



TOWN OF PAYSON TRANSPORTATION STUDY

WORK PLAN

1. INTRODUCTION & STUDY OBJECTIVES

A. INTRODUCTION

As touted by Payson tourism advertisements:

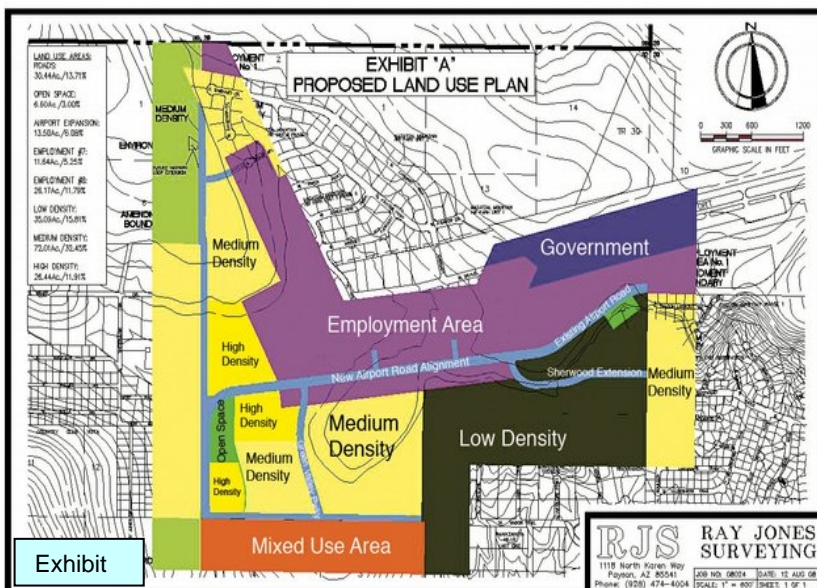
“Payson is one of Arizona’s jewels, where you can experience the beauty of dramatic mountain vistas, the serenity of wide open spaces, and a rich western rodeo heritage along with a variety of outdoor adventures and first-class accommodations and entertainment.”

Payson, located in the heart of Arizona’s rim country, is a desirable recreation destination for visitors from the Phoenix metropolitan area and through out the state of Arizona. This desirable location and influx of visitors causes a significant strain on the current transportation system within the core of the town and through out the study area.



Pending and recently completed United States Forest Service (USFS) land exchanges will have also a direct impact to the future development of the Payson area and future transportation needs. Approximately 222 acres of National Forest System land within the Tonto National Forest adjacent to the Town of Payson near

the municipal airport was exchanged for roughly 157 acres of private land (owned by Montezuma Castle Land Exchange Joint Venture) adjacent to the Montezuma Castle National Monument and nearly 108 acres of private land known as Double Cabin Park Lands. Both of the private parcels are within the Coconino National Forest boundary. The 222 acres exchange resulted in the amendment of the Payson General Plan in August 2008 to include the newly developed airport land use plan depicted in Exhibit 1.



