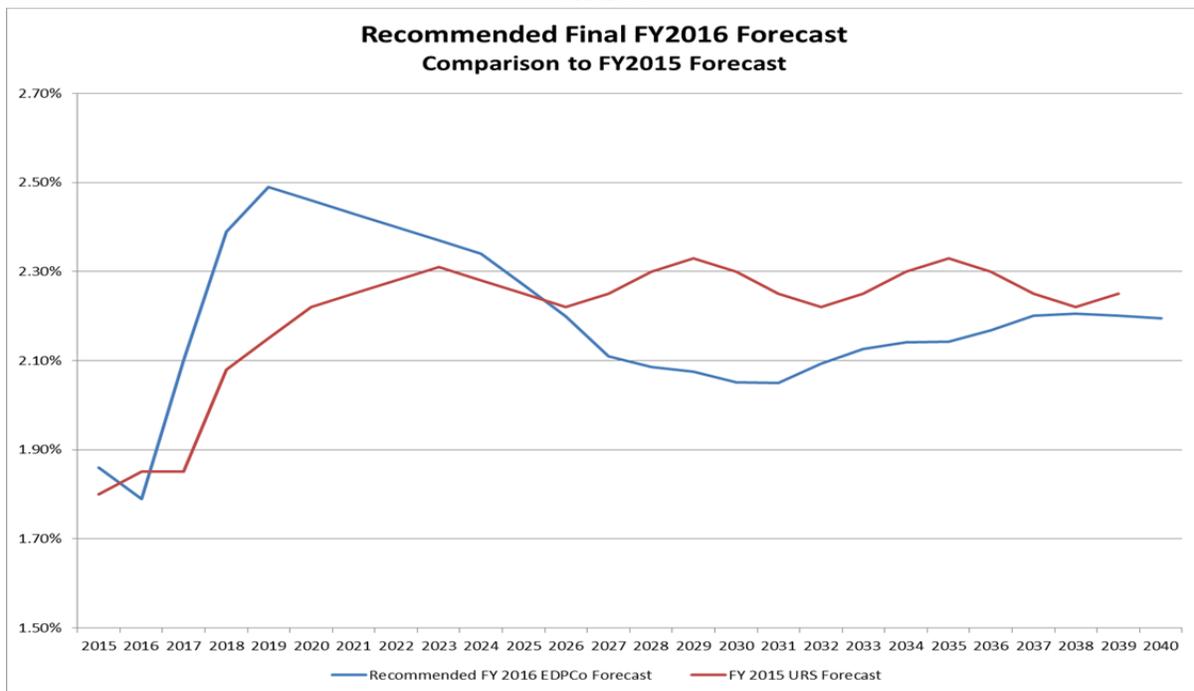
<b>Recommended Inflation Forecast FY2015 - FY2040</b>			
<b>Year</b>	<b>% Change</b>	<b>Year</b>	<b>% Change</b>
2015	1.86%	2028	2.09%
2016	1.79%	2029	2.08%
2017	2.10%	2030	2.05%
2018	2.39%	2031	2.05%
2019	2.49%	2032	2.09%
2020	2.46%	2033	2.13%
2021	2.43%	2034	2.14%
2022	2.40%	2035	2.14%
2023	2.37%	2036	2.17%
2024	2.34%	2037	2.20%
2025	2.27%	2038	2.21%
2026	2.20%	2039	2.20%
2027	2.11%	2040	2.20%

Source: ADOT, University of Arizona, Elliott D. Pollack & Co.



The following chart compares the FY2015 inflation forecast prepared by URS to the FY2016 recommended forecast. While the chart shows some variability in the two forecasts, they really follow very closely together. The FY2016 forecast, based on the ADOT FY2015-FY2026 projection, expects inflation to rise to near 2.50% by 2019 before trending downward. The URS forecast shows inflation rising more slowly in the early years before centering on a long term rate of about 2.30%. Between FY2016 and FY2039, the recommended FY2016 forecast has a long term average annual growth rate of 2.11%. The average annual growth rate for the URS forecast is 2.13%. The difference in the two forecasts is related to inflationary increases in the next few years and long term rates after 2026. In our opinion, the recommended FY2016 forecast takes into account the current economic conditions locally and nationally and continued recovery through the remainder of the decade which should result in slight increases in inflation through 2020.

