

LIFE CYCLE CERTIFICATION

Regional Transportation Plan
Freeway Program
January 2010



Arizona
Department of Transportation
Certification of Revenue and Costs

Regional Transportation Plan
Freeway Program
January 2010





John S. Halikowski, Director
Arizona Department of Transportation



Date

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Introduction



INTRODUCTION

The purpose of this Regional Transportation Plan Freeway Program (RTPFP) Life Cycle Certification report is to review the progress of the RTPFP and provide a management tool to help ensure that projected revenues and costs stay in balance as required by Arizona Revised Statutes (A.R.S.) § 28-6352.A.

The concept of a Life Cycle Program refers to a programming approach that forecasts and allocates funds through the full life of a major funding source, in this instance the Maricopa County Regional Area Road Fund Proposition 400 Regional Area Road Fund (RARF) half cent sales tax that was approved by voters in Maricopa County on November 2, 2004. The tax and the RTPFP Life Cycle Program run from January 2006 through December 2025. The Certification provides an important tool to help ensure that the Arizona Department of Transportation (ADOT) and the Maricopa Association of Governments (MAG) maintain realistic planning and construction schedules based upon anticipated funding and costs, and provides a periodic report to the public and other governmental agencies on the status of the RTPFP.

Forecasting future costs and revenue cannot be done with absolute certainty, as clearly demonstrated by the substantial unanticipated changes in the national and local economy over the past two years. By January 2009, a program that had been in balance instead had developed a significant gap between projected costs and revenue. Over the past year, ADOT and MAG have worked together to close that gap and bring the RTPFP back into balance. The strategies involved deferral of some projects to future years, changes to project scope to fit within anticipated budgets, value engineering, and lower cost estimates consistent with lower bid prices resulting from the current economic conditions.

ADOT utilizes outside experts to assist with economic forecasting and will continue to monitor cost and revenue trends. Even so, no one can say with certainty what the future will bring and that is precisely why periodic review and certification of costs and revenue projections for the RTPFP is so important. The review and certification is done by ADOT every six months and is an important tool in the management of the RTPFP Life Cycle Program. It enhances the flow of information to MAG, the public and other interested parties on a regular basis and allows ADOT and MAG working together to make program adjustments as needed.

The RARF half cent sales tax helps fund three major programs: Freeways and Highways, Arterial Streets, and Transit. In accordance with A.R.S. § 42-6105.E, 56.2 percent of the half cent sales tax collection is allocated to the freeways and highways that make up the RTPFP. It includes new freeway corridors to serve growth in the region and improvements to the existing freeway/highway system to reduce current and future congestion and improve safety. The RTPFP also addresses operational and quality of life issues such as noise mitigation, maintenance, litter control and landscaping. The RARF half cent sales tax, along with federal highway funds and ADOT funds are the three major funding sources for the RTPFP. Last year, the 2009 American Recovery and Reinvestment Act (ARRA) also provided a significant one time infusion of \$129.4 million of funding for the RTPFP.

This Certification constitutes the official position of ADOT for planning and programming purposes for the Regional Transportation Plan Freeway Program.

Executive Summary



EXECUTIVE SUMMARY

The Director of the Arizona Department of Transportation has certified the MAG Area Life Cycle Program of the Regional Transportation Plan Freeway Program (RTPFP) effective January 31, 2010. This Certification of the MAG Area Life Cycle Program incorporates the Draft Tentative FY 2011 - 2015 Regional Transportation Plan Freeway Program.

Major Milestones since Last Certification

- The Pima Freeway (SR101L) from Tatum Boulevard to Princess Drive HOV lane was opened to traffic in August 2009.
- SR93, Wickenburg by-pass roadway was opened to traffic in September 2009.
- The Price Freeway (SR101L) from SR202L, Red Mountain Freeway to SR202L, Santan Freeway HOV lane was opened to traffic in October 2009.
- The Papago Freeway (I-10) from SR101L to Sarival Avenue HOV and General Purpose Lane was opened to traffic in December 2009.
- The Black Canyon Freeway (I-17) from SR101L to Jomax Road HOV and General Purpose Lane (GPL) was opened to traffic in December 2009.
- The Black Canyon Freeway (I-17) from Jomax Road to SR74 HOV and General Purpose Lane was opened to traffic in December 2009.
- The Black Canyon Freeway (I-17) from SR74 to Anthem Way General Purpose Lane was opened to traffic in January 2010.
- The Papago Freeway (I-10) from Verrado Way to Sarival Avenue ARRA construction project was awarded in July 2009.
- The Grand Avenue (US60) from 99th Avenue to 83rd Avenue ARRA construction project was awarded in August 2009.
- The Papago Freeway (I-10) from Sarival Avenue to Dysart Road construction project was awarded in September 2009.
- SR85 from Southern Avenue to I-10 ARRA construction project was advertised in July 2009 and awarded in September 2009.
- The Pima Freeway (SR101L) from SR51 to Princess Drive Freeway Management System (FMS) construction project was awarded in October 2009.
- SR74 climbing lane project from MP20 to MP22 ARRA construction project was advertised in August 2009 and awarded in October 2009.
- The Agua Fria Freeway (SR101L) at Beardsley Road and Union Hills Drive ARRA TI construction project was advertised in August 2009 and awarded in October 2009.
- The Grand Avenue (US60) from SR303L to 99th Avenue ARRA construction project was advertised in September 2010 and awarded in November 2009.

Program Changes

Maricopa County experienced an unprecedented escalation in the costs for labor, fuel, construction materials and right-of-way between 2003 through 2008 that has greatly influenced the total cost for project in the RTPFP. Since then, the economic downturn has resulted in a decrease in collections from the Regional Area Road Fund (RARF) and Highway User Revenue Fund (HURF) revenues used to help fund the RTP Freeway Program. Due to the projected gap between costs and revenue, ADOT and MAG have worked cooperatively to evaluate the cumulative impacts of these factors on the cost, scheduling and delivery of the RTPFP.

In October 2009, the MAG Transportation Policy Committee (TPC) recommended a number of strategies for balancing costs and revenues in the 20-year MAG RTPFP. The committee recommended a revised program utilizing a variety of approaches and solutions to reduce the gap between projected revenues and anticipated expenditures and was approved by MAG Regional Council on October 28, 2009. Recommended solutions encompassed management strategies, value engineering, project deferrals and staying the course.

Proposed management strategies involved three sources of savings: construction cost savings due to lower construction bids, right-of-way savings due to lower real estate costs, and system-wide cost savings by cutting programs back to their original levels as approved by the Proposition 400 vote on November 2, 2004.

Value engineering strategies included reducing the footprint of the entire SR202L, South Mountain Freeway corridor from four general purpose lanes plus one HOV lane in each direction to an eight-lane facility of three general purpose lanes plus one HOV lane in each direction. The TPC also recommended moving the segment of the corridor between Lower Buckeye Road and Interstate 10 (Papago Freeway) from an alignment near 55th Avenue to one utilizing 59th Avenue and its existing right-of-way. Other value engineering recommendations involved the SR303L Freeway, including constructing an interim partial cloverleaf interchange at US60/Grand Avenue and developing a lower cost alternative for the I-10 system interchange.

