La Paz Transportation Planning Study



Executive Summary



June 2010

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EXECUTIVE SUMMARY

PURPOSE

The La Paz Transportation Planning Study was conducted as part of the Planning Assistance for Rural Areas (PARA) program sponsored by the Arizona Department of Transportation (ADOT) Multimodal Planning Division. The PARA program provides federal funds to nonmetropolitan communities for the purpose of conducting transportation planning studies. The La Paz Transportation Planning Study has been a joint effort of ADOT, La Paz County, Town of Parker, Town of Quartzsite, and the Colorado River Indian Tribes (CRIT). This Study developed 5, 10, and 20-year transportation plans, as well as an implementation program, to guide the County, Towns, and the CRIT in meeting transportation needs for the Study Area into the future. Figure 1 presents the Study Area.

The Study identified roadway and multimodal improvements to meet the growing population and changing land uses to improve mobility and safety, and to encourage sensible and sustainable development. The feasibility of funding and implementing the needed improvements was assessed, and a long-range multimodal transportation plan is provided as well as practical tools for day-to-day programming and funding of transportation improvements.

While this Study includes roadway facilities owned and operated by ADOT within the planning area, it is important to recognize that improvements to the State Highway System can be made only after in-depth planning and engineering studies are conducted by ADOT, and upon approval of the State Transportation Board. All traffic interchange improvements must be approved by the Federal Highway Administration (FHWA). Any recommendations made by this Study for improvements on State facilities can serve only as suggestions for further study.

STUDY PROCESS

This Study produced a transportation plan with short-, mid- and long-range elements, as well as a Transportation Improvement Program (TIP) to guide La Paz County, the Towns of Parker and Quartzsite, and the CRIT in implementing improvements to ensure a safe and efficient transportation system. The consultant team worked closely with the Technical Advisory Committee (TAC), other stakeholders, and the public to develop a transportation plan that meets transportation needs within the community vision. Working papers were prepared documenting the existing and future socioeconomic and multimodal transportation conditions as well as previous and ongoing studies. In addition, a TransCAD travel demand model was developed and calibrated against available traffic counts as a tool to estimate future travel demand.

Public Involvement activities were coordinated with the public involvement firm, Logan Simpson Design under the guidance of the ADOT Communication and Community

FIGURE 1. STUDY AREA





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Partnerships Division. One-on-one meetings were held with individual stakeholders to obtain data, issues, and potential solutions.

Based on the future conditions, draft short-, mid-, and long-range transportation plans including roadway, freight and multimodal elements were developed in consultation with the TAC and evaluated against an agreed upon set of performance and feasibility measures. The draft plans were documented in a third working paper. A TIP was prepared identifying recommended projects, project priorities, responsibilities, schedule, and costs. The implementation plan outlines actions to implement multimodal projects, and strategies for transportation system management, access management, and travel demand management.

A draft final report was prepared and reviewed by the TAC and revised where necessary. A final report was then be prepared and submitted to ADOT and La Paz County.

AGENCY COORDINATION AND PUBLIC INVOLVEMENT

The La Paz Transportation Planning Study has been prepared through an extensive open process of coordination, cooperation, and communication among La Paz County, Town of Parker, Town of Quartzsite, CRIT, and ADOT. Table 1 lists the various coordination and advisory meetings and presentations conducted during the planning process.

TABLE 1. COORDINATION, COOPERATION & COMMUNICATION ACTIVITIES

TAC Meetings/Teleconferences:	Public Open Houses First Round
January 27, 2009, Parker June 23, 2009, Quartzsite March 4, 2010, ADOT Yuma District Conf Rm March 23, 2010, Quartzsite May 8, 2010, ADOT Yuma District Conf Rm	Tuesday, June 23, 2009 Town of Quartzsite Council Chambers Wednesday, June 24, 2009 Town of Parker Council Chambers
<u>Stakeholder Interviews</u> April 7, 8, and 9, 2009	Public Open Houses Second Round Tuesday, March 23, 2010 Town of Quartzsite Council Chambers Wednesday, March 24, 2010 Town of Parker Council Chambers

Technical Advisory Committee and Stakeholder Interviews

A Technical Advisory Committee (Table 2) guided the conduct of this Study, reviewed and commented on Study documents, and participated in stakeholder interviews and Public Open Houses. Individual stakeholder interviews were conducted in April 2009 to identify major transportation related issues, and to obtain ideas on possible ways to address potential deficiencies and needs (Table 3).

Representation/Agency		
Arizona Department of Transportation	Colorado River Indian Tribes	
Paul Patane, Yuma District	Gregory Fisher, Planner I - Interim TERO Dir	
Michel Jones, Yuma District	Richard Ench, Planning Consultant	
Justin Feek, Multimodal Transportation Div	Town of Quartzsite	
Michele Beggs, Communications and	Emmett Brinkerhoff, Public Works Director	
Community Partnerships	Town of Parker	
Mark Hoffman, Multimodal Transportation Div	Guy Gorman, Community Development Dir	
Tish Hunter, Environmental Planning Specialist	Arizona Game & Fish Department	
La Paz County	Bill Knowles, Habitat Specialist	
Tom Simmons, Public Works Director	Bureau of Land Management	
Scott Bernhardt, Community Development Dir	Gina Trafton, Lake Havasu Field Office	
Western Arizona Council of Governments Lima & Associates Consultant Team		
(WACOG)	Peter Lima, Ph.D., P.E., President	
Brian Babiars, Acting Director	Robert Bohannan, Sr Transportation Planner	

TABLE 2. TECHNICAL ADVISORY COMMITTEE

TABLE 3. STAKEHOLDER INTERVIEWEES

Stakeholder	Organization		
April	April 7, 2009		
Donna Baker	NPG Cable		
Guy Gorman, Community Economic Director*	Town of Parker		
Sergeant Chad Hinderliter	Department of Public Safety		
April	8, 2009		
Tanya L. Cecil, General Manager	Arizona & California Railroad		
Dennis Shrewsbury, Administrative Sergeant	Town of Parker Police Department		
Rich Ench, Tribal Planner*	Colorado River Indian Tribes		
Scott Bernhart, Community Development Mgr*	La Paz County		
Joan-Marie King, Planner	La Paz County		
Jerry Rather, Park Manager	Buckskin Mountain State Park		
Lee Eseman, Western Regional Manager	Arizona State Parks		
Ted Swendra, Airport Manager	Colorado River Indian Tribes		
April 9, 2009			
Aaron Curtis, Yuma Field Office	Bureau of Land Management		
Robert K. Holt, P.E.	The Holt Group		
Barbara Martin	The Holt Group		
Robert Flanders, Quartzsite Maintenance	Arizona Dept. of Transportation		
Melanie Headstream, Planner III	Arizona State Land Department		
The Hon. Walt Akin, Mayor	Town of Quartzsite		
The Hon. Wes Huntley, Councilman	Town of Quartzsite		
Ms. Alex Taft, Manager	Town of Quartzsite		
James D. Downing, P.E., President	Harcuvar Company		

*Members of La Paz Transportation Planning Study TAC

The *Summary Public Involvement Report*, under separate cover, presents additional details on the public involvement process including information material distributed and comments from the public.

ENVIRONMENTAL JUSTICE (TITLE VI) POPULATIONS

Environmental justice was established as a federal government priority in 1994 with the issuance of Executive Order 12898, *Federal Actions to Address Environmental Justice in Minority Populations and Low Income Populations*. In addition, to minority and low income populations, this Study addresses both elderly (Aged 65 and older), and mobility-limited populations.

La Paz County has been identified as a County that has one of the highest proportions of people aged 65 and older in the nation. The percent population 65 and over in the County is double the statewide proportion, approximately 26 percent compared to the State proportion of approximately 13 percent. This proportion increases during the peak season as winter visitors come to the County. Similarly, the proportion of mobility limited is relatively high, 26 percent compared to the State proportion of approximately 18 percent. The proportion of the population below poverty is also higher – 19 percent compared the State proportion of approximately 14 percent.

Although the countywide proportion of minority populations tracks that of the statewide proportion of approximately 36 percent, Native Americans residing on the Colorado River Tribes Reservation and throughout the County are a critical group to address. Projects such as reconstructing the Ehrenberg Parker Highway (Mohave Road) will impact Native Americans both positively and negatively. Other projects such as transit service will improve mobility of Native Americans.

