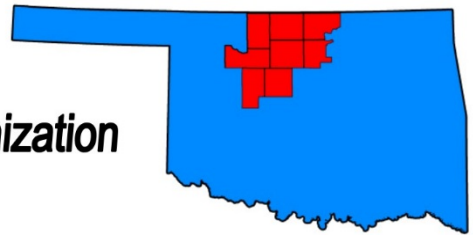
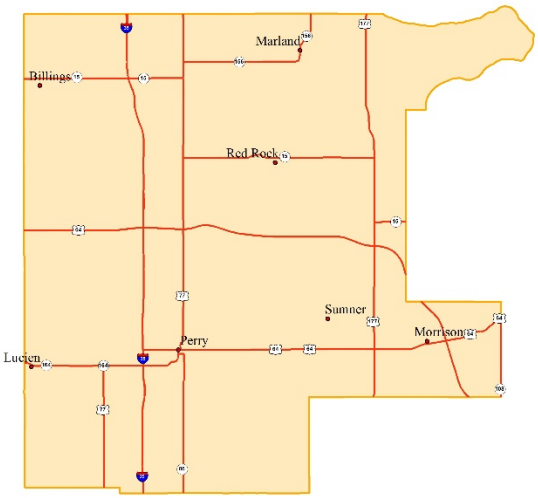
Northern Oklahoma Regional
Transportation Planning Organization



Noble County Oklahoma
2036 Long Range Transportation Plan

Northern Oklahoma Regional Transportation Planning Organization (NORTPO)



Northern Oklahoma Development Authority

NODA
NORTHERN OKLAHOMA DEVELOPMENT AUTHORITY

Northern Oklahoma Regional Transportation Planning Organization

Prepared by:

Northern Oklahoma Regional Transportation Planning Organization
2901 N. Van Buren St.
Enid, OK 73703
www.nortpo.org
www.nodanet.org

In cooperation with:
The County of Noble

The Cities and Towns of
Billings, Marland, Morrison, Perry, and Red Rock

Transit Providers
Cherokee Strip Transit
White Eagle Transit

Native American Tribes
Ponca Tribe
Otoe-Missouria Tribe

The Oklahoma Department of Transportation
The Federal Highways Administration
The Federal Transit Administration

Publication of this document was financed in part by funds provided by the United States Department of Transportation, Federal Highway Administration. The provision of federal financial assistance should not be construed as denoting U.S. Government approval of plans, policies, programs or projects contained herein.

NORTPO Technical Committee

Laura Corff	Cimarron Public Transit
Junior Regier	Fairview Airport
Valerie Snethen	Long Term Care Authority – Aging Services
Jim Watson	CED #8 Engineer

NORTPO Policy Board

Marc Bolz	Garfield County Commissioner
Noel “Sonny” Clonts	Kay County Cities and Towns
James Crabbs	Enid Businessman
Jonathon Cross	Blaine County Commissioner
Chris Harris	Kingfisher Public Schools
Donnie Head	Circuit Engineering District #8
Chris Henderson	City of Ponca City
Max Hess	Grant County Commissioner
Steve Hobson	Retired Garfield County Commissioner
Marci Hyde	Alfalfa County Cities and Towns
Rita Kroll	Cherokee Strip Transit
Leroy Lage	Blaine County Cities and Towns
Bill McBride	City of Enid
Dea Mandevill	Grant County Cities and Towns
Jeff Moss	Kingfisher County Commissioner
Howard Powell	Garfield County Cities and Towns
Richard Raupe, Jr.	Kingfisher County Cities and Towns
John Robertson	Blackwell Industrial Authority/Railroad
Philip Schrahl	Major County Cities and Towns
Eloise Schultz	Noble County Cities and Towns
Jason Shanks	Kay County Commissioner
Brian Taylor	Oklahoma Dept. of Transportation, Div. 4
Kelly Wahl	Major County Commissioner
“Toby” Ray Walker	Alfalfa County Commissioner
Lance West	Noble County Commissioner

TABLE OF CONTENTS

LIST OF MAPS IN PLAN

LIST OF TABLES IN PLAN

LIST OF FIGURES IN PLAN

LIST OF MAPS IN APPENDIX H

LIST OF TABLES IN APPENDIX H

Northern Oklahoma Regional
Transportation Planning Organization

Resolution Re-Adopting the Noble County 2036 Long Range Transportation Plan

Whereas, The Northern Oklahoma Regional Transportation Planning Organization (NORTPO) is the Regional Transportation Planning Organization for the Northern Oklahoma Development Authority, for the expressed purposes to carrying out the transportation planning requirements of U.S. C. Title 23, Chapter 134 and U.S.C. 49, Subtitle III, Section 5303; and

Whereas, the Noble County 2036 Long Range Transportation Plan (LRTP) has been prepared by the NORTPO in consultation with all member local and state governments and local, state and federal transportation agencies in a continuing, cooperative, coordinated and comprehensive planning process; and

Whereas, the Plan has been presented to the general public for review and comment in accordance with the Public Participation Plan in addition to the series of public meetings and the Plan was posted on the NORTPO website for public review and comment; and

Whereas, the Plan is consistent with local, regional, and state transportation and other planning goals and objectives and has been prepared in accordance with all relative state and federal rules and regulations; and

Whereas, the Plan was originally approved and adopted on 27th day of October 2016.

NOW, THEREFORE BE IT RESOLVED, that the NORTPO Policy Board hereby approves and re-adopts the Noble County 2036 Long Range Transportation Plan. Further be it resolved that the NORTPO Policy Board recommends that the Plan be accepted by the Oklahoma Department of Transportation and the Federal Highway Administration and the Federal Transit Administration as the official long range transportation plan for the above cited area.

Approved and Adopted by NORTPO Policy Board and signed this 22nd day of April 2021.

NORTPO Policy Board Chairman

ATTEST:

Marci Hyde

NORTHERN OKLAHOMA DEVELOPMENT AUTHORITY - *Regional Solutions*

– a council of local governments providing opportunities to improve the quality of life in the counties of
ALFALFA • BLAINE • GARFIELD • GRANT • KAY • KINGFISHER • MAJOR • NOBLE

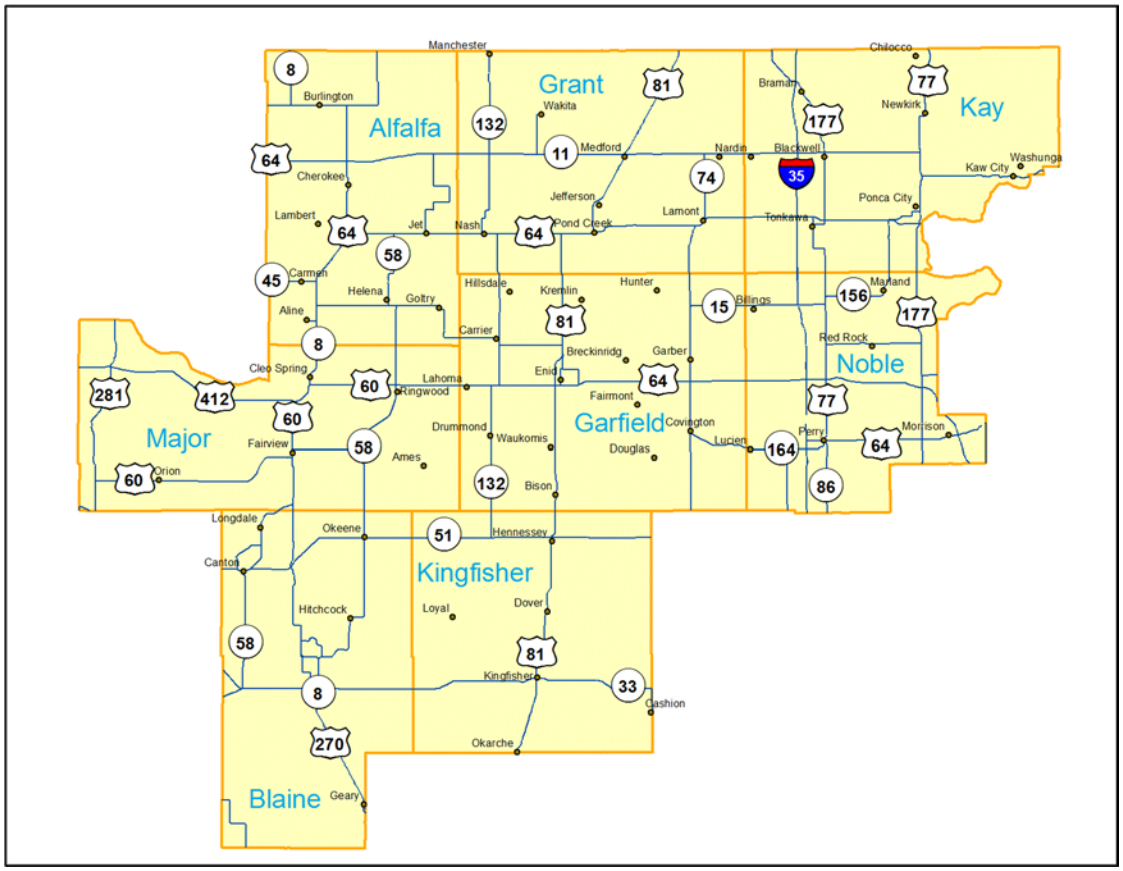
2901 NORTH VAN BUREN • ENID, OK 73703 • PHONE 580-237-4810 • FAX 580-237-8230 • www.nodanet.org

EXECUTIVE SUMMARY

The Northern Oklahoma Regional Transportation Planning Organization (NORTPO) developed the Noble County 2036 Long Range Transportation Plan (LRTP) in coordination and collaboration with stakeholders, communities, local, state and federal agencies. The LRTP includes an inventory of the different modes of travel and identifies issues, opportunities, and trends that may influence transportation in the County over the next 20 years. The Plan also identifies existing and potential future transportation improvement needs.

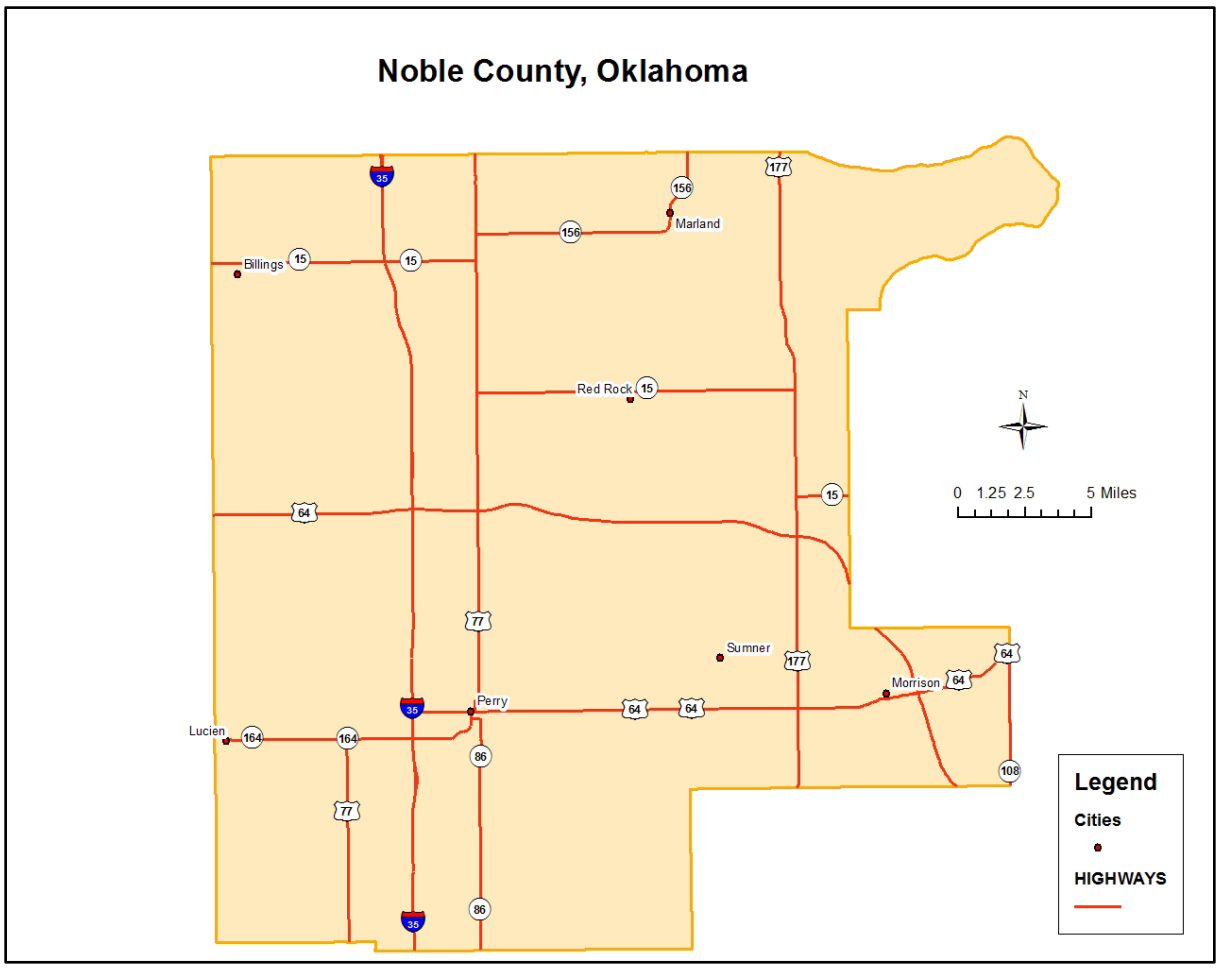
The Noble County LRTP is part of a pilot project to help determine feasibility and organizational structure of an eventual statewide regional transportation improvement plan. This plan will be a part of the region-wide effort of NORTPO in their continuation of a regional approach to identify and examine both short and long range goals for development. A regional approach to long range transportation planning is necessary because of the rural nature and diverse characteristics of the population in Oklahoma.

Map ES.1 NORTPO Area



The NORTPO Area (Map ES.1) is also the NODA region and is approximately 7,400 square miles and includes eight counties, seventy-one cities and towns, and nine conservation districts. The region is predominately rural, with the majority of the population being within the incorporated cities of Enid and Ponca City.

Map ES.2 Noble County



Noble County is located in north-central Oklahoma and consists of 742.44 square miles of land and water area. Bordering counties include Kay on the north, Garfield on the west, Logan and Payne on the south, and Osage and Pawnee on the east. Perry is the county seat. Lying within the Osage Plains/Red Bed Plains physiographic region, the countryside is marked by bottom lands of two major creeks and by gently rolling, grassy uplands. Noble County is drained by Red Rock Creek in the north and Black Bear Creek in the south; both empty into the Arkansas River, which forms part of the county's northeastern boundary.

The region has been used and often occupied by Native groups. Surface evidence indicates the early presence of Paleo-Indian and Archaic peoples. In the 1970s archaeological testing for an industrial site in the county's northeastern corner revealed occupation by people of the Woodlands and Plains Village cultures (A.D. 1 to 1500) and later by Indians of the historic period. In the eighteenth and nineteenth centuries the Osage traveled the area during their hunts. In 1835 the region became part of the Cherokee Outlet, created by treaty with the Cherokee Nation. The Otoe-Missouria Reservation and the Ponca Reservation occupied the northeastern corner of the present county until 1904.

During the period of Cherokee ownership white cattle ranchers of the Cherokee Strip Live Stock Association leased much of the Indian land for grazing. Outfits operating there until 1893 were Wiley and Dean, Wyeth Cattle Company, and McClelland Cattle Company. Later, the Miller

Brothers 101 Ranch, based in Kay County, extended into the northern part of Noble County by leasing the pasturelands of the Ponca Reservation. Robert M. Bressie's Figure 3 Ranch also functioned from 1897 on land leased from the Ponca in the bend of the Arkansas River. This area and the Otoe-Missouria lands were added to Noble County in 1904 when the reservations were ended. Ranching and cattle raising have remained important economic activities in the twentieth century, especially in the northeast.

With the 1893 land run the Outlet was divided into counties. County P became Noble County, named for John W. Noble, interior secretary in 1893. The county's area was reduced to 675 square miles when several townships were assigned to other counties, but in 1907 two townships were returned. Noble County has remained at 742.44 square miles of land and water area. The town of Perry, laid out in August 1893 by federal surveyors as the county seat and land-office town, immediately had five additions, because a horde of settlers followed the run. Other towns were surveyed and platted, and dispersed rural settlements quickly appeared. By 1900 the county's residents came to include immigrant Bohemians (Czechs), Germans, and Germans from Russia, and their children, many of whom had come from Kansas to settle in Black Bear and Noble townships. Also in Noble Township, Edward P. McCabe created a short-lived All-Black town called Liberty near the railroad and Arnettville. A large African American population also resided in Perry in the first decade of the twentieth century. These and other settlers from around the nation raised the county's population from 14,015 in 1900 (including 680 on part of the Otoe-Missouria Reservation and 1,537 on part of the Ponca Reservation) to 14,198 in 1907 (the reservations having been allotted) and to 14,945 in 1910. By 1920, over, the number had declined slightly to 13,560.

Rail systems provided Noble County ranchers and farmers with access to regional and national markets and goods. While completing its route from Kansas to Texas, the Southern Kansas Railway (later part of the Atchison, Topeka and Santa Fe Railway) built a line southward through the area in 1886. In 1903 the Arkansas Valley and Western Railroad (after 1907 part of the St. Louis and San Francisco system) constructed tracks westward from Tulsa and linking Pawnee, Morrison, Perry, and Enid. The Enid and Tonkawa Railway (a Chicago, Rock Island and Pacific or CRI&P property) constructed a short line from North Enid (Garfield County) to Billings, in northwestern Noble County, in 1899 to transport wheat. Thus, transportation enabled the marketing of large crops of wheat, the area's primary crop, and the shipping of cattle. Wheat has generally been successful in the northern half of the county. Alfalfa, oats, corn, and barley have also been important.

Like other agricultural areas in the state, farm consolidation continued throughout the twentieth century. In 1910 the county had 2,035 farms; in 1930, 2,101, and in 1950, 1,445. As farms became fewer in number, their size gradually increased. In 1910, 1,129 were in the quarter-section (160-acre) range; by 1950, only 331 were of that size. Conversely, in 1910, there were only 51 larger than 500 acres, but by 1950, there were 187 in that range. By 2000, only 776 operated, of which 209 comprised more than 500 acres. Lying in Oklahoma's "wheat belt," Noble County farms in the 1930s yielded in the two-million-bushel range, and in 1997 the yield was five million and in 2000, more than three million.

Although agriculture has been the county's mainstay, petroleum development has provided residents with jobs and income. Noble County is part of the Mid-Continent oil and gas region. In 1915–19 natural gas wells were completed in the Morrison/Watchorn Field (east of the Pawnee County line), and in the 1920s oil was discovered in Noble County. Fields that produced during the first half of the twentieth century included Billings (1916–17), East Billings (1919), Polo (1920), Tonkawa/Three Sands (1921, also in Kay County), and Perry (1922). A CRI&P rail line was

extended from Billings to Tonkawa and Ponca City in 1926 and 1927 to serve the oil fields. Although the oil and gas business eventually declined, the revival of exploration activity in the 1970s and early 1980s brought renewed prosperity and population increase.
Economic development was reflected in population increases, with the 1930 census finding 15,139 county residents. Nearly three dozen towns once existed in the county. A population decline began in the 1930s, and in 1940, 1950, 1960, and 1970 the census counts were 14,826, 12,156, 10,376, and 10,043, respectively. Until school consolidation reduced the number, rural dispersed communities and small towns at one time supported 178 school districts that served more than two thousand students. In addition to Perry, in 2010 Noble County's incorporated towns included only Red Rock, Billings, Marland, and Morrison, and five other organized communities, Ceres, Gansel, Lucien, Otoe, and Sumner, existed in 2000 but were unincorporated.

Transportation remained important to life and work in Noble County towns and rural areas. State roads began to be developed in the 1910s. U.S. Highway 64 crosses the county east-west as does U.S. Highway 412, which is also the Cimarron Turnpike. The major north-south arteries are U.S. Highway 177 and U.S. Highway 77/State Highway 86. Roads facilitated recreation areas at Lake McMurtry, in the south-central part on the Payne County line, and at Sooner Lake, in the northeast on the Pawnee County line. The Cherokee Strip Museum in Perry preserves and interprets the region's heritage with exhibits and with programs in Rose Hill School, an outdoor educational facility.

The county began to grow in the 1970s, and in 1980 had 11,573 inhabitants. This number has remained essentially the same. In 2000, there were 11.411 in the county. The 2010 census counted 11,561 residents of Noble County. The population was 84.2 percent white, 8.5 percent American Indian, 1.8 percent African American, and 0.4 percent Asian. Hispanic ethnicity was identified as 2.6 percent. The Otoe-Missouria Nation, headquartered near Red Rock, has held an annual powwow each July. Gov. Henry S. Johnston (1927–29) practiced law in Perry for most of his career. Henry L. Bellmon (a graduate of Billings High School) served as governor in 1963–67 and 1987–91 and as U.S. senator in 1968–81. He resided in Noble County at the end of the twentieth century. Among eleven properties listed in the National Register of Historic Places are the Noble County Courthouse in Perry (NR 84003361), Sumner School near Morrison (NR 96000492), and Rein School in the vicinity of Ponca City (NR 88001361).

Long range transportation planning requires the planning process to be a cooperative, continuing, coordinated, and comprehensive process that monitors regional growth and any subsequent socio-economic changes resulting from growth. The monitoring efforts of the NORTPO transportation planning process are conducted in cooperation with the member local governments in order to maintain an accurate and current representation of transportation needs and improvements.

Federal surface transportation legislation Moving Ahead for Progress in the 21st Century (MAP-21), passed in 2012 included a definition of the basic structure and responsibilities of Regional Transportation Planning Organizations (RTPOs) for the first time in federal statute (Title 23 CFR). This statutory language described RTPOs as being voluntary institutions representing local governments. This work continues through the Fixing America’s Surface Transportation (FAST) Act signed into law in December 2015.

Regional transportation planning is a collaborative process designed to foster participation by all interested parties, such as business community, community groups, elected officials, and the general public through a proactive public participation process. Emphasis by the Federal Highway Administration (FHWA) and Federal Transit Administration (FTA) is placed on extending public

participation to include people who have been traditionally underserved by the transportation system and services in the region. The transportation planning process involves both long-term transportation system objectives and short-term implementation of projects and will provide a blueprint for the development of a safer, more efficient and less congested transportation network between population centers. Long-term objectives are identified and documented in the regional transportation planning process. The identified planned transportation improvements will be implemented within the next 20 years. Steps have been taken to determine what short-term projects can be completed within the next 5 years.

The primary goals of the NORTPO Transportation Plan include enhancement of a regional transportation system connectivity, promotion of regional mobility/congestion relief, and enhancement of regional transportation safety. The objective of the LRTP is to coordinate with regional stakeholders and the public to compile a statewide list of capacity/mobility projects, develop scoring criteria, and prioritize a list of regional roadway projects. Non-highway modes will also be a part of the Plan.

Maps and tables referred to in this plan are included in Appendix H (by chapter) and listed in the Table of Contents.

CHAPTER 1

INTRODUCTION, GOALS AND KEY ISSUES

Introduction, Transportation Plan Purpose and Process

In 1970 Oklahoma's governor established 11 sub-state planning districts. Subsequently, the local governments served by the planning districts created the 11 Councils of Government (COG) using the sub-state planning district boundaries. These 11 districts make up the Oklahoma Association of Regional Councils (OARC). Throughout the past 44 years, the regional councils have evolved from conduits for regional planning and grant administration to catalysts of change in all aspects of life throughout the state. During April of 2012 the Oklahoma Department of Transportation (ODOT) contracted with OARC to implement a transportation planning process in three selected COGs. Subsequently these COGs have developed Regional Transportation Planning Organizations (RTPOs): Northern Oklahoma Regional Transportation Planning Organization (NORTPO), South Western Oklahoma Regional Transportation Planning Organization (SORTPO), and Central Oklahoma Regional Transportation Planning Organization (CORTPO). In October 2015 ODOT selected Association of South Central Oklahoma Governments (ASCOG) and Grand Gateway Economic Development Association (GGEDA) to participate in the transportation planning process. These five RTPOs are working together as part of a state-wide pilot regional transportation planning process.

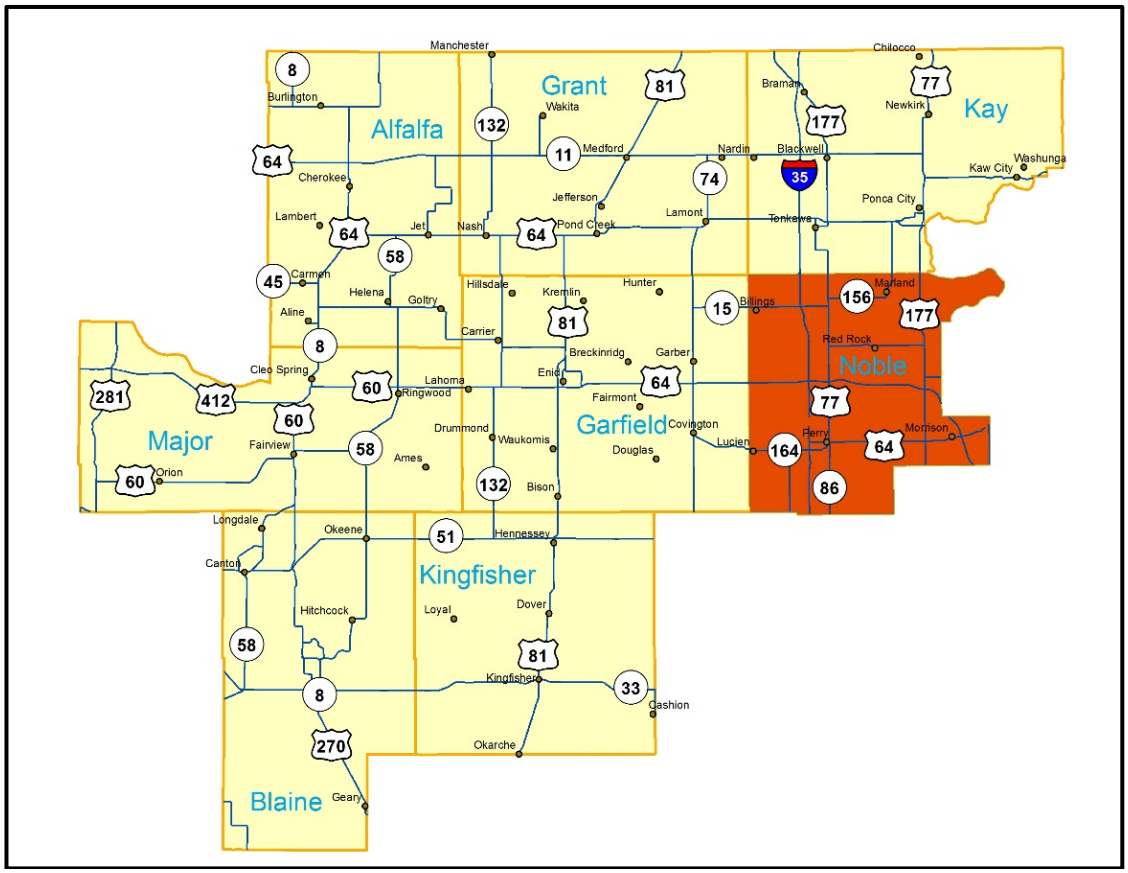
The Northern Oklahoma Development Authority (NODA) on June 16, 2010 created the Northern Oklahoma Regional Transportation Planning Organization (NORTPO), as illustrated in map 1.1. Additional tables and maps referred to in this chapter are included in Appendix H-1.

NORTPO, a member of the pilot project, is tasked with developing a Long Range Transportation Plan (LRTP) for Noble County. This plan will be a part of the region-wide effort of NORTPO in their continuation of a regional approach to identify and examine both short and long range goals for development. A regional approach to long range transportation planning is necessary because of the rural nature and diverse characteristics of the population in Oklahoma. With less populated communities and counties, maintenance funding of transportation projects and programs will be an issue. It became evident in the early stages of development that the region would need to be assessed and long-range plans created for each county with the culmination of a regional planning document encompassing eight counties within five years.

The purpose of the transportation system is to move people and goods in the safest and most efficient manner possible. The LRTP envisions the transportation system as a critical element of the quality of life for the citizens. Transportation systems for both highway and transit must safely, efficiently, and effectively allow citizens to travel to work and to conduct their personal lives. Transportation systems must further provide for the efficient movement of goods to markets to support the county's economic vitality. Additionally, transportation decisions should carefully consider and reflect environmental and community concerns.

