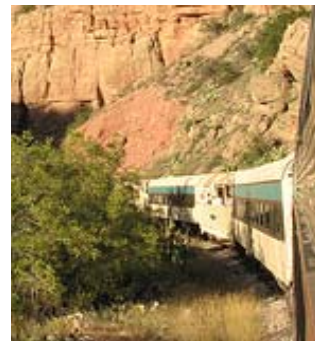





# VERDE VALLEY MULTIMODAL TRANSPORTATION STUDY



## ACKNOWLEDGEMENTS

We would like to extend our appreciation to the following Technical Advisory Committee (TAC) members whose support, knowledge, and participation contributed to this project:

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Steven Burroughs	Town of Clarkdale
Tim Costello	City of Cottonwood Public Works
George Dana	Cornville Community Association
Chip Davis	Yavapai County Board of Supervisors
Billy Garner	Yavapai-Apache Nation Tribal Council
George Gehlert	City of Cottonwood
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John Harper	Arizona Department of Transportation, Flagstaff District
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Mal Otterson	Verde Village Property Owners Association
Michael Raber	City of Sedona Long Range Planning
Kim Secakuku	Yavapai-Apache Nation
Mike Willett	Yavapai County
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# 1. INTRODUCTION

## REGIONAL OVERVIEW

The Verde Valley is a region of 673 square miles in northeastern Yavapai County with a study area population of about 72,200 in 2007. The central Verde Valley is about 100 miles north of central Phoenix and 40 miles south of central Flagstaff.

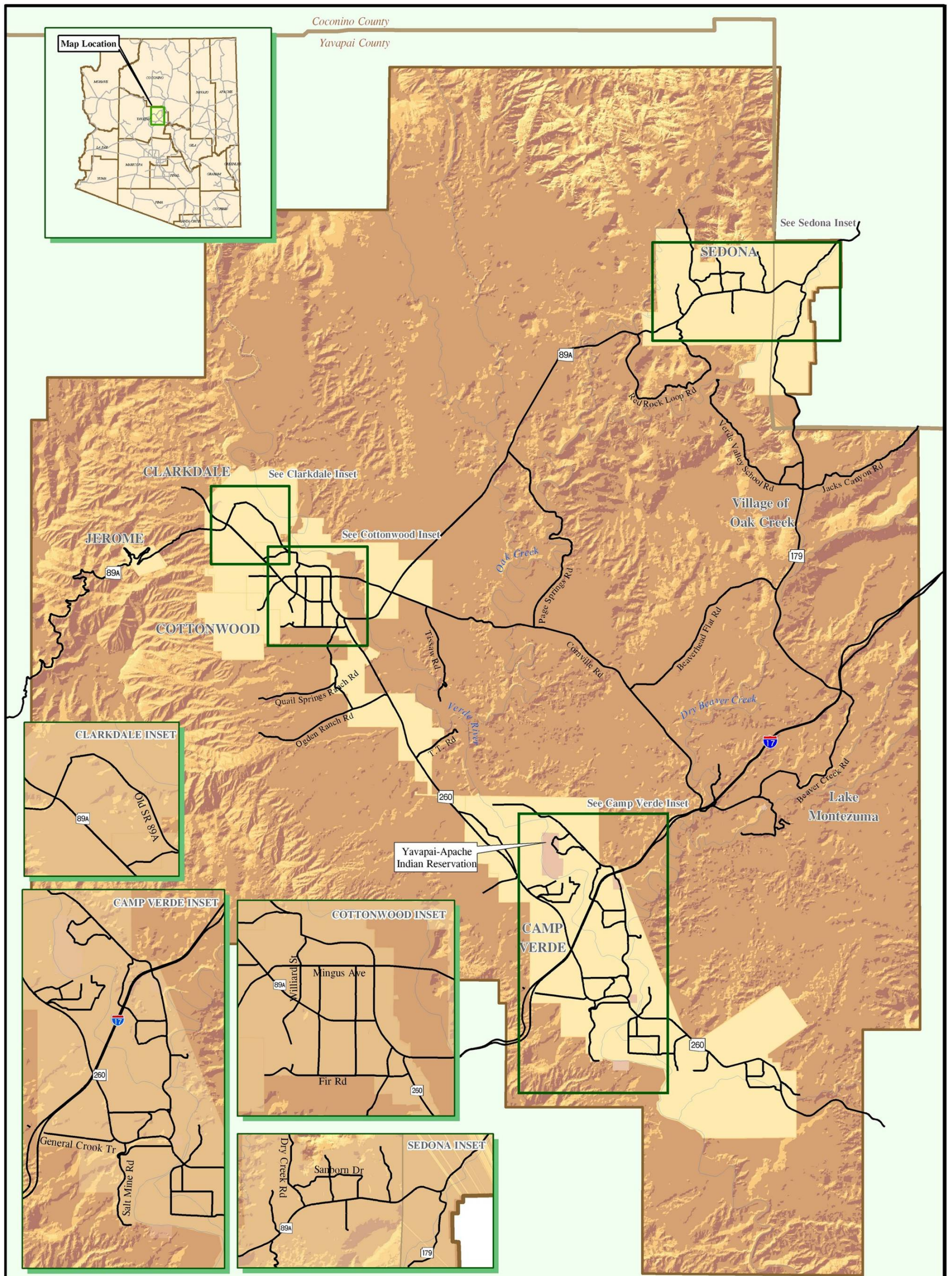
The Verde Valley study area (Figure 1-1) is nearly coterminous with the middle portion of the Verde River watershed. To the northwest and southeast of the Verde Valley, the Verde River and its tributary creeks make their way through a rugged landscape with peak elevations of about 5,000 feet. Elevations are above 6,000 feet to the east and northeast of the Verde Valley, bordering the Coconino Plateau and the Mogollon Rim. To the west of the valley, Mingus Mountain, the highest peak in the Black Hills, has a peak elevation over 7,700 feet. The mountains that flank the region are stunningly diverse in appearance.

Natural, historical, and cultural attractions sustain a thriving tourist industry and are also frequently visited by local residents. The Prescott and Coconino National Forests offer many recreational opportunities. The study area also contains the following federal and state lands open to the public: Montezuma Castle National Monument (including Montezuma Well), Tuzigoot National Monument, Dead Horse Ranch State Park, Fort Verde State Historic Park, Jerome State Historic Park, and Red Rock State Park.

The study area includes the incorporated municipalities of Camp Verde, Clarkdale, Cottonwood, Jerome, and Sedona, as well as the Yavapai-Apache Nation and unincorporated parts of northeast Yavapai County. Although the eastern part of Sedona lies in Coconino County, all of Sedona is included in the study area to better reflect traffic conditions in the region. The Yavapai County portion of the study area contains about 31 percent of the County's population, or about 69,000 persons in 2007.





The Verde Valley's transportation system serves both internal regional traffic and substantial tourist traffic. Interstate 17 (I-17) also includes a substantial component of through traffic that does not stop in the region. The mountains and rivers present transportation challenges and opportunities. They are barriers to travel, and at the same time they attract visitors who are served by features of the transportation network designed to facilitate access. The number, locations, and diversity of the tourism sites make for particularly complicated travel patterns compared to those in other regions.



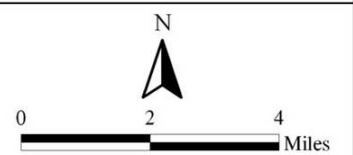


**FIGURE 1-1. VERDE VALLEY STUDY AREA MAP**

1-5-2009

-  2007 Road Network
-  2007 City/Town Boundaries
-  County Boundary
-  Study Area

*Local Roads Displayed for Reference Only*





## STUDY PURPOSE AND COMPONENTS

The purpose of the Verde Valley Multimodal Transportation Study (VVMTS) is to develop a long-range regional transportation plan to guide the implementation of transportation improvements on the roads of regional significance in the Verde Valley, including I-17, State Routes (SR), and roads on the County Regional Road System. The VVMTS is an update of the 1999 Verde Valley Transportation Study Update.

While the study's roadway recommendations are largely limited to the roads of regional significance, some major City and Town streets are analyzed as components of the existing and future roadway networks. A large part of the demand for travel on the roads of regional significance comes from trips between one city or town and another. An accurate depiction of the locations and volume of traffic flows from the cities and towns to the regional network is vital. That depiction makes possible an assessment of how the existing roads of regional significance are performing.

The VVMTS has been prepared in coordination with concurrent transit planning and trails planning done by others. Existing transit operations and short-term transit planning are described in Chapter 2, while later sections of this study address the ability of the roads of regional significance to serve transit in the future. The Yavapai County trails plan is also described in Chapter 2, while later sections of this study address the "intermodal" locations where travelers move between roads of regional significance and the trail system. Later sections also address the degree to which trails might serve a transportation purpose, rather than only a recreational purpose.

The Yavapai County Comprehensive Plan and the General Plans of each of the Verde Valley cities and towns have provided key background information for this study. *The Verde Valley Regional Land Use Plan* (2006) is of special note, as it was a recent, cooperative effort among the same communities as those who have participated in this study, and it contains a Regional Transportation chapter. The Regional Land Use Plan did not displace any comprehensive or general plan; rather it set regional goals for cooperative efforts regarding Transportation, Open Space, Housing, and Land Management Agencies.

The next section of Chapter 1 looks back to the recent transportation plans and projects that have been accomplished in the Verde Valley.

The VVMTS was funded by Yavapai County. Cities and towns and the Yavapai-Apache Nation provided data and guidance for the study. A Technical Advisory Committee (TAC) comprised representatives from Yavapai County, the incorporated municipalities, Arizona Department of Transportation (ADOT), the Coconino National Forest, the Yavapai-Apache Nation, and community groups in several of the unincorporated Yavapai County communities.

The final section of Chapter 1 summarizes the technical advisory committee and public involvement activities for the VVMTS.

Chapter 2 analyzes the socioeconomic conditions existing in 2007 and the relationship between those existing conditions and existing travel demand. Analysts devised a set of 204 small subareas of a size and shape that is appropriate to the study, called Traffic Analysis Zones (TAZ). For each TAZ there is a tabulation of the number of housing units in the TAZ and the number of persons working in the TAZ (in 9 employment categories).

Chapter 2 also describes the existing transportation system. An inventory is included of the functional classification, number of lanes, and speed limits on each roadway segment in the regional network. A catalogue of recent traffic counts on the network is provided.

Chapter 2 describes the results of the first phase of Verde Valley travel demand modeling. A traffic forecasting model was developed using the TransCAD transportation forecasting software and was checked using the year 2007 transportation network and estimated 2007 socioeconomic data. The transportation forecasting method requires that the traffic volumes estimated using the rates of trip generation for each housing or employment category be similar to actual existing traffic counts on the roadway network. The process is termed model calibration. Once the model is calibrated using existing data it is considered valid to use with projected data. The 2007 model was successfully calibrated. Modeling documentation for the VVMTS is provided under separate cover.

Chapter 3 describes the future (2015 and 2030) socioeconomic conditions and the relationship between future conditions and travel demand. For each TAZ there are projections for 2015 and 2030 of the number of housing units in the TAZ and the number of persons working in the TAZ.

Chapter 3 also describes the future committed roadway network. The committed network includes the 2007 network plus planned roadway improvements and new roadways for which funding has been committed as of 2008. Since no projects are committed beyond the year 2015, the committed network is the same for 2015 and for 2030.

Finally, Chapter 3 describes the results of the second phase of Verde Valley travel demand modeling. The calibrated model was applied using the projected socioeconomic data to devise two sets of forecast traffic volumes on the committed roadway network, one for 2015 and the other for 2030. The forecasted volumes indicated how the committed roadway network could perform to fulfill the travel demand in 2015 and 2030. Congestion increases are projected to be dramatic on some roadways between 2015 and 2030 if there are no improvements to the committed network.

Chapter 4 presents a program of roadway construction and upgrades needed over the next twenty years—by 2030—to ease congestion and to provide multimodal options with minimal disruption of the Verde Valley’s natural environment. This chapter begins with an explanation of the development of two 2030 roadway alternative model networks (Alternative 1 and Alternative 2), including the participation of the TAC in developing the alternatives.

Chapter 4 continues with an interpretation of the results of model runs for each of the two networks designed to assess performance in meeting the 2030 travel demand. A second model run was made assuming a 5 percent reduction in travel demand, and that demand was applied to the Alternative 1 network. Those results indicate the effects of a demand reduction on system performance; among the factors that might account for a 5 percent reduction in demand would be a shift to transit, telecommuting, and the use of other alternate modes.

Chapter 4 concludes with recommended improvements, including a recommended roadway projects list for 2030. The selected projects (a blend of Alternative 1, Alternative 2, and other projects) are those that would relieve congestion and that might be feasible in term of public input, land availability for right-of-way, and environmental concerns. Also, there is a list of proposed transit and travel demand management improvements. Finally, there is a description of proposed trailheads.

Chapter 5 describes the implementation plan for the recommended projects, including costs, phasing, and funding sources. Implementation may include access management both as a part of the recommended projects and also on other portions of the regional network. The access management plan underway for the State Highway System is also addressed. Finally, the chapter describes some ways in which the implementation of the regional transit plan and the County trails plan could be coordinated with the roadways recommendations.

## **RECENT TRANSPORTATION PLANNING AND IMPROVEMENTS**

Many plans have been prepared and transportation system improvements have occurred in the Verde Valley (Table 1-1) since the preparation of the 1999 Verde Valley Transportation Study Update. A table indicating progress on the 1999 recommendations appeared in *The Verde Valley Regional Land Use Plan, 2006*. Table 1-1 indicates further progress on seven of the projects between adoption of the land use plan in 2006 and early 2008.

Besides the improvements listed in Table 1-1, other notable projects are underway in the region. Three major projects on the State Highway System are:

1. **ADOT SR 89A** from Clarkdale (Cement Plant Road) to Cottonwood (Black Hills Drive). The project is under construction from 2008 through early 2009, and includes the installation of five roundabouts, new box culvert extensions, and new pavement. The finished roadway will have two lanes in each direction with a center median.
2. **ADOT SR 260** widening from Western Drive to Thousand Trails. The project is underway.
3. **ADOT Cherry Creek Safety Improvements**. The project is a part of the programming for SR 260 from Western Drive to Thousand Trails, but it originated in the SR 260 Access Management Plan (see Tables 1-1 and 1-2). The components of the project include intersection improvements at four intersections, slope improvements, to improve sight distance, and shoulder widening.

**TABLE 1-1. 1999 VERDE VALLEY TRANSPORTATION STUDY  
PROPOSED ROADWAY IMPROVEMENTS AND CURRENT STATUS**

<b>Facility</b>	<b>Plan Recommendation</b>	<b>Status</b>
SR 89A- SR 260 to Sedona	Widen to four lanes	Completed
SR 260 Camp Verde Bypass	Construct four-lane bypass	Completed
Mingus Avenue-Main Street to Cornville Road	Two-lane new extension	Construction completed
Montezuma Castle Highway	Widen to four lanes	Improved two lanes completed
Montezuma Avenue	Not in plan	Under project scoping
SR 260 Ogden Ranch Road to I-17	Widen to four lanes	Revised access management plan
<b>Progress Since 2006 On The Following Seven Projects:</b>		
SR 179- SR 89A to I-17	Widen to four lanes	Two-lane concept with roundabouts adopted and under construction
I-17- Middle Verde Road to SR 179	Widen to six lanes	Part of MOVEAZ project 16.04
SR 260 Western Drive to Thousand Trails Road	Widen to four lanes/part divided.	Construction complete April 2009
I-17-McGuireville TI	Reconstruct TI Spot capacity and operational improvements	Not Programmed. Under Construction, FY 2008
Cornville Road- SR 89A to Tissaw Road	Widen to four lanes	Safely improvements under design
Jacks Canyon Road	Widen to four lanes	Project was two-lane improvements; completed November 2007
Beaver Creek Road- McGuireville to Montezuma Well	Reconstruct	Construction began November 2007
Low Water Crossing Over Wet Beaver Creek to Indian Lakes Area	Construct crossing	Lake Montezuma secondary access study completed in May 2007

Source: *The Verde Valley Regional Land Use Plan (2006)*, status revisions since 2006 is indicated.

Yavapai County adopted new regulations for County road improvement districts by the Board of Supervisors' Resolution No. 1317 in 2001. That resolution states:

A County road improvement district is a county improvement district created for the purpose of improving a road or roads to County standard with the expectation that upon completion of the improvements the road or roads will be accepted into the County's road maintenance system.



Road improvement districts had been described as a potential funding source, in the 1999 Verde Valley Transportation Study Update. Currently, there are some road improvement districts in Yavapai County, but none in the Verde Valley.

The Yavapai County Road Ordinance 2005-1 established a uniform County Road System including acquisition, construction, and maintenance for all public roadways under the jurisdiction of the Yavapai County Board of Supervisors. The ordinance specifies that a road inventory shall be maintained and that the County shall indicate in that inventory those roads that are maintained by the County. The ordinance also specifies the Board of Supervisors' procedures for adding roads into county maintenance or deleting roads from county maintenance, as well as standards for public road maintenance, public road construction, miscellaneous provisions, and penalties.

Many plans that would affect the Verde Valley Region's transportation system have been completed between 1999 and 2008. Those plans are listed in Table 1-2.

**TABLE 1-2. REGIONAL, LOCAL, AND ADOT PLANS COMPLETED 1999-2007**

Title and Date		Summary
<b>Regional and Local General, Comprehensive, and Transportation Studies and Plans</b>		
Verde Valley Regional Land Use Plan	2006	Plan revisits ADOT and County plans to improve vehicular access and the promotion of a comprehensive trail/pathway system throughout Verde Valley.
Yavapai County General Plan	2003	Plan outlines the overall principles guiding Transportation, Land Use, Open Space, and Water Resources planning for Yavapai County. Its chief transportation goals are:
(Incorporates the four community plans below.)		<ul style="list-style-type: none"> <li>• Design roadways to complement Yavapai County vision;</li> <li>• Provide for public transportation systems; and</li> <li>• Implement county-wide and community systems for both pedestrians and bicyclists</li> </ul>
Yavapai County Community Plans, 2003		
Big Park	(1998)	Special studies, original preparation dates at left, but all readopted as a part of the General Plan 2003, that serve as an in-depth guide to future land use, development, and growth for unincorporated areas within Yavapai County.
Cornville	(1986)	
Red Rock Dry Creek	(1992)	
Beaver Creek	(1996)	
Sedona Community Plan	2002	Sedona's Community Plan describes, evaluates, and promotes existing and desired future conditions for the community of Sedona.
Soldiers Pass Road Area Traffic Study (Sedona)	2006	Analyses options for city street modifications both north and south of Highway 89A, roundabouts, traffic signals, and access control at different intersections in the study area.
City of Cottonwood, General Plan	2003	Conceptual framework to meet the projected transportation needs of the community, defines Street Classification Map, and future corridors.
Town of Camp Verde, General Plan	2004	The plan includes recommendations for transportation systems that preserve the rural lifestyle without sacrificing public safety or acceptable design guidelines.
Clarkdale General Plan	2002	Provides for an efficient, orderly system of streets and the full range of intermodal transportation opportunities, including pedestrian, bicycle, and transit.

**TABLE 1-2. REGIONAL, LOCAL, AND ADOT PLANS COMPLETED 1999-2007  
(Continued)**

<b>Title and Date</b>		<b>Summary</b>
<b>ADOT Plans</b>		
MoveAZ	2004	Arizona’s project-specific, long-range statewide transportation plan. Adheres to state statutes mandating the use of performance measures in planning and programming. Other tables in this section refer to specific Verde Valley projects included in MoveAZ.
State Route 260 Access Management Plan Final Report	2001	The purpose was to identify long-range access management strategies to preserve the operational integrity of the corridor.
State Route 260 Future Corridor Feasibility Study	2003	The purpose was to identify potential highway corridors to improve the connection between SR 89A in Clarkdale and I-17 at Camp Verde.
SR 179 Corridor Management Plan	2004	ADOT used a Needs Based Implementation Planning process, modeled specifically to produce a context sensitive solution for SR 179 that evaluated existing conditions and recommended improvements to SR 179 based on the values of the community and its present and future needs.
Statewide Bicycle and Pedestrian Plan	2003	Comprehensive Review of the state system conditions for bicyclist and pedestrians.

**AGENCY COORDINATION AND PUBLIC PARTICIPATION**

**Technical Advisory Committee**

The TAC met several times with the consultant and guided the process, see Table 1-3. Chief roles of the TAC members were: 1) to share transportation system, socioeconomic, and transit data, 2) to inform the consultant of the status of related planning projects, and 3) to review draft documents.

**Public Information Meetings and Correspondence**

Public meetings were held early in the project to discuss existing conditions and transportation issues. Public meetings were held late in the project to present the draft plan and the study findings. Three public meetings were held in November 2007 and three were held in January 2009. Each series of meetings included a meeting in Cottonwood, Sedona, and Camp Verde. The meeting format included a slide presentation by the consultant, a group question and answer period, and opportunities for one-on-one discussion as participants viewed large maps and other displays. The meetings were advertised in newspapers, on the Yavapai County Website, and through the distribution of flyers by TAC members. Participants were invited to submit written comments at the meetings or to mail or E-mail comments following the meetings.

**TABLE 1-3. TECHNICAL ADVISORY COMMITTEE**

<b>Agency</b>	<b>Representative</b>	<b>Title</b>
Yavapai County	Chip Davis	Board of Supervisors
Yavapai County Staff	Phil Bourdon	Director of Public Works
	Mike Willett	Assistant Director of Public Works
	Chris Bridges	Planner
	Enalo Lockard	Assistant Director of Development Services
ADOT	Randy Blake	Prescott District Development Engineer
	Sandra Gilbert	Planner, MPD
	John Harper	District Engineer, Flagstaff
	Alvin Stump	District Engineer, Prescott
Town of Camp Verde	Nancy Buckel	Regional Planner
	Ron Long	Director of Public Works
Town of Clarkdale	Curt Bohall	Town Council
	Steven Burroughs	Director of Public Works
	Sherry Bailey	Regional Planner
Beaver Creek	Janet Aniol	LMPOA Transportation Chair
	Maggie Holt	LMPOA
City of Cottonwood	Tim Costello	Director of Public Works
	George Gehlert	Community Development Director
Coconino National Forest	Judy Adams	Regional Planner
Town of Jerome	Brenda Man-Fletcher	Town Manager
City of Sedona	Eric Levitt	City Manager
	Charles Mosley	Director of Public Works; City Engineer
	Mike Raber	Regional Planner
Yavapai-Apache Nation	Kim Secakuku	Regional Planner
	Billy Garner	Tribal Council
Big Park RCC	John Gillam	Representative
Clarkdale Town Council	Curt Bohall	Town Councilman
Cornville, CA	George Dana	Representative
Verde Village POA	Mal Otterson	President
	Ruth Johnson	Representative

The comments from the first series of public meetings (Table 1-4) indicated several types of concerns on the part of residents. Many of the concerns about likely future roadway congestion were to be addressed after the future traffic conditions were modeled. Many of the concerns and suggestions about current traffic conditions on major regional roadways were an indicator of the array of roadway and other modes improvements that might be considered. Several participants made specific comments about transit, trails, wildlife protection, water availability and protection, and likely changes in the demographics profile and lifestyles in the Verde Valley.

The comments from the second series of public meetings (Table 1-5) are mostly concerning specific draft study recommendations. Some comments in the second series of public meetings assisted in determining priorities for the recommended projects.

**TABLE 1-4. SUMMARY OF PUBLIC MEETING COMMENTS - NOVEMBER 2007**

Public Comment	Disposition of Comment
<b>Camp Verde - 25 Participants</b>	
<p>Stoneman Lake Road predates I-17 and intersects with the Beaver Creek Ranger Station Road. There are many traffic problems along this route, worsening with growth. I advocate an additional interchange northwest of the historic Rimrock Airport. This would ease access to fast-growing neighborhoods both NW and SE of I-17. This might also provide a significant traffic flow solution, including an alternative way to connect with Cornville Road as the area grows. (2 comments)</p>	<p>An additional interchange is not recommended. A paved and upgraded N.F. 119, as recommended, would become a functional connection to the SR 179 exit. That connection would serve some of the same travel demand as would be served by the suggested additional interchange. Improvements to the McGuireville Exit in 2008-09 also assist traffic flow. Recommended 2030 Projects include three lanes in each direction on I-17 (which would require adjustments to various existing I-17 interchanges in Verde Valley). Improvements to the McGuireville Exit in 2008-09 assist traffic flow. Recommended 2030 Projects include three lanes in each direction on I-17, which would require many adjustments to interchanges.</p>
<p>I-17 interchange at McGuireville is neither scheduled nor funded for reconstruction. It is difficult for commercial projects to invest in a location where they might end up with a freeway ramp in their midst. (3 comments)</p>	<p>Improvements to the McGuireville Exit in 2008-09 assist traffic flow. Recommended 2030 Projects include three lanes in each direction on I-17, which would require many adjustments to interchanges.</p>
<p>Will the 1-lane tunnel access that Bice Road uses under I-17 be widened with either placement of the interchange or done separately, and when? (2 comments)</p>	<p>Would be considered in any I-17 widening alternatives. Bice Road area travel demand is included in study.</p>
<p>There will be a charter school on a road that intersects Cornville Road, initially with 60 students and a maximum of 150 students.</p>	<p>The socioeconomic projections account for residential, workplace, and community facility growth for future.</p>
<p>Priority areas are 2-lane segment of SR 260 and Cornville Road. The transition from a 2-lane SR 260 to 4-lanes is a problem and will cause long back-ups.</p>	<p>Recommended 2030 Projects include completion of a four-lane SR 260, and four lanes on the west end of Cornville Rd</p>
<p>Will the land management agencies be consulted?</p>	<p>The U.S. Forest Service was represented on the TAC. Arizona State Land Department and AZ Game and Fish resources were used.</p>
<p>Need to think broader in regard to possible alternatives. Need to include bicycle facilities in the plan. There is interest in a trail along the river from Camp Verde to Cottonwood.</p>	<p>Many more alternatives were added over the course of the study. Recommended for 2030 include bicycle facilities in Cottonwood, and Park-n-Ride lot locations as trailheads for bicycle routes. Yavapai County and ADOT work together on the implementation of the 2003 Statewide Bicycle and Pedestrian Plan. Yavapai County Trails Committee continues implementation of Master Trails Plan.</p>



**TABLE 1-4. SUMMARY OF PUBLIC MEETING COMMENTS - NOVEMBER 2007 (Continued)**

<b>Cottonwood - 18 Participants</b>	
Supervisor Chip Davis spoke of how this plan will show linkages among land use, economic development, and transportation modes. The highest volumes now on the county system are on Cornville Road. Since the Cornville community has stated they do not want a 4-lane road, access management is particularly important to good functioning of Cornville Road.	Study was conducted in the manner indicated.
Maybe do not improve roads. Need to include other modes besides roads – walking, transit, light rail, passenger rail. In 10-20 years there will be many boomers wishing to be mobile with either electric carts or quad chassis based small vehicles. Many of these will be incompatible with traffic lanes or sidewalks. Cars are moving toward dinosaur status, especially large motors. Multi-modal is the future.	Close coordination occurred with NAIPTA planning. Special modeling analysis was performed and indicated a 5% travel demand reduction.
The Verde Valley regional trails coalition was represented.	Acknowledged.
Sedona is looking at land use to support efficient transportation. Verde Valley workers who have “location neutral” jobs will go from 10% in 2007 to 40% by 2012, according to a consultant working with the City of Prescott. An asset inventory is being done for the Verde Valley by the Rural Policy Institute.	Acknowledged.
Description of functional classification in presentation was not clear.	Acknowledged and improved in later meetings.
A new 4-lane road from Ogden Ranch Road to Rio Mesa and Fir would impact Prescott National Forest or developed private land, with severe negative impacts: impact to national forest land; potential loss of important public land; impact to Black Canyon inventoried roadless area; and negative impacts on existing neighborhoods. Important to protect quail and javelina in the Quail Springs Ranch Road area. (2 comments)	West Loop two-lane minor collector, south only to Quail Springs Rd, became a recommendation. Some National Forest land is in the corridor.
As an alternative to the Foothills Highway, we suggest a proposed ADOT plan to create a new 260 bypass to the east, with one terminus near Thousand Trails and connecting with Highway 89A near Cornville Road. Such bypass will clearly reduce congestion at the 89A-260 intersections by a far greater amount than a foothills alternative to the west.	“Foothills Highway” as an arterial was removed from consideration early in the study. No lengthy SR 260 bypass to east of SR 260, but a short bypass SE of SR 260/SR 89A was recommended to ease that intersection.

**TABLE 1-4. SUMMARY OF PUBLIC MEETING COMMENTS - NOVEMBER 2007 (Continued)**

<p>Cornville Road currently functions as an arterial. (3 comments)</p>	<p>Portion of Cornville Road that functions as arterial was recommended for upgrade to arterial standards.</p>
<p>89A has a median and some access control between Cottonwood and Sedona, its cut-throughs give more access and have more intersections than on an interstate.</p>	<p>Acknowledged.</p>
<p>A review of the 1999 study indicated that some traffic projections for 2010 made in the 1999 study in Cottonwood have already been exceeded. Bike/alternate vehicle lanes on all new and resurfaced construction.</p>	<p>This study’s projections for 2015 indicate an acceleration in traffic growth, and were the basis of this study’s alternatives. Recommendations for 2030 include bicycle facilities in Cottonwood, and Park-n-Ride lot locations as trailheads for bicycle routes. Yavapai County and ADOT work together on the implementation of the 2003 Statewide Bicycle and Pedestrian Plan.</p>
<p>The cement plant may greatly increase production, but are planning to use rail and have most truck trips from 12 – 6 a.m. No new road through USFS lands!</p>	<p>Acknowledged. New alignments through USFS lands that were recommended include: Beaverhead Flat Road extension (4 mi), Future freeway W of SR 260 (about 2 mi), West Loop (about 2 mi).</p>
<p><b>Sedona - 6 Participants</b></p>	
<p>Land use form, water availability, and other factors contributing to transportation need to be reviewed. Is the study looking at land use and zoning?</p>	<p>Land use and zoning were reviewed extensively as part of devising socioeconomic projections.</p>
<p>Explore alternative modes of transportation (i.e., walking, transit, and rail).</p>	<p>A model alternative was run that used a 5% reduction in travel demand as input. It assumed a combination of the listed modes.</p>
<p>Why is it assumed I-17 needs widening without exploring other modes of transportation?</p>	<p>After the public meeting, modeling was done to analyze whether there was demand for I-17 widening. Recommendations in 2030 for I-17 widening were a result of that effort.</p>
<p>The importance of park-and-ride lots was discussed. A major constraint to locating park-and-ride lots is the cost of land. Participants suggested that park-and-ride lots should be located at the gateways to Verde Valley</p>	<p>Proposed park-and-ride lot locations—three by the county and six by NAIPTA—are included in the recommendations.</p>
<p>Presentation was made about the regional transit study. Meetings were held to identify transit issues and gather input from residents. Transit options include additional commuter buses and on-demand service at the Sedona Loop.</p>	<p>Presentation was one of the instances of coordination with NAIPTA transit study. Coordination was continued and the resulting transit summaries are in Chapter 4.</p>

**TABLE 1-4. SUMMARY OF PUBLIC MEETING COMMENTS - NOVEMBER 2007 (Continued)**

<b>Written Comments, through Alternative Development Phase:</b>	
Communities in our area would benefit from the extension of the Beaverhead Flat road from Cornville Road to Route 260 as access for senior citizens in our area to services in Cottonwood. Many seniors prefer not to travel I-17. This would also be an alternate route from the Village of Oak Creek to many destinations.	Beaverhead Flat Road from Cornville Road to Route 260 is recommended for 2020-2030.
Pave N.F. 119 and do not add another interchange between McGuireville and SR 179. (4 comments)	Final recommendation includes a paved and upgraded N.F. 119, and no new interchange between McGuireville and SR 179.
The Cottonwood General Plan show a short link connecting SR 260 and SR 89A via the southeast quadrant using Fir Street or Rodeo Drive. Neither Alternative shows this.	The short bypass of the SR 260 and SR 89A intersection via the southeast quadrant using Fir Street is in the final recommendations.

**TABLE 1-5. SUMMARY OF PUBLIC MEETING COMMENTS - JANUARY 2009**

<b>Public Comment</b>	<b>Disposition of Comment</b>
<b>Cottonwood - 24 Participants</b>	
"Western Loop" would cut off forest land and will negatively impact adjoining property values, open space, wildlife habitat, and water table. Utilize existing roads to connect Cottonwood to SR 260.	West Loop two-lane minor collector, south only to Quail Springs Rd, is a final study recommendation. Some National Forest land is in the corridor.
For any "New" road on Forest Land, please understand impacts on that land use, forest land, aquifers, wildlife habitat, view sheds, and especially near the Mingus Black Hills Foothills.	A wide corridor is identified for the West Loop. NEPA studies for any USFS lands and an alignment study would take place before alignment would be selected.
I support three recommendations that affect my area: Cornville Road to remain two lanes (with improvements) through Cornville. Extension of Beaverhead Flat Road to Rte 260. Page Springs Road kept as a rural byway.	Cornville Road as two lanes with access management is a final study recommendation. Beaverhead Flat Road from Cornville Road to Route 260 is recommended for 2020-2030. No changes recommended for Page Springs Road.
Notify Cottonwood Ranch Residents of discussions/meetings when identifying the West Loop alignment.	A wide corridor is identified for the West Loop. NEPA studies for any USFS lands and an alignment study would take place before alignment would be selected.
<b>Camp Verde - 17 Participants</b>	
Improve N.F. 119 to a paved, two-lane local road. Would relieve congestion on Beaver Creek Rd, which has the highest accident rate in the area and a chronic dust problem. Would shorten commutes to Flagstaff. This project was proposed in 1999, but was halted due to the higher than expected costs on other projects. (2 comments)	Subsequently the recommendation was revised to include a paved and upgraded N.F. 119.
Request the proposed date of start of construction on Hwy 260 from Thousand Trails to I-17 be designated as 2010.	The final study recommendation is for improvements of that segment of SR 260 to occur between 2010 and 2020.



**TABLE 1-5. SUMMARY OF PUBLIC MEETING COMMENTS - JANUARY 2009 (Continued)**

<b>Sedona - 16 Participants</b>	
<p>"Western Loop" needs to be extended to Ogden Ranch Road, which is already a public roadway and will be more cost effective.</p> <p>Groseta Ranch Road needs to be improved and connected to Old Highway.</p> <p>Is too premature to preserve Future Freeway Right-of-Way from I-17 to Highway 260. Improving (widening) Highway 260 should be number one priority.</p>	<p>City of Cottonwood/Yavapai county concurred: future upgrade of Quail Springs would be done only when State Land develops (recommended no sooner than 2020). Ogden Ranch is very close to Black Canyon roadless area.</p> <p>Groseta Ranch Road upgrade to minor collector is recommended for 2010-2020.</p> <p>The recommendation is for SR 260 widening to occur between 2010 and 2020. Future Freeway Right-of-Way would only be preserved when development along the corridor became more certain.</p>
<b>Written Comments on Recommendations:</b>	
<p>There is a Nature Conservancy parcel that straddles the Verde River directly adjacent to and north of the Beaverhead Flat Extension alignment. It is a mitigation property purchased with mitigation funds from sources including Yavapai County under terms of the biological opinion for Southwestern Willow Flycatcher habitat.</p> <p>There is a longer-term effort to protect and restore riparian habitat values in the vicinity of the proposed Middle Verde Extension. Options should be discussed to avoid, minimize, or mitigate the effects of any projects near the river.</p> <p>Contact the U.S. Forest Service and Fish and Wildlife Service for information on endangered and listed species in the vicinity of the proposed route.</p>	<p>A wide corridor is identified for the new road from Beaverhead Flat Road to SR 260. NEPA studies for any USFS lands and an alignment study would take place before an alignment would be selected.</p>

**TABLE 1-5. SUMMARY OF PUBLIC MEETING COMMENTS - JANUARY 2009 (Continued)**

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“Western Loop” is not the best way to accommodate future traffic flow to the area and has negative impacts on forest land in the region. The Western Loop Alignment will cover up needed watersheds that have already diminishing static water levels. The Forest Service also has a project in the proposed Western Loop area called the Black Hills Vegetation Management Project that improves the habitat for pronghorn antelope.

City of Cottonwood/Yavapai county concurred: future upgrade of Quail Spring would be done only when State Land develops (projected no sooner than 2020). West Loop from Fir to Quail Springs also for 2020-2030. Ogden Ranch is closer to Black Canyon roadless area than is Quail Springs.

Additionally, the relatively low traffic volumes carried on the Western Loop do not justify the damage and negative consequences caused by building the road. Suggest dispersing traffic onto existing roads: Fir, Peila, and Rio Mesa. Also, instead of extending Quail Spring Ranch Road to SR-260, direct traffic on Ogden Ranch Road to Camino Real.

State Land planning would indicate the densities intended for the State Land parcel. Further study would weigh the traffic benefit versus the impacts.

The County land near the proposed Western Loop Alignment is steep with deep washes; a new roadway will require deep road cuts and will permanently scar the land’s aesthetic quality. The route described will result in the condemnation of people’s homes and reduce property values.

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Wide corridor is identified for West Loop and an alignment study would take place before alignment would be selected.

## **2. EXISTING REGIONAL CHARACTERISTICS**

Travel demand in the Verde Valley study area includes the trips made among the homes and other establishments in the region, some trips starting or ending outside the region, and some through trips. The socioeconomic conditions existing in 2007 and the relationship between those conditions and travel demand are detailed in this section.

### **EXISTING SOCIOECONOMIC CONDITIONS**

#### **Geographic Framework: Designation of Traffic Analysis Zones**

Verde Valley regional travel demand is defined as the number of and geographic distribution of trips taken within the region. Each trip has a beginning location, known as a trip origin, and an ending location, known as a trip destination. The majority of trips in the Verde Valley include homes or places of employment (or both) as beginning or ending locations. Therefore, accurate knowledge of the geographic distribution of homes and employment makes for accurate analysis of the bulk of travel demand.

There are trip purposes other than those that include homes and workplaces, and the places associated with those trips are important to the analysis of trips. Examples of the places are retail shopping centers, nursing homes, schools, and churches. Many visits to shopping centers are customer trips and they do not originate at home or at work. Most places associated with other trip purposes are also places of employment. The trips are analyzed for the various trip purposes, whether for work or for other purposes.

There are a few places that are termed “special generators.” They are not associated with homes or workplaces, yet they are important destinations. An example in the Verde Valley might be Airport Mesa in Sedona, a very popular view point, particularly for viewing sunsets. Those places may be accounted for separately from the home and workplace locations.

The next two sections describe the compiling of information on the locations of homes and places of employment. The traffic analysis zones (TAZs) described in this section are the building blocks of a geographic framework used to relate the beginning and ending points of trips to the roadway network where travel occurs.

Each TAZ is devised by considering how trips flow from local roadways onto the major regional roadway network. Guidelines for the designation of TAZs are: a TAZ should be an appropriate size, taking into account the different densities of development in the region. In densely developed places a small TAZ may account for a large number of trips. Also, a TAZ should be an appropriate shape. One or more roadways that connect to the major regional roadway network should be within the TAZ. The outer edges of the TAZ are often barriers to travel, such as a steep slope or a stream not crossed by a bridge.

The guidelines were applied to the Verde Valley and 204 TAZs were designated. The TAZ base map (Figure A-1) shows the TAZs, including their unique numeric labels. The TAZs are

the geographic units for many of the thematic maps in this report, such as Figures 2-1 and 2-2. Note the relatively large number of TAZs in the more densely populated areas and the large geographic size of TAZs in the more rural areas.

## Recent Trends and Existing Conditions: Housing and Population

The population of the Verde Valley in 2007 is approximately 72,200 persons. The population in households is about 70,500 persons and the population in group quarters is about 1,500 persons. The housing units in the region number approximately 30,600. The housing unit distribution was tabulated for each TAZ (Appendix B, Table B-1).

Rapid population growth has been experienced in the Verde Valley since the year 2000, although the growth rate has been less than that of Yavapai County or the State of Arizona (Table 2-1).

**TABLE 2-1. VERDE VALLEY 2000 CENSUS AND 2007 POPULATION**

Area	1990 Census (April 1)	2000 Census (April 1)	2007 Estimate (July 1)	2007 projection
<b>Verde Valley City or Town:</b>				
Camp Verde	5,566	9,451	11,519	12,163
Clarkdale	2,216	3,422	3,986	3,783
Cottonwood	5,923	9,179	11,130	11,534
Jerome	405	329	329	330
Sedona (Yavapai & Coconino Counties)	7,720	10,192	11,134	11,222
<b>Unincorporated Yavapai County, Verde Valley Portion:</b>				
Big Park CDP <sup>1</sup>	3,024	5,245	N/A	6,783
Cornville CDP <sup>1</sup>	N/A	3,335	N/A	4,197
Lake Montezuma CDP <sup>1,2</sup>	N/A	3,344	N/A	4,385
Verde Village CDP <sup>1</sup>	7,037	10,610	N/A	12,894
Remainder of Mingus Mountain CCD <sup>3</sup>	N/A	1,263	N/A	1,743
Remainder of Verde CCD <sup>3</sup>	N/A	2,004	N/A	2,278
Remainder of Verde Valley, Unincorporated	6,613	N/A	N/A	N/A
<b>Yavapai-Apache Nation Reservation</b>	<b>650</b>	<b>743</b>	<b>N/A</b>	<b>854</b>
<b>Total Verde Valley</b>	<b>39,154</b>	<b>59,117</b>		<b>72,166</b>
<b>Total Yavapai County</b>	<b>107,714</b>	<b>167,517</b>	<b>223,934</b>	<b>220,170</b>
<b>Total State Of Arizona</b>	<b>3,665,228</b>	<b>5,130,632</b>	<b>6,500,194</b>	<b>6,432,007</b>

Source: Census Bureau, year 2000 population by place and CCD part, downloaded 9/10/07. 2007 Estimates (approved 12/15/07) and 2007 Projections (approved 12/01/06), Arizona Department of Economic Security, Research Administration, Population Statistics Unit.

Notes: <sup>1</sup> The Census Bureau in partnership with localities, defines some unincorporated areas as Census Designated Places (CDP). Some of the CDPs in the Verde Valley were first designated for the 1990 Census, while others were first designated for the 2000 Census.

<sup>2</sup>The Lake Montezuma CDP comprises the communities commonly known as Lake Montezuma, Beaver Creek, Rimrock, and McGuireville.