Deferral recommendations included delaying the SR801 corridor (I-10 Reliever Freeway), the SR802 Williams Gateway Freeway, and the southern portion of the SR303L, from MC85 to I-10. Additional deferrals include delaying construction of general purpose lanes for portions of SR101L, SR202L and SR51. At the same time, the proposed scenario recommends continuing to construct HOV lanes wherever possible, since they are relatively low-cost additions that will encourage carpooling and assist the region's express bus service.

ADOT and MAG have cooperatively developed a tentative RTPFP Five Year Construction Program incorporating the MAG recommended program changes to balance cost and revenue. Under current schedules, the State Transportation Board is expected to adopt the Tentative Five Year FY 2011–15 RTP Freeway Program in June 2010 and MAG Regional Council in July 2010.

FY 2011-2013 Program Changes:

- Adjust project schedules to fit MAG scenario to balance cost and revenue.
- Adjust project schedules to align with current status of work in progress.
- Update design, right-of-way and construction cost estimates based on current prices.
- Repackage I-10 corridor based on the plan identified in the DCR.
- Repackage South Mountain (SR202L) corridor based on the plan identified in the DCR.
- Repackage SR303L corridor based on the plan identified in the DCR.

FY 2014 Program Changes:

- Delete the \$600 million “place holder” project
- Program twenty four new projects
- Include six projects deferred from FY10 – FY13

FY 2015 Program Changes:

- Program twenty one new projects
- Include five projects deferred from FY10 – FY13

Estimated Revenues and Program Costs

Net funds available through year 2025 for the RTP Freeway Program show a decrease of \$545 million from the previous Certification. The total revenue available for the 20 Year Program is presently estimated to be \$10.0 billion. Details are presented in the “Revenue Projections” section, page 9.

Obligations for the RTP Freeway Program to date total \$2.4 billion. The remaining cost to complete the RTP Freeway Program is presently estimated to be \$7.5 billion. Details are presented in the “Construction Costs” section, page 14. The total estimated program cost is \$9.9 billion for the 20 Year Program. The total additional cost for the long range plan (Phase V, FY26 – FY32) is estimated to be \$5.2 billion.

Estimated costs and revenues are currently in balance for the Life Cycle Program which extends through year 2025. However, the MAG RTP Freeway Program now has a new Phase V, representing FY 2026 through FY 2032 for estimated cost of \$5.2 billion.

Design Concepts and Environmental Studies

- A Design Concept Report (DCR)/Environmental Assessment (EA) is underway for the I-10 corridor between SR101L and I-17. The study includes adding general purpose lanes.
- A DCR/EA is underway for the I-10 corridor between SR202L and I-8. The study includes freeway widening concepts.
- A DCR/Environmental Impact Statement (EIS) is underway for the I-10 corridor between SR51 and SR202L. The study includes freeway widening for local and express lanes.
- A DCR/EA is underway at the I-10 corridor at the Perryville Road TI. The study includes adding a new TI.
- A DCR/EIS is underway for the I-17 corridor between I-10 and SR101L. The study includes freeway widening concepts.
- A Feasibility Study/Environmental Overview is underway for the Grand Avenue (US60) between SR303L and SR101L. The study includes various roadway improvements. Recommendations have been forwarded to MAG for concurrence.
- A DCR/EA is underway at the SR85/I-8 TI. The study includes a divided roadway concept and a new interchange configuration.
- A DCR/CE is underway for the Agua Fria Freeway / Pima Freeway (SR101L) between I-10 and Tatum Boulevard. The study includes adding High Occupancy Vehicle (HOV) lanes.
- A DCR/CE is underway for the Pima Freeway (SR101L) between Princess Drive and SR202L. The study includes adding general purpose lanes.
- A DCR/EIS is underway for the South Mountain Freeway Corridor (SR202L) between I-10 East and I-10 West. The study includes the construction of a new freeway.
- A DCR/CE is underway for the SR202L (Red Mountain and Santan) between Gilbert Road and I-10. The study includes adding HOV lanes.
- A DCR/EA is underway for the Bob Stump Memorial Parkway (SR303L) between the I-10 Reliever (SR801) and I-10. The study includes the construction of a new freeway.
- A DCR/CE is underway for the Bob Stump Memorial Parkway (SR303L) between Grand Avenue and Happy Valley Road. The study includes upgrading of a divided highway to a freeway.
- A DCR/EA is underway for the Bob Stump Memorial Parkway (SR303L) between Riggs Road and SR801. The study includes the construction of a new freeway.
- A DCR/EA is underway for the I-10 Reliever (SR801) between SR85 and the SR303L. The study includes the construction of a new freeway.
- A DCR/EA is underway for the I-10 Reliever (SR801) between SR303L and the South Mountain Freeway (SR202L). The study includes the construction of a new freeway.
- A DCR/EA is underway for the Williams Gateway Freeway (SR802) between SR202L and Ironwood Drive. The study includes the construction of a new freeway.

Program Trends

Right-of-way and construction costs rose at significantly higher than anticipated rates in the early years of the program, resulting in higher than anticipated costs for individual projects and corridors in the Regional Transportation Plan Freeway Program.

Further, the current economic recession has resulted in substantially lower than projected revenue collections for the Regional Area Road Fund (RARF) and the Highway User Revenue Fund (HURF) which are major funding sources for the RTP Freeway Program.

While prices for construction and right of way have fallen somewhat in the past year, anticipated costs for the remaining program were still significantly higher than anticipated revenue. ADOT and MAG worked cooperatively to evaluate the cumulative impacts of these factors on the cost, scheduling and delivery of the RTPFP. The results of that evaluation provided ADOT and MAG the financial methodology to work together to evaluate potential adjustments to the RTP Freeway Program. Those adjustments included delaying projects, reducing the scope, and looking at staging or phasing options as previously discussed in the program changes section.

The current economic recession is unprecedented in the history of the RTPFP Life Cycle Program, and it is not clear yet what the future trend will be for cost or revenue. ADOT and MAG, along with outside economic expertise, will continue to monitor and review these trends closely to assess their impacts to the RTPFP and make future adjustments as needed.

Note that while the RTPFP Life Cycle Program only covers the period from January 2006 through December 2025, the MAG 20 year RTP Freeway Program covers the period through FY 2032. Projects that have been deferred to those future years will be brought back if and when the revenue situation improves. Keep in mind that while the RARF half cent sales tax collection stops in December 2025, voters could approve a future extension of the tax. Even without RARF funding, the MAG area still has revenue in the form of ADOT HURF and discretionary funds along with federal funds with which to fund projects in those future years.

Revenue Projections





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LETTER OF CERTIFICATION

The Financial Management Services Office of the Arizona Department of Transportation (ADOT) has developed the following information describing the estimated funds available for construction of the Regional Transportation Plan Freeway Program from Fiscal Year 2006 through Fiscal Year 2026. This information updates certain information previously certified on July 31, 2009.

This information is intended primarily for internal planning purposes and requires reliance upon a variety of data and information sources. The revenue forecasts rely upon assumptions regarding future economic conditions and on forecasts of certain independent economic variables. These assumptions may or may not prove to be accurate. If the assumptions do not prove accurate, differences between forecast and actual results may occur.