Transportation planning is a process that develops information to help make decisions on the future development and management of transportation systems. It involves the determination of the need for new or expanded roads, transit systems, freight facilities, and bicycle/pedestrian facilities, along with their location, capacity and future needs. The process of developing the Plan provides an opportunity for participating in both planning and priority sets. The process allows the community to focus their attention on transportation in the context of Noble County as well as the NORTPO region.

Map 1.1 NORTPO and NODA Region



Source: NORTPO

The Transportation Technical Committee reviews transportation planning work efforts and provides a recommendation to the NORTPO Policy Board for their consideration and action. The day-to-day activities of NORTPO are supported by a full-time transportation planner. Additional NODA staff members contribute to the transportation planning process to ensure the overall planning program is executed in a timely and efficient manner and in accordance with Federal regulations. Staff is housed within the NODA Planning Department located in Enid, Oklahoma. Staff, equipment, supplies, rent, consulting studies, and other expenses used to support staffing operations are reimbursable to NORTPO by the FHWA State Planning & Research (SPR) program funds at 80% of the total amount of the work effort and the local match of 20% is provided by NODA.

Regional Transportation Planning

Regional transportation planning is a collaborative process designed to foster participation by all interested parties such as business communities, community groups, elected officials, and the general public through a proactive public participation process. Emphasis by the Federal Highway Administration (FHWA) and Federal Transit Administration (FTA) is placed on extending public participation to include people who have been traditionally underserved by the transportation system and services in the region.

The LRTP establishes the goals, objectives and transportation strategies for addressing the region's transportation needs. This planning process follows the four "C's" identified by federal transportation regulations:

- Consideration means that one or more parties takes into account the opinions, actions and relevant information from other parties in making decisions or determining a course of action.
- Consultation means that one or more parties confer with other identified parties in accordance with an established process and, prior to taking action(s), consider the views of the other parties and periodically inform them about action(s) taken.
- Cooperation means that the parties involved in carrying out the transportation planning programming processes work together to achieve a common goal or objectives.
- Coordination means the cooperative development of plans, programs and schedules among agencies and entities with legal standing and adjustment of such plans, programs, and schedules to achieve general consistency, as appropriate.

The LRTP was developed within the regulatory framework of the Fixing America's Surface Transportation Act (FAST) Act.

Purpose of the Plan

The *Noble County 2036 Long Range Transportation Plan* (LRTP) is a document that can be utilized by Billings, Marland, Morrison, Perry, Red Rock, Otoe-Missouria Tribe, Ponca Tribe, Cherokee Strip Transit, White Eagle Transit, County Commissioners and residents as a guide to maintain and improve the County's transportation system through 2036. (Map 1.2 shows tribal districts in Noble County.) The LRTP is an important tool and assists communities in focusing their limited funds on projects that give them the best value and benefit of public funds. This is accomplished by developing a realistic project list based upon available resources, analysis of data, and input from the communities. The recommended list of transportation projects will provide elected officials and citizens a clear focus for future transportation projects and programs.

The transportation planning process involves both long-term transportation system objectives and short-term implementation of projects that will provide a blueprint for the development of a healthier, safer, and more efficient transportation system. The year 2036 was chosen as the planning horizon year for the LRTP for the following reasons:

- The year 2036 is far enough into the future to allow for the anticipated growth of the area to be implemented, and
- Allows the local governments and participating agencies to adequate time to plan for long range solutions to anticipated needs.

Although this may appear to be a rather pragmatic approach in response to critical planning issues, it is a direction that will enable local governments and participating agencies to adequately plan and prepare to achieve the long term goals, while maintaining the necessary short term vision and implementation techniques to respond to crucial short term issues. The identified planned transportation improvement projects will be prioritized with the goal of being implemented within the next 20 years.

As a means of achieving the successful implementation of the LRTP, the plan has been developed in five-year increments. The five-year increment format will offer realistic goals in Chapter 6 relative to the LRTP's short range implementation activities while still addressing the ultimate long range goals. Additionally, the five year incremental approach presents a "good fit" with the local governments' ability to program and commit local financial resources for transportation

improvements. The incremental approach also provides a reasonable opportunity in scheduling state and/or federally funded transportation improvements within Noble County.

Billings, Marland, Morrison, Perry, Red Rock, Otoe-Missouria Tribe, Ponca Tribe, Cherokee Strip Transit, White Eagle Transit, County Commissioners and residents were contacted to compile a countywide list of projects and prioritize a list of Noble County transportation projects. Projects were also taken from County Improvements for Roads and Bridges (CIRB) and ODOT.

Relationship and Requirements with State and Federal Agencies

The LRTP has been developed in cooperation and in collaboration with the federal, tribal, state, county, local member governments, ODOT, FHWA and FTA. The LRTP is the culmination of a continuing, cooperative, coordinated and comprehensive planning effort among the federal, state, and local governments. Directed by NORTPO it provides for consideration and implementation of projects, strategies, and services that address the ten planning factors (listed below) identified in the FAST Act signed into law in December 2015.

Table 1.1 Planning Factors

1. Support the economic vitality of the United States, the States, nonmetropolitan areas, and metropolitan areas, especially enabling global competitiveness, productivity and efficiency.
2. Increase the safety of the transportation system for motorized and non-motorized users.
3. Increase the security of the transportation system for motorized and non-motorized users.
4. Increase accessibility and mobility of people and freight.
5. Protect and enhance the environment, promote energy conservation, improve the quality of life, and promote consistency between transportation improvements and State and local planned growth and economic patterns.
6. Enhance the integration and connectivity of the transportation system across and between modes, people and freight.
7. Promote efficient system management and operation.
8. Emphasize the preservation of the existing transportation system.
9. Improve the resiliency and reliability of the transportation system and reduce or mitigate stormwater impacts of surface transportation.
10. Enhance travel and tourism.

*Source: 23 USC Section 135(d) (1) and 23 USC Section 134(h) (1) - *refers to "the metropolitan area"*

In addition, The FAST Act continues Map-21 requirement to state departments of transportation and Metropolitan Planning Organizations (MPO) to use a performance-based approach to support seven national goals for the transportation system. This requirement has not been mandated to non-metropolitan areas. Though specific performance measures are not identified in this plan, NORTPO recognizes the significance of such measures and will begin the collection of data needed to establish standards in future plans. (Appendix D)

Goals, Objectives and Policies

The Plan format follows a hierarchy that includes goals, objectives, and policies to assist NORTPO in planning and prioritization of transportation system projects and studies. The following definitions describe the scope and intent of the goals, objectives, and policies in this plan. Goals are far-reaching statements of intent and were developed cooperatively with the community by identifying shared values and understanding of existing trends and issues. Implementation of goals is the responsibility of local, county and state governments and the RTPOs. Objectives were developed in coordination with partner agencies. The policies developed do not fall solely under the responsibility of NORTPO. Local and community agencies should consider their roles in affecting outcomes. It will be necessary to prioritize the policies and build the data collection for those policies deemed most important, into annual programs, such as the Planning Work Program (PWP).

Objectives are more focused statements that should be specific and measurable. Objectives are typically more tangible statements of approach related to attaining the set goals. Policies identified in this Plan are formal statements of practice or procedures that are recommended to be adopted by the NORTPO Policy Board. Policies are how to implement goals and objectives and are the responsibility of the appropriate agency(s). The summary of goal categories for Noble County are:

Table 1.2 Noble County Transportation Goal Categories

Goal	Description
1. Mobility Choice, Connectivity and Accessibility.	Facilitate the easy movement of people and goods, improve interconnectivity of regions and activity centers, and provide access to different modes of transportation.
2. Awareness, Education, and Cooperative Process	Create effective transportation partnerships and cooperative processes that encourage citizen participation that enhance awareness of the needs and benefits of the transportation system.
3. Community	Ensure continued quality of life during project development and implementation by considering natural, historic, and community environments, including special populations, and promote a County and regional transportation system that contributes to communities' livability and sustainability
4. Economic Vitality	The transportation system will support and improve the economic vitality of the county and region by providing access to economic opportunities.
5. Environment	Reduce impacts to the County's natural environment, historic areas and under-represented communities resulting from transportation programs and projects.

6. Finance and Funding	A cooperative process between RTPO partners, state officials and private interests in the pursuit and funding of transportation improvements.
7. Maintenance and Preservation	Preserve the existing transportation system and promote efficient system management in order to promote access and mobility for both people and freight.
8. Safety and Security	The transportation system will safely and securely support the people, goods and emergency preparedness.

Goal 1. Mobility Choice, Connectivity and Accessibility.
Facilitate the easy movement of people and goods, improve interconnectivity of regions and activity centers, and provide access to different modes of transportation.

Objectives

1. Promote accessibility and mobility by increasing and improving multi-modal transportation choices.
2. Promote connectivity across and between modes for people and freight.
3. Maximize access to the transportation system and improve the mobility of the transportation under-represented population.
4. Ensure new facilities are built to American Association of State Highway and Transportation Officials (AASHTO) design standards.
5. Improve and expand infrastructure for pedestrians, bicyclists and people with disabilities in compliance with the Americans with Disabilities Act (ADA) standards.
6. Provide accessible and convenient non-motorized routes to destinations throughout the county such as schools, commercial areas, recreational facilities, education, major employment areas and activity centers.
7. Incorporate bicycle and pedestrian friendly designs into considerations for transportation improvement projects.
8. Minimize conflicts between pedestrians, bicyclists and vehicles while accommodating each type of travel.

Policies

1. Regional transportation partners will continue to work together to plan and implement transportation systems that are multi-modal and provide connections between modes.
2. Increase inter- and intra-county transit services between multi-modal facilities within the County.
3. Promote transit system that provides service to major employment and activity centers, such as hospitals, educational facilities, parks and retail areas.
4. Develop a Transit Development Plan that will identify effective tools to measure transit service, assess and collect data, enhance coordination between providers and provide guidance on future needs and system expansion. This process would include develop, distribute and collect transit user surveys to measure the need of transit service and ensure adequate frequency of transit services. Assess and collect demographic data (when available) to identify the most distressed areas of the region (economic distress, low auto availability, etc.) and target transit programs to these areas on a priority basis.
5. Maintain and expand the demand-responsive transit services in the County and enhance better coordination between various providers.

6. Add curb ramps to crosswalks where needed and move unsafe curb ramps to safer areas within that location.
7. Map the locations of major employment centers, including existing and proposed developments, and identify types of transportation available.
8. Increase access to bicycle and pedestrian facilities within ½ mile of transit route and/or facilities connecting to regional activity center(s).
9. Document locations and conditions of current freight routes.
10. Hold joint meetings between the rail, freight community, and public transportation agencies.
11. Track the increase in households or jobs by TAZ to identify potential employment and residential growth areas.
12. Encourage public acquisition of abandoned right-of-ways to permit multi-modal use of these properties. Identify designated routes for use by non-motorized users.
13. Conduct a bicycle and pedestrian needs assessment to be able to develop a bicycle and pedestrian network. Ensure that when feasible any transportation improvements consider multi-modal issues during planning and design phases, including bicycle and pedestrian improvements, multi-modal connections, etc., and provides for travel across or around physical barriers, and/or improves continuity between jurisdictions.
14. Include bicycle racks at education facilities, health facilities, major employment areas and activity centers.
15. Develop a system to collect and monitor changes in population, employment, and major employers by Traffic Analysis Zone (TAZ).

Goal 2: Awareness, Education, and Cooperative Process

Create effective transportation partnerships and cooperative processes that encourage citizen participation to enhance awareness of the needs and benefits of the transportation system.

Objective

Promote local, regional and state cooperation on collection of data, identification of transportation needs, and early public participation.

Policies

1. Participate in state, regional and local committees regarding County transportation issues.
2. Undertake studies (when needed) to address emerging transportation needs through cooperation, participation and initiation with relevant regional agencies and affected parties.
3. Educate key stakeholders, businesses, local leaders and the public on the purpose and function of NORTPO.
4. Annually review the Public Participation Plan.
5. Develop a clearinghouse for regional data sets, such as geographic information systems to help inform sound planning decisions.
6. Facilitate and support the coordination of regional training opportunities.
7. Develop method to track the implementation of projects and regularly update the public on the status of projects, programs and finances.

Goal 3: Community

Ensure continued quality of life during project development and implementation by considering natural, historic, and community environments, including special populations, and promote a county and regional transportation system that contributes to communities' livability and sustainability.

Objective

1. Improve or expand the multi-modal transportation system to meet the needs of the community and under-represented population.
2. Increase access to ensure all residents have the capability of moving affordably between where they live, work, play and get services, using transportation options that promote a healthy lifestyle.

Policies

1. Support transportation projects serving already-developed locations of residential or commercial/industrial activity.
2. Design the transportation network to protect cultural, historical and scenic resources, community cohesiveness, and quality of life.
3. Increase the number of quiet zones, especially around residential areas.
4. Coordinate with local and tribal governments on the placement of regionally significant developments.
5. Maintain local and state support for the general aviation airports that serve the region.
6. RTPO partners will plan and implement a transportation system that considers the needs of all potential users, including children, senior citizens, and persons with disabilities, and that promotes active lifestyles and cohesive communities.

Goal 4: Economic Vitality

The transportation system will support and improve the economic vitality of the County and region by providing access to economic opportunities, such as industrial access, recreational travel, tourism, as well as enhancing inter-modal connectivity.

Objectives

1. Improve multi-modal access to county and regional employment concentrations.
2. Support transportation projects that promote economic development and job creation.
3. Invest in a multi-modal transportation system to attract and retain businesses and residents.
4. Support the County and region's economic competitiveness through the efficient movement of freight.

Policies

1. Prioritize transportation projects that serve major employment areas, activity centers, and freight corridors.
2. The RTPO will coordinate with other agencies planning and pursuing transportation investments that strengthen connections to support economic vitality.
3. Emphasize improvements to the major truck freight corridors.
4. Encourage the railroad industry to upgrade and/or expand the freight and passenger rail infrastructure.
5. Continue to coordinate transportation planning with adjoining counties, regions and councils of government for transportation needs and improvements beyond those in our region.
6. Work with area employers and stakeholders to develop a database and map identifying transportation needs.

Goal 5: Environment

Reduce impacts to the County's natural environment, historic areas, and under-represented communities resulting from transportation programs and projects.

Objective

Plan and design new expanded transportation projects while preserving historical, cultural and

natural environments, and under-represented communities.

Policies

1. Promote proper environmental stewardship and mitigation practices to restore and maintain environmental resources that may be impacted by transportation projects.
2. Promote the use of alternative fuels and technologies in motor vehicles, fleet and transit vehicles.
3. Assist in identification of potential environmental mitigation issues by acquiring, creating, and updating geographic information system (GIS) data layers.
4. Develop an air quality awareness and education program to educate residents on the importance of utilizing alternative transportation to decrease effects of air pollution.
5. RTPO partners will avoid, minimize, and mitigate disproportionately high and adverse impacts of transportation projects to the County's under-represented communities.

Goal 6: Finance and Funding

Develop a cooperative process between RTPO partners, state officials, and private interests in the pursuit and funding of transportation improvements.

Objective

Seek and acquire a variety of transportation funding sources to meet the many needs of the diverse system.

Policies

1. Maximize local leverage of state and federal transportation funding opportunities.
2. Increase private sector participation in funding transportation infrastructure and services.
3. Encourage multi-year capital improvement planning by local, county and state officials that includes public participation, private sector involvement, coordination among jurisdictions and modes, and fiscal constraint.
4. Assist jurisdictions in identifying and applying for funds that enhance or support the region's transportation system.

Goal 7: Maintenance and Preservation

Preserve the existing transportation network and promote efficient system management in order to promote access and mobility for both people and freight.

Objective

Preserve, maintain and improve the existing streets, highway system, bikes, trails, sidewalks and infrastructure.

Policies

1. Identify sources of transportation data and develop a procedure to collect the data and present it to the public.
2. Emphasize system rehabilitation and preservation.
3. Establish a regular traffic count and reporting system for the region.

Goal 8: Safety and Security

The transportation system will safely and securely sustain people, goods and emergency support services.

Objective

Improve the safety and security of the transportation system by implementing transportation improvements that reduce fatalities and serious injuries as well as enabling effective emergency management operations.

Policies

1. Collect and routinely analyze safety and security data by mode and severity to identify changes and trends.
2. Incorporate emergency service agencies in the transportation planning and implementation processes in order to ensure delivery of transportation security to the traveling public.
3. Coordinate with local governments and other agencies to identify safety concerns and conditions. Also recommend projects to address key deficiencies. Coordinate county and regional actions with the Statewide Highway Safety Plan.
4. Improve the transportation infrastructure to better support emergency response and evacuations.
5. Assist in the designation of various corridors and development of procedures to provide for safe movement of hazardous materials.
6. Minimize the impacts of truck traffic on roadways not designated as local truck routes or regional goods movement corridors.
7. Collect and review incident data at rail crossings.
8. Collect and review motor vehicle accidents data and identify local trends.
9. Upgrade passively protected at-grade rail-highway crossings.

Key Issues, Trends and Challenges

Rural communities have problematic transportation areas even if they do not experience congestion. Understanding the true nature of the problem at these locations and developing a plan to address them is an important part of rural planning. Unanticipated changes may happen that can have impacts on a city, town, county or region. There are several issues, challenges and trends facing the County that have a direct or indirect impact on the transportation system. Key issues, trends and challenges were obtained by NORTPO through the stakeholder's meeting, technical committee meetings and NORTPO Policy Board meetings and public surveys. The following information is intended to identify issues, trends and challenges in Noble County.

Key issues

Key issues as identified through public comment and by existing plans and reports include:

- Maintenance and preservation of the existing transportation system.
- Limited means of available public transportation.
- Improve safety of all modes of transportation.
- Increased response times for emergency responders due to location of railroad crossings.
- Flooding along rivers and creeks.

Challenges

The challenges facing the transportation system in Noble County include:

- Lack of significant financial resources necessary to maintain the existing system and make improvements as necessary.
- An aging population and their need for reliable transportation services.
- Lack of alternate routes for railroad crossings.

Trends

Trends identified include:

- Tribal governments continue to expand their economic base.
- I-35 will continue to serve the region as a vital transportation route for freight and connectivity.

- Commuters will continue to utilize US 77, US 177 and I-35 to and from Kansas.
- Population and growth in the County is impacted by the energy sector.

CHAPTER 2
CURRENT CONDITIONS

This chapter provides a "snapshot" of current conditions that relate to transportation in Noble County. Understanding the status of the transportation system provides a basis for developing the transportation plan. Much of this data and information was obtained from county, state and federal agencies or institutions. Tables and maps referred to in this chapter are included in Appendix H-2.

Transportation planning in Oklahoma has typically been limited to urban areas. Rural or regional transportation planning has begun to evolve into an opportunity to consider both the short and long term transportation needs for areas outside of urban areas. This plan will consider growth and development patterns in the county and will not address development regulations. However, critically important complements to these growth areas are the locations that may generate significant demands on the transportation system. Such "activity generators" include business and industrial sites, governmental, schools, universities, tourism and recreation centers. Counties in the NORTPO region are working to seek new economic growth and diversification while striving to preserve the natural, historic and culture resources.

As the population fluctuates, either through economic changes, in or out migration, or shifting within the region, the needs of the communities including education, health care, social services, employment, and transportation remain relatively stable. Land use and development changes that particularly affect transportation in rural areas include, but are not limited to, loss or gain of a major employer, movement of younger sectors of the population to more urban areas, tribal land development, and investment.

Located in north central Oklahoma, the NORTPO region is predominately rural with the majority of the population located within the incorporated cities of Enid (49,379) and Ponca City (25,401). Table 2.1 in the appendices provides population data for NORTPO Counties. Noble County encompasses 743 square miles and includes the five cities and towns.

Although much of the region is comprised of large tracts of farming and agriculture lands most of the populous of the county are within the cities and towns Billings, Marland, Morrison, Perry, and Red Rock. According to American Community Survey (ACS) 2015 census estimates, Noble County has a total population of 11,554. Perry is the largest community in Noble County with a population of 5,087. The remaining towns all have a population of less than 1,000 each: Morrison with 846, Billings with 509, Red Rock with 283, Marland with 225, and the Lucien unincorporated community with approximately 100. The remaining population resides outside of any towns or cities.

Billings is a small town located in northwest Noble County and supports a public school system with grades Pre-K through high school. Billings Public Schools had a total enrollment of 84 students for the 2015-2016 school year. Employers include W.B. Johnston Grain Co., Billings Fairchild Center, Inc., and Billings Public Schools.

Marland is another small town in Noble County, located in the northeast part of the county. The closest public school to Marland is Frontier School at Red Rock. Employers in Marland include Two Rivers Co-Operative.

Morrison is located in the eastern portion of Noble County with a 2010 census population of 733, which was an increase of 15% from 2000 census. Morrison is a designated Tree City and has an ongoing program of planting and maintaining trees to enhance the quality of life in the community. Annual celebrations held in Morrison include the community barbeque, Arbor Day, and Lions Club activities. Morrison School district covers 147 square miles and has grades Pre-K through 12. The school's 2015-2016 enrollment was 584 students for all levels. Employers in Morrison include Morrison Public School, First National Bank and Trust, and Town of Morrison.

Perry is located approximately 2.25 miles east of I-35 at the junction of US-77 and US-64 in south central Noble County and is the county seat. Perry is the home of the Charles Machine Works, Inc., maker of Ditch Witch equipment, the world's largest selling line of trenchers and other mechanized tools used in underground construction. In 2016 Perry received Transportation Alternatives Programs (TAP) grant funds to improve the sidewalks and promote safe routes to school.

Perry is also home of the Noble County Courthouse, originally built in 1916 and located downtown where the entire district is part of the National Historical Registry. Perry Public Schools supports an elementary, middle and high school with a 2014-2015 student enrollment of 1,768. Perry contains about 44% of the population of Noble County. Major employers in Perry include Charles Machine Works Inc., Perry Public Schools, Perry Green Valley Nursing Home LLC, Perry Memorial Hospital, Oklahoma Dept. of Transportation, Noble County, City of Perry, Exchange Bank & Trust Co., First Bank & Trust Co., and Wal-Mart Associates Inc. Perry Memorial Hospital is the only hospital located in Noble County.

Red Rock is located 13 miles northeast of Perry in northern Noble County and supports Frontier School District. Major employers in the area include Oklahoma Gas & Electric, Otoe-Missouria Tribe (including casinos), and Frontier Public School.

Each county in the region, although a separate entity as far as governmental services, are linked together through commerce, employment and regional transportation. Population growth and shifts for the NORTPO region are dependent on many factors for each particular County. Noble County's deviations in population and employment patterns are attributed to the volatile nature of the oil and gas industry and subsequent impact to declines in prices in the oil and gas industry. Although current data indicates this decline, historical data found in Table 2.2 illustrates Noble County's growth from 1970 to 2015 ACS estimates.

The 2010-2014 ACS reveals that the County's population is almost equally distributed, 49.2% male and 50.8% female with a median age of 40.7% Noble County's population of 62 years and older (2010-2014 ACS) represents almost 20% of the total population. Transportation is crucial to keeping older adults independent, healthy and connected to friends, family and health providers. However, older residents' transportation needs differ based on their health, income, marital status, age, race and whether they live in a city, town or rural area. The needs of this segment of the population will influence the demand for public transportation services, which is limited in the region.

According to data obtained from the Oklahoma Employment Security Commission the local area unemployment statistic (LAUS) data indicates the number of people employed between 2011-2015 ranged from 5,340 to 5,683; while total labor force during this same time period ranged from 5,244 to 5,457. Table 2.3 displays labor force by industry.

Figure 2.1 Changes in the civilian labor force from 1990-2015.

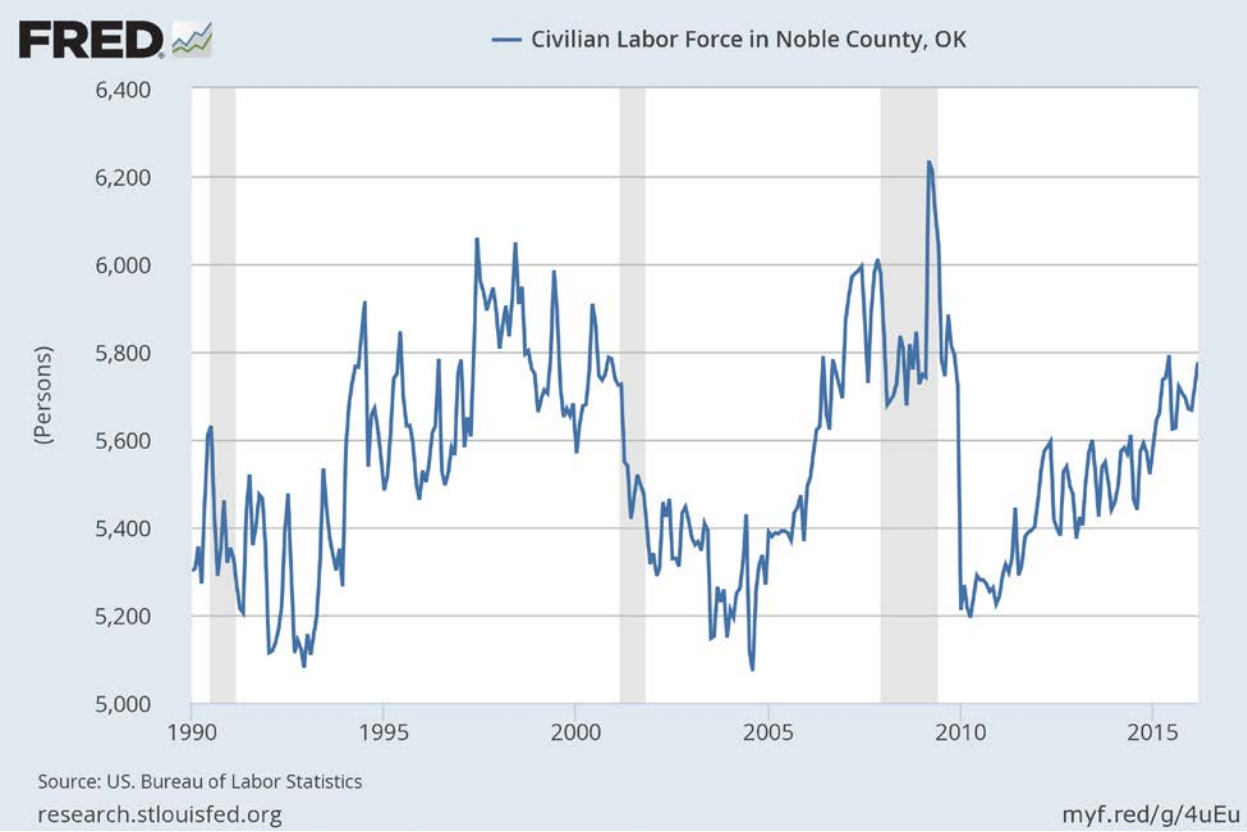


Table 2.4 summarizes vehicle registration data obtained from the Oklahoma Tax Commission (OTC). Automobile and farm truck registration continues to show an increase annually. The data in the graph confirms that the primary vehicle is the automobile, which saw an increase of approximately 179 vehicles between 2011-2015. Data obtained from the 2010-2014 ACS reveals that 42% of the population had access to two or more vehicles available; while 1.1% of the population did not have access to a vehicle. Commute patterns to work for Workers 16 years and older according to the 2010-2014 ACS identify that 79.5% of workers drove alone, 13.7% carpooled, and 3.4% worked at home. Mean travel time was estimated at 21 minutes.

Traffic Analysis Zones

The Traffic Analysis Zone (TAZ) Program is a specialized software program used for delineating TAZs in support of the Census Transportation Planning Products (CTPP). This software program is designed to allow agencies the ability to define areas to and associate demographic data that supports transportation system analysis as well as creation of geographic summary layers suitable to their planning. TAZ delineation for the areas other than Metropolitan Planning Organizations (MPO) are the responsibility of ODOT. Historically in non-MPO areas the TAZ boundary defaulted to the census tract boundary. This makes the process of maintaining and updating socioeconomic data much easier. However, utilizing this default for the plan did not provide NORTPO with transportation data that met the needs of the planning process. NORTPO staff reviewed the existing TAZ boundaries and after analysis of data, community boundaries and TAZ guidelines new boundaries were drafted. The revised TAZ boundaries were based on the population thresholds of 200 to 400 and employment thresholds of 300. In the future NORTPO will work cooperatively with ODOT in designation or revision to TAZ boundaries.