**Chart 3**



### 3.0 Short-Term Interest Rates

Short-term interest rates are shown on Table 2 below as of June 1, 2015. The rates continue to reflect the strong rate reductions undertaken by the Federal Reserve Board in 2008 resulting from the Great Recession and the near collapse of the financial markets in the Fall of 2008. Most economists are predicting that the Fed will begin to slowly increase interest rates in the second half of 2015 barring any major economic shocks or retreat from the recovery.

The interest rates on most instruments are relatively the same as one year ago although some treasury bonds have ticked upward. However, state and local 20-year bond rates are lower



compared to a year ago as well as the rates for conventional 30-year mortgages. The rates shown for state and local 20-year bonds reflect general obligation instruments of mixed quality. Chart 4 shows that over the past 25 years, state and local 20-year bonds have been declining even through recessionary periods that occurred in 1991, 2001 and 2007-2009.

**Table 2**

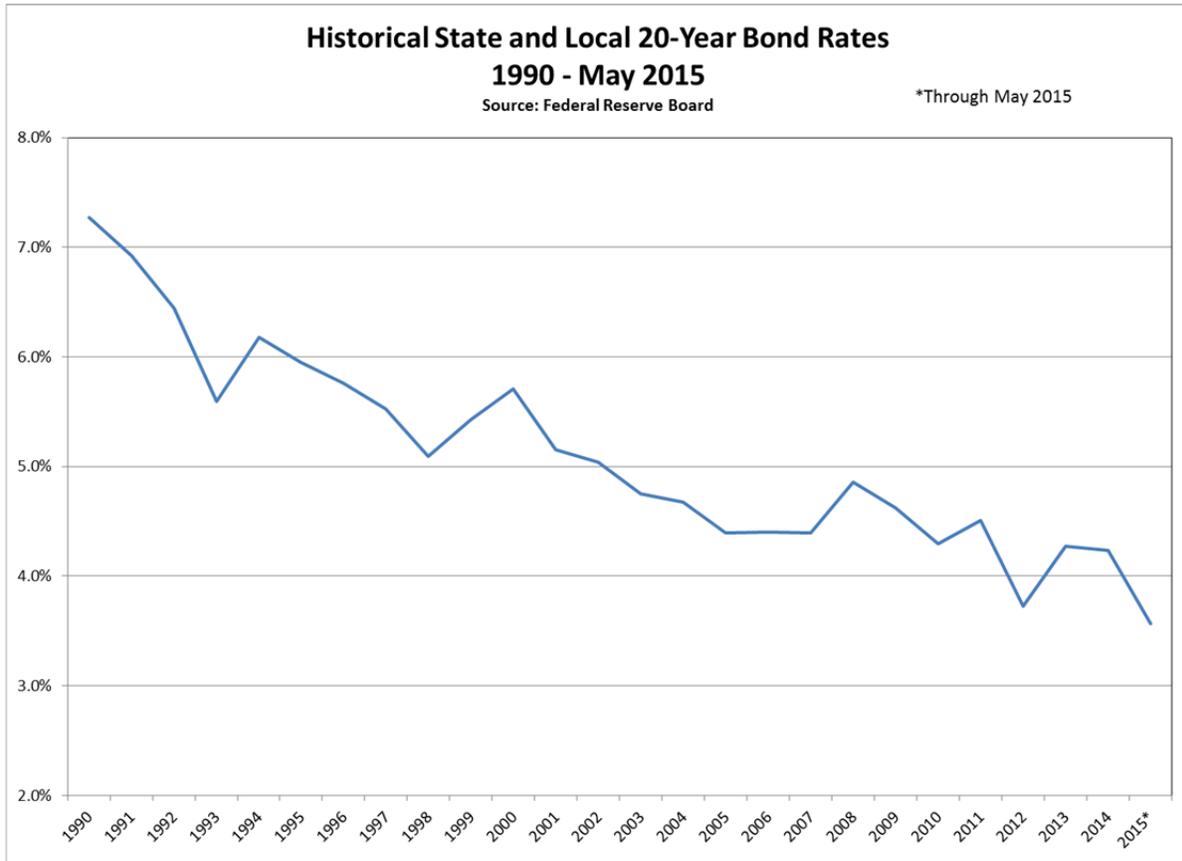
<b>Selected Interest Rates - June 1, 2015</b>				
<b>Yields in Percent Per Year</b>				
<b>Instrument</b>	<b>Week Ending</b>		<b>Average</b>	<b>Average</b>
	<b>May 29</b>	<b>May 22</b>	<b>May 2015</b>	<b>May 2014</b>
<b>Federal funds (effective)</b>	0.13	0.13	0.12	0.09
<b>Commercial Paper</b>				
<b>Nonfinancial</b>				
<b>1-month</b>	0.09	0.08	0.08	0.05
<b>3-month</b>	0.09	0.14	0.12	0.10
<b>Financial</b>				
<b>1-month</b>	0.09	0.10	0.09	0.07
<b>3-month</b>	0.16	0.17	0.15	0.11
<b>Bank prime loan</b>	3.25	3.25	3.25	3.25
<b>U.S. government securities</b>				
<b>Treasury bills (secondary market)</b>				
<b>4-week</b>	0.01	0.02	0.01	0.03
<b>6-month</b>	0.08	0.08	0.08	0.05
<b>Treasury constant maturities (Nominal)</b>				
<b>6-month</b>	0.08	0.08	0.08	0.05
<b>1-year</b>	0.26	0.23	0.24	0.10
<b>5-year</b>	1.52	1.56	1.54	1.59
<b>10-year</b>	2.13	2.23	2.20	2.56
<b>20-year</b>	2.64	2.75	2.69	3.12