<sup>3</sup> The Census Bureau subdivides counties into Census County Divisions (CCD). Statistics for the "remainder of" a CCD include the CCD minus all incorporated cities and towns as well as CDPs. The CCD statistics were not readily available for 1990.

The housing unit density map (Figure 2-1) shows that the Verde Valley region has several areas of urban density as of 2007. Areas in the highest density range, 900 to over 2,200 housing units per square mile, have a population density from 2,000 to over 4,000 persons per square mile. Those highest-density areas are in Camp Verde, Cottonwood, Sedona, and Big Park/Villages of Oak Creek. In contrast to those areas, there are large areas—23 entire TAZs—mostly in the national forests, that have no housing units.

### Existing Conditions, Employment

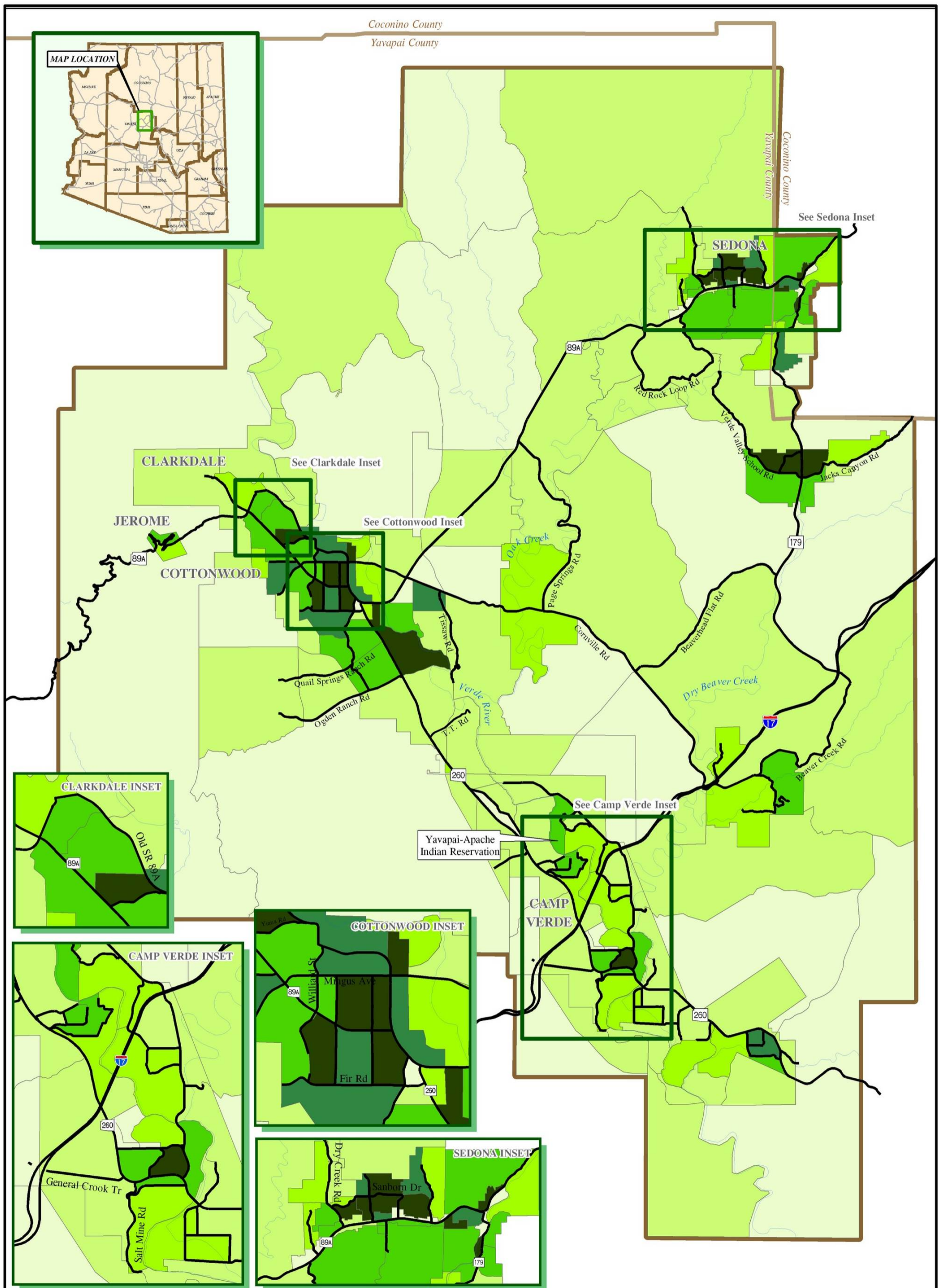
The estimated total employment for the Verde Valley in 2007 is about 23,900 jobs. The employment distribution was tabulated for each TAZ (Appendix B, Table B-4). The employment figures were tabulated into nine categories to capture trip generation characteristics that are similar within the category and distinct from the other categories. Overall, the Verde Valley’s employment distributed by category is shown in Table 2-2.

**TABLE 2-2. VERDE VALLEY 2007 EMPLOYMENT BY MAJOR CATEGORY**

Category	Number of Employees
Retail	7,429
Service	6,128
Lodging	2,743
Industrial	2,641
Office	2,282
Public	1,101
Schools	930
Casino	400
Colleges	262
<b>Total</b>	<b>23,916</b>

The dominance of tourism jobs in the Verde Valley has been documented in many studies, such as *The Verde Valley Regional Land Use Plan* (2006). The dominance of the retail, service, and lodging sectors in the Verde Valley employment summary is consistent with the overall tourism economy.

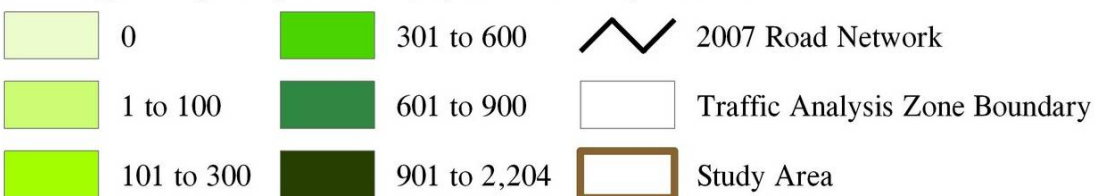
The concept of jobs-housing balance has been variously defined. A definition that permits exploration of several environmental, energy, and lifestyle issues is as follows: A community with a jobs-housing balance has a number of jobs that equals the number of workers for whom there is suitable housing within a reasonable average commute time to their workplaces. The employment to population ratio in the study area overall is about 0.33 in 2007, which is one job for every three persons in the total population and slightly less than one job per household. A large number of retirees are in Verde Valley households that do not participate in the workforce. Varying employment to population ratios in different parts of the region is associated with long commutes in some cases. Housing costs and availability are also contributors to the long commutes.



**FIGURE 2-1. VERDE VALLEY HOUSING UNIT DENSITY WITH 2007 TRAFFIC ANALYSIS ZONES**

1-5-2009

**Housing Units per Square Mile, by Traffic Analysis Zone**



N  
↑

0      2      4  
Miles

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Figure 2-2 displays the number of employees by TAZ. In the urban areas, many individual TAZs have large numbers of employers and a great variety of employment categories. In the rural areas, the TAZs with many employees tend to have employment that is clustered in just a few establishments and categories. There are large areas (over 50 entire TAZs), mostly in the national forests, that have no employment.

## **EXISTING ROADWAY SYSTEM**

The roads of regional significance in the Verde Valley include several highways on the State Highway System and several on the County Regional Road System. The State Highway System comprises an Interstate Highway and State Routes. I-17 is the backbone of the regional transportation system as the only high capacity corridor distributing traffic between Phoenix and central and northern Arizona. I-17 crosses the Verde Valley in a northeasterly direction, descending the Black Hills just southwest of Camp Verde (milepost (MP) 283) crossing the Verde River at MP 288, and leaving the Verde Valley study area at MP 303, climbing toward the Colorado Plateau.

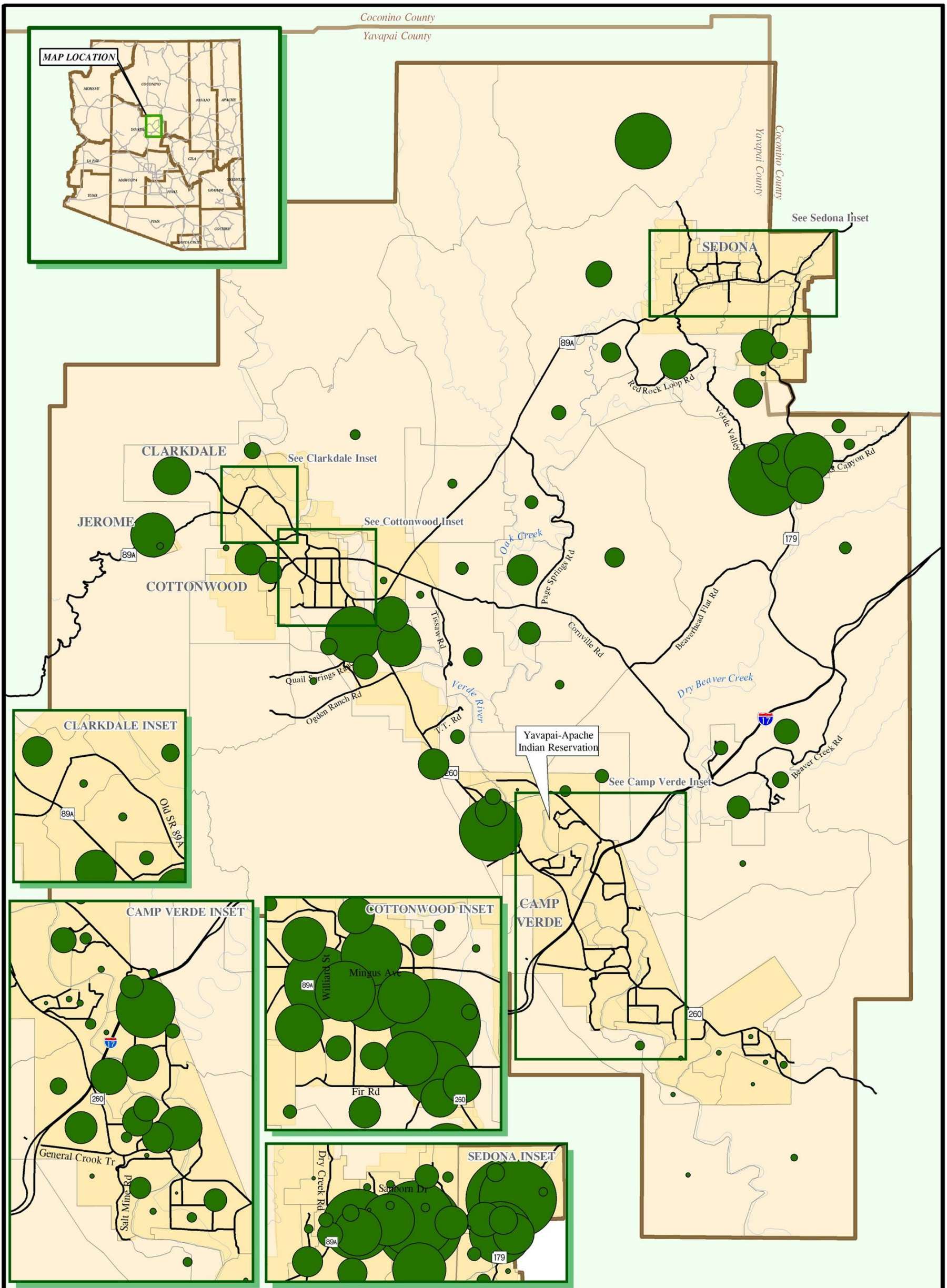
The State Routes include SR 89A, SR 260, and SR 179. SR 89A generally parallels I-17 in the northwest portion of the region and provides an alternative route to I-17 for traveling to Flagstaff from Prescott. SR 89A bisects Jerome, Clarkdale, Cottonwood, and Sedona and the route is very congested in Cottonwood. SR 89A then descends into the Verde Valley from the west, and, like I-17, climbs out of the Verde Valley to the north. SR 89A serves as a commuter route between Cottonwood and Sedona and four of its sections have special designations within the study area:

- Mingus Mountain Scenic Road as it rises to Jerome (MP 332.0 to 343.5)
- Jerome-Clarkdale-Cottonwood Historic Road, the stretch descending from Jerome to Clarkdale (MP 343.5 to 353.5)
- Dry Creek Scenic Road, a 6.5-mile portion of State Route 89A from Cottonwood to Sedona (MP 363.5 to 370.0)
- Sedona-Oak Creek Canyon Scenic Road which climbs through the Oak Creek Canyon between Sedona and Flagstaff (MP 375.5 to 390.0)

SR 260 enters the Verde Valley from the southeast and proceeds northwest through Camp Verde and into Cottonwood, roughly parallel to the Verde River. SR 260 ends at SR 89A in Cottonwood and it is very congested where there is much commercial development in the last few miles south of that intersection. SR 260 serves as a commuter route, largely inbound to Cottonwood from Verde Village and Camp Verde.

SR 179 begins at I-17 north of McGuireville and ends at State Route 89A at Sedona. State Route 179 traverses a pristine and uniquely scenic area and is used by hundreds of thousands of tourists each year. State Route 179 from MP 302.5 to 310 was previously designated





**FIGURE 2-2. VERDE VALLEY NUMBER OF EMPLOYEES WITH 2007 TRAFFIC ANALYSIS ZONES** 1-5-2009

**Number of Employees by Traffic Analysis Zone**

•	1 to 9	●	100 to 999
●	10 to 49	●	1,000 and more
●	50 to 99		

- 2007 Road Network
- Traffic Analysis Zone Boundary
- 2007 City/Town Boundary
- Study Area

N

0 2 4 Miles

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an Arizona State Scenic Byway in 1987 and was designated an All-American Road by the Federal Highway Administration (FHWA) in September 2005. It was designated according to FHWA criteria including a determination that it possesses “multiple intrinsic qualities that are nationally significant and contain one-of-a-kind features that do not exist elsewhere.” The entire 16-mile SR 179 is in the study area, beginning at the I-17 intersection and terminating at SR 89A in Sedona. The only north-south route connecting the business and residential communities in Sedona, SR 179 is also an important intercity link for residents, commuters, and commercial traffic of the region.

The County Regional Road System includes several major and minor collectors. Those roads are further discussed in the roadway characteristics sections below.

### **Functional Classification**

Figure 2-3 displays the functional class of each roadway on the State Highway System and the County Regional Road System. The functional classification of a road network groups roads that have similar design and traffic characteristics. One functional class differs from another according to the degree of access and mobility, defined as:

- Mobility - the movement of people and freight from place to place
- Access - the connection between roadways and properties along the roadways

An arterial, for example, provides mobility over long distances with minimal access to adjoining properties. A collector, on the other hand, provides access to adjacent properties rather than serving long distance travel. Roadway functional classifications were developed to reflect both urban and rural areas in the study area.

I-17 is an interstate which has limited access and carries a large volume of traffic. Until recently it had two main functions:

- To facilitate access to the region via Exit 287/SR 260 and Exit 298/SR 179N.
- To facilitate through movements bypassing the region.

However, increases in trips that enter and then leave I-17 within the region have coincided with the rapid growth of Camp Verde, Big Park, and Lake Montezuma.

Arterials serve or bypass the primary centers of activity, carry relatively high traffic volumes, and carry the primary portion of trips entering and leaving the area. Some arterials have full or partially controlled access to improve mobility. The following arterials have access control features:

- SR 89A from Cottonwood to Sedona
- SR 89A in Sedona and Cottonwood (sections)
- SR 260 in Cottonwood (the northern portion)
- SR 260 in Camp Verde (sections)

Other arterials in the study area are:

- SR 89A from the western portion of the region through Jerome to Clarkdale
- SR 89A east of Sedona
- Old SR 89A in Clarkdale and Cottonwood
- Mingus Avenue in the center of Cottonwood
- SR 260 from southern Cottonwood to I-17 and east of Camp Verde
- SR 179 from I-17 to SR 89A in Sedona

For SR 179, ADOT undertook a Needs Based Implementation Plan (NBIP) completed in December 2004, for the purposes of preserving the scenic beauty and the values of the community around the route. The SR 179 NBIP covered an area overlapping most of the portion later designated as an “All-American Road,” but also extending north to the intersection with SR 89A. The resulting construction project underway from 2006 through 2009 contains a special combination of functional improvements for this two-lane arterial, including raised medians and roundabouts at major intersections.

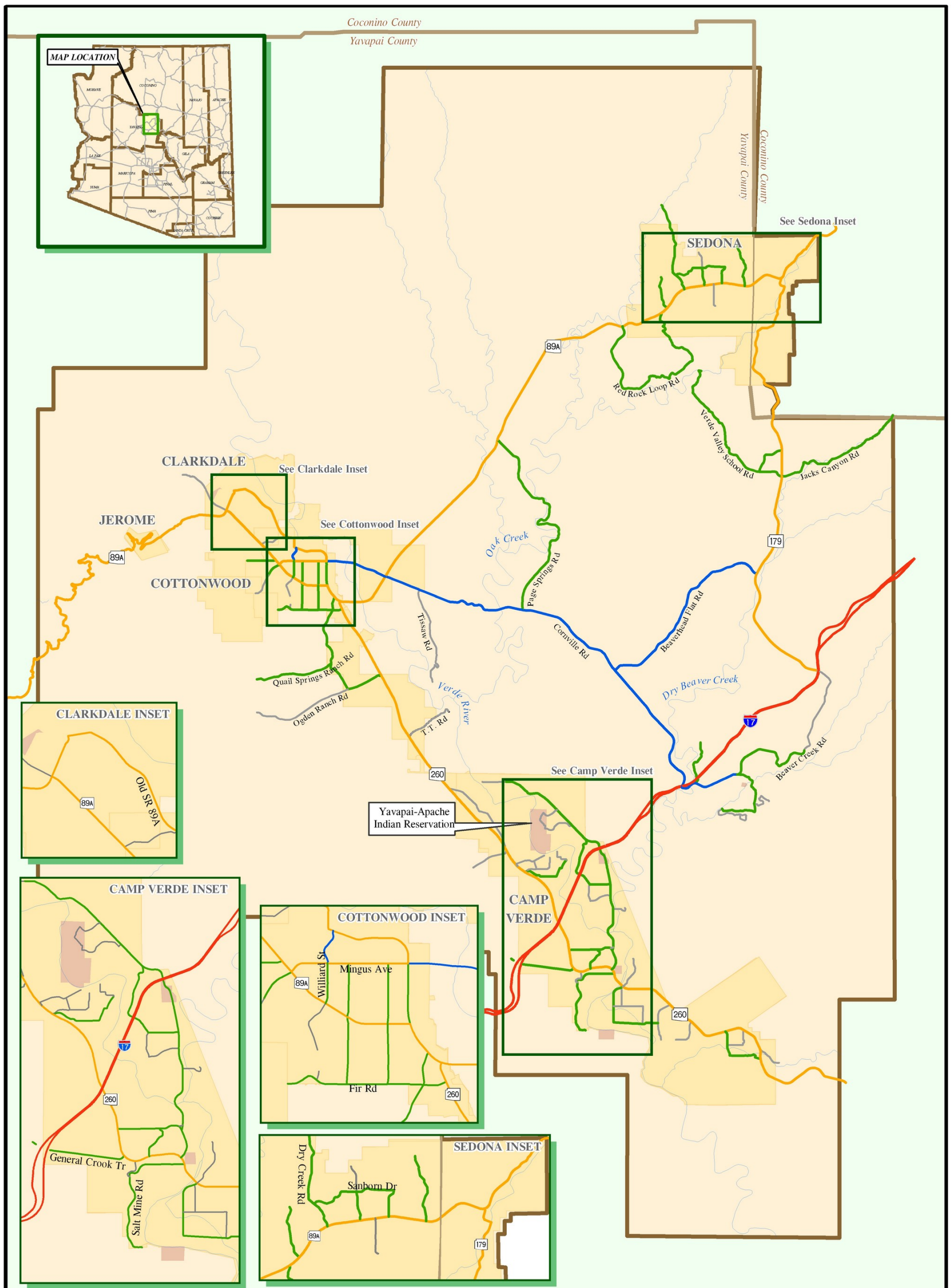
The collector system distributes trips from the arterials to the local streets. Collector streets also provide traffic circulation within residential neighborhoods and low density areas, and direct access to adjacent property. Major collectors on the County Regional Road System are Cornville Road, Beaverhead Flat Road, the eastern portion of Mingus Avenue, and Beaver Creek Road just east of I-17. Cornville Road is under study to be reclassified as an arterial.

Minor collectors on the County Regional Road System are Red Rock Loop, Page Springs Road, Jacks Canyon Road, Verde Valley School Road, and the eastern portion of Beaver Creek Road. Examples of urban collectors, important to the study, yet not on the County system are General Crook Trail, Fir Street, Old SR 279 in Cottonwood, Middle Verde Road in Camp Verde, and Sanborn Drive in Sedona. Additional collectors are in the region (Figure 2-3); generally the roadways that carry relatively large amounts of traffic are named above.

### **Number of Lanes**






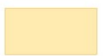



The regional roadway network predominately comprises two-lane roadways (Figure 2-4). I-17 is a limited access divided highway with a total of four lanes. However, at some locations there is considerable distance between the northbound and southbound lanes, depicted on the map by the separate lines representing each direction.

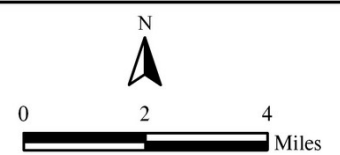
SR 260 was reconstructed from just west of I-17 east to MP 223 as a four-lane divided highway in 2004 to serve as a bypass to the south and west of the developed area of Camp Verde. The widening of SR 89A to a four-lane highway between Cornville Road and West Sedona was completed in 2004. The roadway is divided and has some access control features. Other four-lane roadways are State Route 89A through most of Sedona, Old State Route 89A, and a portion of State Route 89A through Cottonwood. The northern portion of State Route 260 from Western Drive to SR 89A is four lanes, and a four-lane portion from Thousand Trails Road Western Drive is under construction.



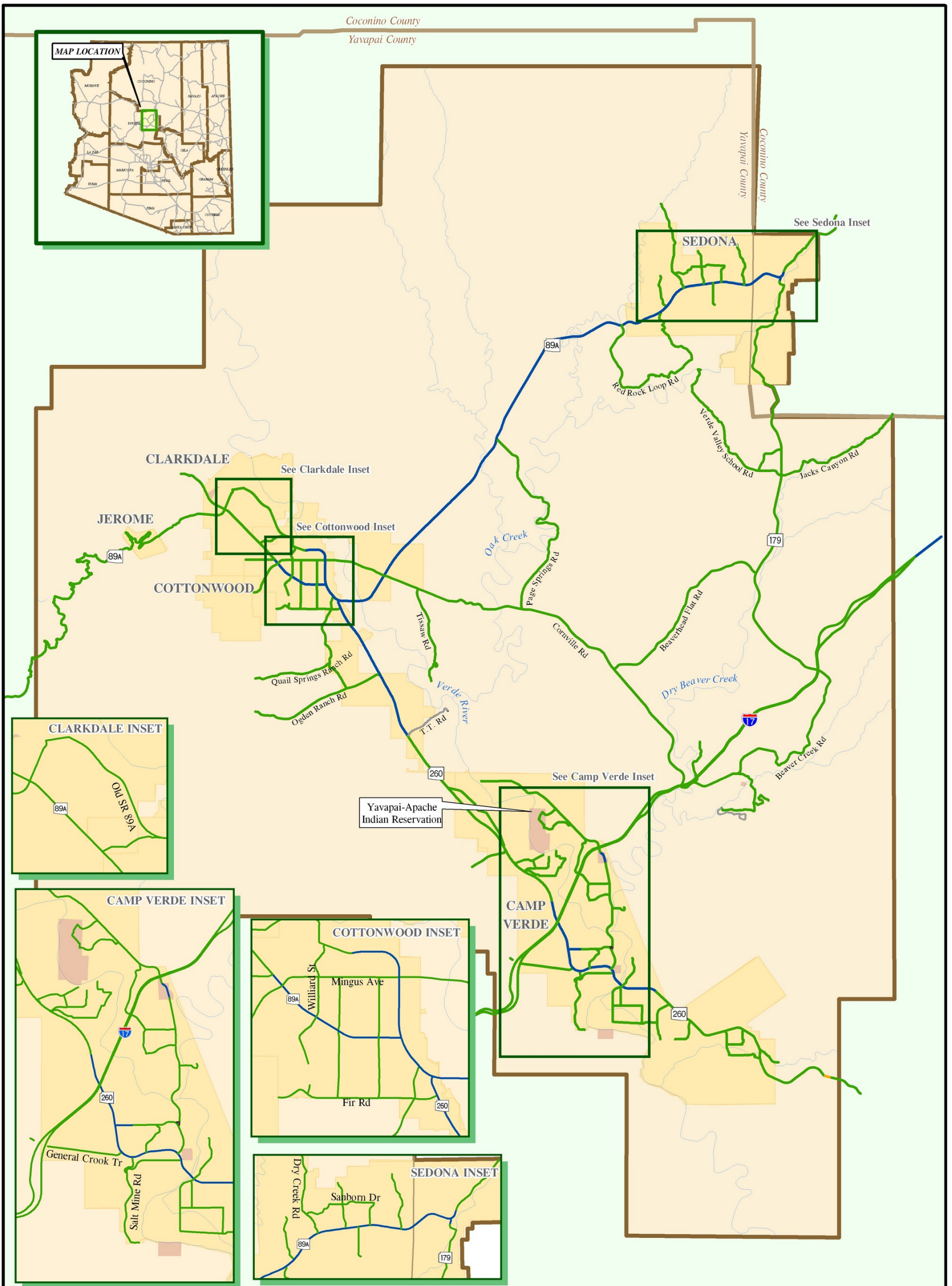
**FIGURE 2-3. VERDE VALLEY FUNCTIONAL CLASSIFICATION ON 2007 ROADWAY NETWORK**

1-5-2009

- |   |  |  |
|---|--|--|
|  Interstate      |  Minor Collector  |  River or Creek          |
|  Arterial        |  Local Roads      |  2007 City/Town Boundary |
|  Major Collector |  County Boundary |  Study Area              |
- Local Roads Displayed for Reference Only*







**FIGURE 2-4. VERDE VALLEY NUMBER OF LANES ON 2007 ROADWAY NETWORK**

1-5-2009


*I-17 has Two Lane in Each Direction*  
*Local Roads Displayed for Reference Only*

## **Speed Limits**

The fastest speed limit in the Verde Valley is 75 mph on I-17 throughout most of its extent in the region (Figure 2-5). The posted speed limits on the County Regional Road System and the State Highway System, other than I-17, generally range from 25 to 65 mph. There is significant variation in the speed limits on the state routes. The roadway design and traffic conditions make possible a 65 mph speed limit on much of SR 89A between Cottonwood and Sedona. Much of SR 260 and the southern portion of SR 179 have a 55 mph speed limit. The majority of Cornville Road and Beaverhead Flat Road have a 50 mph speed limit. Traffic conditions caused speed limits to be set at 40 mph in and near Sedona on SR 179 and SR 89A.

Within the more densely settled areas on the remainder of the roadway network, speed limits generally vary from 25 to 45 mph. The notable exceptions are where visibility is limited, tight “S” curves, switchbacks, or steep grades. For example, State Route 89A from the west through Jerome has posted speeds of 15 mph and 20 mph at various locations because of its winding path, steep inclines, and sheer drop-offs.

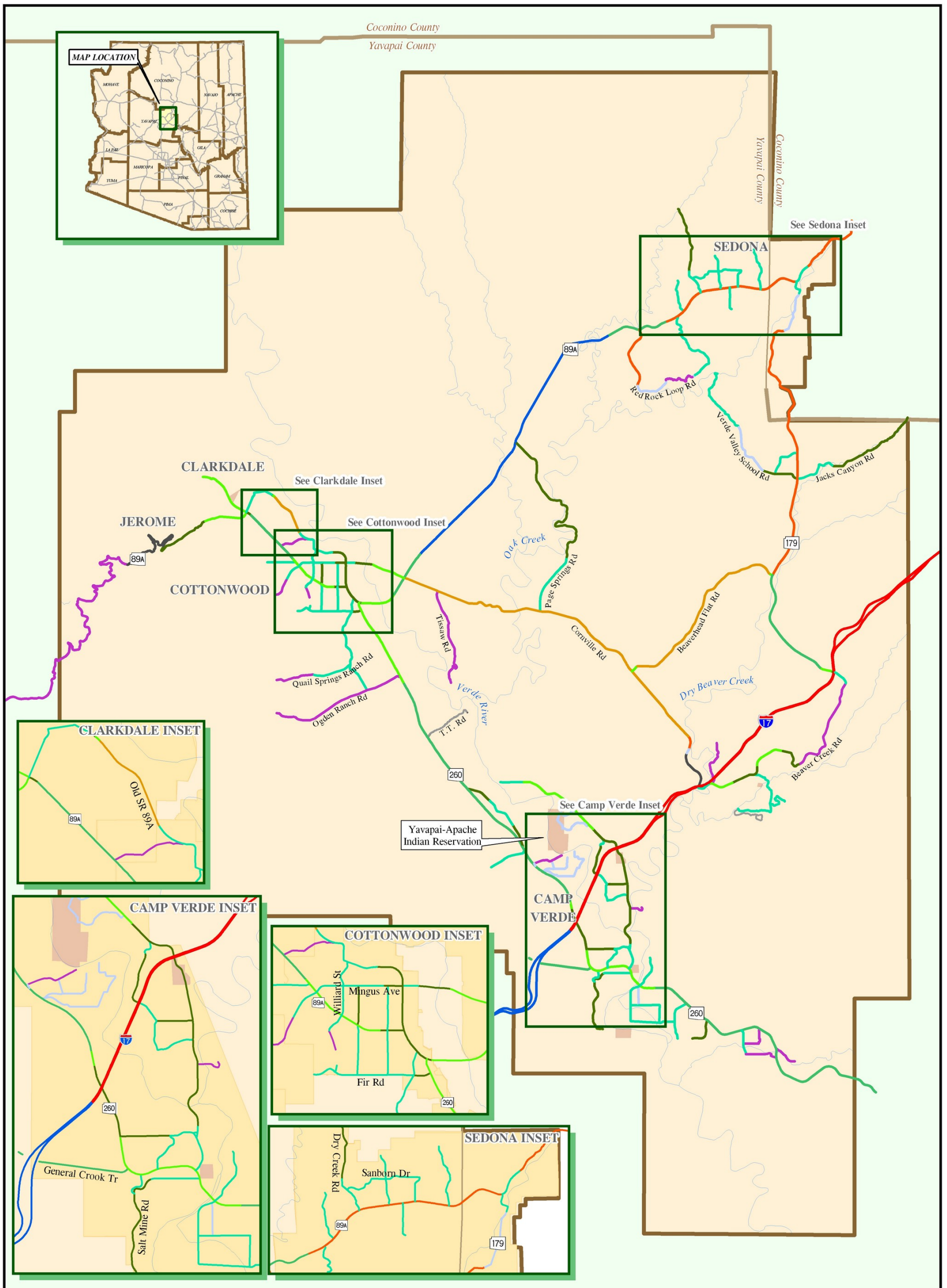
## **EXISTING TRAFFIC CONDITIONS**

Existing traffic conditions in the Verde Valley area can be described as a result of completing a traffic inventory and some modeling procedures. The inventory is a compilation of traffic counts for the roadways in the study area. The modeling procedure is the calculation of traffic volumes.

### **Traffic Counts**

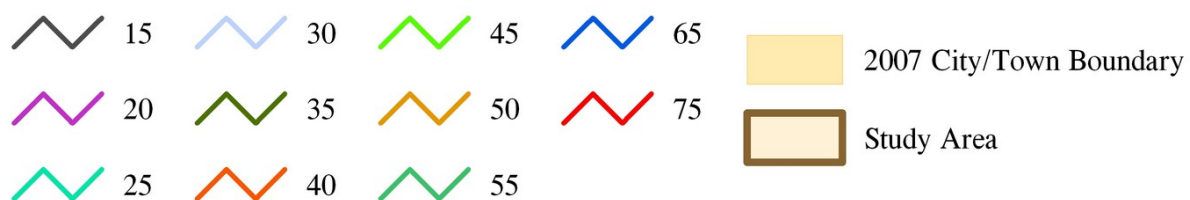
A traffic count is the number of vehicles that passes a particular location over a stated period of time. Raw counts may be adjusted by various factors so that the resulting statistic represents an average day in the year or a typical “peak hour,” which is the hour of the day with the highest traffic count. A display of the inventory of traffic counts compiled for the study (Figure 2-6) shows that average daily traffic on the State Highway System and County Regional Road System varies from 33,000 on SR 89A just west of its intersection with SR 260 in Cottonwood down to 1,200 on SR 260 east of Camp Verde. In the study area, I-17 serves moderate to high traffic volumes comprised of a high proportion of trucks and recreational vehicles. The ten highest average daily traffic counts in the study area inventory are shown in Table 2-3.





**FIGURE 2-5. VERDE VALLEY SPEED LIMITS ON 2007 ROADWAY NETWORK**

1-5-2009



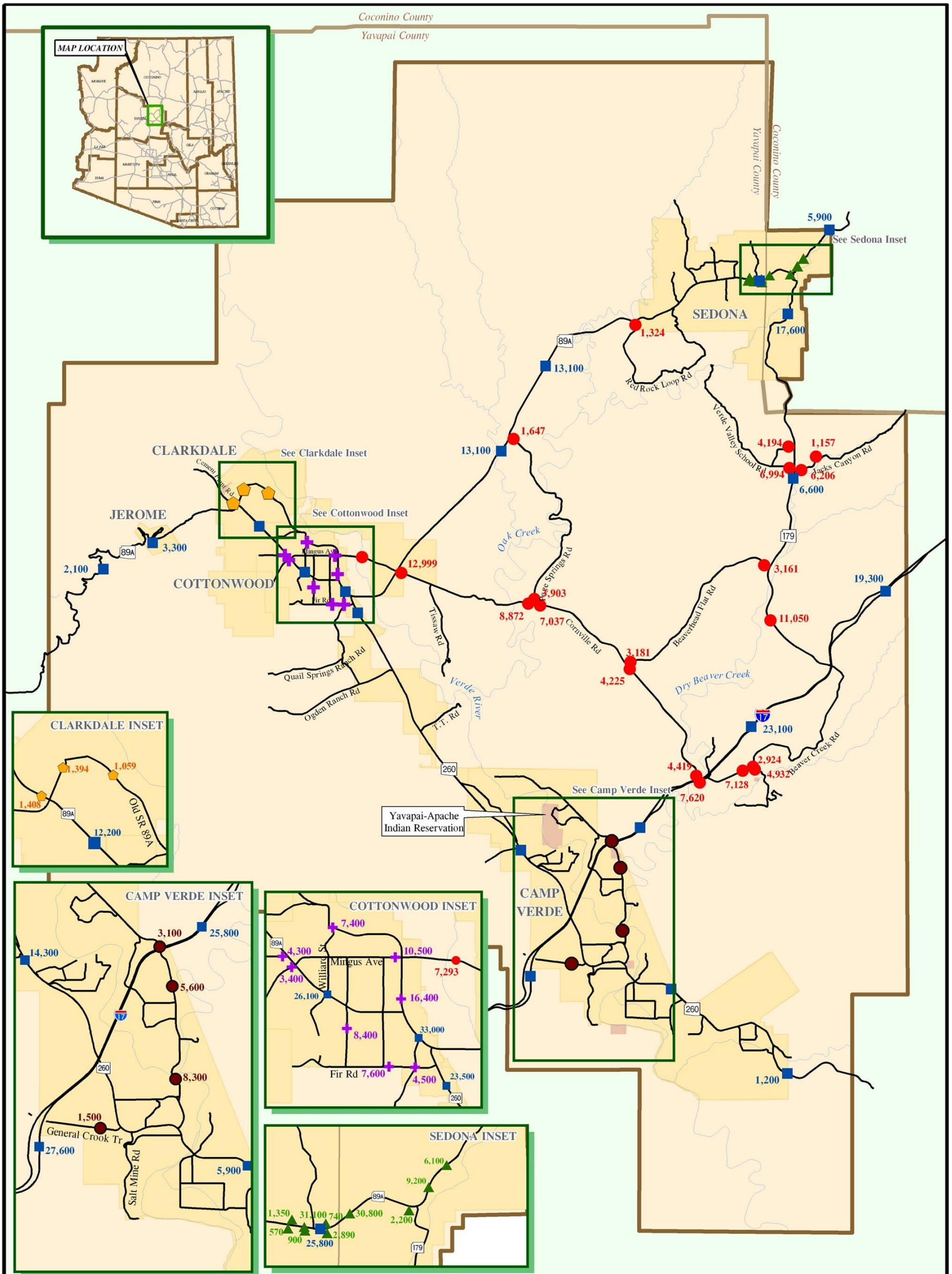
Local Roads Displayed for Reference Only

N

0 2 4  
Miles

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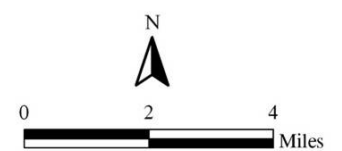


**FIGURE 2-6. VERDE VALLEY TRAFFIC COUNTS ON 2007 ROADWAY NETWORK**

1-5-2009

- Camp Verde SATS 2007
- ADOT AADT 2006
- ▲ Sedona Study 2005 and 2007 (ADT, seas. adj.)
- ◆ Clarkdale Counts
- ⊕ Cottonwood Counts 2006
- Yavapai County 2006 (24 hr.)
- 2007 Road Network
- 2007 City/Town Boundary
- County Boundary
- Study Area

Local Roads Displayed for Reference Only



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**TABLE 2-3. VERDE VALLEY HIGHEST AVERAGE DAILY TRAFFIC COUNTS**

<b>Location</b>	<b>Average Daily Traffic Count</b>
SR 89A West of Intersection SR 260 in Cottonwood	33,000
SR 89A West of Saddlerock Ct. in Sedona	31,100
SR 89A Between Les Springs Dr. and Rolling Hills in Sedona	30,800
I-17 South of General Crook Trail	27,600
SR 89A West at Willard Rd in Cottonwood	26,100
I-17 between Cornville Rd and Montezuma Castle Hwy	25,800
SR 89A East of Soldier Pass Rd in Sedona	25,800
SR 260 South of Fir Rd in Cottonwood	23,500
I-17 between Bice Rd and SR 179	23,100
I-17 North of SR 179	19,300

Source: ADOT Average Annual Daily Traffic, 2006; City of Sedona Traffic Study 2005; additional data

### **Traffic Model Calibration**

The purpose of the traffic forecasting model for the VVMTS is to characterize the performance of the future roadway network. The detailed description of the traffic forecasting process is in the Future Regional Characteristics section of the study (Chapter 3). The first important component of the modeling process, however, is model calibration. Model calibration is performed using the existing (2007) socioeconomic data and transportation network. That component is described briefly in this section.

The model was developed using the TransCAD transportation forecasting software. The transportation planning model is a representation of the study area transportation facilities and the travel patterns using these facilities. The socioeconomic data by TAZ described above is used to estimate the number of daily vehicle trips generated by each TAZ (origins), the number of daily vehicle trips attracted to each TAZ (destinations), and the assignment of the vehicle trips to the street network. The model calibration is an accuracy check. The 2007 daily traffic counts (Figure 2-6) are compared with the daily traffic volumes produced by the model. When the model matches the traffic counts within acceptable ranges of error the model can be used to test future year scenarios. Modeling documentation for the VVMTS is provided under separate cover.

### **Traffic Volumes**

The 2007 traffic volumes in the calibrated Verde Valley regional model include the following areas with the highest modeled traffic volumes (Table 2-4). The 2007 volumes are displayed on Figure 2-7.



**TABLE 2-4. VERDE VALLEY HIGHEST TRAFFIC VOLUMES 2007**

<b>Location</b>	<b>Average Daily Traffic Volume</b>
SR 89A West of Soldiers Pass Rd in Sedona	32,300
SR 89A West of Camino Real in Cottonwood	29,600
SR 89A West of SR 179 in Sedona	28,000
SR 89A West of Intersection SR 260 in Cottonwood	27,300
SR 260 South of SR 89A in Cottonwood	25,700
SR 89A East of SR 179 in Sedona	25,300
SR 89A East and West of 12 <sup>th</sup> St in Cottonwood	25,000
SR 89A West of Shelby Dr in Sedona	23,700
SR 179 South of SR 89A Intersection in Sedona	22,800
SR 89A East of SR 260 in Cottonwood	20,400

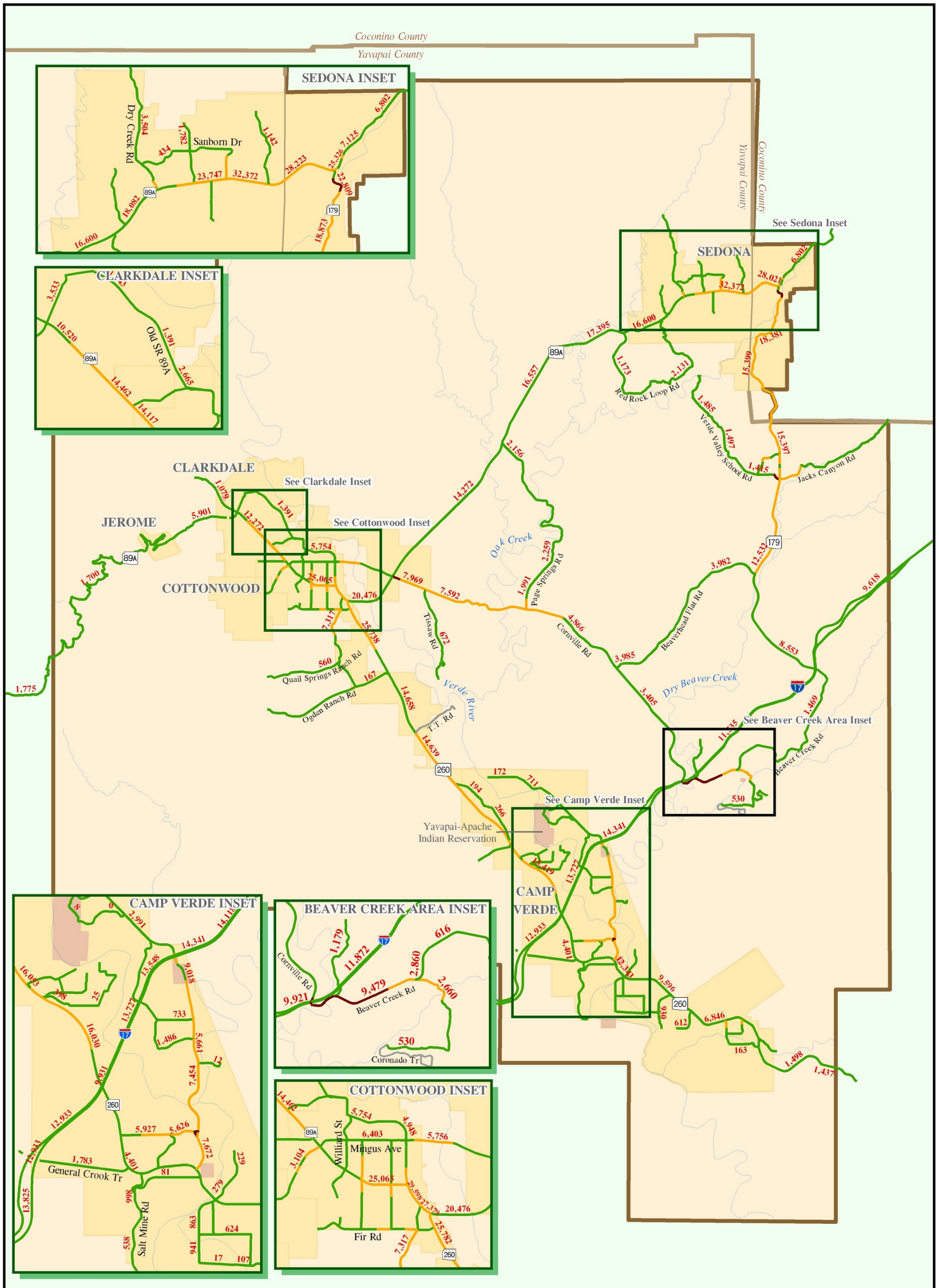
The level of congestion results from the amount of traffic a roadway carries and its capacity (the amount of traffic it is designed to carry). Many of the roadway segments with high volumes are not the most congested roadways in 2007, such as the top four segments in Table 2-4. The 2007 level of service (LOS) section below indicates the congested roadways.