NORTPO utilizes TAZ delineation in review of socio economic data. TAZ delineation for the non-urban parts of Oklahoma is the responsibility of ODOT. The 2010 base year data will be used for the 2014 data and was derived from the 2010 US Census Bureau. Additional information was obtained from the CTPP.

Geographically, Noble County is subdivided into eleven TAZs and the socioeconomic data (including population and employment) are summarized for each TAZ. Because of the rural nature of Noble County, there are a minimal amount of TAZs. Perry is the only city in Noble County that is located over multiple TAZs, because it is the area with the highest population. Historically, in non-metropolitan planning organization areas, the TAZ boundary defaulted to the census tract boundary. NORTPO will work in coordination with ODOT to maintain and update TAZs in the future. Map 2.1 illustrates the TAZs for Noble County. Map 2.2 illustrates TAZ boundaries for the City of Perry, and Map 2.3 is Town of Morrison TAZ boundaries. The 2010 population of 11,561 and labor force of 5,340 were distributed into the TAZs. Maps 2.4 and 2.5 and Table 2.5 show the population by TAZ. Maps 2.6 and 2.7 and Table 2.6 show employment by TAZ. Major employer data is found in Table 2.7. Major employers by TAZ can be found in Maps 2.8 and 2.9.

Physical Development Constraints, Development Conditions and Patterns

There are several features including transportation facilities, land ownership of large tracks of land, tribal land, existing development, and environmental features that affect the growth of Noble County. These constraints, both physical and manmade, have shaped and impacted the development of the County. Current growth is concentrated in Perry and in proximity to SH 177. Perry and Morrison are the only communities in the County that have an adopted comprehensive plan. There are no regulations guiding development and growth in areas outside of the Morrison and Perry city limits. Map 2.8 and 2.9, Major Employers by TAZ, illustrates the locations of industry growth.

Noble County major constraints for development include US and state highways, rivers, lakes, tribal land, BNSF Railroad and large land holdings. Maps 2.10, 2.11, and 2.12 depict the location of rivers, rail lines and airports. The primary east/west corridors are State Highways (ST) 15, US Highways (US) 412, and US 64. The primary north/south corridors are ST 177 and 77 and Interstate (I) 35. BNSF is a Class 1 railroad in the county. Map 2.11 shows the location of rail lines. In Noble County there is one municipal airport, the Perry Municipal Airport. Transit services are provided by Cherokee Strip Transit to Perry and White Eagle Transit provides services to Marland and Red Rock.

Noble County is home to environmental features and natural and cultural resources which can influence the transportation system. Environmental information collected and mapped provides for an understanding and awareness of important features and resources early in the planning process. This way the protection of these resources, either through avoidance or minimization of impact, can be more fully considered as an integral part of plan and project development.

These include (but are not necessarily limited to):

- Threatened and Endangered Species
- Wetlands
- Floodplains
- Surface and Ground Waters
- Stormwater Management and Erosion and Sediment Control
- Hazardous Materials
- Air Quality

- Historical/Cultural Resources
- Right-of-Way/Property Impacts, Including Impacts to Parks, Farmland and Neighborhoods
- Traffic and Train Noise

Identification of important environmental features provide agencies and officials involved with addressing transportation issues a baseline of information necessary to afford protection or to minimize impact to environmental resources, as required by the National Environmental Policy Act (NEPA) and other state and federal laws, rules, and regulations. As individual projects or transportation improvements are advanced from this plan, detailed environmental impact assessments will be required for any projects using federal funds, and in many cases, state funds.

Environmental (Streams/creeks, floodplains and wetlands), Deficient Bridges, Historic and Archeological Sites, Federal or State Listed Species

The environmental features and constraints in this section were identified and mapped using secondary source information that included mapping, publications, and correspondence from the following: United States Environmental Protection Agency (US EPA), Oklahoma Geological Survey, Oklahoma Department of Fish and Wildlife Resources, Oklahoma Department of Environmental Quality (ODEQ), United States Department of Agriculture (USDA), United States Department of the Interior Fish and Wildlife Service (US FWS), United States Geological Survey (USGS), Oklahoma University Geographic Information System (GIS), and other state and local agencies. (A complete list of references is included in Appendix F.)

Bodies of water flowing through the county are Salt Fork of the Arkansas River, Arkansas River, Red Rock Creek, Cow Creek, Black Bear Creek, Greasy Creek, Sooner Lake, Perry Lake, and Lake McMurtry. Streams are natural corridors that provide habitat for fish, insects, and wildlife, and recreational benefits to people such as hunting, fishing, boating, and bird watching, as well as aesthetic benefits. Streams also provide drinking water for wild animals, livestock, and people.

Noble County Floodplains

With the exception of Perry, Oklahoma, floodplains have not been determined for Noble County. Special flood hazard areas are a designated width along a stream or river which has a 1% chance of flooding annually. Flood hazard areas are protected to prevent any increase in the risks or severity of possible future floods and to maintain their natural and ecological benefits. Additional information can be accessed through www.msc.fema.gov.

Earthquakes

Approximately 300 earthquakes registering at 2.5 or higher were recorded between Jan. 1, 2015 to April 8, 2016. In a press release dated March 31, 2016, ODOT released results of a recent scientific analysis showing it's unlikely that a 4.6 or less magnitude earthquake will damage transportation infrastructure in the state, including bridges. The year-long study of earthquake data revealed there is no structural damage occurring on bridges after tremors below magnitude 4.7, indicating that bridge inspections are unnecessary below this level. ODOT will continue to inspect bridges after earthquakes, but starting at a threshold of 4.7 magnitude events. The magnitude of an earthquake will determine how wide an area from the epicenter will be inspected. More detailed information is available at www.ou.edu/content/ogs/research/earthquakes/catalogs.html.

Historic Places

The National Register of Historic Places (NRHP) is a list of properties determined significant in

American history, architecture, archaeology, engineering, or culture, by virtue of design or architectural criteria, association with historical persons and events, and/or value for historic or prehistoric information.

Under state and federal law, NRHP listed and NRHP-eligible properties are afforded equal protection from impact. NRHP properties are designated to help state and local governments, federal agencies, and others identify important historic and archaeological resources and to ensure their protection, either through preservation or minimization and mitigation of impact. Such Noble County properties are plotted on Maps 2.13 and 2.14 and listed in Table 2.8.
http://focus.nps.gov/nrhp

Threatened and Endangered Species
State and federal agencies classify plants and animals as threatened or endangered when their numbers are low or declining due to direct destruction (from development or pollution, for example) or loss or degradation of suitable habitat. The presence of a threatened or endangered species in an area is an indicator of a better or good quality environment. Federally listed endangered and threatened species in Noble County may include: Interior Least Tern (Sterna antillarum), classified as endangered, Piping Plover (Charadrius melodus) classified as threatened, and Whooping Crane (Grus Americana) classified as endangered.
http://www.wildlifedepartment.com/wildlifemgmt/endangeredspecies.htm

Air Quality
The Clean Air Act requires the Environmental Protection Agency (EPA) to set National Ambient Air Quality Standards (NAAQS) for pollutants considered harmful to public health and the environment. The Clean Air Act identifies air quality standards to protect public health, including protecting the health of "sensitive" populations such as asthmatics, children and the elderly. At this point in time air quality data is not collected for Noble County.

Wind Farms
An increasing source of electricity around the nation has been through the harnessing of wind power. Due to the geographic location of Oklahoma in the Great Plains and the Rocky Mountains to the west, and the pattern of meteorological systems' general movement of west to east, winds tend to come over the mountains onto the plains at an increasing rate, thus making Oklahoma a prime location for power-generating wind turbines to be located to harness this energy.

Wind farms, locations with multiple wind turbines in fairly close proximity to each other, are created by energy companies to collect the energy created and move it via power lines to other locations. Currently there are no wind farms in Noble County.

County and Community Development
Planning in Oklahoma has been nonexistent or very limited outside of cities and towns. This Plan will consider growth and development patterns in the County and will not address development regulations. A critically important complement to these growth areas is the locations that may generate significant demands on the transportation system. Counties in the NORTPO region are working to seek new economic growth and diversification. The predominant land use in Noble County is agricultural with limited commercial, industrial and residential within the cities and towns.

Population growth in Noble County continues at a slow pace. Historical population data shown in Table 2.9 indicates that overall growth between 1990 and 2010 was 509. Efforts to maintain and attract business and industry will remain the focus of the communities for the future.

Investment in infrastructure to support industry and business will require careful analysis and consideration prior to expenditure of funds. In Noble County changes that impact the transportation system include, but are not limited to, loss or gain of a major employer and movement of younger sectors of the population to more urban areas. Areas that may generate demands on the transportation system include retail, industrial, governmental sites, local school districts and facilities. The concentration of employers can be found in Perry as illustrated in Map 2.9.

Noble County's road system is considered to be most important in the development of a long range transportation plan. Roads considered to be critical to the overall mobility in Noble County include roads that are functionally classified as Rural Major Collector, Arterial and Interstate. With the exception of the interstate, the majority of the roads are two-lane undivided roads. The critical roads are functionally classified and illustrated in Map 2.15.

Road Classification

Functional classification is a well-established system utilized by the Federal Highway Administration (FHWA) for grouping streets and highways into classes based on roadway characteristics and intended services. Basic to this process is the recognition that individual roads and streets cannot serve travel independently; rather, most travel involves movement through a network of roads. Thus, it is necessary to determine how to channelize travel within the network in a logical and efficient manner. Functional classification defines the extent to which roadways provide for through travel versus the extent to which they provide access to land parcels. An interstate highway provides service exclusively for through travel, while a local street is used exclusively for land access. Each roadway has a classification number based on its location, access, and capacity characteristics. Functional class and jurisdiction are important not only in relation too operational and maintenance responsibility, but also in how roadway improvement projects can be funded.

Funding eligibility limitations include:

- FHWA National Highway Performance Program (NHPP) can be used only on the National Highway System, which is comprised of Interstates, all other Principal Arterials, and all designated NHS Connectors.
- FHWA Surface Transportation Program (STP) can be used on any facility except Local Roads and Rural Minor Collectors.
- FHWA Highway Safety Improvement Program can be used to address safety problems on any public road.

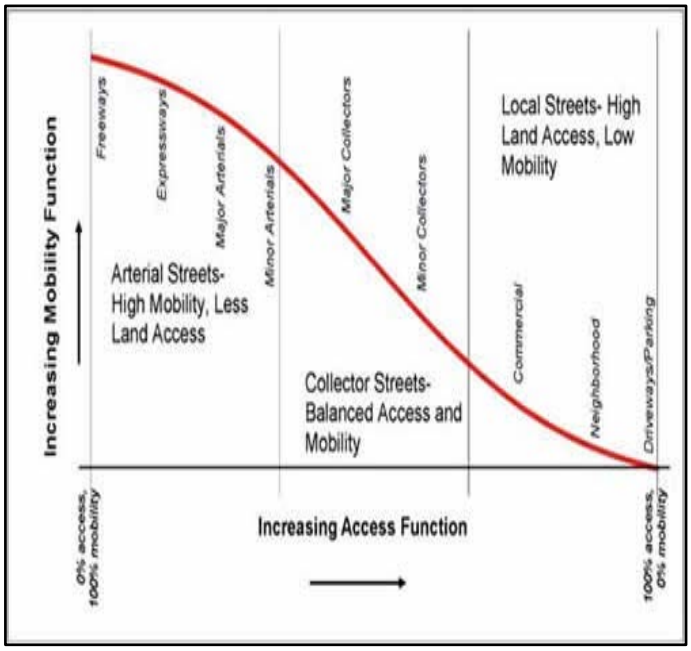
An efficient transportation system includes a proper functional hierarchy among its highways, arterials, collectors, local streets and roads in order to maintain the proper balance between movement of traffic and access to abutting land. The majority of the roads in Noble County are designated as rural. Figure 2.2 on page 19 illustrates the functional classification hierarchy.

Traffic counts are collected by the ODOT on specific road segments in Noble County. The traffic count data is often referenced as annual average daily traffic; the total volume of vehicle traffic of a road for a year divided by 365 days. This data is a 24-hour count at specific locations. The 2014 Traffic Counts included in this Plan are illustrated on Map 2.16 and were obtained from ODOT. This data is utilized to identify road segments carrying large volumes of motorized traffic and project future needs. Map 2.17 illustrates the 2014 High Volume Truck Corridors for Noble County.

Public Safety Issues

The vulnerability of a region's transportation system and its use in emergency evacuations are issues receiving new attention with the threat of intentional damage or destruction caused by vandalism, criminal activity, terrorist events, and natural disasters. Therefore, security goes beyond safety and includes the planning to prevent, manage or respond to threats toward a region and its transportation system and users. There are many programs to help manage security concerns and emergency issues. NORTPO and its member jurisdiction transportation and emergency service staff are regular participants in security planning and preparation activities including development of the Noble County Multi-Jurisdiction Hazard Mitigation Plan. Ongoing participation in these planning activities helps prepare for and better manage transportation security situations.

Figure 2.2 Access Function



FAST Act required all states to prepare and annually evaluate their Strategic Highway Safety Plan (SHSP). A SHSP is a statewide, coordinated safety plan which includes goals, objectives and emphasis areas for reducing highway fatalities and serious injuries on all public roads. More information on the Oklahoma SHSP can be found on the ODOT website (http://www.okladot.state.ok.us/oshsp/index.htm).

The safety of the traveling public, regardless of vehicle type or highway system classification, is of paramount concern for ODOT and NORTPO. Safety strategies are developed based on an analysis of key contributing factors such as crash data, highway inventories, traffic volumes, and highway configurations such as geometric challenges. When undesirable patterns become evident, specific countermeasures are identified based on a more in-depth and detailed analysis of crash locations and causes.

Collisions

To help identify safety issues, traffic safety data must be analyzed. Trend analysis based upon multiple-years' worth of data will give a more accurate reflection of the safety condition of the county. Collison records were obtained from ODOT for the years 2011-2015.

There were 28 fatal crashes reported in Noble County killing 31 people over the 2011-2015 timeframe. A total of 1,237 crashes occurred over the five-year period, with an average of 247 crashes per year. Of those 247 average yearly crashes, the State of Oklahoma during this same time period had 350,343 total crashes. Map 2.18 shows the locations of collisions between 2011-2015. Table 2.10 crash data for 2011-2015 shows total crashes and fatalities. A severity index is a measure of the severity of collisions at a particular location, derived by assigning a numeric value according to the severity of each collision and totaling those numeric values.

Crash data for 2010-2015 obtained from ODOT shows:

- Total of 225 crashes were reported in Noble County during 2015.
- The majority of collisions occurred on I-35.
- Most of the accidents showed no improper action with the second highest being following too close.
- There were 2 fatalities in Noble County in 2015.

Areas of Concern

Areas of concern were identified through surveys, holding public meetings and soliciting comments from stakeholders. Through the collective knowledge and experience of the members of the Technical Committee and Policy Board, and information obtained via public comment, data areas of concern were identified as involve

- lack of alternate routes at railroad crossings,
- turning lanes, intersections,
- lack of bike lanes, and
- deficient bridges.

Transportation Inventory and Improvement Needs

Road System

The state owned highway system in Oklahoma is comprised of the State numbered route highways, the US numbered route highways and the Interstate Highway System. The state system of highways encompasses 12,264 centerline miles as measured in one direction along the dividing stripe of two lane facilities and in one direction along the general median of multilane facilities. Transportation on our highways is also facilitated by over 6,800 bridge structures that span major rivers and lakes, named and unnamed perennial streams and creeks, other roads and highways and railroads. On the average, passenger vehicles, buses and trucks traveled more than 68.8 million vehicle miles each day (daily vehicle miles traveled or DVMT) in 2014 on the state owned highway system (not including toll roads).

Oklahoma's rural nature and historically agricultural and energy based economy has witnessed the conversion of many farm-to-market roads and bridges into highways. While these roads were ideal for transporting livestock and crops to market 70 years ago, they are less than adequate when supporting today's heavier trucks, increased traffic demands and higher operating speeds. Almost 4,600 miles of Oklahoma highways are two-lane facilities without paved shoulders. Map 2.19 illustrates the location of two lane highways with no shoulders. Map 2.20 illustrates the Steep Hill/Sharp Curves areas of concern (statewide). The County transportation system has approximately 3,744 miles of roadways that make up the road network.

Preserving the transportation system has emerged as a national, state and local transportation priority. Aging infrastructure continues to deteriorate, reducing the quality of the system and increasing maintenance costs. All roads deteriorate over time due to environmental conditions and the volume and type of traffic using the roadway. Without proper maintenance, roadways wear out prematurely. ODOT's annual evaluation of pavement conditions and safety features such as passing opportunities, adequate sight distances, existence of paved shoulders, recovery areas for errant vehicles, and the severity of hills and curves in 2015 reveals about 28% or approximately 3,466 of the State's 12,264 miles of highway rate as critical or inadequate which includes 2,858 miles of two-lane highway. The Interstate System in Oklahoma is the highest class of highway and is designed to be the critical transportation link. While the 673 miles of interstate account for only 5.5% on the centerline miles of our state system, it carries 33.6% of daily miles travelled.

Noble County is served by many State, and US highways, as well as municipally owned streets, and county roads.

The major access roads are:
- I 35 is the major north-south transportation corridor.
- US 77 and US 177 are also north-south corridors through Noble County.
- US 64 and US 412/Cimarron Turnpike are east-west corridors and provide access to the western counties from the major north-south corridors.

I-35 is a divided four lane highway with shoulders and limited access and provides for north-south movement from Kansas to Texas. US 77 and 177 are two lane highways with narrow shoulders in most places. These three highways form the "spine" of the highway network in Noble County. Local streets and roads fill in the areas between state routes. Some local roads, such as Fir St., serve as important connectors between state routes.. The NORTPO network of roads consists of more than 10,000 lane miles. The municipalities are responsible for road maintenance within the corporate limits excluding the Interstate system, US and State Highways which are maintained by ODOT. The County maintains the roads outside the municipalities' corporate limits.

Bridges

Federal law requires that all bridges be inspected biennially; those that have specific structural problems may require more frequent inspections. Inspections include evaluation and rating of numerous elements of the substructure, superstructure, and deck, with special attention paid to fracture-critical members. Underwater inspections occur no less than every 5 years to check for scour around bridge piers. Bridges are composed of three basic parts: deck, superstructure and substructure. If any of these components receives a condition index value of 4 or less in the National Bridge Index, it is considered structurally deficient.

- **Functionally Obsolete:** A bridge term used when any of the geometric properties of a bridge are deficient such as being too narrow or load posted; any restriction of strength or weight.
- **Structurally Deficient:** A bridge term used when the physical condition of any of the bridge elements are lacking. These properties have a major bearing in qualifying a bridge for federal bridge replacement or rehabilitation funds.

Bridges are rated on a numerical scale of "1" to "7" that translates into a range of Poor, Fair, Good, and Excellent. Bridges are also described as "Structurally Deficient" and "Functionally Obsolete." The former may have any of a number of structural problems noted in the inspection; while some may be closed or load-posted, many remain safe for traffic. The latter are bridges that do not meet current design standards. They may have narrow lanes, or inadequate clearances, but they may also be structurally sound.

The planning area of NORTPO has more than 3000 bridges and culverts, structures constructed since 1902 that are critical for regional mobility. These structures enable vehicles, bicycles, pedestrian and wildlife to cross an obstacle. More specifically, culverts are structures designed to increase water flow, while bridges are structures that span more than 20 feet between supports. Like roads, bridges and culverts deteriorate over time due to weather and normal wear-and-tear with the passage of vehicles. To ensure safety and minimize disruption to the transportation network these structures undergo regular inspections by qualified engineers. Inspections help locate and identify potential problems early and trigger protection mechanisms when a problem is found. The bridges and culverts in the county vary greatly in their age, averaging 43 years.

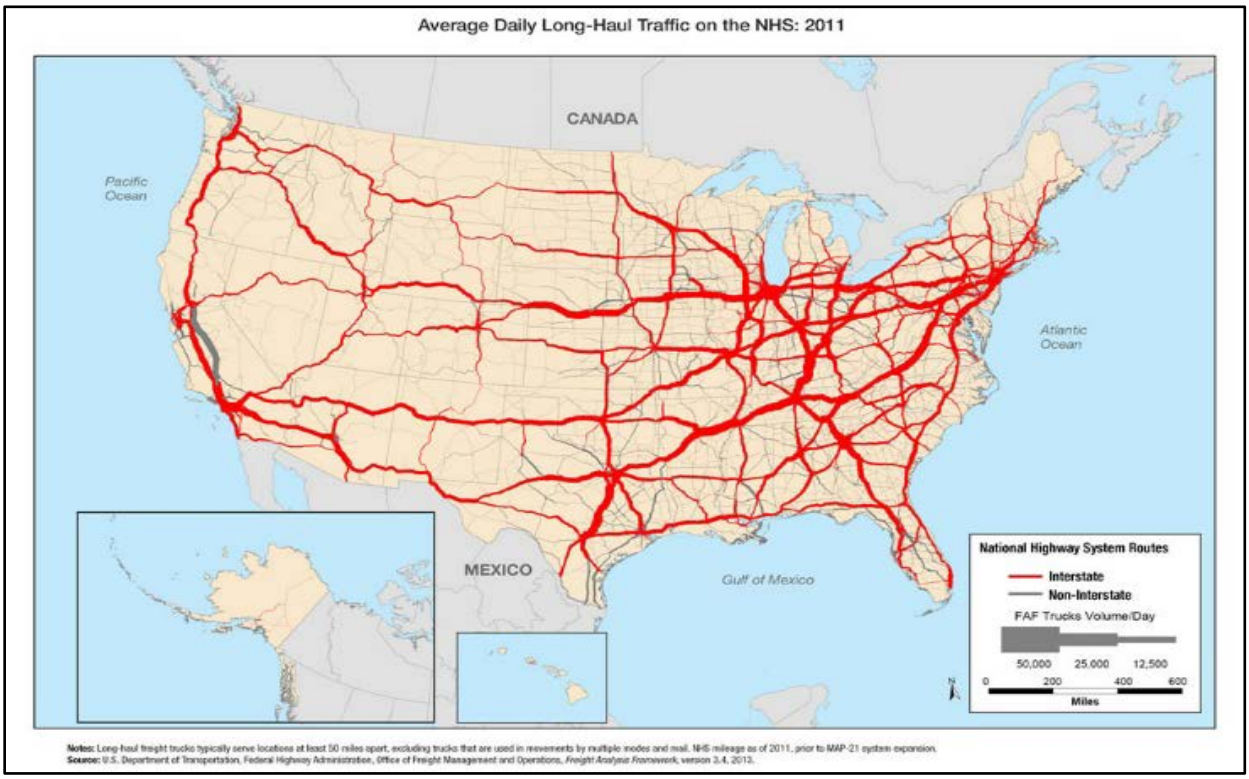
There are over 300 bridges in Noble County. Map 2.21 shows those bridges and Table 2.11 lists the bridges by location. According to data received from ODOT, there are numerous deficient bridges, not only in Oklahoma but Noble County as well. In the last few years' repair and/or replacement of deficient bridges has been a priority of ODOT.

Freight

The FAST Act repealed both the Primary Freight Network and National Freight Network and directed the FHWA Administrator to establish a National Highway Freight Network (NHFN). The FAST Act included the Interstate System—including Interstate facilities not located on the Primary Highway Freight System (PHFS) in the NHFN. All Interstate System roadways may not yet be reflected on the national and state NHFN maps (Map 2.22). While Noble County does not include roads identified in the PFN the NORTPO Policy Board recognizes that highways US 412 and US 77 are significant statewide and regional highway freight corridor. Noble County Freight Corridors determined by the NORTPO Technical Committee are located on Map 2.23

The majority of freight movement in the region is by truck. Primary freight routes in the County include I-35, US 64, US 77, US 177 and US 412. I-35 is considered a major truck route and truck volume is projected to grow by the year 2040. Map illustrates the long haul truck volume in 2011.

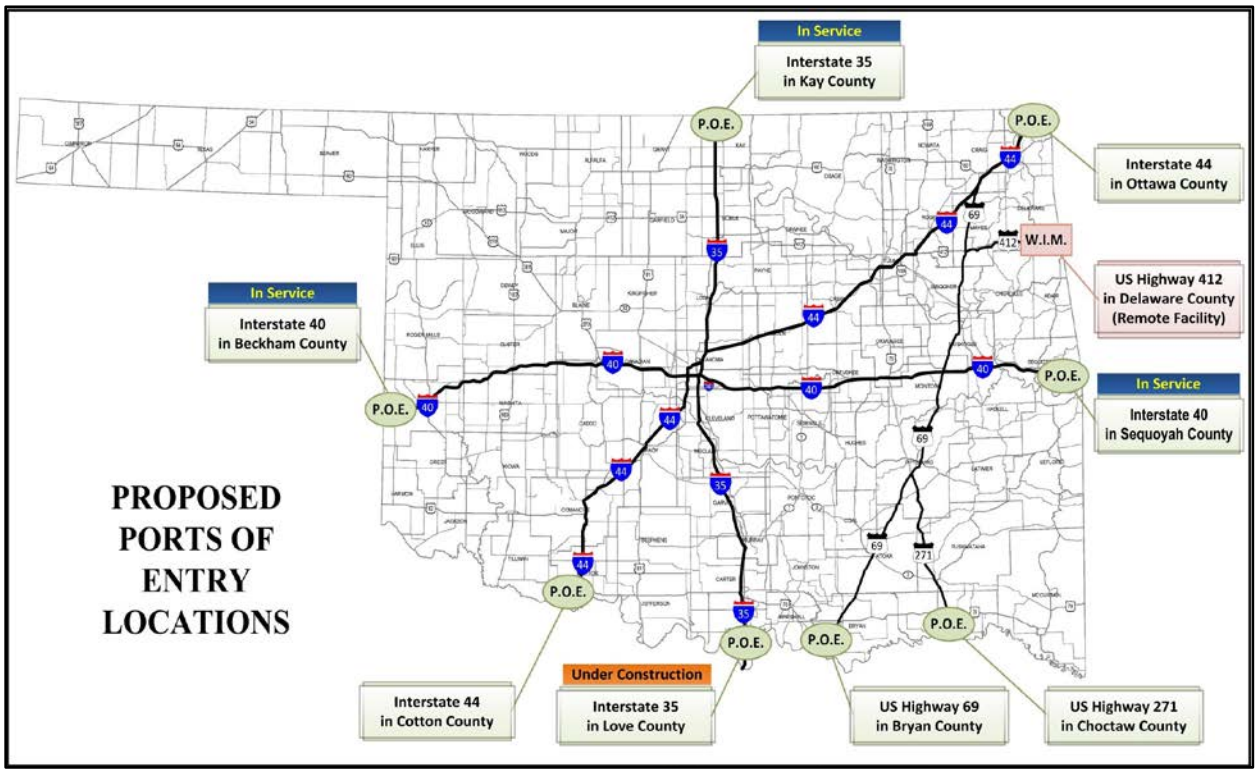
Figure 2.3 - Average Daily Long Haul Traffic on NHS 2011



Growth of freight by truck will continue to grow. With the State's opening of state-of-the art weigh station (port of entry truck weigh and inspection station) on I-35 near Braman in April 2012 additional information on truck traffic will be available. To assist with the inspection and enforcement of truck permits the Ports of Entry (POE) facilities were construction. The POE (Figure 2.4) are state-of-the-art facilities established as the mechanism to create a more

controlled freight transportation environment on the highway system. This system monitors freight ingress at the state line and allow better enforcement of vehicle and freight laws.

