

RESOLUTION NO. 3491 NEW SERIES

A RESOLUTION OF THE COUNCIL OF THE CITY OF GLENDALE, MARICOPA COUNTY, ARIZONA, ADOPTING THIS NOTICE OF INTENTION TO INCREASE DEVELOPMENT IMPACT FEES; SETTING A PUBLIC HEARING ON THE PROPOSED INCREASE; AND FILING A WRITTEN REPORT SUPPORTING THE PROPOSED INCREASE WITH THE CITY CLERK.

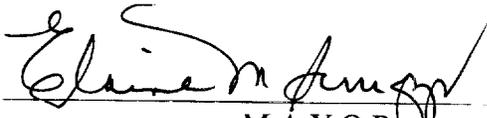
BE IT RESOLVED BY THE COUNCIL OF THE CITY OF GLENDALE as follows:

SECTION 1. That the City of Glendale hereby adopts this Notice of Intention to increase development impact fee rates.

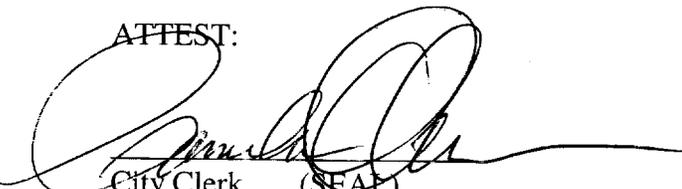
SECTION 2. That a public hearing on the proposed increase will be held before the City Council on September 11, 2001 at 7:00 p.m. in the Council Chambers of the Glendale Municipal Office Complex, 5850 West Glendale Avenue, Glendale, Arizona.

SECTION 3. That a written report supporting the proposed fee rates will be available beginning in the afternoon of July 24, 2001 in the office of the City Clerk for public use and inspection.

PASSED, ADOPTED AND APPROVED by the Mayor and Council of the City of Glendale, Maricopa County, Arizona, this 24<sup>th</sup> day of July, 2001.

  
MAYOR

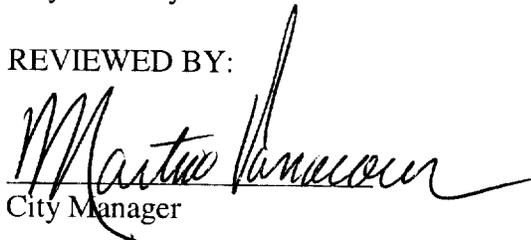
ATTEST:

  
City Clerk (SEAL)

APPROVED AS TO FORM:

  
City Attorney

REVIEWED BY:

  
City Manager

**WRITTEN REPORT**  
**SUPPORTING THE**  
**PROPOSED INCREASE**  
**TO**  
**DEVELOPMENT IMPACT FEES**

Notice of Increase Adopted on July 24, 2001 (Resolution No. 3491 New Series)

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## EXECUTIVE SUMMARY

Development fees are one-time payments used to fund system improvements needed to accommodate development. The City of Glendale intends to comply with all requirements of Arizona's Development Fees Act (Arizona Revised Statutes § 9-463.05). Consistent with this enabling legislation, the recommended development fees for the City are proportionate and reasonably related to the capital facility demands of new development. As documented in the cash flow analysis for each type of facility, the development fees will fund capital improvements that will substantially benefit new development. The City's development fee methodology also identifies the extent to which newly developed properties are entitled to credits that avoid potential double payment of capital costs.

Tischler & Associates, Inc. (TA) evaluated alternative methodologies and documented appropriate demand indicators by type of development, for each type of development fee. Specific capital costs have been identified using local data and current dollars. The formula used to calculate each development fee is diagrammed in a flow chart at the beginning of each section. Also, for each type of fee the report includes a summary table indicating the specific factors used to derive the development fee. These factors are also referred to as level-of-service (LOS) standards.

There are three basic *approaches* used to calculate the various components of Glendale's development fees. The **plan-based method** is best suited for public facilities, such as utilities and transportation systems, which have adopted plans or commonly accepted service delivery standards to guide capital improvements. The **incremental expansion method** documents the current LOS for each type of public facility in both quantitative and qualitative measures. Standards are determined in a manner similar to the replacement cost approach used by property insurance companies. However, in contrast to insurance practices, Glendale will not use the funds for renewal and/or replacement of existing facilities. Rather, the City's intent is to use development fee revenue to expand or provide additional facilities, as needed to accommodate new development. An incremental expansion cost method is best suited for public facilities that will be expanded in regular increments, with LOS standards based on current conditions in the community. A third method, known as the **buy-in approach**, is based on the rationale that new development is paying for its share of the useful life and remaining capacity of existing facilities.

Another general requirement that is common to development fee methodologies is the evaluation of *credits*. There are two types of credits that have been considered. First, to avoid potential double payment for capital facilities through on-going revenues that may fund system improvements, TA has evaluated the need for a **future revenue credit**.

The second type of credit is a **site-specific credit** for system improvements that have been included in the development fee calculations. Policies and procedures related to site-specific credits for system improvements will be addressed in the ordinance that establishes the City's fees. However, the general concept is that developers may be eligible for site-specific credits or reimbursements only if they provide system improvements that have been included in the development fee calculations. Project improvements that are normally required during the development approval process are not eligible for credits against development fees.

Glendale currently imposes fees for nine types of public facilities. The grand total development fee for a single-family detached house is currently \$6,982. According to the maximum supportable fee schedule, Glendale could impose a development fee of \$7,887 per single-family detached unit with 0.75 inch water and sewer meters. This fee total represents an increase of

	<i>Libraries</i>	<i>Parks, Rec &amp; Open Space</i>	<i>Solid Waste</i>	<i>Trans- portation</i>	<i>Police</i>	<i>Fire &amp; EMS</i>	<i>General Gov'l</i>	<i>Water System*</i>	<i>Sanitary Sewer*</i>	<i>Total</i>
<b>Residential</b>										
	<b>Per Housing Unit</b>									
Single Family Detached	\$514	\$1,091	\$264	\$613	\$359	\$339	\$660			\$3,840
Townhouse (SFA)	\$422	\$896	\$252	\$372	\$294	\$278	\$541			\$3,055
All Other Residential	\$372	\$790	\$49	\$372	\$260	\$245	\$478			\$2,566
<b>Nonresidential</b>										
	<b>Per Thousand Square Feet of Floor Area</b>									
Com / Shop Ctr 50,000 SF or less			\$75	\$2,484	\$508	\$229	\$605			\$3,901
Com / Shop Ctr 50,001-100,000 SF			\$66	\$2,189	\$448	\$200	\$528			\$3,431
Com / Shop Ctr 100,001-200,000 SF			\$58	\$1,907	\$390	\$178	\$469			\$3,002
Com / Shop Ctr over 200,000 SF			\$53	\$1,649	\$337	\$160	\$423			\$2,622
Office / Inst 25,000 SF or less			\$106	\$2,578	\$527	\$323	\$854			\$4,388
Office / Inst 25,001-50,000 SF			\$100	\$1,628	\$333	\$303	\$801			\$3,165
Office / Inst 50,001-100,000 SF			\$94	\$1,147	\$235	\$286	\$755			\$2,517
Office / Inst over 100,000 SF			\$89	\$913	\$187	\$268	\$708			\$2,165
Business Park			\$83	\$775	\$158	\$253	\$668			\$1,937
Light Industrial			\$61	\$649	\$132	\$185	\$488			\$1,515
Manufacturing			\$47	\$450	\$92	\$145	\$385			\$1,119
Warehousing			\$33	\$366	\$75	\$102	\$270			\$846
<b>All Development</b>										
	<b>Per Water Meter Size (Inches)</b>									
0.75" Meter							\$2,370	\$1,677		\$4,047
1.00" Meter							\$4,030	\$2,851		\$6,881
1.50" Meter							\$7,823	\$5,534		\$13,357
2.00" Meter							\$12,565	\$8,889		\$21,454
3.00" Meter							\$26,078	\$18,449		\$44,527
4.00" Meter							\$40,303	\$28,512		\$68,815

\* Development fees for meters larger than four inches will be based on annualized average day demand and the net capital cost per gallon of capacity.

\$905 per housing unit over the current fee.

For residential development, fees will be imposed per housing unit and will be collected when building permits are issued. For nonresidential development, fees will be determined per 1,000 square feet of floor area. The City may adopt fees that are less than the amounts shown. However, a reduction in development fee revenue will necessitate an increase in other revenues, a decrease in planned capital expenditures and/or a decrease in the City's LOS standards. At the maximum supportable level, development fee revenue for all nine types of public facilities should average approximately \$18.7 million per year. Development fees are not a general revenue-raising mechanism. The purpose of imposing development fees is to fund the construction of capital improvements necessary to accommodate new development.

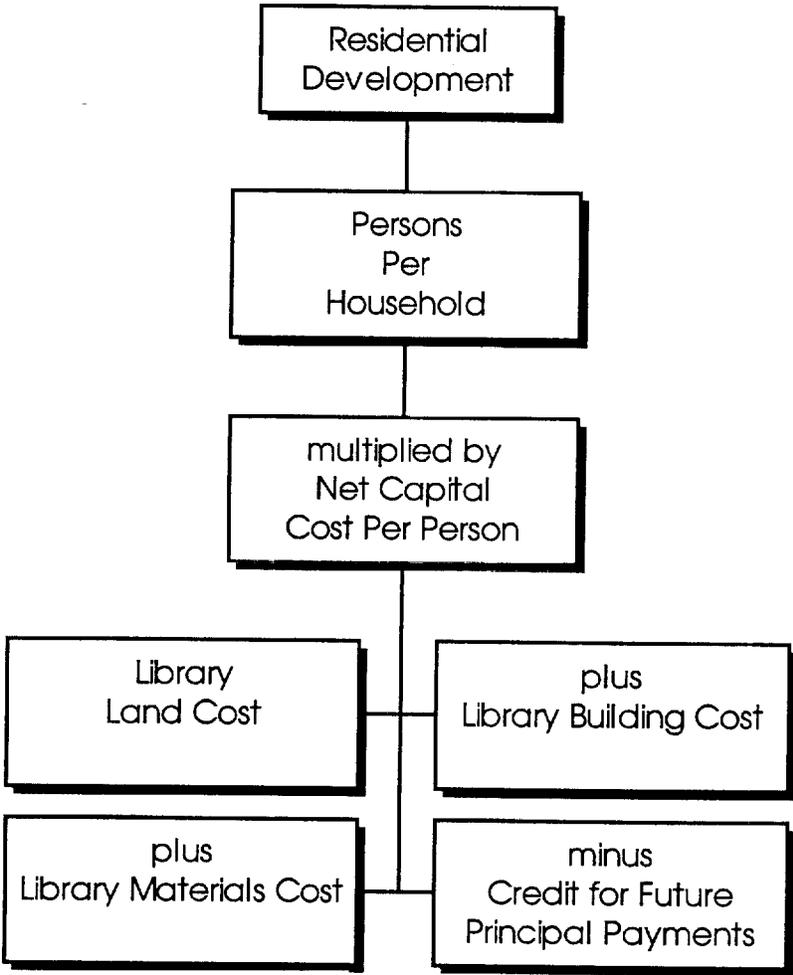
Nonresidential development categories are consistent with the terminology and definitions contained in the reference book, Trip Generation, published by the Institute of Transportation Engineers (ITE). These definitions can be found in the Implementation and Administration section at the back of this report.

# LIBRARIES

## Methodology

Development fees for libraries are derived from an incremental expansion cost approach using current Levels-Of-Service (LOS) in Glendale. The methodology chart shown in Figure 1 indicates all capital costs are allocated to residential development. Per capita standards are multiplied by average household size to yield the applicable fee by type of housing unit.

**Figure 1 - Library Development Fee Methodology Chart**



## **Level-of-Service**

### ***Land***

Figure 2 documents current library standards in Glendale. The Main Library, Downtown Branch and North Branch have a total land area of 18.8 acres. Land cost, at \$33,000 per acre, is based on the recent purchase of a multi-purpose site on the west side of Glendale that will be used for a future library, park and public safety building. Glendale paid \$2,954,932 for 88.24 acres of land near 83<sup>rd</sup> Avenue and Bethany Home Road. Based on the year 2000 population estimate, the standard for library land is 0.09 acres per 1,000 residents. The cost per demand unit (per capita) is \$2.92.

### ***Buildings***

For library buildings, the current standard is 0.53 square feet per capita. The cost of design, construction, furnishings, and equipment is \$197 per square foot, as documented by the cost of the Foothills Branch Library. The 33,500 square feet facility cost the City of Glendale \$6.59 million for construction, design fees, furnishings and equipment. The cost per capita for buildings is \$104.52.

### ***Collections***

The current collection materials standard is 1.72 materials per person. The cost of library materials used in the development fee calculations is based on the actual cost of materials purchased by Glendale libraries in 1999. The City spent \$1,505,287 on 35,347 library materials, which is an average cost of \$42.59 per item. This generates a cost of \$73.89 per capita as shown below.

**Figure 2 - Library Level-Of-Service Standards**

**Land**

	<i>Acreage</i>	<i>Cost/Acre</i>	<i>Current Cost</i>
Main Library	10.0		
Downtown Branch	3.3		
North Branch	5.5		
	18.8	\$33,000	\$620,400
Residential Share	2000 Demand Units		Cost per Demand Unit
100%	212,400 Population		\$2.92
Acres Per 1,000 Population	0.09		

**Buildings**

	<i>Square Feet</i>	<i>Cost/SF*</i>	<i>Current Cost</i>
Main Library	64,200	\$197	\$12,647,400
Downtown Branch	15,000	\$197	\$2,955,000
North Branch	33,500	\$197	\$6,599,500
	112,700		\$22,201,900
Residential Share	2000 Demand Units		Cost per Demand Unit
100%	212,400 Population		\$104.52
Square Feet Per Capita	0.53		

**Collection Materials**

	<i># of units</i>	<i>Unit Price</i>	<i>Current Cost</i>
Hardcover Books	298,233		\$12,824,019
Paperbacks	44,641		\$1,919,563
Audiovisual	22,112		\$950,816
TOTAL	364,986	\$43	\$15,694,398
Residential Share	2000 Demand Units		Cost per Demand Unit
100%	212,400 Population		\$73.89
Materials Per Person	1.72		

\* Building costs include construction, furniture, equipment and design fees.

**Credits**

If adopted at the maximum supportable amount, development fees will enable Glendale to maintain current level-of-service standards for libraries. Because the City has outstanding General Obligation bonds that provided funds for the construction of existing libraries, new development should be given a credit for future principal payments. A credit is not necessary for interest payments because interest costs were not included in the development fees for libraries. As shown in Figure 3, the net present value of future principal payments is \$16.41 per person. The present value adjustment accounts for the time value of future payments. An annual discount rate of 5% is consistent with the interest rate Glendale is paying on its most recent GO bonds. (For further demographic and land use projections, please see the section "Development Projections" at the end of this report.)

**Figure 3 - Principal Payment Credit for Libraries**

Fiscal Year	Series 1996 Principal	Series 1998 Principal	Population	Payment Per Capita
2002	\$193,000	\$666,800.00	222,400	\$3.87
2003	\$25,000	\$690,300.00	227,400	\$3.15
2004		\$719,800.00	232,400	\$3.10
2005		\$752,250.00	237,200	\$3.17
2006		\$787,650.00	241,900	\$3.26
2007		\$672,600.00	246,600	\$2.73
<b>TOTAL</b>	<b>\$218,000</b>	<b>\$4,289,400</b>		<b>\$19.26</b>
		Discount Annual Percentage Rate		5%
		Net Present Value		\$16.41

**Maximum Supportable Development Fees**

Maximum supportable development fees for libraries are shown in Figure 4. The current development fee for libraries is \$452 per Single Family Detached (SFD) house. The maximum supportable development fee will increase this amount by \$62 per unit to a proposed fee of \$514 per SFD.

**Figure 4 - Library Development Fees**

	<i>Standards:</i>
<b>Persons Per Household</b>	
Single Family Detached	3.12
Townhouse (SFA)	2.56
All Other Residential	2.26
<b>Level Of Service</b>	<u>Per Person</u>
Land Cost	\$2.92
Building Cost	\$104.52
Collection Cost	\$73.89
Debt Service Credit	(\$16.41)
Net Capital Cost	\$164.92
<b>Maximum Supportable Development Fee</b>	
<u>Residential</u>	<u>Per Housing Unit</u>
Single Family Detached	\$514
Townhouse (SFA)	\$422
All Other Residential	\$372

**Cash Flow Summary**

Figure 5 indicates the projected library development fee revenue and growth-related capital costs. Development fees are projected to yield approximately \$793,000 in average annual revenue over the next ten years. According to Glendale’s Capital Improvement Plan (CIP), the library development fee fund has a current balance of \$3,143,000 (for buildings and books). Rather than make annual expenditures on library buildings, as shown in the table below, the City will probably accumulate funds until it is time to construct the West Branch Library. Over the next ten years, Glendale will spend approximately \$8.8 million on growth-related capital costs for library improvements. In the following table, years 3, 5, 7 and 9 are not displayed to enable it to be printed on one page.

**Figure 5 - Cash Flow Summary for Libraries**

Glendale, Arizona  
(Current \$ in thousands)

1/4/2000 TA Memo on Demographic Data

	1 2002	2 2003	4 2005	6 2007	8 2009	10 2011	Cumulative Total	Average Annual
<b>REVENUES</b>								
1 Library Fee - SFD	\$430	\$430	\$487	\$545	\$545	\$573	\$5,018	\$502
2 Library Fee - Twnhse	\$38	\$38	\$43	\$48	\$48	\$50	\$441	\$44
3 Library Fee - Other Res	\$211	\$211	\$240	\$268	\$268	\$282	\$2,467	\$247
<b>Subtotal Library Dev Fees</b>	<b>\$679</b>	<b>\$679</b>	<b>\$770</b>	<b>\$861</b>	<b>\$861</b>	<b>\$906</b>	<b>\$7,926</b>	<b>\$793</b>
<b>CAPITAL COSTS</b>								
Library Land	\$0	\$0	\$0	\$0	\$0	\$33	\$132	\$13
Library Buildings	\$509	\$522	\$501	\$491	\$491	\$574	\$5,072	\$507
Library Materials	\$374	\$366	\$352	\$344	\$344	\$403	\$3,575	\$357
<b>Subtotal Library Costs</b>	<b>\$883</b>	<b>\$888</b>	<b>\$853</b>	<b>\$835</b>	<b>\$835</b>	<b>\$1,010</b>	<b>\$8,779</b>	<b>\$878</b>
<b>NET CAPITAL FACILITIES CASH FLOW - Libraries</b>								
Annual Surplus (or Deficit)	Inif Bal	(\$204)	(\$209)	(\$83)	\$25	\$25	(\$104)	
Cumulative Surplus (or Deficit)	\$3,143	\$2,939	\$2,730	\$2,405	\$2,423	\$2,441	\$2,289	

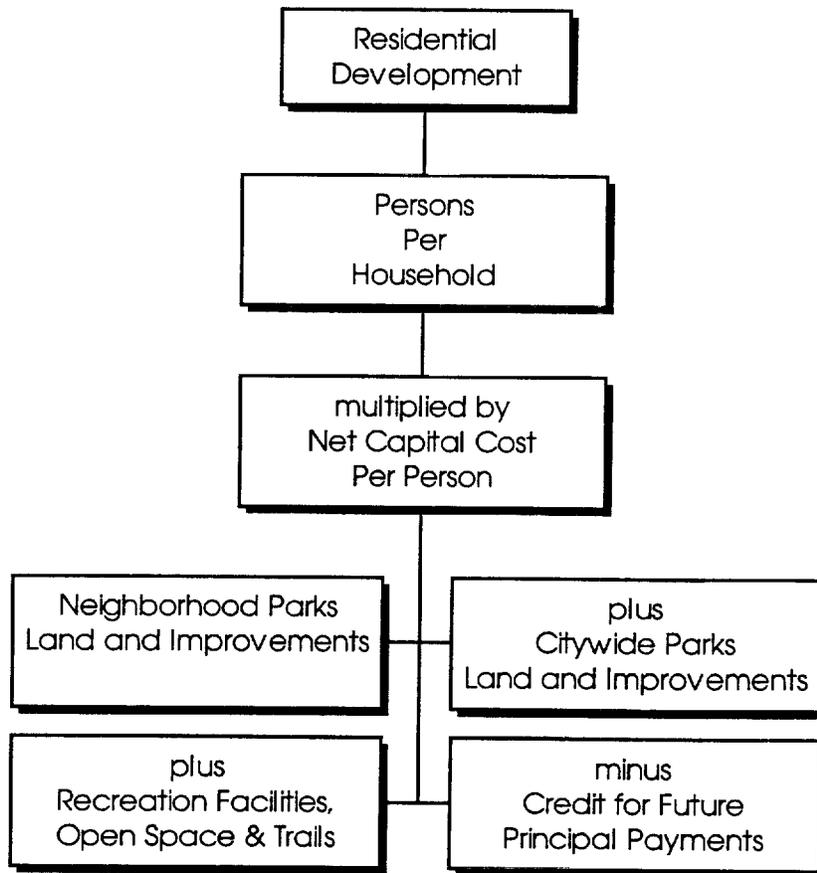
Current \$ in thousands  
(\$853) (\$85)

# PARKS, RECREATION, AND OPEN SPACE

## Methodology

The methodology for the park development fee is shown in Figure 6. The park development fee includes recreation facilities and open space. Cost components were allocated 100% to residential development. Glendale's park development fee calculations are conservatively based on the **incremental expansion cost** methodology. All citywide parks, recreation facilities, and open space and trails included in the development fees are assumed to have a citywide service area. The neighborhood parks component of the development fee will continue to be collected and expended in the currently designated zones.

