



# 9.0 Final Rollout of the Statewide Framework

In November 2009, ADOT presented the Recommended Statewide Scenario to the public and stakeholders for review and comment. After a short orientation film that established the context for a 40-year vision, a variety of displays took visitors through the guiding principles, and showed how each principle relates to transportation and affects the state's quality of life—including economic vitality, safety and security, the environment and sustainability. This final outreach activity also described how the work completed will be used in the next phase of statewide planning: the State Long Range Transportation Plan. The events took place from 3:00 to 7:00 p.m. at the following dates and locations:

- November 10, Tucson Convention Center (over 60 participants)
- November 12, High Country Conference Center, Flagstaff (over 60 participants)
- November 17, Mesa Convention Center (over 120 participants)

Participants were encouraged to comment both in writing and on video. The solicitation of comments emphasized thought-provoking questions encouraging continued dialogue on Arizona's transportation future.

## 9.1 Guiding Principle Displays

The final public outreach rollout events included a series of displays to orient participants with the Program's background and purpose, citing the need for planning for continued growth, as well as relieving future congestion. The Vision and Guiding Principles reinforced such needs, and outlined the relationship of transportation to other disciplines, such as economic vitality, sustainable growth, the natural environment, and safety and security.

This noted relationship is where the Statewide Transportation Planning Framework Program 2050 vision for the state of Arizona has gone above and beyond a traditional transportation study in taking a more holistic planning approach. Transportation is only one element of the built environment and communities in which the state's residents reside. This Program has made the linkage

between transportation and land use/sustainable urban form, economic development, the natural environment—embracing a vision of a sustainable future.

Because the mobility elements of the Recommended Statewide Scenario have been explored in much detail in Chapter 6, the following subsections will summarize and provide representative illustrations of the displays relating transportation to other guiding principles—economic vitality, sustainability and the environment, and safety and security, as presented at the rollout events.

### 9.1.1 Economic Vitality

The main goals of the economic vitality guiding principle were to:

- Build a seamless transportation system that efficiently moves people and goods to ensure that Arizona's economy is competitive and thriving.
- Work toward an integrated system of roads, transit, passenger rail, non-motorized modes, aviation, and freight options to ensure Arizona's economic vitality.

The Statewide Recommended Scenario achieved such goals through:

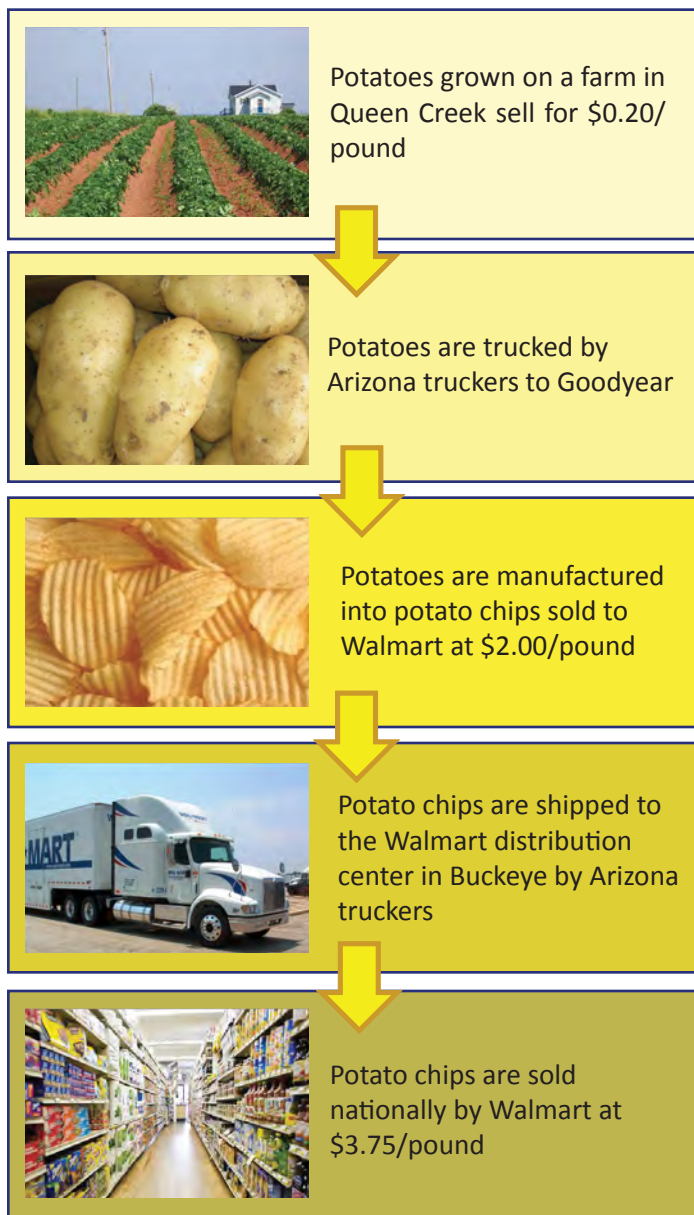
- Linking communities with regional commercial and employment activity centers through multimodal transportation options.
- Developing a multimodal transportation system that supports current and emerging statewide economic opportunities.
- Providing intermodal freight facilities that accommodate movement between air, rail and highway vehicles.
- Improving and expanding high-priority rail and highway freight corridors.
- Developing interstate and international transportation connections, including enhanced border crossings, that foster economic trade.
- Connecting industrial and employment centers statewide through a network of roads and rail that allows Arizona products to reach national and international markets efficiently.

