1.0 INTRODUCTION

1.1 Definition of Corridor Management Planning

Initiated by the Federal Scenic Byways Program, corridor management planning is the process in which a community develops a plan to manage a state-designated scenic road and make it eligible for federal designation as a National Scenic Byway. The Corridor Management Plan (CMP) is the resulting document that describes the route's existing conditions, presents the intrinsic qualities that draw residents and visitors to the corridor, and enumerates strategies to preserve and enhance these qualities.

1.2 State and Federal Scenic Road Programs

1.2.1 State

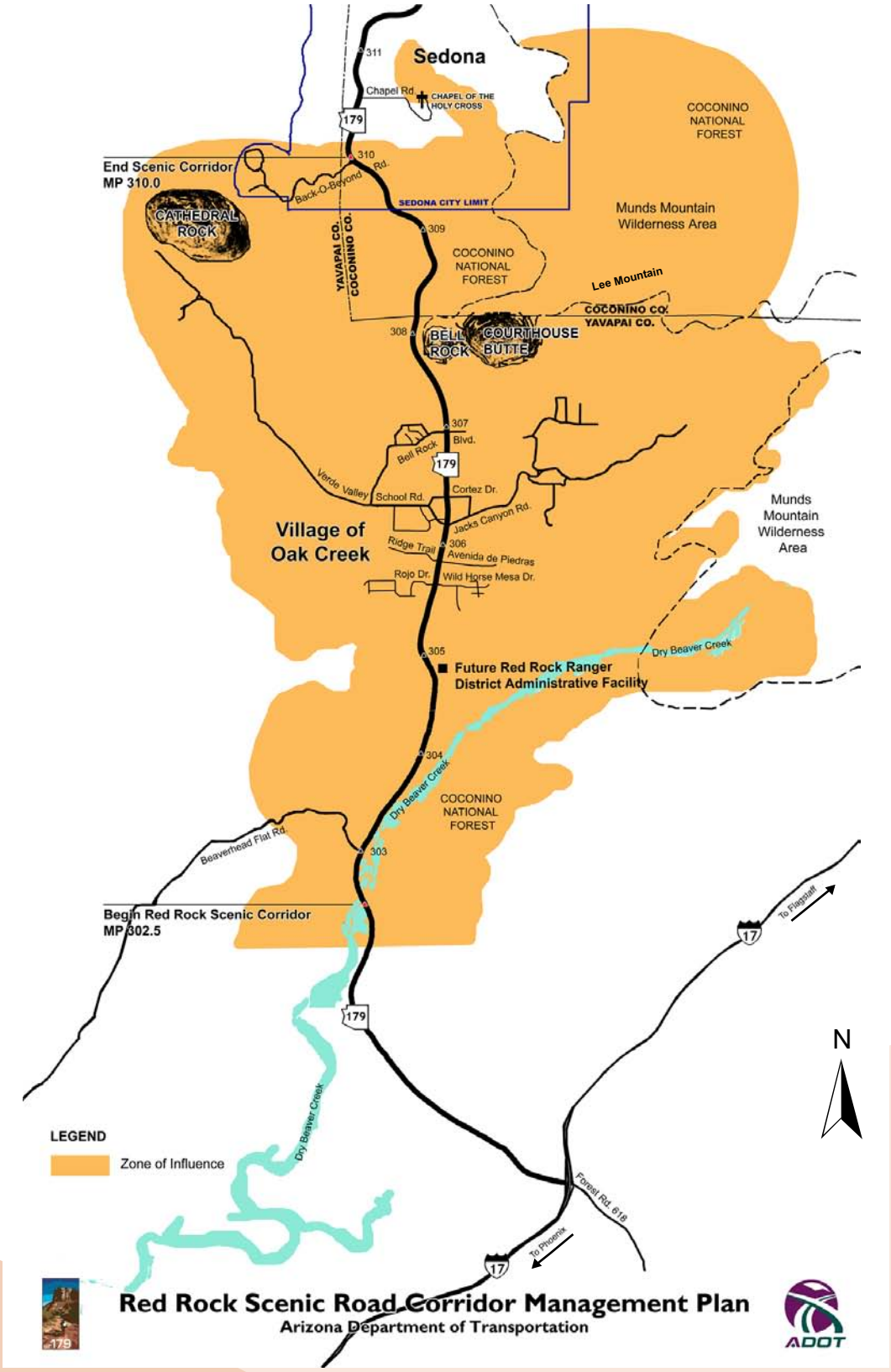
The varied scenery and dramatic vistas along Arizona's highways inspired the development of one of the first scenic road programs in the United States. In the mid-1960s, the State Highway Commission (precursor to today's State Transportation Board) established Pinal Pioneer Parkway and Joshua Forest Parkway on portions of US 60 and US 93 as scenic roads. Legislation passed in 1976 gave the State Parks Board administrative authority to designate scenic roads. Six years later, Arizona Revised Statutes 41-512 through 41-518 authorized a Parkways, Historic and Scenic Roads Advisory Committee (PHSRAC) to develop criteria and provide recommendations for designation of scenic roads to the Transportation Board. Designation may apply to city, county, Indian, state or federal routes.

The PHSRAC sought to identify those Arizona roads whose unique scenic or historic resources were most at risk. Since its inception, the PHSRAC has established 15 scenic roads, 3 historic roads and 3 parkways. The 7.5-mile Red Rock Scenic Road, from Milepost (MP) 302.5 to MP 310.0, was the fourth scenic road designated by the PHSRAC, and the second (after the Sedona-Oak Creek Scenic Road on SR 89A) in the Sedona area. Figure 1-1 illustrates the corridor and its principal features.

1.2.2 Federal

The National Scenic Byways Program was established by the Intermodal Surface Transportation Efficiency Act (ISTEA) in 1991 and continued under the Transportation Equity Act for the 21st Century (TEA-21), which in 1998 authorized $148 million for technical assistance and grants to states to develop byway programs and related projects. The Scenic Byways Program recognizes and protects roads that have outstanding intrinsic qualities. As of June 2002 there were 20 All-American Roads and 75 National Scenic Byways, including one Scenic Byway in Arizona—SR 67, the Kaibab Plateau-North Rim Parkway. The vision of the program is to create a distinctive collection of American roads, their stories and treasured

Figure 1-1: Red Rock Scenic Corridor Map



places. These specially-designated roadways are eligible for the National Scenic Byways Grants Program administered by the Federal Highway Administration (FHWA). Nominations for National Scenic Byways and All-American Roads are typically accepted every two years.

The FHWA website, http://www.bywayson-line.org, characterizes the benefits of National Scenic Byway designation as the "four Ps": promotion, preservation, partnerships and pride. *Promotion* of the America's Byways™ brand and logo, much of which occurs through the FHWA website, increases visitor recognition and encourages travelers to include byways in their trip plans. It can thereby support local and regional marketing efforts in areas dependent on the tourist trade. *Preservation* of the byway is essential to its integrity and sustainability, and federal grants may be available to help preserve intrinsic qualities of the road. *Partnerships* are needed to begin and sustain a byway, with national designation offering the opportunity to expand partnerships (and therefore potential resources) beyond local or state boundaries. For example, the America's Byways Resource Center provides technical assistance and education to designated National Scenic Byways. *Pride* in a National Scenic Byway or All-American Road designation can yield benefits for both the roadway and the community it serves.

1.3 CMP Elements

The CMP provides a comprehensive understanding of the scenic route, and of plans to preserve and enhance it. The FHWA lists 14 components that are required in any CMP submitted for designation as a National Scenic Byway, and recommended even if the applicant does not seek national designation. These elements are:

1. A map identifying the corridor boundary, location of intrinsic qualities and land uses in the corridor. The six intrinsic qualities are: archaeological, cultural, historic, natural, recreational and scenic. *To be designated as a National Scenic Byway, a road must possess at least one of these qualities to a significant degree. The characteristics associated with the intrinsic qualities are those that are distinct and most representative of the region. The significance of the features contributing to the distinctive characteristics of the intrinsic qualities must be recognized throughout the multi-state region.*
2. An assessment of the intrinsic qualities and their context; i.e., the area surrounding them.
3. A strategy for maintaining and enhancing each intrinsic quality.
4. The agencies, groups and individuals in the team that will carry out the plan, including a list of their specific, individual responsibilities. Also, a schedule and process for monitoring how well these responsibilities are being met.
5. A strategy of how existing development might be enhanced and new development accommodated to preserve the intrinsic qualities of the byway.

6. A plan for continuing public participation.
7. A general review of the road's safety record to locate hazards and poor design, and identify possible corrections.
8. A plan to accommodate commercial traffic while ensuring the safety of sightseers in smaller vehicles, as well as bicycles, joggers and pedestrians.
9. A listing and discussion of efforts to minimize anomalous intrusions on visitors' experience of the byway.
10. Documentation of compliance with all existing local, state and federal laws controlling outdoor advertising.
11. A plan to make sure that the number and placement of highway signs will not interfere with the scenery, but will be sufficient to help tourists find their way. This includes, where appropriate, signs for foreign tourists who may not speak English fluently.
12. Plans for how the byway will be marketed and publicized.
13. Any proposals for modifying the roadway, including how proposed changes may affect the byway's intrinsic qualities.
14. A description of what will be done to explain and interpret the byway's resources to visitors.

2.0 CORRIDOR OVERVIEW

2.1 History

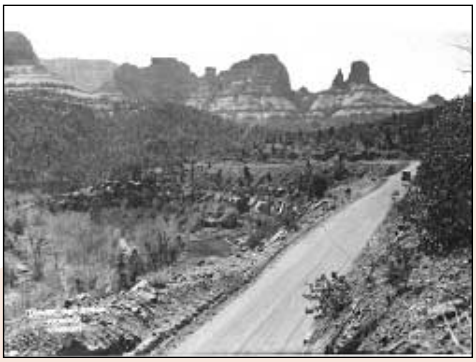
The Oak Creek-Sedona area has been occupied for millennia. Evidence from excavations in the Verde Valley indicates that an Archaic period people inhabited this land as much as 4,000 years ago. These peoples were probably nomadic hunters and gatherers, who apparently had no knowledge of pottery or agriculture. Lithic scatters, pit houses and various tools are the most common and numerous archaeological sites in the area and occur mostly along washes.

Prehistoric Indian ruins
(Source: Sedona's Best website)

Around AD 700, the Hohokam (Pima for "people who have vanished") entered the region from the south and settled along the Verde River and its tributaries. The Hohokam were a farming people who irrigated their crops. They farmed the river floodplains for maize, beans, squash and cotton. They lived in clusters of pit houses dug partially into the earth and roofed with brush.

James Homestead on Oak Creek 1879
(Source: City of Sedona website)

During this same period, the Sinagua (Spanish for "without water") settled in the upper Verde and began a conversion to agriculture. They prospered with the aid of a rich, water-holding soil deposited by the eruption of Sunset Crater around AD 1065. Their influence began to predominate as the Hohokam people vanished. Sinagua sites consist of pit houses and pueblos. Their earliest villages are found along the lower flanks of the Mogollon Rim, while their later pueblos occur along streams and the nearby Verde River. Some late cliff



Highway 1930s
(Source: City of Sedona Website)

dwellings also occur away from permanent watercourses. Evidence of prehistoric fields and farming structures can be identified atop mesas. By AD 1425, for reasons not entirely clear, the Sinagua abandoned their settlements and disappeared. They were succeeded by the hunting and gathering Yavapai and Apache tribes, who populated the area until the 1800s.

Thompson clan 1913
(Source: Sedona's Best website)

In the late 1800s, soldiers from Fort Verde rode to this remote area to fish and relax. John Jim Thompson established the first recorded white settlement in Oak Creek Canyon in 1876. Four years later, at the confluence of the West Fork and main channel of Oak Creek, C.J. "Bear" Howard built his cabin, which was eventually enlarged and converted to become Mayhew's Lodge. Other settlers began arriving in the 1880s, establishing farms and ranches along the creek. The former site of Beaverhead Station, a stop along the stage route from Prescott to Santa Fe, lies near SR 179 between Mileposts 301 and 302, just south of the scenic corridor limits. A wooden sign west of the highway identifies the site as "Stage Stop Coconino National Forest" but provides no other information.

Bear Howard 1900
(Source: Sedona's Best website)

T.C. Schnebly moved into the area from Missouri in 1902 and established a post office, which he named for his wife Sedona. SR 179, the modern connection from Sedona to I-17 (then known as SR 79), was completed in December 1961. The State Transportation Board designated SR 179 from MP 302.5 to MP 310.0 as the Red Rock Scenic Road on February 20, 1987. Sedona was incorporated as a city in 1988, straddling the Coconino/Yavapai county line.

Schneblys 1897
(Source: Sedona's Best website)

The settling and development of Big Park (today's Village of Oak Creek) started as a series of homesteads and small ranches in the late 1920s and early 1930s. Most of the present-day community was open rangeland as late as the 1960s and provided the backdrop for movie Westerns. The Village was created and planned as a 920-acre residential-recreational resort community in 1967. It has experienced vigorous growth, including extensive commercial development, since the 1970s. The population nearly doubled from approximately 2,700 in 1988 to 5,200 in 2000.

Current SR 179 corridor

2.2 Jurisdictional Responsibility

The Red Rock Scenic Road lies within the Coconino National Forest (CNF), administered by the Forest Service of the U.S. Department of Agriculture, except for the segment from approximately MP 305.55 to 307.1. This segment traverses the unincorporated Village of Oak Creek in Yavapai County. The northernmost 0.7 miles, from MP 309.3 to 310.0, is in the National Forest but also within the Sedona corporate limits. The public streets that intersect SR 179 in the Village of Oak Creek are operated and maintained by Yavapai County. SR 179 crosses the Yavapai/Coconino county line at MP 308.19.

2.3 Roadway Character

According to the 1998 *Arizona State Highway System Log*, SR 179 in the scenic corridor is predominantly a two-lane, undivided roadway with asphaltic concrete pavement, 12-foot travel lanes and shoulder widths ranging from 5 feet south of the Village of Oak Creek to 1 foot north of the Village. The width of the traveled surface is 24 feet, except in the Village of Oak Creek where the roadway flares out to a width of up to 60 feet to provide turn lanes at intersections. Commercial areas of the Village also have a left turn lane at some locations between intersections to provide access to businesses along the highway. Because of horizontal or vertical curvature that makes passing maneuvers hazardous, the majority of the roadway outside the Village is striped for "No Passing" northbound and southbound.

SR 179 is functionally classified as a rural minor arterial south of the Yavapai/Coconino county line and as an urban principal arterial north of that point. These high functional classifications reflect the fact that the highway is much more than a scenic road: it also serves as a key regional link for general and commercial traffic between Sedona, the Village of Oak Creek, the Verde Valley and the rest of the state, including both Phoenix and Flagstaff.