The official forecast is based primarily on data developed during the August 2009 Risk Analysis Session. Although more recent data has been reviewed and incorporated where possible, the forecast may not fully reflect the financial and economic uncertainty of recent months. Actual recent revenues are less than anticipated by this forecast, but the long term implications are not yet known and are not reflected in this certification. However, the Department will continue its practice of reviewing and updating the forecasts as needed on a semi-annual basis.



John R. Fink

Assistant Director for Finance and Accounting

3/30/10

Date

FINANCIAL ASSUMPTIONS

Following are the assumptions made in estimating revenues available for the Regional Transportation Plan Freeway Program.

Bond Proceeds and Debt Service: The issuance of bonds secured by RARF, HURF and federal aid revenues are assumed. Interest on the bond issues is assumed to be 5.0% maximum. Bond maturities are assumed for up to 30 years. Bonds are amortized on a level debt service basis, and assume no refinancing or restructuring.

Regional Area Road Fund (RARF) Transportation Excise Tax: The official revenue forecast for the Proposition 400 RARF half cent sales tax was developed during the August 2009 Risk Analysis session and reflects of economic conditions at that time. It may or may not prove accurate over the longer term and actual revenues will differ from forecast revenues.

Highway User Revenue Fund (HURF) 15% Funds: The MAG area receives annual funding from the Highway User Revenue Fund, which consists of fuel taxes, vehicle license taxes, registration fees and other sources. It is divided by statute among the Department of Public Service (DPS), ADOT, and counties, cities and town. ADOT receives 50.5% of HURF after an initial distribution to DPS. ADOT sets aside 12.6% of that amount by state law, plus another 2.6% by Transportation Board policy, for controlled access highways and freeways in the MAG and PAG (Pinal Association of Governments) areas, of which 75% is allocated to the MAG area. This distribution is often referred to as the ADOT 15% funds.

ADOT 37% Funds: After the deduction of the 15% funds, ADOT's share of HURF funds must pay for ADOT operations, maintenance and debt service on outstanding bonds. The remainder is then combined with ADOT's share of federal highway funds and forms the basis for the ADOT highway construction program. This block of funds is often called the ADOT discretionary funds, of which a 37% share is reserved for freeways and highways in the MAG area.

Federal Aid: Federal Aid includes Surface Transportation Program funding (STP), Congestion Mitigation and Air Quality funds (CMAQ) and other federal highway funds directly sub-allocated to the MAG area (ie, not part of the 37% funds). The forecast assumes \$34.1 million of MAG sub-allocated STP funds per year will be dedicated to the RTPFP through FY 2015 in the form of debt service for Grant Anticipation Notes (GAN).

Statewide Transportation Acceleration Needs (STAN): Per statute, 60% of STAN funds are distributed to projects in the Maricopa County region. Pima County receives 16% and the remaining 24% are distributed to the thirteen other counties.

American Recovery and Reinvestment Act (ARRA): A \$787 billion economic stimulus package was signed into law by President Obama on February 17, 2009. The ADOT highway portion was \$349.7 million which included \$129.4 million for the RTPFP.

Interest Income: Assumes 0.7% investment rate in 2010 and 2.5% thereafter, with 95% invested. Interest income is dependent on prior month's average cash balance.

Third Party Billing: Represents local and other funds for programmed projects.

Other Income: Includes building rent, sales of excess property and other miscellaneous income.

Discount Factor: Base year is FY 2010. An annual inflation factor is applied to the costs based on estimated construction and right of way cash flows. See Appendix A.

Additional assumptions regarding the funding from half cent sales tax extension include the following principles:

- Firewalls are established so funding cannot be transferred from one category to another.
- Bond proceeds will only be used for capital costs and not for maintenance or operation expenses.
- Consistent with the “firewall” principle, bonding for each funding category will be done independently.

Revenue Sources and Uses

The following pie chart depicts the sources and uses of Regional Transportation Plan Freeway Program revenues. The sources consist of the transportation excise tax (half cent sales tax), ADOT Funds and various other revenues. The transportation excise tax makes up 46 percent of the total revenues, with ADOT Funds reflecting 46 percent and the remaining 8 percent consisting of various other funding sources, primarily federal aid.

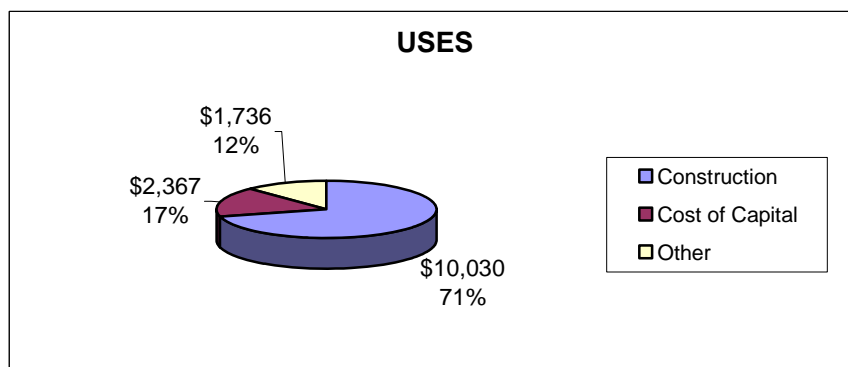
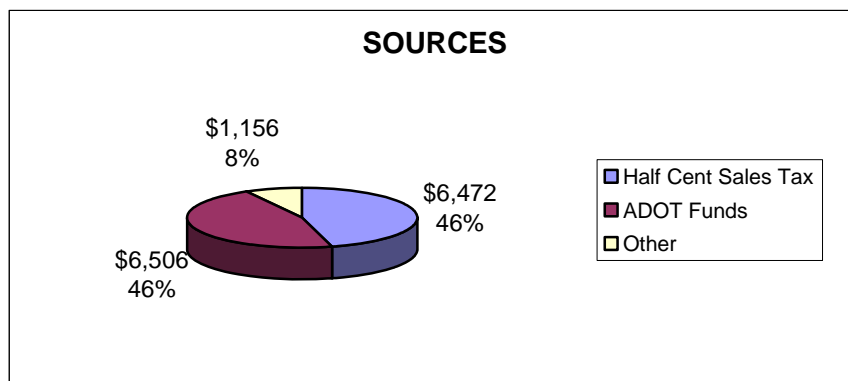
Of the available funding, 71 percent is used for design, right-of-way and construction. Of the remainder, 17 percent is used for cost of capital and 12 percent is used for a discount factor and Regional Public Transit Authority (RPTA) transfers.

Certified Financial Plan

Fiscal Years 2006 – 2026

(dollars in millions)

Total Sources/Uses : \$14,134



Construction includes design, right-of-way and construction

Net Revenues

The following chart reflects a breakdown of the individual revenues and costs for the Regional Transportation Plan Freeway Program.

(dollars in millions)

REVENUES	July 2009	January 2010	Change
RARF Sales Tax	\$6,708	\$6,472	(\$236)
HURF 15% Funds	\$2,375	\$1,807	(\$568)
ADOT 37% Funds	\$4,565	\$4,279	(\$286)
Federal Aid /1	\$842	\$842	\$0
State Discretionary /2	\$313	\$313	(\$0)
3rd Party	\$55	\$101	\$47
STAN	\$106	\$106	\$0
Interest Income /3	\$131	\$138	\$6
Other Income	\$82	\$76	(\$6)
Subtotal: Revenues	\$15,177	\$14,134	(\$1,043)
EXPENDITURES	July 2009	January 2010	Change
Cost of Capital /4	(\$2,367)	(\$2,367)	(\$0)
Discount Factor /5	(\$1,980)	(\$1,518)	\$462
RPTA Transfer	(\$221)	(\$201)	\$21
Other Costs	(\$34)	(\$17)	\$16
Subtotal: Costs	(\$4,602)	(\$4,104)	\$498
Net Funds Available	\$10,575	\$10,030	(\$545)

Notes: Details may not add due to rounding.