<b>Treasury Inflation Indexed</b>				
<b>5-year</b>	-0.04	-0.08	-0.10	-0.34
<b>10-year</b>	0.33	0.37	0.33	0.37
<b>20-year</b>	0.68	0.78	0.70	0.82
<b>Corporate bonds (Moody's seasoned)</b>				
<b>Aaa</b>	3.95	4.07	3.98	4.16
<b>Baa</b>	4.86	4.96	4.89	4.76
<b>State &amp; local bonds (20-Year)</b>	3.73	3.81	3.76	4.29
<b>Conventional mortgages (30-year)</b>	3.87	3.84	3.84	4.19

Source: Federal Reserve Board

Glendale, along with virtually all cities in Arizona, has been faced with a steep decline in debt capacity starting in FY 2009. With the bust of the housing market starting in 2007, property tax valuations declined sharply requiring most cities to either curtail GO bond issues or raise tax rates. Glendale's property tax valuation fell by 67% between FY2009 and FY2014. A turnaround finally occurred in FY2015 with a 9.3% increase. However, recent changes in the method of calculating property taxes due the passage of Prop 117 will restrict future increases in valuations.



**Chart 4**



**Recommendation**

Short term interest rates for fund balances have been extremely low over the past few years. This situation will likely change in 2015 and 2016 as the Fed considers rate increases with the recovery of the economy. When the Fed eliminates its stimulus programs, short term interest rates will likely return to historic levels approaching 4.5% over the long term.

**4.0 GO Program Half-Cent Sales Tax Revenue Forecast**

The City of Glendale’s half-cent sales tax became effective on January 1, 2002 and is the largest source of funding for GO projects and programs. Prior year forecasts used several key determinants for estimating taxable sales including population growth, total employment, retail employment, real per capita personal income and inflation. While the above factors typically yield accurate forecasts, adjustments must be made to modeling efforts to account for individual circumstances and trends affecting a city. This requires an analysis of the socioeconomic characteristics of the city.