Figure 2.4 Existing and Proposed Ports of Entry



Rail

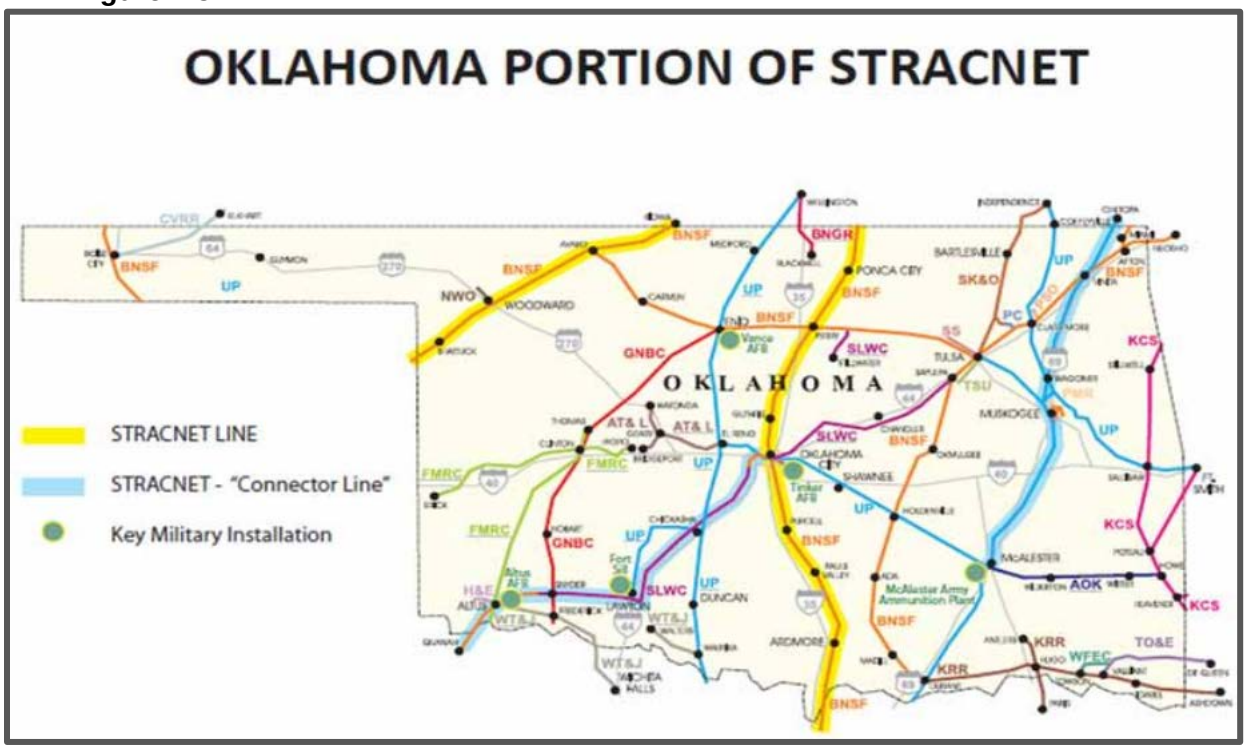
There are three Class I railroads and 19 Class III railroads in Oklahoma, Burlington Northern Santa Fe is the only Class I railroad in Noble County. The State of Oklahoma owns approximately 306 miles of track and the tracks are leased by privately operated railroads. In August 2014, ODOT and the Stillwater Central Railroad completed a $75 million sale of the Sooner Sub rail line between Midwest City and Sapulpa. With the sale of this 97.5 mile, ODOT announced a $100 million initiative to improve safety at the State's railroad crossings. Most of the money for this program comes from the $75 million sale of the Sooner Sub. Improvements are to be made to more than 300 rail crossings statewide and will add flashing lights and crossing arms to many of these crossings. Federal funding, as well as funds provided by railroad companies will also be used in completing the three to four-year program.

Rail freight is moved through Noble County primarily by BNSF Railway utilizing 4-axle cars and operating an average of 27 trains per day. Agricultural, automotive and coal products are the main freight transported through the County. Freight movement by rail in the NORTPO region is primarily used by the agricultural industries in the NORTPO region. There are approximately 1,375 miles of open rail track in the region. The rail infrastructure is the responsibility of the railroads. Noble County does not have any railroad spurs, the closest of which are in the following communities: Dolese Brothers spurs at Enid and Dover, Blackwell Industrial Park at Blackwell, US Gypsum at Southard, and W.B. Johnston Grain terminal in Enid.

According to information obtained from "Freight Flow Report 2012" prepared by Parsons Brinkerhoff, to enhance the state freight truck model county-level traffic and truck counts are needed.

Oklahoma is a part of the Strategic Rail Corridor Network (STRACNET), a function of the Railroads for National Defense. STRACNET consists of 38,800 miles of rail lines important to national defense serving military installations that require rail service. Both Fort Sill and the McAlester Army Ammunition Depot are actively connected to STRACNET, while Vance Air Force Base, Altus Air Force Base, and Tinker Air Force Base all have the capability to reconnect to STRACNET should the need arise. BNSF's rail line is a STRACNET line through Noble County which can service these military installations.

Figure 2.5



Passenger Rail

Currently there is no passenger rail service available in Noble County. However, ODOT and Kansas Dept. of Transportation (KDOT) completed a Service Development Plan looking at expansion of the Heartland Flyer from Oklahoma City to Newton, Kansas, where passengers could then travel on to Los Angeles, Kansas City and Chicago. At this time it is cost prohibitive, but if funding becomes available it would be considered.

Bicycle and Pedestrian Network

Bicycle and pedestrian facilities have been primarily a local issue, usually within communities. Most communities have at least a partial system of sidewalks to aid pedestrians, particularly near schools. Pedestrian travel requires a network of sidewalks without gaps and with accommodations for people with disabilities as defined by the Americans with Disabilities Act (ADA). There are instances, particularly in rural areas, where a wide shoulder is an acceptable substitute for a sidewalk. Safe pedestrian travel also requires protected crossings of busy streets

with marked crosswalks and pedestrian signals and appropriate pedestrian phases at signalized intersections.

Public Transportation

Public transportation systems and services in rural areas are limited. Low population densities in the NORTPO region and the distances between activity centers complicate the delivery of public transportation in rural areas. There are limited activity generators (mostly job destinations) that produce concentrations of transit need. That is, at least one (1) end of a trip is concentrated enough that public transit may be attractive. The difficulty then becomes establishing feasible routes and scheduling service such that the trip is acceptable to the workers. Federal, state and especially local funding is limited. This limits the type and level of service that can be provided. ODOT's Transit Programs Division is responsible for the administration of the Federal Transit Administration (FTA) grants for rural transit operations.

Public transportation services for the area is limited to on demand van services provided by Cherokee Strip Transit and White Eagle Transit. This service is provided based on a pre-arrangement or an agreement between a passenger (or group of passengers or an agency representing passengers) and a transportation provider for those needing "curb to curb" transportation. The pre-arrangement may be scheduled well in advance or, if available, on short notice and may be for a single trip or for repetitive trips over an extended period (called "subscription service"). Low population densities in NORTPO and the distances between activity centers complicate the delivery of public transportation in rural areas. Table 2.13 shows the ridership and revenue for Cherokee Strip Transit from October 2013 – September 2014 and October 2014 – September 2015.

Aviation

The NORTPO area consists of thirteen general aviation airports which are considered all civil aviation operations other than scheduled air services and non-scheduled air transport operation for remuneration or hire. General aviation flights range from gliders and powered parachutes to corporate jet flights. General aviation covers a large range of activities, both commercial and non-commercial, including flying clubs, flight training, agricultural aviation, light aircraft manufacturing and maintenance.

The largest airport in Noble County is Perry Municipal Airport five miles north of Perry. It covers 800 acres at an elevation of 1,002 feet above mean sea level with one asphalt runway of 17/35, 5,110 by 75 feet (1,558 x 23 meters), located at 36º23'08.20N 97º16'38.00W.

The year ending Dec. 12, 2012, the airport averaged of 82 per day, 60% military and 27% transient general aviation and 13% local general aviation. At that time there were 28 aircraft based at this airport: 23 single engines, 1 jet, 2 helicopters and 2 ultralights. (*Source: http://www.airnav.com/airport/F22)*

CHAPTER 3
FUTURE CONDITIONS AND IMPROVEMENTS

The objective of the Future Conditions and Planned Improvements chapter is to portray a "snapshot" of typical daily traffic conditions in the County for the year 2036. It is assumed that only those projects included in the current ODOT eight-year construction plan, CIRB and projects funded by local governments will be constructed by the year 2036. Tables and maps referred to in this chapter are included in Appendix H-3.

Future Conditions

Noble County's economy is continuing to rebound from previous industries relocating in and out of the County as well as the cyclical oil and gas industry. Recent changes in this industry at the international, national and state level have reduced drilling activity in the region, resulting in a decline in the region's population and employment. It is projected that the oil and gas industry volatility will stabilize and population and employment will react accordingly. With the stabilization of the employment opportunities population will continue to grow. Although the employment sector is heavily concentrated in the agriculture, mining and construction industry, other industries that continue to grow include education and health career. With the changing economy at the regional and state level the population projection developed for Noble County was based on historic population growth from 1980-2015 (ACS). Growth is calcuated at an average rate of -.16%. The population and employment projections for Noble County were produced at the TAZ level. The 2036 population projection of 11,911 and employment projection of 5502 were distributed through the TAZs. The projected population data are illustrated in Maps 3.1 and 3.2, while employment projections are in Maps 3.3 and 3.4. Table 3.1 contains supporting data for the map. Table 3.2 lists the 2036 population projection and Table 3.3 lists employment projection for 2036.

While I-35 is designed to carry tens of thousands of vehicles per day, the primary roadway network is designed to carry considerably less. Forecast of increases in truck volume on I-35 is important because of its status as a freight corridor. The needs along this corridor are the responsibility of ODOT. Increases to capacity and safety improvements will be along other roadway corridors that have demonstrated high accident concentrations, curve deficiencies, two lane highways with no shoulders and railroad crossings. With limited population forecast the traffic volume roadways other than I-35 is forecasted to remain constant through 2036. Other areas that may experience congestion are areas near major activity generators, such as employment centers, schools, etc.

With continued trends in the number of vehicle registration, increased freight traffic, commute patterns and aging population there are opportunities to plan and identify transportation improvements.

The need for safety and intersection improvements in Noble County is widespread and not practical to address all the improvements at once. Instead careful review is needed prior to prioritization of the projects. Often times through new road construction or improvement safety problems can be addressed. However, many of the local roads experiencing safety concerns do not need widening or are not conducive to widening. There are a number of options for addressing safety concerns on rural roads. These include but are not limited to: widening and paving shoulders, designing shoulders to accommodate pedestrians and bicyclists, realigning intersections and curves, and intersection improvements.

Studies to identify specific causes and solutions for these areas will need to be considered on a case-by-case basis. As population changes occur the impact on the traffic volume and roadway capacity will need to be re-examined.

2036 Transportation Improvements

Not all service needs for the transportation system are for constructed improvements. In many instances additional data will need to be collected and studies developed to provide a complete list of needs. In the interim projected construction improvement needs will rely on information, data, programs implemented by state, tribal governments, rail line companies, county, and city governments.

The funded future projects identified in Tables 3.4 and 3.5 were obtained from the ODOT Eight Year Construction Program 2016-2023, CIRB Plan 2016-2019, County Commissioners, local governments and transit operators. Map 3.5 illustrates the location of projects included in the ODOT Eight Year Construction Program 2016-2023.

Planned Improvements

Planned improvements are projects that are desired but funding has not been secured. ODOT initiated projects are those listed in years 2019-2023.

CHAPTER 4
FINANCIAL SUMMARY

Financial Assessment
The assessment is intended to summarize federal, state and local transportation sources. Maps and tables referred to in this plan are included in Appendix H-4.

Funding Sources

Federal
In general, transportation revenues continue to follow an unsustainable trajectory as multiple factors force the funding available for transportation to continue a downward trend. For example, both the Oklahoma and federal gas tax rates are fixed on a per-gallon basis, and therefore gas tax revenues are not responsive to inflation. As the cost of transportation infrastructure projects increases, the amount of revenue generated from the gas tax remains static. It is not possible to maintain past levels of transportation investments as per capita collections continue to decline. Additionally, as cars become more fuel efficient, drivers pay less in gas taxes. At the same time, the wear and tear on roadways caused by these vehicles remains the same. The federal funding levels related to highways are typically established through authorizing legislation commonly referred to as the Federal Highway Bill. This legislation normally authorizes projected funding levels for a period of six years. Consistent, long-term funding anticipations are critical in order to understand the expected annual federal funding availability and prepare projects accordingly. Each year, the legislation is funded through the Administration's budgeting and the congressional appropriations processes. The primary source for the dedicated federal transportation funding appropriation is the gasoline and diesel tax deposits directed to the Federal Highway Trust Fund (HTF).

The department of transportation in each state is designated as the cognizant or recipient agency to interact with the representative federal agency, the Federal Highway Administration. Therefore, federal funding for roads and bridges is administered by ODOT regardless of facility ownership. All traditional, congressionally identified or discretionarily funded city street and county road projects that utilize federal highway funding are administered by and through ODOT.

Taxes on gasoline and other motor fuels are collected and distributed from the HTF and are distributed to the states by the FHWA and the FTA to each state through a system of formula grants and discretionary allocations. Motor fuels taxes, consisting of the 18.4 cents per gallon tax on gasoline and 24 cents per gallon tax on diesel fuels, are the trust fund's main dedicated revenue source. Taxes on the sale of heavy vehicles, truck tires and the use of certain kinds of vehicles bring in smaller amounts of revenue for the trust fund.

Surface Transportation Program (STP) are federal funds utilized on road projects. These STP funds may provide up to eighty percent (80%) of the construction costs of these projects. Counties fund the remaining twenty percent (20%) match for construction costs, plus the costs for engineering, right of way and utility relocation through local sources or state fund taxes. Table 4.1 identifies the transportation funding categories.

State
Funding for highway improvements in Oklahoma comes primarily from two sources – Federal HTF and revolving funds including federal and state motor fuel taxes directed to the Highway

Trust Fund and the State Transportation Fund along with the Rebuilding Oklahoma Access and Driver Safety (ROADS) fund as initiated by House Bill 1078 in 2005. House Bill 2248 and House Bill 2249 provide funding to reduce the number of structurally deficient bridges and deteriorating road conditions on the state highway system. Table 4.1 summarizes transportation funding categories, funding eligibility and funding limits provided at the State level.

In 1923, Oklahoma enacted its first state level excise tax on motor fuels. The last increase was in 1987 and the tax is currently 17 cents per gallon for gasoline and diesel at 14 cents per gallon. There is also a transportation-dedicated 5 cents per gallon tax on natural gas used for motor vehicle fuel. Oklahoma's primary sources of funding for road and bridge construction and maintenance are derived from fuel taxes and motor vehicle tax. The motor fuel taxes that are deposited to the State Transportation Fund (STF) are gasoline excise tax, diesel fuel excise tax, special fuel use tax, and special fuel decals. The fuel tax is assessed on consumers when they purchase fuel, and the gasoline tax is the largest generator of revenue to the STF. The motor fuel tax revenues are also apportioned to municipalities and county governments for road and bridge repair and maintenance and to Native American Tribes.

In addition to the above taxes the ROADS Fund is guaranteed an annual apportionment equal to the amount apportioned for the previous year plus an additional $59.7 million until it reaches a cap of $575 million. In FY 2015 the Fund received $416.8 million. In addition, the County Improvement for Roads and Bridges (CIRB) fund, created in 2006 and administered by ODOT, was increased to 20% of motor vehicle registration fees and capped at $120 million beginning in SFY 2016. Table 4.2 summarizes the state funding categories supporting transportation.

Public transportation funding for rural transit agencies is as follows:

- ODOT receives FTA's Section 5311 funding.
- Sub-recipients submit application for Section 5311 funds annually.
- ODOT reviews application which includes service areas. Service areas usually include multiple counties and/or city limits.
- Funds are allocated to eligible sub-recipients based on the average of their last two previous years of performance measures (i.e. revenue miles, passenger trips, etc.) within their pre-approved Section 5311 service areas.
- Sub-recipients are reimbursed for eligible administrative, operational, and capital expense, at specific rates, for services performed within their total pre-approved Section 5311 service areas

Funding of local transportation projects and programs is heavily influenced by State of Oklahoma's annual budget and federal funding. Transportation funding sources based on motor vehicle fuel taxes tend to fluctuate with changes in fuel prices and fuel consumption. While most taxes are not tied to fuel prices, when gas prices go up, consumption tends to go down and thus tax revenues decline. Oklahoma's state budget continues to experience historic downfall revenues and these downfalls have a negative impact on the transportation system. With this plan development it is anticipated that there will continue to be a downfall in available revenue for transportation programs and projects. Therefore, the coordination with local, regional and statewide agencies in the development of transportation programs and projects is significant in order to accomplish the projects.

<u>County</u>

The main funding program for county roads and bridges is the County Highway Fund, which consists of revenues from the state taxes on gasoline and diesel fuels as well as motor vehicle

registration fees and a portion of the of the state gross production tax on oil and gas in the case of counties that have oil and gas production. A county's apportionment is based on several formulas that use proportional shares of each factor as it relates to the total statewide county totals. Counties that have oil and natural gas production receive a portion of the 7 percent state tax on natural gas and oil. Counties have authority to impose a countywide sales tax for roads and bridges with revenues earmarked for roads and bridges. Table 4.2 summarizes the funding categories and taxes apportioned by the Oklahoma Tax Commission for FY 2011-2015.

The Transportation Technical Committee identified challenges faced by local and state governments include: dependence on revenues from the state gas tax, the state's fixed rate gas tax, major disaster declarations, and impact on the infrastructure.

In the summer of 2006 a law created the County Improvements for Roads and Bridges (CIRB) program. The funds apportioned to the program are in equal amounts to the eight Transportation Commission Districts. The sole purpose of the funds is for the construction or reconstruction of county roads or bridges on the county highway system that are the highest priority. Funds may accumulate annual funding for a period of up to five years for a specific project. Information obtained from a report published by the National Association of Counties, funds collected by OTC for transportation projects are distributed directly to the counties. Revenues for specifically for the CIRB category are collected from state gasoline and diesel tax, special fuel tax and state gross production tax on oil. Table 3.5 summarizes the CIRB for Noble County. The County uses a small percentage of tax revenues for maintenance and minor improvements, relying on outside funding sources for major improvements.

Local

The main source of funding for community transportation projects is found in the general operating budgets. Generally, these funds are derived by city sales tax and fees.

Funding for rural transportation projects may also be available through federal sources such as Community Development Block Grant (CDBG) through Oklahoma Department of Commerce, Economic Development Administration (EDA), and US Department of Agriculture Rural Development (USDA RD) programs. Oklahoma has limited funding available for projects through Rural Economic Action Plan (REAP) administered by Councils of Government (COG).

CHAPTER 5
PUBLIC PARTICIPATION SUMMARY

This chapter presents and describes the public participation tools the RTPOs utilize as part of the planning process. Public participation is a federal requirement identified in the FAST Act. NORTPO has an adopted Public Participation Plans that was followed.

Environmental Justice (EJ)
The Federal Highway Administration (FHWA) has long embraced non-discrimination policy to make sure federally-funded activities (planning through implementation) are not disproportionately adversely impacting certain populations. These populations include low income persons and populations as defined by the U.S. Department of Health and Human Services (HHS) Poverty Guidelines, and minority persons and populations (Black or African American, Hispanic or Latino, Asian American, American Indian and Alaskan Natives). As such, public involvement and outreach for the LRTP must adhere to Presidential Executive Order 12898, Environmental Justice.

According to the US Census Bureau's 2014 population estimates, Noble County's racial and ethnic composition is 96.1% White, followed by 5.3% American Indian and Alaska Native, then 3.9% Hispanic or Latino, and 1.4% African American. In comparison, Oklahoma's is 74.8% White, followed by 10.1% Hispanic or Latino, then 9.1% American Indian and Alaska Native, and 7.8% African American. The LRTP process identified EJ populations through a comparison of the racial and ethnic composition of the county.

Low income populations were also identified for Noble County. Low income populations are defined by the FHWA for transportation planning purposes as families of four with a household income that is below the poverty guidelines set by HHS. The 2015 HHS poverty guideline for a family of four is $24,250. Appendix H-5 contains a series of maps and tables that identifies the areas considered under-represented.

Coordination Efforts
The process to identify goals and objectives for the County started with a review and comparison of goals and objectives from other related planning documents and policies to ensure general consistency. This review included:

- FAST Act Federal Planning Factors
- 2012 Transit Gap Overview and Analysis
- Oklahoma Mobility Plan
- ODOT 2015-2040 Long Range Transportation Plan
- Perry Comprehensive Plan
- Morrison Comprehensive Plan
- STIP:http://ok.gov/odot/Programs_and_Projects/8_Year_Construction_Work_Plan/index.html
- CIRB: http://www.okladot.state.ok.us/cirb/index.htm
- Rail Plan: http://www.okladot.state.ok.us/rail/rail-plan/pdfs/2012_RailPlan.pdf

Public involvement is an integral part of the transportation process. NORTPO is proactive in its efforts to effectively communicate with the public and on Jan. 21, 2016 adopted a revised Public Participation Plan (PPP) (on NORTPO website) to ensure that the transportation planning process and procedures complies with federal requirement for public involvement and participation. These

procedures provide opportunities for the public to take an active role in the decision making process.

NORTPO hosted two public meetings in Noble County and at least 15 at NODA's office in Enid, and/or provided notice of availability for public outreach to involve interested parties in the early stages of the plan development. A presentation was also given to the Perry Lions Club and surveys were also distributed there. Surveys were also distributed at the stakeholders meeting, Perry City Hall, and were available on NORTPO's website (www.nortpo.org), and is shown in Appendix H-5.

CHAPTER 6

TRANSPORTATION RECOMMENDATIONS

This chapter identifies the recommendations and summary of improvements that were developed as a result of the previous review of demographics, growth, activity generators, transportation system, survey information, existing plans and other such issues. The information provided in the LRTP is to provide guidance on recommended projects, studies and plans. It is assumed that only those Noble County projects included in the current ODOT eight-year construction program and CIRB will be constructed by the year 2036.

The projects included in the LRTP are primarily funded by ODOT. When implementing this plan, NORTPO will continue to review potential funding sources as they become available or as projects become eligible for other sources. NORTPO will expand on this effort by identifying additional projects that are needed in the county and helping local governments with the identification of funding sources for those projects. The projects included in the LRTP may have potential funding from a single source or multiple sources. Each project has its own unique components relative to only that project and while there are many funding programs within various state and federal agencies, each project must be evaluated on its own merits to determine which programs will apply. It should be noted that that some projects have multiple funding sources, these represent the primary sources and additional sources not listed may also be available. Additional sources could include funding from sources such as but not limited to EDA, USDA, CDBG, REAP, Industrial Access, Lake Access, and Transportation Alternative Programs

Not all of the recommendations are for constructed improvements. In some cases, studies must be conducted to determine if the improvement is warranted (installation of new traffic signals, for example). In other cases, studies should be undertaken in order to develop a comprehensive set of solutions. Table 6.1 shows the recommended transportation projects.

Table 6.1 Recommended Projects

Project Description	Goal, Policy	Project Year	Funding Program/ Source	Funding State/Federal	Funding Other	Total
Develop data collection standards. Develop procedures to identify and collect traffic count data at specific locations.	Goal 1 Policies 4, 11, 15; Goal 2 Policy 2; Goal 5 Policy 3; Goal 7 Policies 1, 3; Goal 8 Policies 1, 7, 8	2016-2020	SPR, Local			
Education and Awareness	Goal 2 Policies 3, 4, 7; Goal 5 Policies 1, 2, 4	2016-2020	SPR, Local			
Economic Vitality	Goal 4 Policies 1,4, 6	2016-2020	SPR, Local, CDBG, USDA			
Environment	Goal 5 Policies 3, 4, 5, 12	2016-2020	SPR, Local, USDA			

Project Description	Goal, Policy	Project Year	Funding Program/ Source	Funding State/Federal	Funding Other	Total
Speed study at intersection locations with high accident severity index and corridors with major attractors.	Goal 8 Policies 1, 8	2016-2020	Local, State, Federal			
24238(06) Bridge Waterproof Seal		FFY 2016	STIP	$100,000	$ -	$100,000
24239(06) Bridge Paint & Joint Repair		FFY 2016	STIP	$1,000,000	$ -	$1,000,000
31023(04) Bridge Approach Rehab		FFY 2016	STIP	$1,030,000	$ -	$1,030,000
24238(07) Bridge Waterproof seal		FFY 2017	STIP	$110,000	$ -	$110,000
24239(07) Bridge Paint & Joint Repair		FFY 2017	STIP	$1,090,000	$ -	$1,090,000
26421(04) Bridges & Approaches: SH-86 over Cow Cr., 0.5 MI east of US-77 in Perry, including mill and overlay on Cedar St. from SH-86, extend east to US-64		FFY 2017	STIP	$948,180	$ -	$948,180
24238(08) Bridge Waterproof seal		FFY 2018	STIP	$109,000	$ -	$109,000
24239(08) Bridge Paint & Joint Repair		FFY 2018	STIP	$1,090,000	$ -	$1,090,000
27910(04) Bridges & Approaches: I-35, SH15 over I-35 at the I-35/SH15 interchange		FFY 2018	STIP	$1,661,030	$ -	$1,661,030
31004(05) Right of Way US-64, shoulders and resurface from US-177 Jct, east 5.0 MI, including widening for third lane through Morrison (ROW for 31004(04))		FFY 2018	FY 2016-2023 8 Year Construction Work Program	$1,100,000	$ -	$1,100,000
31004(06) Utilities US-64, shoulders and resurface from US-177 Jct, east 5.0 MI, including widening for third lane through Morrison (UT FOR 31004(04))		FFY 2018	FY 2016-2023 8 Year Construction Work Program	$1,100,000	$ -	$1,100,000

Project Description	Goal, Policy	Project Year	Funding Program/ Source	Funding State/Federal	Funding Other	Total
24238(10) Bridge Waterproof Seal		FFY 2020	FY 2016-2023 8 Year Construction Work Program	$100,000	$ -	$100,000
24239(10) Bridge Paint & Joint Repair		FFY 2020	FY 2016-2023 8 Year Construction Work Program	$1,000,000	$ -	$1,000,000
24238(11 Joint Seal/Repair		FFY 2021	FY 2016-2023 8 Year Construction Work Program	$100,000	$ -	$100,000
24239(11) Bridge Paint & Joint Repair		FFY 2021	FY 2016-2023 8 Year Construction Work Program	$1,000,000	$ -	$1,000,000
24238(12) Bridge waterproof seal		FFY 2022	FY 2016-2023 8 Year Construction Work Program	$100,000	$ -	$100,000
24239 (15) Bridge Paint & Joint Repair		FFY 2022	FY 2016-2023 8 Year Construction Work Program	$1,000,000	$ -	$1,000,000
29832(04) Bridges & Approaches: I-35: NB & SB bridges over Airport Road (EW430) 0.6 MI south of US-412 including adding ramps at interchange (pending Ponca Tribal Agreement Funds)		FFY 2022	FY 2016-2023 8 Year Construction Work Program	$2,000,000	$ -	$2,000,000
31004(04) Grade, Drain, Bridge & Surface: US-64, shoulders and resurface from US-177 Jct, east 5.0 MI, including widening for		FFY 2022	FY 2016-2023 8 Year Construction Work Program	$8,000,000	$ -	$8,000,000

Project Description	Goal, Policy	Project Year	Funding Program/ Source	Funding State/Federal	Funding Other	Total
third lane through Morrison						
31023(05) Bridge Approach Rehab		FFY 2022	FY 2016-2023 8 Year Construction Work Program	$1,000,000	$ -	$1,000,000
24238(13) Bridge Waterproof seal		FFY 2023	FY 2016-2023 8 Year Construction Work Program	$100,000	$ -	$100,000
24239(16) Bridge Paint & Joint Repair		FFY 2023	FY 2016-2023 8 Year Construction Work Program	$1,000,000	$ -	$1,000,000
25422(05) Grade, Drain, Surface: CO RD (NS 312) begin US 412 & extend north approx. 4.5MI also EW 40 311 to 312 Phase II		FFY 2016	CIRB	$4,100,000	$ -	$4,100,000
31190(05): Reconstruct EW 58 from NS 323 to NS 326 Contact PE for 31190(04)		FFY 2016	CIRB	$100,000	$ -	$100,000
Co. Bridge: Bridge and approaches on EW 38 over Hackberry Creek 1 MI south and 1.4 MI west of Ceres Contact PE for 31948(04)		FFY 2016	CIRB	$75,000	$ -	$75,000
29869(04) Bridge & Approaches on EW 45 over unnamed creek 7 MI west and 2.5 MI south of Jct I-35		FFY 2018	CIRB	$400,000	$ -	$400,000
31189(04) Widen & resurface: Reconstruct county road EW 58 begin at SH 86 extend 2 MI east		FFY 2018	CIRB	$124,000	$ -	$124,000
31215(04) Bridges & Approaches on NS 317 over Stillwater Creek 6 MI south and 1 MI east of Jct US 77/SH164		FFY 2018	CIRB	$600,000	$ -	$600,000

