

# Corridor Mapping

## Overview of GIS

One of the greatest challenges in developing a corridor management plan for any byway is accurately mapping the route and the geographic features surrounding it. For the Missouri Route 66 Corridor Management Plan, Geographic Information Systems (GIS) mapping was utilized. Geographic Information Systems, usually shortened to GIS, integrates hardware and software technologies used in the collection, management, analysis, and display of geographically referenced information. The various types of information within a GIS work together to represent the real world on a computer much like traditional maps represent the world on paper. Natural features such as lakes and streams and man-made features such as roads, bridges, cities, historical sites, and counties can all be graphically represented in a GIS. Information about these features is also included in the database structure of a GIS for the sake of analysis and data management.

For the Missouri Historic Route 66 corridor maps and database, the main driving route, the primary route, and the alternate routes were initially identified and located through research of the historical records maintained by the Route 66 Association of Missouri and Missouri Department of Transportation. The primary route is the route which is recognized as providing the historical main route. The alternate routes were the other driving routes, mostly previous routes, which were used during the history of Missouri Route 66.

The individual road segments that compose Missouri Route 66 were then selected from digital road files updated by the Missouri Department of Transportation. These road segments were further verified and precisely located through real-time, kinematic survey using a Magellan MobileMapper CX Global Positioning System (GPS) unit. For each county map series, these segments of the primary and alternate routes were color-coded by year

the Route 66 literature were used to pinpoint exact locations from address ranges found in many of the digital road files within the database. Because the focus of this document is corridor management, only those points of interest that fall within the primary, secondary, or complimentary corridors as defined by the CMP were included in the GIS database and map sets. Many of these points were also precisely located through collection by a



to reflect changes in Route 66 through time. Track-log elevation data was also captured by GPS to model the vertical highway profile throughout the state.

The Route 66 Association of Missouri has done extensive research to identify points of interest along the Byway that have historical and tourism significance. The addresses and location descriptions found in

GPS survey. The GPS points were downloaded directly into the GIS database and, when appropriate, were substituted for more general locations compiled during the initial research. Consistent naming conventions were used to coordinate the geographic data points with database records found in the planning and intrinsic quality inventory datasets. By establishing standardized identifiers for the points of

*“Recognition as a National Scenic Byway will encourage public agencies to continue supporting a variety of land uses, including the historic properties.”*

interest, a stream-lined and efficient organizational structure was maintained.

All GIS layers in the Route 66 database are projected in the North American Da-

include: Route 66, highways, county roads, points of interest, National Register of Historic Places sites and districts, Department of Natural Resources public lands, parks, rivers, airports, post offices,

the graphic representation of this analysis. It has minimized the need to learn new programs and access multiple applications. GIS will assist Route 66 decision-makers in providing quicker responses to the questions they face while planning for the future of The Mother Road in Missouri.