**Figure 6 - Park Development Fee Methodology Chart**



## Level-Of-Service

### ***Neighborhood Parks***

According to the data shown in Figure 7, the current standards for neighborhood parks are 0.95 acres per 1,000 residents and improvement costs of \$73,000 per acre. The cost of land, at

\$50,000 per acre, should be added to the cost of improvements for a total capital cost of \$123,000 per acre of neighborhood parks. The improvement cost per capita is \$69.

**Figure 7 - Neighborhood Parks Standards**

Park	Acreage	Athletic Courts*	Ballfields	Playgrounds	Ramadas	Rest Rooms	Soccer/ Football	Miscellaneous**
Acoma	3.3	3		1	1			\$99,000
Arrowhead Lakes	5.0	2		1	1			\$150,000
Bicentennial	5.0	4	1	1	1			\$150,000
Butler	5.0			1	1		1	\$150,000
Carmel	5.0	2		1	1			\$150,000
Cholla	5.7	8	1	1	1	1	1	\$171,000
Clavelito	5.0	1		1				\$150,000
Country Gables	4.0			1			1	\$120,000
Delicias	5.0	1		1				\$150,000
Desert Gardens	8.0	3	1	1	1		1	\$240,000
Desert Mirage	8.0	3	1	1	1			\$240,000
Desert Rose	7.0	3		1	1			\$210,000
Desert Valley	6.0		4	1	1		1	\$180,000
Discovery	9.6	3	2	2			1	\$288,000
Dos Lagos	5.0	1		1	1			\$150,000
Greenbrier	3.0	1		1	1			\$90,000
Heritage	3.3			1			1	\$99,000
Hillcrest	8.0		1	1	1			\$240,000
Horizon	5.0			1	1		1	\$150,000
Kings	5.0		1	1	1		1	\$150,000
Lawrence	2.9	1	1	1				\$87,000
Maryland Lakes	6.0							\$180,000
Mary Silva	5.0			1				\$150,000
Memmingen	1.5	7		1	1			\$45,000
Mission	4.5	5	1	1	1		1	\$135,000
Mondo	5.2			1			1	\$156,000
Montara	5.3	6						\$159,000
Murphy	2.5					1		\$75,000
New World	8.0	3	1	1	1		1	\$240,000
Oasis	5.6	3		1	1			\$168,000
Pasadena	3.0	1	1	1	1			\$90,000
Sands	5.6	8		1		1	4	\$168,000
Sierra Verde	8.0	4	2	1	1			\$240,000
Sunset	3.6			1	1		1	\$108,000
Sunset Palms	8.0	6	1	1	1		1	\$240,000
Sunnyside	8.0	1		1	1		1	\$240,000
Tierra Buena	5.0	8	1	1	1			\$150,000
Utopia	3.0	2		1	1			\$90,000
<b>TOTAL</b>	<b>201.6</b>	<b>90</b>	<b>20</b>	<b>36</b>	<b>26</b>	<b>3</b>	<b>19</b>	<b>Per Acre Cost**</b>
Unit Price		\$25,000	\$120,000	\$50,000	\$18,000	\$120,000	\$75,000	\$30,000
Cost of Improvements		\$2,250,000	\$2,400,000	\$1,800,000	\$468,000	\$360,000	\$1,425,000	\$6,048,000
Total Improvements	\$14,751,000							
Population in 2000	212,400							
Acres Per 1,000 Residents	0.95							
Improvements Cost Per Acre	\$73,000							
Improvements Per Capita	\$69							

\* Athletic Courts includes basketball, tennis, racquetball and volleyball.  
 \*\* Miscellaneous includes items such as parking lots, lighting, landscaping, utilities and irrigation.  
 The average cost per acre is based on actual expenditures at Desert Gardens and Discovery Park.

## Community Parks

As with the previous development fee study, TA recommends that Glendale continue to include community and regional parks under the heading of Citywide Parks. As shown in Figure 8, the current standards for Citywide Parks are 1.31 acres per 1,000 residents and an improvements cost of \$61,000 per acre. With a land cost of \$50,000 per acre, the total cost of Citywide Parks is \$111,000 per acre, or \$80 per capita.

**Figure 8 - LOS Standards for Citywide Parks**

Park	Acreage	Athletic Courts	Ballfields	Playgrounds	Ramadas	Rest Rooms	Soccer/ Football	Misc Park Improvements*
Bonsall North	10.0	14		1	1	1		\$350,000
Bonsall South	7.0			1	1	1		\$245,000
Chapparal	11.0	7	1	1	1		1	\$385,000
Hidden Meadows	10.0			1	1			\$350,000
Lions	9.6		1	1		1		\$336,000
O'Neil	11.0	5	2	1		1	1	\$385,000
Paseo Racquet Center	23.0	19	4			1	1	\$805,000
Rose Lane	19.0	6	2	1		1		\$665,000
Foothills	42.0		3			1	1	\$1,470,000
Sahuaro Ranch	80.0	4	4	1	1	1	3	\$2,800,000
Thunderbird Paseo	55.0	6		1	1	1	2	\$1,925,000
<b>TOTAL</b>	<b>277.6</b>	<b>61</b>	<b>17</b>	<b>9</b>	<b>6</b>	<b>9</b>	<b>9</b>	<b>Per Acre Cost \$35,000</b>
Unit Price		\$35,000	\$150,000	\$50,000	\$18,000	\$120,000	\$100,000	\$35,000
Cost of Improvements		\$2,135,000	\$2,550,000	\$450,000	\$108,000	\$1,080,000	\$900,000	\$9,716,000
Total Improvements		\$16,939,000						
Population in 2000		212,400						
Acres Per 1,000 Residents		1.31						
Improvements Cost Per Acre		\$61,000						
Improvements Per Capita		\$80						

\* These costs include items such as parking lots, lighting, landscaping, utilities and irrigation.

## Recreational Facilities

TA recommends adding the capital cost of recreation facilities, such as community centers and pools, to the development fees. Figure 9 contains a list of the current recreation facilities in Glendale. City staff provided the replacement cost of each facility. A cost of \$79 per capita is determined for recreation facilities.

**Figure 9 - Recreation Facilities Standard**

<i>Site</i>	<i>Square Feet</i>	<i>Cost Per Square Foot</i>	<i>Replacement Cost</i>
Glendale Adult Center	19,800	\$125	\$2,475,000
North Community Center	3,000	\$125	\$375,000
O'Neil Community Center	5,200	\$125	\$650,000
Rose Lane Community Center	4,100	\$125	\$512,500
Glendale Community Center	3,700	\$125	\$462,500
O'Neil Pool			\$1,700,000
Rose Lane Pool			\$1,700,000
Cardinal Pool			\$1,700,000
Apollo Pool			\$1,700,000
Community Pool			\$1,700,000
Ironwood Pool			\$2,000,000
Cactus Pool			\$2,000,000
TOTAL			\$16,975,000
Population in 2000			212,400
Cost Per Capita			\$79

***Open Space***

In Figure 10, Alternative A is based on the area of Thunderbird Park. The current standard for open space is 5.58 acres per 1,000 persons. For comparison, Alternative B indicates the data if the City were to adopt an open space acreage standard of 10 acres per 1,000 persons. However, the higher LOS would result in an existing deficiency of \$4,695,000 that must be met with non-development fee funding. For the open space component of the development fee, TA used a cost factor of \$5,000 per acre as provided by City staff, which could be used for a variety of expenditures including purchase of additional land, development rights or conservation easements. The City may also use development fees for improvements that enhance public access the open space, such as parking areas and trails.

**Figure 10 - Open Space Standard**

		Alternative A	Alternative B
<b>Demand Units</b>			
Population in 2000	212,400		
Population in 2010	260,600		
<b>Acreage</b>			
Current Open Space Acreage*	1,185		
Acres Per 1K Population (rounded)		5.58	10.00
Acres Needed in 2000		1,185	2,124
Acres Needed in 2010		1,454	2,606
<b>Cost</b>			
Average Cost Per Acre**	\$5,000		
Existing Deficiency in 2001		\$0	\$4,695,000
Cost of Open Space in 2010		\$7,270,000	\$13,030,000
Capital Cost Per Capita		\$27	\$50
Open Space Fee Per SFD Unit		\$84	\$156

\* Based on area of Thunderbird Park.

\*\* Cost per acre is based on anticipated expenditures for open space. Development fees may be used for the purchase of land, development rights, conservation easements or improvements.

### **Credits**

Glendale is making payments on two General Obligation (GO) bonds that financed park improvements. To avoid potential double payment for park facilities, TA recommends a principal payment credit as shown in Figure 11. Because interest costs have not been added to the development fees, a credit is not necessary for future interest payments. Due to the time value of future payments, a net present value adjustment is used in the calculation of the credit. The credit for parks is calculated to be \$17.73 per capita on a net present value basis.

**Figure 11 - Principal Payment Credit for Parks**

Fiscal Year	Series 1996 Principal	Series 1998 Principal	Population	Payment Per Capita
2002	\$566,400		222,400	\$2.55
2003	\$675,200		227,400	\$2.97
2004	\$704,000		232,400	\$3.03
2005	\$739,200		237,200	\$3.12
2006	\$771,200		241,900	\$3.19
2007		\$260,000	246,600	\$1.05
2008		\$1,465,000	251,300	\$5.83
<b>TOTAL</b>	<b>\$3,456,000</b>	<b>\$1,725,000</b>		<b>\$21.73</b>
				<b>Discount Annual Percentage Rate 5%</b>
				<b>Net Present Value \$17.73</b>

**Maximum Supportable Development Fees**

LOS standards for park development fees are shown in the boxed area of Figure 12. Although derived as four separate components, the City may deposit the development fee revenue in one account, which will provide greater flexibility in funding the capital improvements program. However, the neighborhood park component of the development fees must be accounted for by collection and expenditure zone. The current park development fee is \$1,094 per SFD house. The maximum supportable fee amount of \$1,091 per SFD unit represents an decrease of \$3.

**Figure 12 - Parks, Open Space & Recreation Facilities Development Fee**

		<i>Standards:</i>				
<b>Persons Per Housing Unit</b>						
	Single Family Detached		3.12			
	Townhouse (SFA)		2.56			
	All Other Residential		2.26			
<b>Level Of Service</b>						
	<u>Neighborhood Parks</u>					
	Acres Per 1,000 Residents		0.95			
	Land Cost Per Acre		\$50,000			
	Improvements Cost Per Acre		\$73,000			
	<u>Citywide Parks</u>					
	Acres Per 1,000 Residents		1.31			
	Land Cost Per Acre		\$50,000			
	Improvements Cost Per Acre		\$61,000			
	<u>Citywide Recreation Facilities</u>					
	Capital Cost Per Capita		\$79			
	<u>Citywide Open Space and Trails</u>					
	Capital Cost Per Capita		\$27			
	<u>Credit for Principal Payments on GO Bonds</u>					
	Credit Per Capita		(\$18)			
<b>Maximum Supportable Development Fee Per Housing Unit</b>						
	Neighborhood Parks	Citywide Parks	Recreation Facilities	Open Space & Trails	Credit	TOTAL
Single Family Detached	\$364	\$453	\$246	\$84	(\$56)	\$1,091
Townhouse (SFA)	\$299	\$372	\$202	\$69	(\$46)	\$896
All Other Residential	\$264	\$328	\$178	\$61	(\$41)	\$790

**Cash Flow Summary**

Development fee revenue for parks, recreation and open space is projected to average approximately \$1.69 million per year over the next ten years. According to Glendale’s CIP, the park development fee fund balance is currently \$2,901,000. To maintain the LOS standard for parks, recreation facilities and open space, Glendale will spend approximately \$18 million on growth-related capital improvements over the next ten years. To avoid the projected deficits shown in Figure 13, Glendale should annually increase the park development fees as it retires outstanding GO debt, thus lowering the principal payment credit. Years 3, 5, 7 and 9 are not displayed to enable the following table to be printed on one page.

**Figure 13 - Cash Flow Summary for Parks, Recreation & Open Space**

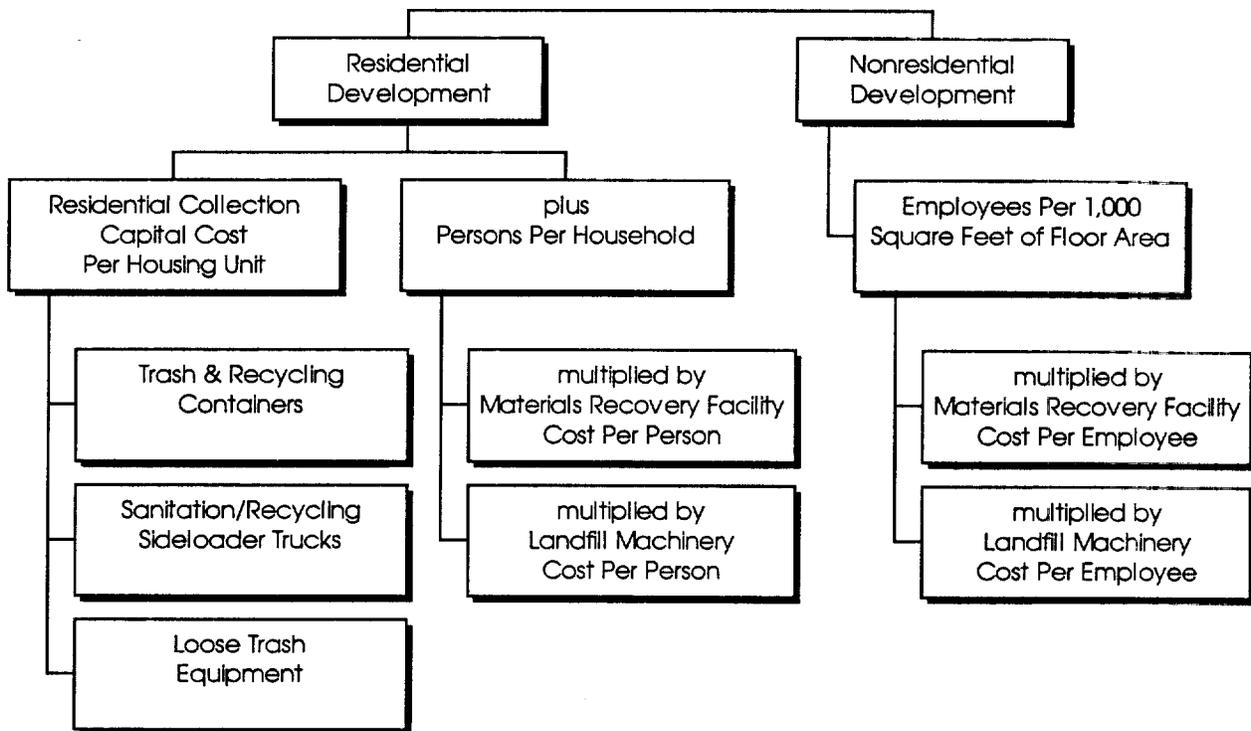
Glendale, Arizona (Current \$ in thousands)		1/4/2000 TA Memo on Demographic Data						Cumulative Total	Average Annual
	1 2002	2 2003	4 2005	6 2007	8 2009	10 2011			
<b>REVENUES</b>									
4 Parks/Rec/OS&T Fee - SFD	\$916	\$916	\$1,039	\$1,161	\$1,161	\$1,222	\$10,692	\$1,069	
5 Parks/Rec/OS&T Fee - Twnhs	\$81	\$81	\$91	\$102	\$102	\$108	\$941	\$94	
6 Parks/Rec/OS&T Fee - Other	\$450	\$450	\$510	\$570	\$570	\$600	\$5,254	\$525	
<b>Subtotal Parks/Rec/OS&amp;T Dev Fee:</b>	<b>\$1,447</b>	<b>\$1,447</b>	<b>\$1,640</b>	<b>\$1,833</b>	<b>\$1,833</b>	<b>\$1,930</b>	<b>\$16,886</b>	<b>\$1,689</b>	
<b>CAPITAL COSTS</b>									
Neighborhood Parks	\$492	\$615	\$492	\$492	\$492	\$615	\$5,658	\$566	
Community Parks	\$666	\$777	\$777	\$666	\$666	\$888	\$7,104	\$710	
Recreation Facilities	\$395	\$395	\$379	\$371	\$371	\$435	\$3,847	\$385	
Open Space & Trails	\$135	\$135	\$130	\$127	\$127	\$149	\$1,315	\$131	
<b>Subtotal Parks/Rec/OS&amp;T Costs</b>	<b>\$1,688</b>	<b>\$1,922</b>	<b>\$1,778</b>	<b>\$1,656</b>	<b>\$1,656</b>	<b>\$2,086</b>	<b>\$17,924</b>	<b>\$1,792</b>	
<b>NET CAPITAL FACILITIES CASH FLOW - Parks, Recreation, Open Space &amp; Trails</b>							Current \$ in thousands		
Annual Surplus (or Deficit)	Init Bal	(\$241)	(\$475)	(\$137)	\$177	\$177	(\$156)	(\$1,038)	(\$104)
Cumulative Surplus (or Deficit)	\$2,901	\$2,660	\$2,186	\$1,685	\$1,916	\$2,147	\$1,863		

# SOLID WASTE

## Methodology

In 1999, Glendale adopted a solid waste development fee that is imposed on single-family detached and attached housing units. TA prepared an update to the residential collection component of the solid waste development fee using an incremental expansion cost methodology. As shown in Figure 14, this fee covers the capital cost of trash and recycling containers, side-loader trucks, and equipment needed to collect loose trash from residential areas of the City. Loose trash collection requires a truck, trailer, and loader.