/1 Includes MAG share of STP, CMAQ and ARRA.

/2 State highway programmed funds in the form of HURF revenues used to fund the Regional Freeway System. All funds committed to date have been utilized.

/3 Interest income is on a cash basis and assumes 0.7% rate in 2010 and 2.5% thereafter, with 95% invested. Interest income is dependent on fund balances.

/4 Includes estimated RARF, HURF, GAN interest expense and debt service fund interest earned.

/5 Discount Factor represents the change in funding strategies from deflating revenue to inflating costs.

Construction Costs





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Governor

John S.
Halikowski
Director


Floyd Roehrich Jr.
State Engineer

LETTER OF CERTIFICATION

The Intermodal Transportation Division of the Arizona Department of Transportation (ADOT) has completed a six month review and update of costs associated with construction of the Regional Transportation Plan (RTP) Freeway Program. Construction and design costs have been updated by our Valley Project Management Group; AECOM, HDR and PB, our three management consultants; and the consultants currently preparing final construction plans. Right-of-way costs have been updated by the ADOT Right-of-Way Group reflecting current appraisals and changes in right-of-way requirements. This information replaces data previously certified on July 31, 2009.

The construction and right-of-way cost data in this document provides an accurate accounting of costs incurred and includes a realistic estimate of future costs based upon current construction costs and real estate values. Estimated future costs are subject to changes in the economy and are affected by variables in national, state and localized market values and trends.

The results of our review provide an accurate basis upon which to schedule and fund the balance of the Freeway Construction Program for Fiscal Years 2011-2015. However, the Department will continue to monitor all trends.



Floyd Roehrich Jr.
State Engineer



Date

Freeway Construction Costs and Changes

The design and construction cost estimates for the Regional Transportation Plan Freeway Program (RTPFP) projects are periodically reviewed and updated by the three management consultants, AECOM, HDR and PB for the RTP Freeway Program. They also provide preliminary engineering services by developing scoping, Stage I (15%) and Stage II (30%) project documents for the RTPFP. This effort helps define design and right of way requirements allowing ADOT to establish better cost estimates for design, right of way, utility relocations and construction at the project and corridor level. They further monitor the design consultants' cost estimates through the remaining design phases including the final estimates. The management consultants also evaluate contractor bids for RTPFP construction projects to monitor construction unit price cost trends, such as the cost of concrete, asphalt, structures, drainage and other items used to establish project cost estimates. These recent bid prices are then used to update cost estimates for projects in the scoping and design phases.

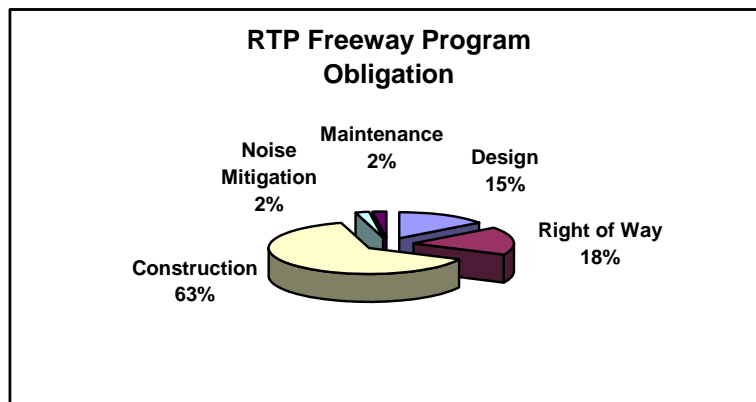
A revenue forecast was developed during the August 2009 Risk Analysis Process. Panel members from various segments of the real estate and economic community were invited to discuss future risks and trends in revenues. The risk analysis process consultant updated construction cost forecast models and utilized the panel input to calculate discount factors. The consultant, ADOT Financial Management services, MAG and Regional Freeway System Office reviewed the discount factors and made adjustments to fit current cost trends. The information collected was used in the Risk Analysis Process to ensure that ADOT has sufficient resources to complete the RTPFP Life Cycle Program by projecting the rate of construction cost growth for the Life Cycle period, (See Appendix A for Economic Forecasts).

Obligations

Obligations by phase and corridor are listed in the table below. These figures are through December 31, 2009. Regional Transportation Plan Freeway Program (RTPFP) obligations since the last certification increased \$252 million, from \$2,121 million to \$2,373 million.

**Regional Transportation Plan Freeway Program Obligations
Through December 31, 2009**
(dollars in millions)

Corridor	Design	Right of Way	Construction	Noise Mitigation	Maintenance	Total
I-10, Papago & Maricopa	\$21.5	\$45.3	\$179.8	\$0.0	\$0.0	\$246.6
I-10 Reliever (SR801)	\$0.0	\$15.3	\$0.0	\$0.0	\$0.0	\$15.3
I-17, Black Canyon	\$12.8	\$94.3	\$297.2	\$0.0	\$0.0	\$404.3
SR51, Piestewa	\$3.5	\$0.0	\$47.6	\$0.0	\$0.0	\$51.1
US60, Grand Ave	\$5.7	\$2.5	\$36.3	\$0.0	\$0.0	\$44.5
US60, Superstition	\$2.3	\$0.0	\$118.7	\$0.0	\$0.0	\$121.0
SR74	\$0.0	\$2.9	\$2.3	\$0.0	\$0.0	\$5.2
SR85	\$18.5	\$23.1	\$80.4	\$0.0	\$0.0	\$122.0
SR87, Duthie-Martin	\$2.5	\$0.8	\$21.1	\$0.0	\$0.0	\$24.4
SR88, Apache Trail	\$0.2	\$0.0	\$0.0	\$0.0	\$0.0	\$0.2
US93	\$0.0	\$10.3	\$31.6	\$0.0	\$0.0	\$41.9
101L, Agua Fria	\$1.7	\$1.0	\$41.1	\$0.0	\$0.0	\$43.8
101L, Pima	\$8.6	\$4.0	\$108.3	\$0.0	\$0.0	\$120.9
101L, Price	\$5.0	\$0.0	\$43.3	\$0.0	\$0.0	\$48.3
SR143, Hohokam	\$3.6	\$0.2	\$0.0	\$0.0	\$0.0	\$3.8
SR153, Sky Harbor	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
202L, Red Mountain	\$4.3	\$0.0	\$250.1	\$0.0	\$0.0	\$254.4
202L, Santan	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
202L, South Mountain	\$8.3	\$48.7	\$0.0	\$0.0	\$0.0	\$57.0
SR303L, Bob Stump Memorial Parkway	\$90.8	\$155.1	\$233.3	\$0.0	\$0.0	\$479.2
Williams Gateway (SR802)	\$12.0	\$13.5	\$0.0	\$0.0	\$0.0	\$25.5
Systemwide	\$145.1	\$0.7	\$13.8	\$53.6	\$50.0	\$263.2
TOTAL	\$346.4	\$417.7	\$1,504.9	\$53.6	\$50.0	\$2,372.6