Level of service is another result of modeling: a qualitative measure of traffic operations stated in terms of factors such as speed, travel time, freedom to maneuver, traffic interruptions, comfort, convenience, and safety. The best level of service is unrestricted or nearly unrestricted traffic flow, known as “Under Capacity.” The worst LOS is a congested or severely congested traffic condition, known as “At or Over Capacity.” In a rural area, the acceptable level of service is usually considered to be at the least-congested end of the “Near Capacity” range, and in an urban area, the acceptable level of service is usually considered to be in the middle of the “Near Capacity” range.

Table 2-5 presents the criteria used for determining LOS based on volume-to capacity ratio. Several characteristics contribute to a roadway’s capacity. The number of lanes is a key contributor. As the ratio of daily traffic volume to capacity increases, the LOS experienced by drivers deteriorates until it exceeds the road capacity and bottlenecks occur.

**TABLE 2-5. LEVEL OF SERVICE CRITERIA**

<b>Level of Service</b>	<b>V/C</b>
Under Capacity	≤ 0.50
Near Capacity	.51 - 0.90
At or Over Capacity	≥ .91 - > 1.00

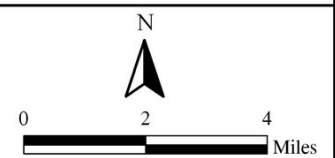


**FIGURE 2-7. VERDE VALLEY 2007 TRAFFIC VOLUMES AND LEVEL OF SERVICE**

1-5-2009

- Under Capacity
- At or Over Capacity
- 2007 City/Town Boundary
- Near Capacity
- 0,000 Traffic Volume
- Study Area
- County Boundary

*Local Roads Displayed for Reference Only*



## **2007 Level of Service**

The 2007 calibrated model levels of service on the Verde Valley network are displayed in Figure 2-7, which include a level of service of at or over capacity for portions of several roadways.

- Cornville Road is at capacity at its west end approaching the intersection with SR 89A.
- McGuireville Exit approaches and ramps to I-17 are over capacity. Beaver Creek Road is at capacity for the first 1.2 miles east of the McGuireville interchange of I-17.
- Finnie Flat Road approaches to Montezuma Castle Highway and Main Street in Camp Verde are over capacity.
- SR 179 is at capacity approaching SR 89A and Verde Valley School Road is at capacity for .25 miles before the intersection with SR 179. Note, that this level of service is before the reconstruction and addition of roundabouts at both of the intersections that are referenced.

## **EXISTING TRANSIT AND TRANSIT PLANNING**

Transit service in the Verde Valley includes:

- Cottonwood Area Transit (CAT) that serves Cottonwood, Clarkdale, Bridgeport, and Verde Village.
- Sedona RoadRunner that operates circulator service within Sedona and commuter service to and from Cottonwood.

The Sedona services are operated under the auspices of the Northern Arizona Intergovernmental Public Transportation Authority (NAIPTA), which also operates both fixed route and paratransit services in Flagstaff. The Cottonwood service is operated by the City of Cottonwood, with additional funding provided by Yavapai County and Clarkdale.

### **Cottonwood Area Transit**

Cottonwood Area Transit has been in operation for twenty years. Its services are currently deviated fixed route and demand response service. A new transit center is being developed on West Mingus Avenue with an estimated completion date of late 2009. The fixed route service runs Monday through Friday, using two buses. The route is a single loop and one bus travels it clockwise and the other counterclockwise, each completing the loop in about one hour. The route is flexible and deviations are made. The demand response (“dial-a-ride”) service uses five buses and runs Monday through Friday, as well as limited hours on Saturday by appointment only. Both types of service have a high demand.

The Cottonwood Area Transit currently operates a fleet of nine vehicles. All of these are 14-passenger “cutaway” style vehicles based on recreational vehicle chassis. All of the vehicles are wheelchair accessible. Two of the vehicles are used to protect the deviated fixed route service, and five are used for paratransit dial-a-ride service. One of the remaining two vehicles is parked on “stand-by” while the other spare vehicle undergoes periodic maintenance as needed.

### **Sedona RoadRunner**

The Sedona RoadRunner includes both fixed route service and “dial-a-ride” service in Sedona. The Sedona RoadRunner Circulator (fixed) Route has been in operation since 2006, and is free to riders. The route is a short 1.3 mile corridor that has Sedona's highest density of commercial activity and traffic, which includes Hillside Galleries and Shops, Tlaquepaque Arts & Crafts Village, and Uptown Sedona. The paratransit service uses special vans to transport disabled persons who are unable to use the RoadRunner. The RoadRunner commuter service, know as the “Cottonwood Express,” provides two commuter runs in the morning and two in the evening from Garrison Park in Cottonwood to Sedona uptown and gallery row.

### **Northern Arizona Intergovernmental Public Transportation Authority**

NAIPTA was formed to coordinate public transportation service planning in Northern Arizona. Current members of the organization include Coconino and Yavapai Counties; the cities of Flagstaff, Sedona, and Cottonwood; and Northern Arizona University.

The Vision adopted by the NAIPTA Board of Directors is “To create the finest public transportation experience making NAIPTA services an excellent choice for Northern Arizona Communities.” The Authority would like to see Verde Valley connected by quality, convenient public transportation that can facilitate affordable living, stimulate economic development, and meet the social service needs of the area.

### **EXISTING TRAILS AND TRAILS PLANNING**

The Yavapai County Master Trails Plan (MTP) was adopted on November 2, 1998. The purpose of the Yavapai County MTP is to describe goals and recommendations needed to develop and maintain a county-wide non-motorized trail system with access points into the system and to public lands in unincorporated areas of the County. The County’s Trails Committee has worked for a number of years to implement the MTP.

Trails are important for recreation and transportation. The following statement focused upon the transportation value of trails is among the educational items put forth by the county trails

committee. This statement best captures the intermodal access considerations that are to be a part of the multimodal transportation plan:

Trails have transportation as well as recreational uses, and they have a position in transportation planning for developing areas. With growth there is a need to address establishment of a connecting alternative means of transportation. Trail networks should be planned with a view to addressing environmental concerns as well as serving all the people. The Master Trail Plan (MTP) will provide an opportunity for multi-use alternative means of transportation, as well as recreational purposes.

### **3. FUTURE REGIONAL CHARACTERISTICS**

The future travel demand in the study area for the VVMTS includes the trips that will be made among the homes and other establishments in the region, some trips starting or ending outside the region, and some through trips. This section describes the socioeconomic conditions projected for 2015 and 2030 and the relationship between those conditions and travel demand.

#### **FUTURE SOCIOECONOMIC CONDITIONS**

The traffic analysis zones (TAZs) were established as the building blocks of a geographic framework for purposes of both the existing conditions analysis and the future conditions analysis. A TAZ reference map appears in Appendix A (Figure A-1). The TAZs are areas within which trips begin and end. The establishment of the TAZs is described in chapter 2, in the Existing Socioeconomic Conditions section.

#### **Future Conditions: Housing and Population**

The population of the Verde Valley is projected to grow from about 72,200 persons in 2007 to 85,400 in 2015 and 108,900 in 2030. The population in group quarters, rather than in households, will likely grow from about 1,500 persons in 2007 to 1,600 in 2015 and 2,000 in 2030. The housing units in the region will increase from about 30,600 in 2007 to 38,800 in 2015 and 49,500 in 2030.

Rapid growth is projected to continue in the Verde Valley through 2030, although the growth rate will likely be lower than that of Yavapai County or the State of Arizona. The forecasted growth rate for the region for 2007 through 2030 is 51 percent, while the growth rate for the state is 61 percent.

The projected future housing unit distribution was tabulated for each TAZ (Appendix B, Tables B-2 and B-3). A summary of the projected housing units and the projected occupied housing units, or households, appears in Table 3-1. Each TAZ is identified with a city, a town, or unincorporated Yavapai County. The boundary of the group of TAZs associated with each city or town is similar to, but not identical to, the city or town boundary.

Population projections for the entire region were compared with those prepared by the Arizona Department of Commerce (DOC) in 2006. The 2015 total population projection for this study is 2.5 percent higher than the DOC projection, while the 2030 projection is 6 percent higher than the DOC projection. Projections of housing units for each TAZ for this study were based upon the general plans, zoning, and approved subdivisions in each community. Growth in each TAZ between the year 2000 and 2007 had been confirmed using parcel and subdivision maps, aerial photographs, and building permit information. The projection of the 2000-2007 trends into the future was aided by comparing the number of homes already built in various neighborhoods with the buildout capacity of neighborhoods and specific subdivisions, using data from the Yavapai County Assessor's Office.

**TABLE 3-1. VERDE VALLEY 2015 AND 2030 HOUSING UNITS**

TAZ Areas	Total Housing Units		Occupied Housing Units	
	2015	2030	2015	2030
Town of Camp Verde	6,010	8,052	5,617	7,525
Town of Clarkdale	2,000	2,300	1,860	2,139
City of Cottonwood	7,603	10,100	6,960	9,245
Town of Jerome	182	182	155	155
City of Sedona (Yavapai & Coconino Counties)	6,982	8,256	6,426	7,595
Unincorporated Yavapai County (Verde Valley portion)	16,057	20,588	14,268	18,295
<b>Total Verde Valley</b>	<b>38,834</b>	<b>49,478</b>	<b>35,286</b>	<b>44,954</b>

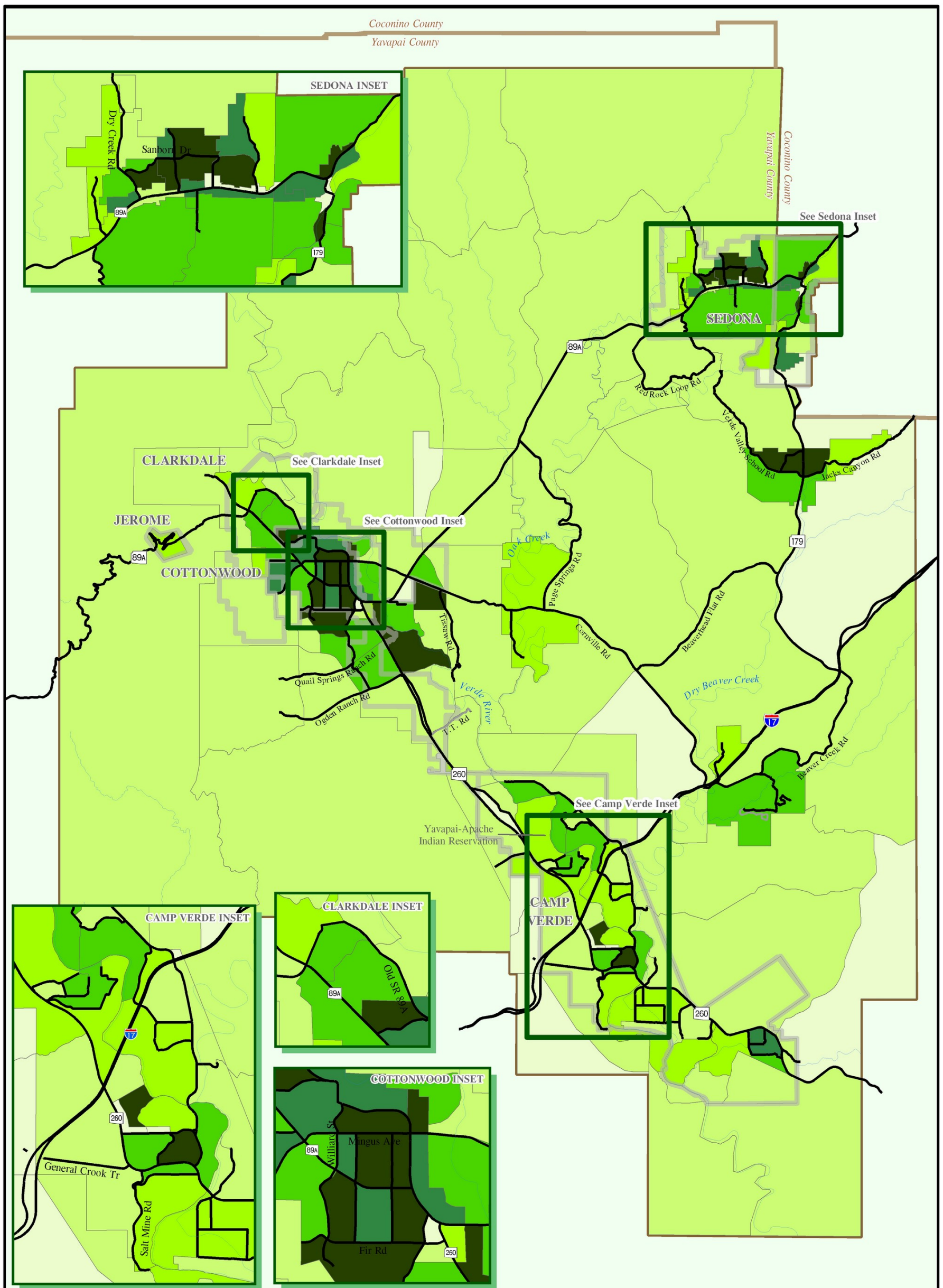
Housing unit density maps were prepared for 2015 (Figure 3-1) and 2030 (Figure 3-2). The Verde Valley region will have additional truly urban areas by 2030, which are those in the density range of 1,000 to over 3,050 housing units per square mile. Most of the highest-densities will continue to be found in the cores of the cities and towns. Generally, the areas that will add the most housing units during those years are developing areas on the edges of existing communities, including Beaver Creek/Lake Montezuma and Cornville. Some areas will open to development for the first time, including the area north of Cornville Rd across from Verde Santa Fe, the Ruskin “land exchange” area west of Camp Verde, and the large tract of state land northeast of Cottonwood. In contrast, there are large areas—22 entire TAZs in 2015 and 19 in 2030, that are projected to have no housing units. Most of the areas with no housing units are in the national forests.

### **Future Conditions, Employment**

The projected employment for the Verde Valley is about 30,200 jobs in 2015 and 37,900 jobs in 2030. The employment distribution was tabulated for each TAZ (Appendix B, Tables B-5 and B-6). The employment figures were tabulated into the same nine categories as were used in Table 2-2. The Verde Valley’s employment distributed by category is shown in Table 3-2.

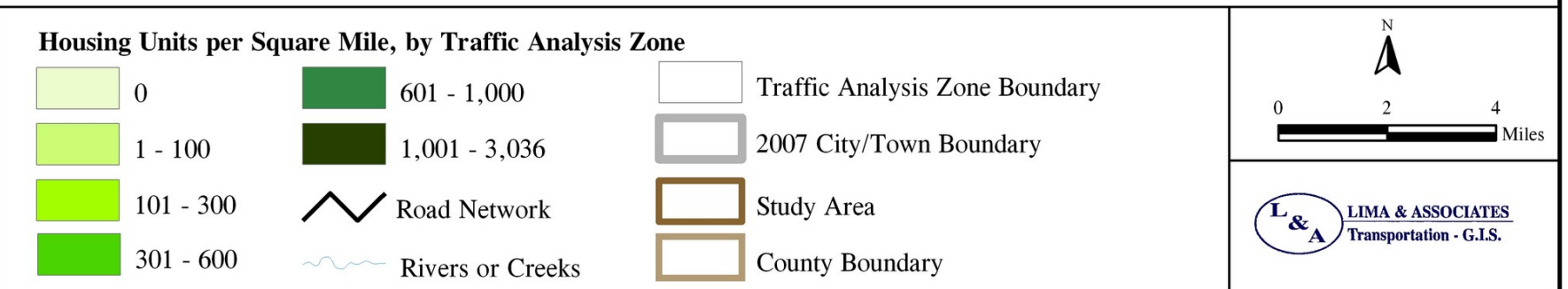
Jobs associated with tourism are projected to continue to dominate in the Verde Valley through 2030. Retail, service, and lodging employment, in that order, will be the categories with the largest numbers of employees, just as they were in 2007. The dominance of the retail, service, and lodging sectors in the Verde Valley employment summary is consistent with the overall tourism economy.



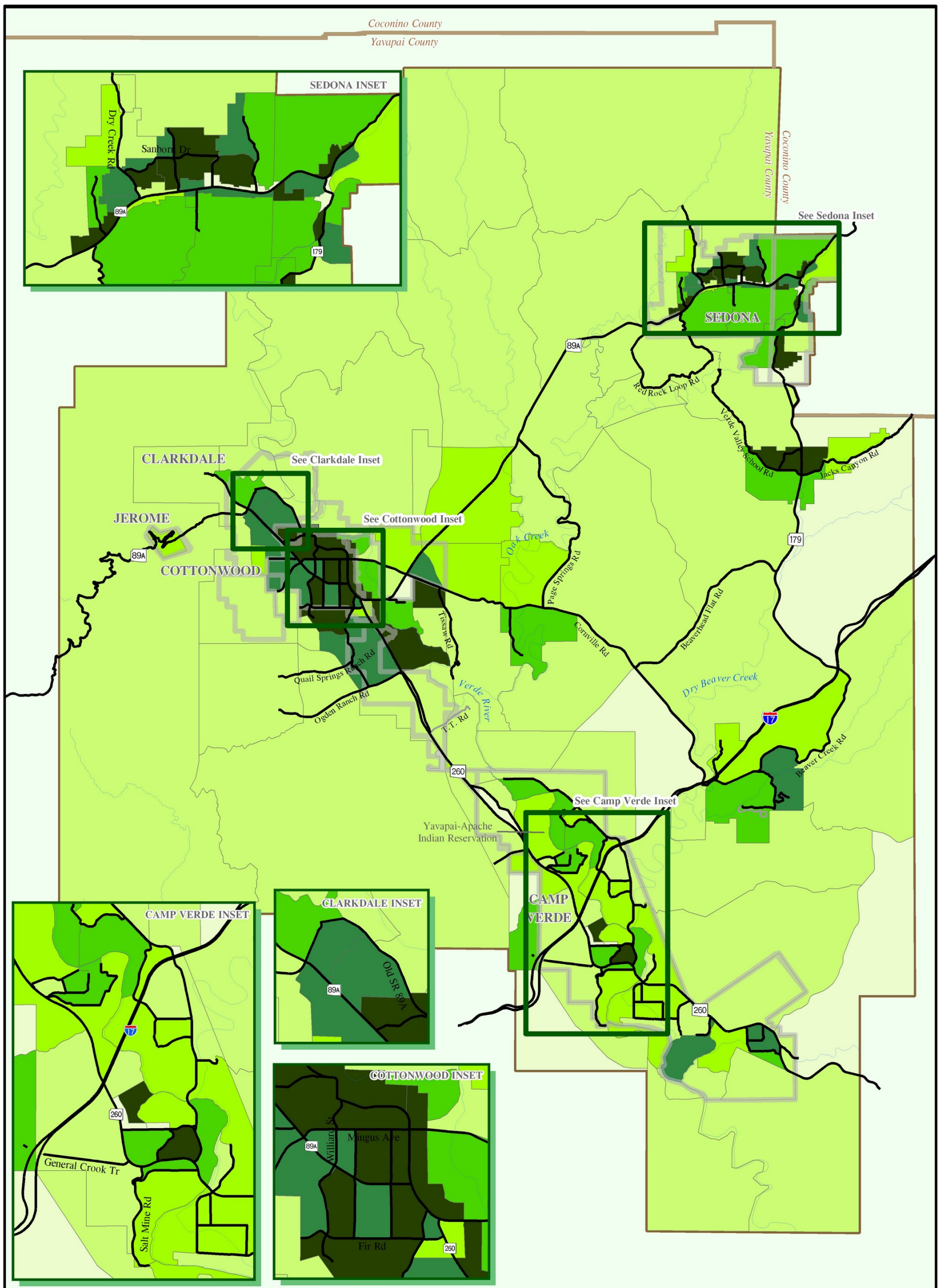


**FIGURE 3-1. VERDE VALLEY 2015 HOUSING UNIT DENSITY**

1-5-2009

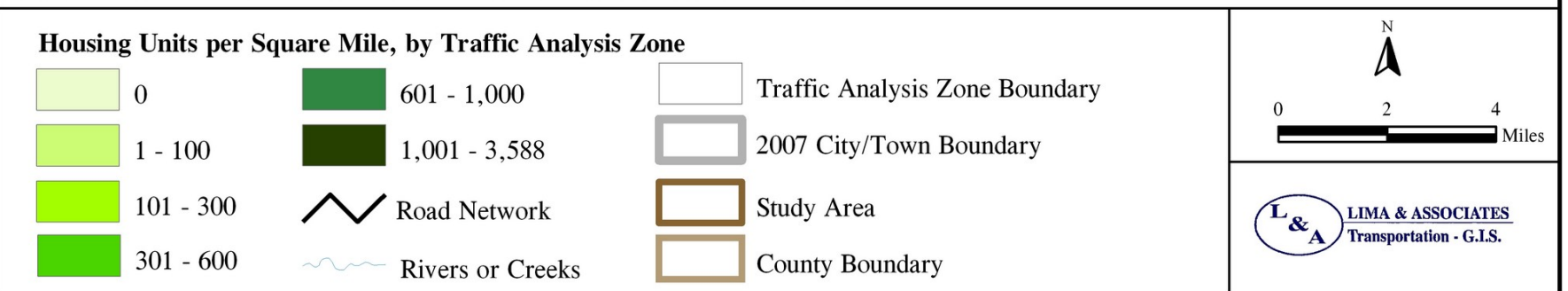






**FIGURE 3-2. VERDE VALLEY 2030 HOUSING UNIT DENSITY**

1-5-2009



**TABLE 3-2. VERDE VALLEY 2015 AND 2030 EMPLOYMENT BY MAJOR CATEGORY**

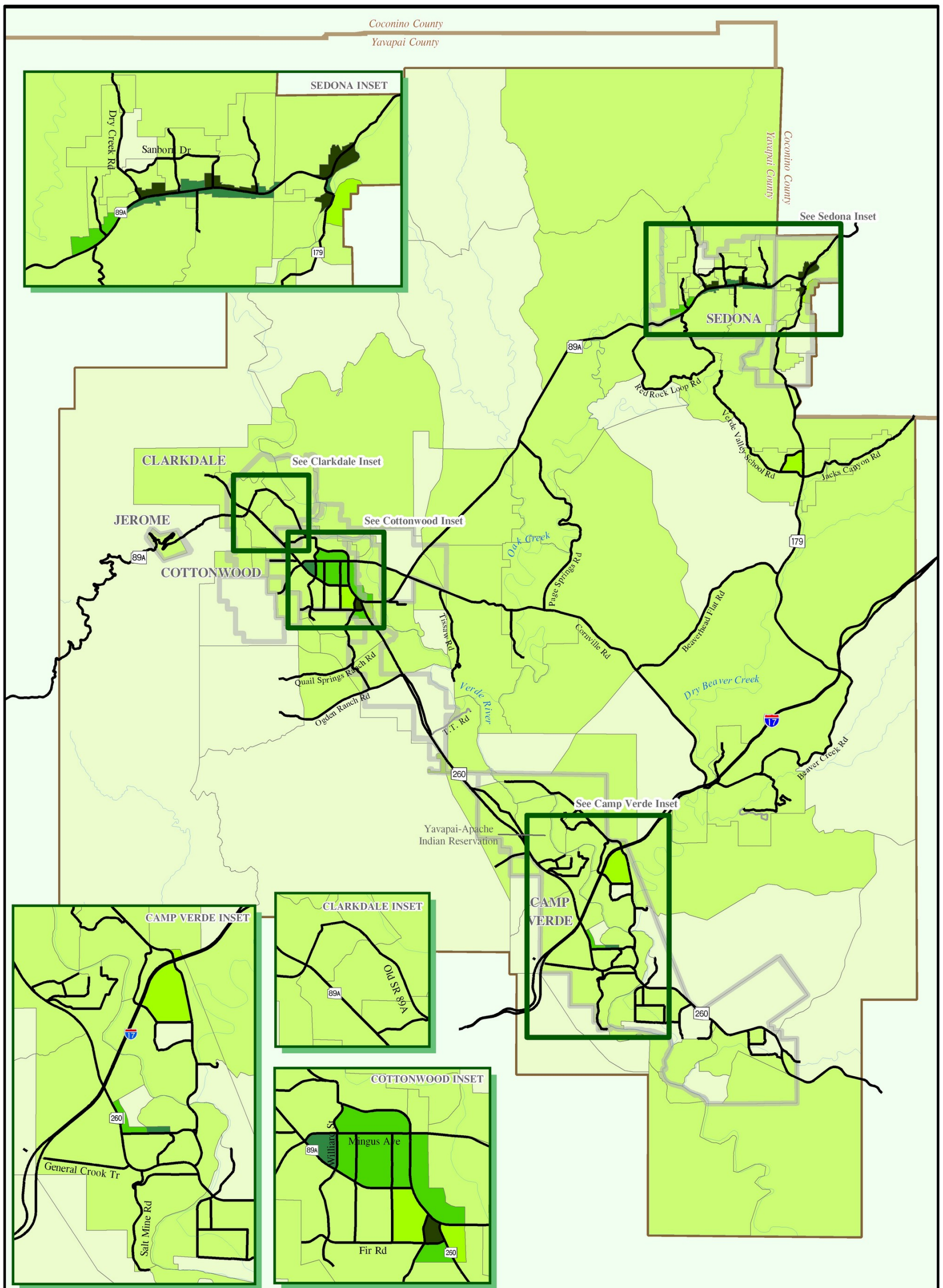
Category	Number of Employees	
	2015	2030
Retail	10,145	13,029
Service	7,460	9,185
Lodging	3,168	3,768
Industrial	2,740	3,381
Office	2,480	3,074
Public	1,953	2,481
Schools	1,360	1,932
Casino	600	600
Colleges	276	451
<b>Total</b>	<b>30,182</b>	<b>37,901</b>

Employment density maps were prepared for 2015 (Figure 3-3) and 2030 (Figure 3-4). The employment in retail, service, and office categories will continue to be concentrated in the core areas of Cottonwood and Sedona. Numerous small establishments will continue to be present along roadways in all of the cities and towns, as well as in Big Park/Villages of Oak Creek and the Verde Villages. About eight TAZs will begin to have employment in small establishments that will accompany residential development between 2007 and 2015. The single largest new employment center in the region is likely to be on the Ruskin land exchange west of Camp Verde. Conversely, large areas (over 40 entire TAZs), mostly in the national forests, will have no employment through 2030.

A group of fifteen individual establishments that account for 10 percent of the total employment in the region in 2007 will likely continue to be among the largest employers for the next several years (Table 3-3). While most of the employment in the region is concentrated in population centers as stated previously, several of the largest establishments are not in the center of communities. For example, the Enchantment Resort is northwest of Sedona (TAZ 98) and the Salt River Materials Group Cement Plant (TAZ 171) is in an industrial area north of Clarkdale. The Cliff Castle Casino (TAZ 29), in a newly developing area, has excellent access from I-17.

Several of the above employers, such as the Salt River Materials Group Cement Plant and Cliff Castle Casino, have indicated plans to add more employees by 2015. A notable new industrial employer will be the Clarkdale Metals operation in Clarkdale, where by 2015 there are to be 100 industrial workers reclaiming metals from the former mining slag pile, and by 2030 the reclamation workers will be finished, followed by a 100 industrial workers on the reclaimed land.





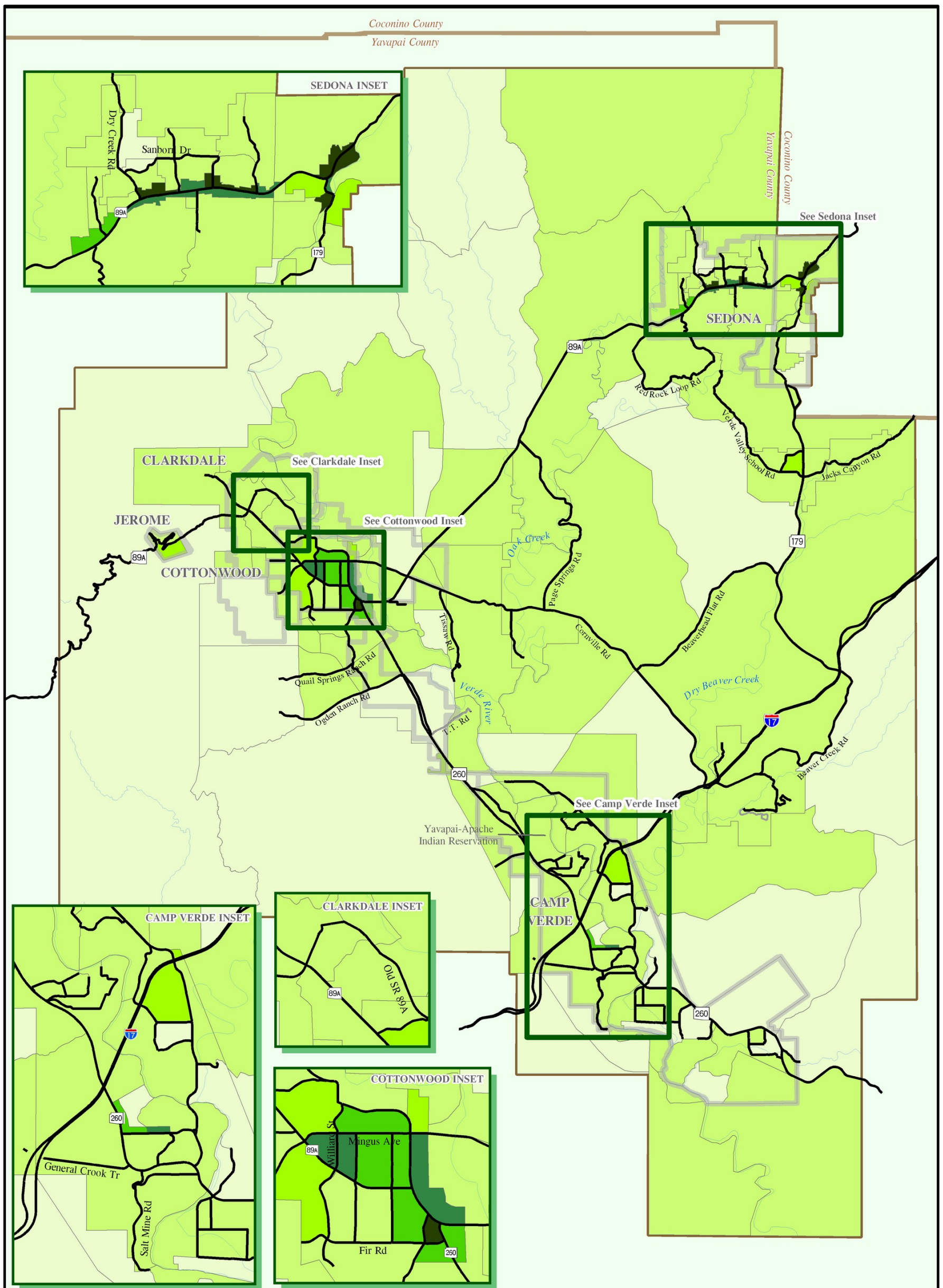
**FIGURE 3-3. VERDE VALLEY 2015 EMPLOYMENT DENSITY**

1-5-2009

Employees per Square Mile, by Traffic Analysis Zone		
	0	
	1 - 1,000	
	1,001 - 2,000	
	2,001 - 4,000	
	4,001 - 8,000	
	8,001 - 11,430	

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**FIGURE 3-4. VERDE VALLEY 2030 EMPLOYMENT DENSITY**

1-5-2009

Employees per Square Mile, by Traffic Analysis Zone		
	0	
	1 - 1,000	
	1,001 - 2,000	
	2,001 - 4,000	
	4,001 - 8,000	
	8,001 - 11,990	

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**TABLE 3-3. VERDE VALLEY LARGE EMPLOYMENT ESTABLISHMENTS**

<b>Establishment</b>	<b>Location</b>
Cliff Castle Casino	Camp Verde
Yavapai County Jail	Camp Verde
Salt River Materials Group Cement Plant	Clarkdale
Verde Valley Medical Center	Cottonwood
Wal-Mart	Cottonwood
Yavapai County Government	Cottonwood
Home Depot	Cottonwood
Mingus Union High School	Cottonwood
Verde Valley Medical Center	Cottonwood
Enchantment Resort	Sedona
Los Abrigados Resort & Spa	Sedona
Hilton-Sedona	Sedona
L'Auberge de Sedona (resort)	Sedona
Amara Resort	Sedona
Radisson-Poco Diablo Resort	Sedona

### **FUTURE COMMITTED ROADWAY NETWORK**

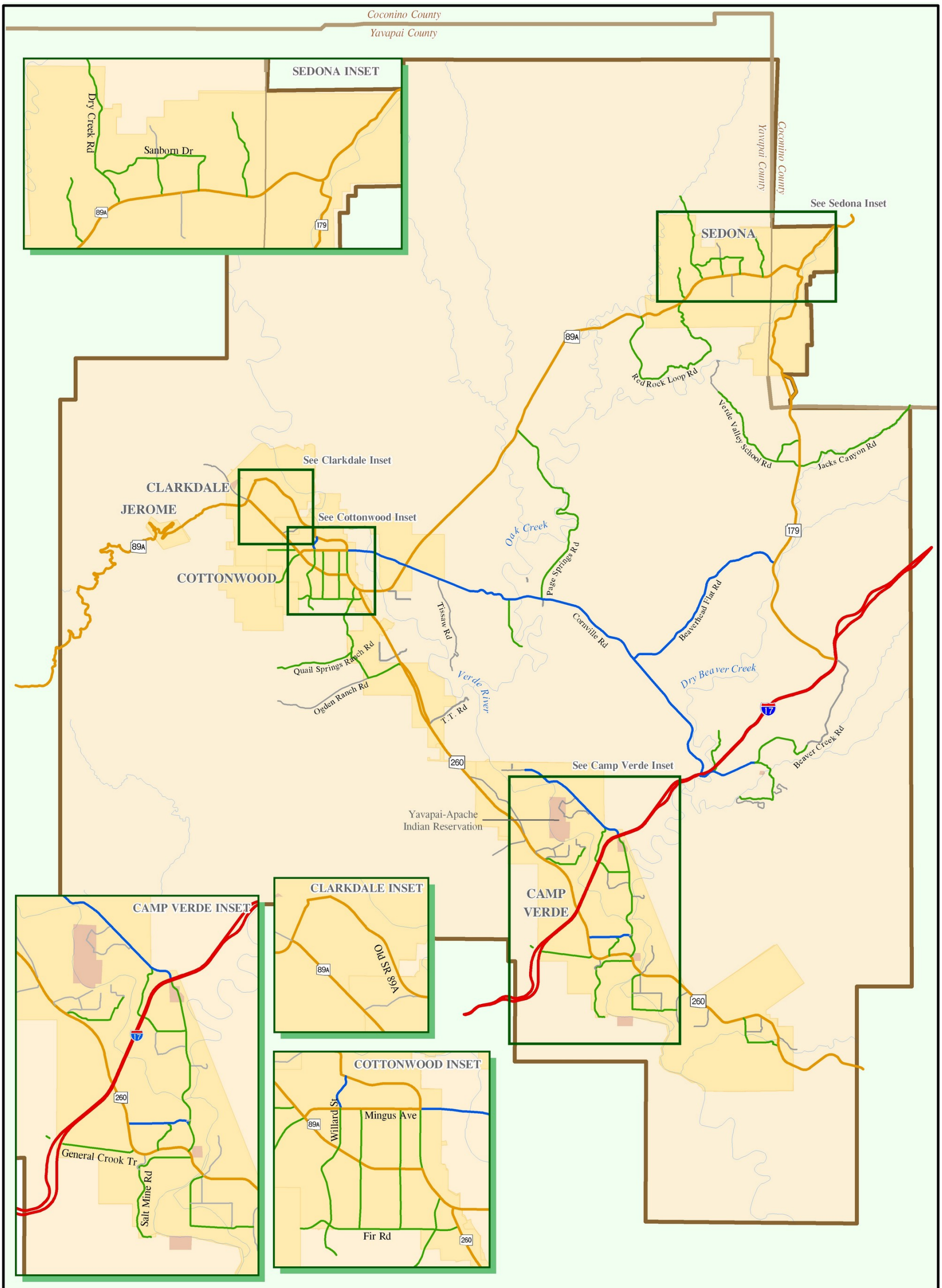
The future committed roadway network in the Verde Valley is described in this section of the VVMTS. The committed network includes the 2007 network plus planned roadway improvements and new roadways for which funding has been committed as of 2008. In the subsequent traffic conditions and network deficiencies sections, the committed network is assessed as to how well it would perform given the travel demand in 2015 and 2030.

#### **2015 Committed Roadway Network**

Several roadway projects have resources committed to their completion by 2015, so the committed roadway network would differ from the existing 2007 roadway network. Some examples of the programs in which funding commitments are documented are the Arizona Department of Transportation (ADOT) Five-Year Construction Program and the Yavapai County Five-Year Capital Improvement Program. Figure 3-5 displays the 2015 functional class of each roadway on the State Highway System and the County Regional Road System. Table 3-4 describes how roads in the 2015 are different from those in the 2007 existing network.

Few changes were made to the functional class in 2015. These changes include Willard Street and its extension Monte Tesoro in Cottonwood will become a continuous minor collector from Mingus Avenue to the end of Monte Tesoro Drive south of Fir Street.