## Land Use

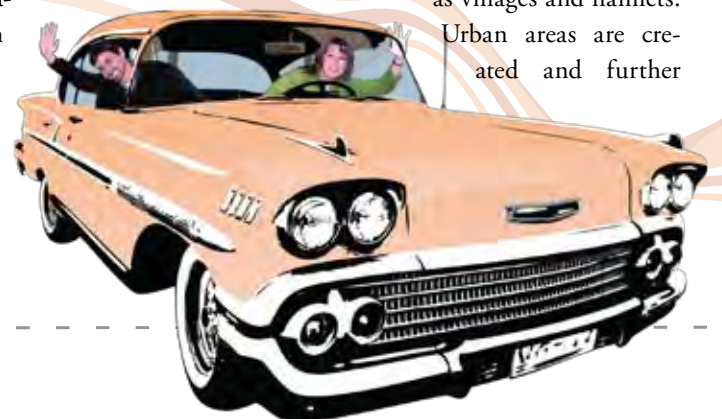
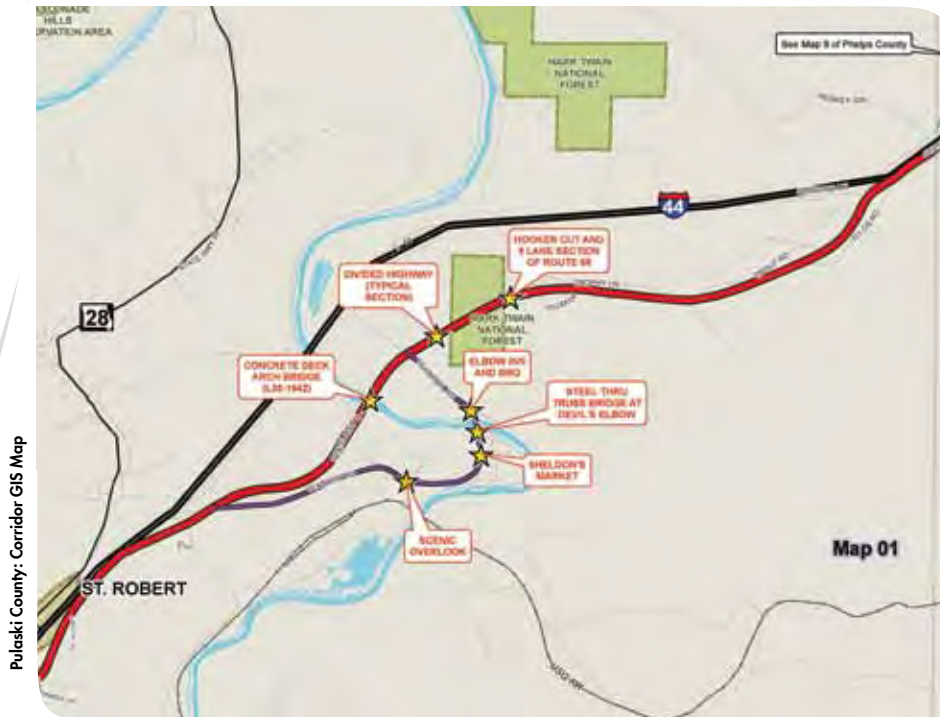
Land use can be described as the human modification of the natural environment into built environments such as fields, pastures, roadways and settlements with buildings. The land in the corridor of the Missouri Historic Route 66 Byway is used in different ways for different reasons. The primary corridor, comprised of the road and its right of way, is made up of public-owned and maintained land. The secondary corridor is comprised of mostly privately owned land in a variety of land uses including commercial, industrial, residential and public park land. In general, land use in the Missouri Route 66 Corridor can be broken into three categories: Urban, metropolitan, and rural.

tum (1983) Universal Transverse Mercator (UTM) Zone 15N coordinate system. This coordinate system was chosen because of the statewide scale of the data. Many of the complementary geospatial data layers were downloaded directly from two internet GIS clearinghouses, the Missouri Spatial Data Information Service (MSDIS) and the Center for Applied Research and Environmental Systems (CARES). Geospatial data layers that compose the Route 66 geodatabase

cemeteries, churches, bridges, cities and towns, and county boundaries.

GIS has helped establish consistency in the mapping and planning process used during the design of the corridor management plan for Missouri Route 66. This robust set of technologies has provided a sound database foundation for the future analysis of the geospatial data, as well as, an aesthetic venue for

Urban areas are characterized by higher population densities and vast human features in comparison to the areas surrounding it. Urban areas may be comprised of cities or towns, but the term is not commonly extended to rural settlements such as villages and hamlets. Urban areas are created and further



developed by the process of urbanization. The U.S. Census Bureau defines an urban area as: "Core census block groups or blocks that have a population density of at least 1,000 people per square mile and surrounding census blocks that have an overall density of at least 500 people per square mile."

In the United States two categories of urban areas are common; the term urbanized area denotes an urban area of 50,000 or more people, whereas urban areas under 50,000 people are called urban clusters. Urbanized areas were first delineated in the United States in the 1950 census, while urban clusters were added in the 2000 census.

Unlike an urban area, a metropolitan area includes not only the urban area, but also satellite cities plus intervening rural land that is socio-economically connected to the urban core city, typically by employment ties through commuting, with the urban core city being the primary labor market. In fact, urbanized areas grow as the core population along with the economic activity center within a larger metropolitan area or envelope. Metropolitan areas tend to be defined using counties or county sized political units as building blocks. Counties tend to be stable political boundaries; economists prefer to work with economic and social statistics based on metropolitan areas.