Both potential positive and negative impacts need to be analyzed closely when projects are implemented. Positive impacts on Environmental Justice population groups include increased mobility and safety through traffic operations improvements, provision of transit facilities, and implementation of pedestrian and bicycle facilities. Potential negative impacts on these population groups include disruption of neighborhoods with higher proportions of elderly and minority populations as well as populations below the poverty level. Another negative impact is not providing transportation alternatives such as transit service.

Future more detailed studies of recommended improvements must assess the positive and negative impacts on Environmental Justice population groups. Examples of possible future studies include Design Concept Reports for road improvements and transit feasibility studies.

FUTURE GROWTH AREAS

Growth within the County will occur on current private lands and lands that potentially could be converted from non-private ownership to private ownership. The land ownership within La Paz County is illustrated in the Final Report, currently approximately five percent of the land

is privately owned. An example of land that may convert to private ownership includes Bureau of Land Management (BLM) parcels in the vicinity of the Town of Quartzsite. The BLM identified potential lands for sale in its Approved Resource Management Plan, January 2010 (See Map 2-17. Lands and Realty/Minerals and Appendix I: Lands Identified for Disposal). The Town of Quartzsite requested that the BLM offer parcels in the vicinity of the Town for sale and the BLM is evaluating the potential sale. Lands identified for disposal must meet the criteria for public land sale or exchange under existing laws, regulations, and policies at time of disposal. Anticipated growth areas within the County include:

- Salome area
- Bouse area
- Town of Quartzsite
- Ehrenberg area
- Town of Parker Annex

In addition to the above growth areas, commercial growth is anticipated at the following I-10 interchanges:

- Ehrenberg (Exit 1)
- Exits 17 and 19, Quartzsite 75E (Exit 69)
- Vicksburg Road (Exit 45)

Approved and proposed residential and commercial developments within the County are shown in Figure 2.

Future Population Projections

Future population projections were developed based on a review of projections by the Arizona Department of Commerce and planned and proposed developments within the County. The Arizona Department of Commerce is responsible for developing statewide population projections, recently assuming responsibility from the Arizona Department of Economic Security. According to the Department of Commerce, La Paz County grew to an estimated population of 22,347 in 2009 from a population of 19,715 in the year 2000, a total of approximately 13.4 percent. The Department's population projection for La Paz County is just over 28,000 residents by 2030, an overall growth rate of approximately 26 percent from 2009 to 2030.

More Aggressive Growth Scenario

A more aggressive growth scenario was formulated to represent potential development of portions of the approved and proposed residential and commercial properties. This scenario is based on conversations with the County, Town of Parker, Town of Quartzsite, and Colorado Indian Tribes. Yet, it is recognized that the magnitude of planned development over the past several years has slowed due to the economic downturn and that the completion years for many of these proposed developments have been delayed. During the review and discussion of the projections by the TAC and stakeholders, individuals expressed that the "more aggressive" scenario was too optimistic given the economic downturn and near-term



FIGURE 2. LA PAZ COUNTY PROPOSED DEVELOPMENTS

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development prospects. However, other individuals expressed that the scenario was not aggressive enough and particularly in the Quartzsite area that growth would be higher. The use of more aggressive population projections recognizes the potential for development of the approved and planned developments as the economy rebounds. This will allow for planning future infrastructure conditions and preserving rights-of-way.

The overall agreement of the TAC was to maintain the "more aggressive" growth scenario. The population projections for this Study can be revisited as updated population data becomes available. Sources of updated data will include: the 2010 US Census, updated population projections for the County from the Arizona Department of Commerce, and renewed activity with respect to the planning and approval of new developments. The "more aggressive" growth scenario is based on following assumptions (see Table 4):

- The Town of Quartzsite is expected to grow to 9,000 residents by 2030.
- The "Original Town of Parker" is assumed to grow in the future as estimated by the Arizona Department of Commerce based on historical growth and assumptions of future growth.
- The Parker Annex will grow to approximately 790 residents by 2030.
- The population of the Colorado River Indian Tribes is assumed to grow as projected by the Arizona Department of Commerce
- Commercial and industrial uses in the Parker Annex will grow to approximately 1,600 employees by 2030.

	2009	2020	% Growth 2009-2030	2030	% Growth 2009-2030
Total DUs	16,495	27,361	66.0%	33,386	102.0%
Population	21,114	35,022	66.0%	42,734	102.0%
Employees	9,456	14,473	1.54	16,281	73.0%
Employees/Population	0.45	0.41	N/A	0.38	N/A

TABLE 4. POTENTIAL GROWTH SCENARIO, LA PAZ COUNTY

Estimated by Lima & Associates; DUs – Dwelling Units; N/A – Not applicable

FUTURE ROAD AND TRAFFIC CONDITIONS

Projection of Future Traffic Volumes

Base Road Network

To identify potential future traffic capacity deficiencies, future average daily traffic volumes were estimated for a Base Future Road Network with both the projected 2020 and 2030 socioeconomic conditions.

The Base Future Road Network is comprised of the following roads:

- The future Quartzsite road functional classified roads identified in the Town of Quartzsite General Plan.
- The future road function classified roads for the Town of Parker plus the Parker annex identified in the *Town of Parker General Plan*.
- Existing County roads with existing number of lanes in the 2009 road network outside of the Town of Parker and the Town of Quartzsite.
- Additional County roads in selected areas in recognition of proposed future developments.
- Existing State routes SR 95, SR 72, and US 60 with existing number of lanes.
- Existing I-10 mainline and interchanges with existing number of lanes.

Capacity Deficiency Analysis Results

2020 Capacity Deficiency Analysis

The 2020 daily traffic volumes were adjusted to represent peak-seasonal traffic and were then estimated for the roads in the Base Road Network. Table 5 summarizes the road segments that are at, near, or over capacity. These segments are candidates for widening. Candidate locations for passing lanes in 2020 are listed in Table 6.

TABLE 5.	2020 CAPACITY DEFICIENCIES FOR ROADS
	AT, NEAR, OR OVER CAPACITY

Road	Location
Off-Peak Season Traffic	
SR 95	Beacon Rd./Riverside Dr. to Rio Vista Rd.
Peak Season Traffic	
Kuehn Street, Quartzsite	Riggles Ave. to Quartzsite Blvd.
SR 95, La Paz County	Beacon Rd./Riverside Dr. to Cienega Springs Rd.
Ehrenberg-Parker Hwy	Juneau Ave. to Sourdough Rd.
I-10 Exit 17	EB off ramp and WB on ramp

Note: Roads listed in table are candidates for widening.

Road	Location
Off-Peak Season Traffic	
US 60	Alamo Road/Centennial Park Rd. to SR 72
SR 72	Willamette Dr. to SR 95
SR 95	Quartzsite Northern Boundary to SR 72
SR 95	SR 72 to Mohave Rd.
SR 95	Beacon Rd./Riverside Dr. to northern County Boundary
SR 95	Kuehn St to US 95 MP 99
Peak Season Traffic	
US 60	Alamo Road/Centennial Park Rd. to Vicksburg Rd.
SR 72	Avenue 42E to SR 95
SR 95	Quartzsite northern boundary to SR 72
SR 95	SR 72 to Mohave Road
US 95	Kuehn St to US 95 MP 99

TABLE 6. 2020 CANDIDATE LOCATIONS FOR PASSING LANES

Candidate locations based on a threshold daily traffic volume of approximately 4,300 Average Annual Daily Traffic (AADT) for level terrain and 2,300 AADT for rolling terrain.

2030 Capacity Deficiency Analysis

Similar to the analysis of the 2020 projected traffic volumes, 2030 average daily traffic volumes were estimated for the Base Future Road Network with the projected 2030 socioeconomic conditions. Table 7 lists the road segments that are at, near, or over capacity. These segments are candidates for widening by 2030. Candidate locations for passing lanes by 2030 are listed in Table 8.

Road	Location
Off- Peak Season Traffic	
Ehrenberg-Parker Hwy	Juneau Ave. to Sourdough Rd.
SR 95	Beacon Rd./Riverside Dr. to Rio Vista Rd
Peak Season Traffic	
Kuehn St., Quartzsite	Riggles Ave. to Quartzsite Blvd
SR 95, La Paz County	Beacon Rd/Riverside Dr. to Cienega Springs Rd
Riverside Drive, Parker Strip	Golf Club Drive to SR 95 Exit 153 Crossing
Ehrenberg-Parker Hwy	Juneau Ave. to Comber Blvd
I-10 Exit 17	EB off ramp and WB on ramp

TABLE 7. 2030 CAPACITY DEFICIENCIES/NEEDS FOR ROADSAT, NEAR, OR OVER CAPACITY

Note: Roads listed in table are candidates for widening.