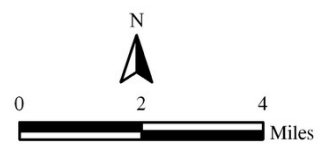




**FIGURE 3-5. VERDE VALLEY 2015 FUNCTIONAL CLASSIFICATION**

1-5-2009

- |                 |                 |                         |
|-----------------|-----------------|-------------------------|
| Interstate      | Minor Collector | 2007 City/Town Boundary |
| Arterial        | Local Roads     | County Boundary         |
| Major Collector | Study Area      |                         |



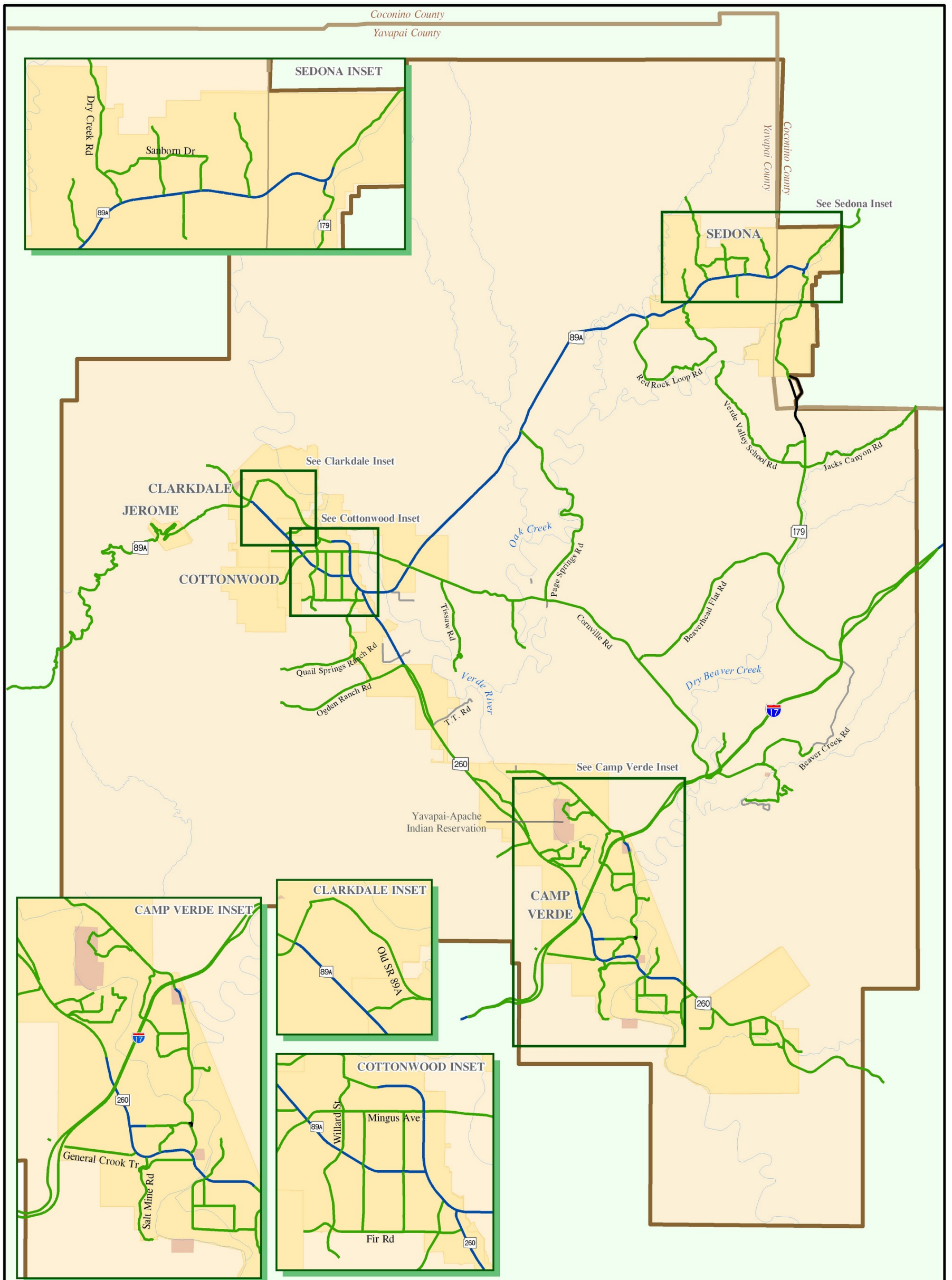


**TABLE 3-4. VERDE VALLEY ROADWAY CONSTRUCTION AND IMPROVEMENTS 2007-2015**

<b>Jurisdiction</b>	<b>Route or Road</b>	<b>Improvement Description</b>
ADOT	SR 260	Completion of widening to four lanes between Western Drive and Thousand Trails Road.
ADOT	SR 260	Safety Improvements between Thousand Trails Road and I-17. Spot projects including consolidating intersections at Cherry Creek Road, Old 279, and the County Complex; improvements at Horseshoe Bend, Park Verde, and Dickison Circle; Slope improvements to improve sight distance, and passing lanes between Cherry Creek Road and Coury Drive.
ADOT	SR 89A	Cement Plant, Clarkdale to Black Hills Drive, Cottonwood, widening to four lanes (two lanes with a center median). Includes five roundabouts designed to handle large trucks (wheelbases of 67 feet).
ADOT	I-17	McGuireville Traffic Interchange. Construction in 2008 on a ramp widening and lengthening project.
ADOT	SR 179	Completion of the improvements that resulted from the 2004 NBIP. While the route will remain two lanes, a portion of the northern end will be divided (a new southbound alignment). Other key improvements are raised medians and roundabouts at major intersections.
Yavapai County	Cornville Rd	Reconstruction and safety improvements in 2008-09 between Tissaw Road and Page Springs Road, including paved shoulders, with a center turn lane from Loy Road to Page Springs Road.
Yavapai County	Beaver Creek Rd Reconstruction	The Beaver Creek Road reconstruction project was finished in the spring of 2008.
City of Cottonwood	Willard St	Willard Street (named Monte Tesoro Dr at its south end) will be extended to become a continuous, two-lane minor collector from Mingus Avenue to ¼ mile south of Fir Street.

**2015 Number of Lanes**

The regional roadway network would still largely comprise two-lane roadways in 2015 (Figure 3-6). The lane additions to SR 260, SR 89A, and Cornville Road appear on Figure 3-6 and in Table 3-4.

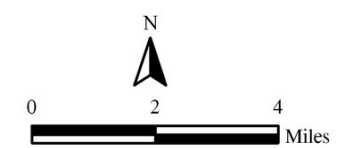


**FIGURE 3-6. VERDE VALLEY 2015 COMMITTED NETWORK WITH NUMBER OF LANES**

1-5-2009

- 1
- 2
- 4
- River or Creek
- 2007 City/Town Boundary
- County Boundary
- Study Area

*I-17 has Two Lanes in Each Direction  
Local Roads Displayed for Reference Only*



## **2030 Committed Roadway Network**

No funding commitments for roadway network improvements are scheduled to take place between 2015 and 2030, so the 2030 committed roadway network would have the same functional classification and the same number of lanes as in 2015. Some improvements for which preliminary planning have taken place would be likely to be constructed if funding were to become available. An example would be the widening of SR 260 to four lanes between Thousand Trails Road and the point west of I-17 where it is now four lanes.

The time period from 2000 through 2008 has been a time when many planning profile studies have taken place in Arizona. Concurrently, there has been a recognition that under current funding programs there is a significant shortfall in projected funding to maintain and improve the roadway network. More information about possible projects that have been studied, but that are not committed to be constructed by 2030 appears in Chapter 4, in the Development of Two Roadway Alternative Models section.

A 2030 functional classification map (Figure 3-7) and a 2030 number of lanes map (Figure 3-8) appear on the following pages. Their roadway network information is the same as for the corresponding maps for 2015.

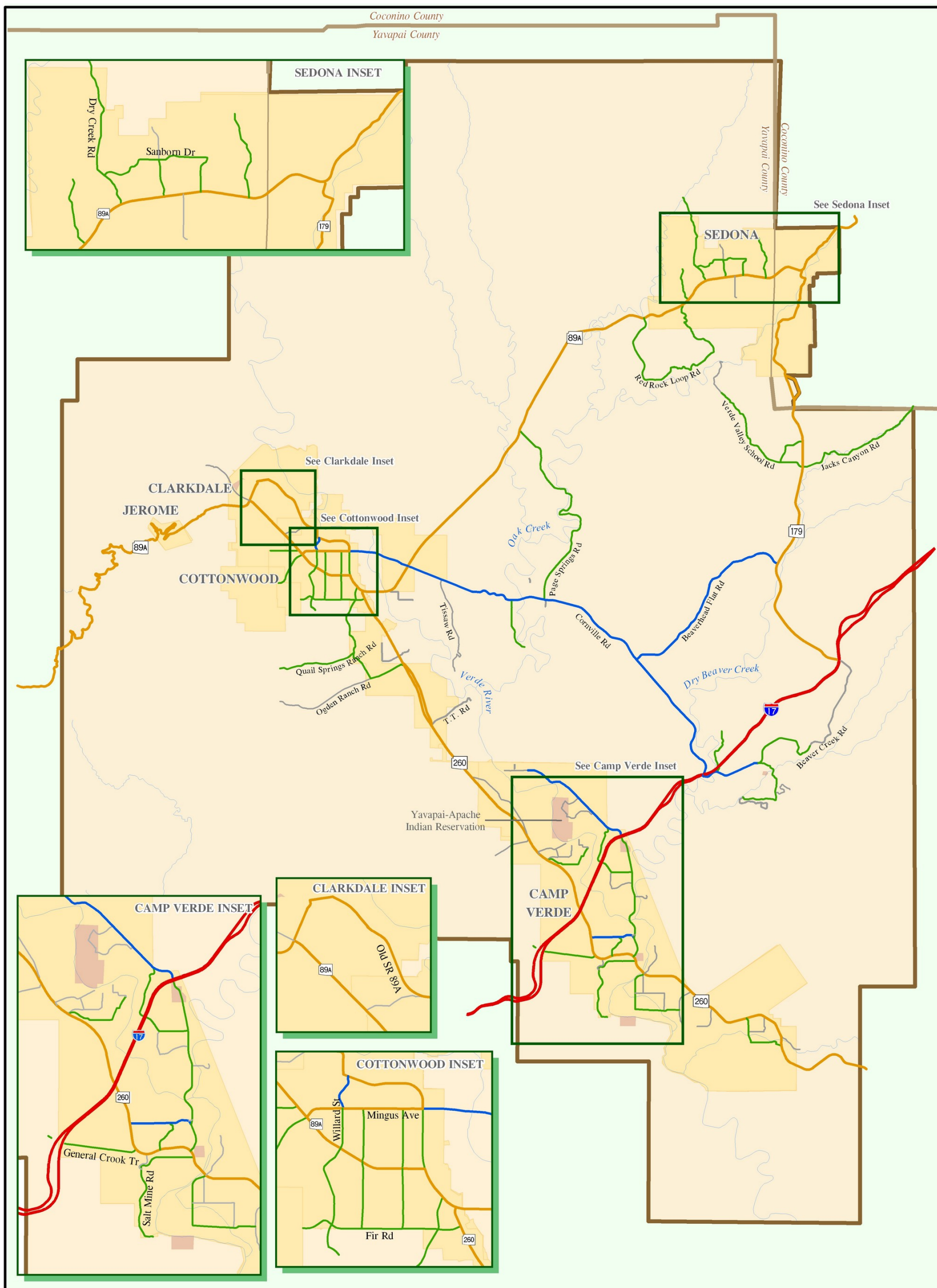
## **FUTURE TRAFFIC CONDITIONS**

### **Traffic Forecasting Process Overview**

A traffic forecasting model was developed and validated for the VVMTS Transportation Study area to estimate future traffic volumes. The model was developed using the TransCAD transportation forecasting software and was calibrated using the year 2007 transportation network and estimated 2007 socioeconomic data. The transportation planning model is a representation of the study area transportation facilities and the travel patterns using those facilities. The model calibration for the VVMTS is described in chapter 2, in the Existing Traffic Conditions section. Modeling documentation for the VVMTS is provided under separate cover.









The next step in the traffic forecasting process was to apply the calibrated model to devise two sets of forecast traffic volumes on the committed roadway network, one for 2015 and the other for 2030. Traffic volumes are, by definition, the demand for trips distributed to the roadway network. While the committed roadway network does not differ between the two forecast years, there will be a significant increase in housing units and employment in the fifteen-year time period. Therefore, the traffic volume in 2030 will be considerably greater than in 2015. The housing unit and employment projection process and results for the two years are described above and in Appendices A and B.



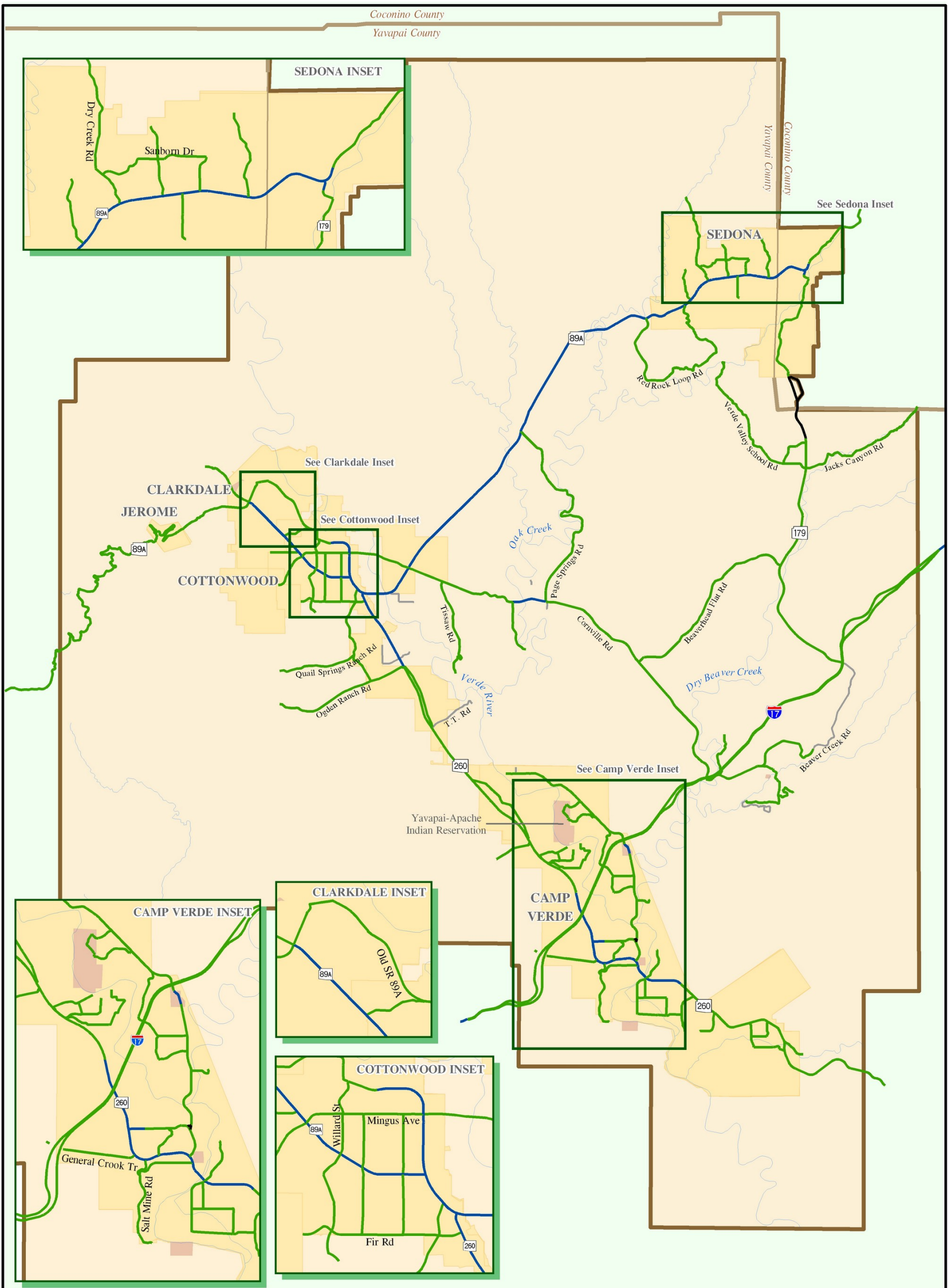


**FIGURE 3-7. VERDE VALLEY 2030 FUNCTIONAL CLASSIFICATION**

1-5-2009

- |   |   |  |
|---|---|--|
|  Interstate      |  Minor Collector |  2007 City/Town Boundary |
|  Arterial        |  Local Roads     |  County Boundary         |
|  Major Collector |   |  Study Area              |



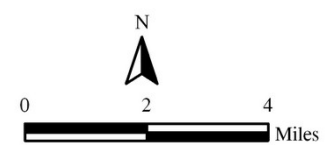


**FIGURE 3-8. VERDE VALLEY 2030 COMMITTED NETWORK WITH NUMBER OF LANES**

1-5-2009

- 1
- 4
- River or Creek
- 2
- 2007 City/Town Boundary
- County Boundary
- Study Area

*I-17 has Two Lanes in Each Direction  
Local Roads Displayed for Reference Only*



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Forecast traffic volumes for both years included three types of projected travel demand:

- Verde Valley Regional traffic generated by the projected 2015 and 2030 households and employment.
- Projected traffic from outside of the region attracted to destinations inside the region.
- Projected traffic from outside of the region passing through the region.

Level of service is another result of modeling. LOS, more fully described in Chapter 2 (Existing Traffic Conditions section), is a qualitative measure of traffic operations stated in terms of factors such as speed, travel time, freedom to maneuver, traffic interruptions, comfort, convenience, and safety.

### 2015 Committed Roadway Network Model Results

Several areas exist where the Verde Valley roadways will become more congested and traffic would slow down between 2007 and 2015, if the funded improvements were the only improvements made to the network.

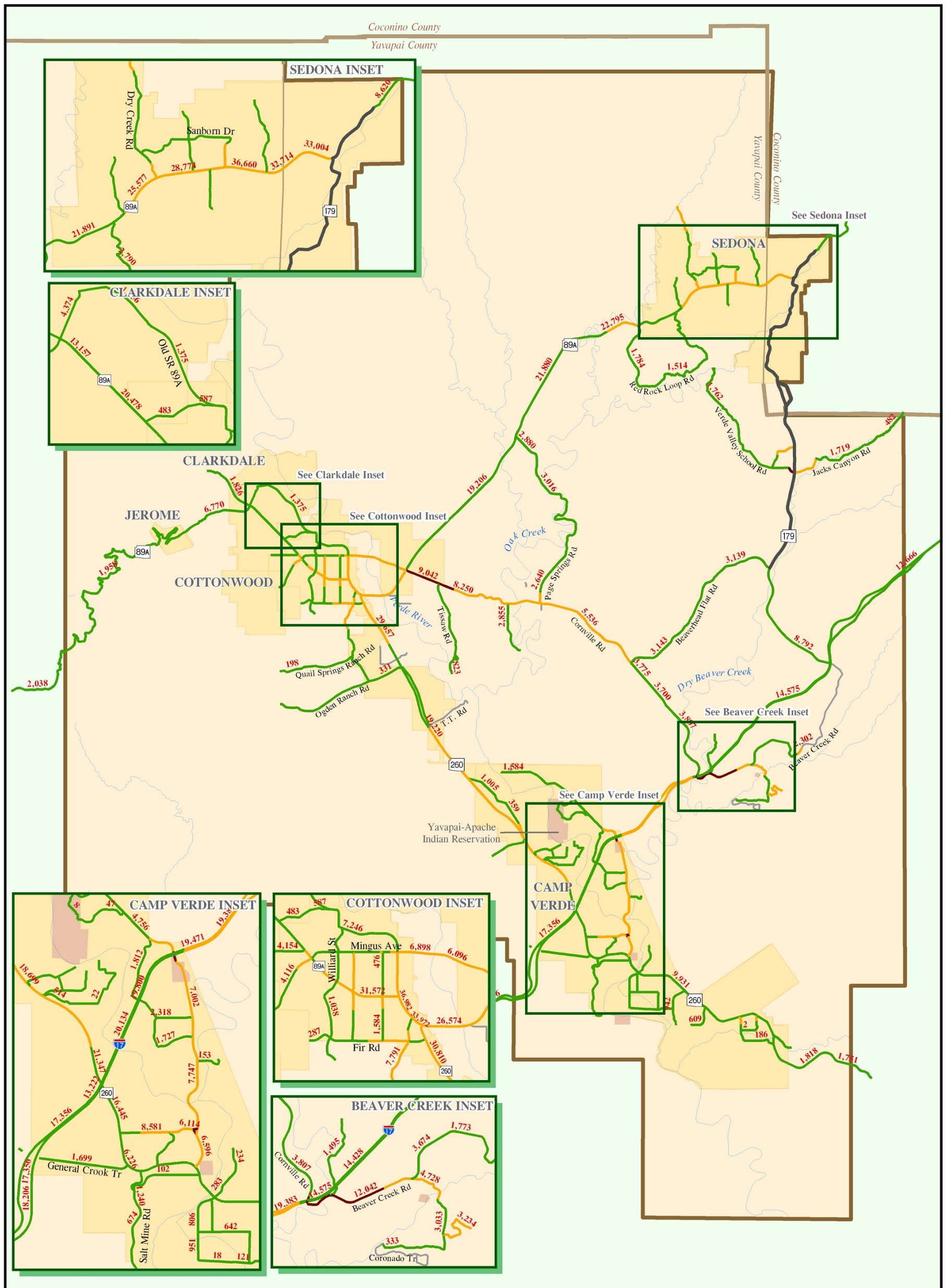
#### 2015 Traffic Volumes

The 2015 traffic volumes on the Verde Valley regional roadway network include many roadway segments where traffic will have increased from 2007. The highest traffic volumes in the study area on the 2015 committed network are shown in Table 3-5. The 2015 volumes are displayed on Figure 3-9.

**TABLE 3-5. VERDE VALLEY HIGHEST TRAFFIC VOLUMES 2015**

Location	Average Daily Traffic Volume
SR 89A West of Camino Real in Cottonwood	37,000
SR 89A West of Soldiers Pass Rd in Sedona	36,700
SR 89A West of Intersection SR 260 in Cottonwood	34,000
SR 89A West of SR 179 in Sedona	33,000
SR 89A East of Soldiers Pass Rd in Sedona	32,700
SR 89A East and West of 12 <sup>th</sup> St in Cottonwood	31,500
SR 260 South of SR 89A in Cottonwood	30,800
SR 89A West of Shelby Dr in Sedona	28,700
SR 89A East of SR 260 in Cottonwood	26,500
SR 89A West of Dry Creek Rd in Sedona	25,600



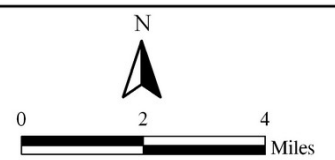


**FIGURE 3-9. VERDE VALLEY 2015 COMMITTED NETWORK, TRAFFIC VOLUMES AND LOS**

1-5-2009

- Under Capacity
- Near Capacity
- At or Over Capacity
- 0,000 Traffic Volume
- 2007 City/Town Boundary
- Study Area
- County Boundary

*SR 179 is a Special Case Discussed in Chapter 4  
Local Roads Displayed for Reference Only*



The level of congestion on a roadway results from the amount of traffic it carries and its capacity (the amount of traffic it is designed to carry). Many of the roadway segments with high volumes are not projected to be the most congested roadways in 2015. The future network deficiencies section below illustrates the level of congestion.

#### 2015 Level of Service

The projected 2015 levels of service on the Verde Valley network are displayed in Figure 3-9. They include a level of service at or over capacity for portions of several roadways.

Cornville Road would be over capacity at its west end approaching the intersection with SR 89A. Cornville Road would be at capacity for a 1.37-mile segment including the area where Verde Santa Fe is on the south side of Cornville Road.

The approaches and ramps to the McGuireville Exit of I-17 would be congested. Beaver Creek Road would be over capacity for the first 1.37 miles east of the McGuireville interchange of I-17. Cornville Road would be over capacity approaching Beaver Creek Road from the west.

Finnie Flat Road in Camp Verde would have segments totaling .2 miles at or over capacity.

Montezuma Castle Highway and Middle Verde Road would be over capacity at the Middle Verde Road exit.

SR 179 would be at capacity approaching SR 89A and Verde Valley School Road would be at capacity for .25 miles before the intersection with SR 179.

#### **2030 Committed Roadway Network Model Results**

Many areas exist where the Verde Valley roadways will become more congested and traffic would slow down between 2015 and 2030, if no additional capacity improvements were made to the network.

#### 2030 Traffic Volumes

The 2030 traffic volumes on the Verde Valley regional roadway network include many roadway segments where traffic will have increased from 2015. The highest traffic volumes in the study area on the 2030 committed network are shown in Table 3-6. The 2030 volumes are displayed on Figure 3-10.

In addition to the volumes stated above, I-17 projected traffic from outside of the region passing through the region will nearly double from 2015 to 2030.

**TABLE 3-6. VERDE VALLEY HIGHEST TRAFFIC VOLUMES 2030**

Location	Average Daily Traffic Volume
SR 89A West of Camino Real in Cottonwood	48,100
SR 89A West of Intersection SR 260 in Cottonwood	44,200
SR 89A East of Coffee Pot Rd in Sedona	41,300
SR 260 South of SR 89A in Cottonwood	40,800
SR 89A West of SR 179 in Sedona	39,700
SR 89A East of Soldiers Pass Rd in Sedona	39,000
SR 89A West of 12 <sup>th</sup> St in Cottonwood	38,600
SR 89A East of SR 260 in Cottonwood	38,300
SR 89A East of Zalesky Rd in Cottonwood	35,300
SR 89A West of Shelby Dr in Sedona	34,100

2030 Level of Service

The projected 2030 levels of service on the Verde Valley network are displayed in Figure 3-10. They include a level of service at or over capacity for portions of several roadways. Longer sections of several roadways at or over capacity in 2015 would be at those levels in 2030. The performance of some segments would decline from a better LOS to at or over capacity over the 15 years' time.

SR 260 would be over capacity from Thousand Trails Road south to .7 miles north of the I-17 intersection.

SR 89A in Cottonwood would drop from near capacity to over capacity between its intersections with Camino Real and where it turns west. In addition, the south portion of Main Street (Old SR 89A) would be over capacity. SR 89A would be at capacity just west of SR 260.

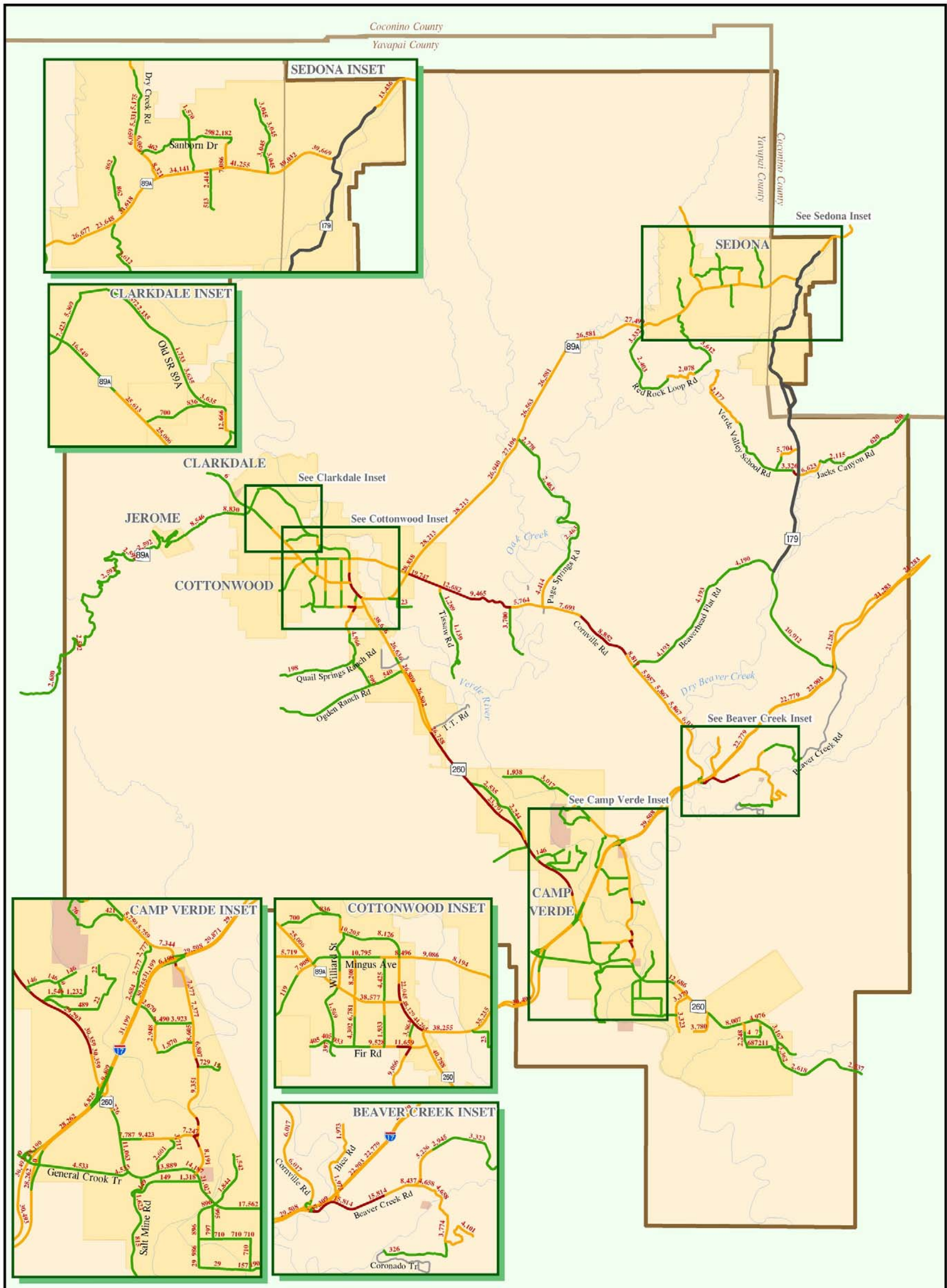
Camino Real in Cottonwood would be over capacity just south of Fir Street.

Cornville Road would be over capacity at its west end approaching the intersection with SR 89A, including dropping from at capacity to over capacity for the 1.37-mile segment including the area where Verde Santa Fe is on the south side of Cornville Road.







The approaches and ramps to the McGuireville Exit of I-17 would be congested. Beaver Creek Road would be over capacity for the first 1.37 miles east of the McGuireville interchange of I-17. Cornville Road would be over capacity approaching Beaver Creek Road from the west.


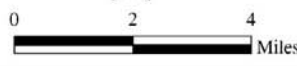

Finnie Flat Road in Camp Verde would have segments totaling .2 miles at or over capacity.





**FIGURE 3-10. VERDE VALLEY 2030 COMMITTED NETWORK, TRAFFIC VOLUMES AND LOS** 1-5-2009

 Under Capacity	 At or Over Capacity	 2007 City/Town Boundary
 Near Capacity	<b>0,000</b> Traffic Volume	 Study Area
<i>SR 179 is a Special Case Discussed in Chapter 4 Local Roads Displayed for Reference Only</i>		 County Boundary

  
  
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Montezuma Castle Highway and Middle Verde Road would be over capacity at the Middle Verde Road exit, and at two intersections to the south.

SR 179's traffic volumes are discussed in the "Results of Two Roadway Alternative Models" section of Chapter 4, as modeling of SR 179 was a critical part of the Needs Based Implementation Plan.

## **FUTURE COMMITTED TRANSIT**

### **Northern Arizona Intergovernmental Public Transportation Authority**

NAIPTA is currently completing an update of a five-year transit plan for Verde Valley. As a part of that update process, the Authority has analyzed a range of service scenarios and has developed service recommendations for the study area with input from citizen advisory committees formed for that purpose. NAIPTA requested and was provided with both 2015 and 2030 socioeconomic data developed for the VVMTS to assist the Authority in refining its travel demand forecasts for candidate corridors and service areas.

Draft recommendations of the NAIPTA Five-year Plan Update include:

- Converting CAT deviated fixed routes to fixed routes and limiting dial-a-ride service to special needs clients such as seniors and mobility-limited persons
- Increasing the number of daily trips between Cottonwood and Sedona
- Adding limited Saturday service

Specific planning beyond the five-year horizon is more general in nature, but the Authority indicates it is considering the future implementation of additional bus service connecting Verde Valley communities on major highways. However, specific service levels for the various corridors being considered have not been determined and sources of funding have yet to be identified.

Various funding options are being considered. The project includes a limited amount of conceptual planning for further expansion that would occur more than five years from now (beyond 2013). According to NAIPTA, the Authority and its member agencies are working with ADOT and with the Northern Arizona Council of Governments to secure Federal Transit Administration and Economic Recovery Act (Stimulus) funds for expanded transit service in Verde Valley.

### **CAT Expansion Plans**

In 2009, CAT plans to obtain a tenth vehicle and hire an additional driver. The new vehicle will be used to introduce a third deviated fixed route. While transit ridership in Cottonwood has grown dramatically in recent months as in other cities due to the increased price of



gasoline, CAT believes that the 14-passenger vehicles are more than adequate to meet near-term demand. Ultimately, CAT hopes to introduce more fixed routes and reduce the number of vehicles dedicated to dial-a-ride services. While operated by the City, CAT functions as a member of NAIPTA and coordinates closely with Sedona Roadrunner, the other NAIPTA operation in Verde Valley.

## **4. MULTIMODAL TRANSPORTATION PLAN AND PROGRAM**

Regional roadway construction and upgrades are needed over the next twenty years to prevent congestion on the Verde Valley roadway system in 2030. This chapter describes a transportation plan and program designed to ease congestion, to provide multimodal options, and to avoid disruption of the Verde Valley's natural environment. The previous chapter described the travel demand in 2030 and the levels of congestion in the system if the only upgrades by 2030 were to be the few that are already committed.

This chapter begins with an explanation of the development of two 2030 roadway alternative model networks (Alternative 1 and Alternative 2). The same regional travel demand was assumed for both networks in 2030. The model was run for each of the two alternative networks in order to assess its performance in meeting that demand. The results of the model runs were interpreted. Modeling documentation for the VVMTS is provided under separate cover.

Next, a second model run was made for one of the networks (Alternative 1). The regional travel demand for single and low-occupancy vehicular travel was assumed to be reduced by 5 percent in 2030 for the second Alternative 1 model run. Among the factors that might account for a 5 percent reduction in demand would be a shift to transit, telecommuting, and the use of other alternate modes. Finally, the results of Alternative 1, Alternative 2, and Alternative 1 with Demand Reductions were compared.

A set of recommended projects emerged from the analysis. The recommended projects are those that would relieve congestion and that could be feasible in term of public input, land availability for right-of-way, and environmental concerns.

### **DEVELOPMENT OF TWO ROADWAY ALTERNATIVE MODELS**

The congestion anticipated to be present on the 2030 committed roadway network without any new projects was displayed on Figure 3-10. Two alternative networks were developed for modeling purposes. The alternatives were intended to show two different sets of potential new and upgraded roadways that could relieve congestion. The most common upgrades were additional travel lanes on existing roadways.

The alternatives are displayed on Figure 4-1 and Figure 4-2. All potential new segments are shown as lines, but they actually represent wide corridors where there will be a high travel demand in 2030, and where building a roadway somewhere within the corridor might relieve congestion. Descriptions of potential new roadways mention some existing roadways in their vicinity. Such descriptions are only general location references, and they do not imply that the new roadway would be an upgrade of an existing road.

Alternative 1 had fewer components than Alternative 2. With more components Alternative 2 would be expected to be more effective at relieving congestion, but would also be more costly

to construct, would require more new right-of-way, and would require mitigation of more environmental effects. A few roadway segments would carry more traffic in Alternative 1 than in Alternative 2. Tables that list all components of Alternative 1 and Alternative 2 appear in Appendix C.

### **Components in Both Alternative Networks**

There were seven components that were the same between the two alternative networks. Those components are described below.

**Interstate 17.** I-17 is assumed to be upgraded by increasing the number of travel lanes from two to three both northbound and southbound. That assumption resulted from communication with ADOT representatives participating in various I-17 studies. In the Verde Valley, in 2030, I-17 would operate almost at capacity over about one-third of its length, and near capacity over the remainder, in the absence of any roadway widening. “Near capacity” (LOS C) is considered to be an acceptable level of service on such a rural interstate.

**Cornville Road.** Both alternative networks included an upgrade of Cornville Road from a major collector to an arterial and the addition of a travel lane in each direction from SR 89A to Tissaw Road. Both alternative networks also kept Cornville Road as a major collector with two travel lanes from Tissaw Road to I-17.

**SR 89A/Cornville Road Intersection Bypass.** Both alternative networks included a new bypass to relieve traffic across the eastern quadrant of the intersection of SR 89A and Cornville Road. Beginning at the Cornville Road/Tissaw Road intersection, the four-lane minor collector would traverse private land, connecting to SR 89A opposite the Bill Gray Road intersection. The private land is an approved, planned area development (mixed commercial and residential) in Cottonwood.

**SR 260/SR 89A Intersection Bypass.** Both alternative networks include a new bypass to relieve traffic across the southeast quadrant of the intersection of SR 260 and SR 89A. From the intersection of Fir St and SR 260 the four-lane, minor collector bypass would head east, then north to intersect SR 89A in the area between Oasis Park Mobile Home Park and UVX Road. A similar proposed bypass is in the circulation element of the 2003 City of Cottonwood General Plan.

**Main Street in Cottonwood.** Between Mingus Ave and SR 89A, Main Street would be upgraded to arterial standards (it already has four lanes).

**New Road from Beaverhead Flat Road to SR 260.** Both alternative networks included a new connector from the Beaverhead Flat Road/Cornville Road intersection to SR 260. The two-lane major collector county road would traverse an area in the Coconino National Forest, and then continue west adjacent to the Town of Camp Verde boundary, eventually

connecting to SR 260. Middle Verde Road would be extended northwest to connect to the new road.

**New Sedona SR 179 Bypass.** Both alternative networks included a new two-lane minor collector going west from SR 179 near Back O' Beyond, crossing Oak Creek, continuing near Chavez Ranch Road, and joining Upper Red Rock Loop Road to complete the connection to SR 89A.

### **Components Unique to Alternative 1**

Alternative 1 is displayed in Figure 4-1. Potential new segments appear as lines, but actually represent wide corridors. The elements unique to Alternative 1 are:

**Cottonwood area.** Two elements largely in Cottonwood would also affect traffic flow in Clarkdale and the western portion of the Verde Valley in general. The West Loop, an access-controlled minor collector with two lanes, is in the circulation element of the 2003 City of Cottonwood General Plan. Main Street in Cottonwood between Mingus Ave and SR89A would be upgraded to arterial standards (it already has four lanes).

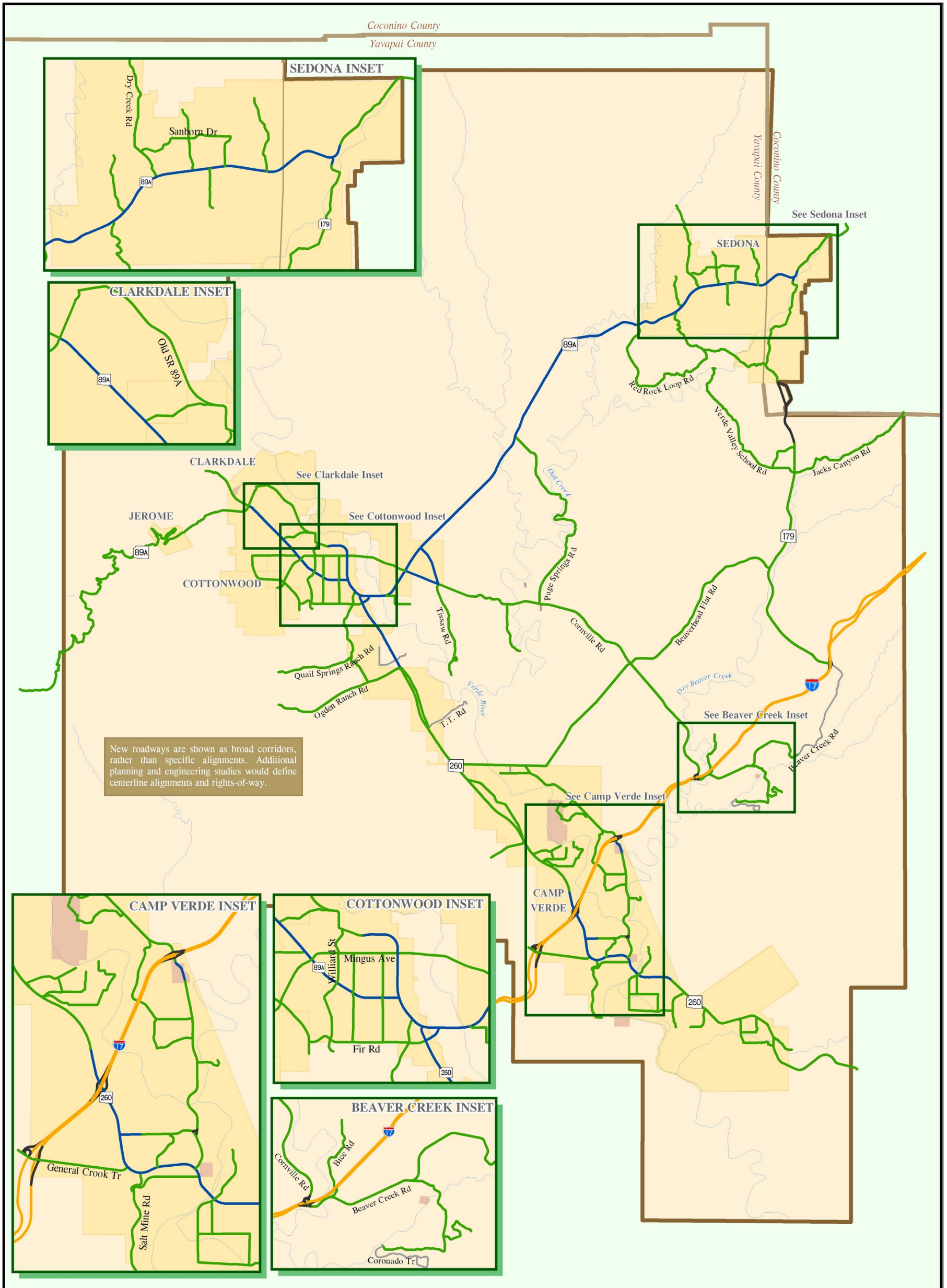
**Camp Verde area.** Two elements largely in Camp Verde would affect regional traffic flow. Finnie Flat Road would remain at two lanes, but would be upgraded to an arterial. Montezuma Castle Highway would be improved to major collector standards.

**Beaver Creek area.** Improvements to Beaver Creek Road and N.F. 119 would result in upgraded functional classes. On Beaver Creek Road, proceeding from the McGuireville interchange with I-17, the new functional class would be arterial, and further to the east the functional class would be major collector. N.F. 119 would become a paved, two-lane local road.

### **Components Unique to Alternative 2**

Alternative 2 is displayed in Figure 4-2. Potential new segments appear as lines, but actually represent wide corridors. The elements unique to Alternative 2 are:

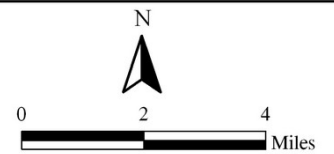
**SR 260, "Forest Alignment" Freeway, and Cherry Creek Road area connector.** The segment of the SR 260 arterial from Thousand Trails Road to West of I-17 would be widened from two to four lanes. Therefore, once the widening was completed, SR 260 would be a four-lane arterial from SR 89A in Cottonwood through to southern Camp Verde east of the Verde River. The Forest Alignment Freeway would provide an alternative to SR 260 from approximately Thousand Trails Road to I-17. Cherry Creek Road would be upgraded to a minor collector and would connect to the Forest Alignment Freeway at a traffic interchange.