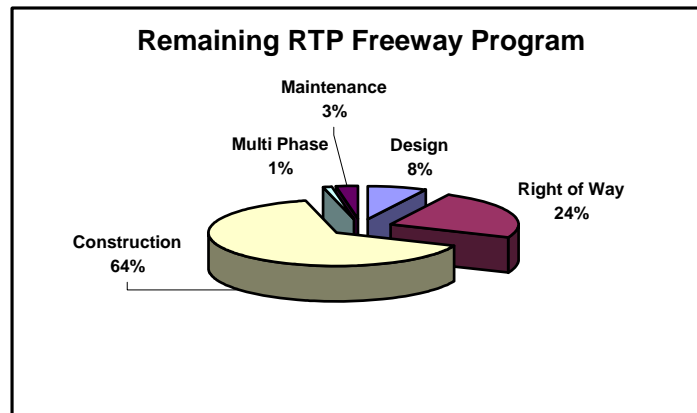
Remaining System Costs

There remain \$7.5 billion of costs associated with the Regional Transportation Plan Freeway Program (RTPFP).

Regional Transportation Plan Freeway Program (dollars in millions)

Corridor	Design	Right of Way	Construction	Multi Phase*	Noise Mitigation	Maintenance	Total
I-10, Papago & Maricopa	\$46.2	\$226.4	\$674.5	\$0.0	\$0.0	\$0.0	\$947.1
I-10 Reliever (SR801)	\$0.0	\$10.0	\$0.0	\$0.0	\$0.0	\$0.0	\$10.0
I-17, Black Canyon	\$56.3	\$240.0	\$833.2	\$0.0	\$0.0	\$0.0	\$1,129.5
SR51	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
US60, Grand Ave	\$5.0	\$11.2	\$102.8	\$0.0	\$0.0	\$0.0	\$119.0
US60, Superstition	\$2.7	\$0.0	\$38.2	\$0.0	\$0.0	\$0.0	\$40.9
SR74	\$0.0	\$0.0	\$3.4	\$0.0	\$0.0	\$0.0	\$3.4
SR85	\$1.3	\$7.0	\$68.7	\$0.0	\$0.0	\$0.0	\$77.0
SR87, Duthie-Martin	\$0.0	\$0.0	\$23.0	\$0.0	\$0.0	\$0.0	\$23.0
SR88, Apache Trail	\$0.0	\$0.0	\$1.5	\$0.0	\$0.0	\$0.0	\$1.5
US93	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
101L, Agua Fria	\$6.2	\$0.0	\$105.1	\$0.0	\$0.0	\$0.0	\$111.3
101L, Pima	\$23.2	\$0.0	\$331.2	\$0.0	\$0.0	\$0.0	\$354.4
101L, Price	\$3.5	\$0.0	\$52.5	\$0.0	\$0.0	\$0.0	\$56.0
143, Hohokam	\$0.0	\$0.0	\$35.1	\$0.0	\$0.0	\$0.0	\$35.1
SR153, Sky Harbor	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
202L, Red Mountain	\$7.4	\$0.0	\$111.2	\$0.0	\$0.0	\$0.0	\$118.6
202L, Santan	\$12.3	\$0.0	\$176.2	\$0.0	\$0.0	\$0.0	\$188.5
202L, South Mountain	\$77.6	\$696.2	\$1,107.7	\$0.0	\$0.0	\$0.0	\$1,881.5
SR303L, Bob Stump Memorial Parkway	\$47.9	\$467.4	\$990.9	\$0.0	\$0.0	\$0.0	\$1,506.2
Williams Gateway (SR802)	\$0.0	\$31.5	\$158.3	\$0.0	\$0.0	\$0.0	\$189.8
Systemwide	\$271.2	\$81.1	\$6.6	\$83.3	\$15.6	\$209.4	\$667.2
TOTAL	\$560.8	\$1,770.8	\$4,820.1	\$83.3	\$15.6	\$209.4	\$7,460.0

- Multi Phase: Includes more than one phase (For example, “Design and Right-of-Way” or “Design and Construction,” etc.).



Roadway Design

ADOT currently has 18 major Regional Transportation Plan Freeway Program projects under design.

Major design work continues on the following projects:

Corridor	Project Location	Length (Mile)	Design Status
I-17, Black Canyon	Bethany Home Rd. – Nothern Ave.	2	Stage I
US60, Grand Ave.	SR101L – McDowell Rd.	13	Stage IV
SR74	MP13 – MP15	2	Final
SR85	I-8 TI Phase 1	TI	Stage III
SR85	Warner St. Bridge	Bridge	Stage IV
SR87	New Four Peaks Rd. – Dos S Ranch Rd.	5.5	Final
99 th Ave.	I-10 – Van Buren St.	1	Final
SR101L, Pima	Chaparral Rd. TI	TI	Final
SR143, Hohokam	SR143/Sky Harbor Blvd.	TI	Final
SR303L	SR303L/I-10 TI, Phase 1	TI	Stage II
SR303L	Thomas Rd. – Camelback Rd.	2	Stage II
SR303L	Camelback Rd. – Glendale Ave.	2	Stage II
SR303L	Glendale Ave. – Peoria Ave.	3	Stage II
SR303L	Peoria Ave. – Waddell Rd.	2	Stage III
SR303L	Waddell Rd. – Mountain View Blvd.	4	Stage II
SR303L	US60/SR303L TI	TI	Stage II
MAG Regionwide	MAG Proposition 400 Noise Mitigation Project	Noise walls	Stage III
SR802	SR202L – Ellsworth Rd.	1	Stage I

Stage I: 15% Plan
 Stage II: 30% Plan
 Stage III: 60% Plan
 Stage IV: 95% Plan
 Final: 100% Plan

Right of Way

During the January 2010 Certification period from July 1, 2009 through December 31, 2009, the Right-of-Way Group acquired 515 acres of land for the RTP Freeway Program. When added to the previously acquired acreage, as of January 1, 2010, the Right-of-Way Group has acquired a total of 2,221 acres for the RTP Freeway Program.