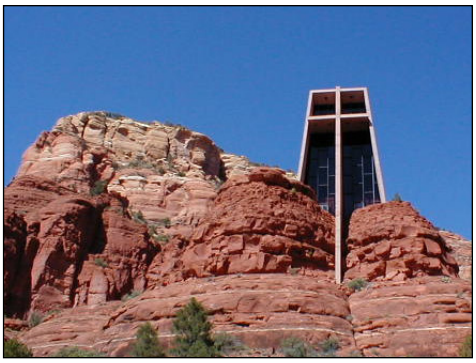
2.4 Zone of Influence

The zone of influence of the Red Rock Scenic Road, as defined in the November 1986 *Scenic Road Application Report,* is illustrated in Figure 1-1. The boundaries shown on the map indicate the lateral limits (viewshed) of one's view from the highway. The area within these boundaries is the zone containing the natural resources that provide the scenic quality as viewed from the highway. This is the area that should be protected from damage or encroachment. The SR 179 viewshed ranges from approximately 1,000 feet to over three miles. Vegetation and landforms restrict views in some areas. The zone of influence was originally determined by on-site evaluations, field mapping, aerial photo studies, and evaluation of the visual quality objectives of the Coconino National Forest.

Current SR 179 corridor

2.5 Man-Made Features

The Village of Oak Creek (Big Park) presents areas of residential, commercial and recreational use for a distance of nearly 1.5 miles along the SR 179 corridor. Major utility lines and structures are also



Chapel of the Holy Cross

visible in this area. One of the most encroaching elements throughout the corridor is the service roads and pullout areas on the highway edge. The pullouts are used by motorists wishing to stop and photograph the surrounding landscape. The northern end of the scenic segment (near MP 310) features numerous residential structures situated at prominent locations, including high on the mountainsides. The Chapel of the Holy Cross is a dominant feature located high in the red rock cliffs. Other man-made elements include the bridge over Dry Beaver Creek, several culvert structures and numerous road cuts of various sizes. Signage is discussed in Section 2.9.

2.6 Existing and Planned Land Use

2.6.1 Village of Oak Creek

SR 179 serves as the main thoroughfare of the Village of Oak Creek, with most of the Village's hotels, restaurants, retail and other commercial establishments located along or just off the highway. Development is governed by county zoning regulations that have allowed various degrees of development to mix along the highway. Existing

land uses within the Village of Oak Creek are illustrated in Figure 2-1, *Existing Land Use and Residential Character*, and Figure 2-2, *Existing Land Use and Commercial Character*.

According to the 1998 *Big Park Community Plan*, the planned land uses adjacent to existing SR 179, from south to north, are: Low Density Single-Family Residential, Single-Family Residential and Mobile Home, Planned Area Development, Commercial, and Low Density Single-Family Residential. There are also smaller parcels earmarked for High Density Multi-Family Residential use. Recent land use data from Yavapai County indicates that the adjacent land is approximately 60 to 70 percent developed at this time, so many of these residential and commercial uses are already in place. The potential for future development is high, especially in the southern part of the Village. Figure 2-3, *Corridor Community Planning*, depicts planned uses in the Village of Oak Creek.

2.6.2 Coconino National Forest

The planned uses for the Forest segment of the corridor do not differ from the current uses, which are predominantly oriented toward recreational and scenic values. The National Forest encompasses the entire Red Rock Scenic Road except in the Village of Oak Creek.

2.6.3 City of Sedona

Although the 0.7-mile segment of SR 179 at the north end of the corridor (MP 309.3 to 310.0) has been annexed by the City of Sedona, this area remains under Coconino National Forest management. The Sedona Community Plan indicates that it will remain open space within the Coconino National Forest.

2.7 Socioeconomic Growth

The greater Sedona/Red Rock area has consistently experienced rapid growth, and as Table 2.1 shows, this is expected to continue over the next two decades. According to the Arizona Department of Economic Security, the population of Arizona is projected to grow by 42 percent from 2003 to 2025. The 22-year growth rate is expected to be even higher in Sedona and the Village of Oak Creek, at 44 percent in both communities.

Table 2.1: Sedona/Village of Oak Creek Population Projections

PLACE	POPULATION		
	2003 Total*	2025 Total*	Percent Growth, 2003-2025
Arizona (state)	5,629,900	7,993,000	42%
Sedona (city)	10,700	15,400	44%
Village of Oak Creek	6,100	8,800	44%
Sedona/Oak Creek total	16,800	24,200	44%

*Rounded to nearest hundred

Sources: Arizona Department of Economic Security, 1997 projections (for statewide data); Lima & Associates, 2003-04 Verde Valley Multi-Modal Transportation Study Update (for Sedona and Village of Oak Creek)

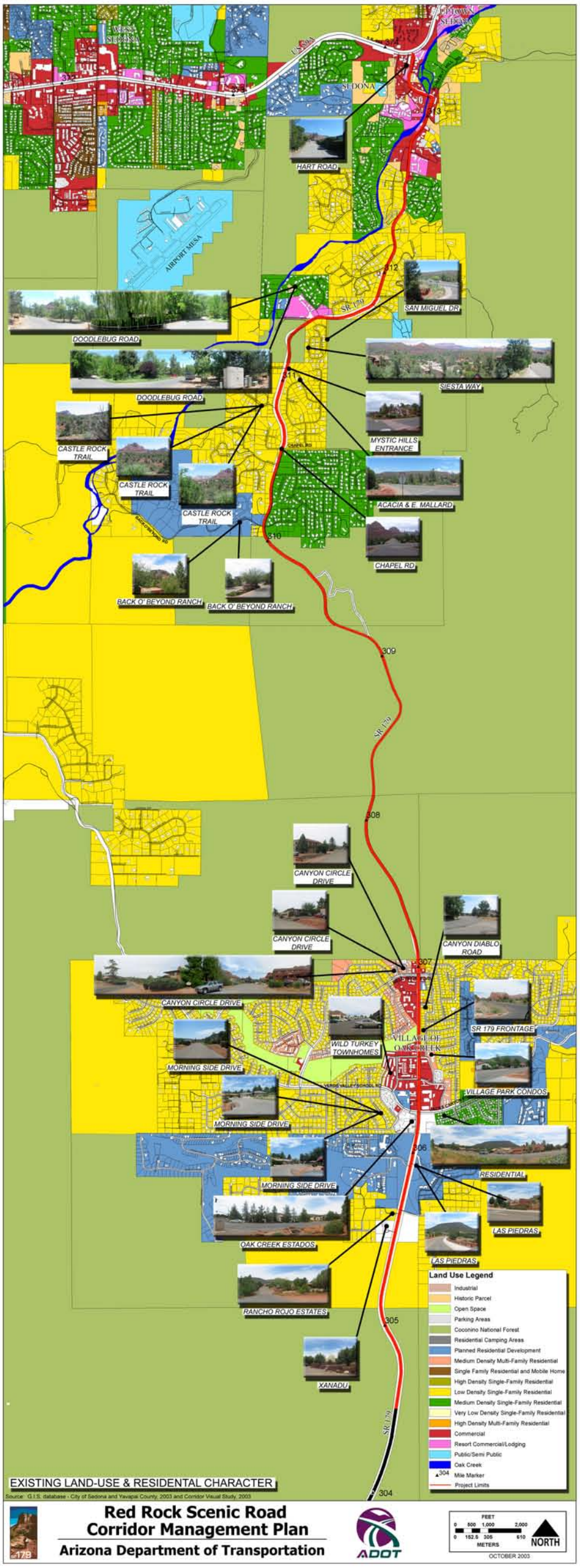


Figure 2-1: Existing Land Use and Residential Character

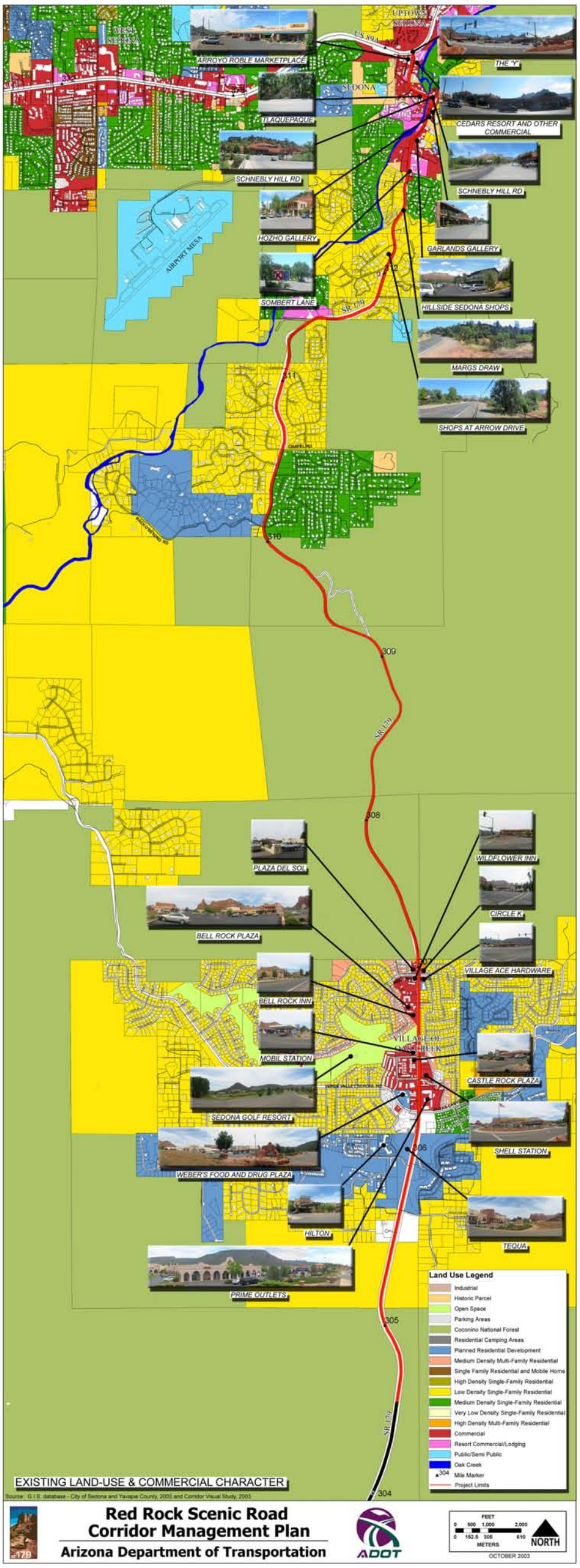


Figure 2-2: Existing Land Use and Commercial Character

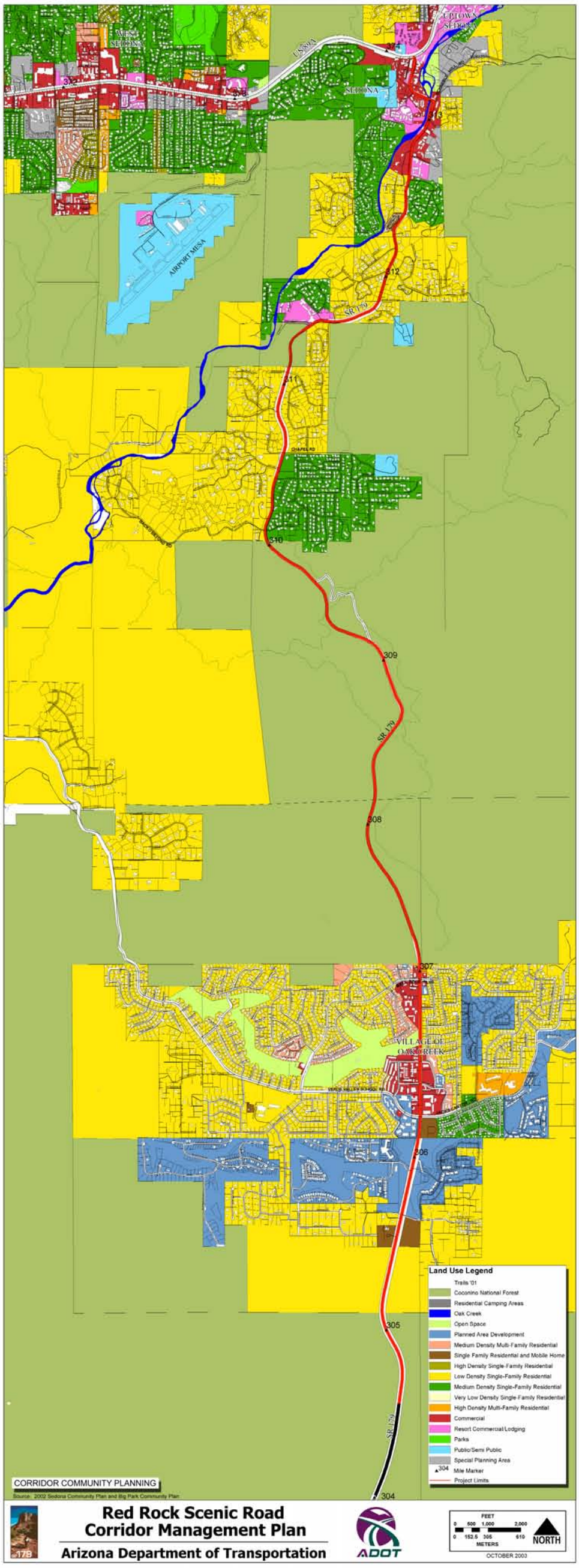


Figure 2-3: Corridor Community Planning

SR 179 serves as a gateway for visitors to nearby recreational and scenic attractions, and for guests of the world-class resorts around Sedona and Oak Creek Canyon. The steadily increasing population has stimulated residential and supportive commercial development, but tourism is the main driver of the entire area's economy, with recent estimates of annual visitation in the 3 million to 4 million range. According to the *State Route 179 Scenic Road Application Report*, services and trade account for more than 70 percent of employment, with proprietor-owned and –operated businesses predominating. The *Big Park Community Plan* states that the Village of Oak Creek experienced a thirteen-fold increase in tourist accommodation units just from 1988 to 1998. The tourism that supports the local economy would not exist without the corridor's unique scenic, natural and recreational qualities.

2.8 2003 Traffic Volumes

Automated, directional traffic counts on SR 179 were conducted monthly from August through December, 2003, north of Castle Rock Road in the Village of Oak Creek. Over the five-month period, average daily two-way traffic was highest on Saturday (15,400 vehicles), lowest on Sunday (13,000), and intermediate on weekdays (14,500).

2.9 Signage

Numerous traffic control and informational signs are posted along the Red Rock Scenic Road. These include regulatory signs, such as speed limits, exclusive turn lane signage, and "no parking" signs. Examples of warning signs are advance warning of roadway curvature and geometry, chevrons at locations where sharper horizontal curves exist, crossroad intersections, traffic signals, merging lanes, pedestrian crossings, and crossings for deer and other animals.

The posted speed limit varies from 55 MPH at the south end to 40 MPH in the National Forest north of the Village of Oak Creek, as Table 2.2 shows. The speed limit is lowest (35 MPH) in the Village.

The segment of SR 179 that runs through Coconino National Forest has many recreational and informational signs. These include camping and hiking locations, trailheads, visitor information and "no parking." General information signs include Sedona City Limits, Village of Oak Creek boundaries, the Coconino/Yavapai county line, tourist information for the Village of Oak Creek (food, fuel and lodging), truck restrictions, and guide signs to emergency services and I-17.

Two jurisdictions, ADOT and CNF, post signs along the Red Rock Scenic Road.