Road	Location
Off-Peak Season Traffic	
California Ave	MP 144.4 to California border
US 60	Alamo Road/Centennial Park Rd. to Vicksburg Rd.
SR 72	Avenue 42E to SR 95
SR 95	Quartzsite Northern Boundary to SR 72
SR 95	SR 72 to Mohave Rd
SR 95	Beacon Rd./Riverside Dr. to northern County Boundary.
SR 95	Kuehn St to SR 95 MP 99
Peak Season Traffic	
California Ave.	MP 144.4 to California border
US 60	Alamo Road/Centennial Park Rd. to Vicksburg Rd.
US 60	I-10 to Ave. 42E
SR 72	Ave. 42E to SR 95
SR 95	Quartzsite Northern Boundary to SR 72
SR 95	Lakeside Blvd. to northern County Boundary
US 95	Kuehn St to southern County Boundary

TABLE 8. 2030 CANDIDATE LOCATIONS FOR PASSING LANES

Candidate locations based on a threshold daily traffic volume of approximately 4,300 AADT for level terrain and 2,300 for rolling terrain.

Summary of Road Deficiencies and Potential Needs

The Study evaluated capacity and non-capacity deficiencies for countywide and regional roads, streets in Parker and Quartzsite, roads in the CRIT, State routes 72 and 95, US 60, as well as Harquahala Road, Vicksburg Road, and Salome Road. The Final Report provides details on these deficiencies and potential needs. Non-capacity deficiencies include safety and geometric deficiencies and capacity deficiencies include inadequate number of lanes to efficiently accommodate traffic volumes. Potential improvements to address the deficiencies and potential needs are also listed in the Final Report. Capacity deficiencies for the Base Network. The non-capacity deficiencies and potential needs were identified through meetings with area stakeholders, review of previous plans and studies documented in Chapter 2 of the Final Report and by field observations made by the Study team.

Note that the potential improvements listed in the Final Report are suggested for further analysis. These improvements are evaluated further in the Final Report, including an analysis of capacity improvements for road improvements such as road widening, passing lanes, potential road realignments, and new roads.

FUTURE MULTIMODAL CONDITIONS

Future multimodal conditions were evaluated for the Study Area including transit, pedestrian and bicycle conditions, and airport needs. Unmet multimodal needs are summarized in the Final Report. Continued growth within the County, the Towns of Parker and Quartzsite and the CRIT generate a need for transit services as an alternative to the automobile. This need is reinforced by the higher proportion of residents and visitors 65 years and older as well as a higher proportion of the population with mobility limitation. Future transit demand was also estimated for a hypothetical countywide transit system. In addition, future needs for bicycle and pedestrian facilities were identified. Related needs include the widening of roadway shoulders on State highways, County roads, and community streets, separate bicycle and pedestrian paths, and bicycle lanes. Airport needs were also identified based on discussion with key stakeholders.

FUTURE FREIGHT CONDITIONS

Within the Study Area, a key concern is the increasing truck volumes on I-10. Throughout the Study Area, commercial trucks—primarily large tractor-trailer rigs—comprise about 40 percent of all motor vehicle traffic on I-10. On SR 72, trucks comprise 44 percent of all traffic. While total motor vehicle traffic volume on SR 72 is less than a tenth of that on the Interstate, SR 72 is a narrow, two-lane, largely shoulder-less facility. Sight-distance on SR 72 is frequently impacted by dips through low-water crossings, and opportunities for motorists to pass trucks are limited. The high truck volumes on the two lane road segments of the State routes significantly degrade traffic level of service (LOS). These high truck volumes combined with roads segments in rolling and mountainous terrain further degrade traffic levels of service. An example of such a segment is SR 95 from Buckskin State Park north to the County boundary. The Final Report summarizes the unmet rail and truck freight service needs within La Paz County.

The proximity of Quartzsite to the growing area of Western Maricopa County, including the planned Hassayampa and Hidden Valley areas, suggests the potential for the development of Quartzsite as a potential distribution center. The development of this center would require significant additional investment in both rail and roadway infrastructure, but would also provide stable, year-round employment.

MULTIMODAL TRANSPORTATION PLAN

This section presents the Multimodal Transportation Plan for La Paz County including 2020 and 2030 Road Plans, Multimodal Transit Element, and a Freight Element. The road plans and multimodal elements were developed based on the analysis of future conditions presented in Chapter 4 of the Final Report. Additional analyses were conducted to assess possible alternative road networks in the County and are presented here.

TRANSPORTATION VISION

The following vision for the transportation system in La Paz County was prepared based on stakeholder comments:

The La Paz County Transportation System will be developed and maintained in cooperation with the residents, visitors, businesses, County, Town, Colorado River Indian Tribes, federal land management agencies, businesses, and other stakeholders. The transportation system will be efficient and safe supporting economic development, tourism, and recreational activities for residents, businesses, and visitors. A multimodal transportation system will serve pedestrians, equestrian riders, bicyclists, automobiles, and transit users. Alternative routes and transit services will be provided connecting the Towns, Colorado River Indian Tribes, and rural areas as well as provide for interregional travel connecting County activities to Phoenix, Las Vegas, and Los Angeles metropolitan areas.

ALTERNATIVE ROAD NETWORK ANALYSIS

Capacity deficiencies for the years 2020 and 2030 were identified in *Working Paper 2: Future Conditions*. This section presents the analysis of alternative road networks to correct the capacity deficiencies. The analysis included the following steps.

- 1. Identify alternative road networks.
- 2. Forecast of off-peak and peak season average daily traffic volumes.
- 3. Computation of level of service for the alternative road networks.
- 4. Compare alternative road networks using performance and feasibility measures.

Identify Alternative Road Networks

Three alternative roadway networks were identified based on the capacity deficiencies as well as stakeholder suggestions. The three alternative networks are: 1) Road Widening Network; 2) New Alignments Network; and Mohave Road Extension.

Road Widening Alternative Network

The Final Report presents the functional classification and number of lanes for the Road Widening Alternative Network, respectively. This network includes roads in the Base Future Network plus the following segments widened from two to four lanes:

- Kuehn Street, Quartzsite from Riggles Avenue to Quartzsite Boulevard
- Quartzsite Boulevard from Main Street to Kuehn Street
- Riggles Avenue from Main Street to Kuehn Street
- SR 95 from SR 72 north to Mohave Road
- SR 95 from Lakeside Boulevard to northern La Paz County boundary

New Alignments Network

The Final Report presents the functional classification and number of lanes for the New Alignments Alternative Network. This road network includes roads in the Road Widening Network plus the following new road alignments:

- Four-lane realignment of SR 95 from south of the Town of Quartzsite to north of Plomosa Road.
- Four-lane realignment of SR 95 from existing SR 95 west of the Parker Annex running northeast to SR 95 to the vicinity of Lakeside Boulevard.

Mohave Road Extension

The extension of Mohave Road in the Parker area was assessed from SR 95, S. California Avenue to Riverside Drive. The potential extension traverses to the east, staying to the south of the Avi Suquilla Airport, and then turns north to intersect with SR 95, Riverside Drive beyond the new runway.

Forecasting Traffic and Computing Level of Service

The methodology for estimating daily traffic volumes and levels of service was discussed in *Working Paper 2: Future Conditions*. In brief, the LA Paz County TransCAD travel demand model was used to estimate daily traffic volumes and LOS were then estimated for the Road Widening and New Alignments alternatives for both the off-peak and peak seasons. Levels of service were then computed for roads based on the relationship of volume-to-capacity ratios to LOS ranges of A to F. Level of service A indicates free flow and LOS F represents congested conditions. In general, levels of service in the range LOS C-D are considered acceptable.

Road Widening Alternative Network

The Final Report presents the daily traffic volumes and level of service for the Road Widening Alternative Network during the off-peak season and peak season, respectively. The analysis

shows that the roads in the network will operate at or above level of service range of C-D during the both the off-peak season and peak season.