RTP Freeway Program Right-of-Way (acres)

Corridor	Previously Acquired	Acquired during this Certification Period	Total
I-10, Papago & Maricopa	41.3	0.3	41.6
I-10 Reliever (SR801)	75.6	0.0	75.6
I-17, Black Canyon	239.0	0.0	239.0
SR51, Piastewa	0.0	0.0	0.0
US60, Grand Ave.	1.0	0.3	1.3
US60, Superstition	0.0	0.0	0.0
SR74	4.5	0.0	4.5
SR85	1,032.9	0.0	1,032.9
SR87, Duthie-Martin	25.0	0.0	25.0
SR88, Apache Trail	0.0	0.0	0.0
US93	94.0	0.0	94.0
101L, Agua Fria	0.0	1.6	1.6
101L, Pima	3.1	0.0	3.1
101L, Price	0.0	0.0	0.0
SR153, Sky Harbor	0.0	0.0	0.0
202L, Red Mountain	0.0	0.0	0.0
202L, Santan	0.0	0.0	0.0
202L, South Mountain	123.3	0.0	123.3
SR303L, Bob Stump Memorial Pkwy	66.8	512.4	579.2
Williams Gateway (SR802)	0.0	0.0	0.0
Systemwide	0.0	0.0	0.0
Total	1,706.5	514.6	2,221.1

Historical Overview



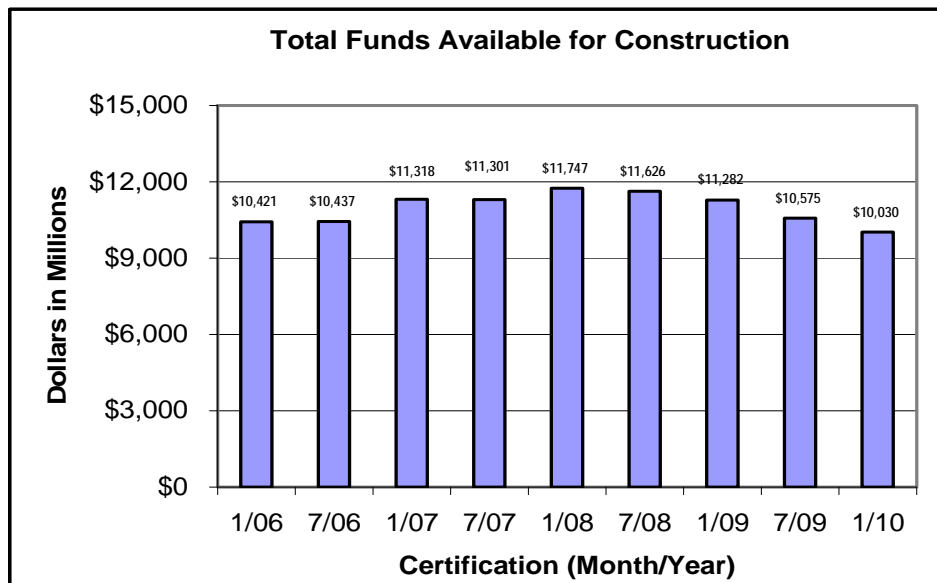
Historical Overview of Funding

The Director of the Department of Transportation has been certifying the revenues available for construction of the Regional Transportation Plan (RTP) Freeway Program since January 2006. Table 1 shows the revenue estimates and associated costs beginning with the January 2006 Certification. Graph 1 shows the level of funding available for construction of the RTP Freeway Program.

Table 1
Historical RTP Freeway Program Funds Available for Construction
(dollars in millions)

Certification Date	Revenues				Costs				Available for Construction
	1/2 Cent Tax	ADOT Funds	Other	Total	Capital	Discount Factor	Other	Total	
1/06	\$8,178	\$7,990	\$665	\$16,834	-\$2,279	-\$3,908	-\$225	-\$6,412	\$10,421
7/06	\$8,200	\$8,112	\$677	\$16,989	-\$2,403	-\$3,906	-\$242	-\$6,551	\$10,437
1/07	\$8,652	\$8,372	\$725	\$17,749	-\$2,483	-\$3,703	-\$244	-\$6,430	\$11,318
7/07	\$8,652	\$8,372	\$732	\$17,756	-\$2,577	-\$3,635	-\$244	-\$6,456	\$11,301
1/08	\$8,646	\$8,417	\$821	\$17,883	-\$2,564	-\$3,326	-\$245	-\$6,136	\$11,747
7/08	\$8,421	\$8,411	\$908	\$17,741	-\$2,379	-\$3,486	-\$250	-\$6,115	\$11,626
1/09	\$7,764	\$7,444	\$955	\$16,163	-\$2,391	-\$2,237	-\$254	-\$4,881	\$11,282
7/09	\$6,708	\$7,359	\$1,109	\$15,177	-\$2,367	-\$1,980	-\$255	-\$4,602	\$10,575
1/10	\$6,472	\$6,506	\$1,156	\$14,134	-\$2,367	-\$1,518	-\$218	-\$4,104	\$10,030

Graph 1



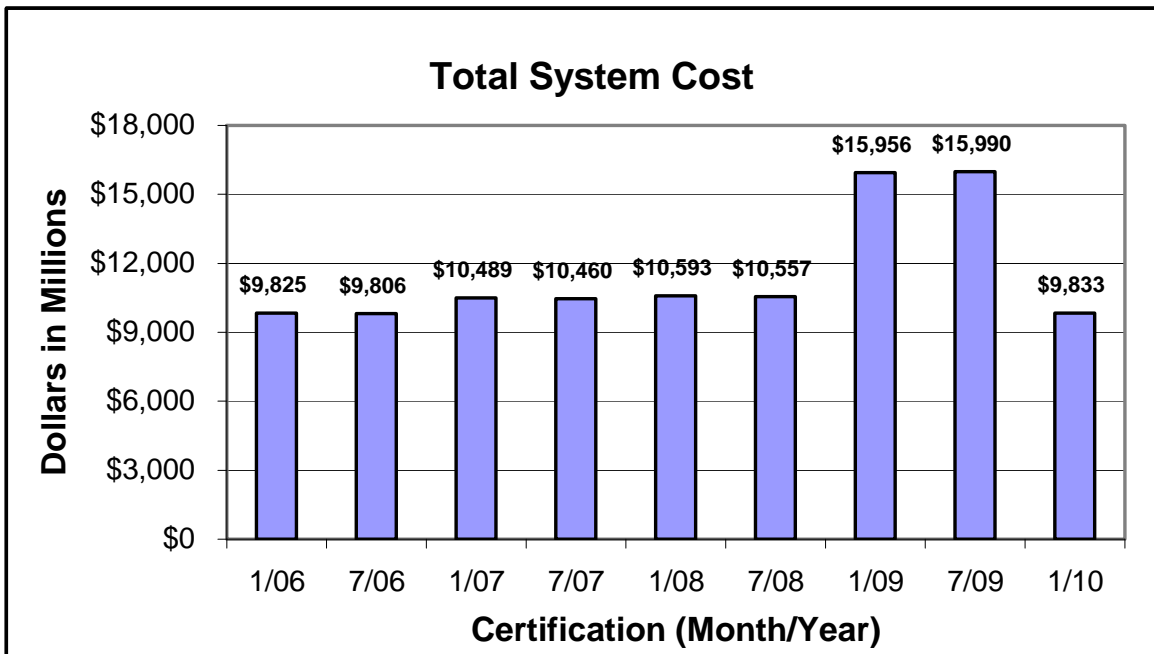
Historical Overview of Costs

The Director of the Department of Transportation has been certifying the cost to complete the Regional Transportation Plan (RTP) Freeway Program since January 2006. Table 2 shows the cost estimates for the system beginning with the January 2006 Certification. Graph 2 represents the estimated total cost of the RTP Freeway Program.