**Figure 14 - Solid Waste Development Fee Methodology Chart**



## Level-Of-Service

### **Materials Recovery Facility**

The solid waste development fee includes the *plan-based cost* of the Materials Recovery Facility and the incremental expansion cost of landfill machinery. The cost of these items was allocated to both residential and nonresidential development since all trash haulers covering the City will use the facility. Glendale has spent approximately \$10.5 million for a Materials Recovery Facility (MRF) that will be adequate through the year 2010. Materials generated by Glendale should account for 60% of the MRF capacity and 40% of the remaining capacity will be used by other communities. According to Glendale's population to job ratio, 74% of the

material generated will come from residential development. Therefore, the proportionate share factor for residential development is 44% of the total MRF cost, with nonresidential development accounting for 16% of the total MRF cost. This generates a cost of \$17.75 per capita for residential development and \$17.02 per job for nonresidential development.

### Landfill Machinery

The solid waste development fee level-of-service standards include an *incremental expansion* component for machinery that is used at the landfill. An inventory of the current landfill machinery is shown in Figure 15 below. Landfill records indicate that residential development in Glendale accounts for 28% of the total annual tonnage, while Glendale's nonresidential development accounts for 21% of the total annual tonnage. The cost for these components is \$4.39 per capita for residential development and \$9.60 per job for nonresidential development.

**Figure 15 - Materials Recovery and Landfill Machinery LOS Standards**

**Plan-Based Component for Materials Recovery Facility**

<i>Project</i>	<i>Planned Cost</i>
Site Excavation and Environmental Protection	\$2,300,000
MRF Building	\$4,500,000
MRF Equipment	\$2,400,000
Engineering Fees	\$1,314,000
<b>TOTAL</b>	<b>\$10,514,000</b>

	Proportionate Share	2010 Demand Units	Cost per Demand Unit
Residential	44%	260,600 Population	\$17.75
Nonresidential	16%	98,800 Jobs	\$17.02

Weighted Avg Cost per Person and Job \$17.56

**Incremental Expansion Component for Landfill Machinery**

<i>Type</i>	<i>Units</i>	<i>Unit Cost</i>	<i>Replacement Cost</i>
Compactors	2	\$370,000	\$740,000
Bulldozer	1	\$370,000	\$370,000
Water Wagon	1	\$175,000	\$175,000
Grader	1	\$175,000	\$175,000
Scaper (33 cu yd)	1	\$950,000	\$950,000
Screen	1	\$275,000	\$275,000
Tub Grinder	1	\$400,000	\$400,000
Loaders	2	\$125,000	\$250,000
<b>TOTAL</b>	<b>10</b>	<b>\$3,335,000</b>	<b>\$3,335,000</b>

	Proportionate Share	2000 Demand Units	Cost per Demand Unit
Residential	28%	212,400 Population	\$4.39
Nonresidential	21%	72,900 Jobs	\$9.60

Weighted Avg Cost per Person and Job \$5.74

## **Maximum Supportable Development Fees**

Figure 16 indicates current cost factors for equipment needed to collect trash and recycling materials from single-family residential development. Each single-family housing unit receives one container for trash and another for recycling materials. The solid waste containers cost \$100 per housing unit. The side-loader trucks used for collection have a capital cost of \$175,000. Based on the current inventory of 23 side-loader trucks and 49,910 housing units in the service area (i.e., both single family detached and attached units), each truck is able to serve approximately 2,200 housing units, which is an average cost of \$79 per unit. A set of loose trash equipment has a cost of \$145,000 and is able to accommodate 8,500 housing units. Therefore, the average cost of loose trash equipment is \$17 per housing unit. Based on the cost factors discussed above, the maximum supportable development fee for residential collection is \$196 per housing unit.

With the costs of the material recovery facility and landfill machinery included, the total solid waste development fee is \$264 for a single-family detached house.

**Figure 16 – Solid Waste Development Fee**

		<i>Standards:</i>			
<b>Persons Per Household</b>					
	Single Family Detached		3.12		
	Townhouse (SFA)		2.56		
	All Other Residential		2.26		
<b>Employees Per 1,000 Square Feet</b>					
	Com / Shop Ctr 50,000 SF or less			2.86	
	Com / Shop Ctr 50,001-100,000 SF			2.50	
	Com / Shop Ctr 100,001-200,000 SF			2.22	
	Com / Shop Ctr over 200,000 SF			2.00	
	Office / Inst 25,000 SF or less			4.04	
	Office / Inst 25,001-50,000 SF			3.79	
	Office / Inst 50,001-100,000 SF			3.57	
	Office / Inst over 100,000 SF			3.35	
	Business Park			3.16	
	Light Industrial			2.31	
	Manufacturing			1.82	
	Warehousing			1.28	
<b>Level Of Service</b>		<u>Per Housing Unit</u>	<u>Per Person</u>	<u>Per Employee</u>	
	Trash & Recycling Containers Cost	\$100.00			
	Sideloader Truck Cost	\$79.00			
	Loose Trash Equipment Cost	\$17.00			
	Materials Recovery Facility Cost		\$17.75	\$17.02	
	Landfill Machinery Cost		\$4.39	\$9.60	
<b>Maximum Supportable Development Fee</b>					
		<i>Residential Collection</i>	<i>Materials Recovery</i>	<i>Landfill Machinery</i>	<i>TOTAL</i>
<u>Residential</u>	<u>Per Housing Unit</u>				
	Single Family Detached	\$196	\$55	\$13	\$264
	Townhouse (SFA)	\$196	\$45	\$11	\$252
	All Other Residential	not applicable	\$40	\$9	\$49
<u>Nonresidential</u>			<u>Per 1,000 Square Feet</u>		
	Com / Shop Ctr 50,000 SF or less		\$48	\$27	\$75
	Com / Shop Ctr 50,001-100,000 SF		\$42	\$24	\$66
	Com / Shop Ctr 100,001-200,000 SF		\$37	\$21	\$58
	Com / Shop Ctr over 200,000 SF		\$34	\$19	\$53
	Office / Inst 25,000 SF or less		\$68	\$38	\$106
	Office / Inst 25,001-50,000 SF		\$64	\$36	\$100
	Office / Inst 50,001-100,000 SF		\$60	\$34	\$94
	Office / Inst over 100,000 SF		\$57	\$32	\$89
	Business Park		\$53	\$30	\$83
	Light Industrial		\$39	\$22	\$61
	Manufacturing		\$30	\$17	\$47
	Warehousing		\$21	\$12	\$33

## Cash Flow Summary

Projected solid waste development fee revenue is expected to average \$404,000 per year. The cumulative capital cost of approximately \$1.3 million for the material recovery facility is the pro rata share due to new development in the City of Glendale. To keep pace with new development, Glendale will spend \$425,000 on additional landfill machinery over the next ten years. Although years 3, 5, 7 and 9 are not displayed in the table below, the cash flow analysis indicates Glendale will need to purchase one additional side-loader truck every two to three years. An additional set of loose-trash equipment is needed in Year 1 and Year 6. Although the City may have to accumulate funds over several years in order to purchase an expensive solid waste truck, development fee revenue will cover the cost of equipment needed to maintain LOS standards (see Figure 17).

Figure 17 - Cash Flow Summary for Solid waste

Glendale, Arizona (Current \$ in thousands)		1/4/2000 TA Memo on Demographic Data						Cumulative Total	Average Annual
		1 2002	2 2003	4 2005	6 2007	8 2009	10 2011		
<b>REVENUES</b>									
7	Sanitation Fee - SFD	\$222	\$222	\$251	\$281	\$281	\$296	\$2,587	\$259
8	Sanitation Fee - Twnhse	\$23	\$23	\$26	\$29	\$29	\$30	\$265	\$26
9	Sanitation Fee - Other Res	\$28	\$28	\$32	\$35	\$35	\$37	\$326	\$33
10	Sanitation Fee - Commercial	\$32	\$32	\$33	\$25	\$25	\$18	\$271	\$27
11	Sanitation Fee - Off/Inst	\$45	\$45	\$47	\$36	\$36	\$25	\$386	\$39
12	Sanitation Fee - Industrial	\$24	\$24	\$25	\$19	\$19	\$13	\$205	\$20
<b>Subtotal Sanitation Dev Fees</b>		<b>\$374</b>	<b>\$374</b>	<b>\$414</b>	<b>\$426</b>	<b>\$426</b>	<b>\$419</b>	<b>\$4,039</b>	<b>\$404</b>
<b>CAPITAL COSTS</b>									
	Sanitation Containers	\$93	\$93	\$105	\$118	\$118	\$124	\$1,085	\$109
	Sanitation Sideloaders	\$175	\$0	\$175	\$175	\$175	\$175	\$875	\$88
	Sanitation Trash Equipment	\$145	\$0	\$0	\$0	\$0	\$0	\$290	\$29
	Materials Recovery Facility	\$139	\$139	\$137	\$123	\$123	\$125	\$1,287	\$129
	Landfill Machinery	\$45	\$45	\$45	\$40	\$40	\$41	\$421	\$42
<b>Subtotal Sanitation Costs</b>		<b>\$597</b>	<b>\$277</b>	<b>\$462</b>	<b>\$456</b>	<b>\$456</b>	<b>\$464</b>	<b>\$3,958</b>	<b>\$396</b>
<b>NET CAPITAL FACILITIES CASH FLOW - Sanitation</b>									
Annual Surplus (or Deficit)		Init Bal	(\$223)	\$97	(\$48)	(\$30)	(\$30)	(\$45)	
Cumulative Surplus (or Deficit)			(\$223)	(\$126)	(\$78)	(\$109)	\$6	\$81	

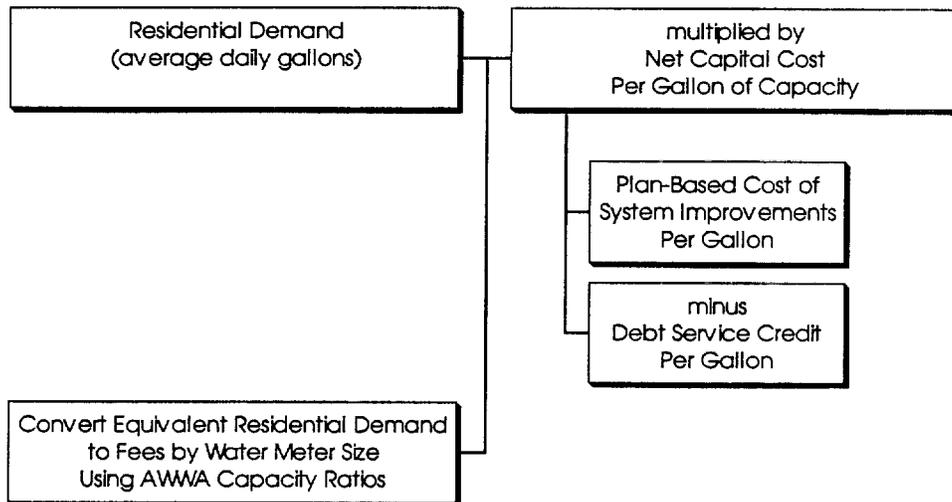
Current \$ in thousands  
\$81 \$8

# WATER

## Methodology

The development fee for Glendale's water system in this study is based on meter size. The proposed water system development fee for the City of Glendale will be derived using a plan-based approach for expansion of capacity through system improvements. Fees for meters larger than 0.75 inches are derived from capacity ratios according to the size of the water meter needed by a new utility customer. Capacity ratios were derived from data published by the American Water Works Association (AWWA). The methodology is shown in Figure 18.

**Figure 18 - Water Development Fee Methodology Chart**



## Level-Of-Service

As shown in Figure 19, the City estimates that residential development accounted for approximately 60 percent of usage, while the remaining 40 percent was used by nonresidential development. This amount represents an average demand of 173 gallons per day per capita or 477 gallons per day per connection from residential development. The water usage data was provided by the City's staff.

**Figure 19 - Water System Demand Factors**

**Water Useage in 1999-2000**

	Average Gallons Per Day		Connections	Gallons Per Day Per Connection
Residential	22,863,989	59.7%	47,931	477
Other Nonresidential	15,424,145	40.3%	3,736	4,129
<b>TOTAL</b>	<b>38,288,134</b>		<b>51,667</b>	

The water demand factors discussed above were applied to the development projections presented in Appendix 1 to yield the projected water demand shown in Figure 20. Long-range projections are useful for planning capital facilities.

**Figure 20 - Projected Water System Demand**

Year		Million Gallons Per Avg Day	Acre-Feet Per Year
Base	FY1999-2000	38.30	42,901
1	2001	38.98	43,665
2	2002	39.66	44,429
3	2003	40.35	45,193
4	2004	41.03	45,957
5	2005	41.78	46,804
6	2006	42.56	47,673
7	2007	43.34	48,541
8	2008	44.11	49,410
9	2009	44.89	50,278
10	2010	45.59	51,063
11	2011	46.35	51,921
12	2012	47.12	52,779
13	2013	47.88	53,637
14	2014	48.65	54,495
15	2015	49.43	55,364
16	2016	49.96	55,960
17	2017	50.49	56,557
18	2018	51.02	57,153
19	2019	51.56	57,750
20	2020	52.16	58,430

## Capital Facilities Benefiting Growth

The water fee uses a *plan-based* approach for system improvements. This is represented in the capital facilities plan shown in Figure 21 below. The City plans to spend approximately \$81.5 million in water system improvements over the next ten years. At the top of the CIP are water treatment projects that will benefit new development. These projects are expected to increase capacity by 7.3 million gallons per day (mgd). This generates a per average daily gallon cost of \$0.27.

The second section of the CIP contains other capacity projects that will benefit future development. A total of \$33 million of the proposed expenditures is for an increase in water capacity to accommodate new development. These funds may be used to expand treatment plant capacity. The total expenditures of \$57.7 million will increase capacity by 16 mgd and generate a cost of \$3.60 per gallon.

The third section of the CIP shows projects that will benefit both exiting and new development. These costs applied to the total system capacity 45.5 mgd generates a per gallon cost of \$0.05.

The final section of the CIP shows storage-related projects. These projects will increase the City's reservoir capacity to 40 mgd. The total cost of \$19.4 million divided by the new capacity generates a cost of \$0.48 per gallon.

**Figure 21 - Water System CIP Summary**

Fiscal Year (begins July 1) =>	FY01-02	FY02-03	FY03-04	FY04-05	FY05-06	FY07-11	TOTAL
<b>Water Treatment Plant Expansion Needed to Accommodate New Development</b>							
CAP WTP Expansion						\$1,000,000	\$1,000,000
Cholla WTP Zone 1/Booster Station						\$1,000,000	\$1,000,000
	\$0	\$0	\$0	\$0	\$0	\$2,000,000	\$2,000,000
Net Increase in Plant Capacity (gallons per average day)							7,300,000
Capital Cost per Gallon of Capacity (marginal cost approach)							\$0.27
<b>Capacity Projects That Benefit Only Future Users</b>							
CAP Water Purchases			\$200,000	\$200,000	\$200,000	\$1,000,000	\$1,600,000
Capacity Improvements	\$100,000						\$100,000
West Area WRF				\$6,000,000		\$8,000,000	\$14,000,000
Outer Loop Effluent Line	\$1,500,000	\$500,000	\$500,000		\$500,000	\$500,000	\$3,500,000
West Area Reuse Pipelines		\$1,000,000		\$1,000,000		\$2,000,000	\$4,000,000
Waterline, 115th & Glendale	\$300,000						\$300,000
Additional Water Capacity	\$3,500,000	\$3,500,000	\$13,000,000	\$13,000,000			\$33,000,000
Line Extensions	\$87,500	\$100,000	\$125,000	\$125,000	\$125,000	\$625,000	\$1,187,500
Subtotal	\$5,487,500	\$5,100,000	\$13,825,000	\$20,325,000	\$825,000	\$12,125,000	\$57,687,500
Net Increase in System Capacity (gallons per average day)							16,000,000
Capital Cost per Gallon of Capacity (marginal cost approach)							\$3.60
<b>Capacity Projects That Benefit Current &amp; Future Users</b>							
Zone 2 Improvements						\$750,000	\$750,000
Water Zone 4 Improvements				\$750,000		\$900,000	\$1,650,000
Subtotal	\$0	\$0	\$0	\$750,000	\$0	\$1,650,000	\$2,400,000
Total System Capacity (gallons per average day)							45,500,000
Capital Cost per Gallon of Capacity (average cost approach)							\$0.05
<b>Storage Facilities Needed to Accommodate New Development</b>							
Pyramid Peak Storage			\$2,000,000	\$6,000,000			\$8,000,000
Cholla Treatment Plant Storage					\$4,000,000	\$2,400,000	\$6,400,000
Storage and Recovery Well					\$1,000,000	\$4,000,000	\$5,000,000
Subtotal	\$0	\$0	\$2,000,000	\$6,000,000	\$5,000,000	\$6,400,000	\$19,400,000
Reservoir Capacity (gallons)							40,000,000
Capital Cost per Gallon							\$0.48
GRAND TOTAL	\$5,487,500	\$5,100,000	\$15,825,000	\$27,075,000	\$5,825,000	\$22,175,000	\$81,487,500

To finance the water system expansion, the City will issue a series of bonds that will be paid off over ten years, with annual interest at 7.5%. The projected bond schedules are shown in Figure 22.

**Figure 22 - Proposed Water System Bonds**

<u>Project</u>	<u>Issue Amount</u>	<u>Issue Date</u>	<u>Int. Rate</u>	<u>Term (yrs)</u>
Outer Loop Effluent Line	\$2,000,000	1/1/02	7.50%	10
West Area Reuse Pipelines	\$1,000,000			
Water Capacity	\$7,000,000			
Total Issue	<u>\$10,000,000</u>			
Water Capacity	\$26,000,000	1/1/04	7.50%	10
West Area Reuse Pipelines	\$1,000,000			
West Area WWRF	\$6,000,000			
Total Issue	<u>\$33,000,000</u>			
West Area WWRF	\$3,200,000	1/1/07	7.50%	10
West Area WWRF	\$3,200,000	1/1/09	7.50%	10

**Credits**

The cumulative interest on the above three bonds of approximately \$18 million, was allocated to the net increase in water demand from 2000 to 2018 (i.e., 12.7 MGD) to yield an interest cost of \$1.41 per gallon of capacity. Interest costs through 2018 have been included in the costs. That year was chosen since it is when the last of the water bonds will be paid off. To avoid double payment of principal and interest costs, a debt service was determined for the anticipated water bonds, as shown in Figure 23. Annual debt service payments per gallon of water demand were discounted using a net present value formula.