Table 2.2: Existing Speed Limits on Red Rock Scenic Road

FROM MILEPOST	TO MILEPOST	POSTED SPEED LIMIT (MPH)
302.50	305.57	55
305.57	307.11	35
307.11	310.00	40

Source: ADOT records and field reconnaissance

ADOT has installed regulatory, warning, traffic control and informational signs, which follow statewide ADOT standards conforming to the Manual on Uniform Traffic Control Devices (MUTCD). These include six "Red Rock Scenic Road" signs that bear the standard Arizona scenic road logo with a saguaro, mountains, pine trees and Spanish mission. One sign is posted northbound at the south end of the corridor (MP 302.5) and another southbound at the north end (MP 310.0), to advise travelers that they are entering the scenic segment. An additional sign is posted in each direction at the south end of the Village of Oak Creek, between MP 305 and 306. These signs serve as a reminder that the traveler is still within the scenic corridor despite the urban development lining the highway in this area. The fifth and sixth signs mark the end of the official scenic road in each direction.

Within the Village of Oak Creek, ADOT has posted 17 regulatory and warning signs, or roughly 11 per mile. In the National Forest to the north, however, there are only 10 such signs, or between 3 and 4 per mile. Evidently ADOT has attempted to minimize signage along the pristine rural portion of the Red Rock Scenic Road.

The Coconino National Forest has posted several signs along the roadway, using the standard Forest Service white-on-brown rustic design scheme. These include notices that a "Red Rock Pass [is] Required for Parking in the National Forest" and identification of the two Bell Rock Pathway trailheads. ADOT and the National Forest share signposts for the South Gateway

Coconino National Forest signage

Coconino National Forest signage

Visitor Center at Tequa Plaza. The CNF appears to have kept its signage to a minimum, to avoid interfering with the visual experience of roadway users.

2.10 Traffic Safety and Crash Record

Data on traffic crashes (accidents) that occurred on the 7.5-mile Red Rock Scenic Road from May 1, 1998 through April 30, 2003 were provided by the ADOT Traffic Records Unit. During this five-year period, 255 crashes were reported in the corridor. As Table 2.3 indicates, 96 of these, or approximately 38 percent, occurred on the

1.5-mile segment through the urbanized Village of Oak Creek. The remaining 62 percent occurred along the 6 miles in the National Forest. The larger number of accidents per mile of roadway in the Village reflects the many conflict points and opportunities for side friction in a built-up urban area with numerous cross streets and driveways.

Roughly one-third of the crashes were single-vehicle incidents (e.g., rollovers, collisions with animals or fixed objects, and one pedestrian struck by a vehicle) and the remaining two-thirds involved more than one vehicle. The two types occurred with approximately equal frequency in the National Forest, but multi-vehicle collisions predominated in the Village. Approximately 35 percent of single vehicle crashes and 31 percent of multi-vehicle crashes were reported as known or possible injury accidents. Eleven incidents, or four percent of the total, caused at least one fatal or incapacitating injury.

Although there were slightly more multi-vehicle than single-vehicle crashes in the National Forest, four of the five incapacitating injury accidents there involved just one vehicle. A possible reason for this is that single-vehicle crashes often occur when the driver loses control of the vehicle, which usually happens at high speeds. Both of the fatal accidents were angle collisions in the Village of Oak Creek.

2.11 Walkways and Bicycle Facilities

Some short segments of sidewalk have been built as a result of commercial development on the east side of SR 179, north and south of Jacks Canyon Road in the Village of Oak Creek. The sidewalks that do exist are generally four feet wide and adjacent to the curb. Pedestrians have been observed walking behind the painted lines along the roadway edge at locations in the Village of Oak Creek where no sidewalks exist. There are walks leading into

Table 2.3: Crash Summary, May 1, 1998 to April 30, 2003

Crash Type	Crash Severity	Number of Crashes by Segment		
		Coconino National Forest (MP 302.5-305.54 and 307.03 to 310.0)	Village of Oak Creek (MP 305.55-307.02)	Total
Single Vehicle	Fatal or Incapacitating Injury	4	0	4
	Other Known or Possible Injury	24	1	25
	Non-Injury	49	5	54
Multiple Vehicle	Fatal or Incapacitating Injury	1	6*	7
	Other Known or Possible Injury	27	19	46
	Non-Injury	54	65	119
Total		159	96	255

*Includes two fatal accidents.
Source: ADOT Traffic Records Unit, 2003-04

resorts from the SR 179 intersection with Ridge Trail and Avenida de Piedras in the Village. These walks are of colored concrete, meandering, and five feet in width. (For information on trails, including Bell Rock Pathway in the Coconino National Forest, see the discussion of the recreational intrinsic quality in Chapter 4.)

Bicycles on SR 179 share the road with motor vehicles. No designated bicycle facilities exist in the corridor. The ADOT Bicycle Suitability Map shows SR 179 as "less suitable" for bicycles, reflecting its narrow cross-section, relatively heavy traffic and steep grades, especially north of the Village of Oak Creek.

2.12 Road Crossings

Traffic signals exist along SR 179 at three intersections in the Village of Oak Creek: Ridge Trail/Avenida de Piedras, Jacks Canyon Road/Verde Valley School Road, and Bell Rock Boulevard. These intersections have pedestrian-actuated WALK signals and marked crosswalks. However, most approaches to the crosswalks are unpaved and do not meet the accessibility requirements of the Americans with Disabilities Act. As stipulated in the Preferred Planning Concept selected by the community in May 2004 (see Chapter 3), all three signals will be replaced with modern roundabouts, and an additional roundabout will be constructed at the SR 179/Cortez Drive intersection. As noted in Chapter 4 under "Trails," underpasses in the National Forest are associated with the Templeton and HT Trails.

2.13 Existing Transit Service

Existing public transportation in the scenic corridor is limited. A privately operated service known as Gator's Sedona Village Shuttle provides a combination of scheduled and demand-responsive service between the Village of Oak Creek and central Sedona, approximately seven miles to the north, between 9:00 AM and 6:30 PM daily. The fare for this unsubsidized service is $9.00 as of September 2004. Several companies shuttle air travelers between the Village of Oak Creek and Phoenix Sky Harbor International Airport.

2.14 Planned Transit Service

In June 2004, the Sedona Transit Project, conducted by Coconino County Transportation Services for the City of Sedona, completed a phased transit plan for the Sedona/Village of Oak Creek area that won approval from the Sedona City Council. Phase 1 of the transit system, which has secured funding for start-up in the second half of 2005, consists of circulator service in Sedona's main tourist district and a few daily commuter runs between Sedona and Cottonwood. Phase 2, however, would add scheduled daily service along the Red Rock Scenic Road from the Village of Oak Creek through the Sedona Gallery District to West Sedona. Northbound and southbound service would operate every 30 minutes for approximately 12 hours a day, at an estimated fare of $1.00 per ride.

The planned southern terminus of the Phase 2 route is Tequa Plaza in the Village of Oak Creek, although an extension to the

new Red Rock Ranger District administrative facility near MP 304.7 has been suggested. ADOT, the City of Sedona, Coconino County and Yavapai County have identified the following additional bus stops along SR 179 in the Village of Oak Creek:

- Southbound on the far side of Verde Valley School Road (approximately 200 feet south of the intersection)
- Northbound approximately 600 feet north of Jacks Canyon Road and 400 feet south of Cortez Drive
- Both northbound and southbound approximately 350 feet north of Navajo Trail and 550 feet south of Bell Rock Boulevard

Each on-road stop will include a bus bay (also called a bus pullout) to allow motor vehicles and bicycles to pass stopped buses. These bays will be designed to allow unimpeded passage by bicyclists.

Phase 2 of the Sedona Transit Plan also shows several proposed bus stops at scenic pullouts and trailheads in the Coconino National Forest. Implementation of these stops will require further cooperative work involving the City of Sedona (or its designated transit operator), Coconino National Forest and ADOT.

The implementation date of Phase 2 will depend on funding availability and the performance of Phase 1 service. The entire transit system will rely on public funding from sources such as the City of Sedona, the two counties and the federal Section 5311 small urban and rural transit program. In December 2004, Congress passed and the President signed an appropriations bill that earmarks $2.6 million in capital startup funds for the Sedona transit system.

Current scenic pullout

3.0 SR 179 CORRIDOR PROJECT

3.1 Needs Based Implementation Plan

ADOT began the SR 179 Needs Based Implementation Plan (NBIP) in the spring of 2003. Its purpose was to work with the community to plan improvements for design and construction of SR 179 from MP 304.5 to MP 313.44 (the junction with SR 89A in Sedona), in a context sensitive manner. The NBIP corridor includes all but the southernmost two miles (MP 302.5 to MP 304.5) of the Red Rock Scenic Road, and extends nearly 3.5 miles beyond it to the north. It was studied in four segments with logical endpoints based on topography and land use. Segments 1 and 2 lie within the Red Rock Scenic Corridor. The break between these segments occurs at MP 307.1 near the north edge of the Village of Oak Creek.

The NBIP process consisted of a collaborative effort in which a team of professionals worked closely with the community to develop plans for improvements that would best meet the community's needs. ADOT solicited input from the community using many methods, such as advisory panels, focus groups, workshops, a website and three multi-day planning charrettes, to name only a few. The NBIP method was a "Context Sensitive Solutions" approach that balanced safety, mobility, and the preservation of scenic, aesthetic, historic, environmental, and other values as expressed by the community. A key component of the approach was that citizens

SR 179 project newsletter

SR 179 project website

Charrette #1
Bike Banter

played an active role in the planning of the corridor. Community information and involvement will continue throughout design and construction.

To oversee the NBIP process and guide the project, an Executive Team was established to represent the major stakeholders: ADOT, the Big Park Regional Coordinating Council (BPRCC, on behalf of the Village of Oak Creek), Yavapai County, Coconino National Forest, FHWA, City of Sedona and Coconino County. The Executive Team simultaneously provided general oversight of the CMP. ADOT felt that efficiencies could be gained by combining the CMP and NBIP efforts. Community input and feedback obtained during the project's public outreach activities were used to inform the CMP. This also maximized opportunities to coordinate CMP recommendations with the physical roadway improvements currently under design in most of the scenic corridor.

3.2 Preferred Planning Concept and Segment Concept Design

In May 2004, after the third charrette for the SR 179 Corridor Project, the community recommended a preferred planning concept for each of the four segments. From June through November, this concept was refined in a process known as segment concept design, led by ADOT and its consultants with advice and support from a Design Advisory Panel (DAP) for each of the four segments. The four DAPs consisted of citizen volunteers representing a wide range of interests, organizations and

Design Advisory Panel meeting

viewpoints throughout the corridor. Each DAP met monthly in a facilitated session designed to elicit comment on a wide range of design elements and features. Immediately after each set of DAP meetings, the Executive Team met to discuss the recommendations and instruct the ADOT/consultant team regarding next steps in the conceptual design process.

The DAPs first assembled in late July 2004 for an orientation and introduction to the segment concept design process. Subsequent meetings focused on specific design topics:

August: Pedestrian and wildlife crossings, scenic pullouts, median breaks, access management

September: Lighting, pavement, medians, railings, transit facilities, walls and bridges

October: Landscaping, signage, construction issues including timing

November: Report back from ADOT/consultant team on input from DAPs, recommendations and next steps; two concluding prioritization exercises

Table 3.1 summarizes the preferred planning concept for the SR 179 segments (1 and 2) within the Red Rock Scenic Road corridor, as it emerged from segment concept design. These improvements are scheduled for construction from March 2006 to mid-2008. As no major projects are currently planned from MP 302.5 to 304.5, the table shows existing conditions for that portion of the scenic road. Figure 3-1 schematically illustrates key features of the preferred concept for Segments 3 and 4 (which are outside the Red Rock Scenic Corridor) as well as Segments 1 and 2.

3.3 Final Environmental Assessment

The Final Environmental Assessment (FEA) approved by FHWA in December 2002 remains the governing environmental document for the corridor from MP 304.5 north. Pursuant to provisions of the National Environmental Policy Act, the document contains mandatory mitigation measures that must be taken as part of any improvements to SR 179 within the FEA boundaries. Appendix A lists those measures that pertain to the Red Rock Scenic Road, relate to one or more intrinsic qualities, and address potentially long-lasting (beyond construction) impacts.

3.4 Enhancement of Intrinsic Qualities

In addition to providing a safer, more reliable and more enjoyable corridor for travelers, the SR 179 improvements to be constructed in the next four years will enhance the intrinsic qualities of the Red Rock Scenic Road. The *scenic* quality of the corridor will be improved by constructing new scenic pullouts screened from the roadway, bifurcation of the roadway in the National Forest to minimize the roadway footprint at any one location, landscaping (e.g., in the Village of Oak Creek), safety

Table 3.1: SR 179 Preferred Planning Concept, MP 304.5 to 310.0

Roadway Design Element	Existing Condition, MP 302.5-304.5	Preferred Concept by Roadway Segment		
		Coconino National Forest, MP 304.5 to Village of Oak Creek (Segment 1A)	*Village of Oak Creek (Segment 1B)*	*Coconino National Forest, Village of Oak Creek to MP 310.0 (Segment 2)*
Lanes	2	2		
Shoulders	5 feet	8 feet		
Pavement type	Asphaltic concrete	Black rubberized asphalt		
Edge of Pavement (EP)	Ditches	Curbs with underground storm drains/scuppers		
Median	None	4-foot raised	16-foot raised	Bifurcated (separated directional roadways)
Passing lanes	None			-- NB: 0.75 mile starting just north of Bell Rock Vista -- SB: 0.5 mile starting south of new Bell Rock bridge

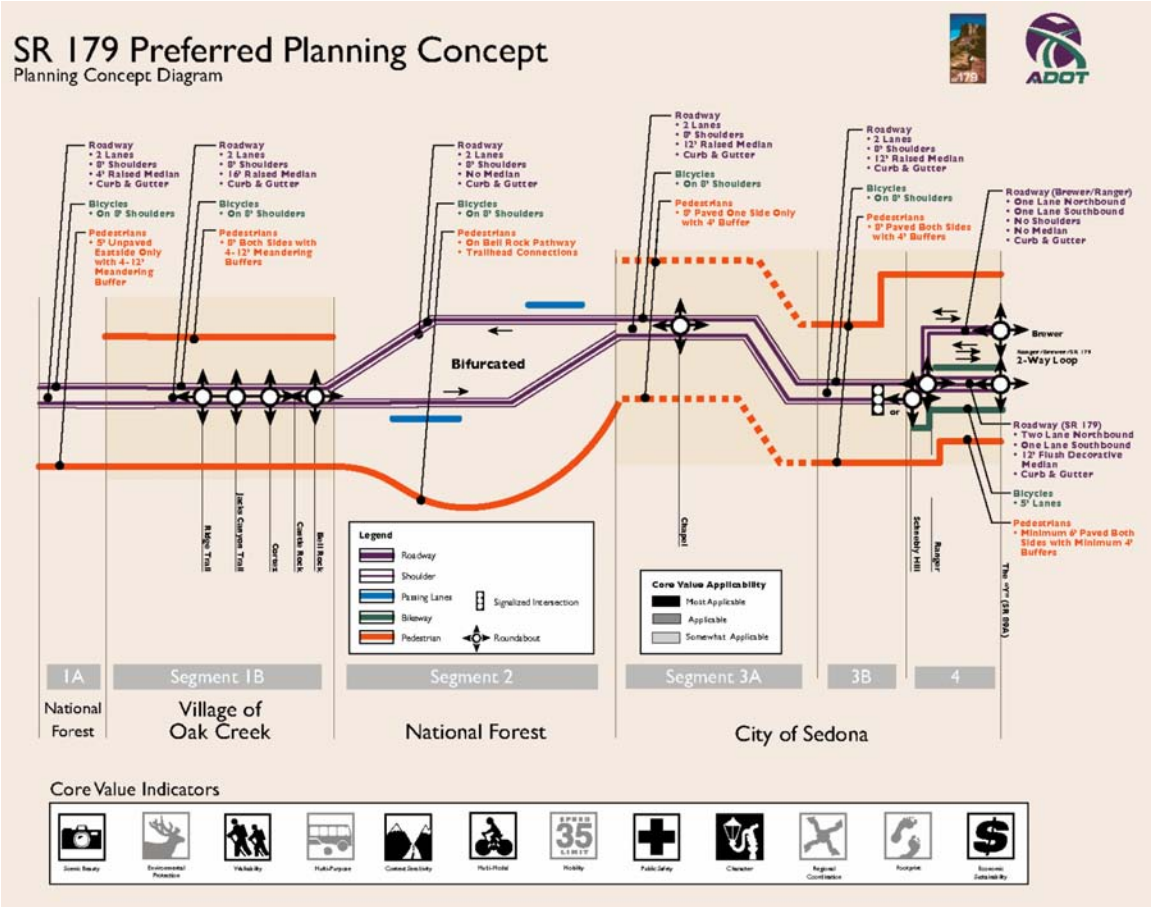
Table 3.1: (Continued)