For instance, Glendale is predominantly a mature community located centrally in the Phoenix metro area. According to the Arizona Department of Administration, Glendale’s annual growth rate is expected to average approximately 1.0% over the next 25 years while Maricopa County



is expected to grow at an annual rate of 1.7%. The City's percentage of Maricopa County's population is expected to fall from 5.8% in 2015 to 4.9% by 2040. By comparison however, because of its location and infrastructure, the growth rate in total employment in Glendale will outpace the County's rate.

Two sets of population forecasts have been collected for this analysis: the Maricopa Association of Governments (MAG) forecast and the Arizona Department of Administration (ADOA) forecast. The MAG forecast encompasses what is known as the Glendale Municipal Planning Area (MPA) which includes areas that are outside of the City but within its sphere of influence. The MPA includes the strip annexed part of Glendale that includes Luke Air Force Base and generally extends from 115<sup>th</sup> Avenue westward to Perryville Road. The ADOA forecast, on the other hand, only counts persons living within the municipal boundaries and is based on the 2010 U.S. Census.

The ADOA forecast has been used for this analysis primarily because of the uncertainty with the MAG MPA forecast and the future annexation of lands in the western strip annexed area. Because of the lack of City utility services in the area, there is no guarantee that land will eventually be annexed into the City. Private water companies operate in the area and can supply water service to future subdivisions. The area is also heavily impacted by noise from Luke AFB. While the use of the ADOA forecast is a change from prior Financial Updates, the results of the transportation sales tax forecast are not significant when compared to the FY2015 Financial Update.

The primary predictors of future transportation sales tax revenues employed for this analysis are population growth, per capita transportation sales tax revenue, real per capita personal income and inflation.

Table 3 outlines the transportation sales tax forecast from FY2016 to FY2040 in both current and constant dollars. Current dollars reflect the impact of inflation; constant dollars eliminate the effect of inflation. Overall, the impact of inflation on the GO Program will add approximately \$268 million to sales tax revenues. While the inflation forecast for this FY2016 Financial Update is different than last year's forecast, the total revenue to the City is essentially the same. Table 4 outlines the annual increase in transportation sales tax revenue forecasted through FY2040. Over the next 24 years, revenue is forecasted to increase at an average annual compounded rate of 3.94%.



**Table 3**

<b>Recommended Transportation Sales Tax Revenue Forecast FY 2016 - FY 2040 (Thousands)</b>						
<b>Fiscal Year</b>	<b>Current Dollars</b>	<b>Constant 2016 Dollars</b>		<b>Fiscal Year</b>	<b>Current Dollars</b>	<b>Constant 2016 Dollars</b>
2016*	\$24,206.2	\$24,206.2		2029	\$42,816.9	\$31,915.3
2017	\$25,399.2	\$24,876.8		2030	\$44,527.4	\$32,523.2
2018	\$26,688.0	\$25,528.9		2031	\$45,910.7	\$32,860.1
2019	\$28,060.4	\$26,189.6		2032	\$47,352.7	\$33,197.4
2020	\$29,444.7	\$26,821.8		2033	\$48,879.7	\$33,554.4
2021	\$30,759.2	\$27,354.5		2034	\$50,463.8	\$33,915.9
2022	\$32,112.9	\$27,889.0		2035	\$52,115.4	\$34,291.5
2023	\$33,515.1	\$28,432.9		2036	\$53,815.8	\$34,658.8
2024	\$34,998.8	\$29,012.7		2037	\$55,598.1	\$35,035.7
2025	\$36,472.0	\$29,562.9		2038	\$57,421.5	\$35,404.0
2026	\$37,998.9	\$30,137.5		2039	\$59,288.1	\$35,767.7
2027	\$39,562.5	\$30,729.4		2040	\$61,215.7	\$36,137.3
2028	\$41,162.3	\$31,318.7		<b>Total</b>	<b>\$1,039,786.0</b>	<b>\$771,322.3</b>