**Figure 23 - Debt Service Credit for Water Bonds**

<i>FY</i>	<i>Series 2002 Debt Service</i>	<i>Series 2004 Debt Service</i>	<i>Series 2007 Debt Service</i>	<i>Series 2009 Debt Service</i>	<i>Average Daily Gallons of Water</i>	<i>Debt Service Per Gallon</i>
01-02	\$1,456,859				39,663,854	\$0.04
02-03	\$1,456,859				40,345,780	\$0.04
03-04	\$1,456,859	\$4,807,636			41,027,707	\$0.15
04-05	\$1,456,859	\$4,807,636			41,784,366	\$0.15
05-06	\$1,456,859	\$4,807,636			42,559,707	\$0.15
06-07	\$1,456,859	\$4,807,636	\$466,195		43,335,049	\$0.16
07-08	\$1,456,859	\$4,807,636	\$466,195		44,110,390	\$0.15
08-09	\$1,456,859	\$4,807,636	\$466,195	\$466,195	44,885,732	\$0.16
09-10	\$1,456,859	\$4,807,636	\$466,195	\$466,195	45,586,341	\$0.16
10-11	\$1,456,859	\$4,807,636	\$466,195	\$466,195	46,352,341	\$0.16
11-12		\$4,807,636	\$466,195	\$466,195	47,118,341	\$0.12
12-13		\$4,807,636	\$466,195	\$466,195	47,884,341	\$0.12
13-14			\$466,195	\$466,195	48,650,341	\$0.02
14-15			\$466,195	\$466,195	49,425,683	\$0.02
15-16			\$466,195	\$466,195	49,958,146	\$0.02
16-17				\$466,195	50,490,610	\$0.01
17-18				\$466,195	51,023,073	\$0.01
<b>Total</b>	<b>\$14,568,593</b>	<b>\$48,076,356</b>	<b>\$4,661,950</b>	<b>\$4,661,950</b>		<b>\$1.62</b>
					Discount Rate	7.5%
					Net Present Value	\$0.84

**Maximum Supportable Development Fees**

The standards used to derive the water system fee are shown in the boxed area of Figure 24. A capacity ratio by meter size was used to convert the residential equivalent fee for a 0.75-inch meter into a proportionate fee for larger meter sizes. For larger or smaller meters, the capacity ratios are from AWWA Manual 6, assuming 33% of maximum capacity, indexed to 0.75" meter. For a one-inch meter, Glendale will use a conservative, typical-service ratio (see AWWA Manual 1, page 24). If a large-scale development submits an independent engineering analysis, the water resources fee may be based on the net capital cost per gallon of capacity, as shown in Figure 10, and the annualized average day demand for the particular development.

All development within Glendale's water service area will be assessed the fees shown below. The current water development fee is \$1,367 per single-family detached (SFD) unit. The maximum supportable fee of \$2,370 per SFD house is an increase of \$1,003. Although some components of the existing water system have available capacity to accommodate new customers, Glendale has taken a conservative approach by excluding a buy-in cost component.

## Figure 24 - Water System Development Fee

<b>Level Of Service</b>			<i>Standards:</i>
Gallons per Day per Residential Connection			477
Water Treatment Plant Cost per Gallon			\$0.27
Growth-Related CIP Cost per Gallon			\$3.60
Projects Benefiting All Customers Cost per Gallon			\$0.05
Storage Facilities Cost per Gallon			\$0.48
Interest Cost per Gallon			\$1.41
Debt Service Credit per Gallon			(\$0.84)
Net Capital Cost per Gallon of Capacity			\$4.97
<b>Maximum Supportable Capacity Fees</b>			
<u>All Development</u>			<u>Per Meter</u>
<i>Meter Size (inches)*</i>	<i>Type</i>	<i>Capacity Ratio</i>	
0.75	Displacement	1.0	\$2,370
1.00	Displacement	1.7	\$4,030
1.50	Displacement	3.3	\$7,823
2.00	Dsplcmnt/Cmpnd	5.3	\$12,565
3.00	Compound	11.0	\$26,078
4.00	Compound	17.0	\$40,303

\* Capacity fees for meters larger than four inches will be based on annualized average day demand and the net capital cost per gallon of capacity.

### Cash Flow Summary

Figure 25 shows projected development fee revenue and the capital cost of water system improvements. Capital costs are taken from the CIP, plus the anticipated debt service payments on the water treatment plant expansion. Water development fee revenue is expected to average \$6.7 million per year, and expenditures are expected to average \$9.5 million on an annual basis. In the table below, years 3, 5, 7 and 9 are not displayed to enable the cash flow summary to be printed on one page.

**Figure 25 - Cash Flow Summary for the Water System**

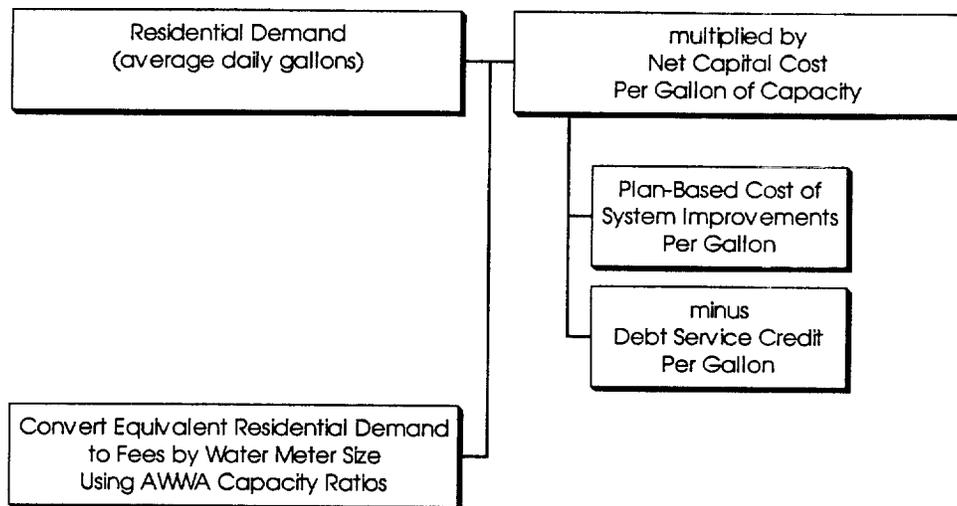
Glendale, Arizona (Current \$ in thousands)		1/4/2000 TA Memo on Demographic Data						Cumulative Total	Average Annual
		1 2002	2 2003	4 2005	6 2007	8 2009	10 2011		
<b>REVENUES</b>									
13	Water Fee - Res	\$3,555	\$3,555	\$4,029	\$4,503	\$4,503	\$4,740	\$41,475	\$4,148
14	Water Fee - Nonres	\$3,170	\$3,053	\$3,158	\$2,421	\$2,421	\$1,684	\$26,014	\$2,601
<b>Subtotal Water Dev Fees</b>		<b>\$6,725</b>	<b>\$6,608</b>	<b>\$7,187</b>	<b>\$6,924</b>	<b>\$6,924</b>	<b>\$6,424</b>	<b>\$67,489</b>	<b>\$6,749</b>
<b>CAPITAL COSTS</b>									
	Water System CIP Pay-Go	\$88	\$100	\$7,075	\$4,435	\$4,435	\$4,435	\$38,088	\$3,809
	WTP Expansion Debt Service	\$1,457	\$1,457	\$6,264	\$6,731	\$7,197	\$7,197	\$56,759	\$5,676
<b>Subtotal Water Costs</b>		<b>\$1,544</b>	<b>\$1,557</b>	<b>\$13,339</b>	<b>\$11,166</b>	<b>\$11,632</b>	<b>\$11,632</b>	<b>\$94,847</b>	<b>\$9,485</b>
<b>NET CAPITAL FACILITIES CASH FLOW - Water</b>								<i>Current \$ in thousands</i>	
Annual Surplus (or Deficit)	Init Bal	\$5,181	\$5,051	(\$6,152)	(\$4,241)	(\$4,708)	(\$5,208)	(\$27,357)	(\$2,736)
Cumulative Surplus (or Deficit)		\$5,181	\$10,232	\$1,598	(\$7,809)	(\$16,758)	(\$27,357)		

# SEWER

## Methodology

As with the water system development fees, the sewer system development fees are based on meter size (see Figure 26). These development fees were derived using a plan-based approach since the City will be using a capital improvement plan for sewer system improvements. Fees for meters larger than 0.75 inches are derived from capacity ratios according to the size of the water meter needed by a new utility customer.

**Figure 26 - Sewer Development Fee Methodology Chart**



## Level-Of-Service

Demand factors for residential and nonresidential customers were provided by City staff. As shown in Figure 27, residential development accounted for approximately 82% of sewer demand. This translates to 333 gallons per connection per day, or 121 gallons per day per capita. Nonresidential development generates demand of about 1,649 gallons per day per connection.

### Figure 27 - Sewer System Demand Factors

**Sewer Usage in 1999-2000**

	Average Gallons Per Day		Connections	Gallons Per Day Per Connection
Residential	14,691,194	81.8%	44,059	333
Other Nonresidential	3,258,533	18.2%	1,976	1,649
<b>TOTAL</b>	<u>17,949,727</u>		<u>46,035</u>	

Figure 28 shows projected sewer demand for Glendale. These figures are based on the development projections provided in Appendix 1. By the year 2020, average demand is expected to exceed 25 million gallons per day.

### Figure 28 - Projected Sewer System Demand

Year		Million Gallons Per Avg Day
Base	FY1999-2000	17.95
1	2001	18.37
2	2002	18.76
3	2003	19.16
4	2004	19.56
5	2005	19.99
6	2006	20.44
7	2007	20.89
8	2008	21.34
9	2009	21.78
10	2010	22.18
11	2011	22.62
12	2012	23.06
13	2013	23.50
14	2014	23.94
15	2015	24.38
16	2016	24.69
17	2017	25.00
18	2018	25.30
19	2019	25.61
20	2020	25.96

## Capital Facilities Plan

A summary of the City's Capital Improvements Plan (CIP) for the sewer system is shown in Figure 29. From FY2001 through FY2010, Glendale anticipates spending \$27 million on the West Area Wastewater Reclamation Facility, which equals a cost of \$4.35 per gallon of capacity. In addition, the City will spend approximately \$5.2 million other system improvements that will benefit new growth. With the increase in capacity, the capital cost for those improvements will equal \$1.15 per gallon.

**Figure 29 - CIP Summary for Sewer Capacity Projects**

Fiscal Year (begins July 1) =>	FY01-02	FY02-03	FY03-04	FY04-05	FY05-06	FY07-10	TOTAL
<b>Capacity Projects That Benefit Only Future Users</b>							
61st Ave Sewer Line						\$1,000,000	\$1,000,000
67th-115th, Northern Camelback Sewer		\$500,000		\$500,000	\$1,000,000	\$1,000,000	\$3,000,000
Line Expansions	\$87,500	\$100,000	\$125,000	\$125,000	\$125,000	\$625,000	\$1,187,500
Subtotal	\$87,500	\$600,000	\$125,000	\$625,000	\$1,125,000	\$2,625,000	\$5,187,500
						Net Increase in System Capacity (gallons per average day)	4,500,000
						Capital Cost per Gallon of Capacity	\$1.15
<b>Wastewater Treatment Plant Expansion Needed to Accommodate New Development</b>							
West Area WWRF	\$1,800,000	\$6,000,000	\$6,000,000	\$1,200,000		\$12,000,000	\$27,000,000
Subtotal	\$1,800,000	\$6,000,000	\$6,000,000	\$1,200,000	\$0	\$12,000,000	\$27,000,000
						Net Increase in WWTP Capacity (gallons per average day)	6,200,000
						Capital Cost per Gallon of Capacity	\$4.35
GRAND TOTAL	\$1,887,500	\$6,600,000	\$6,125,000	\$1,825,000	\$1,125,000	\$14,625,000	\$32,187,500

To expand the West Area WWRF, Glendale will issue a series of bonds totaling \$24.6 million. The proposed schedule for the bond issues is shown in Figure 30 below.

**Figure 30 - Proposed Sewer System Bonds**

<u>Project</u>	<u>Issue Amount</u>	<u>Issue Date</u>	<u>Int. Rate</u>	<u>Term (yrs)</u>
West Area WWRF	\$7,800,000	1/1/02	7.50%	10
West Area WWRF	\$7,200,000	1/1/04	7.50%	10
West Area WWRF	\$4,800,000	1/1/07	7.50%	10
West Area WWRF	\$4,800,000	1/1/09	7.50%	10

## Credits

Future debt service payments (i.e., both principal and interest) on the anticipated sewer bond are shown in Figure 31. To avoid potential double payment for WWRF capacity through sewer user charges, a debt service credit was added to the development fee methodology. Interest costs are included in the credit since they are included in the development fees. To account for

the time value of money, a net present value formula was applied to the annual debt service payment per gallon of wastewater flow.

**Figure 31 - Debt Service Credit for Sewer Bonds**

<i>FY</i>	<i>Series 2002 Debt Service</i>	<i>Series 2004 Debt Service</i>	<i>Series 2007 Debt Service</i>	<i>Series 2009 Debt Service</i>	<i>Average Daily Gallons</i>	<i>Debt Service Per Gallon</i>
01-02	\$1,136,350				18,763,844	\$0.06
02-03	\$1,136,350				19,159,934	\$0.06
03-04	\$1,136,350	\$1,048,939			19,556,024	\$0.11
04-05	\$1,136,350	\$1,048,939			19,993,542	\$0.11
05-06	\$1,136,350	\$1,048,939			20,440,724	\$0.11
06-07	\$1,136,350	\$1,048,939	\$699,292	\$699,292	20,887,906	\$0.17
07-08	\$1,136,350	\$1,048,939	\$699,292	\$699,292	21,335,087	\$0.17
08-09	\$1,136,350	\$1,048,939	\$699,292	\$699,292	21,782,269	\$0.16
09-10	\$1,136,350	\$1,048,939	\$699,292	\$699,292	22,184,051	\$0.16
10-11	\$1,136,350	\$1,048,939	\$699,292	\$699,292	22,622,167	\$0.16
11-12		\$1,048,939	\$699,292	\$699,292	23,060,282	\$0.11
12-13		\$1,048,939	\$699,292	\$699,292	23,498,398	\$0.10
13-14			\$699,292	\$699,292	23,936,513	\$0.06
14-15			\$699,292	\$699,292	24,382,570	\$0.06
15-16			\$699,292	\$699,292	24,689,582	\$0.06
16-17				\$699,292	24,996,593	\$0.03
17-18				\$699,292	25,303,604	\$0.03
<b>Total</b>	<b>\$11,363,502</b>	<b>\$10,489,387</b>	<b>\$6,992,925</b>	<b>\$8,391,509</b>		<b>\$1.71</b>
					Discount Rate	7.5%
					Net Present Value	\$0.82

**Maximum Supportable Development Fees**

The proposed sewer system fees are shown in Figure 32. All development within Glendale’s water service area will be assessed the fees shown below based on the appropriate meter size. The current water development fee is \$2,003 per single-family detached (SFD) unit. The maximum supportable fee of \$1,677 per SFD house is an decrease of \$326. If a large-scale development submits an independent engineering analysis, the sewer system fee may be based on the net capital cost per gallon of capacity, as shown in Figure 10, and the annualized average day demand for the particular development.

**Figure 32 - Sewer Development Fee**

<b>Level Of Service</b>			<i>Standards:</i>
Gallons per Day per Residential Connection			333
Growth-Related CIP Cost per Gallon			\$1.15
Wastewater Treatment Plant Expansion Cost per Gallon			\$4.35
Interest Cost per Gallon			\$0.35
Debt Service Credit per Gallon			(\$0.82)
Net Capital Cost per Gallon of Capacity			\$5.03
<b>Maximum Supportable Capacity Fees</b>			
<u>All Development</u>			<u>Per Meter</u>
<i>Meter Size (Inches)*</i>	<i>Type</i>	<i>Capacity Ratio</i>	
0.75	Displacement	1.0	\$1,677
1.00	Displacement	1.7	\$2,851
1.50	Displacement	3.3	\$5,534
2.00	Dsplcmnt/Cmpnd	5.3	\$8,889
3.00	Compound	11.0	\$18,449
4.00	Compound	17.0	\$28,512

\* Capacity fees for meters larger than four inches will be based on annualized average day demand and the net capital cost per gallon of capacity.

**Cash Flow Summary**

Over the next ten years, sewer development fee revenue should average approximately \$3.4 million per year. As shown in Figure 33, Glendale will spend approximately \$759,000 per year to expand the wastewater collection system and provide pipelines for the reuse of treated effluent. The City will begin making debt service payments on the planned WWRF expansion. These debt service payments extend five years beyond the time frame of the cash flow analysis. Due to the significant debt obligations, deficits are expected in FY2011-2015. Because of the annual fluctuations in development fee revenue and expenditures, TA recommends that Glendale maintain a fund balance large enough to cover anticipated capital costs for the next

fiscal year. In the following table, years 3, 5, 7 and 9 are not displayed to enable the cash flow summary to be printed on one page.

**Figure 33 - Cash Flow Summary for Sewer Development Fees**

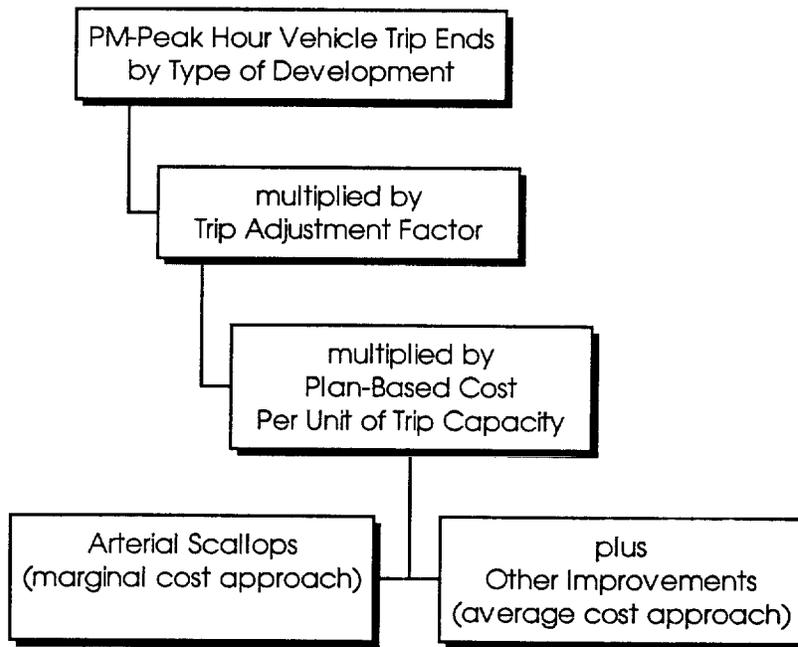
Glendale, Arizona (Current \$ in thousands)		1/4/2000 TA Memo on Demographic Data						Cumulative Total	Average Annual
		1 2002	2 2003	4 2005	6 2007	8 2009	10 2011		
<b>REVENUES</b>									
19 Sewer Fee - Res		\$2,516	\$2,516	\$2,851	\$3,186	\$3,186	\$3,354	\$29,348	\$2,935
20 Sewer Fee - Nonres		\$537	\$545	\$563	\$432	\$432	\$300	\$4,612	\$461
<b>Subtotal Sewer Dev Fees</b>		<b>\$3,053</b>	<b>\$3,060</b>	<b>\$3,414</b>	<b>\$3,618</b>	<b>\$3,618</b>	<b>\$3,654</b>	<b>\$33,960</b>	<b>\$3,396</b>
<b>CAPITAL COSTS</b>									
Sewer System CIP		\$88	\$600	\$625	\$1,005	\$1,005	\$1,005	\$7,588	\$759
WRF Expansion Debt Service		\$1,136	\$1,136	\$2,185	\$2,885	\$3,584	\$3,584	\$25,349	\$2,535
<b>Subtotal Sewer Costs</b>		<b>\$1,224</b>	<b>\$1,736</b>	<b>\$2,810</b>	<b>\$3,890</b>	<b>\$4,589</b>	<b>\$4,589</b>	<b>\$32,937</b>	<b>\$3,294</b>
<b>NET CAPITAL FACILITIES CASH FLOW - Sewer</b>									
Annual Surplus (or Deficit)	Init Bal	\$1,829	\$1,324	\$604	(\$271)	(\$971)	(\$934)	\$1,023	\$102
Cumulative Surplus (or Deficit)		\$1,829	\$3,153	\$4,506	\$4,543	\$3,301	\$1,023		

# TRANSPORTATION

## Methodology

Development fees for transportation are determined by a **plan-based methodology**. As shown in Figure 34, trip generation rates by type of development are multiplied by the net capital cost per unit of trip capacity to yield the development fees. Future capital projects included in the development fee calculations reflect only the local share of costs (i.e., paid by the City of Glendale). The cost of arterial scallops is allocated to the increase in vehicle trips over the next twenty years. TA used a conservative average cost approach for projects that will benefit existing and future development (i.e., traffic signals, park & ride facilities and the planned transit center). Glendale should be able to construct transportation improvements on a pay-as-you-go basis, which negates the need for a revenue credit.