Roadway Design Element	Existing Condition, MP 302.5-304.5	Preferred Concept by Roadway Segment		
		Coconino National Forest, MP 304.5 to Village of Oak Creek (Segment 1A)	*Village of Oak Creek (Segment 1B)*	*Coconino National Forest, Village of Oak Creek to MP 310.0 (Segment 2)*
Accommodates pedestrians	No special accommodation	5-foot unpaved, east side only	8-foot paved, both sides	Bell Rock Pathway with trailhead connections
Accommodates bicycles	5-foot shoulders	8-foot shoulders		
Landscape buffer between EP & pathway	None	4-12 foot meandering		Not applicable (existing Bell Rock Pathway)
Maximum total section width	34 feet	78 feet	96 feet	52 feet
Major intersection types	STOP on minor approach to Beaverhead Flat Rd intersection	No major intersections	Roundabouts: Ridge Trail, Jacks Canyon Rd, Cortez Dr, Bell Rock Blvd	No major intersections
Other marked pedestrian crossings	None		Castle Rock Rd (both sides), Navajo Trail (south side)	None
Pedestrian undercrossings	None			Templeton and HT Trails
Wildlife crossings (under roadway)	Several near south end of corridor	Between MP 305 and 306 (12-foot x 11-foot culvert)	None	Existing corridors: near MP 308.8, 309.2, 309.4
Left turn accommodation	Left turn bays NB and EB at Beaverhead Flat Rd intersection	Widen intersections	In median island	Widen intersections
Intersection realignment	None	None	Realign Wild Horse Mesa Dr/Rojo Dr to a single 90° intersection	None
Scenic pullout locations	None	MP 304.7 (at new Red Rock Ranger District administrative site tentatively scheduled to open in 2007)	None	Bell Rock Vista NB MP 308.3 NB MP 308.4 SB Little Horse
Potential future scenic pullout locations	None	None		MP 307.3 SB MP 309.1 NB MP 309.1 SB
Planned transit stops	None	None (but possible future extension to Red Rock Ranger District administrative site)	-Tequa Plaza* --Verde Valley School Rd SB --Between Jacks Canyon & Cortez NB --Between Navajo & Bell Rock NB, SB	To be established by transit operator and Coconinio National Forest
Posted speed limit	55 mph	45 mph	35 mph	

*Off-road in parking lot

Sources: *SR 179 Final Corridor-Wide Framework Report, SR 179 Corridor Study I-17 to US 89A*, SR 179 project team

Figure 3-1: SR 179 Preferred Planning Concept Diagram



improvements that allow motorists to view the scenery more safely enroute, pathways for pedestrians in and south of the Village, and shoulders that will facilitate greater scenic appreciation by cyclists. The *natural* environment will be preserved through careful plant salvage and revegetation of the National Forest following construction, and retention of existing wildlife corridors. *Recreational* opportunities will be enhanced by connecting the new scenic pullouts to trailheads, and by the new pedestrian and bicycle pathways from Bell Rock Vista near MP 307.1 to the planned Red Rock Ranger District administrative site near MP 304.7.

4.0 EVALUATION OF INTRINSIC QUALITIES

4.1 Definitions and Standards

The National Scenic Byways Program defines intrinsic qualities as "features that are considered representative, unique, irreplaceable, or distinctly characteristic of an area." The CMP describes the intrinsic qualities of the corridor, resources that contribute to these qualities, and how they are to be managed and interpreted. Table 4.1 presents the federal definitions of the six intrinsic qualities from FHWA's *Interim Policy for National Scenic Byways*, published in the *Federal Register* on May 18, 1995.

Table 4.1: Definitions of Intrinsic Qualities

INTRINSIC QUALITY	DEFINITION
Archaeological	Involves those characteristics of the scenic byway corridor that are physical evidence of historic or prehistoric human life or activity that are visible and capable of being inventoried and interpreted. The scenic byway corridor's archaeological interest, as identified through ruins, artifacts, structural remains, and other physical evidence have scientific significance that educate the viewer and stir an appreciation of the past.
Cultural	Evidence and expressions of the customs or traditions of a distinct group of people. Cultural features including, but not limited to, crafts, music, dance, rituals, festivals, speech, food, special events, vernacular architecture, etc., are currently practiced. The cultural qualities of the corridor could highlight one or more significant communities and/or ethnic traditions.
Historic	Encompasses legacies of the past that are distinctly associated with physical elements of the landscape, whether natural or man made, that are of such historic significance that they educate the viewer and stir an appreciation of the past. The historic elements reflect the actions of people and may include buildings, settlement patterns, and other examples of human activity. Historical features can be inventoried, mapped, and interpreted. They possess integrity of location, design, setting, material, workmanship, feeling, and association.
Natural	Applies to those features in the visual environment that are in a relatively undisturbed state. These features predate the arrival of human populations and may include geological formations, fossils, landforms, water bodies, vegetation, and wildlife. There may be evidence of human activity, but the natural features reveal minimal disturbances.
Recreational	Involves outdoor recreational activities directly associated with and dependent upon the natural and cultural elements of the corridor's landscape. The recreational activities provide opportunities for active and passive recreational experiences. They include, but are not limited to, downhill skiing, rafting, boating, fishing, and hiking. Driving the road itself may qualify as a pleasurable recreational experience. The recreational activities may be seasonal, but the quality and importance of the recreational activities as seasonal operations must be well recognized.
Scenic	The heightened visual experience derived from the view of natural and manmade elements of the visual environment of the scenic byway corridor. The characteristics of the landscape are strikingly distinct and offer a pleasing and most memorable visual experience. All elements of the landscape—landform, water, vegetation, and manmade development—contribute to the quality of the corridor's visual environment. Everything is in harmony and shares in the intrinsic qualities.

Source: FHWA National Scenic Byways Program, "2002 Nominations—Intrinsic Quality Summary"

ADOT has adopted a set of standards and guidelines for parkways, historic roads and scenic roads on the Arizona state highway system. They address the following issues:

- Vegetation Protection
- Access Permits
- Development
- Utilities
- Interpretive Sites and Scenic Pullouts
- Roadway Construction and Maintenance

While the guidelines reflect all six intrinsic qualities, they pertain especially to the scenic and natural attributes of the corridor. Appendix B presents them in full. The SR *179 Scenic Road Application Report* supplements these generic guidelines with the following recommendations for the Red Rock Scenic Road:

- For the health, safety and welfare of the traveling public, remove and rehabilitate unnecessary roadside pullouts.
- Locate, designate and construct appropriate roadside areas for the location of scenic pullouts that provide adequate safety standards and interpretive information.
- Provide highway signing to alert motorists of designated pullouts, scenic overlooks and historic sites. Rehabilitate the Bell Rock Vista Point and relocate Beaverhead Stage Station Historic Marker for easier access. (*The Forest Service notes that because this is a historic marker, its relocation may not be feasible; relocation of access may need to be considered instead.*)
- Enhance the appearance of existing buildings and obtrusive structures through selective screening with native vegetation.
- New construction and maintenance activities should be conducted in a manner that will maintain a natural roadside appearance. Construction scars should be mitigated by revegetation with indigenous vegetation.

4.2 Archaeological

This intrinsic quality consists of visual evidence of the unique customs, traditions, folklore or rituals of a no longer existing human group. During preparation of the SR 179 FEA, cultural resource surveys for prehistoric and historic sites were taken within the study corridor from MP 304.5 to SR 89A. Several artifact scatters were recorded. These sites were investigated further and found not to be eligible for the National Register of Historic Places. To protect the resources, their locations were *not* mapped.

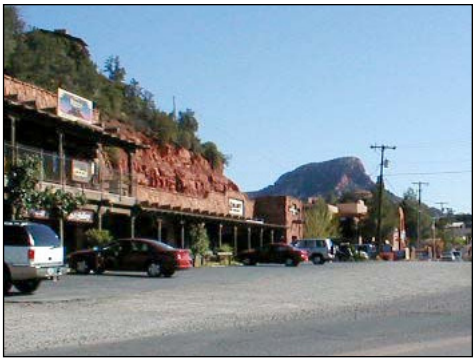
The FEA does not cover the southern two miles of the Red Rock Scenic Road, from MP 302.5 to 304.5. However, the "General Location of Cultural Resources" map in the 1992 *SR 179 Corridor Study* shows no prehistoric sites along this segment. Within approximately 25 miles, the well-preserved Sinagua ruins at two national monuments—Montezuma Castle (including Montezuma Well, a detached section) and Tuzigoot—are major tourist attractions that can easily be combined with the Red Rock Scenic Road in a day trip from Phoenix or Flagstaff.

Rock art is one of the legacies left behind by the Sinagua. Petroglyphs (stone on stone carvings) and pictographs (figures and symbols painted on sandstone walls) are found on rock panels throughout Red Rock Country. The meaning of the rock art is unknown, but several theories exist. The depictions could be clan signs, spiritual messages, calendars or hunting stories. Sites under the jurisdiction of Coconino National Forest and open to the public include Palatki and Honanki (northwest of Sedona) and V-V Cultural Site (south of the Red Rock Scenic Road, accessible via Forest Road 618 that extends south from the I-17/SR 179 interchange). Visitors to these sites need a Red Rock Pass and, in some cases, reservations.

Montezuma Castle

4.3 Cultural

The Red Rock Scenic Road is the principal gateway to Sedona, with its abundance of galleries, boutiques, restaurants and resorts. Lining both sides of SR 179 between Sombart Lane and SR 89A, the Gallery District offers many art galleries and upscale shops that constitute both a cultural and a recreational experience. The Sedona area also hosts many special events that draw thousands of visitors year-round. Table 4.2 lists only the highlights; it is not all-inclusive and schedules are subject to change.



Galleries along SR 179

New Age devotees have enhanced the appeal of Red Rock Country to many visitors through their interest in "vortexes" (or "vortices") that are said to generate great spiritual power and facilitate its harnessing. The following brief discussion, condensed from *What Is a Vortex?* by Dennis Andres,

Galleries along SR 179

Table 4.2: Annual Events in the Greater Sedona Area

MONTH	EVENT
March	Sedona International Film Festival and Workshop St. Patrick's Day Parade
April-May	Sedona Art and Sculpture Walk
May	Annual Fine Arts Festival Cinco de Mayo Folklorico Celebration Community Theater Productions Southwest Theater Productions
June	Sedona Chamber Music Festival Sedona Heritage Days
August	Annual Woodcarver's Exhibition
September	Village of Oak Creek Local Artisan Fair* Arizona Indian Living Treasures Exhibition Jazz on the Rocks Festival Fiesta del Tlaquepaque (arts, food)
October	Annual Arts Festival Village of Oak Creek Community Theater* (new event; through May)
November	Festival of Lights (late November-early January)
December	Annual Tree Lighting Holiday Model Train Exhibit* Red Rock Fantasy (designer holiday light competition)
Year-round	Sedona Arts Center (many artistic and cultural activities)

*Event held in the Village of Oak Creek near Red Rock Scenic Road

Sources: "Experience Sedona Recreation and Activity Map," Thorne Enterprises Publications; Tom Dongo, "Everything You Wanted to Know About Sedona in a Nutshell," 1998; SR 179 NBIP project team; community members

summarizes basic vortex information and guidance from a publication sold at local bookshops, the Uptown Sedona Visitor Center and elsewhere. It does not pretend to represent the full depth or range of beliefs that may exist about vortexes and their powers.

According to the author, the discovery of vortexes arises from the insight—among ancient peoples and modern environmentalists alike—that the planet Earth is a living organism. (This belief is sometimes referred to as the Gaia Hypothesis, although the book does not use the name.) A vortex is a place where the earth is exceptionally healthy, and where this health and vitality are manifested in spectacular natural beauty. This vitality, in turn, translates into increased natural energy that we can tap as an amplifier to effect positive changes in our physical, mental, emotional and spiritual state. But the meaning of a vortex is also profoundly individual, because each person is different. One's experience of vortexes will be reflected in one's total experience of Sedona and Red Rock Country.

Sedonans credit Page Bryant as the first to use the word "vortex" with this meaning in 1980. Vortexes (whether so called or not) are said to exist at several other places around the world, including Macchu Pichu (Peru), Mount Everest (Nepal) and Stonehenge (England), as well as near Egyptian and Mayan pyramids. Some say that Native American peoples who consider Red Rock Country sacred land may have incorporated the power of vortexes into myths about the area. According to Yavapai Indian mythology, Sedona's red

Vortexes in Red Rock Country

Macchu Pichu, Peru

Mount Everest, Nepal

Stonehenge, England

rocks are the bodies and blood of monsters. Skatakaamcha, a shaman and hero, slew the monsters, including a giant bird that lived on a mountaintop and attacked passers-by below. With the aid of a dove, a mouse and other small creatures, Skatakaamcha enticed the bird into carrying him to its nest, where he was able to kill it.

View from Airport Mesa

Because of the individuality of each visitor's perceptions and experiences, there is no single comprehensive list of vortexes. The most popular and widely recognized sites, however, are the so-called "Big Four": Airport Mesa, Bell Rock, Boynton Canyon and Cathedral Rock. Of these, Bell Rock adjoins the Red Rock Scenic Road and Cathedral Rock lies within the zone of influence. Both Bell Rock and Cathedral Rock are reached via SR 179.

Bell Rock

Other locations, such as the Chapel of the Holy Cross and the Schnebly Hill area, are also regarded as vortexes by many. According to the author, a vortex is wherever one senses the underlying energy. It's important to trust one's intuition and "find the place that feels right to you." For this reason, signs giving directions to or marking the exact location of a vortex would be pointless. The author suggests getting out of one's car, walking a bit, and then finding a pleasant place to rest and meditate. If the effects of the vortex are not immediately apparent, this may be because they are subtle and often make themselves felt as a generalized sense of peace and well-being. On the other hand, some people have reported healing and even (seemingly) miraculous experiences. The author con-

Chapel of the Holy Cross

Center for the New Age, Sedona

cludes the book with meditation techniques and exercises to help the reader tap vortex energy.