New Alignments Alternative Network

The Final Report presents the daily traffic volumes and level of service for the New Alignments Alternative Network during the off-peak season and peak season, respectively. The analysis for the new alignments alternative network shows the following:

- The 2030 daily traffic volume during the peak season on the new alignment connecting US 95 south of Quartzsite to SR 95 north of Quartzsite is low ranging from 500 vehicles per day (vpd) to 2000 vpd.
- The 2030 daily traffic volume on the new alignment connecting SR 95 south of Parker to SR 95 (Riverside) east of Parker has a volume of approximately 6,200 vpd.
- Roads in the New Alignments Alternative Network will operate at or above level of service range of C-D during both the off-peak season and peak season.
- The level of service on portions of Kuehn Street is improved over the Road Widening Alternative Network.
- The New Alignments Alternative Network also reduces traffic volumes on California Avenue south of Riverside Drive and Riverside Drive east of California Avenue due to the realignment of SR 95 to the east of the Town of Parker.

Mohave Road Extension

The estimated 2030 Daily Peak Seasonal Traffic Volume on the Mohave Road Extension is approximately 9,900 vehicles per day. The extension decreased the traffic volume on Riverside Drive west of Bluewater Drive by approximately 13,625 vehicles per day from the Base Road Network. The traffic volume on California Avenue north of Mohave Road is decreased by approximately 11,427 vehicles per day.

The following table presents traffic volumes for selected locations with and without the extension:

	2030 Daily Peak Seasonal Traffic Volumes (Vehicles Per Day)						
Location	Base Road Network Without Mohave Road Ext.	Base RoadBase RoadNetworkNetworkthout MohaveWith MohaveRoad Ext.Road Ext.					
SR 95, S. California Ave. North of Mohave Road	26,112	14,685	-11,427				
SR 95, Riverside Drive West of Bluewater Drive	29,648	16,023	-13,625				
Mohave Road Extension	N/A	9,913	N/A				

TABLE 9. MOHAVE ROAD EXTENSION TRAFFIC VOLUMES

Evaluation Methodology

Potential alternative road networks were compared using a set of performance measures (Table 10). The feasibility of implementing each alternative road network was also assessed using a set of feasibility criteria. The results of the evaluation of performance and feasibility measures for the alternative networks are presented later in a comparison table.

TABLE 10. PERFORMANCE AND FEASIBILITY MEASURES

Performance Measures	Feasibility Measures
Mobility/Congestion Relief	Socioeconomic, Land Use
Accessibility and Connectivity	Environmental and Cultural Resources
System Preservation	Engineering Opportunities and Constraints
Integration and Connectivity with Other Modes	Multimodal Considerations
Safety (Reduction in Crashes)	Public Support
Economic Benefits	Costs/Right-of-way (ROW)/Funding

Each criterion was assessed to the degree it impacts the feasibility positively or negatively. Based on previous studies, general right-of-way needs and general level of costs for the roadway concepts were established. Additionally, the socioeconomic impacts of the concepts were evaluated together with other impacts to adjacent property. General economic and land use impacts and possible economic opportunities were determined.

Comparison of Alternative Road Networks

The Road Widening Network Alternative performed better than the other alternative networks evaluated in regard to performance and feasibility criteria. The road widening and passing lane candidate projects comprising this alternative provide good mobility and safety throughout the County with minimal impacts on residents, businesses, and the environment. This alternative also corrects infrastructure deficiencies on existing facilities. The magnitude of the daily traffic volumes accommodated during the peak season by the New Alignments and Mohave Road Extension alternatives **do not warrant** the cost and impacts of constructing new facilities. In addition, the New Alignments and the Mohave Road Extension alternatives would adversely impact the economy of the Towns of Quartzsite and Parker by diverting traffic from business centers.

Table 11 presents a comparison of the Base Future Network, Road Widening Alternative Network, and New Alignments Alternative Network. *Working Paper 2: Future Conditions* described the Base Future Network and presents the forecasted traffic volumes and levels of service for the Base Future Network. The following summarizes the performance and feasibility of the alternative networks.

Road Widening Alternative Network

The Road Widening Alternative provides an acceptable level of service with the increased traffic volumes in 2030 and improves accessibility by providing a higher level of service. Road widening and passing lane projects in this alternative would improve safety and extend the life of existing road segments. Improvements of shoulders on State Routes on widening sections and potential passing lanes could encourage other modes such as bicycling. Moreover, the improved mobility due to a higher level of service will improve economic opportunities.

The widening of roads in the Road Widening Alternative will impact adjacent properties to some extent. However, reduced traffic congestion also reduces impacts on adjacent properties. Improved speeds and reduced congestion may reduce air pollution. But noise may be increased with increased vehicle speeds. Public lands may also be impacted as roads are widened. No major engineering constraints are anticipated. Right-of-way may be required for widening of some road segments and potential passing lane segments. This alternative would require moderate capital costs. Road reconstruction for road widening and passing lane projects provides opportunities to incorporate multimodal facilities such as bike lanes and pedestrian paths.

New Alignments Alternative

The New Alignments Alternative provides the overall highest level of service and accessibility, slightly reduces through traffic in Quartzsite, and provides sine relief of traffic in

Parker. The road widening and passing lane projects would improve the life of existing roads. New alignments would reduce traffic volumes on portions of existing roads and thereby extend the life of some portions of existing roads. This alternative would provide the highest level of safety with road widening, possible passing lanes, and new alignments. The New Alignments Alternative would significantly impact local businesses in Quartzsite and Parker by diverting traffic from business centers.

This alternative reduces congestion impacts on adjacent properties. Improved speeds and reduced congestion may reduce air pollution. But noise may be increased with increased vehicle speeds. This alternative has high impact on properties and businesses where new alignments are constructed. Moreover, the new alignments would generate the highest direct impact on environmental resources and public lands. Also, the alternative requires the highest level of planning and design. In addition, the alternative has the highest level of typographical and drainage constraints. However, no major engineering constraints are anticipated. The New Alignments Alternative has high cost and right-of-way requirements for road widening and new alignments. Road reconstruction for road widening and passing lanes and new alignment projects provides the most opportunities to incorporate multimodal facilities such as bike lanes and pedestrian paths.

Mohave Road Extension

The Mohave Road Extension would reduce traffic volumes on California Avenue south of SR 95 and Riverside Drive east of California Avenue in the Parker area and improve accessibility in the Parker area. The reduced traffic volumes on California Avenue and Riverside Drive will improve safety and extend the pavement life on those segments. Reduced congestion on California Avenue and Riverside Drive may reduce air pollution as well as noise levels along these segments.

The Mohave Road Extension generates significant impacts. The diversion of traffic from Parker Central by the Extension will significantly adversely impact business in the Town of Parker. The extension lays entirely in the CRIT reservation and would impact CRIT lands. The extension would also have significant impact on virgin land, species habitat, and cultural resources. Engineering location and design studies would be required. In addition, the alternative would require the relocation and of Bluewater Drive in order to align with the Mohave Road extension to the north of the airport. The relocation would also require significant right-of-way all within the CRIT area and would also require high construction costs. Similar to the other alternatives, a new facility would provide an opportunity to incorporate multimodal facilities such as bike lanes and pedestrian paths.

TABLE 11. COMPARISON OF 2030 NETWORKS

Measure	Base Future	Road Widening	New Alignments	Mohave Road Extension
Performance Factors				
Mobility	Level of service will degrade as traffic increases. Mobility will be reduced during peak traffic season, particularly on such streets as Kuehn Street.	Provides acceptable level of service. Some road segments such as portions of Kuehn Street operate below desirable levels of service during the peak season.	Provides highest level of service. Slightly relieves through traffic in Quartzsite and provides relief of traffic in Parker.	Reduces traffic volumes on California Avenue south of SR 95 and Riverside Driveeast of California Avenue in the Parker area.
Accessibility	Provides accessibility throughout region. Reduced accessibility in Peak Season.	Improves accessibility by providing a higher level of service.	Provides highest level of accessibility.	Improves accessibility in the Parker area.
System Preservation	Infrastructure of existing roads will degrade as traffic increases. However, improvement projects could be programmed on the Base Network to extend some life to existing roads.	Road widening and passing lane projects would extend life of existing road segments improved.	Road widening and passing lane projects would improve the life of existing roads. New alignments would reduce traffic volumes on portions of existing roads and thereby extend life of some portions of existing roads.	The reduced traffic volumes on California Avenue and Riverside Drive will extend the pavement life on those segments.
Integration with other modes	Limited integration of other modes with current roads due to restricted geometrics of existing roads. However, improvement projects could be programmed to improve infrastructure such as adding shoulders.	Improvements of shoulders on State Routes on widening sections and potential passing lanes could encourage other modes such as bicycling.	Allows for integration of other modes into new alignments.	Allows for integration of transit and bicycling modes.
Safety	Increased future traffic volumes on the Base Network with existing roads would adversely impact safety.	Improves safety with road widening and possible passing lanes.	Provide highest level of safety with road widening, possible passing lanes, and new alignments.	Improves safety on California Avenue and Riverside Drive.
Economic Benefits	Reduced mobility due to increased traffic congestion on existing roads will adversely impact economic growth.	Improved mobility due to a higher level of service will improve economic opportunities.	New alignments will divert traffic from business centers and adversely impact business in Quartzsite and Parker. Higher overall mobility may provide economic benefits throughout the region.	Diversion of traffic from Parker Central will significantly adversely impact business in the Town.