A series of questions and supporting examples were used to further explain this relationship. For example, the question was posed, "What supports a competitive economy?"

### Value-Added Manufacturing

One answer cited that value-added manufacturing creates jobs to build the Arizona economy. Value-added manufacturing refers to the process of taking a raw product, and through processing, packaging, and marketing, increasing its value, and resultant wealth creation for Arizona. An example of value-added manufacturing is shown in Figure 48, illustrating the life-cycle of potatoes grown locally in Arizona, to their end product as potato chips on a grocery store shelves in the U.S.

Figure 48 Value-Added Manufacturing



### Tourism

Another answer cited that tourism supports a competitive economy, attracting visitors to Arizona. A few statistics that back this claim include:

- Direct travel spending in Arizona in 2008 was \$19 billion.
- Arizona hosted 37 million overnight visitors in 2008, roughly equal to 102,000 visitors per day.
- More than one-half of all spending by visitors in 2008 was for leisure and hospitality services.
- Tax revenue supported by the travel industry is mostly provided by visitors rather than residents.
- Travel spending in Arizona generated 170,000 jobs with earnings of \$5 billion in 2008.

### 9.1.2 Sustainability and the Environment

The main goals of the sustainability and environment guiding principle were to:

- Maintain a setting in which people want to live.
- Respect the natural environment.
- Plan for more sustainably built communities through focused growth patterns.
- Provide access to transportation options that are sensitive to the environment.

The Statewide Recommended Scenario achieved such goals through:

- Developing a multimodal transportation system that recognizes and strengthens the relationship between land use and transportation, and connects activity and employment centers.
- Uses transportation infrastructure as a tool to direct growth.
- Promotes context sensitive solutions in future planning and design to consider adjacent communities and natural lands.
- Supports infill development and revitalization through transportation investments that reinforce existing communities.
- Encourages mixed-use development to maximize trip purpose and foster use of alternative modes in daily travel.
- Maximizes use of existing transportation corridors and avoids recommending new or expanded transportation corridors in sensitive biological areas.
- Encourages development patterns and transportation solutions that reduce greenhouse gas emissions and improve air quality.
- Fosters energy independence through broader mode

choices, more efficient transportation infrastructure, and heavy emphasis on use of renewable energy sources.

The Recommended Statewide Scenario supports a future community urban form in a focused growth pattern, as opposed to a more conventional growth pattern of urban sprawl. A conventional growth pattern would include subdivision-style residential development, supportive strip commercial development, and isolated employment centers. Such land development patterns would continue earlier trends of consumption of agricultural and sensitive environmental land, significant road/pavement construction, and high local infrastructure requirements. A focused growth pattern, on the other hand, seeks to contain most new growth around existing urban centers, incorporates infill and redevelopment, limits urban sprawl, and protects sensitive environmental areas. It also reduces roadway and other public and private infrastructure construction, and concentrates infrastructure development by building within a more compact footprint and encouraging mid- and higher-density mixed-use development—encouraging a more sustainable pattern of development, in sync with the natural environment.

The effect and emphasis of focused growth relative to land use, transportation, the environment, and economic development are elaborated below, providing examples that contrast the implications of focused growth over conventional growth patterns.

## Land Use

Focused growth emphasizes the creation of compact, walkable, mixed-use neighborhoods with multimodal connections to nearby communities, employment areas, and economic activity centers. New development occurs as infill development, redevelopment, or new development immediately adjacent to existing development.

- Two-thirds of the development on the ground in 2050 will be built after 2007, allowing ample opportunities for communities to shape growth.
- The average density of residential development in U.S. urban areas in 2005 was approximately 8 units/acre. Achieving a focused growth pattern in cities could raise the density to 12-14 units/acre.