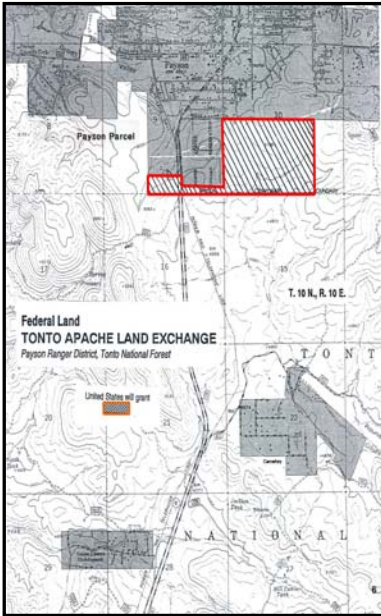


Exhibit 1 also shows the new alignment of Airport Road and the extensions of Sherwood Drive, Green Valley Parkway and North Vista Road. Additionally, the Forest Service plans to consolidate land ownership by conveying a parcel within the Town of Payson to the Tonto Apache Tribe, to acquire privately-held parcels within national forests in the State of Arizona, and to meet the expansion needs of the Tonto Apache Community (Figure 2). Consistent with the Tonto National Forest Land and Resource Management Plan (1985) and the Plans of other involved National Forests, the objectives of this project are: acquire riparian habitat for national forest protection and management, acquire a portion of one of only two known peat bogs in the State of Arizona, exchange 273 acres of Tonto National Forest lands within the Town of Payson to the Tonto Apache Tribe located within Sections 9 and 10 of Township 10 North, Range 10 East in Payson, Gila County, Arizona.

B. STUDY OBJECTIVES

The principal focus of the proposed study is to update the December 1999 Small Area Transportation Study. Significant population growth and economic development have occurred in the Payson area requiring new comprehensive transportation planning effort to address growing demands placed on the Town's roads and streets. In addition, this growth and development calls for an examination of transit needs and opportunities. The Town is particularly interested in investigating the potential benefits, in terms of general need and feasibility, of an alternate route for travelers who wish to drive through or around Payson without stopping.

The major product of the study will be a final report which contains a plan for improvements over five- and ten-year periods, and a long-range transportation plan (20 year horizon) incorporating both roadway and transit elements. The study area is encompassed by the corporate limits of Payson.

Large capital investments in transportation infrastructure will be required during the next twenty years to accommodate projected levels of growth and development in the Payson area. From research of Payson's General Plan's Circulation Element, review of the 1999 Transportation Study, the recently completed Transit Feasibility Study, and interviews with members of the TAC the following objectives will be the focal point of this Transportation Study:

- Maintain and enhance traffic safety on the transportation system.
- Review existing levels of mobility on roadways and other transportation modes.



- Ensure that adequate roadway right-of-way and funding is available to meet the growing circulation needs of the Payson area.
- Coordinate land use and circulation planning to ensure that efforts are mutually supportive.
- Address the multi-modal needs of the area by providing circulation choices.
- Evaluate the need and feasibility of an alternate route from SR 87 to SR 260 to alleviate traffic congestion through the core of Payson.
- Evaluate possible intersection improvement opportunities considering the use of round-a-bouts.
- Review the Town’s Airport master plan and incorporate it into the overall transportation improvement strategy.
- Evaluate sidewalks, bike lanes, and urban trails.
- Consider potential transit options.

2. PROJECT WORK PLAN

A. WORK PLAN, SERVICES AND PRODUCTS

The graphic below depicts the Jacobs Team proposed work plan approach and how we envision the overall activities flow to ensure a successful project. The detail tasks description follows.





Jacobs will coordinate with the ADOT Project Manager, Dianne Kresich, Town of Payson local contact LaRon Garrett (Payson Public Works Director) and the Technical Advisory Committee (TAC) throughout the course of the project. In addition, the Jacobs Project Manager will work closely with the ADOT PM, Payson lead contact and the TAC to develop, foster and maintain a cooperative working relationship throughout the course of the study. Jacobs is a relationship based company and we know the value of working together in a spirit of partnership. The project manager will provide technical leadership to the study team, schedule and attend meetings with the TAC, attend meetings/interviews with key stakeholders, support the public involvement process, track work progress, schedule and budget to assure the project stays on track and is progressing in a manner acceptable to ADOT and the Town of Payson. The TAC will have representatives from the following agencies:

- Town of Payson
- Gila County
- Central Arizona Association of Governments
- Arizona Department of Transportation, Multimodal Planning Division
- Arizona Department of Transportation, Communication and Community Partnerships (ADOT-CCP)
- Arizona Department of Transportation, Prescott District
- Town of Star Valley
- Tonto Apache Tribe
- U.S. Forest Service (Tonto Supervisor's Office & Payson District Office)

Jacobs will coordinate with the ADOT project manager and Town of Payson lead contact on a monthly basis to discuss project status, direction, analysis results, data collected, and future tasks. Jacobs will also solicit input from the TAC throughout the course of the study. Reports, working papers, display maps, and other materials developed for this project will be provided to the Project Manager, Town of Payson lead contact and TAC for review and comments. A total up to six (6) TAC meetings will be conducted. Jacobs' Project Manager will submit a monthly progress report summarizing the specific activities completed, information generated, contacts made, staffing requirements, percentage of study completed by task, and next month's planned activities by task.