Project Description	Goal, Policy	Project Year	Funding Program/ Source	Funding State/Federal	Funding Other	Total
31967(05) Contact PE Bridges & approaches on NW 313 over Black Bear Creek 5 MI north and 1.7 MI east of Lucien PE for 31967(04)		FFY 2018	CIRB	$75,000	$ -	$75,000
31948(04) Bridge & Approaches on EW 45 over unnamed creek 7 MI west and 2.5 MI south of Jct I-35		FFY 2019	CIRB	$400,000	$ -	$400,000
31993(05) Bridge & Approaches Bridges & approaches EW 38 over Hackberry Creek 1 MI south and 1.4 MI west of Ceres		FFY 2019	CIRB	$750,000	$ -	$750,000
29145(04) Resurface SH 164 5.14 MI from the Garfield County line east to US 77 medium overlay		FFY 2016	Asset Preservation	$950,000	$ -	$950,000
30528(04) SH 156 Resurface from N/S 327 extend east 4.39 MI to Kay County line Resurface		FFY 2018	Asset Preservation	$600,000	$ -	$600,000
30645(04) I-35 Bridge rehab NB & SB bridge over Cow Creek 6.35 MI north of the Payne County line Bridge Rehab		FFY 2018	Asset Preservation	$1,800,000	$ -	$1,800,000
30619(04) SH 108 Resurface from the Payne County line extend north 4.97 MI to US 64		FFY 2019	Asset Preservation	$600,000	$ -	$600,000
30627(04) SH 156 resurface from US 77 extend east 6 MI to the intersection of N327		FFY 2019	Asset Preservation	$500,000	$ -	$500,000
31364(04) SH 5 resurface from the Garfield County line extend east 6.5 MI		FFY 2019	Asset Preservation	$1,600,000	$ -	$1,600,000
Statewide Maintenance		2016-2020				$ -
Statewide Bridge		2016-2020				$ -
Statewide Safety		2016-2020				$ -

Project Description	Goal, Policy	Project Year	Funding Program/ Source	Funding State/Federal	Funding Other	Total
Statewide Transit		2016-2020				$ -
Statewide Rail		2016-2020				$ -
Transit Planning & Survey	Goal 1 Policies 2, 3, 4, 5, 8; Goal 4 Policy 1	2021-2025	SPR, Local, CDBG, USDA			$ -
Education and Awareness	Goal 2 Policies 3, 4, 7; Goal 5 Policies 1, 2, 4	2021-2025	SPR, Local			$ -
Bicycle and Pedestrian Planning	Goal 1 Policies 1, 2, 6, 8, 12, 13, 14	2021-2025	SPR, Local,			$ -
Evaluate the need and priority of expanding US 177 from 2 lanes to 4 lanes	Goal 3 Policy 4; Goal 4 Policies 1, 5; Goal 8 Policies 1, 3, 4, 8	2021-2025	SPR, Local,			$ -
Collect traffic count data at specific locations within the County	Goal 2 Policy 2; Goal 7 Policy 3	2021-2025	SPR, Local			$ -
Speed study at intersection locations with high accident severity index and corridors with major attractors.	Goal 8 Policies 1, 8	2021-2025	SPR, Local, SAFETY			$ -
Railroad crossings (upgrade and improve)	Goal 4 Policy 4; Goal 8 Policies 7, 9	2021-2025	Local, State			$ -
Statewide Maintenance		2021-2025				$ -
Statewide Bridge		2021-2025				$ -
Statewide Safety		2021-2025				$ -
Statewide Transit		2021-2025				$ -
Statewide Rail		2021-2025				$ -
Bicycle & Pedestrian Projects	Goal 1 Policies 1, 2, 6, 8, 12, 13, 14	2025-2029	TAP, Local			$ -
Education & Awareness	Goal 2 Policies 3, 4, 7; Goal 5 Policies 1, 2, 4	2025-2029	SPR, Local			$ -
Railroad crossings (upgrade and improve)	Goal 4 Policy 4; Goal 8 Policies 7, 9	2025-2029	State, Local			$ -
Freight Planning	Goal 1 Policies 9, 10; Goal 3	2025-2029	SPR, Local			$ -

Project Description	Goal, Policy	Project Year	Funding Program/ Source	Funding State/Federal	Funding Other	Total
	Policy 4; Goal 4 Policies 3, 4, 5; Goal 5 Policy 2; Goal 8 Policies 5, 6, 7					
Collect traffic count data at specific locations within the County	Goal 2 Policy 2; Goal 7 Policy 3	2025-2029	SPR, Local			$ -
Speed study at intersection locations with high accident severity index and corridors with major attractors.	Goal 8 Policies 1, 8	2025-2029	SPR, Local, State			$ -
Statewide Maintenance		2026-2030				$ -
Statewide Bridge		2026-2030				$ -
Statewide Safety		2026-2030				$ -
Statewide Transit		2026-2030				$ -
Statewide Rail		2026-2030				$ -
Bicycle & Pedestrian Projects	Goal 1 Policies 1, 2, 6, 8, 12, 13, 14	2031-2035	TAP, Local			$ -
Education & Awareness	Goal 2 Policies 3, 4, 7; Goal 5 Policies 1, 2, 4	2031-2035	SPR, Local			$ -
Railroad crossings (upgrade and improve)	Goal 4 Policy 4; Goal 8 Policies 7, 9	2031-2035	State, Local			$ -
Collect traffic count data at specific locations within the County	Goal 2 Policy 2; Goal 7 Policy 3	2031-2035	SPR, Local			$ -
Speed study at intersection locations with high accident severity index and corridors with major attractors.	Goal 8 Policies 1, 8	2031-2035	SPR, Local, State			$ -
Statewide Maintenance		2031-2035				$ -
Statewide Bridge		2031-2035				$ -
Statewide Safety		2031-2035				$ -
Statewide Transit		2031-2035				$ -
Statewide Rail		2031-2035				$ -

Source: NORTPO

Implementation policies and solutions include:

Roadway

- Plan and implement transportation systems that are multi-modal and provide connections between modes.
- Support transportation projects serving already developed locations.
- Protect cultural, historical, scenic resources.
- Establish a scheduled traffic count and reporting system for the region.
- Develop a regional freight plan.
- Improve infrastructure to support emergency response and evacuations.
- Utilize ODOT's bridge rating system as a tool to identify marginally sufficient structures.
- Collect and review data from Weight in Motion (WIM, aka Truck Weigh Station/Port of Entry) and identify trends.
- Participate in updates of the State Multi-modal Freight Plan.

Rail

- Collect and review incident data at rail crossings. Identify crossings for potential upgrade.
- Support upgrades to state-owned Class III track and structures to permit use of 286,000–pound standard rail cars and larger, which in turn will support Class I service and improve service efficiency.
- Participate in studies and other efforts in development of passenger rail route from Oklahoma City to Newton, Kansas.

Bicycle and Pedestrian

- Participate in ODOT's planning efforts to develop a statewide bicycle and pedestrian plan.

Safety

- Coordinate with local governments to identify safety concerns.
- Collect and review accident data and identify trends.

Public Transportation

- Increase inter and intra County transit services.
- Promote transit systems providing service to major activity centers and enhance coordination among providers.
- Measure transit service and identify needs

Planning and Community

- Coordinate with local, regional and state partners to identify type, frequency and responsibility of data collection and maintenance.
- Facilitate meetings with local and regional transportation providers and users.
- Engage the public in various methods to increase their understanding of the planning process.
- Protect the general aviation airports from encroachment of incompatible development.
- Prioritize transportation projects that serve major activity centers and freight corridors.
- Develop and maintain electronic database and mapping of environmental resources or areas of concern.
- Participate in regional and statewide planning efforts.

Committed Improvements

The ODOT eight-year plan groups projects according to anticipated state and federal fund categories. With regard to federally funded projects, the current plan is fiscally balanced in that the total project costs do not exceed the anticipated federal funds. ODOT policy prohibits start of future projects until all funding is in place and policy dictates projects cannot be programmed in the Statewide Transportation Improvement Program (STIP) unless there is a programmatic and financial game plan for completing the project within six years. Table 6.1 includes a list of projects through the year 2036. The table includes projects identified the ODOT 8 Year Construction Work Program for years 2016-2019. Funding for projects in years 2020-2023 is not in place. Some projects may include development of studies, plans, and collection of data.

Conclusion

This plan will be used to develop and implement programs to enhance the County and region's multi-modal transportation system, providing the public and businesses safe, convenient, affordable and environmentally responsible transportation choices. NORTPO will work with elected officials, various state and federal agencies, and public and private stakeholders as it is the intent of this plan to also encourage communities to invest in improving their streets, ensuring the transportation network is a high-performing system for economic competitiveness for the next 20 years.

APPENDICES

Appendix A
Resolutions

1. Resolution adopting plan
2. Resolutions from Cities/Counties

Appendix B

Acronyms	
AASHTO	The American Association of State Highway Transportation Officials
ADA	Americans with Disabilities Act
BNSF	Burlington Northern Santa Fe Railroad
CIP	Capital Improvement Program
CTPP	Census Transportation Planning Products
CIRB	County Improvements for Roads and Bridges
CORTPO	Central Oklahoma Regional Transportation Planning Organization
CST	Cherokee Strip Transit
EJ	Environmental Justice
EDA	Economic Development Administration
EPA	United States Environmental Protection Agency
FAST Act	Fixing America's Transportation Act
FHWA	Federal Highway Administration
FTA	Federal Transit Administration
GIS	Geographic Information System
LEP	Limited English Proficiency
LOS	Level of Service
LRTP	Long Range Transportation Plan
NAAQS	National Ambient Air Quality Standards
NEPA	National Environmental Policy Act
NHS	National Highway System
NODA	Northern Oklahoma Development Authority
NORTPO	Northern Oklahoma Regional Transportation Planning Organization
OARC	Oklahoma Association of Regional Councils
ODEQ	Oklahoma Department of Environmental Quality
ODOT	Oklahoma Department of Transportation
PWP	Planning Work Program
RTPO	Regional Transportation Planning Organization
SORTPO	Southwest Oklahoma Regional Transportation Planning Organization
TAZ	Traffic Analysis Zone
WIM	Weigh in Motion

Appendix C
Definitions

Accident Severity Index - A measure of the severity of collisions at a particular location, derived by assigning a numeric value according to the severity of each collision and totaling those numeric values.

Americans with Disabilities Act of 1990 (ADA) - Federal law which requires accessible public transportation services for persons with disabilities, including complementary or supplemental paratransit services in areas where fixed route transit service is operated. Expands definition of eligibility for accessible services to persons with mental disabilities, temporary disabilities, and the conditions related to substance abuse. The Act is an augmentation to, but does not supersede Section 504 of the Rehabilitation Act of 1973, which prohibits discrimination on the basis of disability against otherwise qualified individuals in programs receiving federal assistance.

Brownfield - A term used to describe land that has been contaminated with or feared to be contaminated with hazardous waste or pollution.

Capacity - The maximum number of vehicles that can pass over a given section of a lane or roadway in one direction during a given time period under prevailing roadway and traffic conditions.

Capital Improvement Program (CIP) - An orderly plan for meeting the community's needs for physical infrastructure facilities such as streets, parks, water/sewer and public buildings. The CIP is a comprehensive schedule of capital improvements needed within the City and establishes a program to accomplish those needs within the City's ability to pay.

Census Tracts - Small areas with generally stable boundaries, defined within counties and statistically equivalent entities, usually in metropolitan areas and other highly populated counties. They are designed to be relatively homogeneous with respect to population characteristics, economic status, and living conditions.

Class I railroad - Having annual carrier operating revenues of $250 million or more after adjusting for inflation using the Railroad Freight Price Index.

Class III or short-line railroad – Having an annual operating revenue of less than $20 million and typically serve a small number of towns and industries or haul cars for one or more of the Class I railroads.

Congestion - The level at which transportation system performance is no longer acceptable to the traveling public due to traffic interference.

Demand Response Service (DRS) – Provides travel assistance from one location to another within a specific area for medical appointments, shopping, and other basic needs destinations. The vehicles do not operate over a fixed route or on a fixed schedule but in response to calls from passengers or their agents. Fares will vary based on length of trip and users are required to call in advance to make reservations. The vehicle may be dispatched to pick up several passengers at different pick-up points before taking them to their respective destinations.

Environmental Justice (EJ) - The fair treatment and meaningful involvement of all people regardless of race, color, national origin, culture, education, or income with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies. In transportation, this requires review of whether the benefits and burdens of transportation investments appear to be distributed evenly across the regional demographic profile and, if necessary, mitigation of such effects.

Functional Classification (FC) - Identification and categorization scheme describing streets according to the type of service they provide into one of four categories: principal arterials, minor arterials, collectors and local. G Grade - The slope (ratio of change in elevation to change in distance) of a roadway typically given in percent. For example, a 2% grade represents 2-feet of elevation change over a 100foot distance.

Level of Service (LOS) - Refers to a standard measurement used by planners which reflects the relative ease of traffic flow on a scale of A to F with free-flow being rated LOS A and congested conditions rated as LOS F.

Long Range Transportation Plan (LRTP) - Every state and MPO must develop a long range transportation plan for transportation improvements, including a bicycle and pedestrian element. The LRTP looks 20 years ahead and is revised every five years.

Multimodal - The consideration of more than one mode to serve transportation needs in a given area. Refers to the diversity of options for the same trip; also, an approach to transportation planning or programming which acknowledges the existence of or need for transportation options.

National Highway System (NHS) - A nation-wide system of approximately 155,000 miles of major roads. The entire Interstate System is a component of the National Highway System, and includes a large percentage of urban and rural principal arterials, the defense-strategic highway

Surface Transportation Program (STP) - A category of federal transportation funds administered by the Federal Highway Administration and allocated to states and metropolitan areas based on a prescribed formula. This category of funds can provide 80% of the cost to complete transportation improvement projects. These funds are flexible, and can be used for planning design, land acquisition, and construction of highway improvement projects, the capital costs of transit system development, and up to two years of operating assistance for transit system development.

Traffic Analysis Zones (TAZ) - A traffic analysis zone is the unit of geography most commonly used in conventional transportation planning models. The size of a zone varies, and will vary significantly between the rural and urban areas. Zones are constructed by census block information. Typically these blocks are used in transportation models by providing socio-economic data. This information helps to further the understanding of trips that are produced and attracted within the zone.

Appendix D

Performance Measures

Transportation performance measures data/information about the condition, use and impact of the system. The performance measures (or indicators) to track progress toward established goals.

US DOT has established performance measures and state DOTS will develop performance targets in consultation with MPOs and others. The law allows the state DOT to develop performance targets for rural and urban areas. The targets must be established in coordination with MPOs and public transit operators in areas not represented by MPOs. Seven (7) areas in which performance measures will be developed:

1. Safety – to achieve reduction in facilities and serious injuries on all public roads.
2. Infrastructure Condition – to maintain highway infrastructure assets in state of good repair.
3. Congestion Reduction – to achieve reduction in congestion on the National Highway System.
4. System Reliability – performance on the Interstate/Non Interstate system.
5. Freight Movement – freight movement on the Interstate and
6. Economic Vitality – Environment Sustainability to enhance the performance of the transportation system while protecting and enhancing the environment
7. Reduced Project Delivery Delays – to reduce project costs, promote jobs and the economy and expedite the movement of people and goods by accelerating project completion through eliminating delays in the project development and delivery process, including reducing regulatory burdens and improving agencies work practices.

As a fundamental element of a performance management framework, states, MPOs and providers of public transportation will need to establish targets in key national performance areas to document expectations for future performance. The statewide and metropolitan transportation planning processes shall provide for the use of a performance-based approach to transportation decision-making to support the national goals.

Appendix E

Functional Classification and Level of Service

Functional Classification

Functional classification is the grouping of roads, streets and highways into integrated systems ranked by their importance to the general welfare, motorist and land-use structure. It is used to define the role that any particular road should play in providing mobility for through movements and access adjoining land. This grouping acknowledges that roads have different levels of importance and provides a basis for comparing roads fairly.

Historically, one of the most important uses of functional classification of streets has been to identify streets and roads that are eligible for federal funds. The original Federal-aid Primary, Federal-aid Secondary, Federal-aid Urban, and National Interstate systems all relied on functional classification to select eligible routes. In 1991, the Intermodal Surface Transportation Efficiency Act (ISTEA) eliminated the Primary, Secondary, and Urban Federal-aid systems and created the National Highway System (NHS). ISTEA continued the requirement that a street, road, or highway had to be classified higher than a “Local” in urban areas and higher than a “Local” and “Minor Collector” in rural areas before federal funds could be spent on it. The selection of routes eligible for NHS funding was also based on functional criteria. While eligibility for federal funding continues to be an important use for functional classification, it has also become an effective management tool in other areas of transportation planning.

Streets are grouped into functional classes according to the character of service they are intended to provide. Oklahoma's Functional Classification system undergoes a comprehensive review after each decennial U.S. Census. The list below helps depict the hierarchy of the roadway system. As the figure indicates, local streets provide the most access to the adjacent properties, but function poorly in terms of mobility. Freeways exhibit high mobility because of speeds and volumes, serve poorly as access to adjacent roads and properties. Streets that carry higher volumes of traffic should have a limited number of “curb cuts” (driveway openings, few intersections) so traffic movement will not be impeded. While eligibility for federal funding continues to be an important use for functional classification, it has also become an effective management tool in other areas of transportation planning.

The functional classification of streets is shown in Map 2.15 and includes the following functional classes: Interstate, Freeway, Rural Principal Arterial, Rural Minor Arterial, Rural Major Collector and Rural Minor Collector. Rural roads consist of those facilities that are outside of small urban and urbanized areas.

Rural Principal Arterial - A rural principal arterial road includes the following service characteristics:

- Traffic movements with trip length and density suitable for substantial statewide travel
- Traffic movements between urban areas with populations over 25,000
- Traffic movements at high speeds
- Divided four-lane roads
- Desired LOS C

Rural Minor Arterial A rural minor arterial road includes the following service characteristics:

- Traffic movements with trip length and density suitable for integrated interstate or inter-county service

- Traffic movements between urban areas or other traffic generators with populations less than 25,000
- Traffic movements at high speeds
- Undivided four-lane roads
- Striped for one or two lanes in each direction with auxiliary lanes at intersections as required by traffic volumes
- Desired LOS C

Rural Major Collector - A rural major collector road includes the following service characteristics:

- Traffic movements with trip length and density suitable for inter-county service
- Traffic movements between traffic generators, between traffic generators and larger cities, and between traffic generators and routes of a higher classification
- Traffic movements subject to a low level of side friction
- Development may front directly on the road
- Controlled intersection spacing of 2 miles or greater
- Striped for one lane in each direction with a continuous left turn lane
- Desired LOS C

Rural Minor Collector - A rural minor collector road includes the following service characteristics:

- Traffic movements between local roads and collector roads
- Traffic movements between smaller communities and developed areas
- Traffic movements between locally important traffic generators within their remote regions
- Two-lane undivided roads with intersections at grade, and designed to take a minimum interference of traffic from driveways appropriate to a rural setting
- Striped for one lane in each direction
- Desired LOS B

Rural Local Road - A rural local road includes the following service characteristics:

- Two-lane undivided roads with intersections at grade
- Traffic movements between collectors and adjacent lands
- Traffic movements involving relatively short distances
- Desired LOS A

Other classifications of roadways include:

1. The National Highway System represents 4% to 5% of the total public road mileage in the US. This System was designed to contain the follow subcategories:
   a. Interstate -The current Interstate System retained its separate identity within the NHS along with specific provisions to add mileage to the existing Interstate subsystem.
   b. Other Principal Arterials - These routes include highways in rural and urban areas which provide access between an arterial route and a major port, airport, public transportation facility or other intermodal transportation facility.
   c. Intermodal Connecting Links - These are highways that connect NHS routes to major ports, airport, international border crossings, public transportation and transit facilities, interstate bus terminals and rail and intermodal transportation facilities.

2. The Strategic Highway Network (STRAHNET). This system includes the Dwight D. Eisenhower system of Interstate and Defense Highways, identified as strategically important to the defense of the United States.

3. The National and Scenic Byways recognizes highways that are outstanding examples of our nation's beauty, culture, and recreational experience in exemplifying the diverse regional characteristics of our nation.

Level of Service

Level of service (LOS) is a quality measure describing operational conditions within a traffic stream, generally in terms of such service measures as speed and travel time, freedom to maneuver, traffic interruptions, and comfort and convenience. Street Capacity is the measure of a street's ability to accommodate the traffic volume along the street. Level-of-service range from LOS A, which indicates good operating conditions with little or no delay, to LOS F, which indicates extreme congestion and long vehicle delays.

The following is a list of the various LOS with abbreviated definitions from the Highway Capacity Manual.

- LOS A describes a condition with low traffic volumes with little or no delays. There is little or no restriction in maneuverability due to the presence of other vehicles. Drivers can maintain their desired speeds and can proceed through signals without having to wait unnecessarily. Operating capacity can be measured as less than 30% of capacity.

- LOS B describes a condition with stable traffic flow with a high degree of choice to select speed and operating conditions, but with some influence from other drivers. Operating capacity can be measured as less than 50% of capacity.

- LOS C describes the beginning of the range of flow in which the operation of individual users becomes significantly affected by interactions with others in the traffic stream. LOS C is normally utilized as a measure of "average conditions" for design of facilities in suburban and urban locations. Operating capacity can be measured as less than 69% of capacity.

- LOS D describes high density flow in which speed and freedom to maneuver is severely restricted even though flow remains stable. LOS D is considered acceptable during short periods of time and is often used in large urban areas. Operating capacity can be measured as less than 70% to 90% of capacity.

- LOS E describes operating conditions at or near capacity. Operations at this level are usually unstable, because small increases in flow or minor disturbances within the traffic stream will cause breakdowns. Operating capacity can be measured as between 90% to 99% of capacity.

- LOS F is used to define forced or breakdown flow. This condition exists whenever the amount of traffic approaching a point exceeds the amount that can be served. LOS F is characterized by demand volumes greater than the roadway capacity. Under these conditions, motorists seek other routes in order to bypass congestion, thus impacting adjacent streets. Operating capacity can be measured above 100% of capacity.

Future increases in traffic volume can be traced to population growth and land use development patterns. Capacity and LOS can also be diminished by increasing the number of access points and median cuts on the road network.

Appendix F

Plans and Corresponding Websites

Oklahoma Long Range Transportation Plans: http://www.okladot.state.ok.us/p-r-div/lrp_2010-2035/index.htm
FAST Act Federal Planning Factors
2012 Transit Gap Overview and Analysis
Oklahoma Mobility Plan
2012 Freight Flow Study
ODOT 2010-2035 Intermodal Long Range Transportation Plan

Oklahoma Dept. of Transportation http://ok.gov/odot/
- STIP: http://www.okladot.state.ok.us/p-r-div/stip/2015-2018%20STIP%20Book.pdf
- CIRB: http://www.okladot.state.ok.us/cirb/pdfs/cirb_fy2015-2019_workplan.pdf
- Rail Plan: http://www.okladot.state.ok.us/rail/rail-plan/pdfs/2012_RailPlan.pdf

Federal Highway Administration http://www.fhwa.dot.gov/

csa.ou.edu
data5.ctpp.transportation.org
www.oksafe-t.org
www.census.gov
www.nationalregisterofhistoricplaces.com
www.uglybridges.com

Appendix G
Letter to/from State Agencies

Appendix H
Maps and Tables by Chapters

Appendix H-1 Chapter 1

Map 1.2 Noble County Tribal Districts

Appendix H-2 Chapter 2

Table 2.1 NORTPO Counties Population Data
Table 2.2 Noble County Growth 1970-2015 ACS Estimate
Table 2.3 Noble County Employment Status by Industry, 2010-2014 ACS Estimate
Table 2.4 Noble County Vehicles Registered
Map 2.1 Noble County Traffic Analysis Zones (TAZ)
Map 2.2 Perry Traffic Analysis Zones (TAZ)
Map 2.3 Morrison Traffic Analysis Zones (TAZ)
Map 2.4 Noble County 2014 Population by TAZ
Table 2.5 Noble County 2014 Population by TAZ
Map 2.5 Perry 2014 Population by TAZ
Table 2.6 Noble County 2014 Employment by TAZ
Map 2.6 Noble County 2014 Employment by TAZ
Map 2.7 Perry 2014 Employment by TAZ
Map 2.8 Noble County 2010 Major Employers by TAZ
Table 2.7 Noble County Major Employers
Map 2.9 Perry 2010 Major Employers by TAZ
Map 2.10 Noble County Lakes, Rivers, and Streams
Map 2.11 Noble County Active Rail Lines
Map 2.12 Noble County Airports
Map 2.13 Noble County Historic Sites
Map 2.14 Perry Historic Sites
Table 2.8 Noble County Historical Places
Table 2.9 Noble County Population Growth History
Map 2.15 Noble County Functional Classifications
Map 2.16 Noble County Traffic Count Data 2014
Map 2.17 Noble County High Volume Truck Corridors
Map 2.18 Noble County Collisions by Severity

Appendix H-3 Chapter 3

Appendix H-4 Chapter 4

Appendix H-5 Chapter 5

Map 5.4 2013 Noble County Disabled Residents by TAZ

Table 5.3 2013 Noble County Disabled Residents by TAZ

Map 5.5 2013 Perry Disabled Residents by TAZ

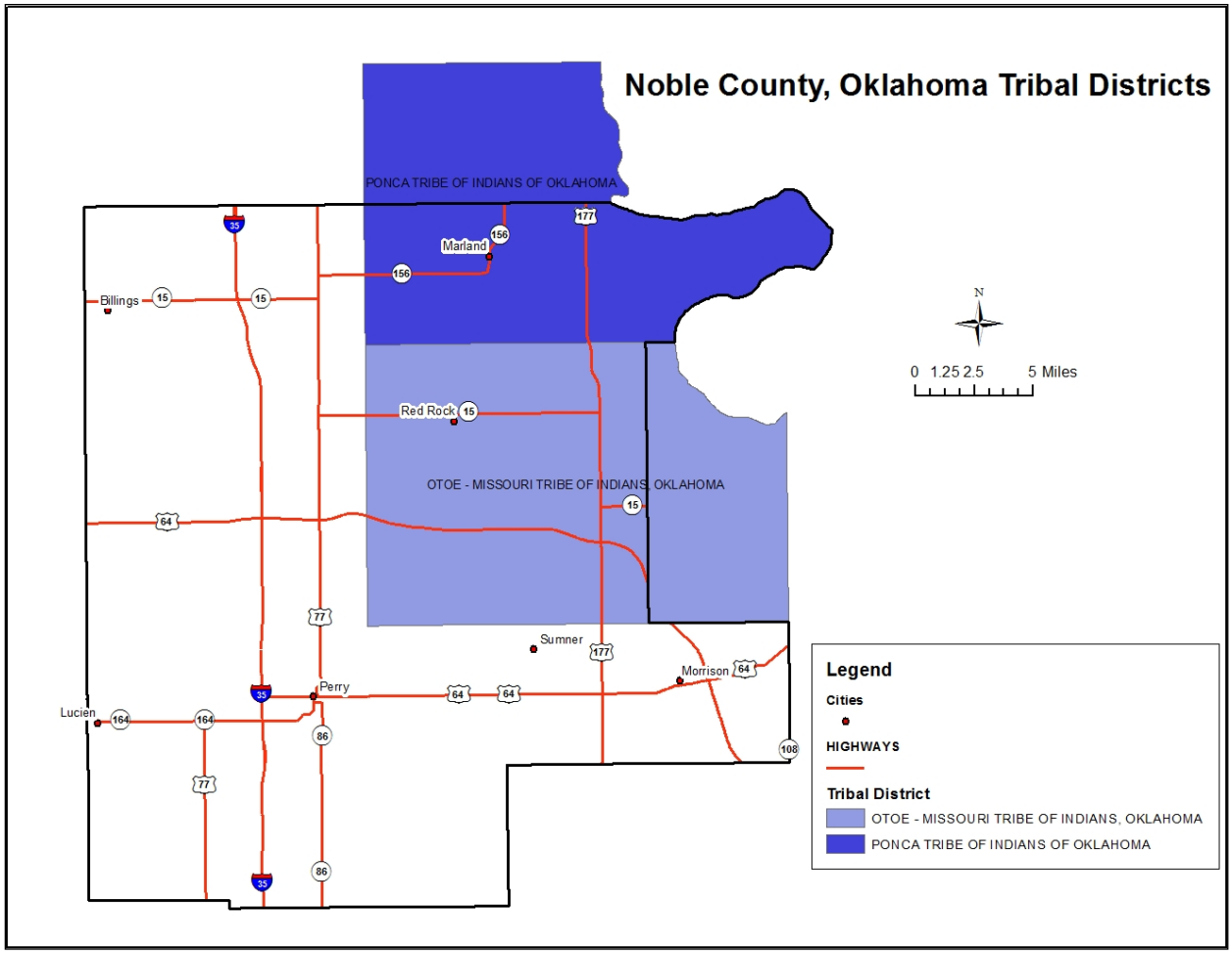
Table 5.4 2014 Noble County Residents by Race