## Transportation

Contiguous growth supports multiple commuting options, including a robust transit system, reducing vehicle miles traveled, and allowing people to use their time more

efficiently. Streets are more than channels for the movement of vehicles; they are also places for people to interact, with narrow widths, slow speeds, curbside parking, trees, and parking located behind frontage buildings.

- Residents of compact neighborhoods drive 1/3 fewer miles than those in automobile-oriented suburbs.
- Residents of a transit-rich neighborhood spend 9 percent of their annual family income on transportation; residents in an automobile-dependent suburb can spend up to 25 percent on transportation.

## Environment

Compact growth reduces development's footprint on the land, increasing open space preservation, recreational opportunities, and wildlife connectivity, reducing stormwater runoff and groundwater pollution, and lowering greenhouse gas emissions.

- Private automobiles produce twice as much greenhouse gas emissions per passenger mile as light rail or commuter rail, and three times as much as intercity rail.
- Shifting 60 percent of new growth to compact development patterns would save 79 million tons of CO<sub>2</sub> annually by 2030.
- Compact development reduces typical per capita water usage by more than 10 percent.

## Economic Development

Focused growth enables transit systems to support economic development, which occurs in integrated and mixed-use centers that cluster employment and residential uses together. Residents have housing choices and are not excluded by income from urban or central locations.

- Demographic forecasts show that the demand for attached and small-lot housing in 2030 will exceed the current supply by 71 percent.
- Properties in walkable, compact developments are valued approximately 15 percent higher than the same houses in a conventional subdivision.
- Compact developments tend to have up to 40 percent of employment for their residents on-site or nearby, creating a live-work-play environment.

### 9.1.3 Safety and Security

The main goals of the safety and security guiding principle were to:

- Design, build, operate, and maintain a transportation

system that promotes safety and security with less risk of injury and property damage on or near transportation facilities.

The Statewide Recommended Scenario achieved such goals through:

- Maintaining and enhancing transportation safety with less crashes, injuries, and deaths.
- Addressing high-priority safety improvements in the statewide transportation system.
- Reducing risks as more freight moves in and through the state.
- Providing alternate routes that provide another means of access in and around urbanized areas, as well as to provide detour routes during incident situations.
- Including homeland security measures, as appropriate, as international border crossings are upgraded, while maintaining efforts to promote cross-border economic opportunity and enhanced trade.

Improving safety and security throughout the statewide multimodal transportation system can be realized in many different ways. For example, participants were asked if they had ever been on I-10 or I-17 during an emergency incident and how long they sat idling in their cars. The Recommended Statewide Scenario accounts for such situations by proposing a series of alternate routes to provide another means of access in and around urbanized areas, as well as to provide detour routes in incident situations. All of these routes are illustrated on Figure 33, Recommended Statewide 2050 Transportation Framework Scenario, but can be summarized as:

- New Interstate connection between Las Vegas and Phoenix metropolitan areas, along the US 93 and Hassayampa Freeway routes.
- Upgrade of SR 89 to a freeway between I-40 and Wickenburg to serve as a western I-17 high-capacity alternate route.
- New freeway through Chino Valley and the Prescott area.
- Improvements to SR 377, SR 260, and SR 87 between I-40 and Phoenix to serve as an eastern I-17 alternate route.
- New Pinal County North-South Freeway connection between US 60 (Apache Junction) and I-10 (Eloy).
- Eastern Pinal County new freeway connection between US 60 (Florence Junction) and I-10.
- New high-capacity freeway/parkway corridor connecting Pinal and Pima counties; western parallel to I-10.
- Sahuarita Road upgrade, linking I-19 and I-10, around

the southeast portion of the Tucson metropolitan area.

Additionally, understanding the interactions along Arizona's southern border with Sonora, Mexico, and that the Sun Corridor Megapolitan region will potentially extend south from Tucson to include portions of Mexico in the future, make binational transportation connections extremely important, as well as the related security issues that arise from traveling across an international border. This issue, as well as the planned transportation improvements on the U.S. and Mexico borders were presented at the final public outreach rollout, as illustrated earlier in Figure 28, International Border Improvements.

Lastly, a summary of major safety improvement mechanisms were presented to help event participants understand the types and implications of recommendations included in the Recommended Statewide Scenario, as elaborated below.

### Grade Separations

- Located at heavily traveled roadway (e.g., freeway, parkway, major arterial) and railroad intersections.
- Divides two transportation corridors by height so that each route will not disrupt traffic flow on the other as they cross.
- Recommended Statewide Scenario proposes additional grade separations to improve safety while relieving traffic congestion.