PROJECT MANAGEMENT AND COORDINATION

- Activities:** Six Meetings with Technical Advisory Committee
 Meetings with ADOT Project Manager
 Interviews with Key City Staff and Stakeholders
 Meetings with ADOT Communication and Community Partnerships Division (CCP)

Jacobs will confer with the ADOT Project Manager, Dianne Kresich, Town of Payson local contact LaRon Garrett (Payson Public Works Director) throughout the course of the project on a monthly basis to discuss project status, direction, analysis results, study findings, and solicit direction throughout the course of the project.

Establish a TAC. A Technical Advisory Committee (TAC) will be established at the onset of the project and will comprise of technical experts from local public agencies. The TAC will provide input and feedback throughout the process and serve as liaisons to the local jurisdictions and agencies they represent. TAC members will include representatives from:

- Town of Payson
- Gila County
- Central Arizona Association of Governments
- Arizona Department of Transportation, Multimodal Planning Division
- Arizona Department of Transportation, Communication and Community Partnerships (ADOT-CCP)
- Arizona Department of Transportation, Prescott District
- Town of Star Valley
- U.S. Forest Service (Tonto Supervisor's Office & Payson District Office)

Jacobs will develop and maintain a close working relationship with the TAC and Project Manager to ensure the success of the project. A total of six (6) TAC meetings will be conducted.

Jacobs will interview key city staff and stakeholders at the direction of the Project Manager, Town of Payson local contact, and TAC to obtain information necessary for the project.

Coordination with the ADOT Communication and Community Partnerships Division (CCP). Jacobs will meet with ADOT CCP PIO Mr. Bill Williams and Consortium Consultant representative Katherine (Sunny) Bush of URS to development of a Public Involvement Plan tailored to the needs of the Town of Payson.

Working papers developed during the study **will be circulated to the TAC for review and comment.** Comments and requests will be incorporated into the working papers and final documents.

Jacobs will adhere to rigorous **Quality Assurance / Quality Control Procedures.**



TASK	PUBLIC AND AGENCY INVOLVEMENT (TECHNICAL SUPPORT)
Activities	Agency Input Meetings (provide technical support) Comprehensive stakeholder & public Outreach Plan with PI Consortium Interviews with Key Town Staff and Stakeholders (provide technical support)

Jacobs will work cooperatively with the ADOT PM, Town of Payson local contact, TAC, and the ADOT-CCP.

In the **first phase of public involvement**, Jacobs will summarize existing conditions, future projections, deficiencies within the study area. We will provide ADOT-CCP with the necessary digital data and maps to support the public involvement effort.

In the **second phase of public involvement** the consultant will summarize the analyses and results of the transportation alternatives within the study area, and the proposed program of short-, mid-, and long-range improvements. We will provide ADOT-CCP with the necessary digital data and maps to support the public involvement effort.

WORK TASK 1	REFINE THE WORK PLAN)
Product(s):	A Detailed Scope of Work Well defined study area boundary Revised project schedule

Prior to the project kick-off meeting, Jacobs will **distribute the preliminary scope**, study boundary, schedule, and staffing requirements to the Project Manager and TAC members.

At the kick-off meeting, Jacobs will first start an open discussion with the TAC and Project Manager to **identify the critical transportation planning needs** that have to be addressed by the study. We will then identify major streets and highways to be included in the study. Revisions to the scope of work and study boundary will be discussed to **better address the needs of the Town of Payson**.