**FIGURE 4-1. VERDE VALLEY 2030 ALTERNATIVE 1, NUMBER OF LANES**

1-5-2009

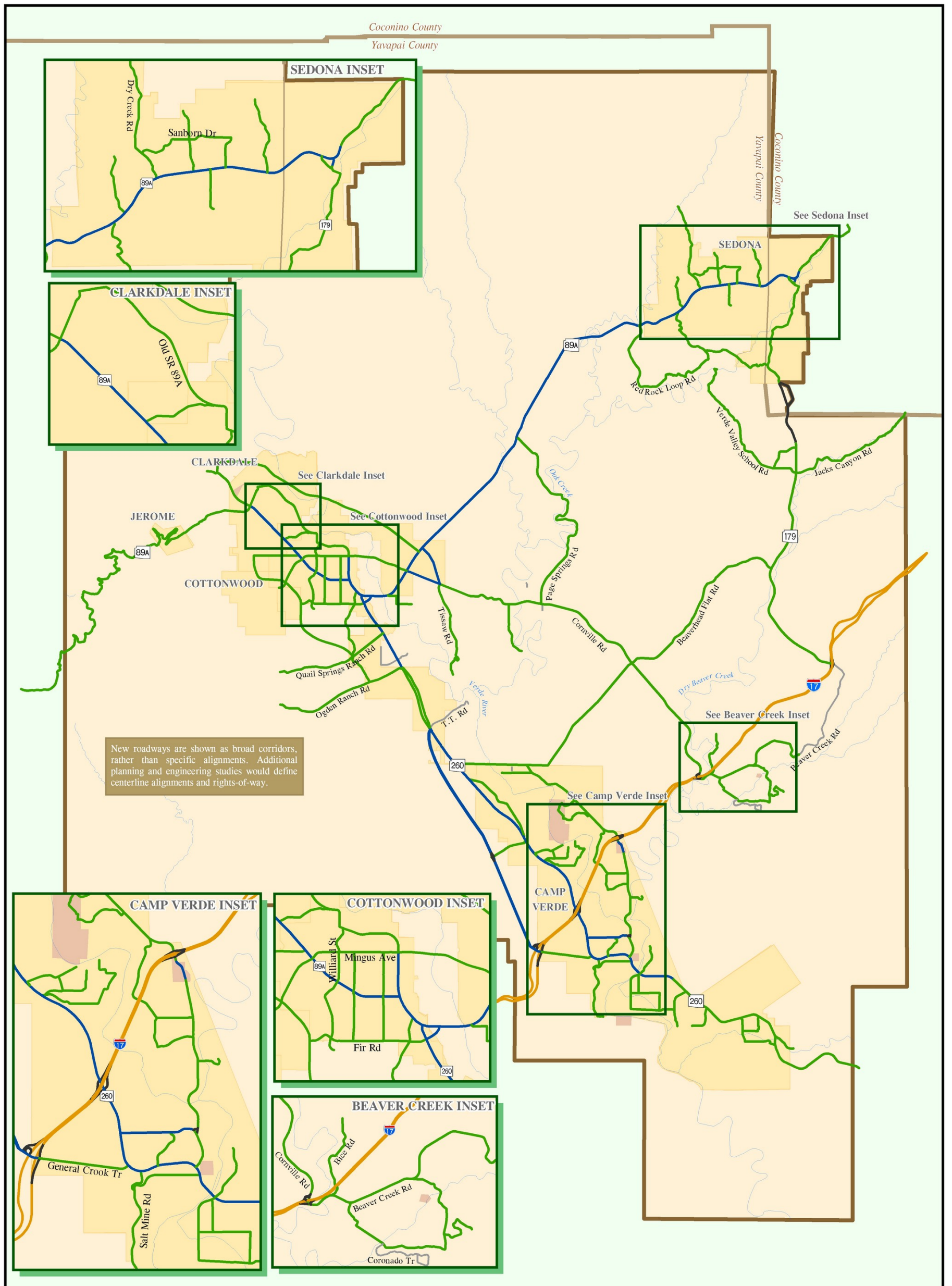
- |   |   |                         |                 |
|---|---|-------------------------|-----------------|
| 1 | 3 | 2007 City/Town Boundary | Study Area      |
| 2 | 4 | Indian Lands            | County Boundary |



Local Roads Displayed for Reference Only  
 On Divided Highways the Number of Lanes Shown is For Each Direction of Traffic







**FIGURE 4-2. VERDE VALLEY 2030 ALTERNATIVE 2, NUMBER OF LANES**

1-5-2009



1



3



2007 City/Town Boundary



Study Area



2



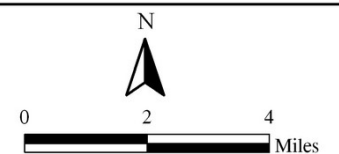
4



Indian Lands



County Boundary



Local Roads Displayed for Reference Only

On Divided Highways the Number of Lanes Shown is For Each Direction of Traffic

**Cottonwood area.** While Alternative 1 addressed traffic flow on the west side of the city and in the city center, Alternative 2 would address the traffic flow with relatively more capacity improvements. The West Loop minor collector would extend further south to Quail Springs Ranch Road. At that point, Quail Springs Ranch Road would extend east to SR 260. Groseta Ranch Road would be upgraded to a minor collector. Main St from Mingus Ave to Willard St in historic Cottonwood would be changed from four to two lanes and would be made more conducive to bicycle and pedestrian travel.

**Clarkdale area.** A new loop, particularly to accommodate an expected increase in industrial truck traffic, would begin at Cement Plant Road and would arc to the east through National Forest lands in the unincorporated county, to SR 89A. The loop would be a two-lane minor collector.

**Camp Verde area.** Two roadways would receive more intensive upgrades than in Alternative 1. Finnie Flat Road would become a four-lane arterial. Montezuma Castle Highway would become a major collector with a center two-way left-turn lane.

**Sedona area.** A western minor collector bypass of the SR 179/SR 89A intersection (known as the “Y”) would comprise an upgrade of Ranger Road and an extension of Ranger Road to the west and north to SR 89A (west of Brewer Road).

**Beaver Creek area.** Improvements to Beaver Creek Road would result in upgraded functional classes. On Beaver Creek Road, proceeding from the McGuireville interchange with I-17, the new functional class would be arterial, and further to the east the functional class would be major collector. N.F. 119 would not be improved so it would remain an unpaved road at less than local road standards. A low-water local road connection would be constructed from Brocket Ranch Rd (which intersects Beaver Creek Road), to the Indian Lakes area for general use and to serve as an emergency route.

## **RESULTS OF TWO ROADWAY ALTERNATIVE MODELS**

The modeling result for each of the two alternative networks would have effects throughout the regional roadway system. The result of Alternative 1 is displayed in Figure 4-3 and Alternative 2 in Figure 4-4. The daily traffic volumes for some key roadway segments are compared in Table 4-1. SR 179 is a special case; its traffic volumes appear in Table 4-2 and the SR 179 modeling is described following that table.

**SR 260 Widening and “Forest Alignment” Freeway, Combined Result.** Alternative 2 included the widening of SR 260 to four lanes from Thousand Trails to the point west of I-17 in Camp Verde where it is already four lanes. Alternative 2 also included a freeway (two lanes in each direction) to serve as a bypass of SR 260 from Thousand Trails to the General Crook Trail interchange vicinity in Camp Verde. The bypass was dubbed the “Forest Alignment” Freeway due to the extent of right-of-way acquisition required from the USFS (Prescott National Forest). The freeway would be an ADOT project needing considerable interaction with USFS, Yavapai County, Yavapai-Apache Nation, and Town of Camp Verde.

**TABLE 4-1. VERDE VALLEY COMPARISON OF DAILY TRAFFIC VOLUMES**

Location	2030 Average Daily Traffic Volume		
	Committed Network	Alternative 1	Alternative 2
SR 89A West of Camino Real in Cottonwood	48,100	48,031	45,032
SR 89A West of Intersection SR 260 in Cottonwood	44,200	44,645	41,670
SR 89A East and West of Soldiers Pass Rd in Sedona	41,100	36,798	37,060
SR 260 South of SR 89A in Cottonwood	39,300	24,005	23,774
SR 260 South of Fir St in Cottonwood	40,800	40,754	41,410
SR 89A West of SR 179 in Sedona	39,400	35,250	34,917
SR 89A East of SR 260 in Cottonwood	38,300	20,620	19,336
SR 89A West of 12 <sup>th</sup> St in Cottonwood	38,600	38,683	36,723
SR 260 at I-17 in Camp Verde	36,900	31,782	22,003
SR 179 South of Schnebly Hill Rd in Sedona*	25,500	25,500	25,500
Cornville Road South of SR 89A	19,700	20,446	20,529
Cornville Road (between Page Springs Rd and Beaverhead Flat Rd)	7,500	6,892	6,517
Beaverhead Flat Rd	4,200	3,969	4,338
Road from Beaverhead Flat Rd to SR 260	N/A	7,452	6,160
Beaver Creek Rd	17,300	20,614	20,591

\*Needs Based Implementation Plan traffic volumes, see text.

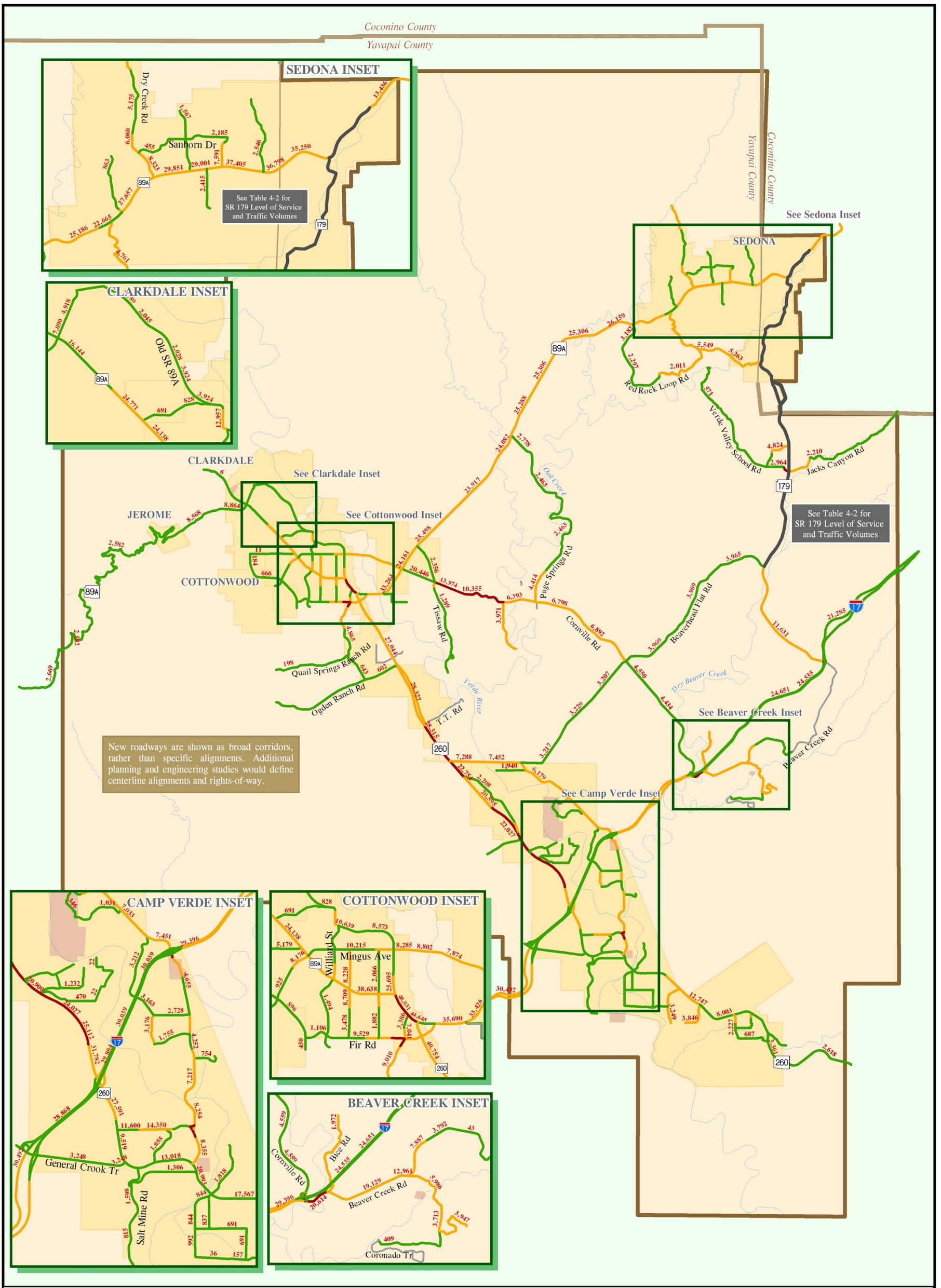
**TABLE 4-2. 2025 SR 179 TRAFFIC VOLUMES AND LEVEL OF SERVICE**

Roundabout Location	2025 Traffic Volume (in Thousands)	Average Vehicle Intersection Delay (in seconds)	Average LOS <sup>1</sup>
SR 89A North of "Y"	27	N/A	A & B
SR 89A/SR 179	31	5	A & B
Schnebly Hill Rd	25-26	9.8	A & B
Canyon Dr	21-22	7	A & B
Morgan Rd	15-18	7.5	A & B
Chapel Rd	15	4.4	A & B
Back O'Beyond Rd	15	4.6	A & B
Bell Rock Blvd	14	4.5	A & B
Cortez Dr	16	4.1	A & B
Jacks Canyon Rd	12	6.2	A & B
Ridge Trail Dr	10	4.5	A & B

\*Source: *SR 179 Village of Oak Creek to Sedona Access Management Study*, DMJM, December 2005

<sup>1</sup>The LOS "A & B" is equivalent to "under capacity." The LOS was calculated for 2025 in the source study, and by 2030 traffic congestion would be likely to increase (see text).





**FIGURE 4-3. VERDE VALLEY 2030 ALTERNATIVE 1, VOLUMES AND LOS**

1-5-2009

- Under Capacity
- At or Over Capacity
- 2007 City/Town Boundary
- Near Capacity
- 0,000** Traffic Volumes
- Study Area
- County Boundary

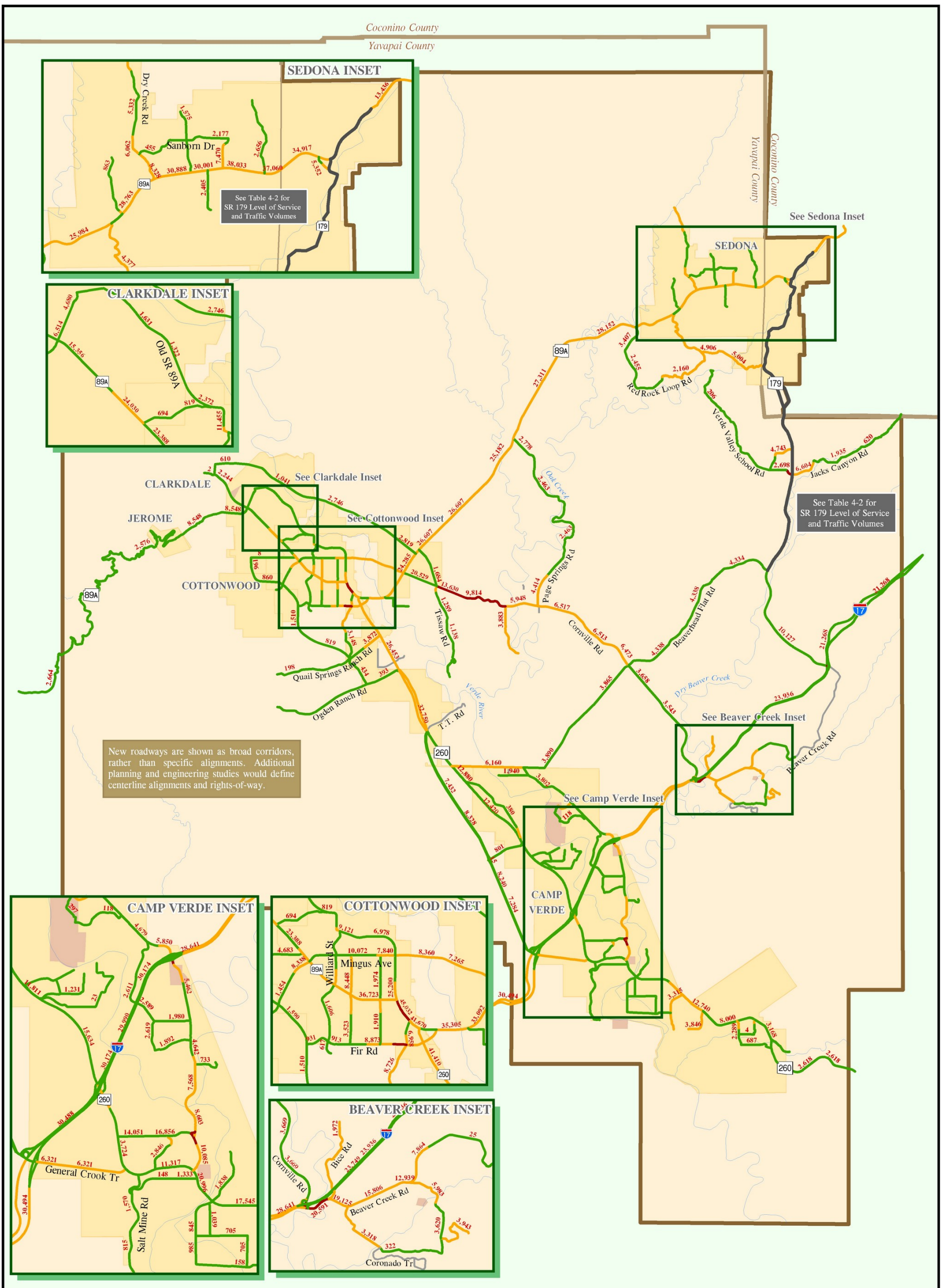
*Local Roads Displayed for Reference Only*

N

0 2 4 Miles








**L & A** LIMA & ASSOCIATES  
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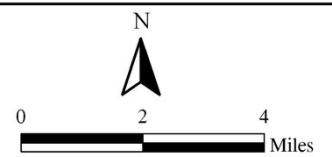




**FIGURE 4-4. VERDE VALLEY 2030 ALTERNATIVE 2, VOLUMES AND LOS**

1-5-2009

- |  |   |  |
|--|---|--|
|  Under Capacity |  At or Over Capacity   |  2007 City/Town Boundary |
|  Near Capacity  |  0,000 Traffic Volumes |  Study Area              |
| <i>Local Roads Displayed for Reference Only</i>  |   |  County Boundary         |



Projected development might occur if the Yavapai Ranch land exchange were completed between a private landowner and USFS, putting several hundred acres at the south end of the freeway into private ownership. Once land came into private ownership, right-of-way would be acquired from the private landowner. The modeling results indicated that the travel demand through 2030 on the SR 260 corridor could be met with the improvements to SR 260 alone. However, there is likely to be much development beginning a few years before 2030 from Cherry Road south to I-17.

**SR 179.** The SR 179 NBIP and subsequent roadway improvement project is mentioned in each chapter of this VVMTS study (in a detailed fashion in Chapter 2, Existing Roadway System). The NBIP comprised intensive public involvement and scrutiny. The VVMTS included the SR 179 roadway as a part of the regional model. Such regional modeling includes the functional class, speed limit, and number of lanes characteristics of each roadway. In contrast, project-level modeling was done in the NBIP to forecast the performance of the SR 179 project. The results appear in Table 4-2.

Project-level modeling includes more detail than regional modeling, and in the case of the SR 179 project, there was specific modeling of every intersection. Table 4-2 displays the results of modeling the roundabouts, specifically. Other key elements of the SR 179 included in the NBIP modeling were:

- One travel lane in each direction.
- 8-foot shoulders that will allow emergency vehicle access and accommodate bicycles.
- Sidewalks and walking paths.
- Curb and gutter throughout.
- One  $\frac{3}{4}$ -mile passing lane in each direction (northbound between MP 307 and 308; southbound between MP 308 and 309).
- Improvements to the Bell Rock Vista scenic pullout and Little Horse trailhead, and the addition of two pullouts with parking.
- Multiple dedicated turn lanes.
- Raised medians.

NBIP modeling was for the year 2025, while VVMTS modeling was for 2030. With growth between 2025 and 2030, some SR 179 roundabouts might move into the “near capacity” range, and perhaps the roadway would be “at capacity” just south of the SR 89A/SR 179 Intersection. The VVMTS modeling indicated more congestion on SR 179 by year 2030, without consideration of all of the design features listed above.

## **CRITERIA FOR SELECTING ROADWAY IMPROVEMENTS**

Several criteria were considered in order to select roadway improvements. The consideration of the criteria began when the alternative networks were devised. For example, a preliminary corridor concept near Tissaw Road to connect Cornville Road with SR 260 was rejected based

upon the likely effects on the Verde River environs and the likely right-of-way costs. After the alternative modeling, the following criteria were used to select the final slate of projects:

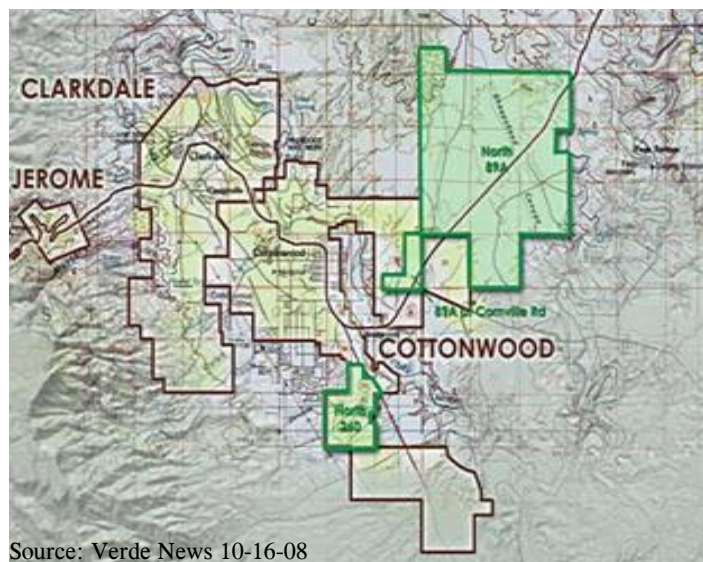
<b>Travel Demand</b>	Model results indicate that the level of service on the roadway and on nearby roadways would be better with the project than without.
<b>Regional Benefit</b>	The system taken as a whole must serve residents' travel within the communities and among the region's communities. Visitor travel must be served, as tourism is the region's leading industry. Each project contributes to that overall system.
<b>Public Input</b>	Many Verde Valley residents attended public meetings, where oral questions and comments were spoken and written comments were received. Mailed and E-mailed comments were also received. Residents were welcome to make comments as individuals or as the representatives of groups.
<b>Environmental Impact</b>	The amount of new right-of-way required was minimized. The number of crossings of waterways was minimized. The Arizona's <i>Wildlife Linkages Assessment</i> results were consulted.
<b>Project Cost</b>	Once the projects were selected based on the above factors, project costs were considered in order to program the project for completion either in 2010-2020 or 2020-2030.

Two projects analyzed in model alternatives were screened out after considering the criteria. The two projects present in the alternatives, but not recommended as proposed projects, were:

### 1. Cement Plant Road Loop

**Travel Demand/Regional Benefit Criteria:** The model indicates that a moderate volume of traffic (2,819, under capacity), would be attracted to the loop in 2030. The volume could be managed elsewhere in the network, with design details employed that would make the industrial traffic more compatible with adjacent land uses. A roadway might be needed in the future if the state land were to build out faster than is currently projected. The state land labeled "North 89A" (Figure 4-5) is now being considered for annexation by Cottonwood. SR 89A runs

**FIGURE 4-5. POTENTIAL STATE LAND ANNEXATION**





through the state land and a roadway to serve the state land might need access only to SR 89A.

**Environmental Impact Criterion:** The loop roadway would cross the Verde River. The traffic volume calculated by the model (2,819) would depend upon at least one additional bridge across the Verde River for Clarkdale neighborhoods to access the loop. Without the bridge from Clarkdale neighborhoods, the traffic volume on the loop would be low. Any bridges constructed would be very close to the Verde River Greenway State Natural Area. The loop would have about 2.25 miles of its length on USFS land in rugged terrain.

The benefit of the loop would likely be far exceeded by its high cost and potential environmental impacts.

## 2. New Sedona SR 179 Bypass

A new two-lane minor collector was modeled that would begin within Sedona, would cross Oak Creek, and would end in unincorporated Yavapai County. The model specified a corridor near Back O' Beyond, crossing Oak Creek, continuing near Chavez Ranch Road, and joining Upper Red Rock Loop Road to reach SR 89A. The model calculated that a roadway on that corridor would attract a large volume of traffic in 2030 (5,004, near capacity), which would relieve congestion on other roadways.

**Travel Demand.** The New Sedona SR 179 Bypass would reduce SR 179 traffic volumes by about 25 percent south of the intersection of SR 179 and SR 89A and might improve the LOS on SR 179 in that area from “near capacity” to “under capacity.” The SR 89A volumes would be reduced by about 12 percent west of Shelby Drive in Sedona, which would not be enough to change the LOS from “near capacity” to “under capacity.” With regard to safety, the bypass would provide additional emergency services access across Oak Creek.

While the bypass, as shown in the model, should only be considered to represent a wide corridor, there would be a benefit to upgrading existing roadways to provide the connection, which would avoid the environmental and aesthetic impacts of entirely new “road scars.”

**Regional Benefit.** The bypass would begin and end in Sedona, but it would allow some through traffic from further points in the Verde Valley to go from south on SR 179 to west on SR 89A, completely bypassing the Sedona commercial areas.

**Environmental Impact.** The bypass would have potential adverse water resource and riparian impacts on Oak Creek. The mitigation of those impacts would likely require a bridge that would be rather high and long, and that would be visible from many surrounding viewpoints. Other environmental impacts would be impacts on about .4



miles of USFS land crossed by the bypass. There would also be impacts from additional traffic on about 1.6 miles of Red Rock Loop Road that cross USFS land.

**Project Cost.** Two particularly high costs associated with the aspects of the bypass emerged. First, the construction of a prospective high and long bridge (described above) would be very costly. Second, the purchase of some additional right-of-way would be required. Any alignment would likely require right-of-way purchase from existing residential development in the Back O' Beyond corridor or adjacent areas.

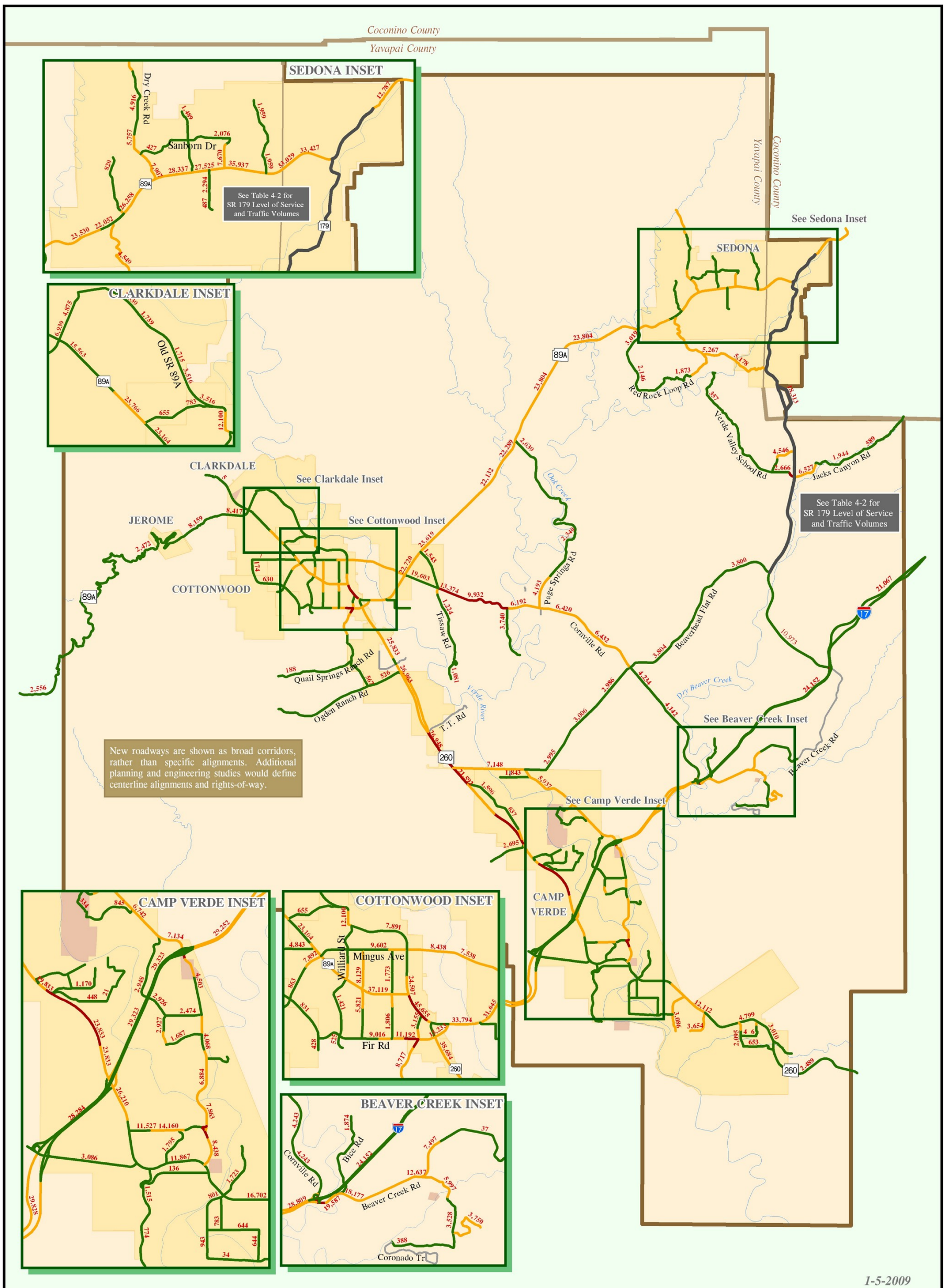
The benefits of the New Sedona SR 179 Bypass in relieving traffic congestion and providing a regional alternative would likely be exceeded by its high cost and potential environmental and aesthetic impacts.

### **Modified Travel Demand Model**

To identify potential long-term transit and multimodal projects, the consultant conducted a modified session of the travel demand model with an output of daily traffic volumes reduced by five percent. Figure 4-6 depicts the study area 2030 Alternative 1 network with the reduced volumes.

A comparison of Figure 4-6 with Figure 4-3 shows that reducing traffic volumes by five percent made a significant change to the roadway level of service on very few major roadway segments. It should be further noted that achieving a five percent reduction in motor vehicle volume would require significant commitment on the part of study area agencies to many of the recommendations of the NAIPTA Five-year Plan, together with all of the following:

- Comprehensive development of a bicycle-friendly bike route and multi-use path network throughout Verde Valley.
- Proactive encouragement and facilitation of ridesharing including carpooling and vanpooling.
- Encouragement of future land uses that encourage mixed-use developments and other strategies designed to enable and encourage persons to live near where they work.
- Implementation of Valley-wide wireless internet broadband capability, employer education, and other strategies designed to facilitate high levels of telecommuting.
- Pedestrian-oriented environment in all of the urbanized areas to complement the area-wide trail system.



**FIGURE 4-6. VERDE VALLEY 2030 ALTERNATIVE 1 WITH TRAFFIC VOLUMES REDUCED BY FIVE PERCENT**

Under Capacity	At or Over Capacity	2007 City/Town Boundary
Near Capacity	<b>0,000</b> Traffic Volumes	Study Area
<i>Local Roads Displayed for Reference Only</i>		County Boundary

N

0 2 4 Miles

**L & A** LIMA & ASSOCIATES  
Transportation - G.I.S.

*The Importance of Trip Destination in Determining Transit Share*, authored by Gary Barnes, a research associate with the Humphrey Institute of Public Affairs at the University of Minnesota, documents that in major cities, transit itself can attract significant percentages of travel in specific corridors, provided that the destination is a central business district with a high concentration of jobs. Table 4-3 presents Barnes’ findings.

**TABLE 4-3. TRANSIT SHARE AND DESTINATION ACROSS CITIES (1990)**

	<b>Transit Share to CBD</b>	<b>Transit Share to Non-CBD Destinations</b>	<b>Percent of Total Regional Jobs in CBD</b>	<b>Transit Share, Overall Urbanized Area</b>
Los Angeles	14.3	3.8	5.2	4.3
Atlanta	15.7	3.7	9.5	4.8
Twin Cities	22.0	3.0	15.0	5.9
Pittsburgh	29.0	3.6	20.1	8.7

Source: Barnes, Gary, *The Importance of Trip Destination in Determining Transit Share*, Humphrey Institute of Public Affairs, University of Minnesota, 2005

Barnes did not specifically address transit use in more rural areas such as Verde Valley. However, in researching his paper, Barnes discovered that the residential density of an area originating work trips does not have as significant an effect on the percentage of trips from that area to the central business district as previously thought. The number of jobs concentrated in the central business district has a significant impact on the percentage of trips to that district made by transit.

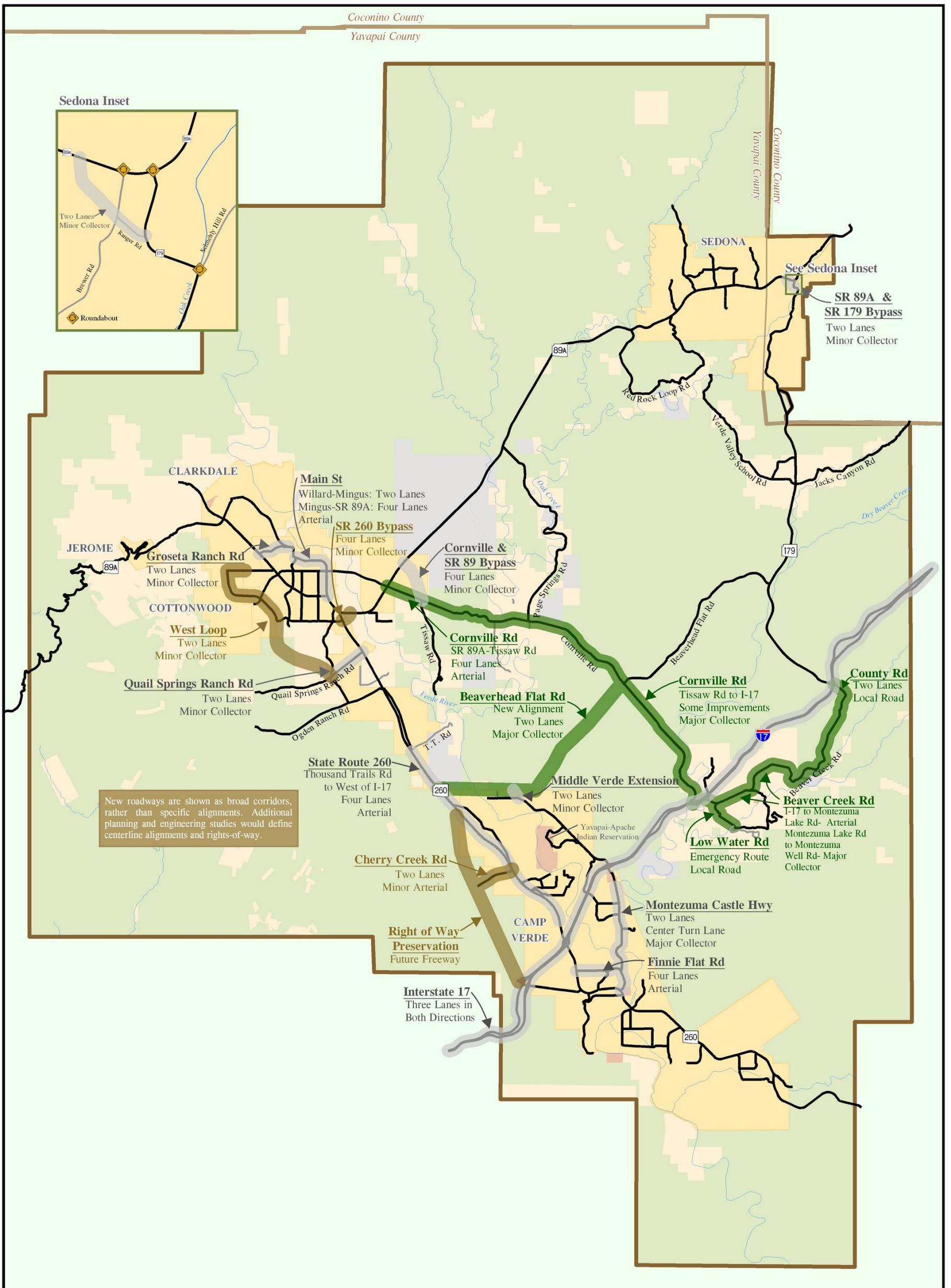
For example, Sedona’s business district is the closest thing to a “central business district” in the study area, for tourism employees of Sedona businesses who live in Cottonwood. The schedule for the “Cottonwood Express” commuter system currently being operated between Cottonwood and Sedona refers to “service to Sedona’s business district.” The starter service, which has a daily capacity of 50 reserved riders, is approximately 50 percent subscribed according to NAIPTA.

## **PROPOSED ROADWAY IMPROVEMENTS**

The proposed roadway improvements were selected after considering the criteria set out in the section above. The consideration of the criteria began when the alternative networks were devised. For example, a preliminary corridor concept near Tissaw Road to connect Cornville Road with SR 260 was rejected based upon likely effects on the Verde River environs and likely right-of-way costs.

The proposed improvement projects appear in Figure 4-7 and are described below.





**FIGURE 4-7. VERDE VALLEY 2030 RECOMMENDED PROJECTS**

1-5-2009



## **Projects Under Yavapai County Government Jurisdiction**

The first group of projects includes those that would be Yavapai County government projects, as they are located entirely in the unincorporated county.

**Cornville Road.** From SR 89A to Tissaw Road Cornville Road should be upgraded from a major collector to an arterial and travel lanes should be added, for a total of two travel lanes in each direction. Cornville Road should remain a major collector with one travel lane in each direction from Tissaw Road to I-17; multimodal and traffic flow spot improvements should be made continually.

**Beaverhead Flat Road to SR 260.** A new major collector with one travel lane in each direction should be constructed. Proceeding from the Cornville Road/Beaverhead Flat Road, intersection, it should be constructed roughly in the Forest Service 119A corridor, and at some point it would turn to continue west north of the northern boundary of Camp Verde. The roadway would include a bridge across the Verde River. An extension of Middle Verde Road would connect to the new major collector. The collector from Beaverhead Flat Road to SR 260 would involve some USFS land; therefore, it would definitely be subject to Federal National Environmental Policy Act (NEPA) regulations. The roadway alignment would be selected with consideration of the riparian habitat and threatened/endangered or sensitive species in the area.

The Beaverhead Flat Road to SR 260 connection would relieve some traffic that would otherwise use Cornville Road from Beaverhead Flat Road heading northwest. Without such a connection it would have been necessary to make additional capacity improvements on Cornville Road.

**West Loop.** The West Loop project should be constructed with coordination between Yavapai County and the City of Cottonwood. The portion in the unincorporated county would extend from south of Fir Street to the point where the loop would reenter the city just northwest of the intersection with Quail Springs Ranch Road. A related city project would be the extension of Quail Springs Ranch Road to SR 260 (below).

**SR 260/SR 89A Bypass (southeast quadrant).** The bypass should be constructed across the southeast quadrant of the intersection of SR 260 and SR 89A to relieve traffic south of the intersection on SR 260. From the intersection of Fir St and SR 260 the four-lane, minor collector bypass would head east, then north to intersect SR 89A in the area between Oasis Park Mobile Home Park and UVX Road. The bypass would be mostly in the City of Cottonwood but the intersection with SR 89A would be in the unincorporated county. A similar proposed bypass is in the circulation element of the 2003 City of Cottonwood General Plan.

**Beaver Creek Road.** Beaver Creek Road should be upgraded from a major collector to an arterial between I-17 and Montezuma Lake Road. From Montezuma Lake Road to the end of pavement at N.F. 119 Beaver Creek Road would be upgraded to a major collector.

N.F. 119 should become a paved, two-lane local road. In the 1999 Verde Valley Transportation Study Update, N.F. 119 (termed an extension of Beaver Creek Road), was recommended to be upgraded from a dirt road, rural collector to a major collector. N.F. 119 was one of two potential projects subject to NEPA in a study known as the Beaverhead Flat Road/Beaver Creek Road Environmental Assessment 2000, for which both a decision notice and a Finding of No Significant Impact were issued on June 9, 2000. Beaverhead Flat Road was subsequently improved, but the N.F. 119/ Beaver Creek Road project did not go forward.

**Beaver Creek Low Water Road.** This connection is accessed from Beaver Creek Road to Brocket Ranch Road, and then continues on one of three corridors to cross Wet Beaver Creek. The connection would be local and an emergency route, especially for fire safety. Wet Beaver Creek would not have a bridge, so it would only be useable under low-water conditions.

### **Projects Under ADOT, City, or Town Government Jurisdiction**

The following projects would not be primarily the responsibility of Yavapai County. The projects are important to the functioning of the Verde Valley regional network in 2030. Each project description indicates the governmental jurisdiction that would have the primary responsibility for project implementation.

**Interstate 17 (ADOT).** I-17 should be widened to three lanes in each direction throughout its extent in the study area, from about milepost 280 to milepost 305. This recommendation is consistent with the recommendations by ADOT officials in various recent and current studies. With completion of the widening, I-17 would be improved from LOS D to LOS C, considered to be an acceptable level of service on such a rural interstate.

**State Route 260 (ADOT).** It is recommended that SR 260 be widened to two lanes in each direction from Thousand Trails Road to the point west of I-17 where SR 260 already has two lanes in each direction. The roadway would remain an arterial and access management guidelines would be employed. This project would be the last segment required to make SR 260 four lanes continuously from SR 89A in Cottonwood to about 1.2 miles east of the Verde River in southern Camp Verde.

**SR 260 Bypass Right-of-Way Preservation (ADOT, USFS, Yavapai County, Yavapai-Apache Nation, Camp Verde).** While the travel demand through 2030 on the SR 260 corridor could be accomplished with the improvements to SR 260 stated above, right-of-way preservation is recommended for a bypass to begin approximately at Thousand Trails, going south to the General Crook Trail interchange vicinity. Cherry Road south to I-17 is likely to have considerable development beginning a few years before 2030. The right-of-way width would be to accommodate a freeway with two lanes in each direction. The

eventual project would require rebuilding the General Crook Trail interchange. This bypass project would be constructed when needed.

**Groseta Ranch Road (Cottonwood).** This existing roadway between SR 89A and old SR 89A is recommended to be upgraded to a minor collector.

**Quail Springs Ranch Road (Cottonwood).** The recommendation for existing Quail Springs Ranch Road is to extend it east to SR 89A as a minor collector. Besides adding access for the existing Quail Springs Ranch area, the roadway would be the more direct of two connections between the West Loop and SR 260.

**Main Street (Cottonwood), two improvements.** Beginning at Willard Street on the west, the section of Main Street east to Mingus Avenue is recommended to be reduced from four to two lanes, yet would remain an arterial. Main Street would be modified to make it safer and more accessible for bicycle and pedestrian travel. Main Street from Mingus Avenue to SR 89A is recommended to remain a four-lane arterial, but would receive other safety and capacity enhancements.