Noble County Surveys

Appendix H-6 Chapter 6

Appendix H-1
Chapter 1

Map 1.2 Noble County Tribal Districts



Source: NORTPO

Appendix H-2
Chapter 2

Table 2.1 NORTPO Counties Population Data

Populations	4/1/2010 Estimate Base	2012 Estimate	2013 Estimate	2014 Estimate	2015 Estimate	% Change, 4/1/10 to 7/1/15
Alfalfa County	5,642	5,666	5,847	5,793	5,868	3.9%
Blaine County	11,943	9,785	9,720	9,896	9,833	-21.5%
Garfield County	60,580	61,189	62,267	62,977	63,569	4.7%
Grant County	4,527	4,516	4,528	4,496	4,523	-0.1%
Kay County	46,562	45,779	45,633	45,510	45,366	-2.6%
Kingfisher County	15,029	14,994	15,276	15,509	15,584	3.6%
Major County	7,527	7,667	7,683	7,758	7,771	3.1%
Noble County	11,561	11,546	11,446	11,519	11,554	-0.1%
NORTPO Region	163,371	161,142	162,400	163,458	164,059	0.4%
Oklahoma	3,751,357	3,815,780	3,850,568	3,879,610	3,911,338	4.1%

Source: US Census Bureau

Table 2.2 Noble County Growth 1970-2015 ACS Estimate

ACS	1970	1980	1990	2000	2010	2015 Est.
Oklahoma	2,559,229	3,025,290	3,145,585	3,450,654	3,751,351	3,911,338
Noble County	10,043	11,573	11,045	11,411	11,563	11,554
Billings	618	632	555	436	509	510
Marland	236	340	280	280	225	226
Morrison	421	671	640	636	734	736
Perry	5,341	5,796	4,978	5,230	5,127	5,097
Red Rock	233	376	321	293	283	284
Remainder of County	3,178	3,758	4,271	4,536	4,685	4,701

Source: US Census Bureau

Table 2.3 Noble County Employment Status by Industry, 2010-2014 ACS Estimate

Employment Industry	Total Estimate	Margin of Error
Civilian employed population 16 years and over	5,220	+/-206
Agriculture, forestry, fishing and hunting, and mining:	335	+/-78
Agriculture, forestry, fishing and hunting	153	+/-53
Mining, quarrying, and oil and gas extraction	182	+/-53
Construction	346	+/-105
Manufacturing	1,006	+/-159
Wholesale trade	94	+/-40
Retail trade	528	+/-109
Transportation and warehousing, and utilities:	184	+/-60
Transportation and warehousing	104	+/-44
Utilities	80	+/-44
Information	28	+/-26
Finance and insurance, and real estate and rental and leasing:	271	+/-74
Finance and insurance	207	+/-70
Real estate and rental and leasing	64	+/-35
Professional, scientific, and management, and administrative and waste management services	283	+/-80
Professional, scientific, and technical services	172	+/-62
Management of companies and enterprises	0	+/-15
Administrative and support and waste management services	111	+/-55
Educational services, and health care and social assistance:	1,208	+/-164
Educational services	673	+/-128
Health care and social assistance	535	+/-86
Arts, entertainment, and recreation, and accommodation and food services	396	+/-90
Arts, entertainment, and recreation	133	+/-50
Accommodation and food services	263	+/-82
Other services, except public administration	233	+/-65
Public administration	308	+/-69

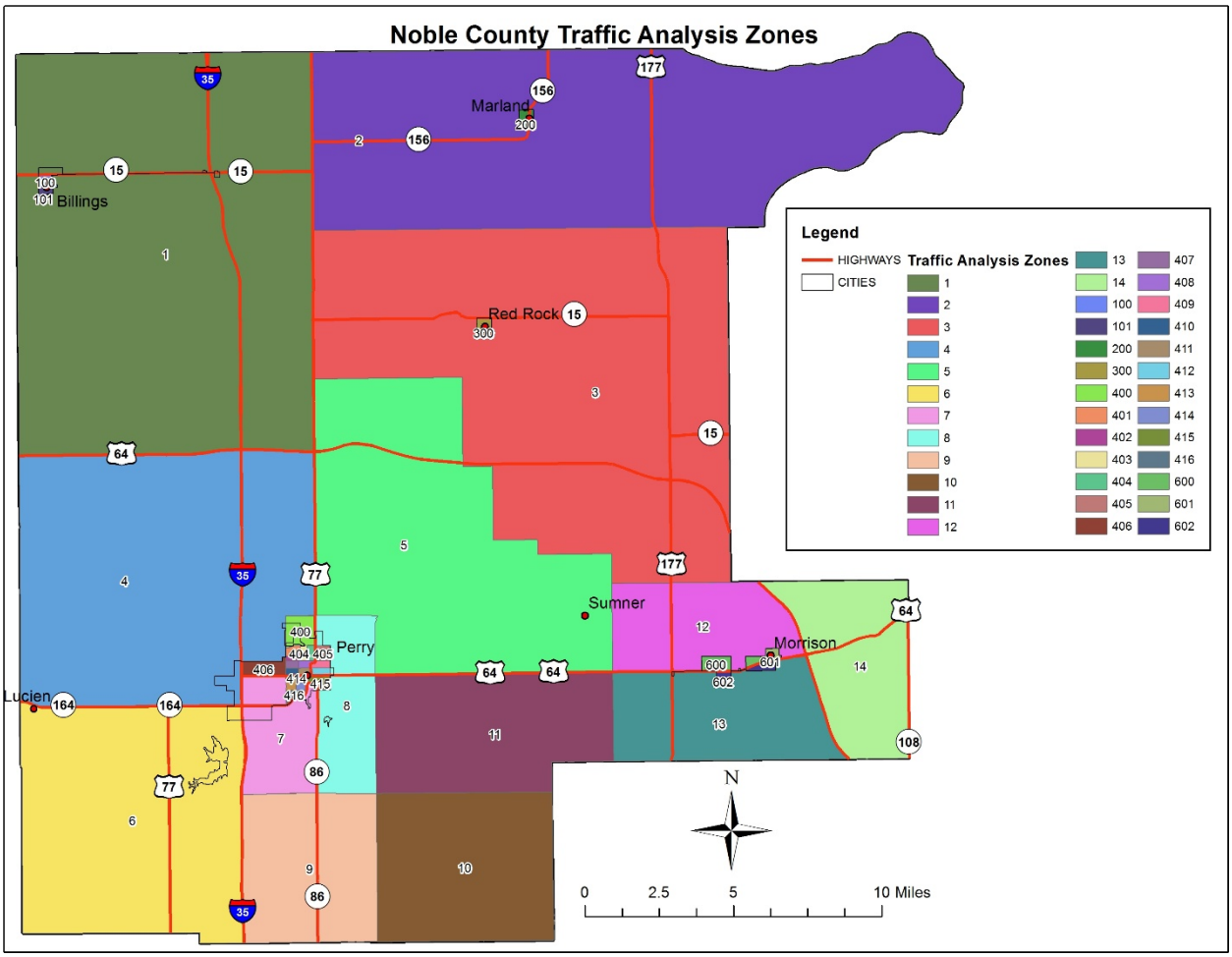
Source: US Census Bureau

Table 2.4 Noble County Vehicles Registered

Vehicle Type	2010	2011	2012	2013	2014	2015
Commercial Trailer	215	174	219	268	338	326
Commercial Truck	449	619	539	592	496	420
Commercial Truck/Tractor	55	57	48	48	50	55
Farm Truck	1,665	1,748	1,696	1,685	1,668	1,746
Automobile	8,367	8,320	8,441	8,140	8,066	8,499

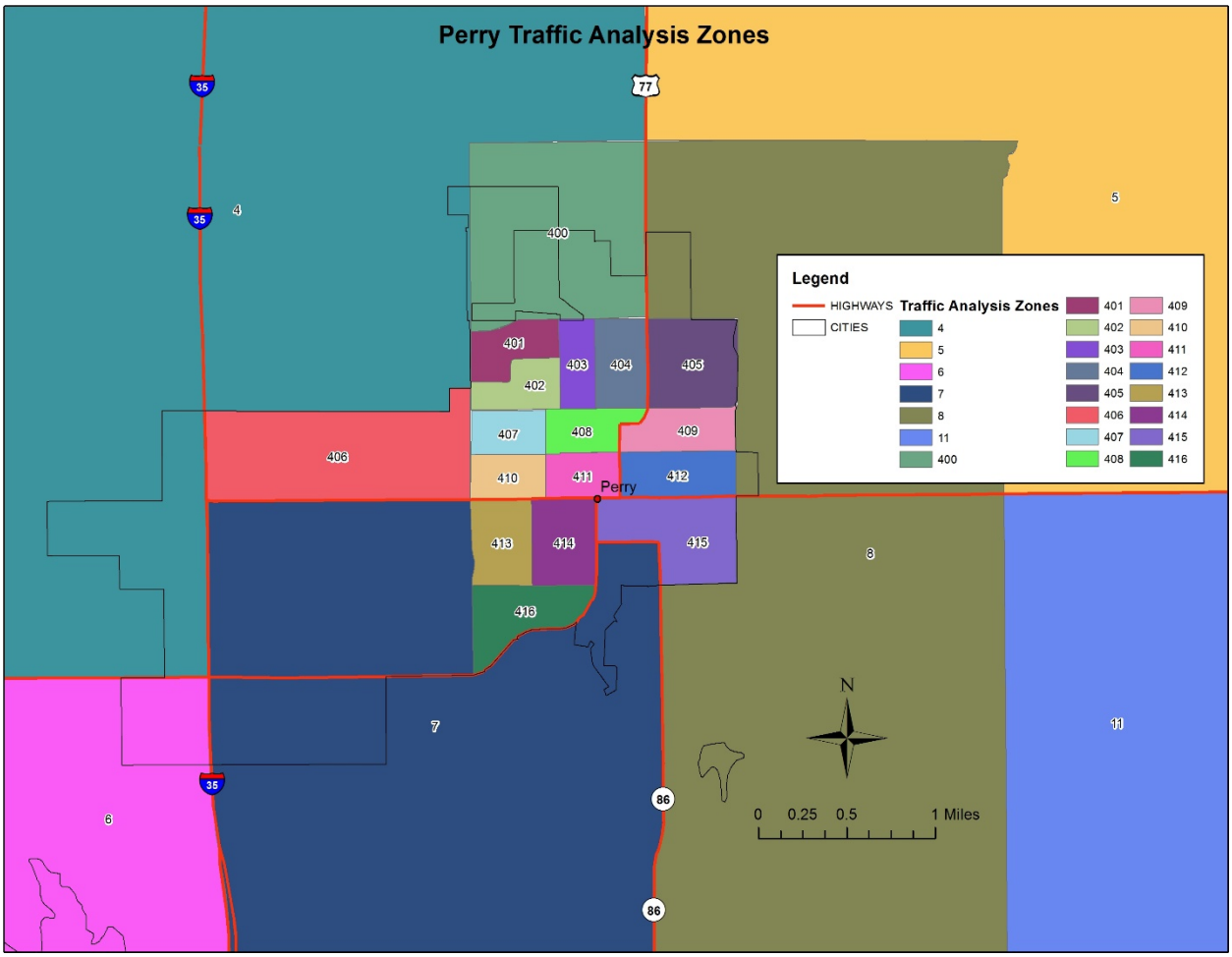
Source: Annual Vehicle Registration Report – Oklahoma Tax Commission

Map 2.1 Noble County Traffic Analysis Zones (TAZ)



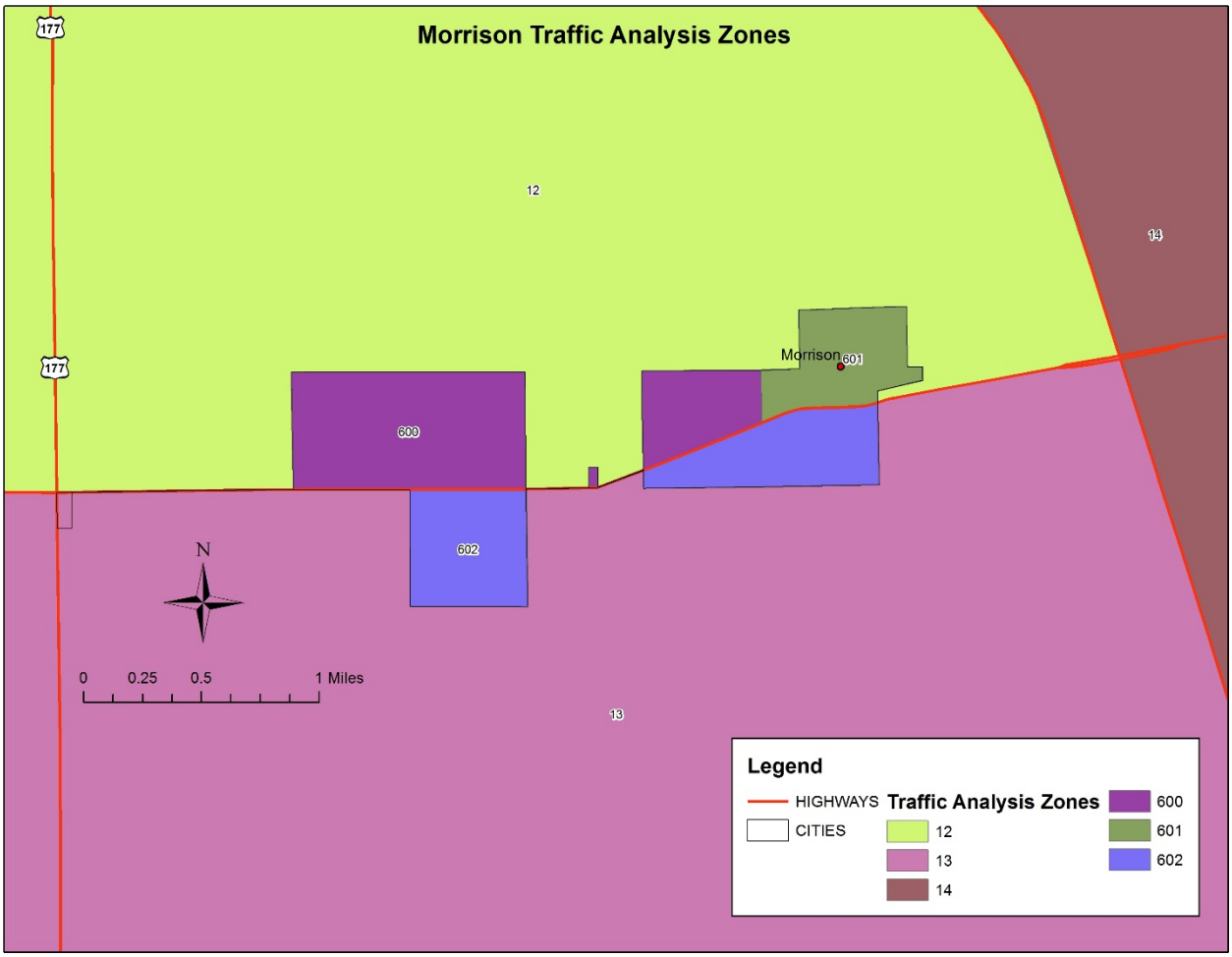
Source: NORTPO

Map 2.2 Perry Traffic Analysis Zones (TAZ)



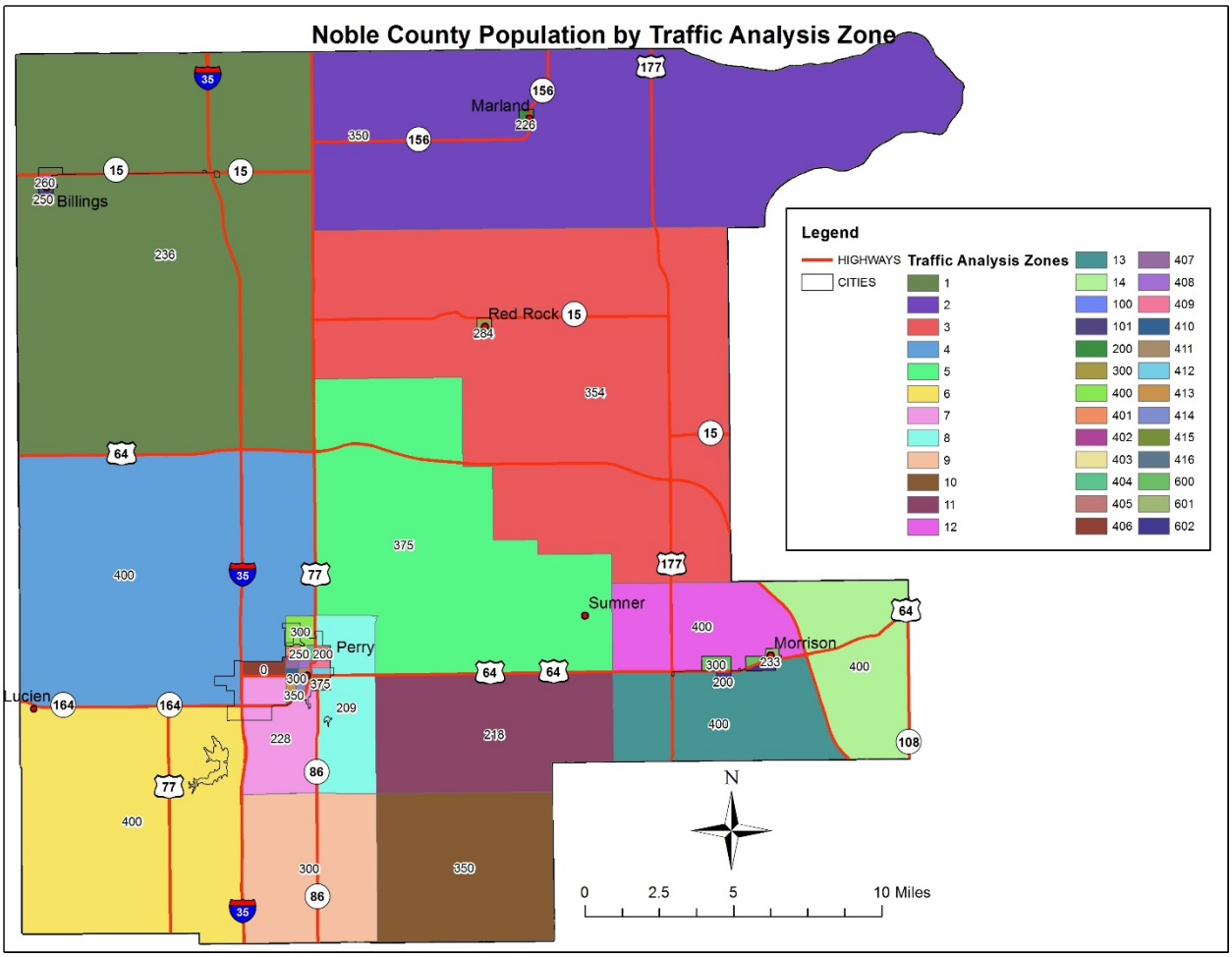
Source: NORTPO

Map 2.3 Morrison Traffic Analysis Zones (TAZ)



Source: NORTPO

Map 2.4 Noble County 2014 Population by TAZ



Source: NORTPO/U.S. Census Bureau, American Community Survey 2000-2014 Five-year estimates

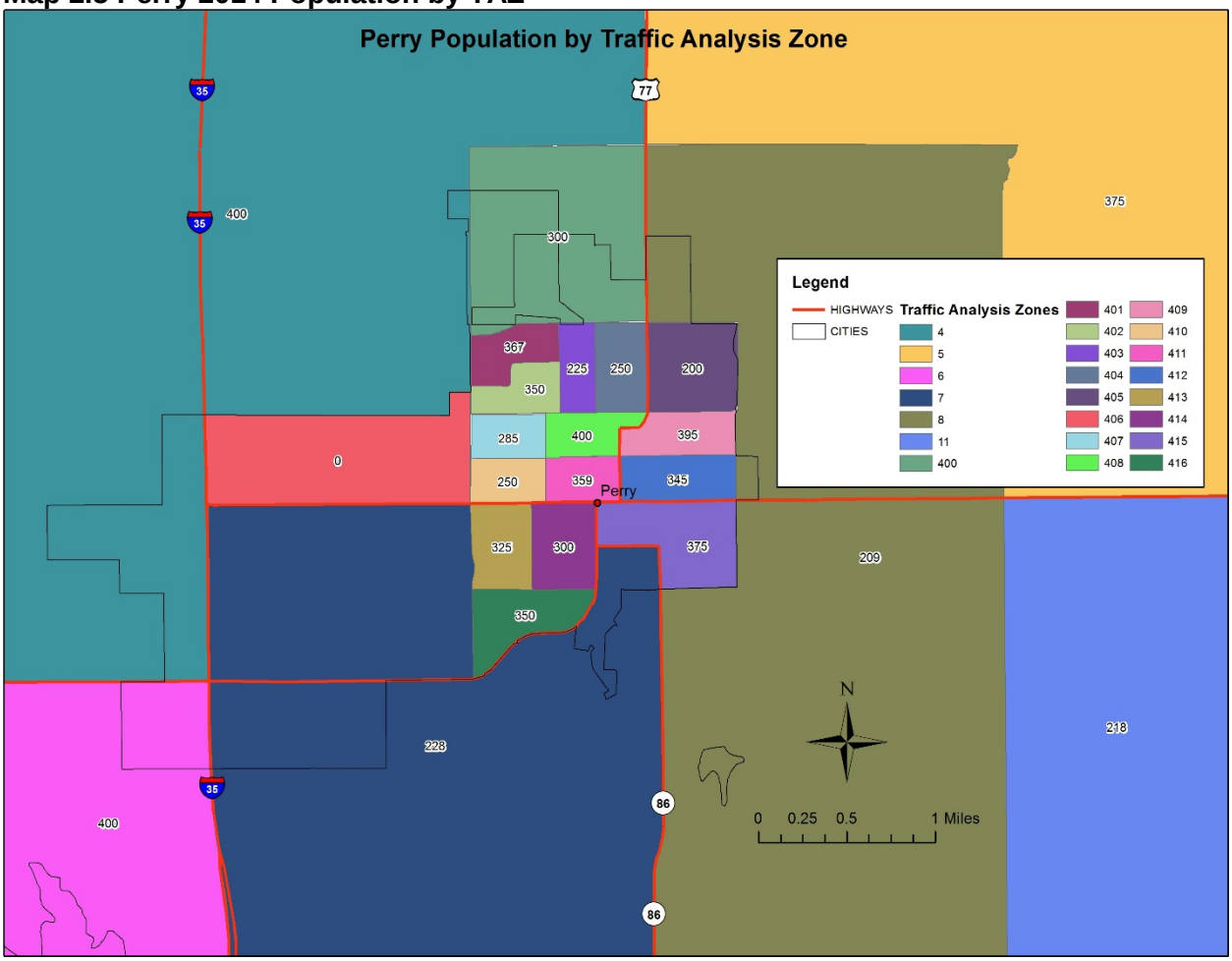
Table 2.5 Noble County 2014 Population by TAZ

Noble County Population by TAZ			
TAZ	Population	TAZ	Population
1	236	401	367
2	350	402	350
3	354	403	225
4	400	404	250
5	375	405	200
6	400	406	0
7	228	407	285
8	209	408	400
9	300	409	395
10	350	410	250
11	218	411	359

12	400	412	345
13	400	413	325
14	400	414	300
100	260	415	375
101	284	416	350
200	300	600	300
300	367	601	233
400	300	602	200

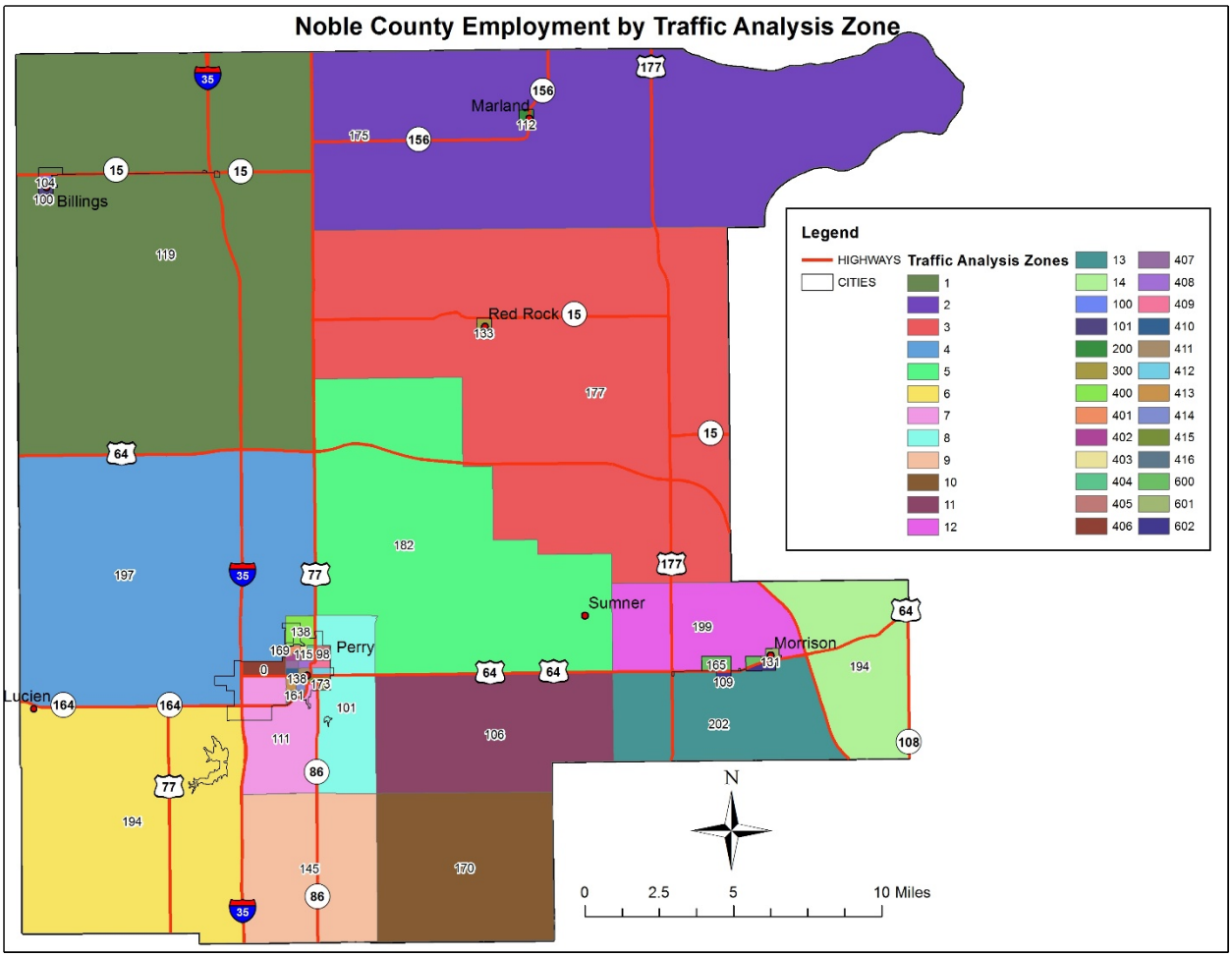
Source: NORTPO/U.S. Census Bureau

Map 2.5 Perry 2014 Population by TAZ



Source: NORTPO

Map 2.6 Noble County 2014 Employment by TAZ



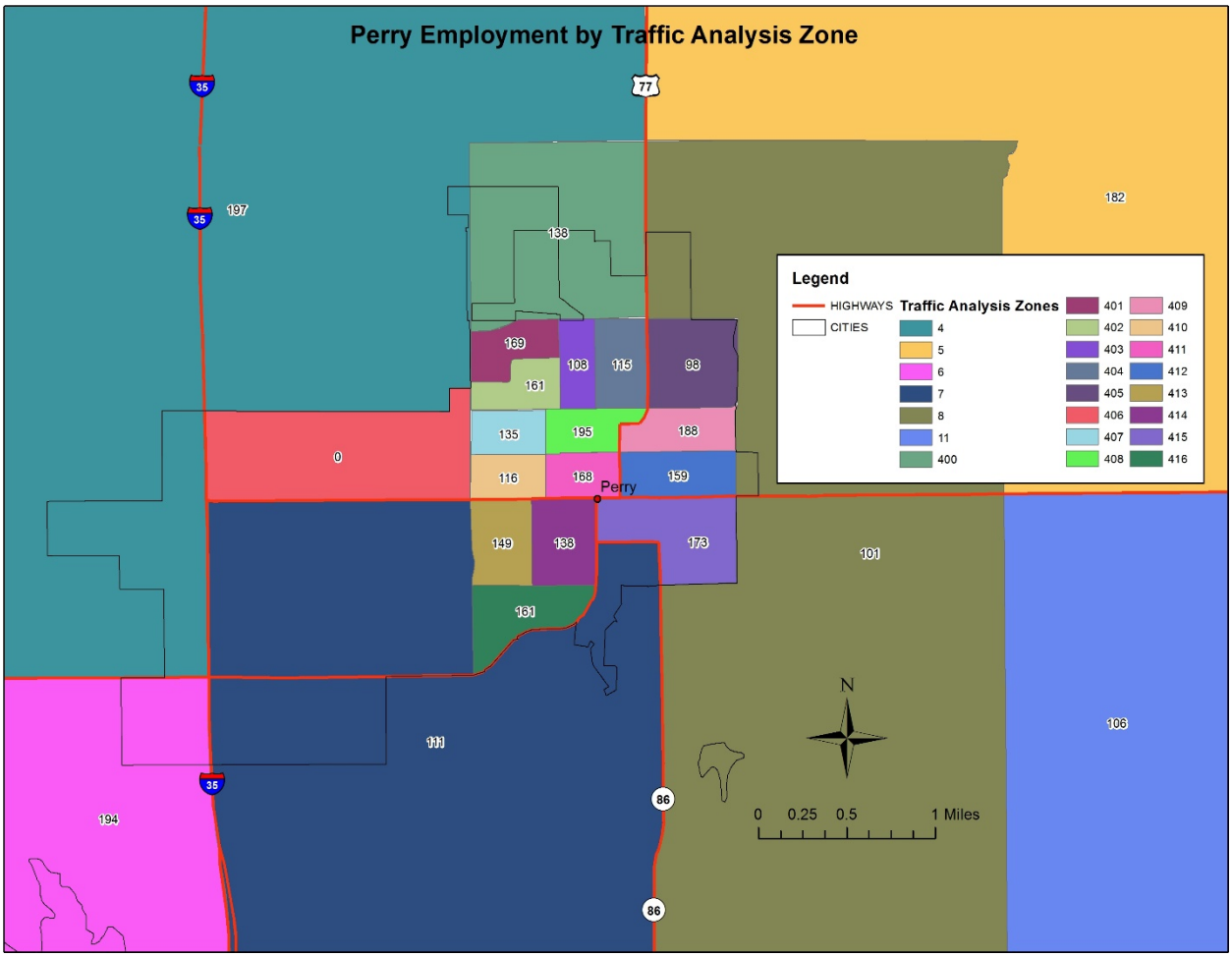
Source: NORTPO

Table 2.6 Noble County 2014 Employment by TAZ

Noble County Employment by TAZ			
TAZ	**Employment**	**TAZ**	**Employment**
1	119	401	169
2	175	402	161
3	177	403	108
4	197	404	115
5	182	405	98
6	194	406	Charles Machine Works
7	111	407	135
8	101	408	195
9	145	409	188
10	170	410	116
11	106	411	168
12	199	412	159
13	202	413	149
14	194	414	138
100	104	415	173
101	100	416	161
200	112	600	165
300	133	601	131
400	138	602	109