Transportation vision and goals for the study will be established to serve as a guide in the development of the future transportation plan.



The revised work plan will be sent to the Project Manager and TAC for final approval. This will include dates for the TAC meetings at critical points and major deliverables time frames.

WORK TASK 2:	ANALYSE AND EVALUATION CURRENT CONDITIONS
Product(s):	Prepare Working Paper 1 (Current Conditions) TransCAD Travel Demand Model

A critical first step in the development of a comprehensive transportation system plan for the Town of Payson is to conduct a thorough inventory and evaluation of existing transportation systems and land use characteristics of the study area. Jacobs will accomplish this using the following steps:

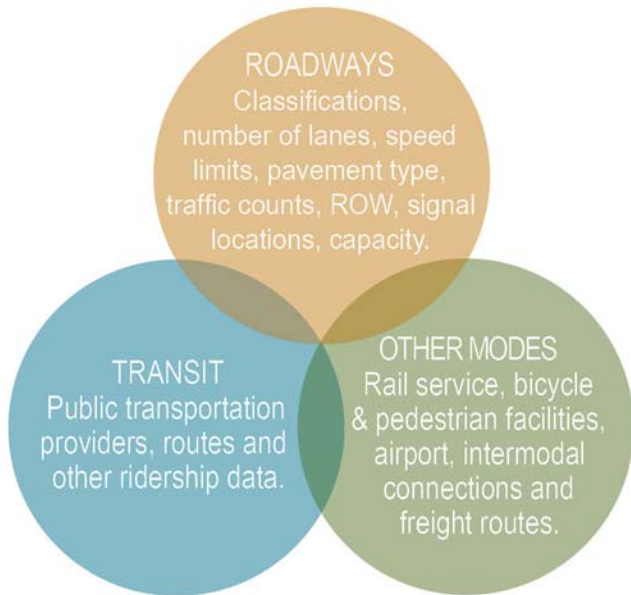
2.1 – Review relevant studies, plans, policies, and standards. Jacobs will gather and conduct a comprehensive review of all relevant regional and local planning documents including the following:

- Town of Payson’s 2003 General Plan
- Town of Payson’s 2008 General Plan Amendment
- Payson’s “Main Street” Strategic Plan
- Town of Payson’s 1999 Small Area Transportation Study
- Town of Payson’s January 2005 Transit Feasibility Study
- Gila County’s 2006 SATS
- Town of Payson’s Development Plans
- Pending and Completed Land Exchange Documents
- BQAZ Reports and Recommendations
- Town of Payson Airport Master Plan
- Town of Payson Trail System Plan
- Town of Payson Design review regulations
- Town of Payson Unified Development Code
- Other Relevant Documents and Reports



2.2 – Inventory and Evaluation of Current Conditions. A comprehensive transportation motorized and non-motorized facilities characteristics data gathering effort needs to be conducted in order to assess the mobility conditions in the Town of Payson. Jacobs proposes the following activities to achieve this objective.

2.2.1 Inventory of the Transportation System. The inventory provides a snapshot of the transportation system as it currently operates and serves as a basis for determining the future system. For this task, Jacobs will develop a Geographic Information System (GIS) based transportation inventory that will include the items listed in the graphic below.



2.3 –Inventory of Demographic and Land use Characteristics. Jacobs believes that land use is a critical input in the evaluation of current and future transportation needs. We will inventory existing land uses, demographics, major activity centers, and growth patterns for the study area. The adopted Town’s General Land Use Plan and 2008 General Plan amendment will be used in this effort. In addition, Jacobs will review CAAG’s GIS data and include relevant demographic information.