Constant dollar estimates based on 2016 prices.  
\*Forecast for 2016 from City of Glendale Tentative FY 15-16 Budget, May 26, 2015

**Table 4**

<b>Annual Percent Change Recommended Transportation Sales Tax Revenue Forecast FY 2016 - FY 2040</b>				
<b>Fiscal Year</b>	<b>Percent Change</b>		<b>Fiscal Year</b>	<b>Percent Change</b>
2016			2029	4.02%
2017	4.93%		2030	3.99%
2018	5.07%		2031	3.11%
2019	5.14%		2032	3.14%
2020	4.93%		2033	3.22%
2021	4.46%		2034	3.24%
2022	4.40%		2035	3.27%
2023	4.37%		2036	3.26%
2024	4.43%		2037	3.31%
2025	4.21%		2038	3.28%
2026	4.19%		2039	3.25%
2027	4.11%		2040	3.25%
2028	4.04%		<b>CAGR*</b>	<b>3.94%</b>

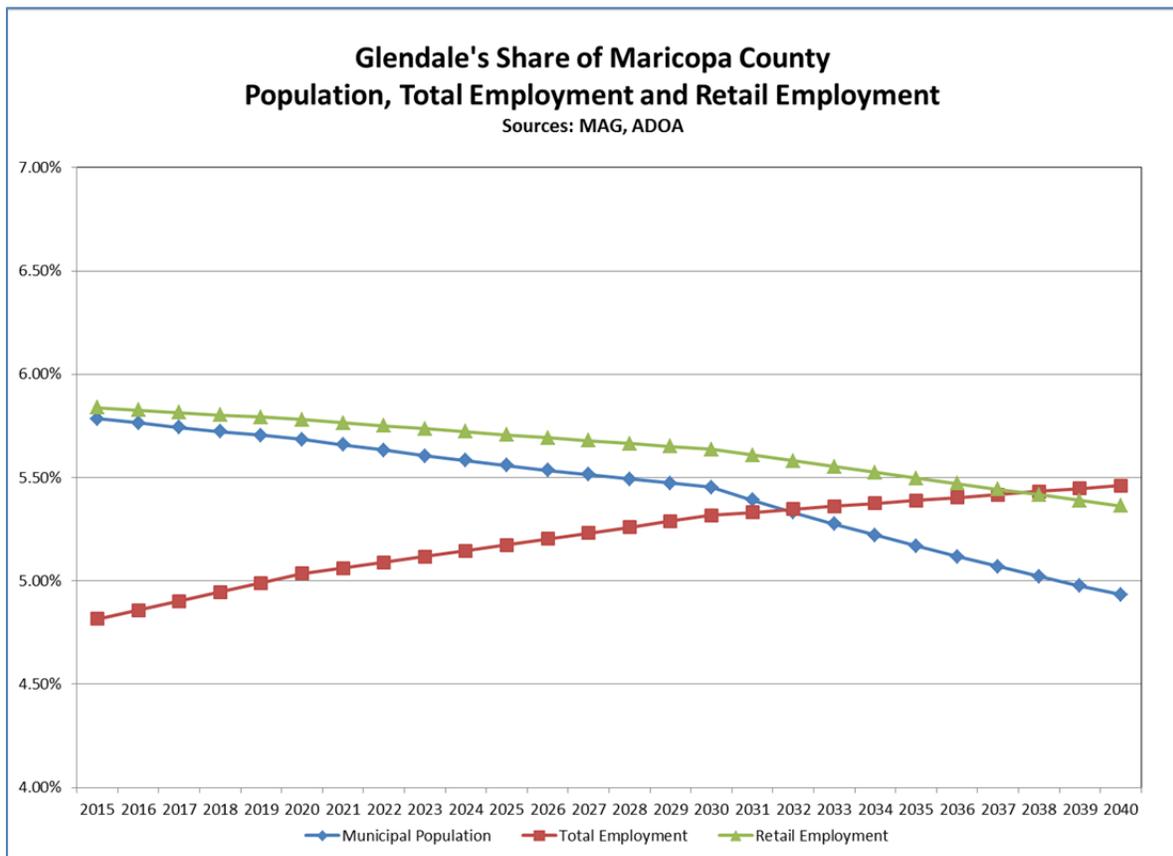
\*CAGR = Compounded Annual Growth Rate



Population and employment trends that were pertinent to this forecast are shown on Chart 5. In summary, Glendale’s share of Maricopa County’s population and retail employment is expected to trend downward over the next 25 years. Total employment, however, is expected to trend upward. This may reflect the fact that Glendale’s residential land base is dwindling while its employment land base is still available for development. Additionally, much of the growth of the Greater Phoenix area over the long term is expected to occur in the peripheral suburban communities. Glendale’s ability to capture some of this growth is limited because it is essentially landlocked by neighboring cities. While the western strip annexed area represents a growth area for the community, residential uses are largely excluded from the area due to noise generated by Luke AFB.

When the FY2016 GO transportation sales tax forecast is compared to the forecast for the Maricopa County Regional Area Road Fund (RARF) prepared by ADOT in 2014 (half-cent County-wide sales tax for transportation), the GO forecast shows consistency in future revenues through 2025. Overall, the GO forecast represents about 6.1% of expected RARF revenue from FY2016 to FY2025.

**Chart 5**



**Table 5**

<b>Comparison of Glendale GO Sales Tax Revenue To Maricopa County Regional Area Road Fund Revenues</b>			
<b>Fiscal Year</b>	<b>RARF</b>	<b>Glendale GO</b>	<b>Glendale GO Percent of RARF</b>