**Bypass Route SR 89A/Cornville Road Intersection (Cottonwood).** A new bypass is recommended to relieve traffic across the eastern quadrant of the intersection of SR 89A and Cornville Road. Beginning at the Cornville Road/Tissaw Road intersection, the four-lane minor collector would traverse private land, connecting to SR 89A opposite the Bill Gray Road intersection. The private land is an approved, planned area development (mixed commercial and residential) in Cottonwood.

**Finnie Flat Road (Camp Verde).** An upgrade of Finnie Flat Road from SR 260 to Montezuma Castle Highway would include widening it to four lanes (Camp Verde project). If the widening of the entire segment proves infeasible, equivalent capacity improvements would be made near Finnie Flat, perhaps involving Hollamon Street and South 7<sup>th</sup> Street.

**Montezuma Castle Highway (Camp Verde).** From the Yavapai-Apache Nation Boundary to Finnie Flat Road, the highway would be upgraded from a Minor Collector to a Major Collector. The current recommendation is for the addition of a center left-turn lane and other improvements. However, the Town is investigating the possibility of widening the roadway to two travel lanes in each direction (from Apache to Montezuma Castle Road).

**Bypass of “Y” (Sedona).** From SR 179 to SR 89A Ranger Road would be upgraded and extended to the west and north (at or west of Brewer Road) to connect to SR 89A. The bypass would be a Minor Collector, one lane each way.

## **PROPOSED TRANSIT AND TRAVEL DEMAND MANAGEMENT IMPROVEMENTS**

This section describes the approach taken to develop short- and long-range transit and multimodal projects for the Verde Valley Multimodal Transportation Plan. During the conduct of this study, a five-year plan was independently developed by the Northern Arizona Intergovernmental Public Transportation Authority (NAIPTA). The two cities located in the study area that currently operate transit systems, Cottonwood and Sedona, are both members of NAIPTA. Cottonwood's system is operated by the City, but Sedona's system is operated directly by NAIPTA. Hence, the draft regional service alternatives suggested in the NAIPTA Five-year Plan comprise a logical beginning for the evaluation of short-term projects.

Regional long-term service alternatives proposed by the draft NAIPTA Five-year Plan for 2013 appear in Figure 4-8. Each regional service concept was scored based on the following four criteria:

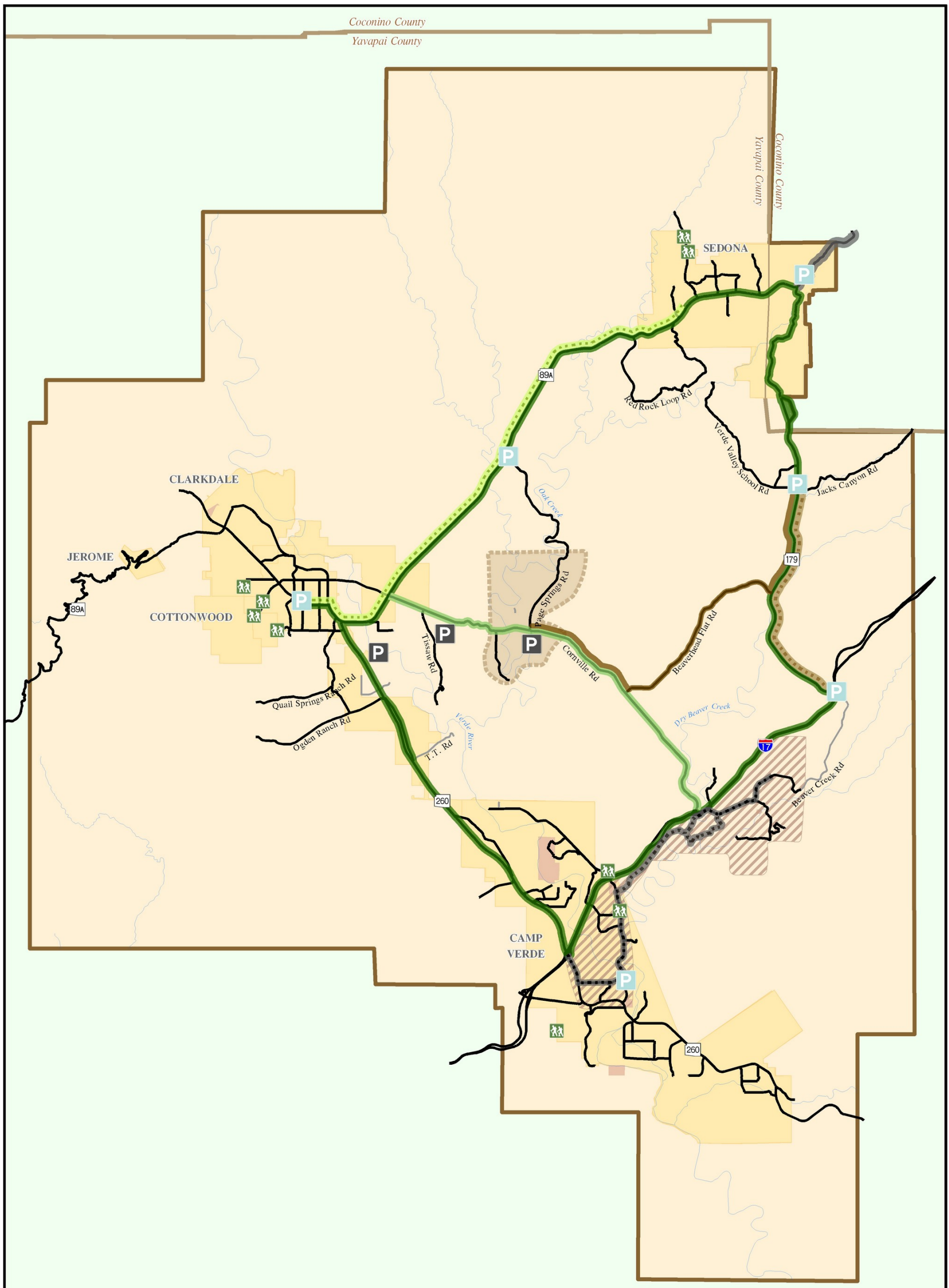
- Increases Productivity
- Promotes Regional Connectivity
- Enhances Current Service
- Serves New Areas

A separate score is assigned to each concept based on the estimated level of investment.

The following four concepts received the highest scores:

- Develop regional park-and-rides that connect express fixed-route services to local services. Locations: Cottonwood (near Wal-Mart - connect with CAT); Sedona (Uptown - connect with Trolley); Village of Oak Creek (TBD); Camp Verde (TBD).
- Operate express peak service (6:00 - 8:30 a.m.; 4:00 - 6:00 p.m.) connecting Camp Verde, Cottonwood, and Sedona.
- Operate daily peak and mid-day service on SR 89A in Sedona from Uptown north approximately 15-miles to top of switchbacks.
- Develop a Valley-wide Van Pool Program.





**FIGURE 4-8. PROPOSED ALTERNATE MODE SYSTEM**

1-5-2009

Express Peak Service Connecting Camp Verde, Cottonwood & Sedona	Service Between Camp Verde, Lake Montezuma, & Rim Rock (Daily Service)	Proposed County Park-n-Ride	
Service between 89A to I-17	Route between Uptown Trolley and Switchbacks Along 89A	Regional Park-n-Ride	
Service from Cornville to Village of Oak Creek	Call-n-Ride Service Between Medical Centers Sedona - Cottonwood	Call-n-Ride Service for Camp Verde, McGuireville, Lake Montezuma, and Rim Rock (Daily Service)	
SR 179 between Village of Oak Creek & I-17	Proposed Trailheads	Cornville Call-n-Ride Service Area	

## Proposed Alternate Mode Improvements

The proposed alternate mode improvement projects appear in Table 4-4.

**TABLE 4-4. VERDE VALLEY PROPOSED SHORT- AND LONG-TERM ALTERNATE MODE IMPROVEMENTS**

Service Type	Service Area or Corridor	Comments
<b>Short-Term Projects</b>		
Regional park-and-rides	Cottonwood (near Wal-Mart - connect with CAT); Sedona (Uptown - connect with Trolley); Village of Oak Creek (TBD); Camp Verde (TBD)	Proposed in NAIPTA Five-year Plan
	Cornville Road at Page Springs Road (APS site); Cornville Road Trailhead; SR 260 in Verde Villages	Proposed by Yavapai County
Express peak service	Camp Verde, Cottonwood and Sedona	Proposed in NAIPTA Five-year Plan
Daily peak and mid-day service	SR 89A in Sedona from Uptown north approximately 15-miles to top of switchbacks	Proposed in NAIPTA Five-year Plan
Van Pool Program	Valley-wide	Proposed in NAIPTA Five-year Plan
Ride Sharing Program	Valley-wide	
“NextBus” real time schedule service	CAT Schedules	Currently available for Sedona Roadrunner schedules only
Google Transit Trip Planning Service	Valley wide	
<b>Long-Term Projects</b>		
	Between Cornville and Village of Oak Creek	Proposed in NAIPTA Five-year Plan
	Between Village of Oak Creek and I-17	Proposed in NAIPTA Five-year Plan
Daily Service	Between Camp Verde, Lake Montezuma, and Rim Rock	Proposed in NAIPTA Five-year Plan
Call-n-Ride	Between Sedona and Cottonwood Medical Centers	Proposed in NAIPTA Five-year Plan
Implementation of wireless internet broadband capability	Valley-wide	

## **FUTURE TRAILS SYSTEM**

As is the case with transit, the trails network within the Verde Valley is currently undergoing a comprehensive planning process. The process is being conducted cooperatively by Yavapai County, the United States Forest Service, and local community groups.

Draft maps of proposed trails have been developed and are still under internal review. Specifically, the new trails proposed for development within the Coconino National Forest are still being evaluated. In addition, any prioritization of candidate trail corridors that may have taken place has not been made public; nor have the funding requirements for specific trails been identified.

Of particular interest to the VVMTS are the candidate locations of future trailheads. Opening a trailhead on a specific roadway will generate additional motor vehicle traffic on the roadway as trail users access the trailhead. In addition, future vehicle parking needs will exist at each trailhead, including adequate space for pick-up and horse trailer “rigs” at the beginning of equestrian trails. Signage, sight-distance, and other considerations with respect to pedestrians and equestrians will need to be made in the immediate vicinity of the trailheads.

At this stage in the trail planning process, ten candidate trailhead locations have been identified within the study area:

### **Cottonwood/Clarkdale area:**

1. One-fourth mile West of Desperado at Rustler
2. One-half mile south of Airport Road on Mingus Avenue
3. Chuckwalla Drive at Fir Street
4. End of Mingus Avenue at the beginning of F.S. 493

### **Sedona:**

1. Dry Creek Road at Gidner Trail
2. Dry Creek Road one-half mile north of North Slope Drive

### **Camp Verde:**

1. F.S. 136 at City Boundary—on General Crook Trail
2. One-tenth mile north of Arena del Loma at Hidden Canyon Trail
3. Middle Verde Road at Arch Way
4. SR 260 at Verde Lakes Drive

As the trails planning process progresses and more information with respect to future trails planning is made available, additional trails data will be incorporated as addenda to the VVMTS.

## 5. IMPLEMENTATION PLAN

This implementation plan provides cost, phasing, and possible funding details for the recommended roadway projects. The plan then provides an update of some of the access management concepts previously explored in the 1999 plan. Finally, the chapter describes some ways in which the implementation of the regional transit plan and the County trails plan could be coordinated with the roadway recommendations.

### TRANSPORTATION IMPROVEMENT PROGRAM

The transportation improvement program (TIP) includes costs based upon the actual itemized costs of construction for roadway projects in Arizona in 2007, expressed in year 2007 dollars.

For each type of roadway, the cost estimation was performed by a consistent method. The initial itemized materials and labor unit costs were combined into a subtotal cost per mile. Typical multipliers were then applied to that cost per mile for design (10%), mobilization (7%), incidental utility work (5%), traffic control during construction (10%), and construction administration (10%). The final total cost per mile appears in Table 5-1.

**TABLE 5-1. UNIT COSTS FOR PLANNING PURPOSES**

Item	Cost (2007 Dollars)
Design and widen an urban principal arterial	\$5,500,000 per mile
Design and widen a minor arterial	\$5,000,000 per mile
Design and widen an urban major collector	\$3,700,000 per mile
Design and construct an urban minor collector	\$2,800,000 per mile
Design, grade, and pave a County two-lane rural roadway (no curb, gutter, or sidewalk)	\$1,300,000 per mile
Traffic signal	\$250,000.00
Typical low water crossing (150'x60' @ \$80/SF)	\$720,000.00

The TIP appears in Table 5-2, showing costs calculated by applying the unit costs to the recommended projects. The TIP is organized into two phases, 2010-2020 and 2020-2030. Within each phase, the projects for which Yavapai County government would be responsible are listed, then the projects for which ADOT or a city or town, as specified, would be responsible. The grand total costs for the Verde Valley TIP sum to \$275 million. Note that just over half (50.3%) of the total cost is in one project, the recommendation that ADOT reconstruct I-17 to three lanes in each direction in the Verde Valley. The upgrade of Beaver Creek Road, at \$20.29 million, would be the highest-cost project for Yavapai County.

County Board of Supervisors Resolution 1621 states that the Board seeks the assistance of the VVTPO in making recommendations for regional road project priorities, and that regional transportation plans such as the VVMTS will be used as one of the resources in the cost benefit analysis for a five-year Regional Road Construction Program, both for roadways and for public transportation.



TABLE 5-2. VERDE VALLEY PROPOSED ROADWAY IMPROVEMENTS PROGRAM

<b>2010-2020</b>					
<b>Projects under Yavapai County Government Jurisdiction</b>					
<b>Road Name</b>	<b>From</b>	<b>To</b>	<b>Functional Classification</b>	<b>Description</b>	<b>Cost (2007 Dollars)</b>
Cornville Rd	SR 89A	Tissaw Rd	Arterial	Four lanes from SR 89A to Tissaw Rd. Upgraded from two-lane major collector.	\$6,155,000
Cornville Rd	Tissaw Rd	I-17	Major Collector	Some improvements, but no new travel lanes. No change to functional class.	\$376,000
West Loop	Black Hills Dr	Fir	Minor Collector	Access-controlled, two-lanes. Fir St would be extended to connect to the West Loop.	\$5,975,000
SR 260/SR 89A Bypass	SR 260/Fir St	SR 89A	Minor Collector	Four-lane bypass of the SR 260, SR 89A intersection (southeast quadrant).	\$1,630,000
Beaver Creek Road	I-17 (McGuireville)	I-17 (at SR 179 exit)	Arterial Major Collector Local	Beaver Creek Rd, upgrade near I-17 to an arterial. From the Y to N.F. 119 would be a major collector. N.F. 119 would be a local roadway.	\$20,296,000
Low water Road, Beaver Creek	Beaver Creek Rd/Brocket Ranch Rd	Coronado Trail/Indian Lakes area	Local	Connection and emergency route, low water crossing.	\$1,262,000
<b>Subtotal, Yavapai County Jurisdiction, 2010-2020</b>					<b>\$35,694,000</b>
<b>Projects under ADOT, City, or Town Government Jurisdiction</b>					
<b>Road Name</b>	<b>From</b>	<b>To</b>	<b>Functional Classification</b>	<b>Description</b>	<b>Cost (2007 Dollars)</b>
SR 260	Thousand Trails Rd	West of I-17	Arterial	This project would be the last segment required to make SR 260 four lanes continuously from SR 89A in Cottonwood to about 1.2 miles east of the Verde River in southern Camp Verde (ADOT).	\$43,022,000
Groseta Ranch Rd	SR 89A	Old SR 89A	Minor Collector	Groseta Ranch Road would be upgraded to a two-lane minor collector (Cottonwood).	\$2,563,000
Main St (Cottonwood)	Mingus Ave	Willard	Arterial	Change from four to two lanes and enhance for bicycle and pedestrian travel (Cottonwood).	Lima Suggests a Design Concept Report
Main St (Cottonwood)	Mingus Ave	SR 89A	Arterial	Safety and Capacity enhancements to this existing four-lane arterial (Cottonwood).	Lima Suggests a Design Concept Report
Montezuma Castle Hwy	Yavapai-Apache Nation Boundary	Finnie Flat Rd	Major Collector	Three lanes (Camp Verde).	\$17,457,000
Bypass of "Y"	SR 179	SR 89A	Minor Collector	Bypass, one lane each way (Sedona).	\$1,519,000
<b>Subtotal, ADOT, City, or Town Jurisdiction, 2010-2020</b>					<b>\$64,561,000 (plus DCR costs)</b>

TABLE 5-2. VERDE VALLEY PROPOSED ROADWAY IMPROVEMENTS PROGRAM (Continued)

<b>2020-2030</b>					
<b>Projects under Yavapai County Government Jurisdiction</b>					
<b>Road Name</b>	<b>From</b>	<b>To</b>	<b>Functional Class</b>	<b>Description</b>	<b>Cost (2007 Dollars)</b>
Beaverhead Flat Rd to SR 260	Beaverhead Flat Rd/Cornville Rd	SR 260	Major Collector	Construction of two-lane county road on roughly the Forest Service 119A alignment from Cornville Rd, continuing west north of boundary of Camp Verde to SR 260. Extend Middle Verde Rd northwest to connect to the Beaverhead Flat Rd to SR 260 Rd. Included in the cost would be \$5,760,000 for a Verde River bridge.	\$14,918,000
<b>Subtotal, Yavapai County Jurisdiction, 2020-2030</b>					<b>\$14,918,000</b>
<b>Projects under ADOT, City, or Town Government Jurisdiction</b>					
<b>Road Name</b>	<b>From</b>	<b>To</b>	<b>Functional Class</b>	<b>Description</b>	<b>Cost (2007 Dollars)</b>
I-17	South of Study Area, Approximately Milepost 282	North of Study Area, Approximately Milepost 304	Interstate	Three lanes in each direction (ADOT).	\$138,423,000
SR 260 Bypass	Thousand Trails	General Crook Trail interchange vicinity (interchange reconstruction)	Freeway	This project would be constructed when needed; but right-of-way preservation is recommended well in advance of construction. A new I-17 interchange would be required to accommodate the width of the freeway, as the General Crook interchange cannot do so (ADOT).	161 acres Right-of-way Acquisition
Quail Springs Ranch Road	Old SR 279	SR 260	Minor Collector	One Lane in Each Direction (Cottonwood).	\$3,280,000
Bypass Route SR 89A/Cornville Rd Intersection	SR 89A/Bill Gray Rd Intersection	Cornville Rd/Tissaw Rd Intersection	Minor Collector	Four lanes, in a planned mixed commercial and residential development (Developer construction, dedication to Cottonwood).	\$4,730,000
Finnie Flat Rd	SR 260	Montezuma Castle Hwy	Arterial	Four lanes (Camp Verde).	\$7,638,000
West Loop	Fir St	Quail Springs Ranch Rd /Old SR 279	Minor Collector	Access-controlled, two lanes (Cottonwood).	\$5,130,000
Middle Verde Extension	Middle Verde Rd	Beaverhead Flat Rd	Minor Collector	Two-lane extension (Camp Verde).	\$800,000
<b>Subtotal, ADOT, City, or Town Jurisdiction, 2020-2030</b>					<b>\$160,001,000 (plus Right-of-way Acquisition)</b>
<b>TOTAL, Yavapai County, ADOT, City, or Town Jurisdiction, 2010-2030</b>					<b>\$275,174,000</b>

The cost estimates in the TIP include neither NEPA environmental costs, in cases where there is a federal action (such as federal-aid funding applied to the project), nor right-of-way costs. Projects on the State Highway System (I-17, SR 260, SR 89A), are assumed to include federal-aid funding. Projects not on the State Highway System cannot be assumed to receive federal-aid funding.

Corridor Studies and Design Concept Reports are not included in the estimates. A State Route 260 Future Corridor Feasibility Study was completed in 2003 (see Table 1-2) and its findings helped shape the SR 260 Bypass recommendation. Design Concept Reports are recommended for each of the larger TIP projects. A DCR was already completed for the Beaver Creek low-water crossing (Lake Montezuma Secondary Access Study, 2007).

Table 5-3 is a summary of the roadway program according to the functional class of the road. Generally, the VVMTS addresses roadways of regional importance at and above the Minor Collector functional class. The two exceptions are N.F. 119 and the low-water crossing of Beaver Creek, both of which are in the regional plan stressing their importance to community access and safety.

**TABLE 5-3. ROADWAY PROGRAM SUMMARY**

Functional Class	Yavapai County		City Jurisdiction or ADOT		Total Cost
	Length (miles)	Roadway Cost	Length (miles)	Roadway Cost	
Interstate	0.00	\$0	21.93	\$138,423,000	\$138,423,000
Freeway	0.00	\$0	0.00	\$0	\$0
Arterial	2.52	\$13,193,000	1.39	\$7,638,000	\$20,831,000
Major Collector	20.95	\$23,838,000	3.19	\$17,457,000	\$41,295,000
Minor Collector	5.92	\$12,735,000	10.82	\$55,914,000	\$68,649,000
Local Road	4.64	\$5,977,000	0.00	\$0	\$5,977,000
<b>Total</b>	<b>34.03</b>	<b>\$55,743,000</b>	<b>37.33</b>	<b>\$219,432,000</b>	<b>\$275,175,000</b>

Table 5-3 does not reflect the length of approximately 4.59 miles for the eventual Forest Alignment Freeway, as right-of-way acquisition is the only 2010-2030 time period action on this eventual project. Right-of-way acquisition costs cannot be estimated at this time and part of the right-of-way might be handled through a USFS land exchange rather than a purchase. Similarly, the table does not include the 1.94 miles of Main Street in Cottonwood where two projects could provide mobility improvements and a unique streetscape. This one-of-a-kind project should be the subject of a Design Concept Report to define its elements before engaging in final design.

In future years, those using the TIP as a planning tool should take care to update the cost estimates in this section using a recognized cost index. One such cost index is the U.S. Bureau of Economic Analysis (BEA) National Income and Product Accounts (NIPA) State and Local Government deflators.

**TABLE 5-4. COST INDEXING**

<b>BEA NIPA</b>	
<b>Year</b>	<b>State and Local</b>
1999	71.038
2000	74.255
2001	76.385
2002	78.291
2003	81.467
2004	84.971
2005	90.489
2006	95.127
2007	100.000
2008(1)	105.911

Note: The BEA NIPA State and Local price deflators series as it existed in 1993-2004, was used for each Arizona Association of County Engineers Needs Study.

The BEA NIPA State and Local deflators, re-indexed (2007=100), appear in Table 5-4. This index, which has been used in a series of Arizona needs studies, indicates that a project that cost \$71,000 in 1999 (at the time of the previous VVMTS) would cost \$100,000 in 2007. By 2008 costs would have increased another six percent.

Actual project cost information for Verde Valley projects, 1999-2008 would indicate that costs have actually risen at a rate higher than suggested by the index. It is not possible, however, to create an index based only on past Arizona local or state project costs, since there are not enough directly comparable projects to do so. The important point for those who use the TIP in the future is to be aware of cost increases and to estimate those increases based upon an index that is state of the art at that time.

## **REVENUE SOURCES AND FUNDING OUTLOOK**

This section outlines the funding sources likely to be available to implement the recommended projects. The first part of the section indicates recent and current funding sources. The final portion of the section comments upon some possible funding trends amid the economic uncertainty of early 2009, when this plan was completed.

The communities in the Verde Valley have a number of funding sources to finance improvements to the roadway system. Funding options include both traditional and innovative sources. Traditional sources are the Arizona Highways User Revenue Fund (HURF); the Local Transportation Assistance Fund (LTAF); Federal-Aid Funds (Surface Transportation, Bridge, Safety, and Transportation Enhancement Funds); and local general funds, such as general obligation bonds and revenue bonds. Alternative sources of funding include special assessment districts, developer dedications, and exactions, such as impact fees.



## Primary Funding Sources

The primary source of roadway funding for Yavapai County, as for most counties, cities, and towns in Arizona is the Highway User Revenue Fund (HURF) which consists of revenue collected by the state. There is a State Constitutional requirement that the revenue go to highway construction, improvements, and other related expenditures.

In 2008, taxes on motor fuels have continued to yield the bulk of HURF funds, but over the past ten years they have declined from 57 percent to 52 percent of total HURF funds. Vehicle license taxes constitute the next largest amount (29 percent), followed in order by vehicle registrations, other miscellaneous fees, and motor carrier fees.

HURF funds totaled \$11,800,000 for all areas of unincorporated Yavapai County in 2008. In addition, the Verde Valley cities and towns received \$6,300,000 as follows:

Camp Verde .....	\$900,000
Clarkdale.....	300,000
Cottonwood.....	900,000
Jerome.....	27,800
Sedona.....	1,025,000

A second funding source from the state is revenue from the Arizona Lottery, Local Transportation Assistance Fund (LTAF), Local Transportation Assistance Fund II, which is exclusively for mass transit. Throughout the history of the program, transit and special needs transportation have been the recipients of this funding in the Verde Valley.

There are several types of impact fees that Arizona counties are authorized to levy on new development. The “Yavapai County Roadway Development Fee” is an impact fee to fund roadways. Ordinance No. 2006-01, which established the impact fee, replaced a previous 1998 roadway development fee ordinance. The Roadway Development Fee is charged per dwelling unit at the time of issuance of the building permit for construction of the dwelling unit, and must be set roughly proportional to the cost of the roadway infrastructure to serve the new development. The Roadway Development Fee is currently at \$3,400 per dwelling unit, countywide. Impact fees must be used for services designated when the fees are instituted. The county received about \$11.5 million from roadway development fees from 1998 through mid-2006.

## Secondary Funding Sources

**Federal Aid.** All states are assured of at least a minimum apportionment of federal-aid funding. Arizona received a FY 2007 apportionment of nearly \$688,000,000 distributed among twelve categories. While a state must use the funding in each category for which it is intended, each state has much discretion over which projects are funded each year.

The funding sources that collectively compose federal aid are facing shortfalls as is true for other highway revenue sources. For example, the federal Highway Trust Fund was nearly bankrupt in September 2008, and then received a one-year allocation as a temporary fix. For a few weeks, six federal aid highway projects on the State Highway System were placed on hold but have now resumed. One of those projects was \$8.9 million in improvements to the I-17 McGuireville interchange in the Verde Valley.

Individual local governments are not assured of any federal-aid funding. Yavapai County and the cities and towns in the Verde Valley have an opportunity to compete with other Arizona local governments for federal-aid funding that could be used for regional roadways and transit. The Arizona Department of Transportation (ADOT) has the authority to administer many of the Federal-aid projects in the state.

Challenges faced by all local governments in pursuing federal-aid funding include:

- Aligning federal funding categories with local transportation needs
- Anticipating the level of future federal funding to be available, especially at the turn of the federal transportation funding cycle (the current cycle runs out September 30, 2009)

### **Funding Trends, 2009**

The VVMTS is a regional plan for the next twenty years, through 2030. The recessionary period of 2008-2009 may not necessitate a shift in transportation priorities over that twenty-year period. As of the beginning of 2009, however, a few events have occurred that may affect the scheduling of projects already programmed by Yavapai County and ADOT. Other events may have a long-term effect upon the proportion of revenue available to the county from various sources. Overall, the outlook is poor for transportation revenues in general at the state and county levels.

The Federal government, not limited by any balanced budget requirements, is contemplating an economic recovery package. In early December 2008, states were asked to identify potential transportation projects that could be funded by a federal economic recovery package. Projects were submitted only if they are considered “ready-to-go,” meaning their planning and design were far enough along that they could be under contract within 180 days.

Two Verde Valley projects were made a part of the project list submitted by ADOT to the federal government:

- A pavement preservation project on I-17 from SR 179 to the Yavapai County Line, \$10,000,000
- The Cottonwood/NAIPTA Transit facility and refueling station \$1,720,000

The Cottonwood/NAIPTA Transit facility is a project that is recommended by the VVMTS, while the I-17 pavement preservation project is a maintenance project.

The State of Arizona was deemed to be in a severe budget and cash flow crisis, according to State Treasurer Dean Martin in early January 2009. The state operating balance was approaching \$0, and before the balance falls below zero, the state was required to call in \$110 million in loans to ADOT for transportation projects. The state treasurer is likely to do so shortly.

A specific overview of revenue expectations was available for HURF funding. The overview stated that the outlook is poor for HURF revenues through about the next three years (through 2012). As the period begins, the economy is in recession. The Arizona economy peaked in FY 2006, earlier than the national economy. In FY 2008, HURF funds statewide decreased 2.7 percent from FY 2007. This was the first time since FY 1992 that HURF recorded a year-over-year decline that was truly an economic result (rather than an artifact due to a calculation procedure change). There was a lower than expected decrease in the gas tax and use fuel tax revenue categories, propped up by high fuel prices. Significantly higher fuel prices, lackluster job growth and the prolonged housing market slowdown have pushed the Arizona and national economies into recession levels in FY 2008.

As of January 2009, Yavapai County had instituted several cost-cutting actions, yet was about \$5.9 million in debt for the fiscal year. Ideas for cutting the debt included transferring money from the sales tax and road projects.

Building permits were dramatically down in Yavapai County in 2008 compared with their peak in mid-decade, having a direct effect upon Roadway Development Fee revenue.

Additional federal, state, and local initiatives were expected to deal with the recession through 2009.

## **ACCESS MANAGEMENT**

The goal of an access management program is to successfully balance the roadway operation needs with the land development needs. The main benefits of an access management plan are the preservation of safety and service. A key tool in maximizing mobility is appropriate limits on the number of access points to public highways from adjoining property.

Access management is already in place or under construction in several portions of the Verde Valley regional network. Access management assists mobility on collector roadways off the state highway system. As presented in this plan and Cottonwood plans, the West Loop in that city and the unincorporated county would have widely-spaced access points.

Access management guidelines were recommended in the 1999 *Verde Valley Transportation Study Update*. Some access management measures were included in the Yavapai County Public Works Road Requirements (Resolution No. 1036), adopted in 1997. An addendum to

Resolution 1036 requires turn and deceleration lanes to be a required improvement necessary for development approvals for all new development creating an impact to the County arterial roadway system, designed to be consistent with the posted speed limit of the impacted arterial roadway. County ordinance 2001-1, Regulating Obstructions, Excavation, and Use of Publicly Maintained Roads, further detailed the requirements for driveways and other temporary and permanent encroachments on county roadways. Implementation of ordinance 2001-1 has included the use of a standard right-of-way permit procedure.

Other access management guidelines were recommended in the 1999 *Verde Valley Transportation Study Update*, but have not yet been adopted by Yavapai County. Those recommendations are incorporated by reference into this study.

On the State Highway network, medians, roundabouts, and intersection controls provide access management in an urban setting on SR 179. Roundabouts and other access management techniques are employed in the SR 89A project under construction in 2008 in the Clarkdale-Cottonwood corridor. ADOT has access categories under development for the state highway system. Verde Valley state highways are assigned to one of six categories; see Table 5-5 and Figures 5-1 at the end of this Chapter. I-17 is assigned to the freeway category, which would have the greatest emphasis on mobility over access, as has always been a purpose of the interstate system.

Sections of SR 260 and SR 89A are proposed to be in the Major Regional category, which would be next in its emphasis on mobility over access. The proposed access characteristics include “access to the roadway may be a mix of at-grade and grade-separated intersections. Direct access service to abutting land is subordinate to providing service to through traffic movements.”

Sections of the state highways in and near Camp Verde, Clarkdale, Cottonwood, and Sedona are proposed to be in Urban categories U1, U2, or U3. Category U1 is proposed to be applied to new urban alignments and to emphasize travel at least at medium speeds and volumes, and distances, with through traffic dominant over direct access service. Category U2 is typically for a road with roadside development and emphasizes travel at moderate speeds, volumes, and medium to short distances, still with through traffic dominant. Category U3 is typically for a road with extensive roadside development, little area for widening, and travels at low to moderate speeds, moderate volumes, and medium to short distances, with a balance between through traffic and direct access. Intersection spacing is proposed to be greatest for category U1, less for U2, and least (typically because of existing conditions) for U3. Private access to the highway is restricted least for U3 highways.

SR 260 in the Verde Valley is a roadway that may have much additional development adjacent to it over the next several years. Maximizing mobility on SR 260 calls for both access management and the recommended widening of SR 260 from Thousand Trails Road southbound to where the roadway currently has four lanes.

Upon adoption of ADOT’s *Arizona Statewide Access Management Plan*, it is recommended that its access category system become an appendix to the Verde Valley Multimodal



Transportation Study. While the ADOT system would control access on the state highway system, Yavapai County and other local jurisdictions would control access on the remainder of the regional system.

## **REGIONAL TRANSIT PLAN AND COUNTY TRAILS PLAN COORDINATION**

The roadways recommendations in the VVMTS would provide a network that would coordinate with planning underway for the other modes:

- NAIPTA and CAT transit options
- NAIPTA Park-n-Ride lots
- Yavapai County Park-n-Ride lots
- Trailhead parking locations

It is noted that the NAIPTA Park-n-Ride lots are to articulate with transit routes. The Yavapai County Park-n-Ride lots might be initiated for use by carpools, and subsequently serve future transit routes.

Some of the Park-n-Ride lots could serve as trailhead parking or motor vehicle to bicycle transfer points. Some potential exist for Park-n-Ride lots to serve commuters on weekdays and recreationists on the weekend.

**TABLE 5-5. ACCESS MANAGEMENT CATEGORY ASSIGNMENTS (DRAFT), VERDE VALLEY**

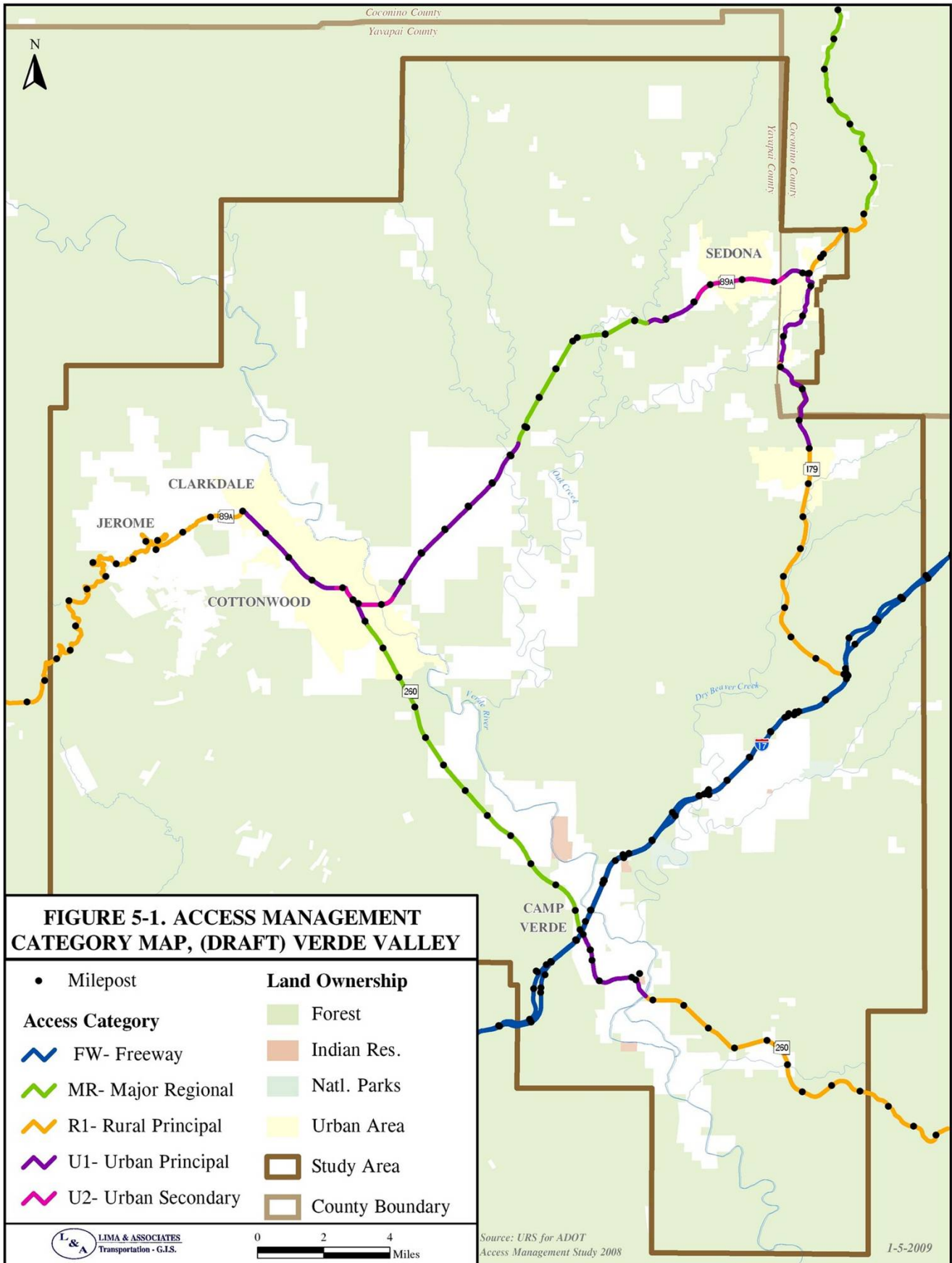
<b>Route</b>	<b>From MP</b>	<b>To MP</b>	<b>Access Category*</b>	<b>County</b>	<b>Description</b>
SR 260	206	207	U1	Yavapai	From Jct SR 89A (in Cottonwood) to Mongini Dr
SR 260	207	218	MR	Yavapai	From Mongini Dr to Begin center turn lane (in Camp Verde)
SR 260	218	219	MR	Yavapai	From Begin center turn lane (in Camp Verde) to Jct I-17 - Exit 287 - East off-ramp
SR 260	219	223	U1	Yavapai	From Jct I-17 East off-ramp - Exit 287 to Bndary entering Coconino Natl Forest
SR 260	223	243	R1	Yavapai	From Bndary entering Coconino Natl Forest to Coconino County Line
I 17	278	287	FW	Yavapai	From Jct SR 169 (Exit 278) to Jct SR 260 (Exit 287) (in Camp Verde)
I 17	287	299	FW	Yavapai	From Jct SR 260 (Exit 287) (in Camp Verde) to Jct SR 179 North (Exit 298)
I 17	299	311	FW	Yavapai	From SR 179 North (Exit 298) (in Coconino Natl Forest) to Coconino County line
SR 179	299	306	R1	Yavapai	From I-17 - Exit 298 (in Coconino Natl Forest) to Avenida de Piedras/Ridge Trail Dr
SR 179	306	307	U1	Yavapai	From Avenida de Piedras/Ridge Trail Dr to 254 ft north of Bell Rock Blvd
SR 179	307	308	R1	Yavapai	From 254 ft north of Bell Rock Blvd to Coconino County line
SR 179	308	310	R1	Coconino	From Coconino County line to Indian Cliffs Rd/Back O Beyond Rd (in Sedona)
SR 179	310	313	U1	Coconino	From Indian Cliffs Rd/Back O Beyond Rd (in Sedona) to Canyon Dr
SR 179	313	313	U2	Coconino	From Canyon Dr - End of SR 179

**TABLE 5-5. ACCESS MANAGEMENT CATEGORY ASSIGNMENTS (DRAFT), VERDE VALLEY (Continued)**

<b>Route</b>	<b>From MP</b>	<b>To MP</b>	<b>Access Category*</b>	<b>County</b>	<b>Description</b>
SR 89A	324	332	R1	Yavapai	From Jct SS 89 / Robert Rd to Bndary entering Prescott Natl Forest
SR 89A	332	344	R1	Yavapai	From Bndary entering Prescott Natl Forest to Jerome Town Limits
SR 89A	344	345	U3	Yavapai	From Jerome Town Limits to Dundee Ave (in Cottonwood)
SR 89A	345	349	R1	Yavapai	From Dundee Ave (in Cottonwood) to Phoenix Cement Plant Rd
SR 89A	349	352	U1	Yavapai	From Phoenix Cement Plant Rd to 6th St
SR 89A	352	355	U2	Yavapai	From 6th St to 113 south of Grosetta Rd (in Cottonwood) (Flagstaff District Line)
SR 89A	355	356	U2	Yavapai	From 113 south of Grosetta Rd (in Cottonwood) to Zelesky Rd
SR 89A	356	358	U1	Yavapai	From Zelesky Rd to Bndary Coconino Natl Forest
SR 89A	358	369	MR	Yavapai	From Bndary Coconino Natl Forest to 1/4 mile south of Upper Red Rock Loop Rd
SR 89A	369	371	U1	Yavapai	From 1/4 mile south of Upper Red Rock Loop Rd to Pinion Dr
SR 89A	371	373	U2	Yavapai	From Pinion Dr to 195 ft south of Airport Rd
SR 89A	373	373	U1	Yavapai	From 195 ft south of Airport Rd to Coconino County Line
SR 89A	373	374	U1	Coconino	From Coconino County Line to Hwy 89A (Begin City Street)
SR 89A	375	398	R1	Coconino	From 289 ft north of Art Barn Rd (End City Street) to Pine Del Dr

\*Access Categories are decoded in Figure 4-8.

SOURCE: ADOT *Arizona Statewide Access Management Plan* (draft), URS, 2008.