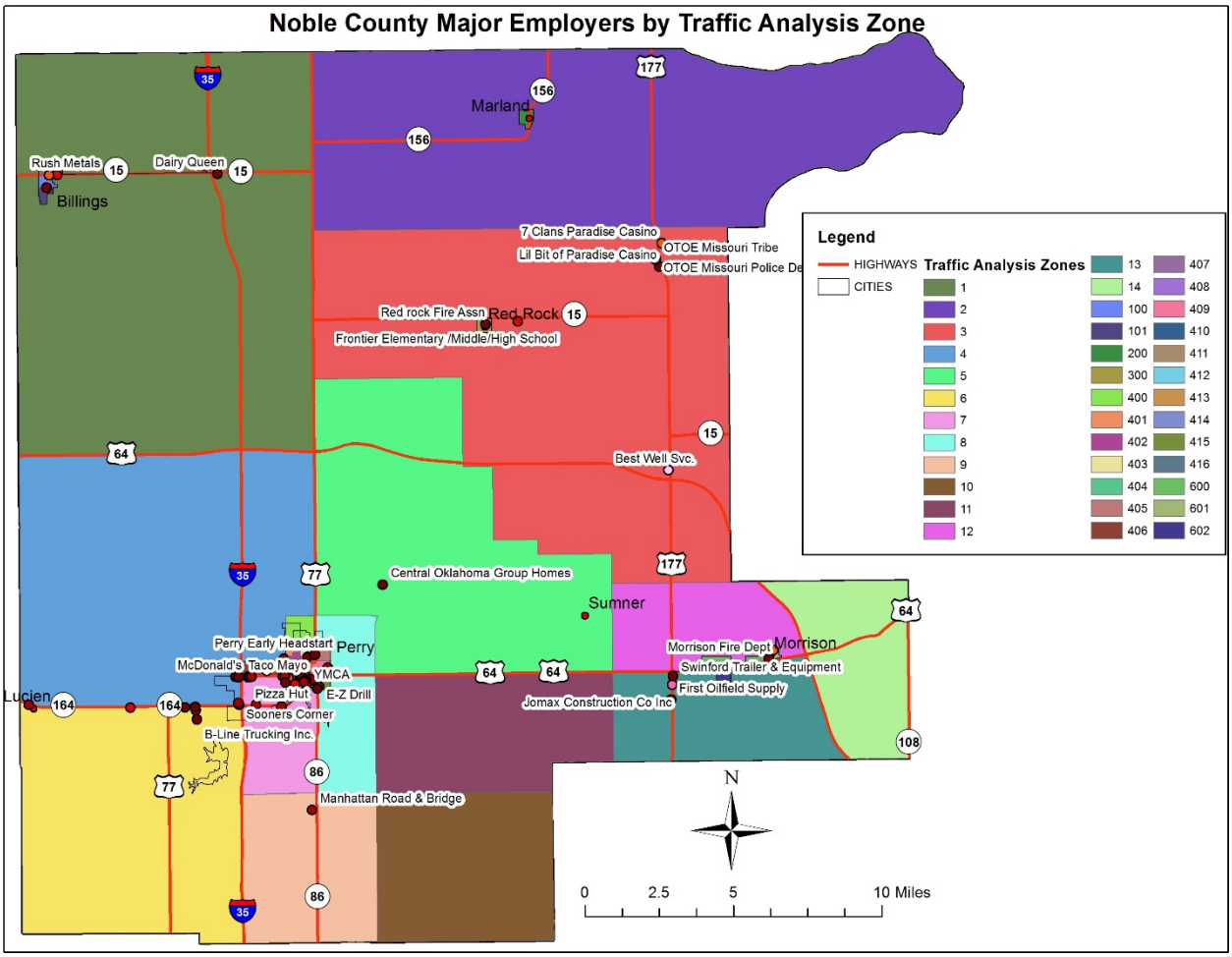
Source: NORTPO

Map 2.7 Perry 2014 Employment by TAZ



Source: NORTPO

Map 2.8 Noble County 2010 Major Employers by TAZ



Source: NORTPO/Oklahoma Employment Security Commission

Table 2.7 Noble County Major Employers

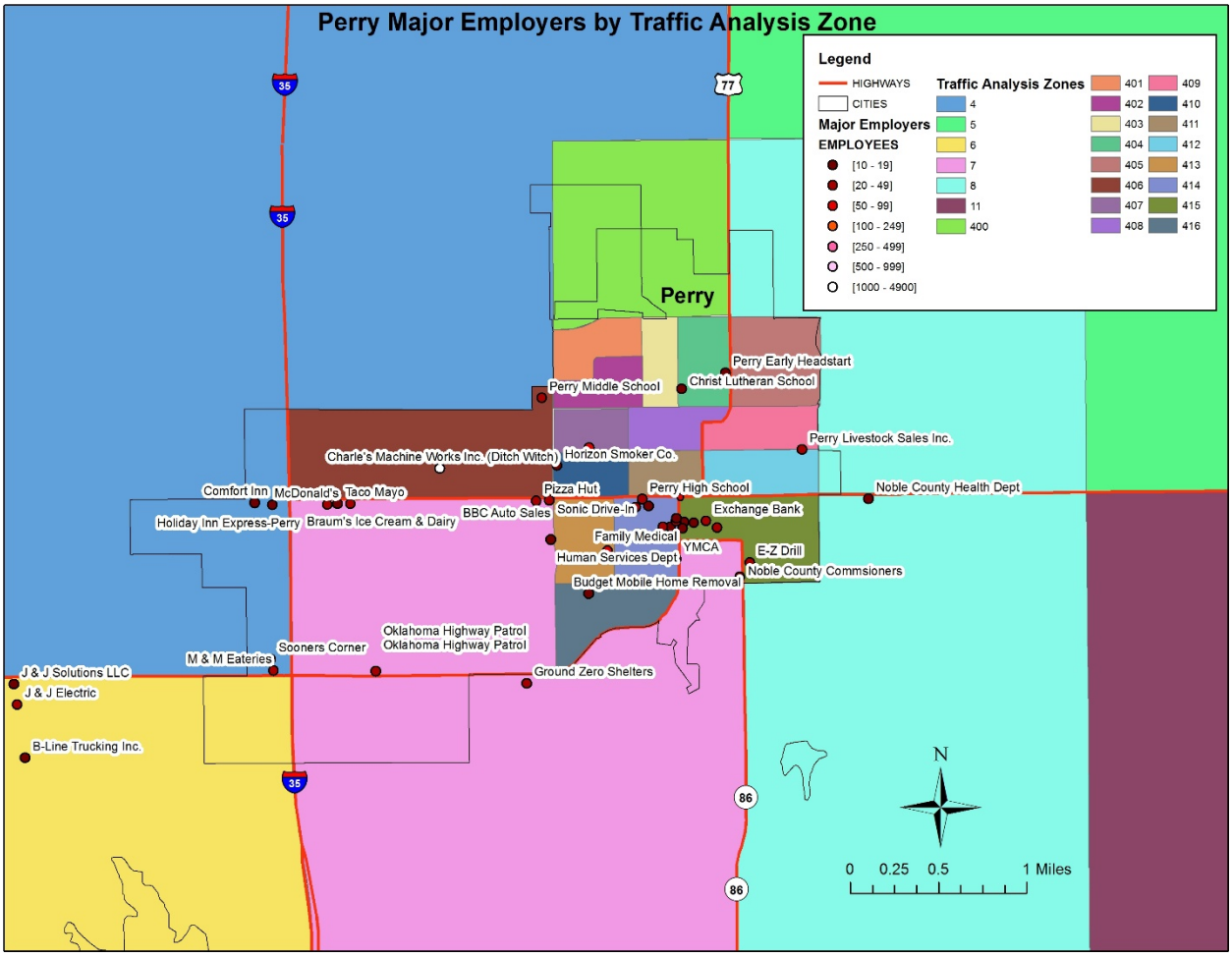
Employer	Address	# of Employees
Gary May Drilling Inc	637 Delaware St, Perry, OK 73077	[10 - 19]
Jomax Construction Co Inc	22851 County Rd 230 Morrison, OK 73061	[250 - 499]
Manhattan Road & Bridge	26775 County Rd 110, Perry, OK 73077	[20 - 49]
Ground Zero Shelters	4600 Independence, Perry, OK 73077	[50 - 99]
Ground Zero Shelters	1300 Highway 77 W, Perry, OK 73077	[20 - 49]
J & J Electric	23051 County Rd 70, Perry, OK, 73077	[20 - 49]
Budget Mobile Home Removal	1012 Hillside Dr, Perry, OK 73077	[10 - 19]
J & J Solutions LLC	6990 Independence, Perry, OK 73077	[10 - 19]
E-Z Drill	320 Ash St, Perry, OK 73077	[20 - 49]
Charles Machine Works Inc. (Ditch Witch)	1959 W Fir St, Perry, OK 73077	[1000 - 4900]
Rush Metals	Highway 15 E, Billings, OK 74630	[50 - 99]
Swinford Trailer & Equipment	22125 County Rd 230, Morrison, OK 73061	[10 - 19]

Employer	Address	# of Employees
First Oilfield Supply	22951 Independence, Morrison, OK 73061	[10 - 19]
Horizon Smoker Co.	802 N 15th St, Perry, OK 73077	[10 - 19]
Perry Fire Equipment	6500 Independence, Perry, OK 73077	[10 - 19]
Perry Livestock Sales Inc.	1101 First Street, Perry, OK 73077	[20 - 49]
Vance Chevrolet Buick GMC	520 Delaware St, Perry, OK 73077	[20 - 49]
BBC Auto Sales	1502 Fir St, Perry, OK 73077	[100 - 249]
B-Line Trucking Inc.	24601 County Rd 120, Perry, OK 73077	[10 - 19]
US Post Office	326 N 7th St, Perry, OK 73077	[10 - 19]
Perry Daily Journal	714 Delaware St, Perry, OK 73077	[10 - 19]
Suddenlink Communications	617 1/2 Delaware St, Perry, Ok 73077	[10 - 19]
Exchange Bank	523 Delaware St, Perry, OK 73077	[20 - 49]
First Bank & Trust Co.	401 N 7th St, Perry, OK 73077	[20 - 49]
Best Well Service	15151 County Rd 230, Red Rock, OK 74651	[500 - 999]
Christ Lutheran School	1302 N 7th St, Perry, OK 73077	[10 - 19]
Frontier Elementary /Middle/High School	17750 Valley, Red Rock, OK 74651	[50 - 99]
Morrison Elementary/Middle/High School	2nd St & C Ave, Morrison, OK 73061	[100 - 249]
Perry Elementary School	1207 Ivanhoe St, Perry, OK, 73077	[50 - 99]
Perry Junior High School	901 Elm St, Perry, OK 73077	[20 - 49]
Perry Middle School	1303 N 15th St, Perry, OK 73077	[20 - 49]
Perry High School	900 Fir St, Perry, OK 73077	[20 - 49]
Perry Public School Athletic	810 Elm St, Perry, OK 73077	[10 - 19]
Family Medical	413 N 7th St, Perry, OK 73077	[10 - 19]
Perry Memorial Hospital	501 N 14th St, Perry, OK 73077	[100 - 249]
Billings Fairchild Center	202 E Maple, Billings, OK 74630	[100 - 249]
Perry Green Valley Nursing Home Inc.	1103 Birch St, Perry, OK 73077	[50 - 99]
YMCA	107 N 7th St, Perry, Ok 73077	[20 - 49]
Central Oklahoma Group Homes	13301 Maverick, Perry, OK 73077	[10 - 19]
Perry Early Headstart	401 1/2 Noble St, Perry, OK 73077	[10 - 19]
7 Clans Paradise Casino	7500 Highway 177, Red Rock, OK 74651	[100 - 249]
Lil Bit of Paradise Casino	8401 Highway 177, Red Rock, OK 74651	[10 - 19]
Comfort Inn	3112 Fir St, Perry, Ok 73077	[10 - 19]
Holiday Inn Express-Perry	3002 W Fir St, Perry, OK 73077	[10 - 19]
M & M Eateries	I-35 & Highway 77	[20 - 49]
Pizza Hut	1508 Fir St, Perry, OK 73077	[20 - 49]
Sooners Corner	Exit 185 & I-35, Perry, OK 73077	[20 - 49]
McDonald's	2802 W Fir St, Perry, OK 73077	[20 - 49]
Sonic Drive-In	515 Fir St, Perry, OK 73077	[20 - 49]
Taco Mayo	2714 W Fir St, Perry, OK 73077	[10 - 19]
Dairy Queen	I-35 & Highway 15, Billings, OK 74630	[10 - 19]
Braum's Ice Cream & Dairy	2612 W Fir St, Perry, OK 73077	[20 - 49]

Employer	Address	# of Employees
Red rock Fire Assn	Main St, Red Rock, OK 74651	[10 - 19]
Noble County Health Department	300 E Fir St, Perry, OK 73077	[10 - 19]
Noble County	419 S Boundary St, Perry, OK 73077	[10 - 19]
Human Services Department	205 N 15th St, Perry, OK 73077	[10 - 19]
OTOE Missouri Tribe	8151 Highway 177, Red Rock, OK 74651	[50 - 99]
City of Perry Police Department	312 N 8th St, Perry, OK 73077	[10 - 19]
Oklahoma Highway Patrol	2505 Highway 77 W, Perry, OK 73077	[20 - 49]
OTOE Missouri Police Department	8151 Highway 177, Red Rock, OK 74651	[10 - 19]
Billings Fire Department	100 S Central, Billings, OK 74630	[10 - 19]
City of Perry/Fire Department	732 Delaware St, Perry, OK 73077	[20 - 49]
Orlando Volunteer Fire Department	312 N 8th St, Perry, OK 73077	[20 - 49]
Lucien Volunteer Fire Department	302 Highway 164, Lucien, OK 73757	[20 - 49]
Morrison Fire Department	304 Railroad Ave, Morrison, OK 73061	[10 - 19]

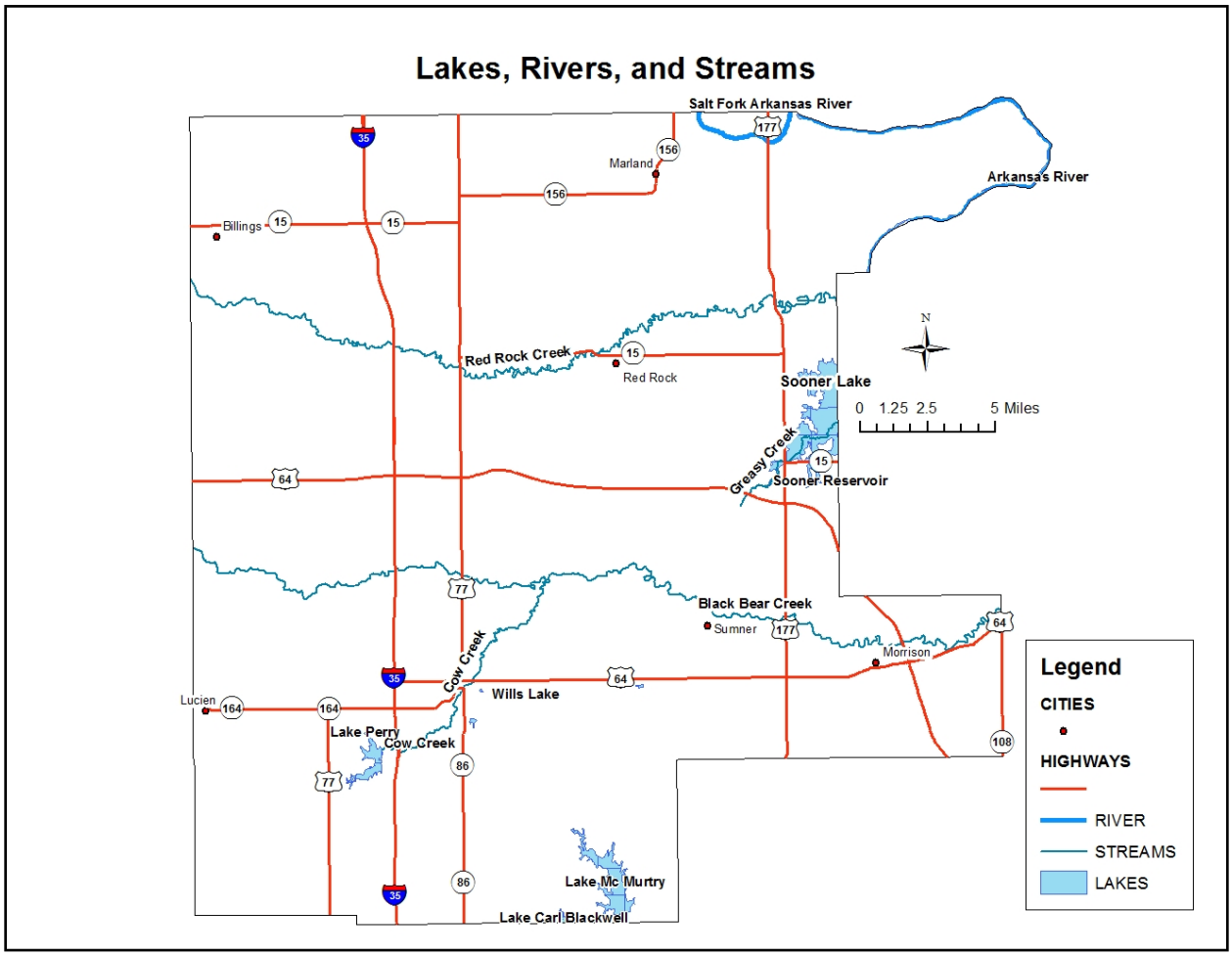
Source: Oklahoma Employment Security Commission

Map 2.9 Perry 2010 Major Employers by TAZ



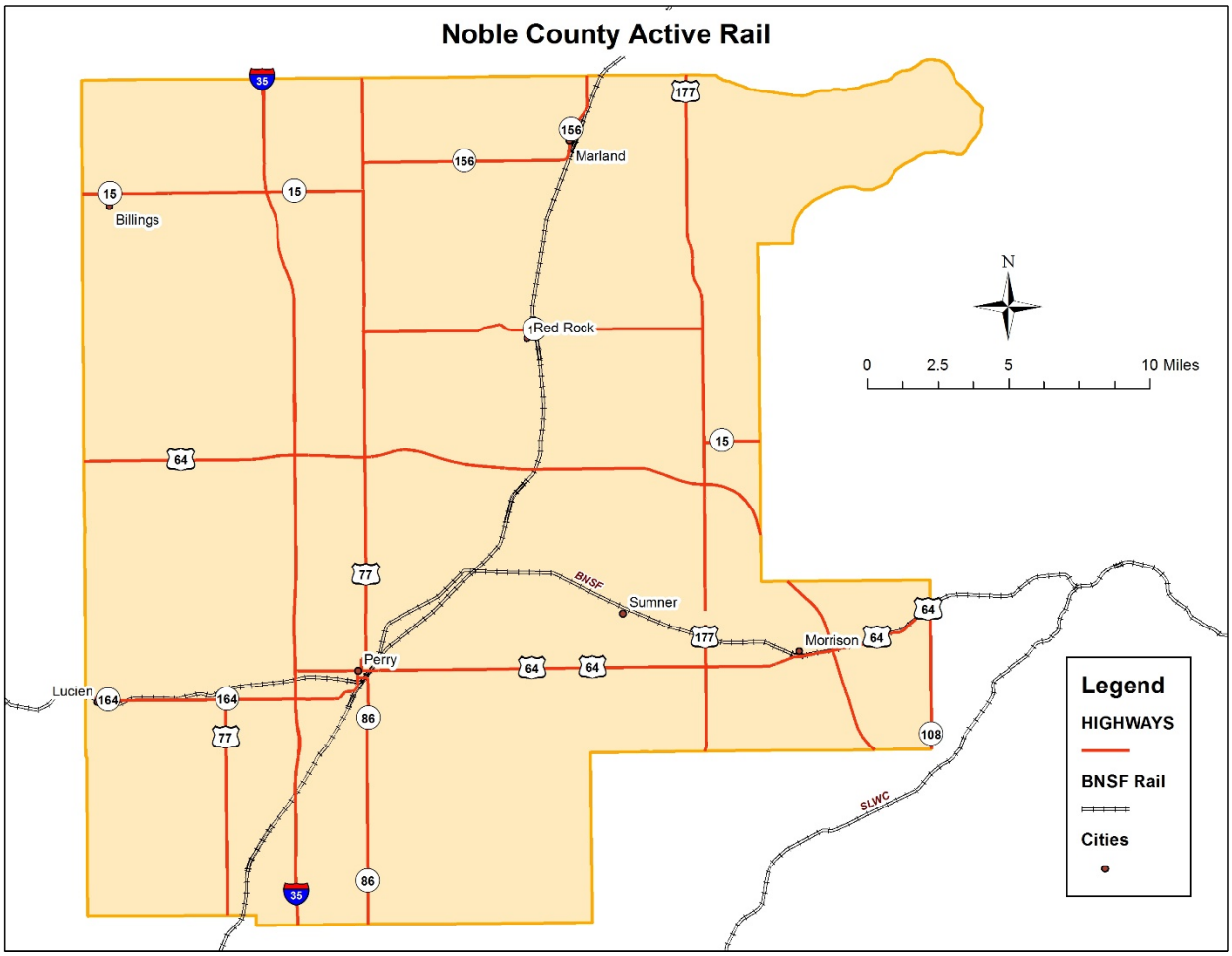
Source: NORTPO/Oklahoma Employment Security Commission