More generally, Sedona has become a center for many New Age beliefs and activities. The area has a large and growing "metaphysical community" that attracts seekers from throughout the world. Many of these visitors have chosen to settle in Sedona. The start of the New Age movement in Sedona is generally credited to Mary Lou Keller, a realtor who opened her home to New Age workshops and speakers in the 1960s. A "Harmonic Convergence," or convergence of certain energies and frequencies capable of changing the direction of thoughts and beliefs on earth, was said to have occurred on August 16 and 17, 1987. This event was also known as the Planetary Awakening. Thousands of New Agers gathered at sacred sites throughout the world, including Sedona where an estimated 5,000 participated. Numerous "holistic" healing practices and methods, such as reiki, tai chi, acupressure, Swedish massage, regression therapy, acupuncture, aromatherapy, herbals, jin shin jyutsu, johrei, trager, homeopathic and hypnotherapy have become established in the area.

The alleged healing power and regenerative energy of crystals is also a pervasive theme in the New Age subculture.

About a dozen retail stores (as of 1998) specialize in New Age products and services. The Sedona area also has a number of well-known channelers and psychics. Finally, many UFO sightings have been reported in the vicinity.

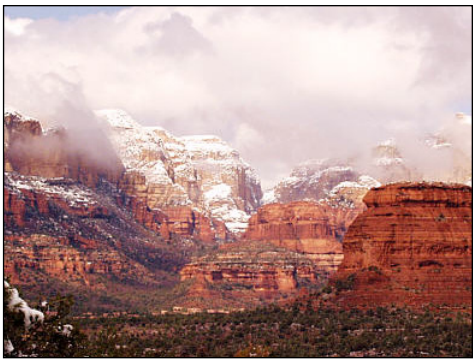
4.4 Historic

Features that possess this intrinsic quality are landscapes, buildings, structures or other visual evidence of the past. A historic resource is something that can still be seen, not the mere site of something that once existed. The SR 179 FEA researched the area north of MP 304.5, including the Village of Oak Creek, and found no sites eligible for the National Register of Historic Places (NRHP).

The FEA does not cover the southern two miles of the Red Rock Scenic Road, from MP 302.5 to 304.5. The "General Location of Cultural Resources" map in the *SR 179 Corridor Study* of 1992 shows no historic sites along this segment. However, one historic structure is clearly visible from the south end of the designated scenic road: remnants of the old Beaverhead roadbed and wooden bridge over Dry Beaver Creek, located just north and east of the current crossing. This feature has not been evaluated for possible NRHP eligibility. Historic attractions within 30 miles of the corridor, and easily accessible via I-17 or SR 89A, include Fort Verde State Historic Park and Jerome State Historic Park.

4.5 Natural

ADOT guidelines summarize this intrinsic quality as "minimal human disturbance of the natural ecological features associated with the corridor." The following paragraphs identify natural elements of the Red Rock Scenic Corridor that help make it a unique place. Geological formations are mentioned under the scenic intrinsic quality. Wayne Ranney's book, *Sedona Through Time*, provides a detailed geological history of the Sedona area.



Winter in Red Rock Country

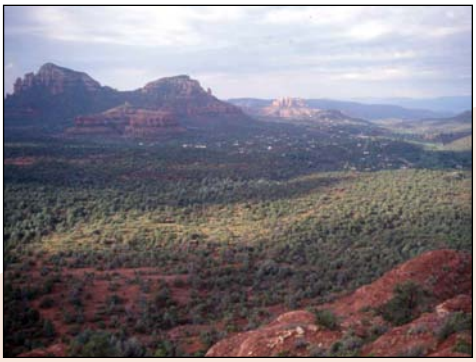
4.5.1 Hydrology

The area traversed by SR 179 is hydrologically dominated by Oak Creek, Jacks Canyon and Dry Beaver Creek. These streams and their many tributaries drain a large area south of the Mogollon Rim, and eventually find their way to the perennial flow of the Verde River. Watercourses north of Bell Rock generally flow east to west toward Oak Creek, while those south of Bell Rock generally flow west to east toward Jacks Canyon and eventually Wet Beaver Creek. Flooding and erosion occur occasionally as flows increase from snowmelt or heavy rainfall, but the roadway embankments and bridge over Dry Beaver Creek appear unaffected.

The Piñon-Juniper vegetation in Red Rock Country

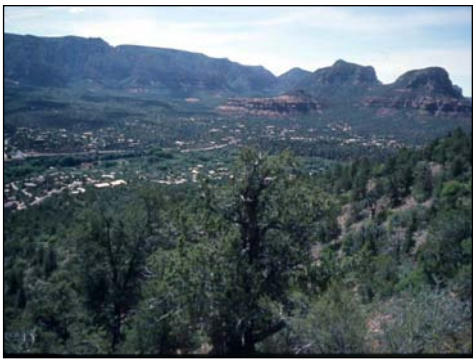
4.5.2 Climate

At 3,500 to 7,000 feet in elevation, the climate of Red Rock Country is moderate but varies from creekside to canyon to slope, depending on orientation to the sun and precipitation amounts. Summer high temperatures along SR 179 range from 75 to 105 degrees Fahrenheit and lows from 45 to 70. Winter highs range from 45 to 70 and lows from 15 to 45.



Vegetation in Red Rock Country

Winter and summer are the rainy seasons, while spring and fall are generally dry. The Sedona area averages 17 inches of rainfall annually. Summer rains are associated with tropical air entering Arizona from the Gulf of Mexico. These storms form almost daily in late afternoon and occasionally bring heavy rain rarely lasting more than a half-hour. Winter rain and snow are associated with middle latitude storms originating in the Pacific Ocean and moving east. Snowfall normally totals less than 10 inches per year.



Vegetation in Red Rock Country

4.5.3 Soils and Vegetation

With the variation of geology, climate and vegetation, soils are highly variable. The majority are shallow to moderately deep and have low to moderate fertility. Deep soils occur in alluvial bottoms and are generally of recent origin. The main source of soil is sand from the surrounding cliffs. These soils are poorly developed, but support normal desert flora, luxuriant grasses, juniper, piñon, Arizona cypress and various other shrubs.

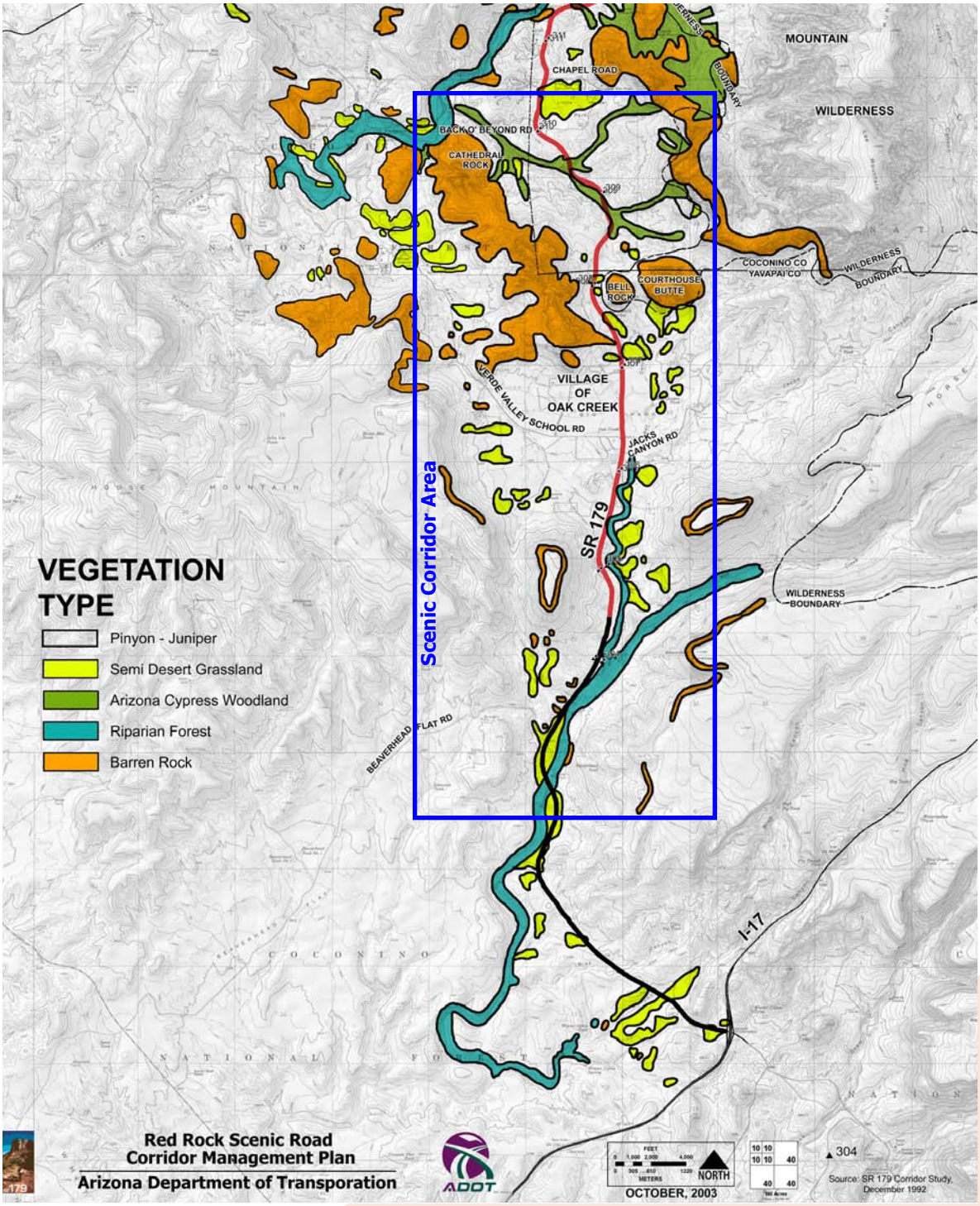
Vegetation around Bell Rock

Different plant and animal communities reflect differences in terrain, elevation and soils. Along the roadside, spiky soaptree yucca, crucifixion thorn, grama grass and prickly pear provide habitat for lizards, snakes and roadrunners. On higher slopes, grassland intermingles with piñon-juniper woodland, where round-shaped, one-seed juniper predominates.

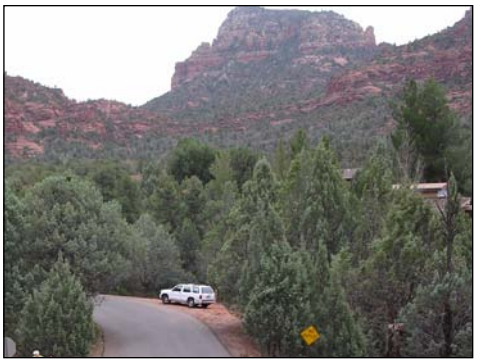
The corridor offers several rich and diverse plant communities: Semidesert Grassland, Piñon-Juniper, Riparian Forest (also called Riparian Woodland) and Arizona Cypress Woodland. Figure 4-1, *Vegetation Type,*

Vegetation along SR 179 corridor

Figure 4-1: Vegetation Type



shows the locations of each community along the Red Rock Scenic Road. Characteristic species of the Semidesert Grassland include a mixture of grasses, principally gramas, three awn, beard grass, tobosa and curly mesquite. Large amounts of velvet or western honey mesquite are also evident. Semidesert Grassland exists in the corridor on either side of Dry Beaver Creek and also in the Village of Oak Creek. Development has altered the character of the Village, however, by the planting of other vegetation not native to the area.



Juniper, Pine and Arizona Cypress

The majority of the Red Rock Scenic Corridor contains the Piñon-Juniper vegetation type. Common species here include the Colorado piñon, one-seed juniper, Rocky Mountain juniper and Alligator juniper. Junipers are more abundant than piñons at these elevations (below 6,500 feet). Characteristic shrubs include scrub oak, manzanita, sugar sumac, mountain mahogany and wait-a-minute bush.

Sycamore

Riparian Forest occurs along Dry Beaver Creek, which passes under SR 179 near MP 302.5, and Jacks Canyon Wash, a tributary of Dry Beaver Creek that generally parallels the highway from approximately MP 304.5 to 305.5. Although naturally ephemeral (normally dry), Jacks Canyon Wash now runs year-round in this area due to treated sewage from the Village of Oak Creek. The Riparian Forest community contains broadleaf trees that shed leaves seasonally. The trees are often large, with some species reaching heights of 50 to 100 feet. The primary species of trees are cottonwood, sycamore and ash. Other plants include net-leaf hackberry, one-seed juniper, mesquite and catclaw acacia. Dry

Ash

Beaver Creek is perennial south and west of SR 179, and ephemeral north and east of SR 179. The creek is lined by cottonwood trees and Arizona sycamores. These taller trees mark a semi-riparian pocket surrounded by mixed grassland and woodland.

Arizona Cypress Woodland, like Riparian Forest, typifies ephemeral and perennial watercourses in the area. SR 179 traverses a drainage of Arizona Cypress Woodland slightly south of MP 309 and again between MP 309 and MP 310. Arizona Cypress trees often exceed 30 feet in height.

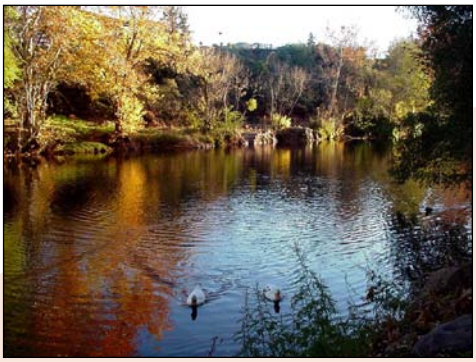
Coyote

4.5.4 Wildlife

Coconino National Forest provides habitat for many species of mammals, birds, reptiles, amphibians and fish. Specific wildlife groups are well adapted to specific vegetative faunal zones. Numerous wildlife species use the Dry Beaver Creek riparian area, including raptors, songbirds, deer, javelina and small game. The U.S. Army Corps of Engineers has delineated wetlands along a limited segment of Jacks Canyon Wash near MP 305.

Mule deer
Source: Arizona Game & Fish

Wildlife movement corridors that cross SR 179, identified by the Arizona Game and Fish Department, are used by wildlife such as javelina, mule deer, coyote, small mammals, and reptiles. These corridors cross SR 179 near MP 305.7, MP 308.8, MP 309.2 and MP 309.4. To continue to accommodate wildlife movement, the SR 179 FEA contains a commitment that any newly constructed box culverts at these four locations will be at least four feet high



Ducks

by four feet wide. Moreover, wildlife water collection sources will be constructed on the east and west sides of SR 179 at MP 308.3 and 308.4. (See Appendix A).

About 180 recorded species of birds inhabit the Sedona/Red Rock area, due in part to the large elevation changes and different environments. Each vegetative community has its own characteristic avian fauna.