TABLE 11. COMPARISON OF 2030 NETWORKS (Continued)

Measure	Base Future	Road Widening	New Alignments	Mohave Road Extension
Feasibility Measure				
Socioeconomic	Least direct impact on adjacent properties and business. However, increased traffic congestion during peak season impacts adjacent properties.	Widening of roads impacts adjacent properties. Reduced traffic congestion reduces impacts on adjacent properties.	Reduces congestion impacts on adjacent properties. However, highest impact on properties and businesses where new alignments are constructed.	The extension lays entirely in the CRIT reservation and would impact CRIT lands.
Environmental	Lower speeds and stopping due to increased congestion would increase air pollution.	Improved speeds and reduced congestion may reduce air pollution. Increased speeds may increase noise levels. May be some impact on public lands as roads are widened.	Improved speeds and reduced congestion may reduce air pollution. Increased speeds may increase noise levels. Potentially highest direct impact on environmental resources and public lands.	Significant impacts on virgin land, species habitat, and cultural resources. Reduced traffic volumes on California Avenue and Riverside Drive maul reduce air pollution and noise levels.
Engineering	Engineering would be limited to minor improvements. However, projects could be programmed for existing roads to include road and bridge projects. No major engineering constraints are anticipated.	Planning and engineering would be required for road widening and passing lanes. No major engineering constraints are anticipated.	Requires highest level of planning and design. Highest level of typographical and drainage constraints. No major engineering constraints are anticipated.	Requires engineering location and design studies. Would require the relocation of Bluewater Drive in order to align with the Mohave Road Extension. The relocation would entail significant earthwork and reconstruction of Bluewater Drive.
Multimodal Considerations	Existing road cross sections and right-of-way limits incorporation of multimodal facilities such as bike lanes and pedestrian paths.	Road reconstruction for road widening and passing lane projects provides opportunities to incorporate multimodal facilities such as bike lanes and pedestrian paths.	Road reconstruction for road widening and passing lane and new alignment projects provides the most opportunities to incorporate multimodal facilities such as bike lanes and pedestrian paths.	The extension would provide an opportunity to incorporate multimodal facilities such as bike lanes and pedestrian paths.
Costs/Right-of-way	Lowest capital cost. Least right-of- way requirements. Minor right-of- way may be required.	Right-of-way may be required for widening of some road segments and potential passing lane segments. Moderate capital costs required.	Highest cost and right-of-way requirements for road widening and new alignments.	Requires significant right-of- way all within the CRIT area. Requires major reconstruction of Bluewater Drive. The Extension and relocation of Bluewater Drive would require high construction costs.

RECOMMENDED ROAD PLAN

This section presents the recommended road plans for the 2020 and 2030 planning horizon years. The plans have been developed based on the analysis of alternatives presented in the previous section.

While this Study includes roadway facilities owned and operated by ADOT within the planning area, it is important to recognize that improvements to the State Highway System can be made only after in-depth planning and engineering studies are conducted by ADOT, and upon approval of the State Transportation Board. All traffic interchange improvements must be approved by the Federal Highway Administration (FHWA). Any recommendations made by this Study for improvements on State facilities can serve only as suggestions for further study.

2020 Road Plan

Figure 3 illustrates the recommended road functional classification for both 2020 and 2030. Figure 4 illustrates the 2020 road plan with number of lanes and improvement projects. Key components of the 2020 road plan include:

State Routes

SR 95/US 95

- Widen SR 95 to four lanes Beacon Road/Riverside Drive to Cienega Springs Road.
- Widen California Avenue to four lanes 7th Street to California Avenue Bridge.
- Construct new California Avenue Bridge across Colorado River.
- Upgrade configuration and traffic signalization at the California Ave/Riverside Drive intersection.
- Reconstruct intersection and upgrade traffic control at the SR 95/SR 72 intersection.
- Construct additional passing lanes in the following candidate locations:
 - Quartzsite Northern Boundary to SR 72
 - Kuehn Street to SR 95 MP 99
 - Lakeside Boulevard to northern County Boundary
 - o SR 95 SR 72 to Mohave Road

SR 72

- Reconstruct SR 72 to include standard road cross section, construction cross drainage.
- Reconstruct SR 72/US 60 intersection
- Reconstruct intersections with local roads along SR 72 to right-angle intersections with left-turn lanes and acceleration and deceleration lanes.
- Construct passing lanes in the following candidate location:

- Willamette Drive to SR 95
- Construct cross drainage improvements on SR 72

<u>US 60</u>

- Reconstruct US 60 to include standard road cross section, construct cross drainage, and reconstruct intersections to right-angle intersections with left-turn lanes and acceleration and deceleration lanes.
- Construct cross drainage improvements on US 60 at Centennial Wash.
- Construct passing lanes in the following candidate location:
 - Alamo Road/Centennial Park Road to Vicksburg Rd.

I-10

- Reconstruct I-10 Exit 1.
- Reconstruct I-10 Exit 17 interchange and upgrade traffic control.

Town of Quartzsite

- Widen and reconstruct Kuehn Street including drainage structures, Town of Quartzsite from Riggles Avenue to Quartzsite Boulevard to four lanes as shown.
- Widen Quartzsite Boulevard to 4 lanes from Main Street to Kuehn Street, Town of Quartzsite.
- Widen Riggles Avenue to 4 lanes from Main Street to Kuehn Street.
- Widen Kofa Avenue to 4 lanes from Main Street to Kuehn Street.

Ehrenberg

- Reconstruct Juneau Avenue to Minor Arterial standards from I-10 Exit 1 to Ehrenberg Parker Highway.
- Reconstruct Ehrenberg Parker Highway to a Minor Arterial standard from Juneau Avenue to Southern CRIT Boundary to increase capacity.

La Paz County

- Construct new Cibola Bridge.
- Construct new River Road Bridge.
- Reconstruct Salome Highway from US 60 to I-10.
- Pave the road segments (illustrated in the Final Report)
- Reconstruct Vicksburg Road and construct passing lanes between I-10 and SR 72.

Colorado Indian Tribes

- Reconstruct Ehrenberg Parker Highway (Mohave Road) from CRIT southern boundary to SR 95 to standard cross section with cross drainage improvements.
- Reconstruct bridges on Ehrenberg Parker Highway (Mohave Road).

2030 Road Plan

Figure 3 illustrates the recommended road functional classification for both 2020 and 2030 and Figure 5 illustrates the recommended 2030 Road Plan. Key components of the 2030 road in addition to those recommended for the 2020 Road Plan include:

State Routes

SR 95/US 95

- Widen SR 95 to four lanes from the Town of Quartzite to the northern County boundary.
- Construct 4-lane divided highway on US 95 from MP 70.2 to southern County boundary as recommended by the *Initial Design Report: US 95, MP 42 to Cibola Lake Road*, September 2008.
- Add passing lanes between MP 99 and southern County Border, (approximately MP 60)

<u>SR 72</u>

- Add passing lanes on the following road segment:
 - Avenue 42E to Willamette Drive

<u>I-10</u>

• Reconstruct I-10 Interchanges at all locations by 2030.

Ehrenberg

- Reconstruct Ehrenberg Parker Highway to a higher two-lane road standard from Juneau Avenue to CRIT southern boundary.
- Reconstruct Juneau Avenue to a higher two-lane road standard from I-10 to Ehrenberg Parker Highway (Mohave Road)



FIGURE 3. RECOMMENDED FUTURE FUNCTIONAL CLASSIFICATION



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FIGURE 4. 2020 ROAD PLAN

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FIGURE 5. 2030 ROAD PLAN

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RECOMMENDED MULTIMODAL ELEMENT

The Multimodal Element for La Paz County is recommended as a component of the overall La Paz County Multimodal Transportation Plan. The Element includes components of transit facilities and services, pedestrian and bicycle facilities, and aviation facilities.