Table 2
Historical RTP Freeway Program Cost Estimates (dollars in millions)

Certification Date	Obligations	Cost to Complete	Total System Cost
1/06	\$178.0	\$9,647.1	\$9,825.1
7/06	\$234.3	\$9,571.3	\$9,805.6
1/07	\$435.2	\$10,053.4	\$10,488.6
7/07	\$779.0	\$9,681.0	\$10,460.0
1/08	\$1,171.3	\$9,421.2	\$10,592.5
7/08	\$1,506.8	\$9,050.0	\$10,556.8
1/09	\$2,053.1	\$13,902.4	\$15,955.5
7/09	\$2,120.9	\$13,868.8	\$15,989.7
1/10	\$2,372.6	\$7,460.0	\$9,832.6

Graph 2



Appendix A

Economic Forecasts



Appendix A – Economic Forecasts

Estimating future revenue and costs for construction and right-of-way is an essential part of the RTPFP Life Cycle Program to help ensure that future costs and revenue stay in balance. Those forecasts rely on information about past and current economic conditions and assumptions about future conditions and the interrelationships between multiple variables. Those assumptions and the economic models may or may not prove accurate and differences between forecast and actual results most likely will occur. ADOT and MAG work cooperatively to monitor cost and revenue trends and adjust the Life Cycle Program accordingly.

In order to deal with the variability between estimated and actual values, ADOT introduced the Risk Analysis Process (RAP) in 1992. It is generally done each year in August or September for ADOT by HDR Decision Economics, a firm that specializes in economic forecasting. Data is collected from a variety of sources, including regional, state, national and international factors which influence costs and revenues, plus input from a panel of local experts along with historic data. A complex statistical risk-based analysis is then performed to forecast future cost and revenue. The process results in a series of forecasts, with specified probabilities of occurrence, rather than a single “best guess” estimate. It represents a snapshot of conditions and opinions at the time and may be adjusted upward or downward by ADOT for the subsequent January and July Certification reports as conditions change.

Because the Certification is based on remaining costs in current dollars, future estimates of revenue are discounted to current dollars based on projected growth rates for the Phoenix consumer price index as determined by the RAP forecast. The results are presented as a range of potential outcomes with their associated probabilities. These factors represent potential growth which includes general inflation.

Projected Phoenix Consumer Price Index Growth Rate (FY 2010 – FY 2026)

Fiscal Year	Median Growth Rate	Lower 10% Limit ^(a)	Upper 10% Limit ^(a)
2010	0.45%	-0.69%	1.64%
2011	1.64%	0.39%	2.95%
2012	2.34%	1.14%	4.08%
2013	2.83%	1.37%	4.41%
2014	2.99%	1.39%	4.47%
2016	2.98%	1.33%	4.44%
2021	2.89%	1.21%	4.59%
2026	2.86%	1.12%	4.93%

Note (a): Refers to the upper and lower limits of an 80% confidence interval

For the January 2010 Certification, a value of 2% was used for FY 2011 and 3% for each year thereafter as cash flow discount factors, well within the range predicted by the RAP Session.

Revenue Forecast:

The 2009 RAP Session produced a mean revenue forecast of \$11,055 million with an average Compound Growth Rate (CGR) of 7.8 percent for the period FY 2010-2026 for the Proposition 400 Regional Area Road Fund (RARF).

The Official Forecast for FY 2010-2026 totals \$9,861.9 million with an average Compound Growth Rate (CGR) of 7.2 percent. The forecast is \$2,255.3 million lower than last year’s forecast due to the lower revenue base of \$328.2 million in FY 2009 and the higher confidence levels used in FY 2011-2014 to account for the continued economic uncertainty in Maricopa County. However, the model forecasts higher growth rates in FY 2014-2015 as the economy recovers from the housing and financial uncertainty. For the remaining years, FY 2016-2026, the estimated revenue growth is expected to return to normal growth patterns.

For the Official Forecast, ADOT used the model results with a 60 percent confidence interval for FY 2011-2013, a 55 percent confidence interval in FY 2014 and a 50 percent confidence interval for the remaining years. The forecast for FY 2010 was developed by ADOT staff after considering historic growth rates, legislative changes and the current economic environment. The result of the forecast model is based on the expert panel inputs and econometric modeling using time series techniques, historical and projected growth rates.

RAP Results – RARF Revenue Forecast

Fiscal Year	RARF Mean Forecast	RARF Official Forecast	Confidence Interval	RTPFP Share /2
2010	\$327.2	\$315.3	NA	\$177.2
2011	357.6	321.9	60%	180.9
2012	407.2	347.0	60%	195.0
2013	460.7	379.1	60%	213.1
2014	508.0	435.0	55%	244.5
2015	547.9	492.2	50%	276.6
2016	584.6	524.1	50%	294.5
2017	621.0	557.3	50%	313.2
2018	659.4	594.8	50%	334.3
2019	700.7	633.1	50%	355.8
2020	744.9	671.1	50%	377.2
2021	792.5	711.2	50%	399.7
2022	843.1	759.4	50%	426.8
2023	879.0	803.6	50%	451.6
2024	955.0	851.9	50%	478.8
2025	1016.7	905.0	50%	508.6
2026 /1	631.5	559.9	50%	314.7
TOTAL	\$11,055.0	\$9,861.9		\$5,542.4
Avg. CGR	7.8%	7.2%		

Notes: Amounts in current dollars. Totals may not add due to rounding
 /1 Reflects the end of the sales tax on 12/31/2025
 /2 RTPFP share is 56.2% of the total (10.5% goes to arterial streets and 33.3% goes to the public transit fund)
 CGR = Average annual compound growth rate

Construction Costs:

HDR Decision Economics performed a statistical analysis of highway construction costs for the ADOT. The purpose was to develop construction cost escalation factors, in a risk analysis framework, to be used by ADOT for planning purposes. The study relies on historical trend analysis and expert consensus-based risk assessment for cost of key construction items.

The study included construction costs in eight broad categories that were selected based on their contribution to the overall dollar value of highway construction contracts in Arizona. It also considered a range of potential explanatory variables (at the state, national and international levels) that may impact local construction prices and assessed historical trends and correlations for those variables. Those factors include such items as regional and national construction spending, construction wages, regional gross state product, prices for major construction commodities and equipment, the consumer price index, the producer price index for highway and street construction, crude oil prices and international exchange rates. A panel of local experts on construction costs also provided estimates of future costs.

This information was combined in a risk based statistical analysis conducted by HDR to forecast the construction cost index for FY 2010 through FY 2014, FY 2019, FY 2024 and FY 2030. The index values were used to compute the Annual Percent Change and Compound Annual Growth Rate. It is summarized below as a range of potential outcomes with their associated probabilities. These factors represent potential cost growth which includes general inflation.