**Figure 34 - Transportation Development Fee Methodology Chart**



## Level-Of-Service

### **Capital Facilities Plan**

PM-peak hour vehicle trips were selected as the best demand indicator for transportation improvements. Figure 35 summarizes the cost of transportation improvements that will be needed to accommodate the increase in traffic through the year 2020. The one addition to the list of roadway improvements from the previous development fee study is the Union Hills bridge and road widening. A detailed listing of specific improvements to arterials and intersections, as provided by City staff, can be found in Appendix 1. The cost of arterial street scallops includes asphaltic concrete pavement, aggregate base course and sub-grade preparations. Also included in the cost of arterial scallops are sidewalks, curb and gutter construction, landscaping and street lighting. There are no costs for utility relocations. Also, there are no costs for right-

of-way as it is provided by developers. TA allocated the cost of arterial scallops to the net increase in PM-peak hour vehicle trips from 2000 to 2020.

Signalization, including the cost of an intelligent transportation system, park & ride facilities and a new transit center are all projects that will benefit both current and future development in Glendale. Therefore, the capital cost of these improvements was allocated to the total number of PM-peak hour vehicle trips in 2020. This average-cost approach ensures that new development only pays its pro rata share. An itemized breakdown of signalization costs may be found in Appendix 1. Park & Ride facilities and the Transit Center cost estimates are from the list of potential bond projects recently authorized by Glendale voters. Over the next 20 years, Glendale will spend an average of \$2.68 million per year on growth-related transportation improvements.

**Figure 35 - Transportation Capital Improvements Plan Summary**

	<i>Estimated Cost</i>
<b><i>Capacity Projects That Benefit Only Future Development</i></b>	
Arterial Scallops	\$33,093,121
Union Hills Bridge and Road Widening	\$5,000,000
Subtotal	\$38,093,121
Net Increase in PM-Peak Hour Vehicle Trips 2000 to 2020	36,000
Capital Cost Per Trip (marginal cost approach)	<b>\$1,058</b>
<b><i>Capacity Projects That Benefit Current and Future Development</i></b>	
Traffic Signals with Intelligent Transportation System	\$9,547,840
Park & Ride Facilities	\$3,000,000
Transit Center	\$3,000,000
Subtotal	\$15,547,840
Total PM-Peak Hour Vehicle Trips in 2020	107,281
Capital Cost Per Trip (average cost per trip)	<b>\$144</b>
 GRAND TOTAL	 \$53,640,961

**Maximum Supportable Development Fees**

The current development fee for streets in the City of Glendale is \$542 per single-family detached house. If the City adopts the maximum supportable fee shown below, the amount will increase by \$49 to \$601 per SFD unit. LOS standards used to derive the transportation development fees are shown in the boxed area at the top of Figure 36. HURF credits are not included as these funds are assumed to be used for maintenance.

A "trip end" represents a vehicle either entering or exiting a development (as if a traffic counter were placed across a driveway). Trip generation rates are from the reference book Trip Generation, published by the Institute of Transportation Engineers (ITE, 6th edition, 1997). Trip generation rates are adjusted to avoid double counting each trip at both the origin and destination points. For all types of development except commercial, the trip adjustment factor is 50%. For commercial / shopping center development, the trip adjustment factor ranges from

26-35% depending on the floor area of the development. The trip adjustment factor is less than 50% because retail uses attract vehicles as they pass by on arterial and collector roads. For example, when someone stops at a convenience store on the way home from work, the convenience store is not the primary destination. For a small-size shopping center of 50,000 square feet of floor area, the ITE manual indicates that on average 48% of the vehicles that enter are passing by on their way to some other primary destination. The remaining 52% of attraction trips have the shopping center as their primary destination. Because attraction trips are half of all trips, the trip adjustment factor is 52% multiplied by 50%, or approximately 26% of the trip ends. The data contained in Trip Generation (see Table VII-1 of the 5<sup>th</sup> edition, 1991) indicates there is an inverse relationship between shopping center size and pass-by trips. Therefore, appropriate trip adjustment factors have been calculated for each category of shopping center size used in the transportation development fee calculations.



**Figure 36 - Transportation Development Fee**

	Residential	Commercial / Shopping Center	Other Nonresidential
<b>PM-Peak Hour Vehicle Trip Ends</b>			
<u>Residential (per Housing Unit)</u>			
Single Family Detached	1.02		
Townhouse (SFA)	0.62		
All Other Residential	0.62		
<u>Nonresidential (per 1,000 Sq Ft)</u>			
Com / Shop Ctr 50,000 SF or less		7.95	
Com / Shop Ctr 50,001-100,000 SF		6.28	
Com / Shop Ctr 100,001-200,000 SF		4.96	
Com / Shop Ctr over 200,000 SF		3.92	
Office / Inst 25,000 SF or less			4.29
Office / Inst 25,001-50,000 SF			2.71
Office / Inst 50,001-100,000 SF			1.91
Office / Inst over 100,000 SF			1.52
Business Park			1.29
Light Industrial			1.08
Manufacturing			0.75
Warehousing			0.61
<b>Trip Adjustment Factors</b>			
Residential	50%		
Com / Shop Ctr 50,000 SF or less		26%	
Com / Shop Ctr 50,001-100,000 SF		29%	
Com / Shop Ctr 100,001-200,000 SF		32%	
Com / Shop Ctr over 200,000 SF		35%	
All Other Nonresidential			50%
<b>Level Of Service</b>			
Arterial Scallop Cost per Trip	\$1,058	\$1,058	\$1,058
Other Improvements Cost per Trip	\$144	\$144	\$144
Total Capital Cost per Trip	\$1,202	\$1,202	\$1,202
Sales Tax Credit Per 1,000 Square Feet			
<b>Maximum Supportable Development Fee</b>			
<u>Residential</u>			
	Per Housing Unit		
Single Family Detached	\$613		
Townhouse (SFA)	\$372		
All Other Residential	\$372		
<u>Nonresidential</u>			
		Per 1,000 Sq. Ft.	
Com / Shop Ctr 50,000 SF or less		\$2,484	
Com / Shop Ctr 50,001-100,000 SF		\$2,189	
Com / Shop Ctr 100,001-200,000 SF		\$1,907	
Com / Shop Ctr over 200,000 SF		\$1,649	
Office / Inst 25,000 SF or less			\$2,578
Office / Inst 25,001-50,000 SF			\$1,628
Office / Inst 50,001-100,000 SF			\$1,147
Office / Inst over 100,000 SF			\$913
Business Park			\$775
Light Industrial			\$649
Manufacturing			\$450
Warehousing			\$366

## Cash Flow Summary

Due to the conservative, average-cost methodology (i.e., allocating costs to all demand units not just the increase from new growth), the transportation development fees do not yield sufficient revenue to fund the transportation CIP. Transportation development fee revenue should average approximately \$2.4 million per year over the ten-year time frame used in the cash flow analysis. According to the relative weighting of the capital cost factors, 63% of the development fee revenue should be spent on arterial scallops and 37% of the revenue should be used to fund other types of transportation improvements. To adequately fund the transportation CIP, Glendale will have to contribute approximately \$244,000 per year from non-development fee funding.

As shown in Figure 37, the cash flow analysis assumes no bond financing of transportation improvements. Projected capital costs represent the average annual expenditure to construct the \$52.84 million improvement program over the next 20 years. If necessary, funds may be accumulated for several years in order to construct a major project. The initial balance of \$3,000,000 is from the CIP. In the table below, data are not shown for years 3, 5, 7 and 9. Interim years are calculated but not displayed so the table may be printed on one page.

**Figure 37 - Cash Flow Summary for Transportation**

Glendale, Arizona (Current \$ in thousands)		1/4/2000 TA Memo on Demographic Data						Cumulative Total	Average Annual
		1 2002	2 2003	4 2005	6 2007	8 2009	10 2011		
<b>REVENUES</b>									
25	Transportation Fee - SFD	\$505	\$505	\$572	\$639	\$639	\$673	\$5,890	\$589
26	Transportation Fee - Twnhse	\$33	\$33	\$37	\$42	\$42	\$44	\$383	\$38
27	Transportation Fee - Other R	\$208	\$208	\$236	\$264	\$264	\$277	\$2,427	\$243
28	Transportation Fee - Comm	\$1,031	\$1,031	\$1,066	\$818	\$818	\$569	\$8,745	\$875
29	Transportation Fee - Off/Inst	\$544	\$544	\$563	\$432	\$432	\$300	\$4,616	\$462
30	Transportation Fee - Industric	\$227	\$227	\$235	\$180	\$180	\$125	\$1,923	\$192
<b>Subtotal Transportation Dev Fees</b>		<b>\$2,547</b>	<b>\$2,548</b>	<b>\$2,709</b>	<b>\$2,374</b>	<b>\$2,374</b>	<b>\$1,988</b>	<b>\$23,984</b>	<b>\$2,398</b>
<b>CAPITAL COSTS</b>									
<b>Transportation CIP Cost</b>		<b>\$2,642</b>	<b>\$2,642</b>	<b>\$2,642</b>	<b>\$2,642</b>	<b>\$2,642</b>	<b>\$2,642</b>	<b>\$26,420</b>	<b>\$2,642</b>
<b>NET CAPITAL FACILITIES CASH FLOW - Transportation</b>									
Annual Surplus (or Deficit)	Init Bal	(\$95)	(\$95)	\$67	(\$268)	(\$268)	(\$654)	Current \$ in thousands (\$2,436)	(\$244)
Cumulative Surplus (or Deficit)	\$3,000	\$2,905	\$2,811	\$2,783	\$2,246	\$1,709	\$564		

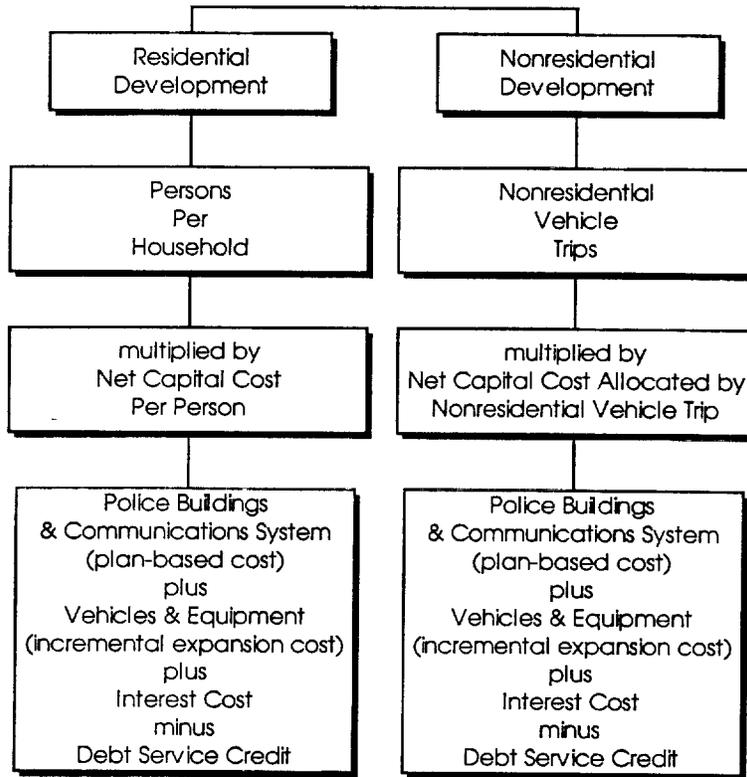
# POLICE

## Methodology

As shown in Figure 38, the police development fee uses different demand indicators for residential and nonresidential development. Residential development fees are calculated on a per capita basis and then converted to an appropriate amount by type of housing based on household size. To calculate nonresidential development fees, TA recommends using nonresidential vehicle trips as the best demand indicator for police facilities. Trip generation rates are highest for commercial developments, such as shopping centers, and lowest for industrial/warehouse developments. Office/institutional trip rates fall between the other two categories. This ranking of trip rates is consistent with the relative demand for police protection from nonresidential development. Other possible nonresidential demand indicators, such as employment or floor area, do not accurately reflect the demand for police protection. If employees per thousand square feet were used as the demand indicator, police development fees would be too high for office/institutional development. If floor area were used as the demand indicator, police development fees would be too high for industrial development. Also, Glendale police respond to all traffic accidents, which are directly proportionate to trip generation rates.

The police development fee includes a plan-based component for buildings and an incremental expansion cost component for vehicles. Because the City is planning major expenditures for a new Public Safety Training Facility and a new Courts Building, the fees include the projected interest cost on new General Obligation (GO) bonds that will be issued within the next five years. The fee methodology also includes a debt service credit.

**Figure 38 - Police Methodology Chart**



**Level-Of-Service**

The Police Department provided local data on calls for service, which TA used to determine residential and nonresidential proportionate share factors for law enforcement. Based on calls from 1996 through the first half of 1999, the proportionate share factor for housing is 70%, with nonresidential development accounting for 30% of the demand for police protection (see Figure 39). Calls for service that could not be attributed to any land use, and those related to traffic accidents, were netted out of the total calls.

**Figure 39 - Police Proportionate Share Factors**

	1996	1997	1998	Jan-June 1999	Total
<b><i>Calls For Service at Residential Locations</i></b>					
Residential Calls	57,664	61,822	61,670	33,041	214,197
Total Calls	81,744	88,242	89,253	47,380	306,619
Overall Demand from Residential Development					<b>70%</b>

## Buildings, Vehicles, and Equipment

As shown in Figure 40, LOS standards for police are derived separately for police buildings and vehicles. The plan-based component for buildings and the communications system includes the future cost of improvements over the next 20 years. Police vehicles and equipment costs are based on the current inventory and the current number of demand units in Glendale. Under both methodologies, the total cost is multiplied by the proportionate share factor and then divided by the appropriate demand indicator (i.e., population or nonresidential vehicle trips).

**Figure 40 - Police Level-Of-Service Standards**

### Buildings and Communications System Plan-Based Cost

		Capital Cost	
Police Share of West Public Safety Building		\$2,500,000	
Digital Communications System		\$3,500,000	
Public Safety Training Facility (police share = 50%)		\$12,000,000	
Courts Building		\$22,176,000	
Total		<u>\$40,176,000</u>	

	Proportionate Share	2020 Demand Units	Cost per Demand Unit
Residential	70%	305,200 persons	\$92.14
Nonresidential	30%	60,678 nonres veh trips	\$198.63

### Vehicles and Equipment Incremental Expansion Cost

Type of Vehicle	Units in Service	Unit Price*	Replacement Cost
Patrol Cars with Mobile Data Terminals	91	\$40,000	\$3,640,000
Support Vehicles	66	\$32,500	\$2,145,000
Motorcycles	14	\$12,000	\$168,000
Total	<u>171</u>	<u>\$34,813</u>	<u>\$5,953,000</u>

	Proportionate Share	2000 Demand Units	Cost per Demand Unit
Residential	70%	212,400 persons	\$19.61
Nonresidential	30%	38,431 nonres veh trips	\$46.47

Vehicles per 1,000 Persons	0.56
Vehicles Per 1,000 Nonres Veh Trips	1.33

\* Price includes necessary add-ons for police functions, such as lights, security items and miscellaneous equipment.

## Credits

Glendale's CIP indicates bond financing of the Training Facility and Courts Building sites in FY2002 and FY2003, respectively. Glendale will borrow \$1.5 million for each site and pay off the bonds over ten years, at 5.5% annual interest (see Figure 41). In FY2005, the City will issue an additional GO bond for \$5 million in order to start construction on the Public Safety Training Facility. The police development fees include the interest costs on these bonds.

New development will pay its pro rata share of the cost of police buildings through impact fees. Because GO bonds are retired from the secondary property tax, which will also be paid by new development, a debt service credit has been deducted from the development fees. The series 2002 and 2005 bonds will be used to purchase land and start construction on the Public Safety Training Facility. The Police and Fire Departments will split the cost of this facility. As shown in Figure 46, the debt service credit uses the same proportionate share factors and demand units as the development fee cost allocation.

**Figure 41 - Debt Service Credit for Police Facilities**

FY	Series 2002 Debt Service 50%	Series 2003 Debt Service	Series 2005 Debt Service 50%	Persons	PM-Peak Hour Nonres Veh Trips	Debt Service	
						Per Person 70%	Per Nonres Veh Trip 30%
01-02	\$99,501			222,400	41,489	\$0.31	\$0.72
02-03	\$99,501	\$199,002		227,400	43,018	\$0.92	\$2.08
03-04	\$99,501	\$199,002		232,400	44,547	\$0.90	\$2.01
04-05	\$99,501	\$199,002	\$331,669	237,200	46,128	\$1.86	\$4.10
05-06	\$99,501	\$199,002	\$331,669	241,900	47,341	\$1.82	\$3.99
06-07	\$99,501	\$199,002	\$331,669	246,600	48,553	\$1.79	\$3.89
07-08	\$99,501	\$199,002	\$331,669	251,300	49,766	\$1.76	\$3.80
08-09	\$99,501	\$199,002	\$331,669	256,000	50,978	\$1.72	\$3.71
09-10	\$99,501	\$199,002	\$331,669	260,600	52,085	\$1.69	\$3.63
10-11	\$99,501	\$199,002	\$331,669	266,100	52,929	\$1.66	\$3.57
11-12		\$199,002	\$331,669	271,600	53,772	\$1.37	\$2.96
12-13			\$331,669	277,100	54,616	\$0.84	\$1.82
13-14			\$331,669	282,600	55,459	\$0.82	\$1.79
<b>Total</b>	<b>\$995,008</b>	<b>\$1,990,017</b>	<b>\$3,316,694</b>			<b>\$17.46</b>	<b>\$38.08</b>
					Discount Rate	5.5%	5.5%
					Net Present Value	\$12.04	\$26.31

**Maximum Supportable Development Fees**

Glendale currently imposes a police development fee of \$289 per single-family detached house. At the maximum supportable level, the police development fee will increase \$70 to \$359 per unit. Figure 42 provides a summary of the LOS standards used to calculate development fees for police facilities (see the boxed area at the top of the table). Trip generation rates and trip adjustment factors are discussed above in the transportation section.