4.5.5 Special Status Species

Special status (threatened, endangered or "forest-sensitive") animal and plant species are known to be present in the vicinity of SR 179. The Arizona Game and Fish Department lists three special status animals: the Common Black Hawk, Roundtail Chub and Narrow Headed Garter Snake. Coconino National Forest sensitive animal species include these three plus the Lowland Leopard Frog, Mexican Garter Snake, Bald Eagle, Swainson's Hawk, Gila Woodpecker and Southwestern Cave Bat. The American Peregrine Falcon may also occur in the corridor. Sensitive plant species are the Ripley Wild Buckwheat and Verde Valley Sage.

Of these species, the reptiles, amphibians and (obviously) fish tend to occur in aquatic or riparian environments; the birds of prey may nest on cliff faces or in riparian habitats; and the two plant species are largely limited to outcroppings of the Verde formation, which occur mostly south of Dry Beaver Creek and hence outside the scenic corridor. According to the *SR 179 Corridor Study*, the Roundtail Chub has been sighted at the south end of the scenic corridor in Dry Beaver Creek. The Narrow Headed Garter Snake has been sighted in the Back-O-Beyond Road vicinity, roughly one mile west of the north end of the scenic road.

4.5.6 Paleontological Resources

Recent excavations for a new gas line near SR 179 have revealed fossil ferns at least 275 million years old near the Red Rock Scenic Road. During geotechnical work for the SR 179 roadway improvements, additional monitoring for fossils will be performed by experts in the field. Meanwhile the ferns are being photographed and the Forest Service is cooperating with the Museum of Northern Arizona to remove and preserve the best specimens, which are of high quality and may be deposited in a museum. The chief technician of the Smithsonian Institution's Paleobotany Department has said that these fossils, found in Permian Hermit Shale, are extremely important from a scientific standpoint. To protect these unique resources, their location is not disclosed in this document. If a source of funding can be found, specimens might be displayed at scenic pullouts near the finds, or at other locations in the community. This would enhance visitor enjoyment, appreciation and understanding of the scenic corridor.

4.6 Recreational

This intrinsic quality exists where the roadway corridor is used for recreation such as jogging, cycling or roadside picnics, or for direct access to recreational sites like campgrounds, lakes, ski lodges or trails. This section summarizes the recreational opportunities and facilities that help make the corridor a special place.

4.6.1 Trails

The Red Rock Scenic Road connects with a variety of trails in Coconino National Forest. The trails offer hiking, riding and biking experiences with a wide range of lengths, changes in elevation and levels of difficulty. Bicycles are prohibited in the Munds Mountain Wilderness (e.g., much of Hot Loop and Jacks Canyon trails, as well as the popular Courthouse Loop). Two existing underpasses, near MP 308.4 and 309.4, carry the Templeton and HT Trails under SR 179. To accommodate the trail crossings, the SR 179 FEA contains a commitment to maintain at least the current dimensions of the culverts at these locations (Appendix A).

Trail entrance off Red Rock Scenic Road

A key part of this system, the popular Bell Rock Pathway east of SR 179, largely parallels the highway from approximately MP 307 (Bell Rock Trailhead) to Indian Cliffs Road at the north end of the scenic corridor. The adjacent Courthouse Loop around Bell Rock and Courthouse Butte cuts through the wilderness area. Federal funding under ISTEA allowed Bell Rock Pathway to be constructed as a 10–feet-wide multi-use trail, with a stabilized (hardened) surface, drainage and a bridge crossing. The adjacent Courthouse Loop around Bell Rock and Courthouse Butte cuts through the wilderness area. Secondary pathways connect to the network of trails in the National Forest, such as Templeton Trail to the Cathedral Rock area and Little Horse Trail to the Broken Arrow and Margs Draw Trails.

Cyclist using trail

The Woods Canyon, Bell Rock Pathway and Little Horse trailheads are located near SR 179 within the Red Rock Scenic

Hikers on trail

Corridor. Table 4.3 lists these and other National Forest trails that connect with the Red Rock Scenic Road, either directly or indirectly. The trails are listed generally from south to north, with the length and difficulty indicated.

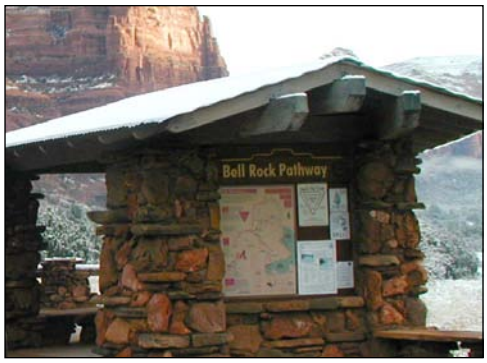
Table 4.4 lists the facilities currently available at the three trailheads near the Red Rock Scenic Road. There is no signage along SR 179 for the Woods Canyon trailhead, and reaching the trail requires use of a primitive road. The Bell Rock Vista and Little Horse trailheads, on the other hand, have guide signs and paved parking lots near the highway. At the Bell Rock Vista trailhead, a large, two-sided Coconino National Forest sign says "Bell Rock Vista and Pathway." The Little Horse trailhead has much smaller signs showing "Little Horse Trail Bell Rock Pathway" and the MUTCD symbol for hiking trails.

Table 4.3: Major Coconino National Forest Trails Accessed from Red Rock Scenic Road

Trail	Length (miles)	Elevation Change (feet) and Difficulty	SR 179 Access
Kel Fox	N/A	N/A (Easy)	Via Beaverhead Flat Road and Forest Road 9501L
Woods Canyon*	4.3	400 (Moderate)	Trailhead off east side of highway (via primitive road beyond closed gate) near MP 304.5
Hot Loop*	9.8	1,000 (Strenuous)	Via Woods Canyon Trail
Jacks Canyon*	8.0	2,000 (Strenuous)	Via Hot Loop Trail, or Jacks Canyon Rd to trailhead
Munds Mountain*	2.8	400 (Moderate)	Via Jacks Canyon Trail
Bell Rock Pathway	3.5	50 (Easy)	Trailheads on east side of highway near MP 307.1 (Bell Rock Vista) and MP 309.9 (Little Horse); also parking area near MP 308.2
Courthouse Loop*	2.0	250 (Moderate)	Short walk from south Bell Rock Pathway trailhead
Templeton	2.5	200 (Moderate)	From Bell Rock Pathway using underpass
Cathedral Rock	0.6	600 (Moderate)	Via Templeton Trail or Templeton and HT trails, or Back-O-Beyond Rd to trailhead
Baldwin	1.5	100 (Easy)	Via Templeton Trail or Templeton and HT trails
HT	0.5	100 (Moderate)	From Bell Rock Pathway using underpass
Little Horse	1.6	300 (Easy)	From north end of Bell Rock Pathway
Broken Arrow	2.1	300 (Easy)	Via Little Horse Trail
Margs Draw*^	2.5	150 (Easy)	Via Broken Arrow Trail

*At least partly in Munds Mountain Wilderness Area
^Connects with other trails to points north and east, including Oak Creek Canyon
Sources: http://www.redrockcountry.org/rec-trails, Sedona Hiking & Mountain Biking Map (Beartooth Publishing), Coconino National Forest Map, http://www.sedonamonthly.com, *Final Corridor-Wide Framework Report*

The trails and trailheads within the corridor are designated recreational facilities protected under Section 4(f) of the U.S. Department of Transportation Act of 1966. Section 4(f) states that FHWA may approve a transportation project requiring the use or disturbance of public parks or recreational resources only if there is no feasible or prudent alternative to using that land, and the project includes all possible planning to minimize harm to the Section 4(f) lands/resources.



Ramada at Bell Rock Vista trailhead

Table 4.4: Facilities at Trailheads along Red Rock Scenic Road

Facility		Trailhead		
		Woods Canyon (MP 304.5)*	Bell Rock Vista (MP 307.1)	Bell Rock Pathway North/Little Horse (MP 309.9)
Turn Lanes from SR 179			X	X
Parking (paved)	Auto	*	X	X
	Recreational vehicle		X	X
	Horse trailer			X
	Tour bus		X	
	Bicycle		X	
CNF Identifying Signage Visible from Highway			X	X
CNF Trail Signage			X	X
Posted Trail Maps, Information and Regulations			X	X
Posted Interpretive Information on the National Forest and Red Rock Country			X	
Red Rock Pass Vending Machine			X	X
Restrooms				X

*No facilities except dirt parking area accessible using primitive road from SR 179
Sources: Field reconnaissance and Scenic Resource Management

4.6.2 Other Recreational Opportunities

In addition to scenic photography, hiking and trail riding, numerous "back country" recreational opportunities are available in the National Forest; many are accessible by trail from the Red Rock Scenic Road. Examples are rock climbing, cross-country skiing, visiting Sinagua Indian sites, bird observation, stargazing and primitive camping. The nearest campground to the Red Rock Scenic Road is Chavez Crossing (for groups only) located off SR 179 between MP 311 and 312. A number of companies offer popular jeep tours through the back country. Air tours, including hot-air ballooning, are also available in the Sedona area. The resorts along SR 179 in the Village of Oak Creek (as well as north of the corridor within Sedona) offer their guests many recreational activities such as golf, tennis and swimming.

Many more recreational sites and activities, including camping, picnicking, fishing and swimming, are available a short distance outside the corridor along Oak Creek, especially in the Oak Creek Canyon Recreation Area of Coconino National Forest. Oak Creek Canyon is one of Arizona's best-known and most popular tourist destinations. It contains five campgrounds, one of which is open year-round. Oak Creek is stocked frequently with trout; fishermen must have the appropriate license.

Campground in Sedona area

Fly fishing on Oak Creek

Jeep tour in Sedona area
(Source: Pink Jeep Tours)

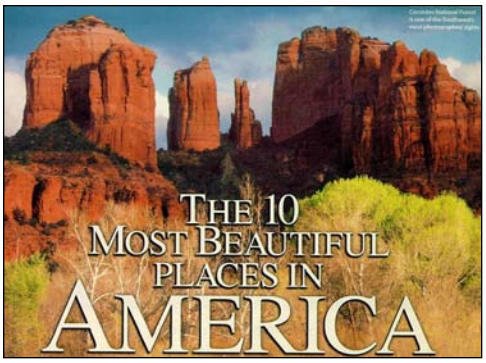
4.7 Scenic

According to ADOT CMP guidelines, the scenic intrinsic quality consists of natural or artificial beauty, whose quality is meas-

ured by the degree to which it is memorable, distinctive, uninterrupted and unified. Section 4.7.1 gives a general description of the scenic corridor as a visitor would experience it, beginning south of the corridor's southern end and preceding north on SR 179.

4.7.1 Corridor Overview: Red Rock Country

SR 179, a generally north-south route from I-17 to SR 89A in Sedona, traverses the beautiful Red Rock Country, which *USA Weekend* (May, 2003) named the most beautiful place in America. The Red Rock Country is Arizona's second leading tourist attraction (after Grand Canyon National Park) and also attracts many New Age believers who are convinced of its spiritual energy. The drive provides panoramic and spectacular views of eroded monuments, promontories, cliffs and buttes. SR 179 traverses four vegetative life zones and elevations ranging from approximately 3,600 to 4,300 feet. The terrain varies from rolling, undulating valley basins and alluvial bottoms to rugged, sharply broken, nearly vertical cliffs and canyons.



The headline from *USA Weekend*, May 2003

Aerial photo of Red Rock Scenic Corridor

Sedona's Red Rock Country encompasses approximately 500 square miles carved from the southern edge of the Colorado Plateau, a vast upland extending around the Four Corners area of the southwest. SR 179 winds through the center of the eroding southern margin of the plateau. The south edge of the plateau, known as the Mogollon Rim, forms the escarpments bordering the Sedona area to the north and east. Mingus Mountain marks the western horizon. Major geologic features that create outstanding visual interest along the corridor include Bell Rock, Courthouse Butte, Horse Mesa, Cathedral Rock and House Mountain. The red rocks themselves are sedimentary, but the area also contains large basaltic features of volcanic origin, such as House Mountain and Wilson Mountain.

Traveling toward Sedona from the I-17 interchange at MP 298.95, the first glimpse of Courthouse Butte is visible just past MP 300. The scenic road officially begins at

MP 302.5 as SR 179 crosses Dry Beaver Creek. Remnants of the old Beaverhead roadbed and its wooden bridge are visible on the east side of the roadway.

Near MP 303, SR 179 intersects Yavapai County Route 78 (Beaverhead Flat Road), which was recently improved to provide an all-weather connection from SR 179 to Cornville Road. Between this point and the Village of Oak Creek, there are several (unofficial) places to pull off the road and view the red-rock panorama ahead. The brilliantly colored sandstone buttes, spires and cliffs were formed by a succession of ancient seas, deserts and rivers beginning in the Paleozoic era. More than 200 million years ago, rivers carrying debris from an ancient mountain range near the modern Rocky Mountains created a large floodplain. The resulting Hermit formation of mudstone, sandstone and conglomerate forms the "floor" of Red Rock Country. Nearby road cuts expose deep red Hermit shale.

Rising above this shale floor are castle-like buttes and spires carved from the Schnebly Hill formation, a 700-foot thick series of mudstone, sandstone and limestone. This formation makes up the bulk of the red rocks. Its horizontal layers of red and orange have been shaped by water and wind into fantastic shapes. Coconino sandstone, formed from ancient wind-blown sand dunes, rises above the reddish layers in tilted stacks of buff and gold. Because dune formation was continuous as the coastline shifted about 265 million years ago, Coconino sandstone merges in places with the reddish Schnebly Hill for-

Bell Rock with Mogollon Rim in the background

Courthouse Butte

Bell Rock Vista and Pathway

mation layers below it, leaving a striped and blended landscape.

The most colorful sedimentary rocks consist of Red Supai sandstone, yellowish Toroweap sandstone, buff-crossbedded Coconino sandstone and white Kaibab limestone. They were deposited in layer cake fashion during the Paleozoic, between 250 and 300 million years ago. A complex joint system facilitates disintegration of the freestanding monuments, while weathering and wind erosion contribute to the slow wasting of the cliff faces.

View of Red Rocks

The scenic road continues north through the unincorporated Village of Oak Creek. The South Gateway Visitor Center, operated jointly by the CNF and Chamber of Commerce, is located in Tequa Plaza just north of the Ridge Trail/Avenida de Piedras intersection at the south end of the Village. Visitor information, orientation and National Forest use passes are available at this location. Just north of the Village, SR 179 hugs the base of Bell Rock after serving Bell Rock Vista, the heavily used south trailhead of Bell Rock Pathway. The long red and gold curtain of cliffs to the east forms Sedona's "backbone," a rugged peninsula separated from the Colorado Plateau by Jacks Canyon. The highest points, Lee and Munds mountains in Munds Mountain Wilderness Area, exceed 6,500 feet in height.

Tequa Plaza

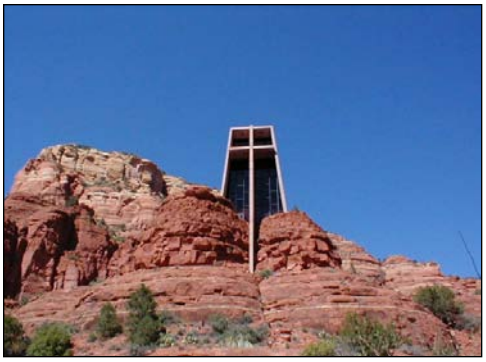
Munds Mountain Wilderness Area lies within the National Forest between SR 179 and I-17. This 18,150-acre wilderness comes within approximately 260 feet of

Indian ruins in Munds Mountain Wilderness Area

the highway near Bell Rock (MP 307.8 to 308.3). It offers magnificent scenic views, hiking, horseback trails, riparian zones, wildlife watching and Indian ruins. Courthouse Butte and Bell Rock lie within it. To maintain this area in a primitive and pristine state, all forms of mechanized transportation are prohibited.