### Bus Pullouts

- Provides special zone on the side of a main roadway for buses to pick up and drop off passengers.
- Avoids blocking a lane of traffic and improves passenger safety while boarding and alighting.
- Recommended Statewide Scenario proposes bus pullouts on rural roadways to reduce traffic backups, avoid collisions, and provide safe, sheltered passenger waiting areas.

### Congestion Management Strategies

- Results in more efficient use of transportation systems.
- Reduces pollution and greenhouse gas emissions.
- Provides parking and other information at destinations.
- Provides real-time information to travelers on traffic conditions and upcoming incidents.
- Reduces traffic congestion.
- Recommended Statewide Scenario proposes use congestion management strategies, such as variable messaging signs, at appropriate locations statewide.

## Passing Lanes

- Provides a lane to pass slower-moving vehicles.
- Allows motorists to travel at their own pace.
- Can be an important component of rural state highways that vary in slope and have substantial slow-moving truck traffic, which often promotes unsafe passing.
- Recommended Statewide Scenario proposes construction of passing lanes along various state highways throughout Arizona.

## Repair and Reconstruction of Aging Roadways

- Roads throughout the state are aging due to weather and typical wear and tear.
- One semi-truck does as much damage to road pavement as 9,600 cars.
- Upgrading routes heavily traveled by trucks is recommended statewide.
- Recommended Statewide Scenario proposes repair and reconstruction of aging roadways throughout the state.

## Shoulders

- Includes additional pavement next to roadway travel lanes that serve many purposes to enhance safety, and should be routinely constructed on new and improved roadways.
- Enables a vehicle to pull off the roadway in case of emergency.
- Provides added space for construction and maintenance equipment.
- Reduces proximity of pavement edges to driving lane.
- Recommended Statewide Scenario proposes construction of shoulders along various highways throughout Arizona.

## 9.2 Graffiti Wall Dialogue

“Graffiti walls” were created at each guiding principle’s display, posing such questions as how people would like to travel in the future and what they would like their communities to look like. Highlights of the written comments appear below.

### 9.2.1 Tucson

- Some participants, but not all, are enthusiastic about PPPs and tolls as a funding source.
- Increase the gas tax and use it for rail as well as highways.
- Consider a solar-powered rail system.

- Stress Complete Streets.
- Coordinate bike infrastructure with transit stops.
- Keep roads out of undeveloped areas.
- The state needs to follow Smart Growth policies to promote compact growth and limit sprawl.
- There is support for alternatives to traditional single-family homes, but much new urban multi-family housing is unaffordable to the average family.
- Explore a solar-powered high-speed train between Phoenix and Tucson.

### 9.2.2 Flagstaff

- Build passenger rail from Phoenix through Flagstaff to the Grand Canyon and New Mexico.
- Charge vehicles according to their size, weight, and distance traveled.
- Some feel the gas tax should be used to fund multiple modes; others are skeptical about its long-term feasibility as a revenue generator.
- Consider development impact fees.
- Arizona needs to become more than a pass-through route for rail freight.
- Rail and air are as important as roads for freight transportation. Greater use of rail can take trucks off the road.
- Explore a solar-powered rail system within Arizona.
- Diversify the state’s economy into medical research/ services and higher education.
- Identify alternative high-capacity roadway corridors to relieve pressure on existing facilities.
- More vertical growth is necessary, but with appropriate height limitations that consider historical characteristics.
- Accommodate a mix of lifestyle preferences.

### 9.2.3 Mesa

- Set short-term goals now so there will be time to achieve them.
- Explore PPPs (including tolling of new roadways), development impact fees, raising the gas tax, and possibly congestion fees in dense urban areas.
- Also consider a VMT charge to finance transportation improvements.
- Put the one-cent sales tax for transportation on the ballot.
- Both toll roads and freeways will become more efficient with improved ITS to manage traffic flow.
- Coordinate with neighboring states to develop a high-speed rail network.
- Invest in a mix of modes that cater to different purposes.

- Diversify the state’s economy into manufacturing, solar energy, and agriculture.
- Tourism, unlike construction, is a stable industry if Arizona’s natural beauty is preserved.
- Improved public transit serving smaller communities will improve their economic opportunities.
- Cell phone use and texting while driving are the biggest traffic hazards, but universal cell phone coverage is needed in case of emergencies.
- MAG region needs to provide direct HOV ramps at more arterial interchanges.
- Consider truck-only lanes in congested corridors; also truck bypass routes.
- Border crossings need to be more efficient for cars, trucks and trains.
- There needs to be a balance between high-density urban and low-density suburban development. Quality of urban schools is a major issue.