**Figure 42 - Police Facilities Development Fee**

		<i>Standards:</i>	
<b>Persons Per Household</b>			
Single Family Detached		3.12	
Townhouse (SFA)		2.56	
All Other Residential		2.26	
<b>PM-Peak Hour Vehicle Trip Ends per 1,000 Sq Ft</b>			
Com / Shop Ctr 50,000 SF or less			7.95
Com / Shop Ctr 50,001-100,000 SF			6.28
Com / Shop Ctr 100,001-200,000 SF			4.96
Com / Shop Ctr over 200,000 SF			3.92
Office / Inst 25,000 SF or less			4.29
Office / Inst 25,001-50,000 SF			2.71
Office / Inst 50,001-100,000 SF			1.91
Office / Inst over 100,000 SF			1.52
Business Park			1.29
Light Industrial			1.08
Manufacturing			0.75
Warehousing			0.61
<b>Trip Adjustment Factors</b>			
Com / Shop Ctr 50,000 SF or less			26%
Com / Shop Ctr 50,001-100,000 SF			29%
Com / Shop Ctr 100,001-200,000 SF			32%
Com / Shop Ctr over 200,000 SF			35%
All Other Nonresidential Development			50%
<b>Level of Service</b>			
	<u>Per Person</u>		<u>Per Trip</u>
Police Buildings Cost	\$92.14		\$198.63
Additional Police Vehicles Cost	\$19.61		\$46.47
Interest Cost	\$15.47		\$27.34
Debt Service Credit	(\$12.04)		(\$26.31)
Net Capital Cost	\$115.18		\$246.13
<b>Maximum Supportable Development Fee</b>			
<u>Residential</u>		<u>Per Housing Unit</u>	
Single Family Detached			\$359
Townhouse (SFA)			\$294
All Other Residential			\$260
<u>Nonresidential</u>		<u>Per 1,000 Sq Ft</u>	
Com / Shop Ctr 50,000 SF or less			\$508
Com / Shop Ctr 50,001-100,000 SF			\$448
Com / Shop Ctr 100,001-200,000 SF			\$390
Com / Shop Ctr over 200,000 SF			\$337
Office / Inst 25,000 SF or less			\$527
Office / Inst 25,001-50,000 SF			\$333
Office / Inst 50,001-100,000 SF			\$235
Office / Inst over 100,000 SF			\$187
Business Park			\$158
Light Industrial			\$132
Manufacturing			\$92
Warehousing			\$75

## Cash Flow Summary

Over the next ten years, Glendale will spend approximately \$1.15 million per year on police facilities, including site acquisition and initial construction of a new training facility and courts building. The capital cost of police vehicles, averaging \$101,000 per year, is solely due to additional vehicles needed to accommodate new development. As shown in Figure 43, development fee revenue over the ten-year time frame is projected to be approximately \$876,000 per year. Projected capital costs for police facilities and vehicles will not be met by projected development fee revenue because the Public Safety Training Facility and the Courts Building represent an increase in the current LOS, which needs to be funded by sources other than development fees and property tax. Therefore, these facilities will be partially funded by non-development fee revenue. In the following table, years 3, 5, 7 and 9 are not displayed to enable it to be printed on one page.

**Figure 43 - Cash Flow Summary for Police Facilities**

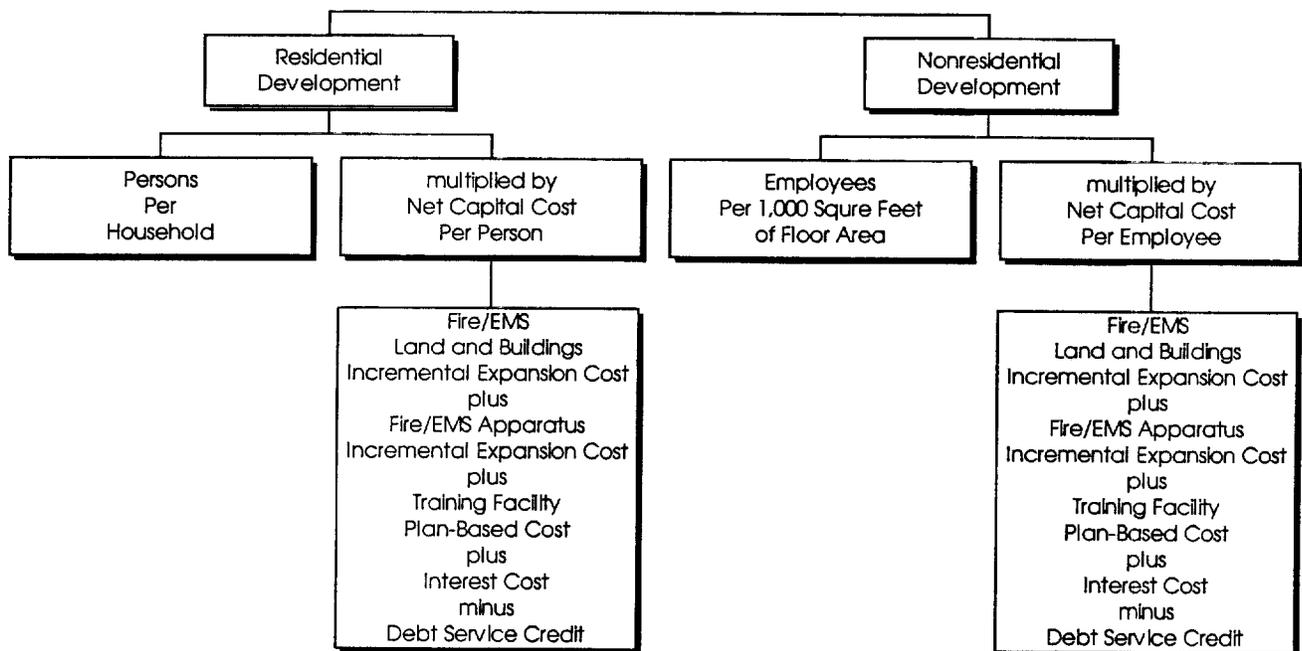
Glendale, Arizona (Current \$ in thousands)		1/4/2000 TA Memo on Demographic Data						Cumulative Total	Average Annual
		1 2002	2 2003	4 2005	6 2007	8 2009	10 2011		
<b>REVENUES</b>									
31	Police Fee - SFD	\$302	\$302	\$342	\$382	\$382	\$402	\$3,518	\$352
32	Police Fee - Twnhse	\$26	\$26	\$30	\$34	\$34	\$35	\$309	\$31
33	Police Fee - Other Res	\$148	\$148	\$168	\$188	\$188	\$198	\$1,729	\$173
34	Police Fee - Commercial	\$215	\$215	\$222	\$170	\$170	\$119	\$1,823	\$182
35	Police Fee - Off/Inst	\$114	\$114	\$118	\$90	\$90	\$63	\$964	\$96
36	Police Fee - Industrial	\$49	\$49	\$51	\$39	\$39	\$27	\$418	\$42
<b>Subtotal Police Dev Fees</b>		<b>\$854</b>	<b>\$854</b>	<b>\$931</b>	<b>\$903</b>	<b>\$903</b>	<b>\$843</b>	<b>\$8,761</b>	<b>\$876</b>
<b>CAPITAL COSTS</b>									
	Police W Pub Saf Bldg & Com S	\$1,200	\$1,200	\$1,200	\$0	\$0	\$0	\$6,000	\$600
	Police Debt Service	\$0	\$100	\$299	\$630	\$630	\$630	\$4,478	\$448
	Police Veh & Equipment	\$174	\$70	\$104	\$104	\$70	\$104	\$1,010	\$101
<b>Subtotal Police Costs</b>		<b>\$1,374</b>	<b>\$1,369</b>	<b>\$1,603</b>	<b>\$735</b>	<b>\$700</b>	<b>\$735</b>	<b>\$11,487</b>	<b>\$1,149</b>
<b>NET CAPITAL FACILITIES CASH FLOW - Police</b>								<i>Current \$ in thousands</i>	
Annual Surplus (or Deficit)		Init Bal	(\$520)	(\$515)	(\$672)	\$168	\$203	\$109	(\$2,726)
Cumulative Surplus (or Deficit)		\$502	(\$18)	(\$533)	(\$1,954)	(\$2,783)	(\$2,412)	(\$2,224)	(\$273)

# FIRE AND EMERGENCY MEDICAL

## Methodology

The City of Glendale provides buildings and equipment for fire protection and emergency medical services. Development fees for fire and emergency medical facilities are based on an **incremental expansion cost** method, using the current inventory of buildings and equipment to establish the Level-Of-Service (LOS) standards for the City. The development fee methodology also includes a **plan-based component** for the new Public Safety Training Facility. As shown in Figure 44, residential development fees are calculated on a per capita basis. Fees for nonresidential development are determined per employee.

**Figure 44 - Fire & Emergency Medical Fee Methodology Chart**

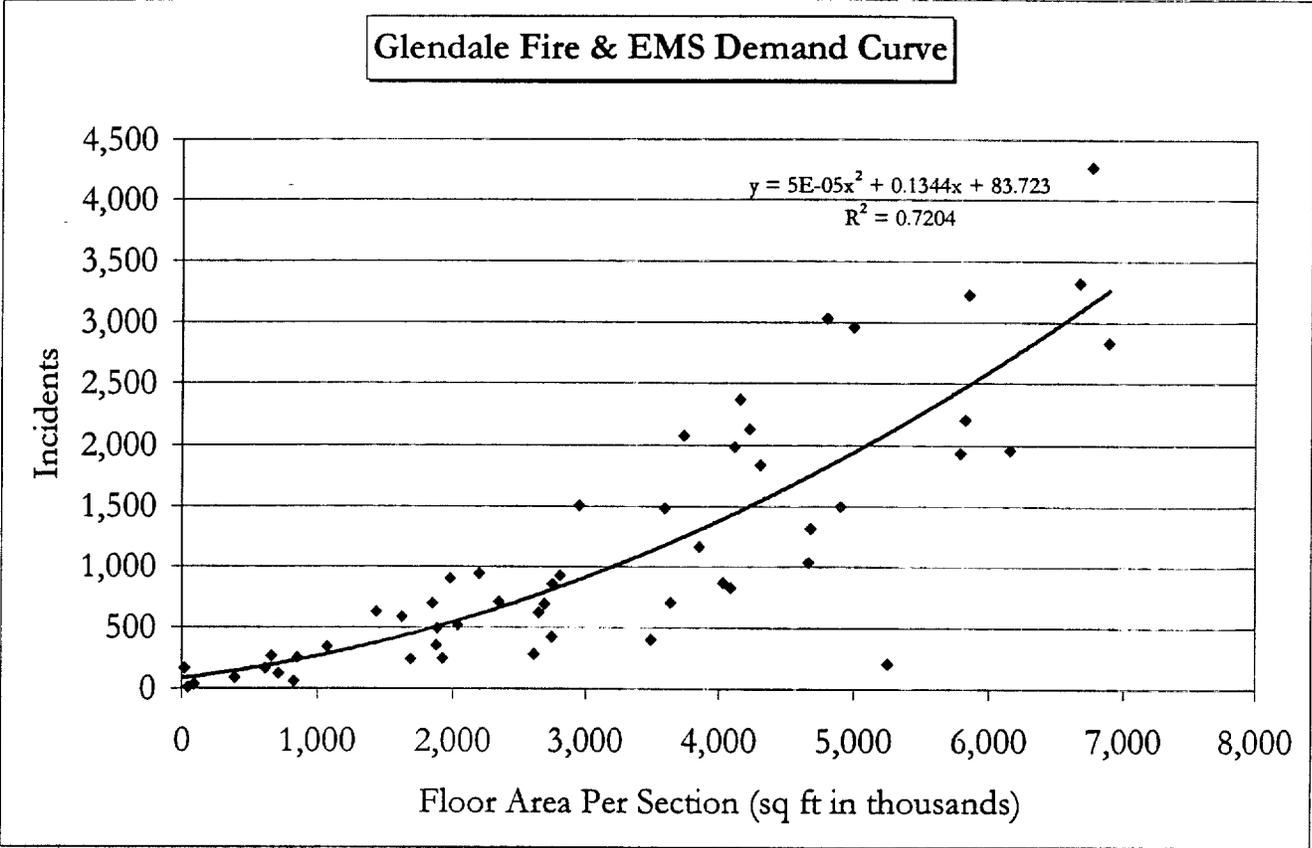


## Level-Of-Service

The calculation of level of service standards uses proportionate share factors derived from incident records maintained by the Fire Department, over a four-year period from 1995 through 1998. For each section, or square mile, of land within Glendale, TA compared the number of fire and emergency medical service (EMS) incidents to various development indicators such as population, housing units and acres of nonresidential development. Figure 45 shows the best correlation, which was found to exist between the number of incidents and the total floor area per section (i.e., residential plus nonresidential square feet, expressed in thousands). The estimated number of housing units in 2000 were converted to thousands of square feet of residential floor area using the following average unit sizes: 1) single-family detached units @ 2,300 SF; 2) townhouses @ 1,700 SF; and 3) all other unit types @ 1,100 SF. Based on the total floor area of development within Glendale, residential development accounts for

approximately 79% of the demand and nonresidential development accounts for 21% of the demand for fire and emergency medical services. It is interesting to note that the number of fire/EMS incidents per section increases at a non-linear rate. Therefore, more intense urban development has a multiplier effect on fire/EMS demand. For example, tripling the amount of development per section, from 2 to 6 million square feet, results in five times the number of incidents that must be handled by the Fire Department.

**Figure 45 - Fire Incidents Chart**



**Buildings and Apparatus**

Fire and emergency medical services are currently provided from seven stations. The City anticipates the construction of additional stations to accommodate urban development. Figure 46 provides a current replacement cost estimate for fire stations and summarizes the City’s fire and EMS apparatus. The City’s fixed assets list was the source of the equipment cost data shown below. The average cost of \$203 per square foot is based on the actual costs of design, construction, furnishings, and equipment for Station #157 in 1997. The land cost of \$56,000 per acre is based on the actual cost of land for stations 152, 155 and 156, as documented in Glendale’s fixed assets records.

**Figure 46 - Fire and Emergency Medical Standards**

**Plan-Based Cost**

		<i>Capital Cost</i>	
		Public Safety Training Facility (50%)	
		\$12,000,000	
	Proportionate Share	2020 Demand Units	Cost per Demand Unit
Residential	79%	305,200 Population	\$31.06
Nonresidential	21%	115,100 Jobs	\$21.89

**Fire and Emergency Medical Facilities Incremental Expansion Cost**

<i>Building</i>	<i>Acres</i>	<i>Cost Per Acre</i>	<i>Bldg SF</i>	<i>Cost Per SF</i>	<i>Total Cost</i>
Station # 151	1.0		11,473		
Station # 152	1.8		10,000		
Station # 153	1.5		6,556		
Station # 154	1.0		9,296		
Station # 155	2.5		5,000		
Station # 156	2.6		6,738		
Station # 157	2.9		15,942		
<b>TOTAL</b>	<b>13.3</b>	<b>\$56,000</b>	<b>65,005</b>	<b>\$203</b>	<b>\$13,940,815</b>

	Proportionate Share	2000 Demand Units	Cost per Demand Unit
Residential	79%	212,400 Population	\$51.85
Nonresidential	21%	72,900 Jobs	\$40.15

Acres per 1,000 Persons and Jobs 0.05  
 Building Square Feet Per Person and Job 0.23

**Fire and Emergency Medical Apparatus Incremental Expansion Cost**

<i>Item</i>	<i>Replacement Cost</i>
Rolling Stock	\$4,239,290
Computer Equipment	\$64,448
Operations Equipment	\$1,840,601
<b>TOTAL</b>	<b>\$6,144,339</b>

	Proportionate Share	2000 Demand Units	Cost per Demand Unit
Residential	79%	212,400 Population	\$22.85
Nonresidential	21%	72,900 Jobs	\$17.69

**Credits**

Glendale will borrow \$1.5 million for the Training Facility site in FY2002, then pay off the bonds over ten years, at 7.5% annual interest. In FY2005, the City will issue an additional GO bond for \$5 million in order to start construction on the Public Safety Training Facility. The fire development fees include the interest costs on these bonds.

New development will pay its pro rata share of the cost of the new Training Facility through development fees. Because GO bonds are retired from the secondary property tax, which will also be paid by new development, a debt service credit has been deducted from the development fees. The series 2002 and 2005 bonds will be used to purchase land and start construction on the Public Safety Training Facility. The Police and Fire Departments will split the cost of this facility. As shown in Figure 47, the debt service credit uses the same demand units as the development fee cost allocation. Interest costs are included in the development fees.

**Figure 47 - Debt Service Credit for Fire Training Facility**

FY	Series 2002 Debt Service 50%	Series 2005 Debt Service 50%	Persons	Jobs	Debt Service	
					Per Person 79%	Per Job 21%
01-02	\$99,501		222,400	78,700	\$0.35	\$0.27
02-03	\$99,501		227,400	81,600	\$0.35	\$0.26
03-04	\$99,501		232,400	84,500	\$0.34	\$0.25
04-05	\$99,501	\$331,669	237,200	87,500	\$1.44	\$1.03
05-06	\$99,501	\$331,669	241,900	89,800	\$1.41	\$1.01
06-07	\$99,501	\$331,669	246,600	92,100	\$1.38	\$0.98
07-08	\$99,501	\$331,669	251,300	94,400	\$1.36	\$0.96
08-09	\$99,501	\$331,669	256,000	96,700	\$1.33	\$0.94
09-10	\$99,501	\$331,669	260,600	98,800	\$1.31	\$0.92
10-11	\$99,501	\$331,669	266,100	100,400	\$1.28	\$0.90
11-12		\$331,669	271,600	102,000	\$0.96	\$0.68
12-13		\$331,669	277,100	103,600	\$0.95	\$0.67
13-14		\$331,669	282,600	105,200	\$0.93	\$0.66
<b>Total</b>	<b>\$995,008</b>	<b>\$3,316,694</b>			<b>\$13.37</b>	<b>\$9.53</b>
				Discount Rate	5.5%	5.5%
				Net Present Value	\$9.02	\$6.44

## Maximum Supportable Development Fees

Glendale's current development fee for fire protection is \$311 for a single-family detached (SFD) housing unit. The maximum supportable development fees, as shown in Figure 48, will increase by \$28 to \$339 per SFD unit.

**Figure 48 - Fire and Emergency Medical Development Fee**

		<i>Standards:</i>	
<b>Persons Per Household</b>			
Single Family Detached		3.12	
Townhouse (SFA)		2.56	
All Other Residential		2.26	
<b>Employees Per 1,000 Square Feet</b>			
Com / Shop Ctr 50,000 SF or less			2.86
Com / Shop Ctr 50,001-100,000 SF			2.50
Com / Shop Ctr 100,001-200,000 SF			2.22
Com / Shop Ctr over 200,000 SF			2.00
Office / Inst 25,000 SF or less			4.04
Office / Inst 25,001-50,000 SF			3.79
Office / Inst 50,001-100,000 SF			3.57
Office / Inst over 100,000 SF			3.35
Business Park			3.16
Light Industrial			2.31
Manufacturing			1.82
Warehousing			1.28
<b>Level Of Service</b>			
	<u>Per Person</u>	<u>Per Employee</u>	
Fire Training Facility	\$31.06	\$21.89	
Fire and EMS Stations	\$51.85	\$40.15	
Fire and EMS Apparatus	\$22.85	\$17.69	
Interest Cost	\$11.95	\$6.90	
Debt Service Credit	(\$9.02)	(\$6.44)	
Net Capital Cost per Demand Unit	\$108.69	\$80.19	
<b>Maximum Supportable Development Fee</b>			
<u>Residential</u>			
Single Family Detached		<u>Per Housing Unit</u>	
		\$339	
Townhouse (SFA)		\$278	
All Other Residential		\$245	
<u>Nonresidential</u>			
		<u>Per 1,000 Sq Ft</u>	
Com / Shop Ctr 50,000 SF or less		\$229	
Com / Shop Ctr 50,001-100,000 SF		\$200	
Com / Shop Ctr 100,001-200,000 SF		\$178	
Com / Shop Ctr over 200,000 SF		\$160	
Office / Inst 25,000 SF or less		\$323	
Office / Inst 25,001-50,000 SF		\$303	
Office / Inst 50,001-100,000 SF		\$286	
Office / Inst over 100,000 SF		\$268	
Business Park		\$253	
Light Industrial		\$185	
Manufacturing		\$145	
Warehousing		\$102	

## Cash Flow Summary

As shown in Figure 49, development fee revenue for Fire/EMS facilities should average \$723,000 per year. Depending on the location and timing of development, Glendale anticipates the need to construct between three to five new fire stations during the next ten years. To keep pace with growth, the City will spend approximately \$158,000 per year on fire and EMS apparatus. The debt service requirements are based on the Fire Department's share of two future bonds for the new Training Facility. Years 3, 5, 7 and 9 of the cash flow summary are not displayed so the table may be printed on a single page.