Chapel Road

At MP 310, a sign marks the end of the official scenic route, although scenic vistas continue as the highway continues north for approximately 3.5 miles to SR 89A in Sedona. Just south of this point, a large parking area on the east side of SR 179 offers access to Little Horse Trail and Bell Rock Pathway, along with excellent views back to Courthouse Butte. The Chapel of the Holy Cross, reached by turning onto Chapel Road near MP 310.5, is a major tourist attraction that seems to grow from the surrounding rock. Completed in 1956, it required 18 months to construct. From the walkway curving up to the chapel's entrance, the three rock spires known as the Nuns and the Madonna and Child are visible. Back on SR 179, the basalt-crowned 7,122-foot Wilson Mountain, Sedona's tallest peak, lies directly ahead. To its left is the long green expanse of Tabletop, also known as Airport Mesa because the Sedona Airport is located there.



Chapel of the Holy Cross

A community-based lobbying effort led by Keep Sedona Beautiful, Inc. (KSB), and recently endorsed by the Sedona City Council, is attempting to have approximately 160,000 acres of National Forest land officially designated as a "National Scenic Area," which would be the first of its kind in the United States. The proposed

The Nuns

federal legislation would codify the Forest Service's current policy of exchanging federal land in the area only for private land also located in scenic Red Rock Country. Appendix C provides details of the KSB proposal.

4.7.2 Maps of Existing Scenic Resources

According to an analysis recently conducted by Scenic Resource Management, two major objectives for maintaining a high degree of scenic beauty in the Red Rock Scenic Corridor are (1) to have the transportation facilities pass through areas where scenic impacts are minimized, and (2) to have them pass through areas that provide outstanding views to the users. The ideal scenic resource solution for the corridor would be to reduce scenic impacts to a minimum, while also achieving the highest levels of scenic viewing opportunities.

Figure 4-2, *Existing Visual Condition*, illustrates the degree to which man-made features have affected the scenic natural landscape. Negligible visual impact exists in the Coconino National Forest both north and south of the Village of Oak Creek, because the forest has been left as much as possible in its natural state. Within the Village, on the other hand, man-made elements have had an impact ranging from low to very high. SR 179 through much of the Village traverses areas where extensive commercial and residential development have had a very high impact on the visual environment.

Figure 4-3, *Overall Scenic Sensitivity*, provides a gross measurement of the potential for negative scenic impacts due to transportation improvements along various portions of the corridor. This map represents an aggregate of the following basic resource inventories: slope, landform diversity, existing visual condition, visual magnitude (apparent visibility of the landscape), vegetation type, inherent scenic quality, and visual absorption ability. Ideally, SR 179 would thread its way through the areas of least potential scenic impact. When SR 179 traverses areas of high scenic value or importance, corridor transportation improvements must be designed with extra care, and with the application of appropriate and creative mitigation measures if needed. The map shows that the highway primarily passes through areas of low to intermediate scenic sensitivity. The principal exception occurs near MP 308, where SR 179 passes just west of Bell Rock in an area of high scenic sensitivity.

The *Scenic Viewing Opportunities* map, Figure 4-4, indicates where the most scenic views can now be seen, or could be seen through the application of sensitive and creative design. The potential of various portions of the corridor to provide scenic enjoyment is rated from minimal to outstanding. Scenic viewing opportunities are especially high in the Village of Oak Creek, as this area is generally level with minimal vegetative cover, and offers outstanding unobstructed vistas of the Red Rocks. Such opportunities are also high in portions of the National Forest between Bell Rock and the north end of the scenic road.

Figure 4-2, Existing Visual Condition

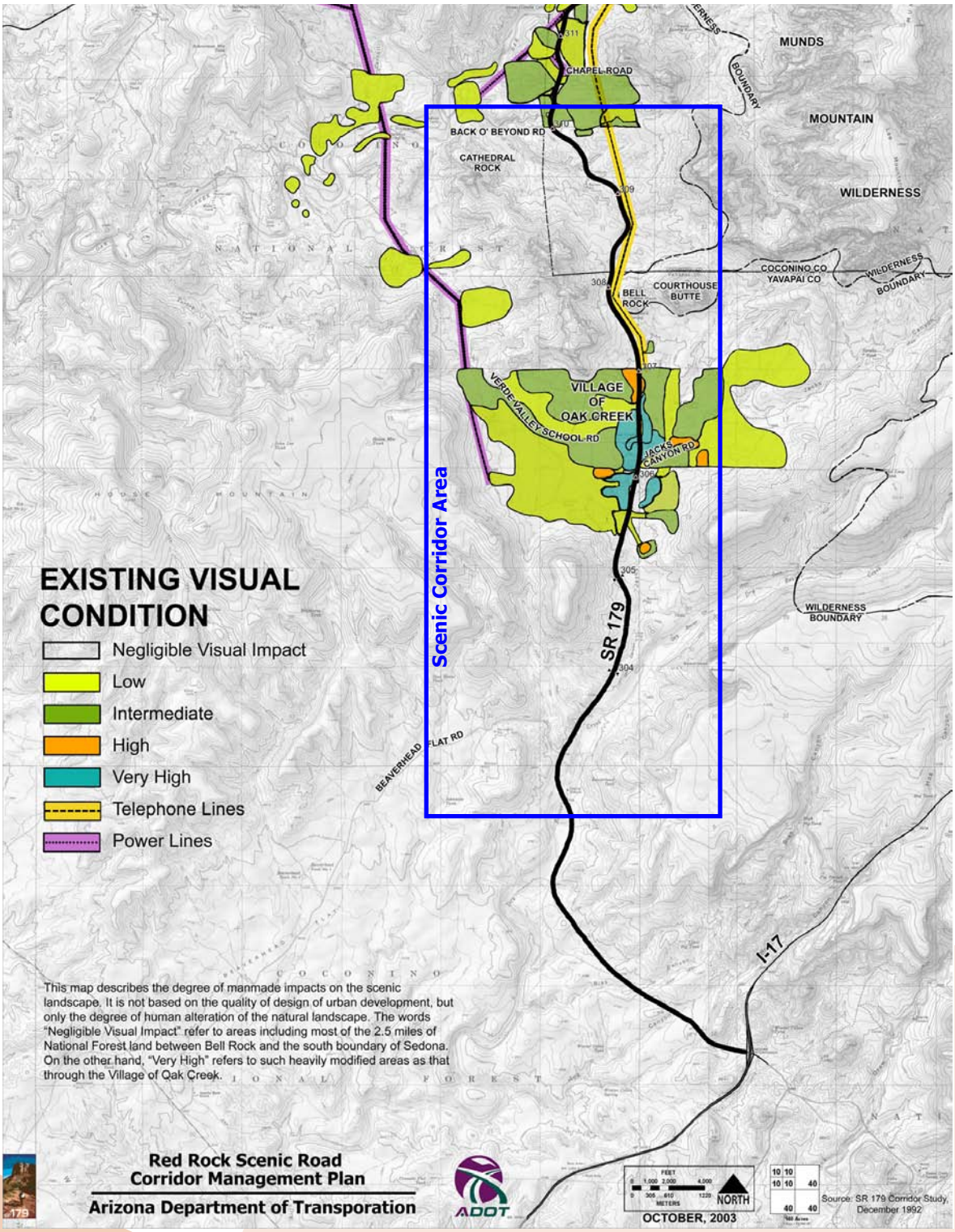


Figure 4-3, Overall Scenic Sensitivity

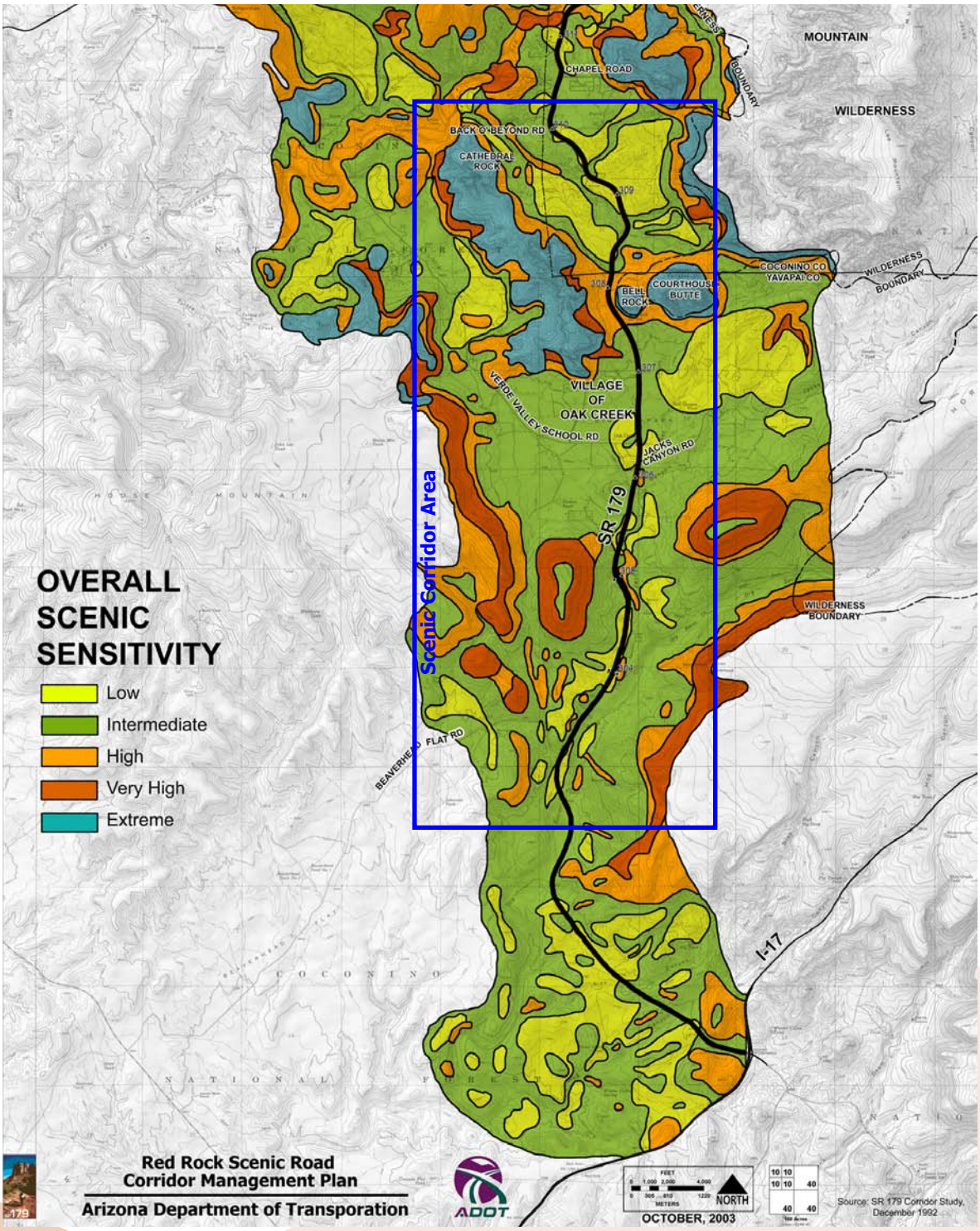
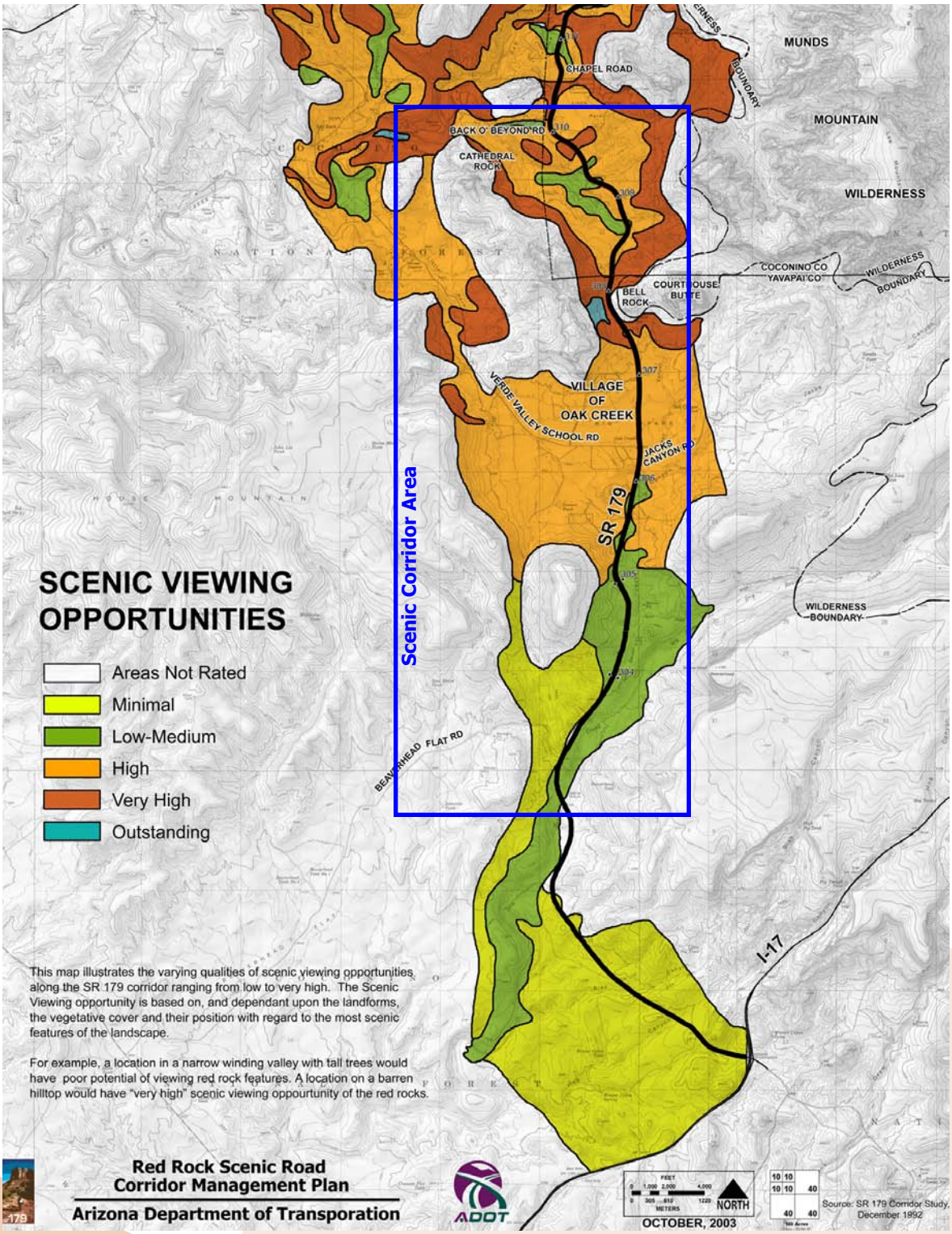


Figure 4-4, Scenic Viewing Opportunities



4.7.3 Visual Assessment from 1986 Scenic Road Application Report

As part of the application process that resulted in designation of the Red Rock Scenic Road, photo samples of SR 179 were taken at one-mile intervals from MP 300 to 310. The visual quality of the scene in each slide was rated for uniqueness, vividness, intactness and unity on a scale of 1 to 7, with 1 representing low quality and 7 very high quality. These ratings were then calculated and averaged to give an overall visual quality rating for the entire corridor. *This assessment was performed some 19 years ago (in 1986), and some of the underlying scenic qualities of the landscape may have changed. Most notably, development in the Village of Oak Creek has continued, affecting the qualities of intactness and unity.*

Uniqueness

This criterion rated 5 on the 1 to 7 scale. Scenes along this highway represent a moderately scarce visual resource. The vegetative patterns and communities are typical of many regions of the state. The spectacularly colorful eroding red rock buttes are the primary visual attractions and a truly unique element of the landscape. The uniqueness of the landscape at the north end of the route (i.e., north of the Village of Oak Creek) rated significantly higher than the southern portion. The northern portion offers excellent views of the red rock buttes contrasting with the dark green piñon-juniper vegetation.