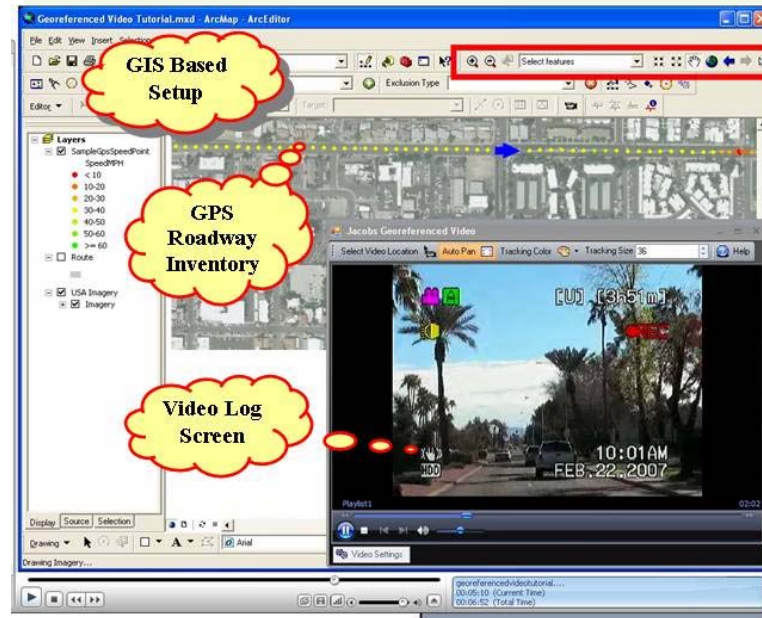


VALUE-ADDED TOOLS

Roadway Inventory Tool

As part of the base year model road network development, Jacobs will conduct a field review of major roads in the county and cities. Jacobs will utilize this opportunity to compile this data in a format that the county can utilize for future use. The roadway inventory tool provides the following benefits:

1. GPS based road centerline file
2. Aerial imagery in the background
3. Video log of the roadway system
4. One-click access to image of the road
5. Easy to use GIS interface
6. Expandable for future use





2.4 – Develop the Payson Travel Demand Model. A TransCAD model was developed for the 1999 Payson Small Area Transportation Study. Jacobs will update and upgrade the model to TransCAD version 5.0 using the following steps:

- Review and revise Traffic Analysis Zone (TAZ) to reflect current and future roadways, land use characteristics; natural barriers, etc;
- Update the roadway network to include all current roadway improvements and enhance roadway system in the downtown area;
- Allocate population and dwelling units to TAZ using Census 2000 as a base and Assessor's parcel data;
- Collect and develop employment data for the Payson area and allocate it to the TAZ;
- Obtain available traffic counts from City and augment them with new counts, where needed; and
- Calibrate model to count data
- *Create a user-friendly model interface* to facilitate the usage of the model for planning purposes.

At the end of the project Jacobs will prepare **a video tutorials** on the model usage and will develop and easy to deploy **model installation package**

2.5 – Additional Inventory Data Items. Additional items that will be gathered for this task and its data analyzed include:

- Accident history for the past five (5) years
- Characteristics of physical, natural, and cultural environments
- Access management guidelines
- Environmental Overview information

2.6 – Environmental Justice. The Payson Transportation Study will be conducted in compliance with all federal, state, and local laws, regulations, and policies that apply to long-range transportation planning. These include, but are not limited to: Title VI of the 1964 Civil Rights Act, 42 U.S.C. 2000, Federal-aid Highway Act of 1973, 23 U.S.C. 324, Section 504 of the Rehabilitation Act of 1973, 29 U.S.C. 794, The Age Discrimination Act of 1975, 42 U.S.C. 6101, The Civil Rights Restoration Act of 1987, P.L. 100-259, Fair Housing Act Amendments of 1988 (42 U.S.C. 3601-3631), Americans with Disabilities Act of 1990, P.L. 101-336, The Religious Freedom Restoration Act of 1993, The Stafford Act, as amended in 2000.