2016	\$402,000,000	\$24,206,200	6.02%
2017	\$421,000,000	\$25,399,200	6.03%
2018	\$441,800,000	\$26,688,000	6.04%
2019	\$460,100,000	\$28,060,400	6.10%
2020	\$479,100,000	\$29,444,700	6.15%
2021	\$498,300,000	\$30,759,200	6.17%
2022	\$519,200,000	\$32,112,900	6.19%
2023	\$540,400,000	\$33,515,100	6.20%
2024	\$563,000,000	\$34,998,800	6.22%
2025	\$586,600,000	\$36,472,000	6.22%
<b>Totals</b>	<b>\$4,911,500,000</b>	<b>\$301,656,500</b>	<b>6.14%</b>

Source: ADOT, Elliott D. Pollack & Co.

The City’s half-cent transportation sales tax which supports the GO Program produces significant revenue for the community’s transportation needs. It has been a stable source of revenue although it is subject to fluctuation depending upon economic conditions. The Great Recession, which lasted from December 2007 to June 2009, had an impact on sales tax receipts through FY2011. Revenue began to increase again in FY2012 and as of June 2015, revenues had recovered to levels equal to those prior to the recession. Continued stable growth of revenues is forecasted for the long term although economic cycles will inevitably occur.

### 5.0 Use of Debt Financing

GO Program managers are expected to recommend the use of bonds to support construction of various transportation-related improvements. The actual number, amount and timing of bonds will vary with Program needs and revenues. Both general obligation (GO) and revenue bonds could be used to support the GO Program. Section 3.0 of this report demonstrates that municipal financing rates have been on a long term downward trend and are now at historic lows. Most experts and observers believe that the Fed will likely begin to slowly increase interest rates in the second half of 2015. State and local bond rates should trend upward with the Fed rate increases. Interest rates on GO bonds will vary according to quality and credit rating.

Since 1990, the average 20-year municipal bond interest rate has been 5.17%; since 2000, the average interest rate has declined to 4.60%. For the purposes of this analysis, a conservative interest rate for a 20-year bond is 5.00% to 5.25%. A 25-year bond would have a slightly higher interest rate ranging from 5.50% to 5.75%.