**Figure 49 - Cash Flow Summary for Fire & EMS Facilities**

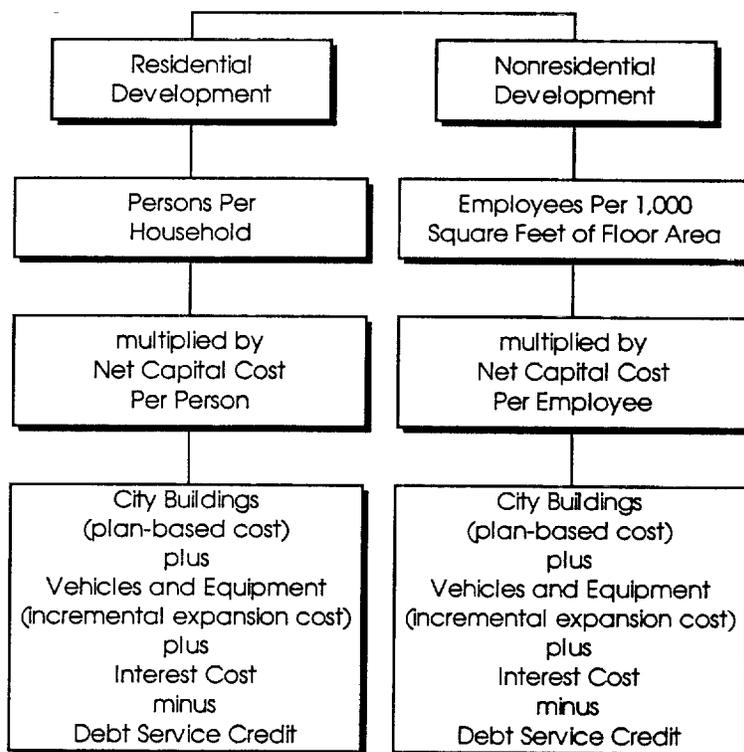
Glendale, Arizona (Current \$ in thousands)		1/4/2000 TA Memo on Demographic Data						Cumulative Total	Average Annual
		1 2002	2 2003	4 2005	6 2007	8 2009	10 2011		
<b>REVENUES</b>									
37	Fire/EMS Fee - SFD	\$261	\$261	\$296	\$331	\$331	\$348	\$3,048	\$305
38	Fire/EMS Fee - Twnhse	\$23	\$23	\$26	\$29	\$29	\$31	\$268	\$27
39	Fire/EMS Fee - Other Res	\$128	\$128	\$145	\$162	\$162	\$171	\$1,496	\$150
40	Fire/EMS Fee - Commercial	\$90	\$90	\$93	\$71	\$71	\$50	\$762	\$76
41	Fire/EMS Fee - Off/Inst	\$127	\$127	\$131	\$101	\$101	\$70	\$1,075	\$107
42	Fire/EMS Fee - Industrial	\$68	\$68	\$71	\$54	\$54	\$38	\$579	\$58
<b>Subtotal Fire/EMS Dev Fees</b>		<b>\$697</b>	<b>\$697</b>	<b>\$762</b>	<b>\$748</b>	<b>\$748</b>	<b>\$707</b>	<b>\$7,227</b>	<b>\$723</b>
<b>CAPITAL COSTS</b>									
	Fire/EMS Land	\$56	\$0	\$0	\$0	\$56	\$0	\$224	\$22
	Fire/EMS Buildings	\$356	\$303	\$300	\$269	\$269	\$273	\$2,868	\$287
	Fire/EMS Apparatus	\$170	\$170	\$168	\$151	\$151	\$153	\$1,579	\$158
	Fire/EMS Debt Service	\$0	\$100	\$100	\$431	\$431	\$431	\$2,886	\$289
<b>Subtotal Fire/EMS Costs</b>		<b>\$582</b>	<b>\$573</b>	<b>\$567</b>	<b>\$851</b>	<b>\$907</b>	<b>\$857</b>	<b>\$7,556</b>	<b>\$756</b>
<b>NET CAPITAL FACILITIES CASH FLOW - Fire &amp; EMS</b>									
Annual Surplus (or Deficit)	Init Bal	\$115	\$124	\$195	(\$103)	(\$159)	(\$150)	Current \$ in thousands (\$329) (\$33)	
Cumulative Surplus (or Deficit)	\$184	\$299	\$423	\$686	\$425	\$164	(\$145)		

# GENERAL GOVERNMENT

## Methodology

The general government development fee uses two different methods. For City buildings a **plan-based approach** is recommended. For both vehicles and equipment, TA recommends an **incremental expansion approach**. As shown in Figure 50, the general government facilities development fee is calculated on a per capita basis for residential development. For nonresidential development, the fee methodology allocates the capital cost of buildings and equipment on a per employee basis.

**Figure 50 - General Government Development Fee Methodology Chart**



## Level-Of-Service

### **Buildings**

Employment has been used as the nonresidential demand indicator for City buildings and equipment. Based on the number of residents and jobs in 2000, the proportionate share factors are 74% for residential development and 26% for nonresidential development. Figure 51 summarizes the standards that have been used in the general government development fee. A plan-based method has been used for City Buildings. Over the next 20 years, Glendale will add

a new Field Operations Center and City Office Building. These facilities have a projected cost of \$65 million.

**Vehicles and Equipment**

The City is currently using a fleet of vehicles and equipment, with a purchase price of approximately \$13.5 million. A listing of the vehicles and equipment used in the development fee calculations may be found in Appendix 2. TA excluded all vehicles that did not have an original cost of at least \$10,000. The City of Glendale will use development fee revenue to expand the vehicle fleet as needed due to growth. Development fee revenue may not be used to replace existing vehicles.

**Figure 51 - City Buildings and Vehicles LOS Standards**

**Plan-Based Component for City Buildings**

<i>Project</i>	<i>Planned Cost</i>
Field Operations Center	\$55,000,000
City Office Building	\$10,000,000
TOTAL	\$65,000,000

	Proportionate Share	2020 Demand Units	Cost per Demand Unit
Residential	73%	305,200 Population	\$154.65
Nonresidential	27%	115,100 Jobs	\$154.65

**Incremental Expansion Component for General Government Vehicles**

<i>Purchase Price</i>	<i>Purchase Price</i>
See Appendix 3 for a List of Vehicles by Department	\$13,462,783

	Proportionate Share	2000 Demand Units	Cost per Demand Unit
Residential	74%	212,400 Population	\$47.18
Nonresidential	26%	72,900 Jobs	\$47.18

The first two phases of construction for the Field Operations Center will occur within the next five years. Glendale will issue \$8 million in GO bonds in FY2002 and another \$8 million in FY2004. The interest cost on these future bonds was included in the general government development fee. As shown in Figure 55, an \$8 million bond to be paid back over ten years at 5.5% annual interest, will cost Glendale \$2,613,421 in cumulative interest. Assuming the second bond is issued in 2004 and paid off in 2013, the combined interest cost for both bonds is \$54.78 for each additional person and job that will be added to Glendale from 2000 to 2013 (see Appendix 3 for demographic data and development projections).

**Credits**

To avoid potential double payment for general government facilities, a debt service credit has been derived as shown in Figure 52. Over the next five years, Glendale plans to issue two

General Obligation bonds for the initial phases of the Field Operations Center. Annual debt service payments are divided by the projected number of people and jobs in Glendale to yield an annual debt service payment per person or job. A net present value adjustment was used to account for the time value of money. Interest costs are included in the development fees.

**Figure 52 - Debt Service Credit for Field Operations Center**

<i>FY</i>	<i>Series 2002 Debt Service</i>	<i>Series 2004 Debt Service</i>	<i>Population and Jobs</i>	<i>Debt Service Per Person and Job</i>
01-02	\$1,061,342		301,100	\$3.52
02-03	\$1,061,342		309,000	\$3.43
03-04	\$1,061,342	\$1,061,342	316,900	\$6.70
04-05	\$1,061,342	\$1,061,342	324,700	\$6.54
05-06	\$1,061,342	\$1,061,342	331,700	\$6.40
06-07	\$1,061,342	\$1,061,342	338,700	\$6.27
07-08	\$1,061,342	\$1,061,342	345,700	\$6.14
08-09	\$1,061,342	\$1,061,342	352,700	\$6.02
09-10	\$1,061,342	\$1,061,342	359,400	\$5.91
10-11	\$1,061,342	\$1,061,342	366,500	\$5.79
11-12		\$1,061,342	373,600	\$2.84
12-13		\$1,061,342	380,700	\$2.79
Total	\$10,613,421	\$10,613,421		\$62.35
			Discount Rate	5.5%
			Net Present Value	\$45.07

**Maximum Supportable Development Fees**

Standards used to derive the general government development fee are summarized in the boxed area of Figure 53. Fees for a single-family detached house are identical to those in the previous update, \$660 per unit. Fees by type of nonresidential development vary according to the number of employees per 1,000 square feet of floor area. These multipliers are derived from nationwide averages published by the Institute of Transportation Engineers and the Urban Land Institute. However, the multipliers are consistent with local data published by Maricopa Association of Governments.

**Figure 53 - General Government Development Fee**

		<i>Standards:</i>	
<b>Persons Per Household</b>			
Single Family Detached		3.12	
Townhouse (SFA)		2.56	
All Other Residential		2.26	
<b>Employees Per 1,000 Square Feet</b>			
Com / Shop Ctr 50,000 SF or less			2.86
Com / Shop Ctr 50,001-100,000 SF			2.50
Com / Shop Ctr 100,001-200,000 SF			2.22
Com / Shop Ctr over 200,000 SF			2.00
Office / Inst 25,000 SF or less			4.04
Office / Inst 25,001-50,000 SF			3.79
Office / Inst 50,001-100,000 SF			3.57
Office / Inst over 100,000 SF			3.35
Business Park			3.16
Light Industrial			2.31
Manufacturing			1.82
Warehousing			1.28
<b>Level Of Service</b>		<u>Per Person</u>	<u>Per Employee</u>
Cost of Future Buildings		\$154.65	\$154.65
General Government Vehicles		\$47.18	\$47.18
Interest Cost		\$54.78	\$54.78
Debt Service Credit		(\$45.07)	(\$45.07)
Net Capital Cost per Demand U		\$211.54	\$211.54
<b>Maximum Supportable Development Fee</b>			
<u>Residential</u>		<u>Per Housing Unit</u>	
Single Family Detached		\$660	
Townhouse (SFA)		\$541	
All Other Residential		\$478	
<u>Nonresidential</u>		<u>Per 1,000 Sq Ft</u>	
Com / Shop Ctr 50,000 SF or less		\$605	
Com / Shop Ctr 50,001-100,000 SF		\$528	
Com / Shop Ctr 100,001-200,000 SF		\$469	
Com / Shop Ctr over 200,000 SF		\$423	
Office / Inst 25,000 SF or less		\$854	
Office / Inst 25,001-50,000 SF		\$801	
Office / Inst 50,001-100,000 SF		\$755	
Office / Inst over 100,000 SF		\$708	
Business Park		\$668	
Light Industrial		\$488	
Manufacturing		\$385	
Warehousing		\$270	

## Cash Flow Summary

Over the next ten years, general government development fees should yield approximately \$1.7 million per year. Figure 54 indicates the average annual debt service payments on the first two construction phases for the new Field Operations Center. Glendale will spend approximately \$350,000 per year to purchase additional vehicles needed to accommodate new development.

In the table below, years 3, 5, 7 and 9 are not displayed to enable the cash flow summary to be printed on one page. Annual deficits in years 4-10 are due to the anticipated debt service payments for the new Field Operations Center. Because this facility represents an increase in the current LOS, development fees will not cover 100% of the projected cost.

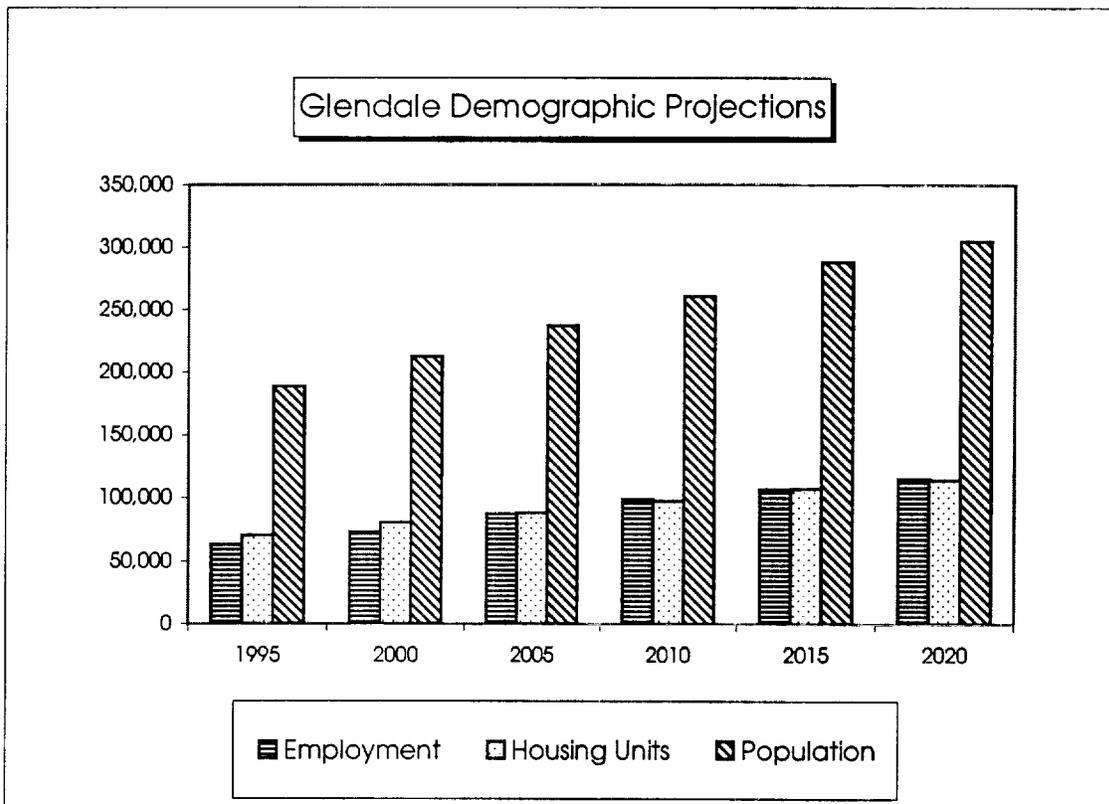
**Figure 54 - Cash Flow Summary for General Government**

Glendale, Arizona (Current \$ in thousands)		1/4/2000 TA Memo on Demographic Data						Cumulative Total	Average Annual
	1 2002	2 2003	4 2005	6 2007	8 2009	10 2011			
<b>REVENUES</b>									
43 Gen Gov Fee - SFD	\$554	\$554	\$628	\$702	\$702	\$739	\$6,468	\$647	
44 Gen Gov Fee - Twnhse	\$49	\$49	\$55	\$62	\$62	\$65	\$568	\$57	
45 Gen Gov Fee - Other Res	\$272	\$272	\$309	\$345	\$345	\$363	\$3,179	\$318	
46 Gen Gov Fee - Commercial	\$258	\$258	\$267	\$205	\$205	\$143	\$2,192	\$219	
47 Gen Gov Fee - Off/Inst	\$365	\$365	\$378	\$290	\$290	\$201	\$3,098	\$310	
48 Gen Gov Fee - Industrial	\$198	\$198	\$204	\$157	\$157	\$109	\$1,675	\$168	
<b>Subtotal General Government Dev</b>	<b>\$1,697</b>	<b>\$1,697</b>	<b>\$1,842</b>	<b>\$1,760</b>	<b>\$1,760</b>	<b>\$1,620</b>	<b>\$17,180</b>	<b>\$1,718</b>	
<b>CAPITAL COSTS</b>									
Field Op Ctr Debt Service	\$0	\$1,061	\$2,123	\$2,123	\$2,123	\$2,123	\$16,981	\$1,698	
Gen Gov Vehicles	\$373	\$373	\$368	\$330	\$330	\$335	\$3,458	\$346	
<b>Subtotal General Government Costs</b>	<b>\$373</b>	<b>\$1,434</b>	<b>\$2,491</b>	<b>\$2,453</b>	<b>\$2,453</b>	<b>\$2,458</b>	<b>\$20,440</b>	<b>\$2,044</b>	
<b>NET CAPITAL FACILITIES CASH FLOW - General Government</b>									
Annual Surplus (or Deficit)	Init Bal	\$1,324	\$263	(\$649)	(\$693)	(\$693)	(\$837)	Current \$ in thousands (\$3,260) (\$326)	
Cumulative Surplus (or Deficit)	\$80	\$1,404	\$1,667	\$1,280	(\$105)	(\$1,490)	(\$3,180)		

# DEVELOPMENT PROJECTIONS

For a complete discussion of demographic data and development projections, see Appendix 3 at the back of this report. Figure 55 presents population, housing unit and employment growth in five-year increments through the year 2020. The 1995 data for the City of Glendale are from the special census. Current population within the city limits was provided by the Planning Department. The current number of jobs located in Glendale is based on 1998 employment data published in *Glendale by the Numbers*, by the Economic Development Department. Beginning in 2005, TA recommends the use of Municipal Planning Area (MPA) data, as published by the Maricopa Association of Governments (MAG, 7/97). Although the geographic size of the MPA is larger than the current city limits, the additional land is mostly undeveloped and will not receive development approvals until it is annexed into the City of Glendale.

**Figure 55 - Recommended Development Projections**



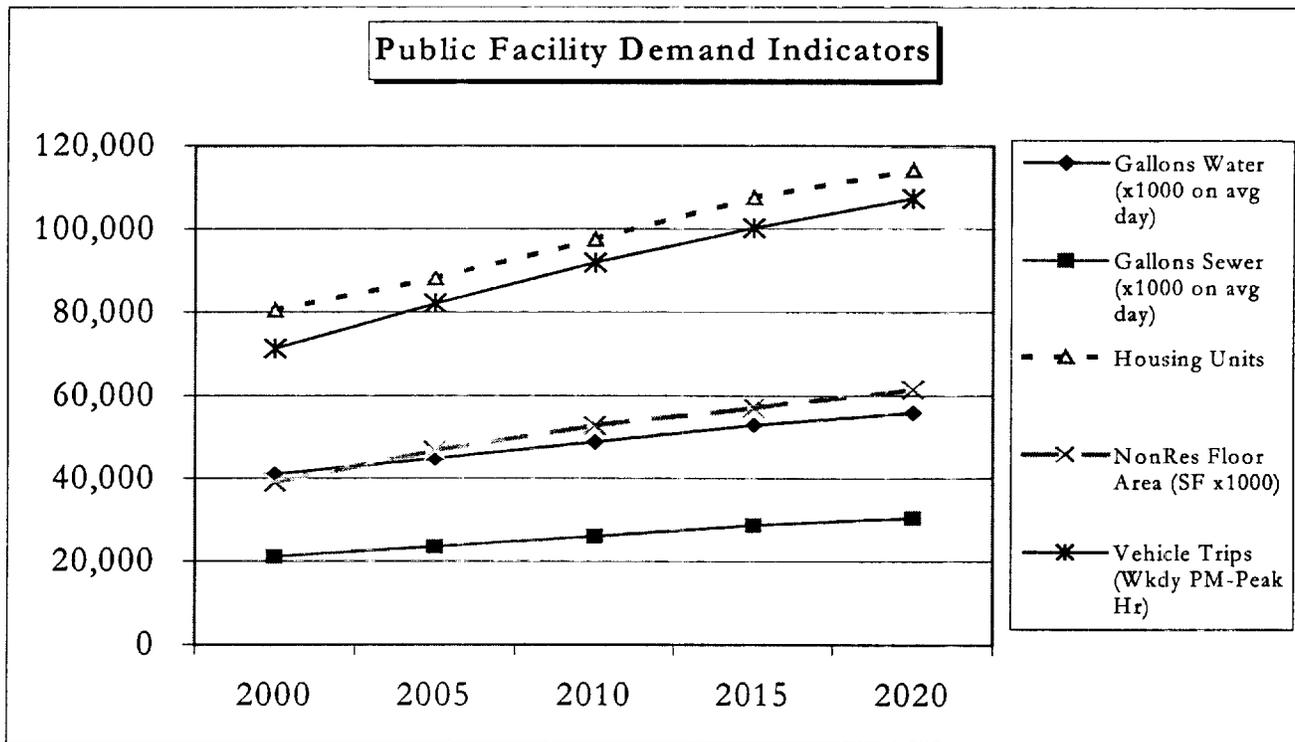
- (1) 1995 data from special census.
- (2) Data provided by Glendale Planning and Economic Development Departments.
- (3) Maricopa Association of Governments, Municipal Planning Area Projections, 7/97.