2.7 – Evaluation of Current Conditions. Once the current conditions inventory is completed, Jacobs will analyze the data to determine the current condition of the transportation system and identify where the system is deficient. Results of the analysis will be presented using easily understandable GIS maps and tables. Tasks will include the following:

- Perform roadway mid-link level of service for the planning area
- Inventory current functional classification designations of all roads in the study area
- Perform traffic circulation analysis and selected intersections LOS using HCS for the study area
- Evaluate current pavement and bridge conditions
- Perform crash analysis identifying problem intersections and roadway segments



- Identify access management practices and issues
- Inventory parking locations and potential parking needs
- Perform an overview of freight inbound and outbound commodities
- Assess current transit demand and employment centers
- Assess current air and rail transportation modes
- Assess all non-motorized transportation modes: bicycle, and pedestrian facilities and their utilization

2.8 – Document Current Conditions. A draft of Working Paper 1 and the 2008 TransCAD Traffic Demand Model results will be submitted to the ADOT PM, local Payson contact and the TAC for review and comment. Upon receipt and inclusion of relevant comments, Working Paper 1 will be published and distributed.

WORK TASK 3:	EVALUATE FUTURE CONDITIONS
Product(s):	Prepare Working Paper 2 (Future Conditions) Forecast future transportation deficiencies for roadway & transit

The purpose of this task is to forecast future travel demand and identify deficiencies and needs. Jacobs will follow the steps below to accomplish this task

3.1 – Forecast System wide Traffic Volumes for Horizon Years 2015, 2020, & 2030. A travel demand model is a valuable tool for a community such as Payson. Benefits of a travel demand include: forecasting future year traffic volumes on a system-wide roadway network, evaluate various roadway improvement scenarios, assess transportation system performance, and simulate traffic interaction with neighboring communities. Jacobs will perform the following tasks to develop the future conditions socioeconomic and model inputs:

- Coordinate with ADOT’s Project Manager, Town of Payson lead contact and other staff to identify growth areas and percent build
- Forecast future socioeconomic data (population, dwelling units, and employment for each horizon year by TAZ)
- Prepare model future years input auxiliary files

3.2 – Analyze Roadway Performance with Future Demand. Jacobs will run the travel demand model to forecast system-wide future traffic volumes for each horizon year. We will then evaluate the performance of the current roadway network using level of service analysis and identify the deficiencies in the roadway system. Highway Capacity Manual (HCM) methods will be used for level of service mid-link analysis. Traffic circulation and selected intersection analysis will be conducted for the planning area for the 2015, 2020, and 2030 horizon years. **The main focus of the study will be on the roadway element.**



WORK PLAN: ADOT P.O. T08-49-00001 (TD 0263)

3.3 – Transit Demand Estimation. For the transit element, Jacobs will review the recently completed Public Transit Feasibility Study and evaluate the potential for the establishment of a transit service. Based on the results of the transit analysis, Jacobs may recommend further study exclusive of this Transportation Study.

3.4 – Document Future Conditions. Jacobs will prepare a draft Working Paper 2 documenting the future conditions for the study area. The working paper will be provided to the Project Manager and TAC for review and comments. Working Paper 2 will be revised to include any comments received.

WORK TASK 4:	EVALUATE CRITERIA & PLANNED IMPROVEMENTS
Product(s):	Prepare Working Paper 3 (Plan for Improvements) Develop evaluation criteria for five, ten and twenty year planning horizons Develop recommendations for all modes of transportation

The purpose of this task is to develop a plan for roadway and other improvements to address the deficiencies identified in earlier tasks for all modes of transportation. Draft transportation plans will be prepared for each horizon year.

4.1 – Identify Evaluation Criteria. Jacobs will coordinate with the ADOT Project Manager and TAC to prepare a list of Measures of Effectiveness (MOE) to evaluate various roadway alternative scenarios. MOEs will include current and future traffic volumes, congested speeds, level of service, safety, new residential and commercial developments, local and regional connectivity and transit demand.