Transit Plan

As documented in Working Paper 1, two public transportation operations currently serve the area: Quartzsite Transit Services provides local service within the Town of Quartzsite as well as regional service between the Town and Blythe, Lake Havasu City, Parker, and Yuma, serving different communities on different days of the week. La Paz County provides service within the Town of Parker as well as regional service to Bouse, Ehrenberg, Lake Havasu City, and Wickenburg, also serving different areas on different days of the week. In effect, both existing services are hybrids—providing some local services as well as regional services.

Expanding Service to Address Projected Future Increases in Transit Demand

Figure 6 depicts a transit plan which includes the regional routes used in the conduct of the future regional transit demand procedure described in Working Paper 2, together with proposed future local services. The Final Report document contains draft regional transit schedules suggested for serving the routes depicted in Figure 6.

Future Local Circulator Services

The transit demand estimating process documented in Working Paper 2 addressed regional services only. Methodologies exist for estimating local transit demand—that is, demand for transit trips within a particular town or community—however, these methodologies are designed for application to urban areas with significantly greater populations than any of the communities in the Study Area. Existing local transit demand is likely being met by the services currently being operated by La Paz County and by the Town of Quartzsite. However, the following local services should be considered for future implementation:

• Implement deviated fixed-route local circulator service along the Parker Strip, connecting Parker South, Parker Central, the Casino, and the residential areas along SR 95 up to the Parker Dam area and beyond. The Parker Central-Parker South segment should be year-round, but a population threshold for Parker South to trigger its implementation should be determined. The Parker Strip segment of this service could begin as a seasonal operation—ultimately year-round service may be needed.



FIGURE 6. TRANSIT PLAN

Source: Lima & Associates

- Implement deviated fixed-route local circulator service within the Town of Quartzsite. Such service could mitigate traffic congestion on Main Street during the tourist season, and facilitate local travel among the RV Parks, Rock and Gem Shows, and other area traffic generators and attractions.
- Local circulator transit serving Tribal communities on the CRIT. Initially, this service could double as the Parker-Ehrenberg regional service, with a more relaxed schedule to allow for route deviation. Ultimately, this and other local circulators should be structured to feed passengers to the fixed-route regional routes.

As population and seasonal activities both increase, a study should be conducted to assess the feasibility of providing increased local circulator services in the Study Area. In the near term, ridesharing programs and other lower-cost techniques should be examined as ways of enhancing the mobility of Study Area residents and visitors. Opportunities may also exist for enhancing the efficiency of the two existing operations through closer coordination. These concepts are discussed in the Final Report, together with types of transit vehicles and services.

Bicycle and Pedestrian Facilities

A strategy to develop bicycle and pedestrian facilities and an integrated system is recommended. Bicycle facilities include bicycle lane, multi-use paths, bicycle routes, and shared roadway. Pedestrian facilities include sidewalks, separate pedestrian paths, and multi-use paths. In order to develop this strategy, the available general and comprehensive plans for the agencies participating in the study were reviewed as well as national and local practice in planning and designing for bicycle and pedestrian facilities.

The bicycle and pedestrian strategy for the La Paz County transportation system is to provide regional and local bicycle and pedestrian facilities as alternatives to motorized travel. Local facilities should be connected to State Routes and regional facilities. The strategy is discussed in detail in the Final Report

The plans of all the agencies—La Paz County, the Town of Parker, the Town of Quartzsite, and the CRIT—contain goals that recognize the need for developing local and regional bicycle and pedestrian facilities. A goal for all communities is to be walkable and bikeable.

Aviation Plan

Within the Study Area, potential aviation improvements are the following:

- Correct deficiencies identified for the CRIT Avi Suquilla Airport at Parker, including the reconstruction of the airport entry, access road, parking lot, and terminal facilities.
- Study the feasibility of a new airport at Quartzsite, which could serve as both a General Aviation facility open to the public and an adjunct to the proposed industrial park—designed to permit future introduction of scheduled passenger service.
- Monitor flight operations at the two private McMillan Valley airports to identify when the development of a General Aviation facility in the area might be warranted.

Recommended Next Steps to Implement Multimodal Transportation Services

La Paz County, the Town of Parker, the Town of Quartzsite, the Colorado River Indian Tribes, and the Participating Agencies in the La Paz Transportation Planning Study should take the following steps to implement and expand multimodal transportation services:

- The Participating Agencies should closely study the Pinal Rides Pilot Program to learn what features of the program are applicable to the Study Area.
- La Paz County, the Town of Parker, the Town of Quartzsite, and the Colorado River Indian Tribes should communicate and coordinate with organizations and agencies.

- La Paz County, the Town of Parker, the Town of Quartzsite, and the Colorado River Indian Tribes should continue to present short- and long-range plans to ADOT Multimodal Planning Division.
- The Participating Agencies should conduct a Transit Feasibility and Implementation Study to identify current and future public transportation needs within the Study Area as well as demographic thresholds for implementing future services.
- Participating Agencies should designate a Transportation Coordinator, when needed.
- Participating Agencies should appoint a volunteer Transportation Advisory Committee.
- The Participating Agencies should explore the concept of providing one or more "gateway centers" within the Study Area.
- The Colorado River Indian Tribes should continue to work with ADOT Aeronautics Division to program improvements to the Avi Suquilla Airport.
- The Town of Quartzsite should study the feasibility of developing an airport.

A multimodal implementation schedule based on the "Next Steps" recommended above is presented in the Final Report.

RECOMMENDED FREIGHT ELEMENT

The Multimodal Transportation Element in the La Paz County Comprehensive Plan included developing County rail and trucking facilities. A number of strategies are focused on moving trucks efficiently and safely through and within the County. Within the County, a key concern is the increasing truck volumes on I-10 and the State Routes. Throughout the County, commercial trucks—primarily large tractor-trailer rigs—comprise about 40 percent of all motor vehicle traffic on I-10. On SR 72, trucks comprise 44 percent of all traffic. While total motor vehicle traffic volume on SR 72 is less than a tenth of that on the Interstate, SR 72 is a narrow, two-lane, largely shoulder-less facility. Sight-distance is frequently impacted by dips through low-water crossings, and opportunities for motorists to pass trucks are limited.

Other strategies include increasing bridge load capabilities, improving interchanges to accommodate large trucks, and managing truck parking in developed areas. Another strategy focuses on developing an industrial and distribution center north of the Town of Quartzsite.

The following actions are recommended to implement freight services (see Figure 7):

- Develop truck stop and off-street parking for tractor-trailer rigs in the Town of Parker to eliminate truck parking in the center median of California Avenue.
- Reconstruct Ehrenberg Parker Highway (Mohave Road) roadway and bridges to handle truck traffic that use the facility as a short cut from I-10 West to SR 95 North.



FIGURE 7. FREIGHT ELEMENT

- Reconstruct SR 72 and add bridges over low-water crossings. Also Reconstruct US 60 to handle existing and future volumes of truck traffic.
- Reconstruct the Ehrenberg Port-of-Entry. Upgrade the Port-of-Entry building and communications system to provide sufficient staging area and storage for trucks.
- Develop a Travel Plaza at the I-10/Ehrenberg Highway interchange in Ehrenberg, including facilities for exchanging truck tractors, facilities to enable tractor-trailer overnight parking without idling, and other facilities as appropriate.
- Develop roadway, rail, and air-served industrial park and distribution center north of Quartzsite. Also include the study of an airport as mentioned as part of the industrial park. In addition, study the feasibility of constructing a rail spur south from the Arizona & California Railroad (ARZC) main line to Quartzsite and identify alignment.
- Reconstruct I-10, Exit 17 at Quartzsite to facilitate access by commercial trucks to the new truck stops being constructed as well as the proposed industrial park.

As part of the Arizona Multimodal Freight Analysis Study conducted for ADOT in 2008, a proposed Freight Planning Agenda was developed for ADOT (see Final Report). La Paz County, the Town of Parker, the Town of Quartzsite, and the Colorado River Indian Tribes should take into consideration the findings and recommendations of the study. The Transportation Advisory Committee previously recommended coordination with ADOT and truck and rail freight stakeholders.