Vividness

This criterion rated 6 on the 1 to 7 scale. The visual resources are highly distinct, prominent and offer exceptional interest, as demonstrated by the number of photo seekers on the edge of the roadway. The patterns of form, line, color and texture are distinct and offer a variety of contrasts. Forms are strongly dominated by the blocky, triangular and square shapes of the mountains, ridges and cliffs. Line is strongly defined in the horizontal silhouettes of the buttes, rock layers and vegetation patterns. Color is the most striking element and varies from brilliant reds to brownish reds, greens, blues, yellows, grays and purples. Riparian vegetation displays seasonal color contrasts in some areas. Changes in foreground vegetation type provide contrasting textures. Vividness, like uniqueness, increases as one travels north and the forms, lines, colors and textures become more distinct.

Intactness

This criterion rated 5 overall. The natural condition of the landscape has been moderately altered by human settlement. [One could argue that since 1986, the degree of alteration has increased in the Village of Oak Creek because of continuing development.] The Village effectively splits the scenic corridor in two and contains many visually distracting elements in the landscape that tend to become the focus of attention. Residential and commercial development line the highway, with accompanying signs, utility lines, contrasting architectural styles and colors. This distracting visual encroachment dominates only about one mile of the route, limiting the amount of time motorists spend in a visually disturbed environment.

Unity

The unity criterion also rated 5 on the 1 to 7 scale. The roadway alignment fits the rolling topography and creates a sequential visual experience. Considering the compositional harmony of the roadway and the natural topography, however, man-made elements imposed on the landscape create visual features that lack compatibility with the environment. The variety of architectural styles, colors and textures maximize contrast with the natural features. Nevertheless, many excellent visual features are concentrated in the Village of Oak Creek, keeping the corridor from a lower rating for overall unity.

View from Red Rock Scenic Road

4.7.4 U.S. Forest Service Visual Quality Objectives

To protect and manage visual resources, the U.S. Forest Service has established visual quality objectives. These objectives identify the visual characteristics of the landscape and analyze the visual effects of resource management actions. Visual quality objectives are assigned to the landscape to describe the degree of acceptable alteration of the natural landscape based on aesthetics and measured by visual contrast.

View from Red Rock Scenic Road

The visual quality objectives, from most to least restrictive, are *preservation, retention, partial retention, modification* and *maximum modification*. Preservation allows for ecological changes only and applies to wilderness areas and other specially classified areas. Retention provides for management activities that are not visually evident. Partial retention indicates that management activities are to remain subordinate to the characteristic landscape.

View from Red Rock Scenic Road

Modification may visually dominate the original landscape; however, vegetative and landform alteration must borrow from established form, line, color and texture so that its visual characteristics are compatible with the natural surroundings. Maximum modification activities may dominate the characteristic landscape. The visual quality objective established for the SR 179 corridor, including the Red Rock Scenic Road, is retention, except in the Munds Mountain Wilderness where preservation is required. The wilderness area is managed for primitive experiences; the use of motorized or mechanized equipment is prohibited.

View from Red Rock Scenic Road

4.7.5 Pullouts

A survey of the portion of SR 179 north of MP 304.5, carried out in October 2003, found 87 scenic pullouts—both authorized and informal. The latter are unpaved and undesignated shoulder areas that tourists use for scenic viewing and photography. Approximately 44 of the pullouts (half the total) are along the Red Rock Scenic Road. A previous survey in the early 1990s identified 9 additional pullouts in the southernmost two miles of the corridor (MP 302.5 to 304.5). Thus, the total number of pullouts in the corridor is at least 53. Official or semiofficial pullouts, with National Forest signage or direct trail access, exist at the following locations, from south to north:

Parking at scenic pullout

- Bell Rock Vista, on the east side of SR 179 near MP 307.1, just north of Bell Rock Boulevard.
- A narrow, paved pullout on the east side just south of the county line (MP 308.2) with access to Bell Rock

Parking at scenic pullout

Pathway and a sign: "Parked Vehicles Must Display Red Rock Pass," plus a sign about the recent trail restoration project.

- A gravel pullout on the east side just north of the county line (MP 308.2), with access to Red Rock Pathway and a sign: "Parked Vehicles Must Display Red Rock Pass."
- A paved but unstriped parking area on the west side of the highway near MP 308.3, with a signboard displaying maps and other Coconino National Forest information, plus a "Parked Vehicles Must Display Red Rock Pass" sign. There is also a vista point with signage, and a locked building that historically housed restroom facilities.
- A gravel parking area on the west side near MP 308.6 and adjacent to a pedestrian trail underpass of SR 179. The only signage is another advisory of the Red Rock Pass requirement.
- A small parking area on the east side near MP 308.8, with a signed gate that appears to provide access to the trail system.
- Little Horse/Bell Rock Pathway (north) trailhead, on the east side near MP 309.9.

All of these pullouts except the first and the last will be obliterated during construction of the upcoming ADOT improvements to SR 179. Three new pullouts serving northbound and southbound traffic in the National Forest will replace them. Unlike the old roadside parking areas, these will be paved and well screened from the road-

Red Rock Passes

Red Rock Pass requirement for parked vehicles

New pullouts, unlike this one, will be paved and well screened from the roadway

Table 4.5: Existing and Planned Scenic Pullout Facilities

Pullout	Location	Status	Facilities*	Proposed Parking	Trail Connections
Lower Jacks Canyon (new)	MP 304.7, at new Red Rock Ranger District administrative site (east)	ADOT will construct as part of highway improvement project	Restrooms, visitor information, possible Red Rock pass vending	Amount to be determined; will include RV and tour bus	Woods Canyon, pathway to Village of Oak Creek
Bell Rock Vista (existing)	MP 307.3 (east)	ADOT will expand as part of highway project	Information kiosk, benches, Red Rock Pass vending	--Existing: 19 + 2 RV +2 tour bus --Planned: 50 including 5 RV	Bell Rock Pathway, Courthouse Loop
Red Rock Vista (new)	MP 308.3 (east)	ADOT will construct as part of highway project	Restrooms, information kiosk, wildlife guzzler tank	20 + 2 RV; tour buses prohibited due to wilderness proximity	Bell Rock Pathway, Templeton
Yavapai Vista (new)	MP 308.4 (west)	ADOT will construct as part of highway project	Information kiosk, wildlife guzzler tank	13 + 2 RV + 2 tour bus	Bell Rock Pathway, Templeton
Little Horse (existing)	MP 309.9 (east)	ADOT will improve access as part of highway project	Restrooms, info kiosk, horse trailer parking, Red Rock Pass vending	--Existing: 17 + 2 RV/horse trailer --Future: 2 tour bus	Bell Rock Pathway, Little Horse, HT, trails to Sedona

*To be provided by the Forest Service, except guzzler tanks, which are an ADOT construction and Arizona Game & Fish maintenance responsibility as specified in the FEA. At Red Rock Vista, restrooms will be constructed by the Forest Service but funded by ADOT per the FEA.
Source: http://www.scenic179.com

way, with deceleration and acceleration lanes provided as appropriate. Table 4.5 provides information on parking and other facilities at the existing and planned official pullouts on the Red Rock Scenic Road.

4.8 Opportunities and Constraints

Table 4.6 lists key opportunities and constraints related to the three most prominent intrinsic qualities of the Red Rock Scenic Road: Natural, Scenic and Recreational. Most of these opportunities and constraints were identified during the inventory of existing conditions for the SR 179 Corridor Project.

Table 4.6: Key Opportunities and Constraints Related to Intrinsic Qualities

Intrinsic Qualities	Opportunities	Constraints
Natural	- Use the bifurcated alignment in the National Forest north of the Village to enhance wildlife habitat and wildlife movement corridors across the highway. - Develop new interpretive displays at new scenic pullouts and the CNF facility in the corridor.	The project must avoid or mitigate impacts on: - Riparian areas (Dry Beaver Creek, Jacks Canyon Wash) - Wetlands (Dry Beaver Creek, Jacks Canyon Wash) - Existing wildlife movement corridors - Munds Mountain Wilderness Area - Rock outcrops
Recreational	- Promote community identity and visitation as part of the corridor design, through entry monuments and wayfinding elements. - Improve management of access to and from the roadway. - Promote identification of visitor-oriented businesses and facilities (such as Chamber of Commerce and Forest Service). - Create commercial destination areas, to support recreational shopping, dining and entertainment directly, and other recreation indirectly. - Opportunities for aesthetically appealing and unobtrusive noise buffering may enhance recreational activities. - Create new pedestrian linkages through the Village of Oak Creek, connecting with trails and pathways in Coconino National Forest.	- Right-of-way acquisition for corridor transportation improvements may affect adjacent recreational land uses. - The roadway may need buffering and screening from adjacent recreational areas. - Vehicle noise may affect recreational experiences nearby. - Tourism-related commercial and residential growth and development may impair intrinsic scenic qualities, through visual clutter and distraction. (I.e., the recreational and scenic qualities may conflict indirectly.) - There is a lack of safe crossing points between west and east side destinations in the Village for trail and resort access. - Bicycles and other mechanized transportation are prohibited in the Munds Mountain Wilderness. - Multiple trail user types may be difficult to accommodate in constrained terrain.
Scenic	- Bury overhead utility lines. - Reduce the number of highway signs by developing a new signing plan. - Coordinate with local planning agencies and businesses to reduce garish commercial signs. - Reduce raw pullouts on dirt or disintegrating pavement by creating sufficient scenic pullouts of appropriate design. - Add scenic pullouts to bring choices among short hikes from these locations, with differing views rather than a single view near the parking. - Relocate or screen roadside parking areas. - Use plantings to screen large buildings whose colors contrast with the scenic backdrop. - Remove ragged ditches through improved drainage plans, new grading and seeding, and red rock linings.	- Clear zone requirements can necessitate more tree removal from the roadway edges. - Signing requirements can result in distractions from scenic viewing. - Lack of adequate right-of-way for well-separated pedestrian and bicycle pathways can add to roadway user distractions and vitiate the scenic experience for everyone. - The property rights and economic interests of adjacent landowners can constrain improvement of the visual environment in developed areas such as the Village of Oak Creek. - The Yavapai County Planning and Zoning Ordinance may limit the county's ability to control lot development and building design in the Village of Oak Creek. - Vista point access for trail users is limited.

Table 4.6: (Continued)

Intrinsic Qualities	Opportunities	Constraints
Scenic (Continued)	- Replace galvanized guardrail with Corten (rusted), steel-backed wood, red rock masonry, or colored concrete or red rock curbs. - Create a more curvilinear or meandering roadway in a few places that would provide a more interesting variety of views. - Improve intimate views of nearby rock outcrops for pedestrians and bicyclists by selective alignment design. - "Edit" views from the roadway by providing studied sequences of variety. - Create more "surprise views" and vast panoramas, more intimate enclosures, filtered "teaser" views, and longer axial views of major rock features. - Create planting pockets in existing rock cut faces so as to reduce their scenic impacts. Similarly, construct retaining walls of native rock designed with planting pockets. - Use different colors on shoulder pavements to reduce the psychological massiveness of the pavement, while helping to calm traffic. - Create new opportunities to view the red rock formations. - There are a few opportunities to open up great views screened by vegetation, by judicious plant thinning or slightly raising the roadway profile. There may be more opportunities to screen off views of scenic impacts by earthen berms and new plantings, or by slightly depressing the roadway. - Additional well-placed scenic pullouts could reduce illegal parking and stopping by viewers and photographers. - Investigate alternative materials for sign posts and sign panels that will be more conforming to the natural environment, while adhering to MUTCD guidelines and ADOT standards, as well as considering maintenance limitations. - Develop an intergovernmental agreement permitting the two counties to install and maintain traffic control devices that do not adhere to standard ADOT materials.	- Commercial uses may need to be buffered and screened to preserve roadway views of the red rocks. - ADOT limits signs and traffic control devices (e.g., signal poles, mast arms, light poles) that do not conform to standard materials. - Sign legends and background colors must adhere to MUTCD and ADOT guidelines.

Source: *SR 179 Needs Based Implementation Plan Final Report,* December 14, 2004

4.9 Eligibility for Designation as a National Scenic Byway

To be eligible for designation as a National Scenic Byway, a road must possess at least one of the six intrinsic qualities, and the significance of such qualities must be recognized throughout the multi-state region. Designation as an All-American Road requires at least two intrinsic qualities. The Red Rock Scenic Road clearly meets this standard by virtue of its spectacular and renowned natural scenery, along with its outstanding recreational opportunities. It also meets the following requirements from the FHWA *Interim Policy for National Scenic Byways*:

State Designation—Any highway or road submitted for designation under the National Scenic Byways Program should be designated as a state scenic road.

Vehicle Accommodation—The road must safely and conveniently accommodate two-wheel-drive automobiles with standard clearances.

Bikes and Pedestrians—Roads considered for National Scenic Byway designation should accommodate, wherever feasible, bicycle and pedestrian travel. (Within the next five years, much of the Red Rock Scenic Road will be transformed into a much safer and more pleasant route for non-motorized users than it is today.)

Corridor Management Plan Submittal—A scenic byways Corridor Management Plan, prepared in accordance with Paragraph 9 of the FHWA *Interim Policy*, must be submitted with the nomination for National Scenic Byway status.

Continuity—Candidates for consideration as National Scenic Byways should be as continuous as possible and minimize intrusions on the visitor's experience. (The Red Rock Scenic Road is physically continuous, although the urban characteristics of the Village of Oak Creek do interrupt the rural and natural environment experienced by travelers.)

Regional Significance—The characteristics associated with the intrinsic qualities of the corridor must be those that are distinct and most representative of the region. Their significance must also be recognized throughout the region. (This is clearly the case for SR 179, whose Red Rocks are widely recognized as the symbol of the Sedona area and the main reason for its worldwide appeal to visitors.)

The FHWA website bywaysonline.org contains a "Designation Readiness Worksheet" for the use of communities that are considering nomination of their roads for National Scenic Byway or All-American Road status. The CMP document, and especially this chapter, are intended to address each item on the checklist and thereby prepare the community for initiating the nomination process.