4.2 – Develop Roadway System Alternatives. Based on the identified deficiencies and input received from agencies, public and TAC, Jacobs will develop roadway improvement scenarios that will address the following issues:

- Regional connectivity
- Recommendations to correct the deficiencies identified in Task 3
- Downtown circulation
- Pedestrian crossings
- Intersection improvement alternatives to relieve congestion
- Traffic impacts of new residential and commercial development
- Mobility solutions for both motorized and non-motorized modes
- Safety issues

Evaluation criteria will be developed for roadway improvements including new roadways, widening existing facilities, intersection improvements, signals, intermodal stations. Roadway improvements for each alternative will be coded into the updated TransCAD travel demand model to forecast traffic volumes and evaluate the effectiveness of each alternative. A potential alternate route linking SR 87 to SR 260 will be evaluated and modeled to analyze the need, feasibility, effectiveness, identify any fatal flaws and determine a



very general location for the new roadway alignment. Based on the results of the alternative route planning level review, additional planning and engineering level studies may be recommended.

4.3 – Prepare Transit Plan. Although a recent Transit Feasibility study has been recently completed in January 2005, Jacobs will prepare a transit element review, documenting the public’s interest in a local transit program. If there is a high level of interest, and potential support for public transit, a further detailed transit study could be recommended.

4.4 – Access Management. ADOT is in the process of finalizing a statewide comprehensive Access Management Program for all state highways. Arizona has experienced unprecedented growth throughout the state during the past decade. This rapid growth has resulted in sprawling development and significant increases in traffic and demands for direct access to the state highway system. This demand necessitates the need for a comprehensive access management program to preserve the function, efficiency and safety of state highways in Arizona. Without access management, highways intended as through routes gradually degrade to local service routes as areas become developed or urbanized. ADOT is undertaking this Statewide Access Management Plan to develop an access management classification system, policy and administrative rule for the State Highways, and to develop a comprehensive access management manual to guide the uniform application of access management throughout the state. Jacobs will assure that the Town of Payson Transportation Study recommendations are fully compliant with this new Program to assure the safe and efficient movement of traffic. Jacobs will also investigate the implementation of access management for some of Payson’s major arterial streets to help improve the efficiency of traffic movement.

4.5 – Prepare Short-term (2015), Mid-term (2020) and Long Range (2030) Transportation Improvement Plans. Based on input from the ADOT Project Manager, local Payson contact, TAC, public input and analysis results of the roadway system alternatives, a preferred roadway improvement scenario will be selected that best suits the future transportation needs of the Town of Payson. Transportation improvement plans for short-, mid-, and long-term will be developed and general cost estimates, funding sources, and timeframes will be included. All modes of transportation including pedestrian and bicycle elements will be analyzed and presented.

Prepare Draft Transportation Plan – Working Paper 3. Jacobs will prepare a draft Working Paper 3 documenting the proposed transportation improvement plan. The plan will summarize all modes of transportation and will address traffic impacts of new development, congestion at intersections, safety concerns, non-motorized modes, and evaluation of a proposed alternate route facility. The working paper will be provided to the Project Manager and TAC for review and comments. Working paper 3 will be revised to include any comments received.

WORK TASK 5:	PREPARE DRAFT FINAL REPORT
Product(s):	Draft Final Report



Working Paper 1, Working Paper 2, Working Paper 3, public involvement Summary Reports and other input regarding future transportation needs and recommendations will be compiled in to a final draft report and distributed to the ADOT project manager, the Town of Payson lead contact and TAC for review and comment.

WORK TASK 6:	PREPARE FINAL REPORT
Product(s):	Final Report Executive Summary Data and Software

Revisions and comments on the draft report received from the ADOT Project Manager, the Town of Payson lead contact and TAC will be incorporated into the Final Report and an Executive Summary Report will be prepared. Upon completion, approval and final acceptance of the study, 20 CD copies and ten hard copies of the final report and executive summary will be delivered to the Town of Payson; two CD copies and five hard copies of the final report and executive summary will be delivered to the ADOT Project Manager; and one CD and one hard copy of the final report and executive summary will be delivered to each member of the TAC. Each CD will contain all working papers, the final report, the executive summary, and all pertinent project documents and data. In addition, the raw data developed for the study will be provided to ADOT and the Town of Payson. The TransCAD model and data will also be provided to ADOT and the Town of Payson upon final acceptance of the project.