Recommended Next Steps

The following next steps relating to freight improvements are recommended:

- La Paz County, the Town of Parker, the Town of Quartzsite, and the CRIT should take into consideration the findings and recommendations of the 2008 *Arizona Multimodal Freight Analysis Study*, when updating general or comprehensive plans.
- The participating agencies should also monitor closely the concepts for developing alternatives to West Coast ports such as Punta Colonet and Guymas, which were alluded to in the *Multimodal Freight Analysis Study*.
- The Town of Parker should identify candidate locations for off-street parking for tractor-trailer rigs and program funding for site preservation. The Town should continue to work for attracting truck stop developers to the area.
- The CRIT should work with ADOT to program roadway and bridge improvements for Ehrenberg Parker Highway (Mohave Road).
- Continue to coordinate with ADOT on improvements to SR 72 and SR 95 including bridges or culverts for low-water crossings, roadway geometry, and widening.
- Continue to coordinate with ADOT on reconstruction of the Ehrenberg Port-of Entry.
- The Town of Quartzsite should study the feasibility of developing a multimodal industrial park north of Town and begin the appropriate site and zoning processes.
- The County should work with ADOT and private interests to develop a Travel Plaza at the I-10/Ehrenberg Parker Highway interchange in Ehrenberg to serve commercial trucking as well as the general public.
- The Town of Quartzsite should coordinate with ADOT to program the reconstruction of I-10, Exit 17 to improve access and safe movement of heavy trucks into the Town.

IMPLEMENTATION

Challenges to Implementation

Major challenges to implementation include the following:

- Coordination of recommendations among the various stakeholders
- Right-of-way needs and preservation for roadways
- Lead time needed to construct roads
- Cost of needed improvements and funding implications
- Limited funding and ability to obtain funding
- Prioritization of projects as development phases in
- Implementation of multimodal and transit projects

Implementation Strategies

To meet these challenges, it is essential that an implementation action plan for short-, mid-, and long-range transportation projects be developed in coordination with key stakeholders. Tables 12 through 14 list recommended strategies for road, multimodal and freight projects for the 2010, 2015, 2020, and 2030 planning horizons. The tables also list the likely primary responsible parties for implementing the projects.

Note, it is important that recommendations made by this Study for improvements on State facilities serve only as suggestions for further study. Improvements to the State Highway system can be made only after in-depth planning and engineering studies are conducted by ADOT, and upon approval of the State Transportation Board. All traffic interchange improvements must be approved by the Federal Highway Administration. In addition, environmental assessments must be conducted and Design-Concept Reports must be developed prior to the construction of any new roadway or multimodal facility.

Implementation Strategy		Horizon Years			Desponsibility	
	Implementation Strategy	2010-2015	2020	2030	- Responsionity	
Plan and Program Adoption						
-	Adopt the La Paz PARA Study.	Х			County, Towns, CRIT	
-	Adopt roadway functional classifications, design standards, access management, and traffic-calming policies.	Х			County, Towns, CRIT	
-	Program the recommended multimodal improvements into the Capital Program.	X			County, Towns, CRIT, ADOT	
Co	ordination					
-	Coordinate with ADOT on completion of ADOT Design Concept Studies.	Х			County, Towns, CRIT, ADOT, other Stakeholders	
-	Coordinate with ADOT and stakeholders on Design Concept Studies for high capacity corridors.	Х			County, Towns, CRIT, ADOT, other Stakeholders	
-	Coordinate with WACOG on continuous updating of population projections.	Continuous			County, Towns, CRIT, other Stakeholders	
-	Coordinate with ADOT to review development proposals that may impact right-of-way on State highways.	Continuous			County, Towns, CRIT, other Stakeholders	
-	Work with ADOT and the Arizona Office of Tourism to establish an information center on I-10 to welcome incoming motorists and inform them of attractions and facilities in Arizona and La Paz County.	Х			County, Towns, CRIT, ADOT, other Stakeholders	
-	Work with ADOT to develop an emergency alternate route plan that alleviates impacts to non-redundant routes from accidents and emergencies.	Х			County, Towns, CRIT, ADOT, other Stakeholders	
Pl	anning and Studies					
-	Establish a process to coordinate land use and transportation decisions	v			County Towns CDIT other Stakeholders	
	Un a regular basis.	A V			County, Towns, CRIT, other Stakeholders	
-	Conduct Traffic Warrant Studies	A Y			ADOT other jurisdictions	
-	Conduct study to assess potential ungrade of California Ave /Riverside	Λ				
	Drive intersection.	Х			ADOT, Town of Parker, CRIT, other Stakeholders	

TABLE 12. LA PAZ ROADWAY IMPLEMENTATION STRATEGIES

TABLE 12. LA PAZ ROADWAY IMPLEMENTATION STRATEGIES (Continued)

	Implementation Strategy		zon Year	Ś	Despensibility	
	Implementation Strategy	2010-2015	2020	2030	- Kesponsibility	
Pr	oject Development					
-	Develop and implement access management plans for the State Routes, County Roads, and local streets.	Х			County, Towns, CRIT, other Stakeholders	
-	Develop and implement pavement maintenance program.	Х			County, Towns, CRIT	
-	Conduct Design Concept Studies for passing lanes on SR 95, US 60, and SR 72.	Х			ADOT	
-	Conduct Design Concept Studies to reconstruction State routes to standard cross sections, improved cross drainage, turning lanes, and acceleration and deceleration lanes.				ADOT	
-	Conduct Design Concept Studies for widening SR 95 to four lanes.	Х			ADOT	
-	Address capacity and safety concerns on paved County roads and work with land owners to pave existing unpaved County roads.	Continuous			County, Stakeholders	
Ri	ght-of-way Preservation					
-	Preserve right-of-way for arterials and State Highways	Х	Х	Х	ADOT, County, Towns, CRIT, other Stakeholders	
Co	onstruct Improvements					
-	Construct recommended roads as shown in 2020 Road Plan.		Х		ADOT, County, Towns, CRIT, other Stakeholders	
-	Construct recommended roads as shown in 2030 Transportation Plan.			Х	ADOT, County, Towns, CRIT, other Stakeholders	
-	Upgrade existing roadways to comply with adopted functional classifications and standards as warranted.	Х	Х		ADOT, County, Towns, CRIT, other Stakeholders	
-	Upgrade California Ave./Riverside Drive intersection.		Х		ADOT, Town of Parker, CRIT, other Stakeholders	
Fu	nding					
-	Identify high priority funding strategies.	Х			ADOT, County, Towns, CRIT, other Stakeholders	
-	Coordinate to obtain funding and leverage funds for improvements.	Х			ADOT, County, Towns, CRIT, other Stakeholders	
Monitoring and Updating Plan						
-	Implement a process to monitor and update plan.	Continuous			ADOT, County, Towns, CRIT, other Stakeholders	
-	Coordinate on a regional traffic count program.	Continuous			ADOT, County, Towns, CRIT, other Stakeholders	

TABLE 13. LA PAZ MULTIMODAL IMPLEMENTATION STRATEGIES

Implementation Strategy		Horizon Years			Desponsibility	
	implementation Strategy	2010-2015	2020	2030	Kesponsibility	
Pl	an and Program Adoption					
-	Adopt the La Paz PARA Study.	Х			County, Towns, CRIT, ADOT	
-	Program the recommended multimodal improvements into the capital program.	Х			Public Works departments of Participating Agencies, ADOT	
Co	oordination					
-	Appoint Transit Advisory Board.	Х			County, Towns, CRIT	
-	Designate County Transportation Coordinator.	Х			County, Towns, CRIT	
-	Explore implementation of ride-sharing program.	Х			Transportation Coordinator with input from the Transportation Advisory Board	
-	Participate in an "Arizona Rides" program as warranted. Assess unmet needs and deficiencies with respect to human services transportation and potential rationalization of vehicles and other assets.	Х	Х		Transportation Coordinator with input from the Transportation Advisory Board and the ADOT Multimodal Planning Division	
-	Work with ADOT to improve shoulders for biking.	Х			County, Towns, CRIT, ADOT	
Pl	anning and Studies					
-	Conduct La Paz County Transit Feasibility Study.	Х			County, Towns, CRIT, ADOT Multimodal Planning Division	
-	Identify potential sites of future park-and-ride lots, transit centers, and passenger rail facilities and preserve acreages.	Х			County, Towns, CRIT	
-	Study improvement and expansion of multiuse pathway network. Determine most appropriate bicycle and pedestrian facilities for each roadway segment given planned abutting land uses.		Х		County, Towns, CRIT with input from the Transportation Coordinator and Transportation Advisory Board	
-	Develop La Paz County standards for bike paths and trails.				Public Works departments of Participating Agencies	
-	Develop regional bike and trails system.				Public Works departments of Participating Agencies	
-	Develop an integrated bicycle trail system in the Parker Strip area that will allow visitors and residents an alternate form of transportation.	Х			Public Works departments of La Paz County, Town of Parker, and CRIT	