RAP Results – Construction Cost Index

Fiscal Year	Type of Output	Mean	Value with Probability of Exceeding								
			10%	20%	30%	40%	50%	60%	70%	80%	90%
2010	INDEX	101.63	105.48	104.70	103.18	102.39	101.64	100.89	100.65	99.08	97.76
2011	INDEX	103.63	107.63	106.31	105.36	104.42	103.61	102.79	101.92	100.95	99.58
	APC	2.0%	5.9%	4.6%	3.7%	2.7%	1.9%	1.1%	0.3%	-0.7%	-2.0%
	AACG	2.0%	5.9%	4.6%	3.7%	2.7%	1.9%	1.1%	0.3%	-0.7%	-2.0%
2012	INDEX	106.65	110.71	109.28	108.28	107.44	106.57	105.77	104.99	104.02	102.70
	APC	2.9%	6.8%	5.5%	4.5%	3.7%	2.8%	2.1%	1.3%	0.4%	-0.9%
	AACG	2.4%	4.4%	3.7%	3.2%	2.8%	2.4%	2.0%	1.6%	1.2%	0.5%
2013	INDEX	109.90	114.19	112.70	111.62	110.64	109.84	108.99	108.13	107.12	105.76
	APC	3.0%	7.1%	5.7%	4.7%	3.7%	3.0%	2.2%	1.4%	0.4%	-0.8%
	AACG	2.6%	4.0%	3.5%	3.2%	2.9%	2.6%	2.4%	2.1%	1.8%	1.3%
2014	INDEX	114.18	118.81	117.23	116.05	115.02	114.13	113.24	112.19	111.06	109.66
	APC	3.9%	8.1%	6.7%	5.6%	4.7%	3.8%	3.0%	2.1%	1.1%	-0.2%
	AACG	3.0%	4.0%	3.6%	3.4%	3.1%	2.9%	2.7%	2.5%	2.2%	1.9%
2019	INDEX	137.35	145.99	142.89	140.71	138.81	137.12	135.38	133.69	131.67	128.98
	APC	20.3%	27.9%	25.1%	23.2%	21.6%	20.1%	18.6%	17.1%	15.3%	13.0%
	AACG	3.4%	4.1%	3.9%	3.7%	3.5%	3.4%	3.2%	3.1%	2.9%	2.7%
2024	INDEX	165.83	180.34	175.29	171.54	168.38	165.46	162.56	159.35	156.03	151.25
	APC	20.7%	31.3%	27.6%	24.9%	22.6%	20.5%	18.4%	16.0%	13.6%	10.1%
	AACG	3.6%	4.2%	4.0%	3.8%	3.7%	3.5%	3.4%	3.3%	3.1%	2.9%
2030	INDEX	206.53	232.50	222.73	215.89	210.32	205.64	200.45	195.25	189.85	182.03
	APC	24.5%	40.2%	34.3%	30.2%	26.8%	24.0%	20.9%	17.7%	14.5%	9.8%
	AACG	3.6%	4.2%	4.0%	3.8%	3.7%	3.6%	3.5%	3.3%	3.2%	3.0%

Notes: APC = Annual Percent Change

AACG = Average Annual Compound Growth Rate

Base year, FY 2009 = 100, reflecting relative weights of major items on ADOT highway contracts

It is noteworthy that construction prices experienced large increases from 2003-2006 but have been trending downward since then due to the effects of the current economy. These lower prices have been used in estimating current costs of completing the RTPFP and will continue to be monitored for any changes in future cost trends.

Right-of-Way Costs:

Based on the right-of-way acquisition cost model built by HDR, cost escalation factors were developed for the FY 2009 to FY 2028. The results are based, for the most part, on the consensus probability ranges for the different input variables (probability of administrative settlement, markup factor for administrative settlement, etc.) discussed during the RAP Session at ADOT in August 2009.

In addition, the model incorporates annual inflation forecasts for the Phoenix metro area to express the results in nominal terms. The inflation forecast is done as part of the RAP for the RARF Revenue Projection.

This information was combined in a risk based statistical analysis conducted by HDR to forecast the right-of-way cost indexes for FY 2010 through FY 2013, FY 2018, FY 2023 and FY 2028. The index values were used to compute the Annual Percent Change and Compound Annual Growth Rate. It is summarized below as a range of potential outcomes with their associated probabilities. These factors represent potential cost growth which includes general inflation.

RAP Results – Right-of-Way Cost Indexes

Fiscal Year	Type of Output	Vacant Commercial Properties			Occupied Commercial Properties			Vacant Residential Properties			Occupied Residential Properties		
		Mean	10%	90%	Mean	10%	90%	Mean	10%	90%	Mean	10%	90%
2009	INDEX	121.82	131.86	112.32	127.27	143.22	111.78	120.58	126.67	114.61	120.65	127.59	113.95
2010	INDEX	118.68	130.56	107.01	126.05	146.45	106.22	119.77	126.25	113.41	120.03	127.30	112.93
	APC	-2.6%	7.2%	-12.2%	-1.0%	15.1%	-16.5%	-0.7%	4.7%	-5.9%	-0.5%	5.5%	-6.4%
	AACG	-2.6%	7.2%	-12.2%	-1.0%	15.1%	-16.5%	-0.7%	4.7%	-5.9%	-0.5%	5.5%	-6.4%
2011	INDEX	123.22	134.60	111.65	129.13	146.25	111.98	120.77	127.71	114.03	121.22	128.90	113.87
	APC	3.8%	13.4%	-5.9%	2.4%	16.0%	-11.2%	0.8%	6.6%	-4.8%	1.0%	7.4%	-5.1%
	AACG	0.6%	5.1%	-4.3%	0.7%	7.2%	-6.2%	0.1%	2.9%	-2.8%	0.2%	3.4%	-2.9%
2012	INDEX	126.89	139.43	114.19	132.81	150.19	114.35	124.15	131.46	116.90	124.68	132.62	116.81
	APC	3.0%	13.2%	-7.3%	2.8%	16.3%	-11.4%	2.8%	8.9%	-3.2%	2.9%	9.4%	-3.6%
	AACG	1.4%	4.6%	-2.1%	1.4%	5.7%	-3.5%	1.0%	2.9%	-1.0%	1.1%	3.2%	-1.1%
2013	INDEX	132.43	145.47	119.21	137.68	154.53	120.24	128.95	136.84	121.06	129.47	138.27	120.93
	APC	4.4%	14.6%	-6.1%	3.7%	16.4%	-9.5%	3.9%	10.2%	-2.5%	3.8%	10.9%	-3.0%
	AACG	2.1%	4.5%	-0.5%	2.0%	5.0%	-1.4%	1.7%	3.2%	0.1%	1.8%	3.5%	0.1%
2018	INDEX	164.60	184.18	146.04	166.04	184.33	147.40	158.43	170.66	146.61	158.61	171.38	146.36
	APC	4.4%	16.9%	-7.3%	3.9%	15.3%	-7.8%	4.2%	12.2%	-3.6%	4.1%	12.5%	-4.0%
	AACG	3.4%	4.7%	2.0%	3.0%	4.2%	1.6%	3.1%	3.9%	2.2%	3.1%	4.0%	2.2%
2023	INDEX	199.72	227.53	174.77	198.21	221.98	174.29	193.92	211.99	176.51	193.59	212.59	175.89
	APC	3.3%	17.7%	-9.6%	3.5%	15.9%	-9.0%	4.2%	13.9%	-5.2%	4.1%	14.3%	-5.4%
	AACG	3.6%	4.6%	2.6%	3.2%	4.1%	2.3%	3.5%	4.1%	2.8%	3.4%	4.1%	2.7%
2028	INDEX	233.54	265.87	203.17	230.82	260.28	201.12	238.55	266.04	213.06	237.37	264.02	211.89
	APC	3.2%	17.5%	-10.2%	3.1%	16.3%	-10.2%	4.2%	16.3%	-6.9%	4.2%	15.9%	-7.0%
	AACG	3.5%	4.2%	2.7%	3.2%	3.8%	2.4%	3.7%	4.3%	3.0%	3.6%	4.2%	3.0%

Notes: APC = Annual Percent Change
AACG = Average Annual Compound Growth Rate