Glendale growth indicators, as shown in Figure 56, include projected public facility demand data for utilities and roads. TA used water and sewer demand factors from the previous development fees study to project the gallons of average daily flow. The residential water demand factor, as documented by the Glendale Water Resources Plan, is 356 gallons per day per housing unit. For nonresidential development, the average water demand factor is 126 gallons per day per thousand square feet (KSF) of floor area. According to the Sewerage Master Study, the average sewer demand factors are 219 gallons per day per housing unit and 87 gallons per day per KSF. Development fees for transportation and police will use data on weekday PM-Peak Hour trip ends, as published by the Institute of Transportation Engineers (ITE). Trip generation rates were multiplied by the development projections discussed above to yield the projected number of vehicle trips.

**Figure 56 - Public Facility Demand Indicators**

<i>Glendale, Arizona</i>						Compound*	Simple*
	2000	2005	2010	2015	2020	Anl Growth	Anl Growth
Gallons Water (x1000 on avg day)	41,000	44,730	48,800	52,910	55,840	1.6%	1.8%
Gallons Sewer (x1000 on avg day)	20,989	23,378	25,940	28,511	30,354	1.9%	2.2%
Housing Units	80,500	88,200	97,500	107,500	114,200	1.8%	2.1%
NonRes Floor Area (SF x1000)	38,905	46,697	52,728	57,104	61,427	2.3%	2.9%
Vehicle Trips (Wkdy PM-Peak Hr)	71,281	82,120	91,873	100,276	107,281	2.1%	2.5%

\* Annual average percentage change from 2000 to 2020.



## IMPLEMENTATION AND ADMINISTRATION

All costs in the development fee calculations are given in current dollars with no assumed inflation rate over time. Necessary cost adjustments can be made as part of the recommended annual evaluation and update of development fees. One approach is to adjust for inflation in construction costs by means of an index like the one published by Engineering News Record (ENR). This index could be applied against the calculated development fee. If cost estimates change significantly the City should redo the fee calculations.

As specified in the Development Fees Act, there are certain accounting requirements that must be met by the City. Monies received shall be placed in a separate fund and accounted for separately and may only be used for the purposes authorized by ARS 9-463.05. Interest earned on monies in the separate fund shall be credited to the fund. Also, only development fee revenue for neighborhood parks should be collected and expended by zone.

Nonresidential development categories are based on land use classifications from the book Trip Generation (TE, 1997). A summary description of each development category is provided below.

**Shopping Center** (820) – A shopping center is an integrated group of commercial establishments that is planned, developed, owned and managed as a unit. A shopping center provides on-site parking facilities sufficient to serve its own parking demands. Shopping centers may contain non-merchandizing facilities, such as office buildings, movie theaters, restaurants, post offices, banks, health clubs and recreational facilities. In addition to the integrated unit of shops in one building or enclosed around a mall, many shopping centers include out-parcels. For smaller centers without an enclosed mall or peripheral buildings, the Gross Leaseable Area (GLA) may be the same as the Gross Floor Area (GFA) of the building.

**General Office** (710) – A general office building houses multiple tenants including, but not limited to, professional services, insurance companies, investment brokers and tenant services such as banking, restaurants and service retail facilities. In the development fees study, this category is used as a proxy for institutional uses that may have more specific land use codes.

**Light Industrial** (110) – Light industrial facilities usually employ fewer than 500 persons and have an emphasis on activities other than manufacturing. Typical light industrial activities include, but are not limited to printing plants, material-testing laboratories and assembling of data processing equipment.

**Warehousing** (150) – Warehouses are primarily devoted to the storage of materials.

**Manufacturing** (140) – In manufacturing facilities, the primary activity is the conversion of raw materials or parts into finished products. In addition to the actual production of goods, manufacturing facilities may have office, warehouse, research and associated functions.

# APPENDIX 1 - TRAFFIC SIGNALS AND ARTERIAL SCALLOPS

## TRAFFIC SIGNALS WITH INTELLIGENT TRANSPORTATION SYSTEM ELEMENTS

Location	Signals (Ea)	Conduit (Lf)	Fiber Drop (Ea)	Fiber Pull (Lf)	Cable (Lf)	Camera (Ea)	Detection (LS)
Litchfield & Camelback	1	5,280	1	5,280	5,280	1	y
Dysart & Camelback	1	5,280	1	5,280	5,280		
El Mirage & Camelback	1	5,280	1	5,280	5,280		y
99th & Camelback	1	2,640	1	2,640	2,640	1	
95th & Camelback	1	2,640	1	2,640	2,640		
91st & Camelback	1	2,640	1	2,640	2,640	1	
87th & Camelback	1	2,640	1	2,640	2,640		
83rd & Camelback	1	2,640	1	2,640	2,640	1	
79th & Camelback	1	2,640	1	2,640	2,640		
71st & Camelback	1	2,640	1	2,640	2,640		
Dysart & Glendale		5,280	1	5,280	5,280	1	y
El Mirage & Glendale		2,640	1	2,640	2,640	1	
115th & Glendale	1	2,640	1	2,640	2,640		
99th & Glendale	1	2,640	1	2,640	2,640	1	
95th & Glendale	1	2,640	1	2,640	2,640		
91st & Glendale	1	2,640	1	2,640	2,640	1	
87th & Glendale	1	1,320	1	1,320	1,320		
83rd & Glendale	1	1,320	1	1,320	1,320	1	
79th & Glendale	1	2,640	1	2,640	2,640		
Dysart & Sioux	1	2,640	1	2,640	2,640		y
Dysart & Maryland	1	2,640	1	2,640	2,640		
Dysart & Missouri	1	2,640	1	2,640	2,640		
El Mirage & Maryland	1	2,640	1	2,640	2,640		
El Mirage & Missouri	1	2,640	1	2,640	2,640		
91st & Missouri	1	5,280	1	5,280	5,280		y
91st & Maryland	1	2,640	1	2,640	2,640		
99th & Missouri	1	5,280	1	5,280	5,280		y
99th & Maryland	1	2,640	1	2,640	2,640		
Litchfield & Maryland	1	2,640	1	2,640	2,640		
Litchfield & Bethany Home	1	2,640	1	2,640	2,640	1	
Dysart & Bethany Home	1	2,640	1	2,640	2,640	1	
El Mirage & Bethany Home	1	2,640	1	2,640	2,640	1	
99th & Bethany Home	1	2,640	1	2,640	2,640	1	
95th & Bethany Home	1	2,640	1	2,640	2,640		
91st & Bethany Home	1	2,640	1	2,640	2,640	1	
87th & Bethany Home	1	2,640	1	2,640	2,640		y
83rd & Bethany Home	1	2,640	1	2,640	2,640	1	
79th & Bethany Home	1	2,640	1	2,640	2,640		
75th & Bethany Home	1	2,640	1	2,640	2,640	1	y
71st & Bethany Home	1	2,640	1	2,640	2,640		
Glen Harbor & Vista	1	2,640	1	2,640	2,640		
67th & Acoma	1	5,280	1	5,280	5,280		
<b>TOTAL QUANTITIES</b>	<b>40</b>	<b>126,720</b>	<b>42</b>	<b>126,720</b>	<b>126,720</b>	<b>16</b>	<b>1</b>
<b>UNIT COSTS</b>	<b>\$100,000</b>	<b>\$30</b>	<b>\$500</b>	<b>\$2</b>	<b>\$3</b>	<b>\$10,000</b>	<b>\$450,000</b>
<b>COST ESTIMATE</b>	<b>\$4,000,000</b>	<b>\$3,801,600</b>	<b>\$21,000</b>	<b>\$190,080</b>	<b>\$380,160</b>	<b>\$160,000</b>	<b>\$450,000</b>
						<b>SUBTOTAL</b>	<b>\$9,002,840</b>
<b>TRANSPORTATION CAPITAL EQUIPMENT:</b>							
Construction and Service Vehicle with Bucket Arm							\$70,000
Fiber Optic Splicing and Repair Vehicle							\$80,000
Thermo Long-line Striping Machine							\$200,000
Signs and Marking Service Vehicle							\$70,000
Traffic Operations Shop Expansion							\$125,000
						<b>SUBTOTAL</b>	<b>\$545,000</b>
<b>TOTAL COST TO BUILDOUT</b>							<b>\$9,547,840</b>

## Arterial Scallops

Arterial	From	To	Side E/W	Side N/S	Total_LF	TotalCost
51st Ave.	Beryl Ave.	Cochise Ln.	W		300	\$87,450
51st Ave.	Mountain View Rd.	Onyx Ave.	W		600	\$174,900
59th Ave.	Sunnyside Dr.	Cactus Rd.	W		1,320	\$384,780
59th Ave.	Union Hills Dr.	Utopia Rd.	E-W		4,000	\$1,166,000
59th Ave.	Evergreen Rd.	Alice Ave.	E		600	\$174,900
67th Ave.	Riviera Dr.	Cactus Rd.	E-W		2,000	\$583,000
67th Ave.	Cactus Rd.	Corrine Dr.	W		1,680	\$489,720
67th Ave.	Corrine Dr.	Pershing Ave.	W		2,020	\$588,830
67th Ave.	Sweetwater Ave.	Pershing Ave.	E		1,045	\$304,618
67th Ave.	Pershing Ave.	Thunderbird Rd.	E-W		3,140	\$915,310
67th Ave.	Thunderbird Rd.	Hearn Rd.	E		1,020	\$297,330
67th Ave.	Thunderbird Rd.	Acoma Rd.	W		2,600	\$757,900
67th Ave.	Greenway Rd.	Kings Ave.	E		3,050	\$889,075
67th Ave.	Greenway Rd.	Kings Ave.	W		2,550	\$743,325
67th Ave.	Missouri Ave.	Montebello Ave.	W		1,290	\$376,035
67th Ave.	San Miguel Ave.	Montebello Ave.	E		195	\$56,843
67th Ave.	Keim Dr.	Rose Ln.	E-W		1,200	\$349,800
67th Ave.	Rose Ln.	Maryland Ave.	W		750	\$218,625
67th Ave.	Rose Ln.	Maryland Ave.	W		1,100	\$320,650
67th Ave.	Stella Ln.	Maryland Ave.	E		300	\$87,450
67th Ave.	Maryland Ave.	Ocotillo Rd.	E		1,320	\$384,780
67th Ave.	Maryland Ave.	Ocotillo Rd.	W		1,320	\$384,780
67th Ave.	Ocotillo Rd.	Glendale Ave.	E		715	\$208,423
67th Ave.	Ocotillo Rd.	Glendale Ave.	W		777	\$226,496
67th Ave.	Glendale Ave.	Myrtle Ave.	E		1,320	\$384,780
67th Ave.	Glendale Ave.	Glenn Dr.	W		300	\$87,450
67th Ave.	Glenn Dr.	Myrtle Ave.	W		600	\$174,900
67th Ave.	Myrtle Ave.	State Ave.	E		550	\$160,325
67th Ave.	Myrtle Ave.	Northview Ave.	W		600	\$174,900
67th Ave.	Northview Ave.	State Ave.	E-W		600	\$174,900
67th Ave.	State Ave.	Orangewood Ave.	W		460	\$134,090
67th Ave.	Orangewood Ave.	Belmont Ave.	E		500	\$145,750
67th Ave.	Frier Dr.	Northern Ave.	E		1,320	\$384,780
67th Ave.	Northern Ave.	Butler Dr.	W		1,950	\$568,425
67th Ave.	Royal Palm Rd.	Butler Dr.	E		700	\$204,050
67th Ave.	Butler Dr.	Alice Ave.	W		300	\$87,450
67th Ave.	Alice Ave.	Olive Ave.	E-W		600	\$174,900
75th Ave.	Camelback Rd.	Reade Ave.	W		150	\$43,725
75th Ave.	Reade Ave.	Medlock Dr.	E		150	\$43,725
75th Ave.	Denton Ln.	Luke Ave.	E		400	\$116,600
75th Ave.	Luke Ave.	San Juan Ave	E		500	\$145,750
75th Ave.	San Juan Ave.	Bethany Home Rd.	E		1,700	\$495,550
75th Ave.	Montebello Ave.	Solano Dr	W		300	\$87,450
75th Ave.	Montebello Ave.	Bethany Home Rd.	W		965	\$281,298
75th Ave.	Bethany Home Rd.	Griffin Ave.	E		2,000	\$583,000
75th Ave.	Bethany Home Rd.	Maryland Ave.	W		2,600	\$757,900
75th Ave.	Griffin Ave.	Maryland Ave.	E		650	\$189,475

Arterial Scallops (continued)

75th Ave.	Ocotillo Rd.	Glendale Ave.	E		1,060	\$308,990
75th Ave.	Lamar Rd.	Glendale Ave.	W		900	\$262,350
83rd Ave.	Camelback Rd.	Missouri Ave.	W		2,100	\$612,150
83rd Ave.	Missouri Ave.	Montebello Ave.	E		1,100	\$320,650
83rd Ave.	Missouri Ave.	Bethany Home Rd.	W		3,220	\$938,630
83rd Ave.	Montebello Ave.	Bethany Home Rd.	E		390	\$113,685
83rd Ave.	Bethany Home Rd.	Claremont Str.	E		1,010	\$294,415
83rd Ave.	Keim Dr.	Claremont Str.	W		400	\$116,600
83rd Ave.	Rose Ln.	Stella Ave.	E		610	\$177,815
83rd Ave.	Ocotillo Rd.	Glendale Ave.	E		1,280	\$373,120
83rd Ave.	Ocotillo Rd.	Glendale Ave.	W		1,115	\$325,023
Bell Rd.	51st Ave.	55th Ave.		N	2,640	\$769,560
Bethany Home Rd.	67th Ave.	69th Ave.		S	150	\$43,725
Bethany Home Rd.	67th Ave.	69th Ave.		S	1,000	\$291,500
Bethany Home Rd.	68th Ave.	69th Ave.		N	170	\$49,555
Bethany Home Rd.	69th Ave.	71st Ave.		S	1,300	\$378,950
Bethany Home Rd.	69th Ave.	71st Dr.		N	1,660	\$483,890
Bethany Home Rd.	71st Ave.	72nd Dr.		S	850	\$247,775
Bethany Home Rd.	72nd Dr.	75th Ave.		S	1,300	\$378,950
Bethany Home Rd.	74th Ave.	75th Ave.		N	620	\$180,730
Bethany Home Rd.	75th Ave.	79th Ave.		N	1,950	\$568,425
Bethany Home Rd.	75th Ave.	77th Ave.		S	1,300	\$378,950
Bethany Home Rd.	78th Ave.	79th Ave.		S	500	\$145,750
Bethany Home Rd.	79th Dr.	83rd Ave.		N	1,800	\$524,700
Bethany Home Rd.	81st Ave.	83rd Ave.		S	1,200	\$349,800
Camelback Rd.	83rd Ave.	85th Ave.		N	1,300	\$378,950
Camelback Rd.	87th Ave.	91st Ave.		N	2,600	\$757,900
Glendale Ave.	68th Ave.	75th Ave.		N	4,060	\$1,183,490
Glendale Ave.	69th Ave.	71st Ave.		S	1,275	\$371,663
Glendale Ave.	71st Ave.	75th Ave.		S	2,375	\$692,313
Glendale Ave.	75th Ave.	77th Ln.		S	1,100	\$320,650
Glendale Ave.	77th Ln.	77th Ave.		N	340	\$99,110
Glendale Ave.	79th Ave.	81st Ave.		N	1,300	\$378,950
Glendale Ave.	81st Ln.	83rd Ave.		S	625	\$182,188
Greenway Rd.	55th Ave.	59th Ave.		S	2,300	\$670,450
Greenway Rd.	67th Ave.	71st Ave.		N-S	8,100	\$2,361,150
Northern Ave.	43rd Ave.	45th Ave.		S	1,320	\$384,780
Olive Ave.	51st Ave.	53rd Ave.		S	1,300	\$378,950
Olive Ave.	57th Ave.	59th Ave.		N	600	\$174,900
Olive Ave.	61st Ave.	62nd Ave.		S	300	\$87,450
Olive Ave.	66th Ave.	67th Ave.		N	600	\$174,900
Peoria Ave.	49th Ave.	50th Ave.		S	300	\$87,450
				TOTAL	113,527	\$33,093,121
				miles	21.5	

# APPENDIX 2 - GENERAL GOVERNMENT VEHICLES

## City of Glendale - Equipment Management

Vehicles and Equipment with a purchase price of at least \$10,000.

1/11/00

Dept#	Purchase Price
1120 Total	\$33,995
1210 Total	\$33,995
1310 Total	\$24,652
1410 Total	\$30,706
1430 Total	\$43,947
2230 Total	\$14,000
2240 Total	\$12,589
2310 Total	\$11,691
2421 Total	\$86,958
3340 Total	\$123,676
4230 Total	\$927,189
4233 Total	\$327,920
4240 Total	\$320,492
4310 Total	\$71,844
4410 Total	\$31,997
4411 Total	\$71,864
4415 Total	\$34,720
4424 Total	\$118,636
4510 Total	\$64,986
4520 Total	\$53,350
5110 Total	\$22,423
5210 Total	\$249,196
5211 Total	\$11,691
6210 Total	\$12,195
6223 Total	\$590,001
6224 Total	\$649,547
6225 Total	\$41,095
6226 Total	\$93,168
6232 Total	\$2,720,515
6233 Total	\$887,321
6251 Total	\$33,309
6252 Total	\$93,552
6253 Total	\$607,978
6254 Total	\$101,188
6256 Total	\$14,278
6257 Total	\$11,691
6269 Total	\$655,031
6270 Total	\$90,713
6321 Total	\$11,251
6322 Total	\$410,506
6323 Total	\$354,392
6324 Total	\$12,589
6326 Total	\$16,819
6331 Total	\$43,577
6333 Total	\$55,145
6335 Total	\$14,909
6342 Total	\$143,651
6343 Total	\$31,170
6410 Total	\$41,627
6411 Total	\$46,318
6419 Total	\$39,850
6420 Total	\$41,248
6421 Total	\$110,997
6422 Total	\$26,292
6423 Total	\$13,964
6425 Total	\$91,246
6426 Total	\$66,370
6429 Total	\$40,645
6430 Total	\$127,209
6442 Total	\$822,556
6443 Total	\$114,195
6444 Total	\$480,976
6445 Total	\$731,325
6452 Total	\$249,858
Grand Total	\$13,462,783

## **APPENDIX 3 - DEVELOPMENT PROJECTIONS MEMO**