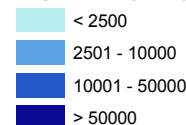
Rural areas are defined as being large and isolated areas of open, non-forested land, often with low population density. Thus, rural areas comprise open country

and settlements with fewer than 2,500 residents; areas designated as rural can have population densities as high as 999 per square mile or as low as 1 person per



0 50 100 200 Miles

#### Population (2006)



Population Distribution Along Missouri Route 66 Corridor



square mile. The population map (previous page) contrasts the urbanized areas and the urban clusters with the rural areas in the Missouri Route 66 Corridor.

intrinsic resources to experience, travelers can select a rural or urban itinerary that suits their taste. Two sample itineraries are listed below:

Union Station will certainly start your shopping off right. This historic Romanesque architectural landmark houses a variety of shopping for all ages.

#### *Afternoon:*

Lunch in Union Station is fun for everyone. Hard Rock Café is a great place to enjoy your lunch. The vibrant atmosphere and Rock and Roll collectables are sure to keep you rockn' and rolln' to your next stop.

Head north on Missouri Route 66 to the Jefferson National Expansion Memorial Park and take a 630 foot ride to the top of Gateway Arch as you head to Laclede's Landing on the St. Louis Riverfront.

Finally head over to Plaza Frontenac to conclude your day of shopping with casual elegance. Here upscale shopping meets the heart of Route 66 in an inviting atmosphere.

#### *Evening:*

Enjoy fine dining at one of Plaza Frontenac's elegant or casual restaurants. Indulge in a glimpse of Tuscany at Brio Tuscan Grill, or a southwest style platter at the Canyon Café. Let the flavor of St. Louis replenish your body after your hard day of shopping.

## Map Guides and Itineraries

Visitors to Missouri Route 66 can travel and sightsee at their own pace with the freedom to choose what they see and when. The GIS map of Missouri Route 66 identifies over 360 points of interest on the Route. Additionally, each County has many side trips that help to round out the visitor's experience. With so many activities to choose from, and so many diverse

### *Shopping Urban Itinerary:*

#### *Good Morning in St. Louis:*

Start your day of shopping off right with a warm breakfast, or soft pastry from hidden treasures, to local favorites. The Donut Drive In is a cultural icon that offers a great selection of cut donuts on the go. Grab a hot cup of coffee as you head downtown.



St. Louis County: The Arch - Gateway To The West



### ***Fishing, Hiking, and Recreational Paddling Rural Itinerary:***

#### *Good Morning in Waynesville/St. Robert:*

Awake your body with hot breakfast and friendly atmosphere at one of our local restaurants from local favorites to award winning specialties we're sure you'll find something for your taste buds.

You might not be hungry now, but don't forget to grab your food before that 8 mile float on the Big Piney or Gasconade River. The many local grocery stores offer a great selection sure to fill your cooler full of snacks.

#### *Afternoon:*

Travel by car to one of our local outfitters experiencing the natural beauty found in the Ozark Highlands. Spend a day, or two at the Mark Twain National Forest. Whether camping, hiking, floating, or trout fishing you'll find an array of visitor amenities. Bring along your bicycle for a guided mountain bike tour or a casual ride through the seven wilderness areas for a day of scenic beauty. Find your next treasure at our secret Geocaching location. Find it if you can!

#### *Evening:*

Enjoy a unique treasure at the Devil's Elbow Inn. This historic favorite might look intimidating, but you won't be leaving hungry in this atmosphere. Enjoy the scenic overlook to the Big Piney River from the patio as wood smoked BBQ fills

the air. If BBQ is not your favorite, don't worry. There are a variety of available food selections from Italian pastas to Mexican tamales, even a good-old fashioned Dairy Queen back in town.



Pulaski County: Devil's Elbow Inn - Courtesy of David J. Eslick

*“As a local or regional road Missouri Route 66 is constantly evolving”*