TABLE 13. LA PAZ MULTIMODAL IMPLEMENTATION STRATEGIES (Continued)

Implementation Strategy		Horizon Years		S	Responsibility	
	Implementation Strategy	2010-2015	2020	2030	Responsionity	
-	Construct extensions to multiuse pathway network to connect new developments as warranted.		Х	Х	Public Works departments of Participating Agencies with input from the Transportation Coordinator and Transportation Advisory Board	
-	Work with the ADOT Aviation Department and the CRIT to monitor activity at Avi Suquilla Airport and anticipate and prepare for future facility improvements.	Х	Х		Public Works departments of La Paz County, Town of Parker, and CRIT	
-	Construct additional T-hangars at airport.		Х		CRIT Public Works department	
-	Design and construct new airport terminal building.			Х	CRIT Public Works department	
-	Complete 2030 multimodal plan.			Х	Public Works departments of Participating Agencies with input from the Transportation Coordinator and Transportation Advisory Board	
Fu	nding					
-	Identify high priority funding strategies.		Х		Transportation Coordinator with input from the Transportation Advisory Board and the ADOT Multimodal Planning Division	
-	Coordinate to obtain funding and leverage funds for improvements.		Х		Participating Agency councils, with input from the Transportation Advisory Board	
M	onitoring and Updating Plan					
-	Implement a process to monitor and update plan.		Х		Public Works departments of Participating Agencies with input from the Transportation Coordinator and Transportation Advisory Board	
-	Coordinate on a regional multimodal usage count program (incorporating motor vehicle traffic counts and gathering of transit ridership data).	Continuous			Public Works departments of Participating Agencies with input from the Transportation Coordinator and Transportation Advisory Board	

TABLE 14. LA PAZ RAIL AND TRUCK FREIGHT IMPLEMENTATION STRATEGIES

	Implementation Strategy -		on Years	5	Despensibility
			2020	2030	Responsibility
Pl	an and Program Adoption				
-	Adopt the La Paz PARA Study.	Х			County, Towns, CRIT, ADOT
Co	pordination				
-	Assist the Arizona & California Railroad in recruiting rail-served industries to Parker South and other La Paz County sites.	Х	Х		County, Town of Parker, ARZC
-	Consider existing and future needs of truck operators when developing expansion and access management plans for County roadways.	Х			Councils and Public Works departments of Participating Agencies
-	Develop a plan for an industrial and distribution center north of Quartzsite.	Х			Town of Quartzsite Public Works with input from La Paz County and ADOT
-	Develop a plan for a truck-tractor interchange facility near Ehrenberg to accommodate truck-tractor swaps as California moves to ban diesel tractors from the State.	Х	Х		ADOT Multimodal Planning Division with input from La Paz County and CRIT

FUNDING SOURCES

This section summarizes multimodal revenue sources and estimates that are applicable to the La Paz area, together with financial constraints and opportunities pertaining to needed roadway improvements. A number of funding mechanisms exist that could be used to fund multimodal improvements in the Study Area. Key federal, State, regional, and local sources are shown in Table 15.

Fund Name	Description	Eligible Uses	Application Process
	Federal		
Surface Transportation Program (STP)	Federal funds, administered by FHWA and ADOT	Variety of capital projects including highways, bridges, and enhancement projects	Programmed WACOG and ADOT District
High Risk Rural Roads	Federal funds, administered by FHWA and ADOT	Correct safety problems on roadways classified as rural major collectors, rural minor collectors and rural local roads	Programmed through ADOT
Safe Routes to School Program	Federal funds, administered by FHWA and ADOT focused on enabling and encouraging children to safely walk and bicycle to school.	Projects can include sidewalk, traffic calming and speed reduction improvements, pedestrian and bicycle crossing improvements, and traffic diversion improvements near schools. Each State must use between 10-30 percent of the funds for non-infrastructure related activities, such as public awareness campaigns, traffic education and enforcement near schools, and student sessions on pedestrian and bicycle safety.	Programmed through ADOT.
Highway Safety Improvement Program (HSIP)	Federal funds administered by FHWA and ADOT	Funds can be used on safety improvement projects to reduce the number and severity of highway- related crashes. As a part of the HSIP, there are specific set asides for <i>High Risk Rural Roads</i> and for Railway-Highway Grade Crossings. Every state is required to develop a Strategic Highway Safety Plan that involves a comprehensive, collaborative and data driven approach of highway safety.	Programmed through WACOG and ADOT.
Federal Transit Administration (FTA)	Federal Transit Funds administered by ADOT Multimodal Transportation Division.	 Section 5310: Formula Grants for Special Needs of Elderly Individuals and Individuals with Disabilities Section 5311: Formula Grants for rural and small urban public transportation Section 5313: State Planning and Research Programs 	Application to ADOT Multimodal transportation Division

TABLE 15. MATRIX OF KEY FUNDING SOURCES

Fund Name	Description	Eligible Uses	Application Process
Community Development Block Grants	Funds provided by the Federal Office of Housing and Urban Development.	Construction of capital improvement projects that benefit low to medium income groups. Projects that alleviate slums or address an urgent need such as circumstances caused by a natural disaster may be eligible. A transportation improvement project must be located in a census tract or block group with at least 51 percent of the population in the low and moderate-income group.	Application submitted to Federal Office of Housing and Urban Development.
		State	
Highway User Revenue Fund (HURF)	State funds, derived from fuel tax and VLT, administered by ADOT	Nearly any capital project related to roadway improvements	Funds allocated to jurisdiction as proportion of population
Local Transportation Assistance Fund (LTAF)	State funds derived from lottery sales	General transportation improvements	Funds allocated to jurisdiction as proportion of population
Off-Highway Vehicle (OHV) Recreation Fund	State funds as a portion of total license tax on motor fuel.	Designation, construction, and maintenance of OHV recreational facilities, OHV use areas, and OHV trails, enforcement of off-highway vehicle laws, and mitigation of damages to land.	Funds distributed to the State Parks Department, and Game and Fist Department.
Arizona State Parks Law Enforcement and Boating Safety Fund (LEBSF)	State funds granted to County Boards of Supervisors intended to support boating safety and law enforcement.	Funds enforcement of boating laws to ensure safety.	Application to Arizona State Parks Department.
Economic Strength Projects Fund	State funds administered by Arizona Department of Commerce and funded by HURF.	Selected road projects that support economic development objectives.	Application to Arizona Department of Commerce.
Governor's Office of Highway Safety	Federal funds are allocated by the Governor's Office of Highway Safety to finance State and local government highway safety projects.	Projects are selected according to safety priorities.	Application to Governor's Office of Highway Safety.

TABLE 15. MATRIX OF KEY FUNDING SOURCES (Continued)

Fund Name	Description	Eligible Uses	Application Process
Municipal/Reg	gional		
Regional Area Road Fund	State law provides for the enacting of transportation excise taxes, which are subject to voter approval.	Funds eligible for road construction improvements	Fund is submitted to County voters for adoption of an excise tax.
Sales tax	Funds provided by an allocation of a portion of a municipality's sales tax.	Funds eligible for transportation improvements	Locally administered
Impact Fees*	Fee imposed by local jurisdiction on development on per unit basis	Used to fund a variety of infrastructure needs including transportation	Locally administered
Development Stipulations*	Requirements that developers dedicate appropriate ROW and build streets adjacent to project	Benefits are derived by offsetting cost of acquiring ROW and building infrastructure	Locally administered
Community Benefits	Developer forms an agreement with local government to provide certain community benefits.	Benefits are derived through commitments to local hiring and living wage jobs, construction of affordable housing off site, and traffic mitigation/traffic calming measures.	Locally administered

TABLE 15. MATRIX OF KEY FUNDING SOURCES (Continued)

*if implemented

Notes: (1) State budgetary concerns resulting from the 2008 Recession caused the Arizona State Parks Department to cancel the LEBSF programs and other grant programs in 2009.

(2) ADOT has recently adopted a policy providing that, on a case-by-case basis, a private sector nonprofit agency may be the recipient of Section 5311 funds.

(3) As of this writing, no LTAF monies will be available for transportation purposes in Fiscal 2011.