**APPENDIX A. TRAFFIC ANALYSIS ZONE BASE MAP**

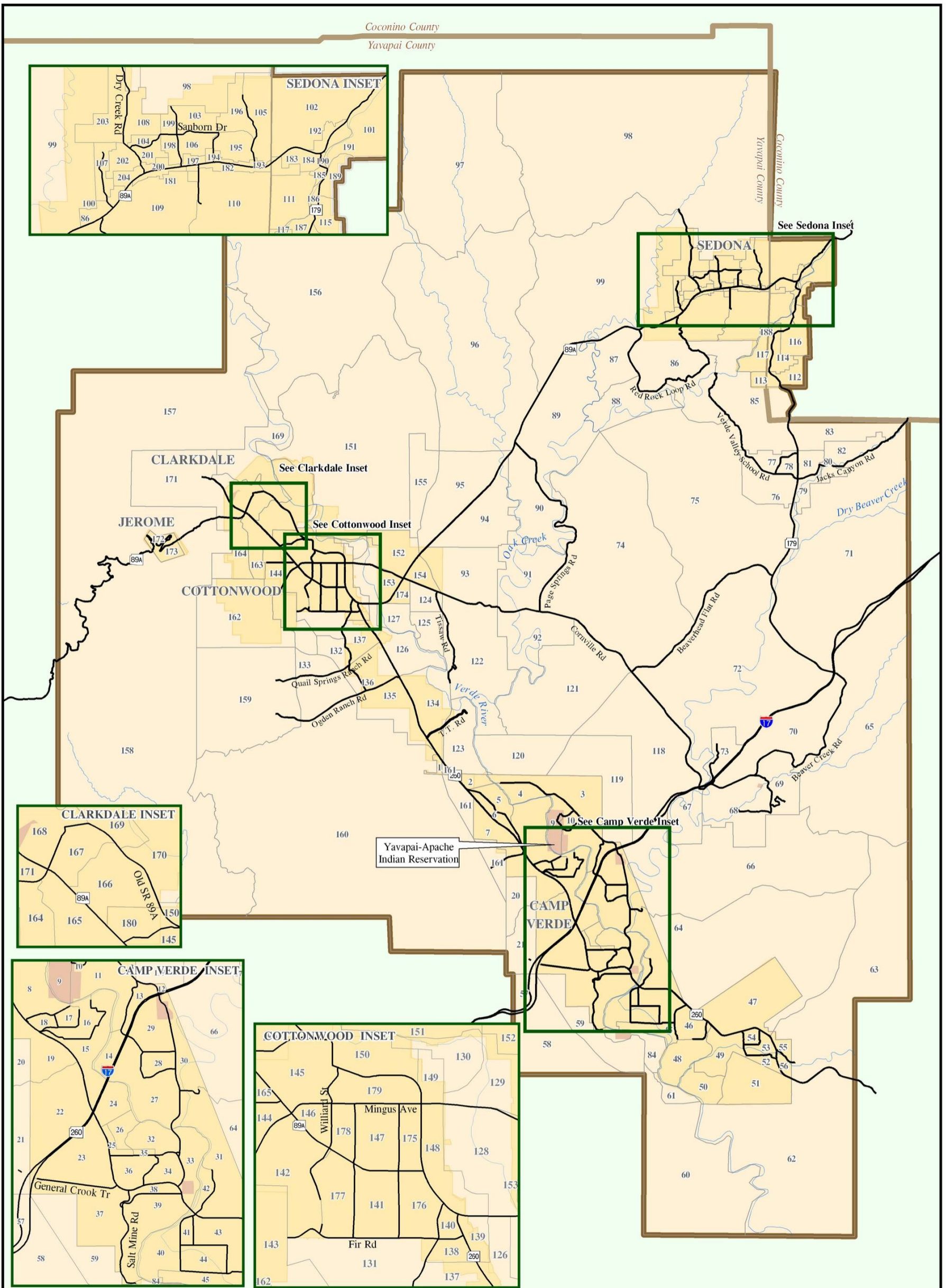
The following map of Traffic Analysis Zones (Figure A-1) illustrates the 204 areas that represent neighborhoods (housing areas) and employment areas. Five additional zones that do not appear on Figure A-1 are used in the travel demand model to account for:

- Through traffic that does not stop in the region
- Trips that begin inside the region and end outside the region
- Trips that begin outside the region and end inside the region

The traffic generated by households, employment, and other gathering places is distributed to the roadway network for travel demand modeling.





Additional information on the use of the TAZs in the travel demand model is in Chapter 2.

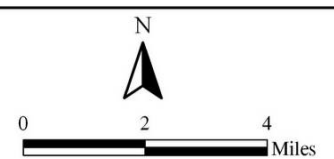
Comprehensive modeling documentation for the VVMTS is provided under separate cover.



**FIGURE A-1. VERDE VALLEY 2007 TAZ BOUNDARIES**

1-5-2009

-  2007 Road Network
-  County Boundary
-  TAZ 2007 Boundary
-  Study Area



**APPENDIX B. 2007, 2015, AND 2030 HOUSING AND EMPLOYMENT  
BY TRAFFIC ANALYSIS ZONE**



Both housing and employment figures were allocated to the appropriate TAZ using Geographic Information Systems (GIS). Refer to Appendix A for the locations of TAZs.

Table B-1 displays the 2007 Housing Units by Traffic Analysis Zone in the Verde Valley.

Housing information was compiled using Census 2000 as a baseline inventory and then was updated to January 1, 2007. Each place had jurisdiction-wide information on the total number of housing unit completions per year. The City of Sedona provided TAZ-by-TAZ information to update the City's figures. Unincorporated areas in Yavapai County were updated using exact locations of building permits, provided by the County Assessor's Office. In the other areas, there was limited information on the number of housing units completed in subdivisions between 2000 and 2007. The new housing units completed in subdivisions were verified by using aerial photographs.

Between Census years, there is only limited information available on group quarters, occupancy rates, and persons per household. The information readily available to this study indicates that out of the 72,200 persons in the region in 2007, approximately 1,500 were in group quarters and 70,700 were in households. In the year 2000 there were about 1,000 persons in group quarters such as the Yavapai County Eastern Detention Bureau and nursing homes; approximately half of those persons were in group quarters within the five cities and towns. An assumption that the region's population in group quarters rose to about 1,500 by 2007 is consistent with the limited data available on the number and staffing levels at assisted living homes, nursing homes, and other group quarters in 2007.

Table B-4 displays the 2007 Number of Employees by Traffic Analysis Zones by Major Employment Sector in the Verde Valley.

Detailed current employment information by establishment, including number of employees at the establishment's specific location, was received from InfoUSA. Technical Advisory Committee members from each jurisdiction reviewed the individual employer records for their jurisdictions, made some corrections, and removed duplicate records.

The InfoUSA information included the latitude and longitude of the employer's geographic location. GIS methods were used to assign each employer to the correct TAZ. Supplemental information came from Chambers of Commerce concerning new employment establishments. In some cases those establishments were contacted directly.

The InfoUSA information also included the Standard Industrial Code (SIC) for each establishment. The number of employees by SIC was generalized into eight major employment sectors.

Additional information on 2007 socioeconomic conditions can be found in Chapter 2.

**TABLE B-1. 2007 NUMBER OF HOUSING UNITS BY TRAFFIC ANALYSIS ZONE**

<b>CAMP VERDE</b>			
<b>TAZ</b>	<b>Area</b>	<b>Total Housing Units</b>	<b>Occupied Housing Units</b>
1	CV	0	0
2	CV	1	1
3	CV	60	56
4	CV	24	22
5	CV	2	2
6	CV	0	0
7	CV	5	5
8	CV	124	115
9	CV	275	256
10	CV	1	1
11	CV	266	247
12	CV	0	0
13	CV	51	47
14	CV	50	47
15	CV	193	179
16	CV	182	169
17	CV	60	56
18	CV	10	9
19	CV	2	2
20	CV	0	0
21	CV	0	0
22	CV	2	2
23	CV	5	5
24	CV	18	17
25	CV	0	0
26	CV	0	0
27	CV	227	211
28	CV	44	41
29	CV	61	57
30	CV	10	9
31	CV	61	57
32	CV	70	65
33	CV	239	222
34	CV	384	357
35	CV	0	0
36	CV	271	252
37	CV	3	3
38	CV	98	91
39	CV	127	118
40	CV	137	127
41	CV	30	28
42	CV	8	7
43	CV	81	75
44	CV	97	90
45	CV	66	61

**TABLE B-1. 2007 NUMBER OF HOUSING UNITS BY TRAFFIC ANALYSIS ZONE  
(Continued)**

<b>TAZ</b>	<b>Area</b>	<b>Total Housing Units</b>	<b>Occupied Housing Units</b>
46	CV	14	13
47	CV	34	32
48	CV	162	151
49	CV	173	161
50	CV	45	42
51	CV	150	140
52	CV	114	106
53	CV	349	325
54	CV	190	177
55	CV	3	3
56	CV	15	14
<b>CAMP VERDE SUBTOTAL</b>		<b>4,594</b>	<b>4,273</b>
<b>CLARKDALE</b>			
<b>TAZ</b>	<b>Area</b>	<b>Total Housing Units</b>	<b>Occupied Housing Units</b>
162	CD	0	0
163	CD	80	74
164	CD	67	62
165	CD	546	508
166	CD	394	366
167	CD	175	163
168	CD	234	218
169	CD	215	200
170	CD	99	92
<b>CLARKDALE SUBTOTAL</b>		<b>1,810</b>	<b>1,683</b>
<b>COTTONWOOD</b>			
<b>TAZ</b>	<b>Area</b>	<b>Total Housing Units</b>	<b>Occupied Housing Units</b>
134	CW	10	9
135	CW	4	4
136	CW	569	512
137	CW	392	353
138	CW	3	3
139	CW	20	18
140	CW	0	0
141	CW	259	233
142	CW	294	265
143	CW	19	17
144	CW	511	544
145	CW	323	291
146	CW	50	45
147	CW	353	318
148	CW	267	240
149	CW	166	149
150	CW	394	355
152	CW	10	9

**TABLE B-1. 2007 NUMBER OF HOUSING UNITS BY TRAFFIC ANALYSIS ZONE  
(Continued)**

<b>TAZ</b>	<b>Area</b>	<b>Total Housing Units</b>	<b>Occupied Housing Units</b>
153	CW	2	2
154	CW	0	0
174	CW	0	0
175	CW	400	360
176	CW	357	321
177	CW	348	313
178	CW	80	72
179	CW	278	250
180	CW	324	291
<b>COTTONWOOD SUBTOTAL</b>		<b>5,433</b>	<b>4,974</b>
<b>JEROME</b>			
<b>TAZ</b>	<b>Area</b>	<b>Total Housing Units</b>	<b>Occupied Housing Units</b>
172	J	76	65
173	J	106	90
<b>JEROME SUBTOTAL</b>		<b>182</b>	<b>155</b>
<b>SEDONA</b>			
<b>TAZ</b>	<b>Area</b>	<b>Total Housing Units</b>	<b>Occupied Housing Units</b>
100	S	0	0
101	S	89	77
102	S	498	432
103	S	436	378
104	S	23	20
105	S	146	127
106	S	266	231
107	S	64	55
108	S	28	24
109	S	574	498
110	S	1058	916
111	S	258	224
112	S	0	0
113	S	0	0
114	S	406	352
115	S	102	88
116	S	31	27
117	S	218	189
181	S	5	4
182	S	66	57
183	S	91	79
184	S	122	106
185	S	0	0
186	S	79	68
187	S	54	47
188	S	19	16
189	S	84	73
190	S	0	0



**TABLE B-1. 2007 NUMBER OF HOUSING UNITS BY TRAFFIC ANALYSIS ZONE  
(Continued)**

<b>TAZ</b>	<b>Area</b>	<b>Total Housing Units</b>	<b>Occupied Housing Units</b>
191	S	0	0
192	S	112	97
193	S	0	0
194	S	0	0
195	S	315	273
196	S	304	264
197	S	42	36
198	S	283	245
199	S	70	61
200	S	8	7
201	S	145	126
202	S	118	102
203	S	100	87
204	S	57	49
<b>SEDONA SUBTOTAL</b>		<b>6,271</b>	<b>5,435</b>
<b>UNINCORPORATED YAVAPAI COUNTY</b>			
<b>TAZ</b>	<b>Area</b>	<b>Total Housing Units</b>	<b>Occupied Housing Units</b>
57	C	0	0
58	C	0	0
59	C	5	4
60	C	103	92
61	C	4	4
62	C	7	6
63	C	0	0
64	C	2	2
65	C	11	10
66	C	12	11
67	C	88	78
68	C	842	743
69	C	792	699
70	C	282	249
71	C	0	0
72	C	17	15
73	C	137	121
74	C	218	194
75	C	3	3
76	C	844	751
77	C	620	552
78	C	447	398
79	C	247	220
80	C	29	26
81	C	700	623
82	C	229	203
83	C	0	0
84	C	78	69

**TABLE B-1. 2007 NUMBER OF HOUSING UNITS BY TRAFFIC ANALYSIS ZONE  
(Continued)**

<b>TAZ</b>	<b>Area</b>	<b>Total Housing Units</b>	<b>Occupied Housing Units</b>
85	C	113	101
86	C	112	100
87	C	52	46
88	C	20	18
89	C	100	89
90	C	173	154
91	C	555	494
92	C	688	612
93	C	0	0
94	C	3	3
95	C	5	4
96	C	5	4
97	C	3	3
98	C	23	20
99	C	217	193
118	C	0	0
119	C	1	1
120	C	15	13
121	C	2	2
122	C	49	44
123	C	41	36
124	C	583	519
125	C	23	20
126	C	1,876	1,670
127	C	309	275
128	C	216	192
129	C	18	16
130	C	87	77
131	C	814	724
132	C	324	288
133	C	63	56
151	C	5	4
155	C	0	0
156	C	19	17
157	C	1	1
158	C	21	19
159	C	28	25
160	C	15	13
161	C	8	7
171	C	21	19
<b>UNINCORPORATED</b>			
<b>SUBTOTAL</b>		<b>12,325</b>	<b>10,952</b>
<b>GRAND TOTAL</b>		<b>30,615</b>	<b>27,472</b>

**TABLE B-2. 2015 NUMBER OF HOUSING UNITS BY TRAFFIC ANALYSIS ZONE**

<b>CAMP VERDE</b>			
<b>TAZ</b>	<b>Area</b>	<b>Total Housing Units</b>	<b>Occupied Housing Units</b>
1	CV	0	0
2	CV	1	1
3	CV	60	56
4	CV	238	222
5	CV	2	2
6	CV	0	0
7	CV	5	5
8	CV	337	315
9	CV	274	256
10	CV	21	20
11	CV	371	347
12	CV	0	0
13	CV	50	47
14	CV	50	47
15	CV	192	179
16	CV	181	169
17	CV	60	56
18	CV	10	9
19	CV	173	162
20	CV	0	0
21	CV	0	0
22	CV	2	2
23	CV	5	5
24	CV	18	17
25	CV	0	0
26	CV	638	596
27	CV	226	211
28	CV	44	41
29	CV	61	57
30	CV	10	9
31	CV	61	57
32	CV	70	65
33	CV	238	222
34	CV	382	357
35	CV	0	0
36	CV	270	252
37	CV	3	3
38	CV	97	91
39	CV	126	118
40	CV	136	127
41	CV	30	28
42	CV	7	7
43	CV	154	144
44	CV	96	90
45	CV	65	61

**TABLE B-2. 2015 NUMBER OF HOUSING UNITS BY TRAFFIC ANALYSIS ZONE  
(Continued)**

TAZ	Area	Total Housing Units	Occupied Housing Units
46	CV	14	13
47	CV	34	32
48	CV	162	151
49	CV	172	161
50	CV	45	42
51	CV	150	140
52	CV	113	106
53	CV	348	325
54	CV	189	177
55	CV	3	3
56	CV	15	14
<b>CAMP VERDE SUBTOTAL</b>		<b>6,010</b>	<b>5,617</b>
<b>CLARKDALE</b>			
TAZ	Area	Total Housing Units	Occupied Housing Units
162	CD	5	5
163	CD	85	79
164	CD	77	72
165	CD	582	541
166	CD	428	398
167	CD	265	246
168	CD	239	222
169	CD	220	205
170	CD	99	92
<b>CLARKDALE SUBTOTAL</b>		<b>2,000</b>	<b>1,860</b>
<b>COTTONWOOD</b>			
TAZ	Area	Total Housing Units	Occupied Housing Units
134	CW	12	11
135	CW	4	4
136	CW	795	728
137	CW	489	448
138	CW	6	5
139	CW	20	18
140	CW	0	0
141	CW	323	296
142	CW	367	336
143	CW	19	17
144	CW	624	571
145	CW	495	453
146	CW	74	68
147	CW	505	462
148	CW	333	305
149	CW	207	190
150	CW	492	450
152	CW	102	93



**TABLE B-2. 2015 NUMBER OF HOUSING UNITS BY TRAFFIC ANALYSIS ZONE  
(Continued)**

<b>TAZ</b>	<b>Area</b>	<b>Total Housing Units</b>	<b>Occupied Housing Units</b>
153	CW	2	2
154	CW	242	222
174	CW	0	0
175	CW	572	524
176	CW	446	408
177	CW	435	398
178	CW	115	105
179	CW	427	391
180	CW	497	455
<b>COTTONWOOD SUBTOTAL</b>		<b>7,603</b>	<b>6,960</b>
<b>JEROME</b>			
<b>TAZ</b>	<b>Area</b>	<b>Total Housing Units</b>	<b>Occupied Housing Units</b>
172	J	76	65
173	J	106	90
<b>JEROME SUBTOTAL</b>		<b>182</b>	<b>155</b>
<b>SEDONA</b>			
<b>TAZ</b>	<b>Area</b>	<b>Total Housing Units</b>	<b>Occupied Housing Units</b>
100	S	40	37
101	S	96	88
102	S	660	607
103	S	440	405
104	S	37	34
105	S	160	147
106	S	277	255
107	S	71	65
108	S	29	27
109	S	724	666
110	S	1,070	985
111	S	264	243
112	S	0	0
113	S	0	0
114	S	442	407
115	S	138	127
116	S	31	29
117	S	255	235
181	S	5	5
182	S	91	84
183	S	91	84
184	S	148	136
185	S	0	0
186	S	79	73
187	S	57	52
188	S	23	21
189	S	88	81
190	S	0	0

**TABLE B-2. 2015 NUMBER OF HOUSING UNITS BY TRAFFIC ANALYSIS ZONE  
(Continued)**

<b>TAZ</b>	<b>Area</b>	<b>Total Housing Units</b>	<b>Occupied Housing Units</b>
191	S	57	52
192	S	112	103
193	S	0	0
194	S	0	0
195	S	315	290
196	S	304	280
197	S	42	39
198	S	283	260
199	S	72	66
200	S	8	7
201	S	157	144
202	S	118	109
203	S	105	97
204	S	93	86
<b>SEDONA SUBTOTAL</b>		<b>6,982</b>	<b>6,426</b>
<b>UNINCORPORATED YAVAPAI COUNTY</b>			
<b>TAZ</b>	<b>Area</b>	<b>Total Housing Units</b>	<b>Occupied Housing Units</b>
57	C	0	0
58	C	0	0
59	C	5	4
60	C	132	117
61	C	6	5
62	C	10	9
63	C	0	0
64	C	2	2
65	C	11	10
66	C	12	11
67	C	113	100
68	C	1,120	995
69	C	1,053	936
70	C	375	333
71	C	0	0
72	C	22	20
73	C	182	162
74	C	340	302
75	C	4	4
76	C	976	867
77	C	717	637
78	C	517	459
79	C	292	259
80	C	34	30
81	C	809	719
82	C	271	241
83	C	0	0
84	C	100	89

**TABLE B-2. 2015 NUMBER OF HOUSING UNITS BY TRAFFIC ANALYSIS ZONE  
(Continued)**

<b>TAZ</b>	<b>Area</b>	<b>Total Housing Units</b>	<b>Occupied Housing Units</b>
85	C	145	129
86	C	199	177
87	C	67	60
88	C	77	68
89	C	210	187
90	C	221	196
91	C	738	656
92	C	915	813
93	C	150	133
94	C	50	44
95	C	50	44
96	C	7	6
97	C	5	4
98	C	29	26
99	C	250	222
118	C	0	0
119	C	1	1
120	C	15	13
121	C	2	2
122	C	65	58
123	C	56	50
124	C	775	689
125	C	26	23
126	C	2,401	2,134
127	C	411	365
128	C	276	245
129	C	21	19
130	C	111	99
131	C	1,042	926
132	C	415	369
133	C	84	75
151	C	5	4
155	C	0	0
156	C	24	21
157	C	1	1
158	C	22	20
159	C	36	32
160	C	19	17
161	C	8	7
171	C	25	22
<b>UNINCORPORATED</b>			
<b>SUBTOTAL</b>		<b>16,057</b>	<b>14,268</b>
<b>GRAND TOTAL</b>		<b>38,834</b>	<b>35,286</b>

**TABLE B-3. 2030 NUMBER OF HOUSING UNITS BY TRAFFIC ANALYSIS ZONE**

<b>CAMP VERDE</b>			
<b>TAZ</b>	<b>Area</b>	<b>Total Housing Units</b>	<b>Occupied Housing Units</b>
1	CV	0	0
2	CV	1	1
3	CV	60	56
4	CV	291	272
5	CV	2	2
6	CV	0	0
7	CV	5	5
8	CV	337	315
9	CV	274	256
10	CV	32	30
11	CV	371	347
12	CV	0	0
13	CV	50	47
14	CV	50	47
15	CV	192	179
16	CV	181	169
17	CV	60	56
18	CV	10	9
19	CV	216	202
20	CV	0	0
21	CV	674	630
22	CV	2	2
23	CV	5	5
24	CV	18	17
25	CV	0	0
26	CV	681	636
27	CV	226	211
28	CV	44	41
29	CV	61	57
30	CV	10	9
31	CV	361	337
32	CV	70	65
33	CV	238	222
34	CV	382	357
35	CV	0	0
36	CV	270	252
37	CV	3	3
38	CV	97	91
39	CV	126	118
40	CV	136	127
41	CV	30	28
42	CV	7	7
43	CV	172	161
44	CV	96	90
45	CV	65	61

**TABLE B-3. 2030 NUMBER OF HOUSING UNITS BY TRAFFIC ANALYSIS ZONE  
(Continued)**

<b>TAZ</b>	<b>Area</b>	<b>Total Housing Units</b>	<b>Occupied Housing Units</b>
46	CV	14	13
47	CV	34	32
48	CV	1061	992
49	CV	172	161
50	CV	45	42
51	CV	150	140
52	CV	113	106
53	CV	348	325
54	CV	189	177
55	CV	3	3
56	CV	15	14
<b>CAMP VERDE SUBTOTAL</b>		<b>8,052</b>	<b>7,525</b>
<b>CLARKDALE</b>			
<b>TAZ</b>	<b>Area</b>	<b>Total Housing Units</b>	<b>Occupied Housing Units</b>
162	CD	10	9
163	CD	90	84
164	CD	90	84
165	CD	620	577
166	CD	495	460
167	CD	382	355
168	CD	284	264
169	CD	230	214
170	CD	99	92
<b>CLARKDALE SUBTOTAL</b>		<b>2,300</b>	<b>2,139</b>
<b>COTTONWOOD</b>			
<b>TAZ</b>	<b>Area</b>	<b>Total Housing Units</b>	<b>Occupied Housing Units</b>
134	CW	59	54
135	CW	4	4
136	CW	1,057	968
137	CW	587	537
138	CW	18	16
139	CW	20	18
140	CW	59	54
141	CW	378	346
142	CW	440	403
143	CW	19	17
144	CW	681	623
145	CW	698	639
146	CW	106	97
147	CW	598	547
148	CW	411	376
149	CW	235	215
150	CW	881	807
152	CW	223	204



**TABLE B-3. 2030 NUMBER OF HOUSING UNITS BY TRAFFIC ANALYSIS ZONE  
(Continued)**

TAZ	Area	Total Housing Units	Occupied Housing Units
153	CW	35	32
154	CW	452	414
174	CW	0	0
175	CW	676	619
176	CW	521	477
177	CW	508	465
178	CW	135	124
179	CW	600	549
180	CW	699	640
<b>COTTONWOOD SUBTOTAL</b>		<b>10,100</b>	<b>9,245</b>
<b>JEROME</b>			
TAZ	Area	Total Housing Units	Occupied Housing Units
172	J	76	65
173	J	106	90
<b>JEROME SUBTOTAL</b>		<b>182</b>	<b>155</b>
<b>SEDONA</b>			
TAZ	Area	Total Housing Units	Occupied Housing Units
100	S	200	184
101	S	115	106
102	S	833	766
103	S	488	449
104	S	53	49
105	S	232	213
106	S	301	277
107	S	102	94
108	S	33	30
109	S	805	741
110	S	1,152	1,060
111	S	291	268
112	S	0	0
113	S	0	0
114	S	560	515
115	S	195	179
116	S	37	34
117	S	333	306
181	S	14	13
182	S	103	95
183	S	102	94
184	S	174	160
185	S	0	0
186	S	86	79
187	S	79	73
188	S	38	35
189	S	114	105
190	S	0	0

**TABLE B-3. 2030 NUMBER OF HOUSING UNITS BY TRAFFIC ANALYSIS ZONE  
(Continued)**

TAZ	Area	Total Housing Units	Occupied Housing Units
191	S	57	52
192	S	112	103
193	S	0	0
194	S	0	0
195	S	335	308
196	S	341	314
197	S	42	39
198	S	283	260
199	S	96	88
200	S	8	7
201	S	177	163
202	S	127	117
203	S	128	118
204	S	110	101
<b>SEDONA SUBTOTAL</b>		<b>8,256</b>	<b>7,595</b>
<b>UNINCORPORATED YAVAPAI COUNTY</b>			
TAZ	Area	Total Housing Units	Occupied Housing Units
57	C	0	0
58	C	0	0
59	C	5	4
60	C	150	133
61	C	7	6
62	C	13	12
63	C	0	0
64	C	2	2
65	C	11	10
66	C	12	11
67	C	138	123
68	C	1,489	1,323
69	C	1,348	1,198
70	C	499	443
71	C	0	0
72	C	32	28
73	C	242	215
74	C	680	604
75	C	5	4
76	C	1,071	952
77	C	752	668
78	C	555	493
79	C	333	296
80	C	42	37
81	C	848	754
82	C	315	280
83	C	0	0
84	C	120	107

**TABLE B-3. 2030 NUMBER OF HOUSING UNITS BY TRAFFIC ANALYSIS ZONE  
(Continued)**

<b>TAZ</b>	<b>Area</b>	<b>Total Housing Units</b>	<b>Occupied Housing Units</b>
85	C	177	157
86	C	240	213
87	C	77	68
88	C	100	89
89	C	320	284
90	C	244	217
91	C	945	840
92	C	1,171	1,041
93	C	700	622
94	C	425	378
95	C	425	378
96	C	9	8
97	C	7	6
98	C	34	30
99	C	260	231
118	C	0	0
119	C	1	1
120	C	15	13
121	C	2	2
122	C	100	89
123	C	100	89
124	C	775	689
125	C	29	26
126	C	2,761	2,453
127	C	513	456
128	C	354	315
129	C	22	20
130	C	148	132
131	C	1,146	1,018
132	C	531	472
133	C	86	76
151	C	5	4
155	C	50	44
156	C	29	26
157	C	1	1
158	C	23	20
159	C	36	32
160	C	20	18
161	C	8	7
171	C	30	27
<b>UNINCORPORATED</b>			
<b>SUBTOTAL</b>		<b>20,588</b>	<b>18,295</b>
<b>GRAND TOTAL</b>		<b>49,478</b>	<b>44,954</b>

**TABLE B-4. 2007 NUMBER OF EMPLOYEES BY TRAFFIC ANALYSIS ZONE BY MAJOR EMPLOYMENT SECTOR**

<b>CAMP VERDE</b>											
<b>TAZ</b>	<b>Area</b>	<b>Retail</b>	<b>Service</b>	<b>Office</b>	<b>Public</b>	<b>Industrial</b>	<b>Lodging</b>	<b>School</b>	<b>College</b>	<b>Casino</b>	<b>TOTAL</b>
1	CV	50	0	0	90	0	0	0	0	0	140
2	CV	0	0	0	0	0	0	0	0	0	0
3	CV	1	2	6	9	0	0	0	0	0	18
4	CV	1	0	0	0	0	0	0	0	0	1
5	CV	15	0	1	9	13	0	0	0	0	38
6	CV	64	0	23	57	0	0	0	0	0	144
7	CV	0	0	13	17	546	0	0	0	0	576
8	CV	0	0	0	0	0	0	0	0	0	0
9	CV	0	0	30	0	65	0	0	0	0	95
10	CV	0	0	20	0	0	0	0	0	0	20
11	CV	0	0	1	5	0	0	0	0	0	6
12	CV	4	0	0	0	7	0	0	0	0	11
13	CV	34	1	5	0	39	0	0	0	0	79
14	CV	4	0	0	0	0	0	0	0	0	4
15	CV	0	5	12	0	0	0	0	0	0	17
16	CV	0	1	0	5	0	0	0	0	0	6
17	CV	0	2	1	2	0	0	0	0	0	5
18	CV	0	0	0	2	0	0	0	0	0	2
19	CV	0	0	0	0	0	0	0	0	0	0
20	CV	0	0	0	0	0	0	0	0	0	0
21	CV	0	0	0	0	0	0	0	0	0	0
22	CV	41	0	0	0	0	0	0	0	0	41
23	CV	135	0	0	0	0	0	0	18	0	153
24	CV	79	2	22	71	0	0	0	20	0	194
25	CV	0	0	0	0	0	0	0	0	0	0
26	CV	0	0	0	0	0	0	0	0	0	0
27	CV	8	1	8	1	0	179	0	0	0	197
28	CV	0	0	0	0	0	0	0	0	0	0
29	CV	100	0	8	0	0	0	0	1	400	509
30	CV	30	0	0	0	0	0	0	0	0	30
31	CV	0	0	0	0	0	0	0	0	0	0
32	CV	14	25	38	0	16	0	0	0	0	93

**TABLE B-4. 2007 NUMBER OF EMPLOYEES BY TRAFFIC ANALYSIS ZONE BY MAJOR EMPLOYMENT SECTOR  
(Continued)**

TAZ	Area	Retail	Service	Office	Public	Industrial	Lodging	Schools	Colleges	Casino	TOTAL
33	CV	32	41	47	9	144	16	0	0	0	289
34	CV	31	15	44	13	32	0	0	4	0	139
35	CV	105	6	23	0	0	0	0	0	0	134
36	CV	8	7	0	0	0	0	0	2	0	17
37	CV	0	0	0	3	0	0	0	0	0	3
38	CV	3	0	0	0	0	0	0	0	0	3
39	CV	0	3	66	0	0	0	0	0	0	69
40	CV	0	0	6	0	0	0	0	0	0	6
41	CV	1	0	0	0	0	0	0	0	0	1
42	CV	0	0	0	0	0	0	0	0	0	0
43	CV	16	7	26	24	4	0	0	0	0	77
44	CV	0	0	7	7	0	0	0	0	0	14
45	CV	0	0	0	0	0	0	0	0	0	0
46	CV	0	0	0	0	0	0	0	0	0	0
47	CV	0	0	0	0	0	0	0	0	0	0
48	CV	0	0	3	0	0	0	0	0	0	3
49	CV	0	0	4	0	0	0	0	0	0	4
50	CV	0	0	0	0	0	0	0	0	0	0
51	CV	0	0	2	0	0	0	0	0	0	2
52	CV	0	0	0	3	0	0	0	0	0	3
53	CV	0	0	0	0	0	0	0	0	0	0
54	CV	0	0	0	3	0	0	0	0	0	3
55	CV	0	0	0	0	0	0	0	0	0	0
56	CV	0	0	2	0	0	0	0	6	0	8
<b>CAMP VERDE SUBTOTAL</b>		<b>776</b>	<b>118</b>	<b>418</b>	<b>330</b>	<b>866</b>	<b>195</b>	<b>0</b>	<b>51</b>	<b>400</b>	<b>3,154</b>
<b>CLARKDALE</b>											
TAZ	Area	Retail	Service	Office	Public	Industrial	Lodging	Schools	Colleges	Casino	TOTAL
162	CD	0	0	0	0	0	0	0	0	0	0
163	CD	0	0	5	0	0	0	0	138	0	143
164	CD	0	0	5	0	0	0	0	0	0	5
165	CD	38	35	22	25	82	0	0	50	0	252
166	CD	1	4	0	0	5	0	0	0	0	10



**TABLE B-4. 2007 NUMBER OF EMPLOYEES BY TRAFFIC ANALYSIS ZONE BY MAJOR EMPLOYMENT SECTOR  
(Continued)**

TAZ	Area	Retail	Service	Office	Public	Industrial	Lodging	Schools	Colleges	Casino	TOTAL
167	CD	0	9	0	0	0	0	0	0	0	9
168	CD	1	75	0	0	0	0	56	0	0	132
169	CD	0	3	0	0	37	0	0	0	0	40
170	CD	0	0	0	0	0	0	45	0	0	45
<b>CLARKDALE SUBTOTAL</b>		<b>40</b>	<b>126</b>	<b>32</b>	<b>25</b>	<b>124</b>	<b>0</b>	<b>101</b>	<b>188</b>	<b>0</b>	<b>636</b>
<b>COTTONWOOD</b>											
TAZ	Area	Retail	Service	Office	Public	Industrial	Lodging	Schools	Colleges	Casino	TOTAL
134	CW	0	0	0	0	0	0	0	0	0	0
135	CW	0	0	0	0	0	0	0	0	0	0
136	CW	19	25	13	7	16	0	0	11	0	91
137	CW	401	30	23	0	6	0	6	0	0	466
138	CW	60	19	14	0	0	0	125	0	0	218
139	CW	163	4	33	0	0	9	0	0	0	209
140	CW	593	32	10	0	0	0	0	0	0	635
141	CW	26	42	14	0	31	0	0	0	0	113
142	CW	126	119	39	3	36	15	0	0	0	338
143	CW	0	8	0	8	10	0	0	0	0	26
144	CW	8	63	5	0	1	0	0	0	0	77
145	CW	50	139	13	16	27	2	46	0	0	293
146	CW	20	732	15	22	0	0	0	0	0	789
147	CW	156	316	23	73	107	0	0	0	0	675
148	CW	537	263	260	36	49	22	37	0	0	1,204
149	CW	41	18	0	4	4	0	0	0	0	67
150	CW	66	38	3	0	5	0	82	0	0	194
152	CW	0	0	0	0	0	0	0	0	0	0
153	CW	0	0	4	0	0	3	0	0	0	7
154	CW	0	0	0	0	0	0	0	0	0	0
174	CW	0	0	0	0	0	0	0	0	0	0
175	CW	151	155	14	14	40	5	15	0	0	394
176	CW	162	131	89	0	24	25	0	0	0	431
177	CW	8	63	7	0	15	0	0	0	0	93
178	CW	12	203	3	270	46	0	0	0	0	534

**TABLE B-4. 2007 NUMBER OF EMPLOYEES BY TRAFFIC ANALYSIS ZONE BY MAJOR EMPLOYMENT SECTOR  
(Continued)**

TAZ	Area	Retail	Service	Office	Public	Industrial	Lodging	School	College	Casino	TOTAL
179	CW	101	336	20	0	1	0	92	0	0	550
180	CW	6	23	0	0	0	0	0	0	0	29
<b>COTTONWOOD SUBTOTAL</b>		<b>2,706</b>	<b>2,759</b>	<b>602</b>	<b>453</b>	<b>418</b>	<b>81</b>	<b>403</b>	<b>11</b>	<b>0</b>	<b>7,433</b>
<b>JEROME</b>											
TAZ	Area	Retail	Service	Office	Public	Industrial	Lodging	School	College	Casino	TOTAL
172	J	200	46	42	0	0	0	0	0	0	288
173	J	4	3	0	0	0	0	0	0	0	7
<b>JEROME SUBTOTAL</b>		<b>204</b>	<b>49</b>	<b>42</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>295</b>
<b>SEDONA</b>											
TAZ	Area	Retail	Service	Office	Public	Industrial	Lodging	School	College	Casino	TOTAL
100	S	0	71	12	0	0	42	0	10	0	135
101	S	2	1	0	2	0	6	0	0	0	11
102	S	2	26	0	3	1	16	0	0	0	48
103	S	3	4	1	0	1	0	0	0	0	9
104	S	0	0	0	0	0	0	0	0	0	0
105	S	3	6	4	3	1	0	0	0	0	17
106	S	0	4	4	0	2	0	0	0	0	10
107	S	9	0	0	0	3	0	0	0	0	12
108	S	0	0	0	0	0	0	0	0	0	0
109	S	6	86	14	0	21	0	0	0	0	127
110	S	52	124	38	6	138	60	0	0	0	418
111	S	0	15	5	0	7	0	0	0	0	27
112	S	0	0	0	0	0	0	0	0	0	0
113	S	0	0	3	0	0	0	0	0	0	3
114	S	18	18	3	0	0	0	0	0	0	39
115	S	0	0	3	0	1	0	0	0	0	4
116	S	0	0	0	0	0	0	0	0	0	0
117	S	2	6	1	0	1	180	0	0	0	190
181	S	91	89	58	3	35	60	2	0	0	338
182	S	353	290	260	6	3	152	0	1	0	1,065

**TABLE B-4. 2007 NUMBER OF EMPLOYEES BY TRAFFIC ANALYSIS ZONE BY MAJOR EMPLOYMENT SECTOR  
(Continued)**

TAZ	Area	Retail	Service	Office	Public	Industrial	Lodging	School	College	Casino	TOTAL
183	S	0	0	2	0	0	0	0	0	0	2
184	S	11	25	111	0	0	9	18	0	0	174
185	S	266	22	6	0	0	275	0	0	0	569
186	S	0	2	0	0	3	0	0	0	0	5
187	S	6	17	4	0	0	0	0	0	0	27
188	S	0	0	0	0	0	0	0	0	0	0
189	S	158	16	0	4	0	69	0	0	0	247
190	S	74	32	4	0	0	11	0	0	0	121
191	S	399	188	1	4	0	283	0	0	0	875
192	S	525	100	141	3	110	96	0	0	0	975
193	S	14	74	35	0	0	40	0	0	0	163
194	S	445	156	110	3	134	22	0	0	0	870
195	S	0	9	3	0	0	0	0	0	0	12
196	S	0	17	6	0	0	0	59	0	0	82
197	S	274	75	22	0	30	0	0	0	0	401
198	S	0	2	0	0	0	0	0	0	0	2
199	S	0	0	0	0	8	0	0	0	0	8
200	S	124	388	48	103	53	20	0	0	0	736
201	S	0	8	0	0	34	0	0	0	0	42
202	S	6	6	2	3	0	0	14	0	0	31
203	S	2	0	0	0	0	0	0	0	0	2
204	S	18	41	8	0	9	18	0	0	0	94
<b>SEDONA SUBTOTAL</b>		<b>2,863</b>	<b>1,918</b>	<b>909</b>	<b>143</b>	<b>595</b>	<b>1,359</b>	<b>93</b>	<b>11</b>	<b>0</b>	<b>7891</b>
<b>UNINCORPORATED YAVAPAI COUNTY</b>											
TAZ	Area	Retail	Service	Office	Public	Industrial	Lodging	School	College	Casino	TOTAL
57	C	0	0	0	0	0	0	0	0	0	0
58	C	0	0	0	0	0	0	0	0	0	0
59	C	0	0	0	0	0	0	0	0	0	0
60	C	0	0	0	0	3	0	0	0	0	3
61	C	0	0	0	3	0	0	0	0	0	3
62	C	0	3	0	0	0	4	0	0	0	7

**TABLE B-4. 2007 NUMBER OF EMPLOYEES BY TRAFFIC ANALYSIS ZONE BY MAJOR EMPLOYMENT SECTOR  
(Continued)**

TAZ	Area	Retail	Service	Office	Public	Industrial	Lodging	School	College	Casino	TOTAL
63	C	0	0	0	0	0	0	0	0	0	0
64	C	0	0	0	0	0	0	0	0	0	0
65	C	0	0	0	0	0	0	0	0	0	0
66	C	0	5	0	0	0	0	0	0	0	5
67	C	0	0	0	0	0	0	0	0	0	0
68	C	22	38	0	0	17	0	0	0	0	77
69	C	0	8	3	13	15	0	0	0	0	39
70	C	2	12	5	19	3	0	51	0	0	92
71	C	0	0	0	22	0	0	0	0	0	22
72	C	0	0	0	0	0	0	0	0	0	0
73	C	26	0	0	0	3	0	0	0	0	29
74	C	0	6	0	0	51	0	0	0	0	57
75	C	0	0	0	0	0	0	0	0	0	0
76	C	297	69	25	6	14	350	38	0	0	799
77	C	4	13	0	3	12	31	0	0	0	63
78	C	73	188	118	6	41	0	0	0	0	426
79	C	0	182	6	0	3	10	0	0	0	201
80	C	0	1	0	0	0	0	0	0	0	1
81	C	232	55	25	3	18	25	0	0	0	358
82	C	3	13	1	0	0	0	0	0	0	17
83	C	25	1	0	0	0	0	0	0	0	26
84	C	0	7	1	0	5	0	0	0	0	13
85	C	8	5	25	0	4	83	0	0	0	125
86	C	1	24	0	3	2	2	100	0	0	132
87	C	5	24	7	0	18	2	0	0	0	56
88	C	0	0	0	0	0	0	0	0	0	0
89	C	15	0	0	0	6	9	0	0	0	30
90	C	0	0	0	0	20	5	0	0	0	25
91	C	6	69	2	0	19	0	45	0	0	141
92	C	10	7	18	0	38	0	0	0	0	73
93	C	19	5	0	0	0	0	0	0	0	24
94	C	0	0	0	0	0	0	0	0	0	0

**TABLE B-4. 2007 NUMBER OF EMPLOYEES BY TRAFFIC ANALYSIS ZONE BY MAJOR EMPLOYMENT SECTOR  
(Continued)**

TAZ	Area	Retail	Service	Office	Public	Industrial	Lodging	School	College	Casino	TOTAL
95	C	0	13	0	0	0	0	0	0	0	13
96	C	0	0	0	0	0	0	0	0	0	0
97	C	0	0	0	0	0	0	0	0	0	0
98	C	3	3	1	0	0	460	0	0	0	467
99	C	0	5	0	0	0	96	0	0	0	101
118	C	0	0	0	0	0	0	0	0	0	0
119	C	0	0	2	22	0	3	0	0	0	27
120	C	0	0	0	0	0	0	0	0	0	0
121	C	0	10	0	0	1	0	0	0	0	11
122	C	6	37	0	0	9	0	0	0	0	52
123	C	0	0	0	0	0	28	0	0	0	28
124	C	0	5	3	0	0	0	0	0	0	8
125	C	0	0	0	0	0	0	0	0	0	0
126	C	48	87	10	48	90	0	0	0	0	283
127	C	18	125	13	0	28	0	0	0	0	184
128	C	3	19	0	0	11	0	4	0	0	37
129	C	3	2	0	0	4	0	0	0	0	9
130	C	0	8	0	2	8	0	0	0	0	18
131	C	4	35	2	0	13	0	95	1	0	150
132	C	5	10	9	0	17	0	0	0	0	41
133	C	2	0	0	0	5	0	0	0	0	7
151	C	0	16	0	0	0	0	0	0	0	16
155	C	0	0	0	0	0	0	0	0	0	0
156	C	0	0	0	0	0	0	0	0	0	0
157	C	0	0	0	0	0	0	0	0	0	0
158	C	0	0	0	0	0	0	0	0	0	0
159	C	0	0	0	0	0	0	0	0	0	0
160	C	0	0	0	0	0	0	0	0	0	0
161	C	0	0	0	0	0	0	0	0	0	0
171	C	0	48	3	0	160	0	0	0	0	211
<b>UNINCORPORATED</b>											
<b>SUBTOTAL</b>		<b>840</b>	<b>1,158</b>	<b>279</b>	<b>150</b>	<b>638</b>	<b>1,108</b>	<b>333</b>	<b>1</b>	<b>0</b>	<b>4,507</b>
<b>GRAND TOTAL</b>		<b>7,429</b>	<b>6,128</b>	<b>2,282</b>	<b>1,101</b>	<b>2,641</b>	<b>2,743</b>	<b>930</b>	<b>262</b>	<b>400</b>	<b>23,916</b>