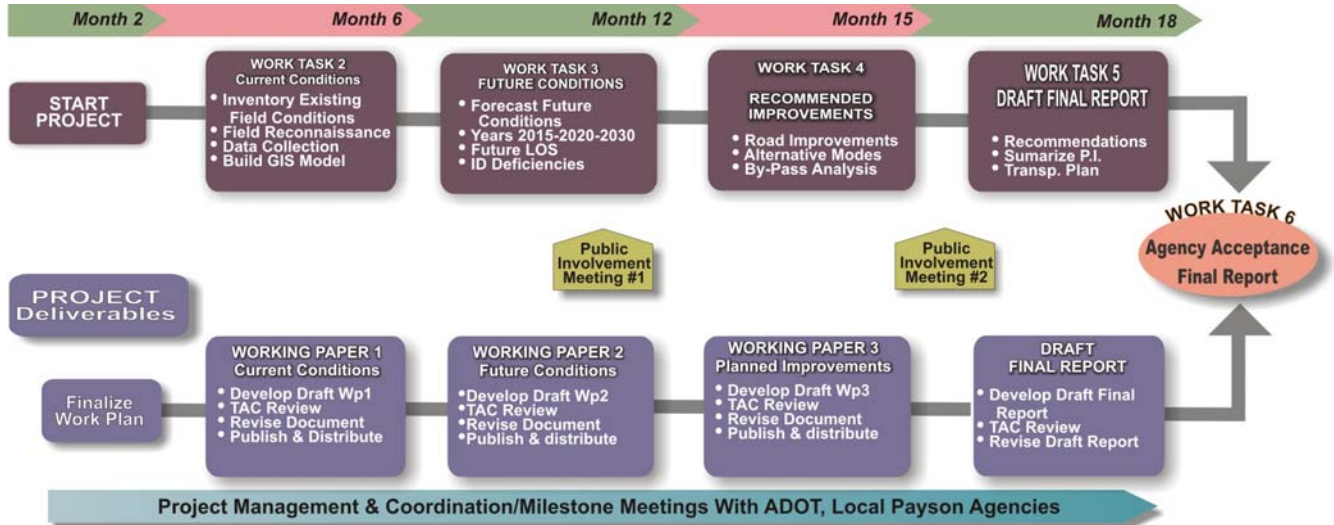
All study products will be considered “final” upon written approval by ADOT and the Town of Payson.

B. STUDY REPORTING & PRESENTATION

The study data will be developed in GIS format. The working papers and the Final Report will be developed and presented in written form with accompanying text, tables, figures, exhibits, and GIS generated maps. All data developed as part of the study will be presented to both ADOT and the Town of Payson. In addition, Jacobs has agreed to provide an additional value added tool to the Town of Payson, by providing all GIS model data and a TransCAD license upon completion of this study.



3. STUDY SCHEDULE



	Month	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
Project Management and Coordination		■				■			■		■				■				■
Task 1: Refine Work Plan																			
Activities		◆																	
Task 2: Inventory and Evaluation of Current Conditions																			
Activities						◆													
Task 3: Forecast of Future Conditions and Identify Deficiencies																			
Activities								●	★	◆									
Task 4: Develop Evaluation Criteria and a Plan for Improvements																			
Activities																			
Task 5: Prepare Draft Final Report																			
Activities																			◆
Task 6: Prepare Final Report and Executive Summary																			
Activities																			▲

● Public Meetings	◆ Draft Final Report
■ TAC Meetings	▲ Final Report and Executive Summary
★ Public Meeting Summary Report	◆ Working Papers/Technical Memorandum