### 9.2.4 All Locations

- Provide intercity rail between Phoenix and Tucson.
- Provide rail passenger service for commuters.
- Transit can attract a greater share of trips, but only if it is much improved.
- Promote high-tech and environmental industries, such as solar energy.
- Need to reduce reliance on construction to build a stable and robust economy.
- Arizona should cater to eco-tourism.
- Encourage infill.
- We will continue to rely on oil for years to come, but alternative fuels must and will become more prevalent. Stress solar and other renewable resources.
- People will want to live in mixed-use neighborhoods with housing, work, and other activities near one another.
- Protect open spaces and ecologically sensitive areas from new transportation infrastructure, specifically freeways.
- Open space is essential to livable communities.

## 9.3 Video Dialogue

A “feedback zone” was positioned at the conclusion of the display set-ups to capture any overall thoughts and remaining comments on video. Participants were asked various questions, ranging from “Why is transportation personal?” to “What is your transportation vision?” Some people had specific transportation futures in mind, while others answered more generally.

Responses from each open house are grouped into two categories based on the questions posed and responses received: (1) why transportation is important, and (2) what the transportation future should hold.

Overall, the resounding opinion on why transportation is important is that it allows the freedom of choice to get from one place to another—whether for an individual traveling in a personal vehicle, or for someone limited in income or physical abilities using mass transit. Transportation provides the means to function in daily life. It also moves goods—which are equally important to a person’s basic needs—which in turn stimulates the economy.

There are many visions of Arizona’s transportation future, but most ideas transcend the physical transportation network. Having multiple transportation options was a priority: specifically, an emphasis on mass transit, and faster and cleaner technologies. Respondents also stressed the linkage between transportation and local communities. From now on, transportation must be approached in a holistic manner, benefiting other community systems—fostering environmental preservation, reducing carbon footprint, maximizing land use efficiency, and increasing economic development opportunities. The public expressed an interest in greater proximity of work, home, and recreation.

Highlights of the video dialogue responses from specific events are summarized below.

### 9.3.1 Tucson

#### Why transportation is important:

- Allows freedom of choice to get from point A to point B.
- The traveling public spends money, which boosts the economy.
- Allows accessibility.

#### What the transportation future should hold:

- Increases in mass transit access, residential densities, and gasoline taxes to reduce the need for and use of personal vehicles.
- The ability to get places fast. Build rail transit systems powered by the sun, with speeds competitive to systems in Japan or Europe.
- Energy-efficient transportation modes.
- Increased emphasis on and capture of freight movement through Arizona. Too much traffic travels right through Arizona without stopping.

- Mixed-use communities, allowing people to work, live, and play in closer proximity.
- Walkable streets for healthier living.

### 9.3.2 Flagstaff

#### Why transportation is important:

- Allows people to get from place to place.
- Moves people and goods throughout the state.
- Transportation is a basic need and part of every person's daily life.
- Multimodal options allow people who cannot drive to maintain mobility.
- Allows people and industry to reach rural locations.
- Fosters economic vitality in communities.
- Links population and employment centers.

#### What the transportation future should hold:

- Higher-speed and higher-tech transportation options (e.g., high-speed rail).
- Passenger rail options.
- A variety of transportation modes and connections between them.
- Connections between affordable housing locations and transit services.
- One car per household.
- A smaller carbon footprint and less impact to the environment.
- Incorporation of air transportation in the definition of "multimodal."
- Complete transportation corridors in communities (e.g., complete streets).
- System development that protects public lands and wildlife corridors.
- Less cars, more mass transit.

### 9.3.3 Mesa

#### Why transportation is important:

- It is a necessity in life.
- Moves people and goods.
- Allows personal freedom.
- Provides options for mobility of elderly and disabled residents.
- Transports tourists to Arizona, allowing the economy to thrive.

#### What the transportation future should hold:

- Public transportation connections between the metropolitan edges and urban cores.

- Decreased daily transportation demand due to technological advances (e.g., telecommuting).
- Maximize travelways by separating trucks and personal vehicular travel, and adding freight and passenger rail.
- Greater emphasis on mass transit with less reliance on personal vehicles.
- Alternative fuel systems and new transportation technologies.
- A robust roadway system, in addition to alternative transportation modes (e.g., rail).
- Increased investment in transportation system development.
- A change in mindset on the "right way" to travel (e.g., not only personal vehicles).
- Active traffic management.
- New funding options—public-private partnerships, tolling, etc.
- High-tech transportation modes that are fast and emit no greenhouse gases.