**TABLE B-5. 2015 NUMBER OF EMPLOYEES BY TRAFFIC ANALYSIS ZONE BY MAJOR EMPLOYMENT SECTOR**

<b>CAMP VERDE</b>											
<b>TAZ</b>	<b>Area</b>	<b>Retail</b>	<b>Service</b>	<b>Office</b>	<b>Public</b>	<b>Industrial</b>	<b>Lodging</b>	<b>School</b>	<b>College</b>	<b>Casino</b>	<b>TOTAL</b>
1	CV	50	0	0	0	115	0	0	0	0	165
2	CV	0	0	0	0	0	0	0	0	0	0
3	CV	1	7	2	0	11	0	0	0	0	21
4	CV	1	0	0	0	0	0	0	0	0	1
5	CV	15	1	0	16	45	0	0	0	0	77
6	CV	64	29	0	0	85	0	0	0	0	178
7	CV	112	16	0	702	21	0	0	0	0	851
8	CV	120	0	0	0	0	0	0	0	0	120
9	CV	0	38	0	83	0	0	0	0	0	121
10	CV	32	25	0	0	0	0	0	0	0	57
11	CV	0	1	0	0	6	0	0	0	0	7
12	CV	36	0	0	9	0	0	0	0	0	45
13	CV	34	6	1	50	0	0	0	0	0	91
14	CV	4	0	0	0	0	0	0	0	0	4
15	CV	0	15	6	0	0	0	0	0	0	21
16	CV	0	0	1	0	6	0	0	0	0	7
17	CV	0	1	2	0	2	0	0	0	0	5
18	CV	0	0	0	0	2	0	0	0	0	2
19	CV	160	0	0	0	0	0	0	0	0	160
20	CV	0	0	0	0	0	0	0	0	0	0
21	CV	0	0	0	0	0	0	0	0	0	0
22	CV	41	0	0	0	0	0	0	0	0	41
23	CV	295	0	0	0	0	22	0	0	0	317
24	CV	79	28	2	0	91	25	0	0	0	225
25	CV	480	0	0	0	0	0	0	0	0	480
26	CV	0	0	0	0	0	0	0	0	0	0
27	CV	8	10	1	0	1	0	217	13	0	250
28	CV	0	0	0	0	0	0	0	0	0	0
29	CV	100	10	0	0	0	1	0	0	600	711
30	CV	30	0	0	0	0	0	0	0	0	30
31	CV	0	0	0	0	0	0	0	0	0	0
32	CV	14	49	32	20	0	0	0	0	0	115

**TABLE B-5. 2015 NUMBER OF EMPLOYEES BY TRAFFIC ANALYSIS ZONE BY MAJOR EMPLOYMENT SECTOR  
(Continued)**

TAZ	Area	Retail	Service	Office	Public	Industrial	Lodging	School	College	Casino	TOTAL
33	CV	32	60	53	185	11	0	20	0	0	361
34	CV	31	56	19	41	16	5	0	0	0	168
35	CV	185	29	7	0	0	0	0	0	0	221
36	CV	168	0	9	0	0	2	0	0	0	179
37	CV	0	0	0	0	3	0	0	0	0	3
38	CV	3	0	0	0	0	0	0	0	0	3
39	CV	0	85	3	0	0	0	0	0	0	88
40	CV	0	7	0	0	0	0	0	0	0	7
41	CV	1	0	0	0	0	0	0	0	0	1
42	CV	0	0	0	0	0	0	0	0	0	0
43	CV	16	33	9	5	30	0	0	0	0	93
44	CV	0	9	0	0	9	0	0	0	0	18
45	CV	0	0	0	0	0	0	0	0	0	0
46	CV	0	0	0	0	0	0	0	0	0	0
47	CV	0	0	0	0	0	0	0	0	0	0
48	CV	0	3	0	0	0	0	0	0	0	3
49	CV	0	5	0	0	0	0	0	0	0	5
50	CV	0	0	0	0	0	0	0	0	0	0
51	CV	0	2	0	0	0	0	0	0	0	2
52	CV	0	0	0	0	3	0	0	0	0	3
53	CV	0	0	0	0	0	0	0	0	0	0
54	CV	0	0	0	0	3	0	0	0	0	3
55	CV	0	0	0	0	0	0	0	0	0	0
56	CV	0	2	0	0	0	7	0	0	0	9
<b>CAMP VERDE SUBTOTAL</b>		<b>2,112</b>	<b>527</b>	<b>147</b>	<b>1,111</b>	<b>460</b>	<b>62</b>	<b>237</b>	<b>13</b>	<b>600</b>	<b>5,269</b>
<b>CLARKDALE</b>											
TAZ	Area	Retail	Service	Office	Public	Industrial	Lodging	School	College	Casino	TOTAL
162	CD	0	0	0	0	0	0	0	0	0	0
163	CD	0	0	5	0	0	0	0	175	0	180
164	CD	0	0	5	0	0	0	0	0	0	5
165	CD	44	41	25	28	94	0	0	62	0	294
166	CD	1	4	0	0	5	0	0	0	0	10

**TABLE B-5. 2015 NUMBER OF EMPLOYEES BY TRAFFIC ANALYSIS ZONE BY MAJOR EMPLOYMENT SECTOR  
(Continued)**

TAZ	Area	Retail	Service	Office	Public	Industrial	Lodging	School	College	Casino	TOTAL
167	CD	0	9	0	0	0	0	0	0	0	9
168	CD	1	88	0	0	0	35	69	0	0	193
169	CD	0	4	0	0	142	0	0	0	0	146
170	CD	0	0	0	0	0	0	55	0	0	55
<b>CLARKDALE SUBTOTAL</b>		<b>46</b>	<b>146</b>	<b>35</b>	<b>28</b>	<b>241</b>	<b>35</b>	<b>124</b>	<b>237</b>	<b>0</b>	<b>892</b>
<b>COTTONWOOD</b>											
TAZ	Area	Retail	Service	Office	Public	Industrial	Lodging	School	College	Casino	TOTAL
134	CW	0	0	0	0	0	0	0	0	0	0
135	CW	0	0	0	0	0	0	0	0	0	0
136	CW	22	29	15	8	18	0	0	14	0	106
137	CW	465	35	26	0	7	0	7	0	0	540
138	CW	70	22	16	0	0	0	154	0	0	262
139	CW	189	5	37	0	0	10	0	0	0	241
140	CW	688	38	11	0	0	0	0	0	0	737
141	CW	30	49	16	0	35	0	0	0	0	130
142	CW	146	140	144	3	141	17	0	0	0	591
143	CW	0	9	0	9	11	0	0	0	0	29
144	CW	9	74	6	0	1	0	0	0	0	90
145	CW	75	180	30	18	31	2	57	0	0	393
146	CW	23	840	17	25	0	0	0	0	0	905
147	CW	206	397	51	81	122	0	0	0	0	857
148	CW	600	300	291	40	56	26	46	0	0	1,359
149	CW	68	40	20	4	5	0	0	0	0	137
150	CW	77	45	3	0	6	0	101	0	0	232
152	CW	0	0	0	0	0	0	0	0	0	0
153	CW	0	0	4	0	0	3	0	0	0	7
154	CW	40	40	40	0	0	0	0	0	0	120
174	CW	0	0	0	0	0	0	0	0	0	0
175	CW	175	182	16	16	46	6	18	0	0	459
176	CW	188	154	100	0	27	29	0	0	0	498

**TABLE B-5. 2015 NUMBER OF EMPLOYEES BY TRAFFIC ANALYSIS ZONE BY MAJOR EMPLOYMENT SECTOR  
(Continued)**

TAZ	Area	Retail	Service	Office	Public	Industrial	Lodging	School	College	Casino	TOTAL
177	CW	9	74	8	0	17	0	0	0	0	108
178	CW	14	239	3	301	53	0	0	0	0	610
179	CW	117	396	22	0	1	0	113	0	0	649
180	CW	17	37	10	0	0	10	0	0	0	74
<b>SUBTOTAL</b>		<b>3,228</b>	<b>3,325</b>	<b>886</b>	<b>505</b>	<b>577</b>	<b>103</b>	<b>496</b>	<b>14</b>	<b>0</b>	<b>9,134</b>
<b>JEROME</b>											
TAZ	Area	Retail	Service	Office	Public	Industrial	Lodging	School	College	Casino	TOTAL
172	J	232	54	47	0	0	0	0	0	0	333
173	J	4	3	0	0	0	0	0	0	0	7
<b>SUBTOTAL</b>		<b>236</b>	<b>57</b>	<b>47</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>340</b>
<b>SEDONA</b>											
TAZ	Area	Retail	Service	Office	Public	Industrial	Lodging	School	College	Casino	TOTAL
100	S	50	171	12	0	0	242	0	10	0	485
101	S	162	1	0	2	0	22	0	0	0	187
102	S	2	26	20	3	1	16	0	0	0	68
103	S	3	4	1	0	1	0	0	0	0	9
104	S	0	0	0	0	0	0	0	0	0	0
105	S	3	6	4	3	1	0	0	0	0	17
106	S	0	4	4	0	2	0	0	0	0	10
107	S	9	0	0	0	3	0	0	0	0	12
108	S	0	0	0	0	0	0	0	0	0	0
109	S	6	86	14	0	21	0	0	0	0	127
110	S	66	124	38	6	138	60	0	0	0	432
111	S	0	15	5	0	7	0	0	0	0	27
112	S	0	0	0	0	0	0	0	0	0	0
113	S	0	0	3	0	0	0	0	0	0	3
114	S	18	18	3	0	0	0	0	0	0	39
115	S	0	0	3	0	1	0	0	0	0	4
116	S	0	0	0	0	0	0	0	0	0	0
117	S	2	6	1	0	1	180	0	0	0	190
181	S	123	89	83	3	35	60	2	0	0	395

**TABLE B-5. 2015 NUMBER OF EMPLOYEES BY TRAFFIC ANALYSIS ZONE BY MAJOR EMPLOYMENT SECTOR  
(Continued)**

TAZ	Area	Retail	Service	Office	Public	Industrial	Lodging	School	College	Casino	TOTAL
182	S	411	290	260	6	3	152	0	1	0	1,123
183	S	0	0	2	0	0	0	0	0	0	2
184	S	11	30	111	0	0	24	18	0	0	194
185	S	266	22	6	0	0	275	0	0	0	569
186	S	0	2	0	0	3	0	0	0	0	5
187	S	6	17	4	0	0	0	0	0	0	27
188	S	0	0	0	0	0	0	0	0	0	0
189	S	188	16	30	4	0	69	0	0	0	307
190	S	74	32	4	0	0	11	0	0	0	121
191	S	399	188	1	4	0	283	0	0	0	875
192	S	525	100	141	3	110	96	0	0	0	975
193	S	14	74	85	0	0	80	0	0	0	253
194	S	445	156	110	3	134	22	0	0	0	870
195	S	0	9	3	0	0	0	0	0	0	12
196	S	0	17	6	0	0	0	59	0	0	82
197	S	324	75	22	0	30	0	0	0	0	451
198	S	0	2	0	0	0	0	0	0	0	2
199	S	0	0	0	0	8	0	0	0	0	8
200	S	136	402	68	103	53	30	0	0	0	792
201	S	0	8	0	0	34	0	0	0	0	42
202	S	6	6	2	3	0	0	14	0	0	31
203	S	2	0	0	0	0	0	0	0	0	2
204	S	18	41	8	0	9	18	0	0	0	94
<b>SEDONA SUBTOTAL</b>		<b>3,269</b>	<b>2,037</b>	<b>1,054</b>	<b>143</b>	<b>595</b>	<b>1,640</b>	<b>93</b>	<b>11</b>	<b>0</b>	<b>8,842</b>
<b>UNINCORPORATED YAVAPAI COUNTY</b>											
TAZ	Area	Retail	Service	Office	Public	Industrial	Lodging	School	College	Casino	TOTAL
57	C	0	0	0	0	0	0	0	0	0	0
58	C	0	0	0	0	0	0	0	0	0	0
59	C	0	0	0	0	0	0	0	0	0	0
60	C	0	0	0	0	3	0	0	0	0	3
61	C	0	0	0	3	0	0	0	0	0	3



**TABLE B-5. 2015 NUMBER OF EMPLOYEES BY TRAFFIC ANALYSIS ZONE BY MAJOR EMPLOYMENT SECTOR  
(Continued)**

TAZ	Area	Retail	Service	Office	Public	Industrial	Lodging	School	College	Casino	TOTAL
62	C	0	3	0	0	0	4	0	0	0	7
63	C	0	0	0	0	0	0	0	0	0	0
64	C	0	0	0	0	0	0	0	0	0	0
65	C	0	0	0	0	0	0	0	0	0	0
66	C	250	5	0	0	0	40	0	0	0	295
67	C	10	0	0	0	0	0	0	0	0	10
68	C	26	45	0	0	19	0	0	0	0	90
69	C	0	9	3	14	17	0	0	0	0	43
70	C	2	14	6	21	3	0	63	0	0	109
71	C	0	0	0	25	0	0	0	0	0	25
72	C	0	0	0	0	10	0	0	0	0	10
73	C	30	0	0	0	3	0	0	0	0	33
74	C	0	7	0	0	58	0	0	0	0	65
75	C	0	0	0	0	0	0	0	0	0	0
76	C	345	81	28	7	16	407	47	0	0	931
77	C	5	15	0	3	14	36	0	0	0	73
78	C	85	221	132	7	47	0	0	0	0	492
79	C	0	214	7	0	3	12	0	0	0	236
80	C	0	1	0	0	0	0	0	0	0	1
81	C	269	65	28	3	21	29	0	0	0	415
82	C	3	15	1	0	0	0	0	0	0	19
83	C	29	1	0	0	0	0	0	0	0	30
84	C	0	8	1	0	6	0	0	0	0	15
85	C	9	6	28	0	5	97	0	0	0	145
86	C	11	28	0	3	2	2	123	0	0	169
87	C	6	28	8	0	21	2	0	0	0	65
88	C	0	0	0	0	0	0	0	0	0	0
89	C	17	0	0	0	7	10	0	0	0	34
90	C	0	0	0	0	23	6	0	0	0	29
91	C	7	81	2	0	22	0	55	0	0	167
92	C	12	8	20	0	43	0	0	0	0	83
93	C	22	6	0	0	0	0	0	0	0	28
94	C	0	5	0	0	0	0	0	0	0	5

**TABLE B-5. 2015 NUMBER OF EMPLOYEES BY TRAFFIC ANALYSIS ZONE BY MAJOR EMPLOYMENT SECTOR  
(Continued)**

TAZ	Area	Retail	Service	Office	Public	Industrial	Lodging	School	College	Casino	TOTAL
95	C	5	20	0	0	0	0	0	0	0	25
96	C	0	0	0	0	0	0	0	0	0	0
97	C	0	0	0	0	0	0	0	0	0	0
98	C	3	4	1	0	0	535	0	0	0	543
99	C	0	6	0	0	0	112	0	0	0	118
118	C	0	0	0	0	0	0	0	0	0	0
119	C	0	0	2	25	0	3	0	0	0	30
120	C	0	0	0	0	0	0	0	0	0	0
121	C	0	12	0	0	1	0	0	0	0	13
122	C	7	44	0	0	10	0	0	0	0	61
123	C	0	0	0	0	0	33	0	0	0	33
124	C	0	5	3	0	0	0	0	0	0	8
125	C	0	0	0	0	0	0	0	0	0	0
126	C	56	102	11	53	103	0	0	0	0	325
127	C	21	147	15	0	32	0	0	0	0	215
128	C	3	22	0	0	13	0	5	0	0	43
129	C	3	2	0	0	4	0	0	0	0	9
130	C	0	9	0	2	9	0	0	0	0	20
131	C	5	41	2	0	15	0	117	1	0	181
132	C	11	12	10	0	19	0	0	0	0	52
133	C	2	0	0	0	5	0	0	0	0	7
151	C	0	19	0	0	0	0	0	0	0	19
155	C	0	0	0	0	0	0	0	0	0	0
156	C	0	0	0	0	0	0	0	0	0	0
157	C	0	0	0	0	0	0	0	0	0	0
158	C	0	0	0	0	0	0	0	0	0	0
159	C	0	0	0	0	0	0	0	0	0	0
160	C	0	0	0	0	0	0	0	0	0	0
161	C	0	0	0	0	5	0	0	0	0	5
171	C	0	57	3	0	308	0	0	0	0	368
<b>UNINCORPORATED</b>											
<b>SUBTOTAL</b>		<b>1,254</b>	<b>1,368</b>	<b>311</b>	<b>166</b>	<b>867</b>	<b>1,328</b>	<b>410</b>	<b>1</b>	<b>0</b>	<b>5,705</b>
<b>GRAND TOTAL</b>		<b>10,145</b>	<b>7,460</b>	<b>2,480</b>	<b>1,953</b>	<b>2,740</b>	<b>3,168</b>	<b>1,360</b>	<b>276</b>	<b>600</b>	<b>30,182</b>

**TABLE B-6. 2030 NUMBER OF EMPLOYEES BY TRAFFIC ANALYSIS ZONE BY MAJOR EMPLOYMENT SECTOR**

<b>CAMP VERDE</b>											
<b>TAZ</b>	<b>Area</b>	<b>Retail</b>	<b>Service</b>	<b>Office</b>	<b>Public</b>	<b>Industrial</b>	<b>Lodging</b>	<b>School</b>	<b>College</b>	<b>Casino</b>	<b>TOTAL</b>
1	CV	50	0	0	0	156	0	0	0	0	206
2	CV	0	0	0	0	0	0	0	0	0	0
3	CV	1	11	4	0	16	0	0	0	0	32
4	CV	1	0	0	0	0	0	0	0	0	1
5	CV	15	2	0	23	65	0	0	0	0	105
6	CV	64	40	0	0	95	0	0	0	0	199
7	CV	132	23	0	945	30	0	0	0	0	1,130
8	CV	170	0	0	0	0	0	0	0	0	170
9	CV	0	52	0	113	0	0	0	0	0	165
10	CV	32	35	0	0	0	0	0	0	0	67
11	CV	0	2	0	0	9	0	0	0	0	11
12	CV	36	0	0	12	0	0	0	0	0	48
13	CV	34	9	2	68	0	0	0	0	0	113
14	CV	4	0	0	0	0	0	0	0	0	4
15	CV	0	21	9	0	0	0	0	0	0	30
16	CV	0	0	2	0	9	0	0	0	0	11
17	CV	0	2	4	0	4	0	0	0	0	10
18	CV	0	0	0	0	4	0	0	0	0	4
19	CV	320	0	0	0	0	0	0	0	0	320
20	CV	0	0	0	0	0	0	0	0	0	0
21	CV	210	0	0	0	0	0	0	0	0	210
22	CV	391	0	0	0	0	0	0	0	0	391
23	CV	615	0	0	0	0	31	0	0	0	646
24	CV	79	38	4	0	123	35	0	0	0	279
25	CV	480	0	0	0	0	0	0	0	0	480
26	CV	0	0	0	0	0	0	0	0	0	0
27	CV	8	14	2	0	2	0	293	17	0	336
28	CV	0	0	0	0	0	0	0	0	0	0
29	CV	100	14	0	0	0	2	0	0	600	716
30	CV	30	0	0	0	0	0	0	0	0	30
31	CV	0	0	0	0	0	0	0	0	0	0
32	CV	14	66	43	28	0	0	0	0	0	151
33	CV	32	81	71	249	16	0	28	0	0	477

**TABLE B-6. 2030 NUMBER OF EMPLOYEES BY TRAFFIC ANALYSIS ZONE BY MAJOR EMPLOYMENT SECTOR  
(Continued)**

TAZ	Area	Retail	Service	Office	Public	Industrial	Lodging	School	College	Casino	TOTAL
34	CV	31	76	26	55	23	7	0	0	0	218
35	CV	205	40	11	0	0	0	0	0	0	256
36	CV	208	0	12	0	0	4	0	0	0	224
37	CV	0	0	0	0	6	0	0	0	0	6
38	CV	3	0	0	0	0	0	0	0	0	3
39	CV	0	114	6	0	0	0	0	0	0	120
40	CV	0	11	0	0	0	0	0	0	0	11
41	CV	1	0	0	0	0	0	0	0	0	1
42	CV	0	0	0	0	0	0	0	0	0	0
43	CV	16	45	12	7	42	0	0	0	0	122
44	CV	0	12	0	0	12	0	0	0	0	24
45	CV	0	0	0	0	0	0	0	0	0	0
46	CV	0	0	0	0	0	0	0	0	0	0
47	CV	0	0	0	0	0	0	0	0	0	0
48	CV	0	6	0	0	0	0	0	0	0	6
49	CV	0	7	0	0	0	0	0	0	0	7
50	CV	0	0	0	0	0	0	0	0	0	0
51	CV	0	4	0	0	0	0	0	0	0	4
52	CV	0	0	0	0	6	0	0	0	0	6
53	CV	0	0	0	0	0	0	0	0	0	0
54	CV	0	0	0	0	6	0	0	0	0	6
55	CV	0	0	0	0	0	0	0	0	0	0
56	CV	0	4	0	0	0	11	0	0	0	15
<b>CAMP VERDE</b>											
<b>SUBTOTAL</b>		<b>3,282</b>	<b>729</b>	<b>208</b>	<b>1,500</b>	<b>624</b>	<b>90</b>	<b>321</b>	<b>17</b>	<b>600</b>	<b>7,371</b>
<b>CLARKDALE</b>											
TAZ	Area	Retail	Service	Office	Public	Industrial	Lodging	School	College	Casino	TOTAL
162	CD	0	0	0	0	0	0	0	0	0	0
163	CD	0	0	5	0	0	0	0	246	0	251
164	CD	0	0	5	0	0	0	0	0	0	5
165	CD	56	54	30	33	117	0	0	86	0	376
166	CD	1	4	0	0	5	0	0	0	0	10
167	CD	0	9	0	0	0	0	0	0	0	9

**TABLE B-6. 2030 NUMBER OF EMPLOYEES BY TRAFFIC ANALYSIS ZONE BY MAJOR EMPLOYMENT SECTOR  
(Continued)**

TAZ	Area	Retail	Service	Office	Public	Industrial	Lodging	School	College	Casino	TOTAL
168	CD	1	116	0	0	0	35	97	0	0	249
169	CD	0	5	0	0	153	0	0	0	0	158
170	CD	0	0	0	0	0	0	78	0	0	78
<b>CLARKDALE SUBTOTAL</b>		<b>58</b>	<b>188</b>	<b>40</b>	<b>33</b>	<b>275</b>	<b>35</b>	<b>175</b>	<b>332</b>	<b>0</b>	<b>1,136</b>
<b>COTTONWOOD</b>											
Area	Area	Retail	Service	Office	Public	Industrial	Lodging	School	College	Casino	TOTAL
134	CW	0	0	0	0	0	0	0	0	0	0
135	CW	0	0	0	0	0	0	0	0	0	0
136	CW	28	39	18	9	23	0	0	19	0	136
137	CW	596	46	31	0	9	0	10	0	0	692
138	CW	89	29	19	0	0	0	216	0	0	353
139	CW	242	6	45	0	0	13	0	0	0	306
140	CW	881	49	14	0	0	0	0	0	0	944
141	CW	39	65	19	0	44	0	0	0	0	167
142	CW	150	150	244	4	241	22	0	0	0	811
143	CW	0	12	0	11	14	0	0	0	0	37
144	CW	12	97	7	0	1	0	0	0	0	117
145	CW	125	230	80	21	39	3	80	0	0	578
146	CW	30	1102	20	29	0	0	0	0	0	1,181
147	CW	232	422	76	98	153	0	0	0	0	981
148	CW	769	393	353	48	70	33	64	0	0	1,730
149	CW	93	65	50	5	6	0	0	0	0	219
150	CW	98	59	4	0	7	0	142	0	0	310
152	CW	0	0	0	0	0	0	0	0	0	0
153	CW	0	0	5	0	0	4	0	0	0	9
154	CW	50	50	50	0	0	0	0	0	0	150
174	CW	0	0	0	0	0	0	0	0	0	0
175	CW	224	239	19	19	57	7	26	0	0	591
176	CW	241	202	121	0	34	37	0	0	0	635
177	CW	12	97	9	0	21	0	0	0	0	139



**TABLE B-6. 2030 NUMBER OF EMPLOYEES BY TRAFFIC ANALYSIS ZONE BY MAJOR EMPLOYMENT SECTOR  
(Continued)**

TAZ	Area	Retail	Service	Office	Public	Industrial	Lodging	School	College	Casino	TOTAL
178	CW	18	313	4	362	66	0	0	0	0	763
179	CW	150	519	27	0	1	0	159	0	0	856
180	CW	22	49	12	0	0	13	0	0	0	96
<b>COTTONWOOD SUBTOTAL</b>		<b>4,101</b>	<b>4,233</b>	<b>1,227</b>	<b>606</b>	<b>786</b>	<b>132</b>	<b>697</b>	<b>19</b>	<b>0</b>	<b>11,801</b>
<b>JEROME</b>											
TAZ	Area	Retail	Service	Office	Public	Industrial	Lodging	School	College	Casino	TOTAL
172	J	297	71	57	0	0	0	0	0	0	425
173	J	4	3	0	0	0	0	0	0	0	7
<b>JEROME SUBTOTAL</b>		<b>301</b>	<b>74</b>	<b>57</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>432</b>
<b>SEDONA</b>											
TAZ	Area	Retail	Service	Office	Public	Industrial	Lodging	School	College	Casino	TOTAL
100	S	155	251	12	0	0	242	0	60	0	720
101	S	162	1	0	2	0	22	0	0	0	187
102	S	2	26	20	3	1	16	0	0	0	68
103	S	3	4	1	0	1	0	0	0	0	9
104	S	0	0	0	0	0	0	0	0	0	0
105	S	3	6	4	3	1	0	0	0	0	17
106	S	0	4	4	0	2	0	0	0	0	10
107	S	9	0	0	0	3	0	0	0	0	12
108	S	0	0	0	0	0	0	0	0	0	0
109	S	46	86	14	0	21	100	0	0	0	267
110	S	66	124	38	6	149	60	0	0	0	443
111	S	0	15	5	0	7	0	0	0	0	27
112	S	0	0	0	0	0	0	0	0	0	0
113	S	0	0	3	0	0	0	0	0	0	3
114	S	18	18	3	0	0	0	0	0	0	39
115	S	0	0	3	0	1	0	0	0	0	4
116	S	0	0	0	0	0	0	0	0	0	0
117	S	2	6	1	0	1	180	0	0	0	190
181	S	126	89	83	3	35	60	2	0	0	398
182	S	478	290	260	6	3	152	0	1	0	1,190

**TABLE B-6. 2030 NUMBER OF EMPLOYEES BY TRAFFIC ANALYSIS ZONE BY MAJOR EMPLOYMENT SECTOR  
(Continued)**

TAZ	Area	Retail	Service	Office	Public	Industrial	Lodging	School	College	Casino	TOTAL
183	S	0	0	2	0	0	0	0	0	0	2
184	S	51	30	141	0	0	24	38	0	0	284
185	S	266	22	6	0	0	275	0	0	0	569
186	S	39	2	10	0	3	0	0	0	0	54
187	S	6	17	4	0	0	0	0	0	0	27
188	S	0	0	0	0	0	0	0	0	0	0
189	S	188	16	30	4	0	69	0	0	0	307
190	S	78	32	4	0	0	11	0	0	0	125
191	S	399	188	1	4	0	283	0	0	0	875
192	S	561	105	141	3	110	96	0	0	0	1,016
193	S	14	74	85	0	0	80	0	0	0	253
194	S	450	156	110	3	139	22	0	0	0	880
195	S	0	9	3	0	0	0	0	0	0	12
196	S	0	17	6	0	0	0	59	0	0	82
197	S	324	75	22	0	30	0	0	0	0	451
198	S	0	2	0	0	0	0	0	0	0	2
199	S	0	0	0	0	8	0	0	0	0	8
200	S	204	402	108	103	53	30	0	0	0	900
201	S	0	8	0	0	34	0	0	0	0	42
202	S	6	6	2	3	0	0	14	0	0	31
203	S	2	0	0	0	0	0	0	0	0	2
204	S	18	41	8	0	9	18	0	0	0	94
<b>SEDONA SUBTOTAL</b>		<b>3,676</b>	<b>2,122</b>	<b>1,134</b>	<b>143</b>	<b>611</b>	<b>1,740</b>	<b>113</b>	<b>61</b>	<b>0</b>	<b>9,600</b>
<b>UNINCORPORATED YAVAPAI COUNTY</b>											
TAZ	Area	Retail	Service	Office	Public	Industrial	Lodging	School	College	Casino	TOTAL
57	C	0	0	0	0	0	0	0	0	0	0
58	C	0	0	0	0	0	0	0	0	0	0
59	C	0	0	0	0	0	0	0	0	0	0
60	C	0	0	0	0	4	0	0	0	0	4
61	C	0	0	0	4	0	0	0	0	0	4
62	C	0	4	0	0	0	5	0	0	0	9
63	C	0	0	0	0	0	0	0	0	0	0
64	C	0	0	0	0	0	0	0	0	0	0
65	C	0	0	0	0	0	0	0	0	0	0

**TABLE B-6. 2030 NUMBER OF EMPLOYEES BY TRAFFIC ANALYSIS ZONE BY MAJOR EMPLOYMENT SECTOR  
(Continued)**

TAZ	Area	Retail	Service	Office	Public	Industrial	Lodging	School	College	Casino	TOTAL
66	C	270	7	0	0	0	55	0	0	0	332
67	C	13	0	0	0	0	0	0	0	0	13
68	C	33	59	0	0	24	0	0	0	0	116
69	C	0	12	4	17	21	0	0	0	0	54
70	C	3	19	7	25	4	0	88	0	0	146
71	C	0	0	0	29	0	0	0	0	0	29
72	C	0	0	0	0	12	0	0	0	0	12
73	C	39	0	0	0	4	0	0	0	0	43
74	C	0	9	0	0	73	0	0	0	0	82
75	C	0	0	0	0	0	0	0	0	0	0
76	C	441	107	34	8	20	524	66	0	0	1,200
77	C	6	20	0	4	17	46	0	0	0	93
78	C	108	290	160	8	59	0	0	0	0	625
79	C	0	281	8	0	4	15	0	0	0	308
80	C	0	1	0	0	0	0	0	0	0	1
81	C	345	85	34	4	26	37	0	0	0	531
82	C	4	20	1	0	0	0	0	0	0	25
83	C	37	2	0	0	0	0	0	0	0	39
84	C	0	11	1	0	7	0	0	0	0	19
85	C	12	8	34	0	6	124	0	0	0	184
86	C	11	37	0	4	3	3	173	0	0	231
87	C	7	37	9	0	26	3	0	0	0	82
88	C	0	0	0	0	0	0	0	0	0	0
89	C	22	0	0	0	9	13	0	0	0	44
90	C	0	0	0	0	29	7	0	0	0	36
91	C	9	107	3	0	27	0	78	0	0	224
92	C	15	11	24	0	54	0	0	0	0	104
93	C	48	28	20	0	0	50	0	0	0	146
94	C	10	17	10	0	0	0	0	20	0	57
95	C	16	36	0	0	0	0	50	0	0	102
96	C	0	0	0	0	0	0	0	0	0	0
97	C	0	0	0	0	0	0	0	0	0	0
98	C	4	5	1	0	0	689	0	0	0	699

**TABLE B-6. 2030 NUMBER OF EMPLOYEES BY TRAFFIC ANALYSIS ZONE BY MAJOR EMPLOYMENT SECTOR  
(Continued)**

TAZ	Area	Retail	Service	Office	Public	Industrial	Lodging	School	College	Casino	TOTAL
99	C	0	8	0	0	0	144	0	0	0	152
118	C	0	0	0	0	0	0	0	0	0	0
119	C	0	0	3	29	0	4	0	0	0	36
120	C	0	0	0	0	0	0	0	0	0	0
121	C	0	15	0	0	1	0	0	0	0	16
122	C	9	57	0	0	13	0	0	0	0	79
123	C	10	0	0	0	10	52	0	0	0	72
124	C	0	7	4	0	0	0	0	0	0	11
125	C	0	0	0	0	0	0	0	0	0	0
126	C	71	134	14	64	128	0	0	0	0	411
127	C	27	193	18	0	40	0	0	0	0	278
128	C	4	29	0	0	16	0	7	0	0	56
129	C	4	3	0	0	5	0	0	0	0	12
130	C	0	12	0	3	11	0	0	0	0	26
131	C	6	54	3	0	19	0	164	2	0	248
132	C	24	15	12	0	24	0	0	0	0	75
133	C	3	0	0	0	6	0	0	0	0	9
151	C	0	25	0	0	0	0	0	0	0	25
155	C	0	0	0	0	0	0	0	0	0	0
156	C	0	0	0	0	0	0	0	0	0	0
157	C	0	0	0	0	0	0	0	0	0	0
158	C	0	0	0	0	0	0	0	0	0	0
159	C	0	0	0	0	0	0	0	0	0	0
160	C	0	0	0	0	0	0	0	0	0	0
161	C	0	0	0	0	10	0	0	0	0	10
171	C	0	74	4	0	373	0	0	0	0	451
<b>UNINCORPORATED</b>											
<b>SUBTOTAL</b>		<b>1,611</b>	<b>1,839</b>	<b>408</b>	<b>199</b>	<b>1,085</b>	<b>1,771</b>	<b>626</b>	<b>22</b>	<b>0</b>	<b>7,561</b>
<b>GRAND TOTAL</b>		<b>13,029</b>	<b>9,185</b>	<b>3,074</b>	<b>2,481</b>	<b>3,381</b>	<b>3,768</b>	<b>1,932</b>	<b>451</b>	<b>600</b>	<b>37,901</b>

**APPENDIX C. 2030 ROADWAY MODELING ALTERNATIVES**

**TABLE C-1. VERDE VALLEY 2030 ALTERNATIVE 1**

<b>Road Name</b>	<b>From</b>	<b>To</b>	<b>Functional Classification</b>	<b>Description</b>
I-17	South of Study Area, Approximately Milepost 280	North of Study Area, Approximately Milepost 305	Interstate	Six lanes (three lanes in each direction)
Cornville Rd	SR 89A	Tissaw Rd	Arterial	Four lanes from SR 89A to Tissaw Rd.
Cornville Rd	Tissaw Rd	I-17	Major Collector	Some improvements, but no new travel lanes.
SR 260/SR 89A Bypass	SR 260/Fir St	SR 89A	Minor Collector	Four lane bypass of the SR 260, SR 89A intersection (southeast quadrant)
Main St, (Cottonwood)	Mingus Ave	SR 89A	Arterial	Improvements to this existing four-lane arterial
Beaverhead Flat Rd to SR 260	Beaverhead Flat Rd/Cornville Rd	SR 260	Major Collector	Construction of two-lane county road on roughly the Forest Service 119A alignment from Cornville Rd, continuing west north of boundary of Camp Verde to SR 260. Extend Middle Verde Rd northwest to connect to the Beaverhead Flat Rd to SR 260 Rd.
Sedona SR 179 Bypass	SR 179	SR 89A	Minor Collector	Two lanes, near Back O' Beyond, then Chavez Ranch Rd, then Upper Red Rock Loop Rd to connect to SR 89A.
West Loop	Black Hills Dr	S. of Fir St	Minor Collector	Access-controlled, two lanes. Fir St would be extended to connect to the West Loop
Finnie Flat Rd	SR 260	Montezuma Castle Hwy	Arterial	Improved intersections, not four lanes
Montezuma Castle Hwy	Yavapai-Apache Nation Boundary	Finnie Flat Rd	Major Collector	Two lanes with improvements
Beaver Creek Area	I-17	SR 179	(see Description column)	Beaver Creek Rd and N.F. 119, upgrade each section one functional classification with additional improvements. Beaver Creek Rd becomes arterial near I-17, becomes major collector elsewhere, and N.F. 119 becomes a paved, two-lane local road.
Bypass Route SR 89A/Cornville Rd	SR 89A/Bill Gray Rd Intersection	Cornville Rd/Tissaw Rd Intersection	Minor Collector	Four lanes, in a planned mixed commercial and residential development



**TABLE C-2. VERDE VALLEY 2030 ALTERNATIVE 2**

<b>Road Name</b>	<b>From</b>	<b>To</b>	<b>Functional Classification</b>	<b>Description</b>
I-17	South of Study Area, Approximately Milepost 280	North of Study Area, Approximately Milepost 305	Interstate	Six lanes (three lanes in each direction)
Cornville Rd	SR 89A	Tissaw Rd	Arterial	Four lanes from SR 89A to Tissaw Rd.
Cornville Rd	Tissaw Rd	I-17	Major Collector	Some improvements, but no new travel lanes.
SR 260/SR 89A Bypass	SR 260/Fir St	SR 89A	Minor Collector	Four lane bypass of the SR 260, SR 89A intersection (southeast quadrant)
Main St, (Cottonwood)	Mingus Ave	SR 89A	Arterial	Improvements to this existing four-lane arterial
Beaverhead Flat Rd to SR 260	Beaverhead Flat Rd/Cornville Rd Intersection	SR 260	Major Collector	Construction of two-lane county road on roughly the Forest Service 119A alignment from Cornville Rd, continuing west north of boundary of Camp Verde to SR 260. Extend Middle Verde Rd northwest to connect to the Beaverhead Flat Rd to SR 260 Rd.
Sedona SR 179 Bypass	SR 179	SR 89A	Minor Collector	Two lanes, near Back O' Beyond, then Chavez Ranch Rd, then Upper Red Rock Loop Rd to connect to SR 89A.
SR 260	SR 89A in Cottonwood	About 1.2 miles E of Verde River, in Camp Verde	Arterial	Four lanes throughout (the last segment from Thousand Trails Rd to West of I-17 would have been widened from two to four lanes)
Forest Alignment Freeway	Thousand Trails Rd	General Crook	Freeway	Two lanes each direction
Groseta Ranch Rd	SR 89A	Old SR 89A	Minor Collector	Groseta Ranch Rd upgraded to two-lane minor collector.

**TABLE C-2. VERDE VALLEY 2030 ALTERNATIVE 2 (Continued)**

<b>Road Name</b>	<b>From</b>	<b>To</b>	<b>Functional Classification</b>	<b>Description</b>
West Loop	Black Hills Dr	Quail Springs Ranch Rd /Old SR 279	Minor Collector	Access-controlled, two-lanes. Fir St would be extended to connect to the West Loop
Quail Springs Ranch Road	Old SR 279	SR 260	Minor Collector	One Lane in Each Direction (Cottonwood)
Main St, (Cottonwood)	Mingus Ave	Willard	Arterial	Change from four to two lanes and enhance for bicycle and pedestrian travel
Cement Plant Rd Loop	Cement Plant Rd	(arc east to) SR 89A	Minor Collector	Two lanes
Cherry Creek Rd	Forest Align. Fwy	SR 260	Minor Collector	One lane each direction.
Finnie Flat Rd	SR 260	Montezuma Castle Hwy	Arterial	Four lanes
Montezuma Castle Highway	Yavapai-Apache Nation Boundary	Finnie Flat Rd	Major Collector	Three lanes
Bypass of "Y"	SR 179	SR 89A	Minor Collector	Bypass, one lane each way
Low water Road, Beaver Creek	Beaver Creek Rd/ Brocket Ranch Rd	Coronado Trail/Indian Lakes area	Local	Connection and emergency route, low water
Beaver Creek Area	I-17	Beginning of unpaved	(see Description column)	Beaver Creek Rd, upgrade each section one functional classification with additional improvements. Beaver Creek Rd becomes arterial near I-17, becomes major collector elsewhere. and N.F. 119 remains an unpaved, less than two-lane local road.
Bypass Route SR 89A/Cornville Rd	SR 89A/Bill Gray Rd Intersection	Cornville Rd/Tissaw Rd Intersection	Minor Collector	Four lanes, in a planned mixed commercial and residential development

## BIBLIOGRAPHY

Many regional, local, and ADOT plans completed in the time period 1999-2007 are listed in Table 1-2. In addition to those plans, the following references contributed to the VVMTS:

Arizona Department of Transportation Intermodal Transportation Division, Roadway Predesign Section, *Scoping Report, I-17, Jct. SR 179 to I-40 (MP 298.5 to MP 340.0)*, Federal Aid No. NH-017-B(AUC), Project No. 017 YV 298 H6960 01L, 2007

Arizona Department of Transportation, Financial Management Services, *Highway User Revenue Fund, Fiscal Year 2008 Year- End Report*, Phoenix, Arizona, 2008.

Barnes, Gary, *The Importance of Trip Destination in Determining Transit Share*, Humphrey Institute of Public Affairs, University of Minnesota, 2005.

DMJM Harris 2004, *Needs Based Implementation Plan (NBIP) archives (SR 179)*, accessed at <http://ww.scenic179.com/NBIP/index.cfm>

Gough, Jim, *“Planning on a Regional Basis: York Region Transportation Master Plan”* MMM Group, 2008.

North Country Council & North Country Transit, *Regional Coordinated Transit Plan for the North Country Council Planning Region*, New Hampshire, 2006.

Northern Arizona Intergovernmental Public Transportation Authority, *Draft NAIPTA Five-year Transit Plan for the Verde Valley Region*, 2008.

Northwest Pennsylvania Regional Planning and Development Commission, *2007-2032 Long Range Transportation Plan*, Gannett Fleming, July, 2007.

United States Department of Agriculture, Forest Service, Southwestern Region, *Beaverhead Flat Road, Beaver Creek Road, Environmental Assessment, Coconino National Forest*, prepared for Yavapai County and Coconino National Forest, March 15, 2000.

-----, Golden, James W., Forest Supervisor, *Finding of No Significant Impact, Beaverhead Flat Road and Beaver Creek Road Improvements, June 9, 2000.*

-----, Golden, James W., Forest Supervisor, *Decision Notice, Beaverhead Flat Road and Beaver Creek Road Improvements, June 9, 2000.*