Map 2.10 Noble County Lakes, Rivers and Streams



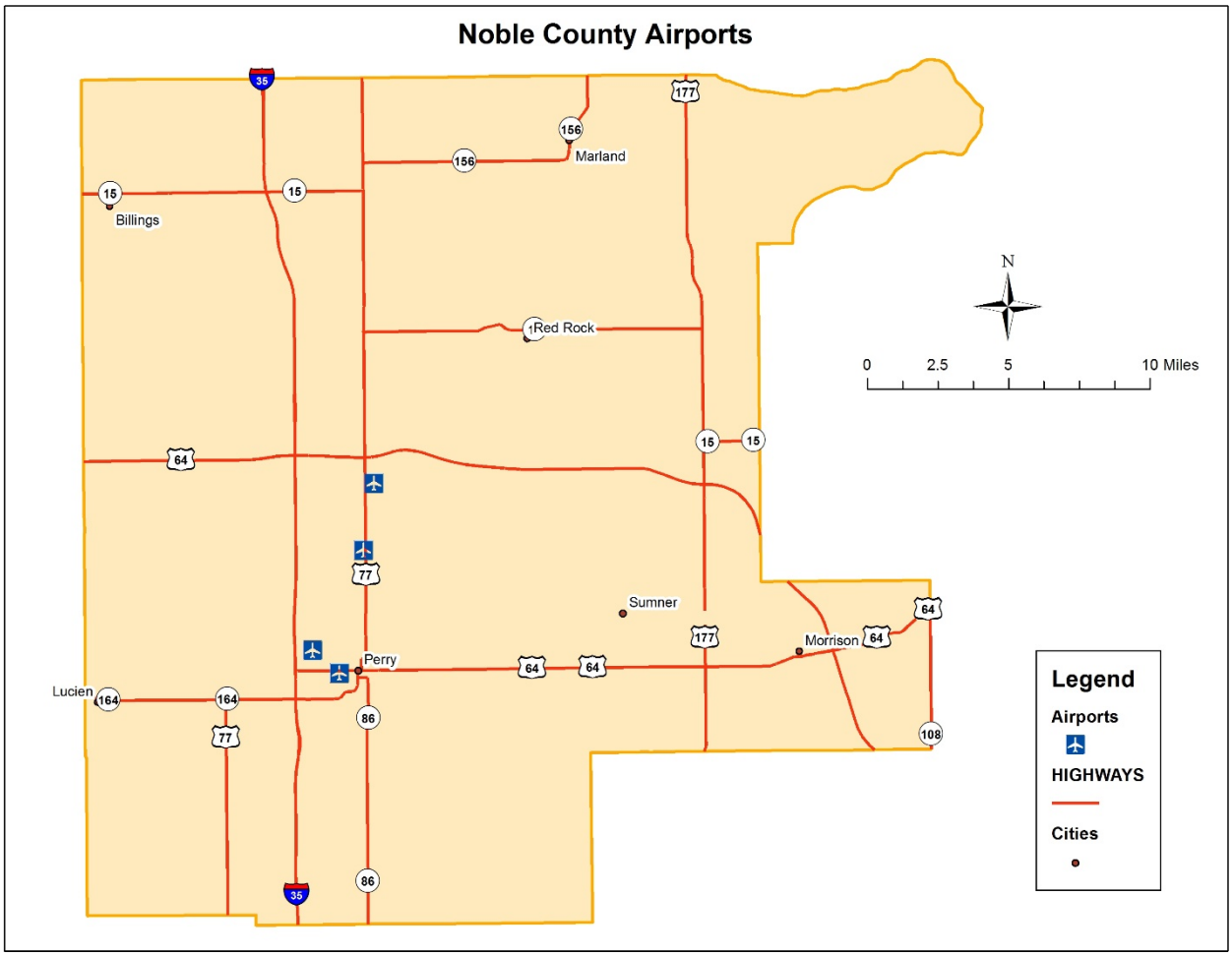
Source: csa.ou.edu

Map 2.11 Noble County Active Rail Lines



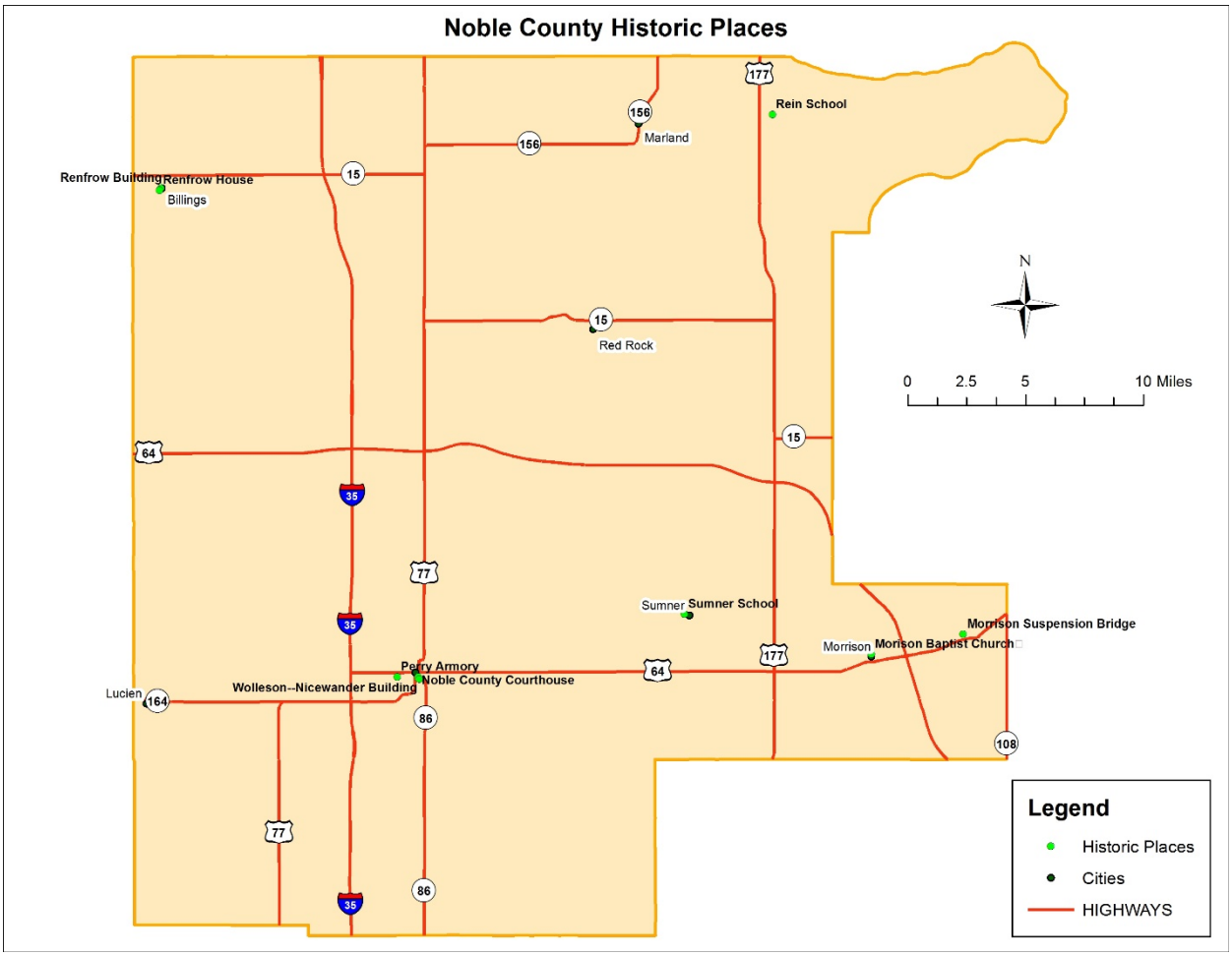
Source: csa.ou.edu

Map 2.12 Noble County Airports



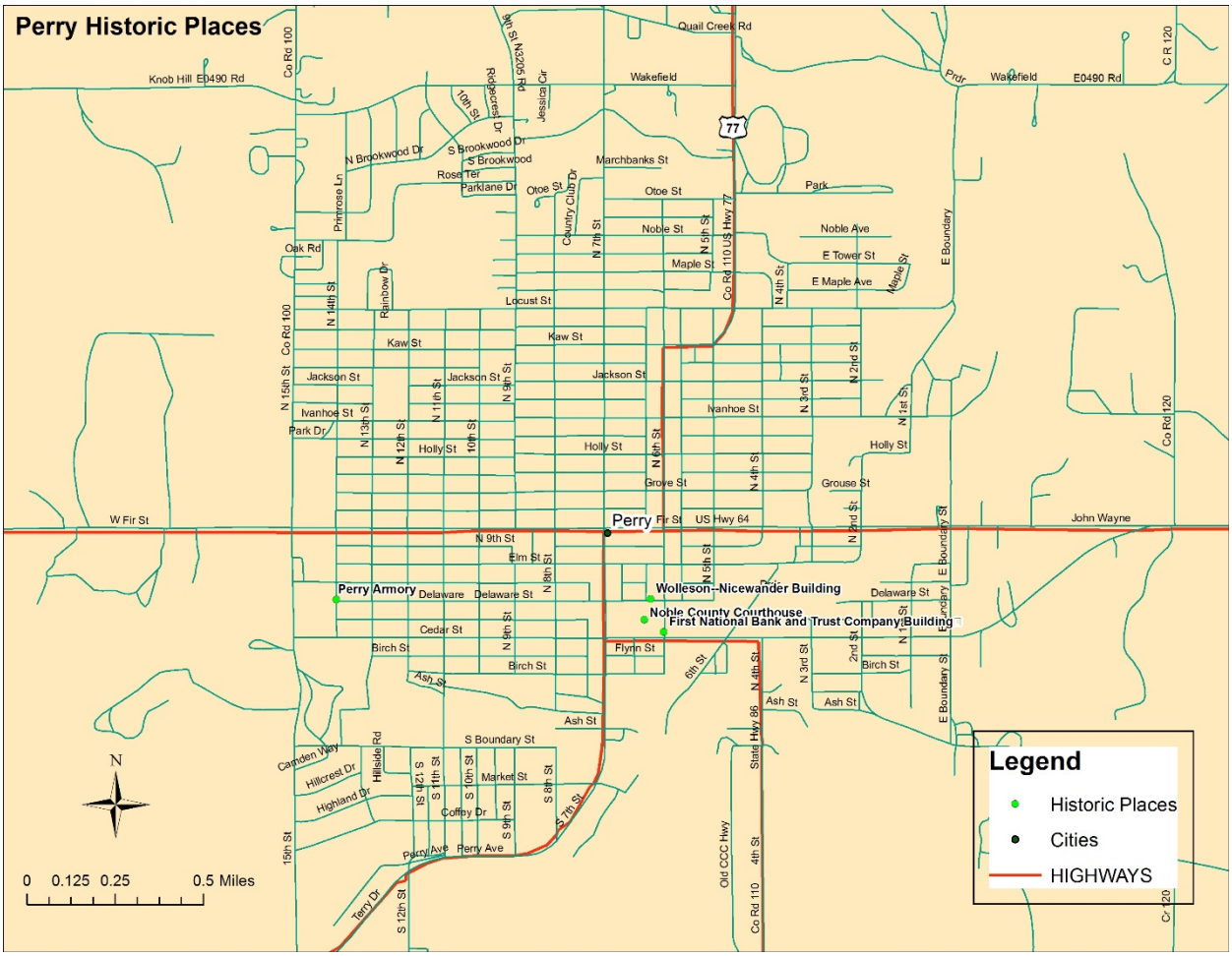
Source: csa.ou.edu

Map 2.13 Noble County Historic Places



Source: NORTPO/Oklahoma Historical Society/State Historic Preservation Office

Map 2.14 Perry Historic Places



Source: NORTPO/Oklahoma Historical Society/State Historic Preservation Office

Table 2.8 Noble County Historic Places

Name	Physical Address	City	Owner	Category	Ownership
First National Bank & Trust Company Building	300 W 6th Street	Perry	Norman Boone	Building	Private
Morrison Baptist Church	202 3rd Street	Morrison	Morrison Baptist Church	Building	Private
Morrison Suspension Bridge	E of Morrison off U.S. 64	Morrison	Noble County	Structure	Public
Noble County Courthouse	Courthouse Square	Perry	Noble County	Building	Public
Perry Armory	Delaware & 14th Street	Perry	Okla. Military Department	Building	Public
Perry Courthouse Square Historic District	Roughly bound by Birch, Elm, 6th and 7th Streets	Perry	Multiple	District	Public & Private
Perry Lake Park	1520 S 4th Street	Perry	City of Perry	District	Public
Rein School	Vicinity of Ponca City off U.S. 177	Ponca City	Dewey Wayne Kelly	Building	Private
Renfrow Building	127 W Main	Billings	J.S. Britton	Building	Private
Renfrow House	Graves St & Broadway	Billings	Ora Miller	Building	Private
Sumner School	County Rd N3300, 2 miles N of US 64	Morrison	David B. Dolezal	Building	Private
Wolleson-Nicewander Building	615 Delaware St	Perry	Norman Boone	Building	Private

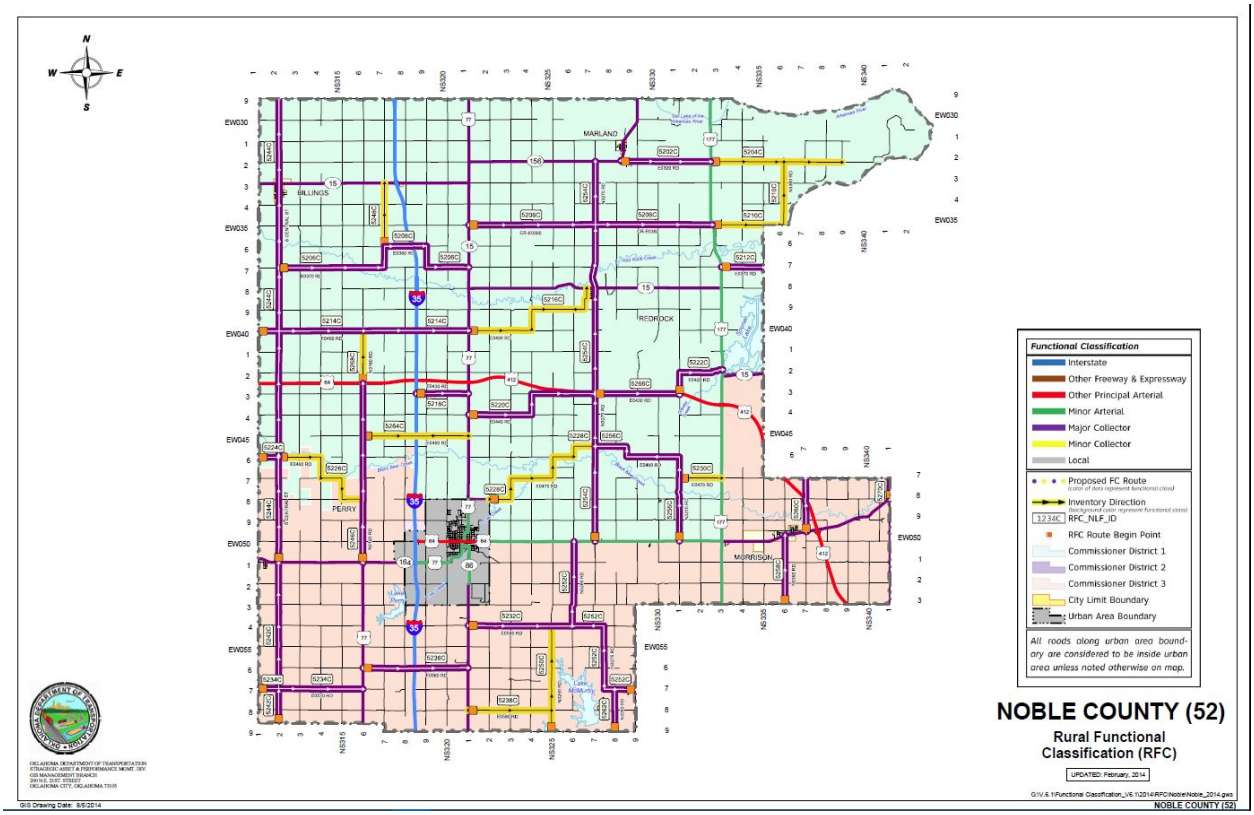
Source: Oklahoma Historical Society/State Historic Preservation Office

Table 2.9 Noble County Population Growth History

Year	Population
1980	11,573
1990	11,045
2000	11,411
2010	11,561
2014	11,519
2015	11,554

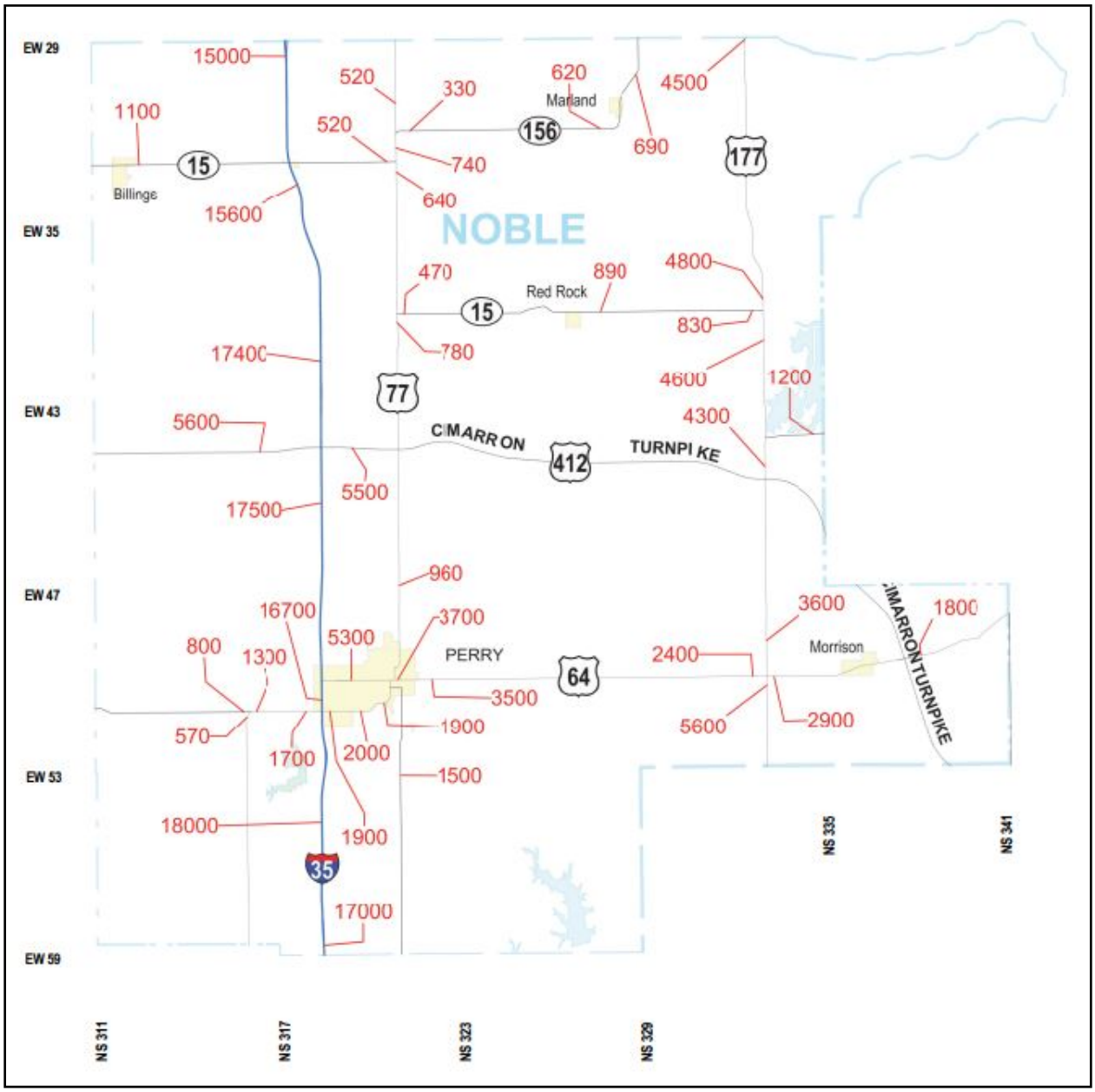
Source: U.S. Census Bureau

Map 2.15 Noble County Functional Classification



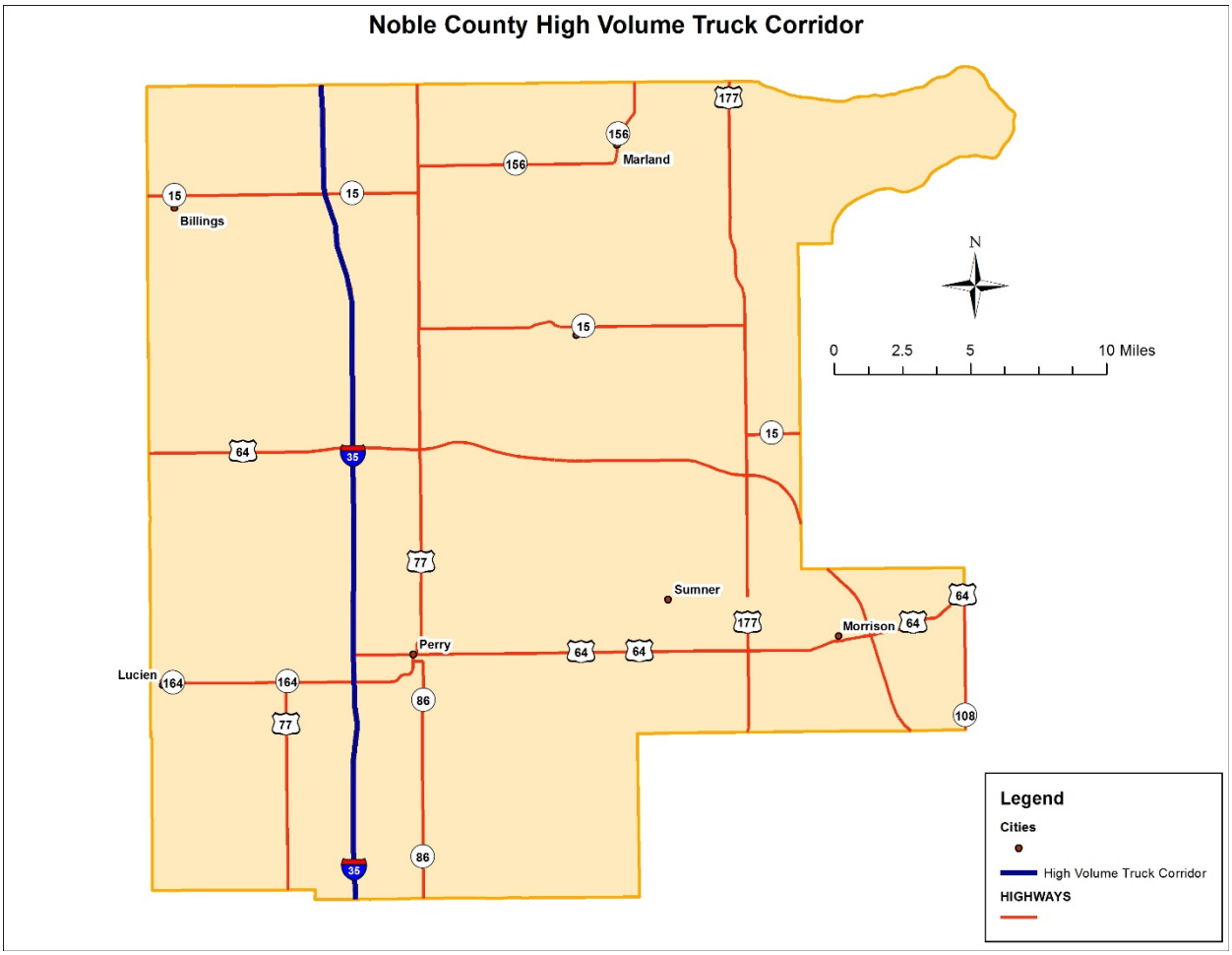
Source: Oklahoma Department of Transportation (ODOT)

Map 2.16 Noble County Average Daily Traffic Count Data 2014



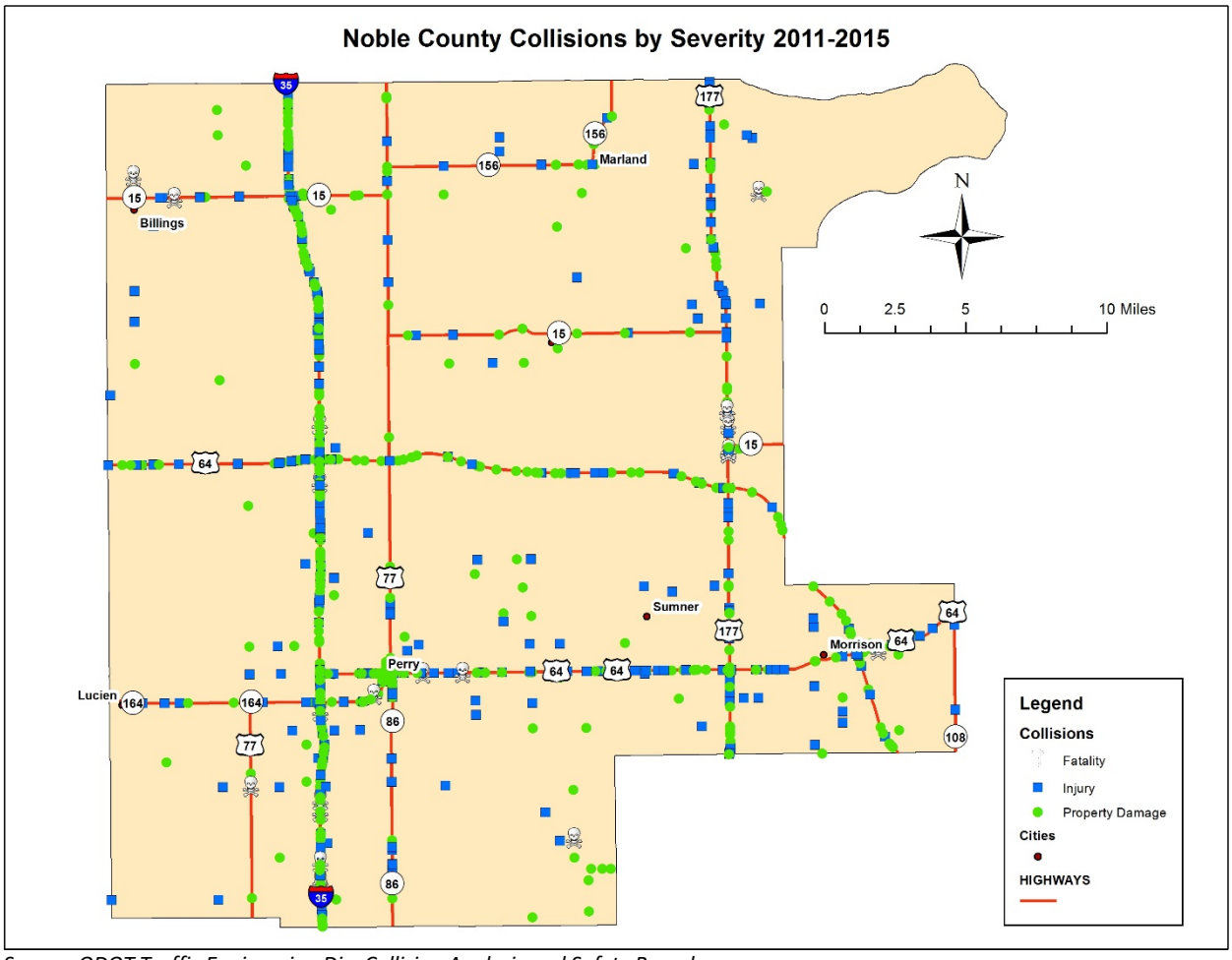
Source: Oklahoma Department of Transportation (ODOT)

Map 2.17 Noble County High Volume Truck Corridors



Source: Oklahoma Department of Transportation (ODOT)

Map 2.18 Noble County Collisions by Severity



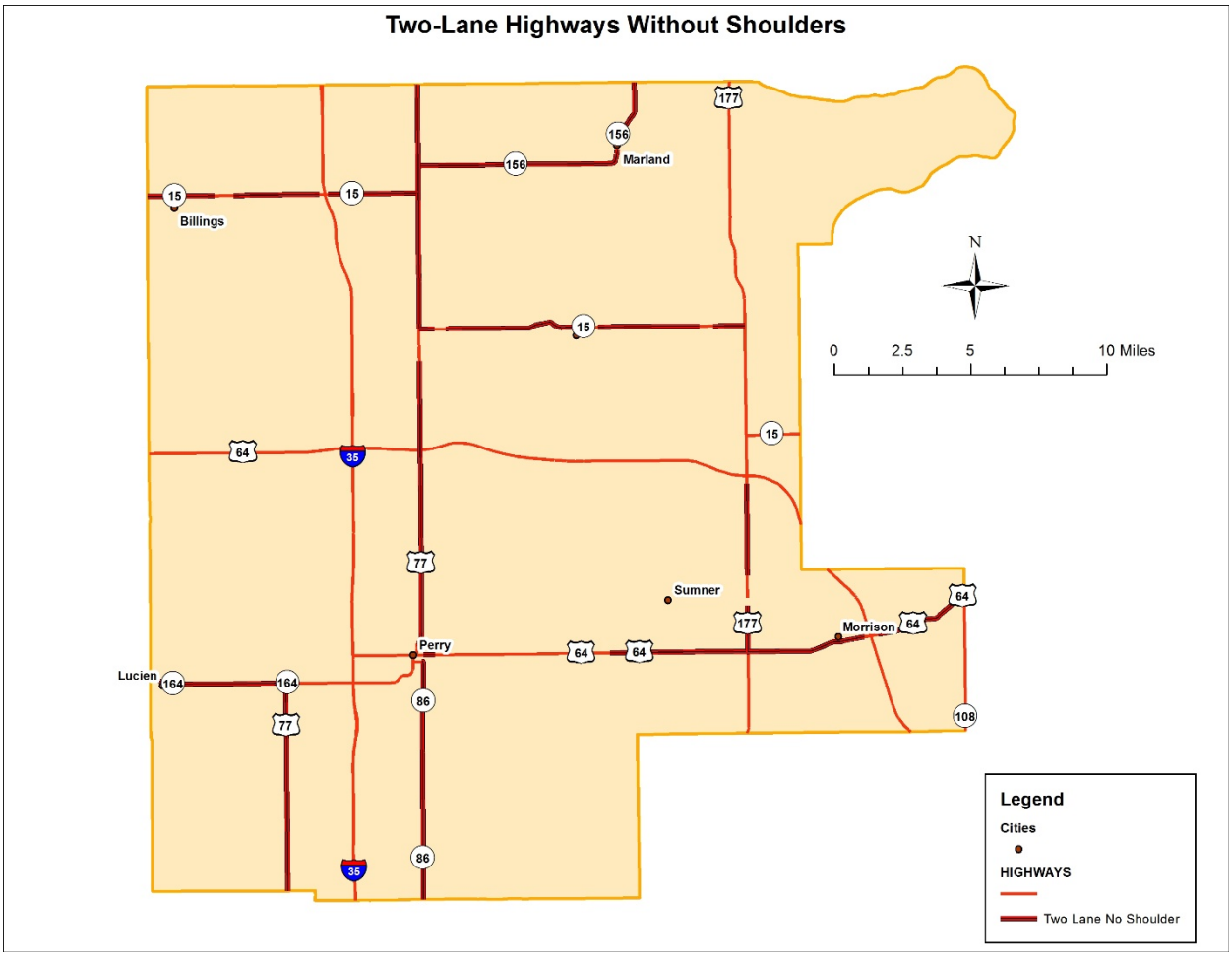
Source: ODOT Traffic Engineering Div. Collision Analysis and Safety Branch

Table 2.10 Noble County Collisions 2011-2015

	Highway Collisions				City Street Collisions				County Road Collisions				Total Collisions			
	Fat.	Inj*	PD	Tot	Fat.	Inj*	PD	Tot	Fat.	Inj*	PD	Tot	Fat.	Inj*	PD	Tot
- Rural -	16	282	430	728					3	60	62	125	19	342	492	853
Billings			1	1											1	1
Marland			1	1		1	1	2						1	2	3
Morrison			2	2		1	4	5						1	6	7
Perry	2	35	113	150		9	36	45					2	44	149	195
Red Rock		1		1		2	2	4						3	2	5
Total:	18	318	543	883		13	43	56	3	60	62	125	21	391	652	1064

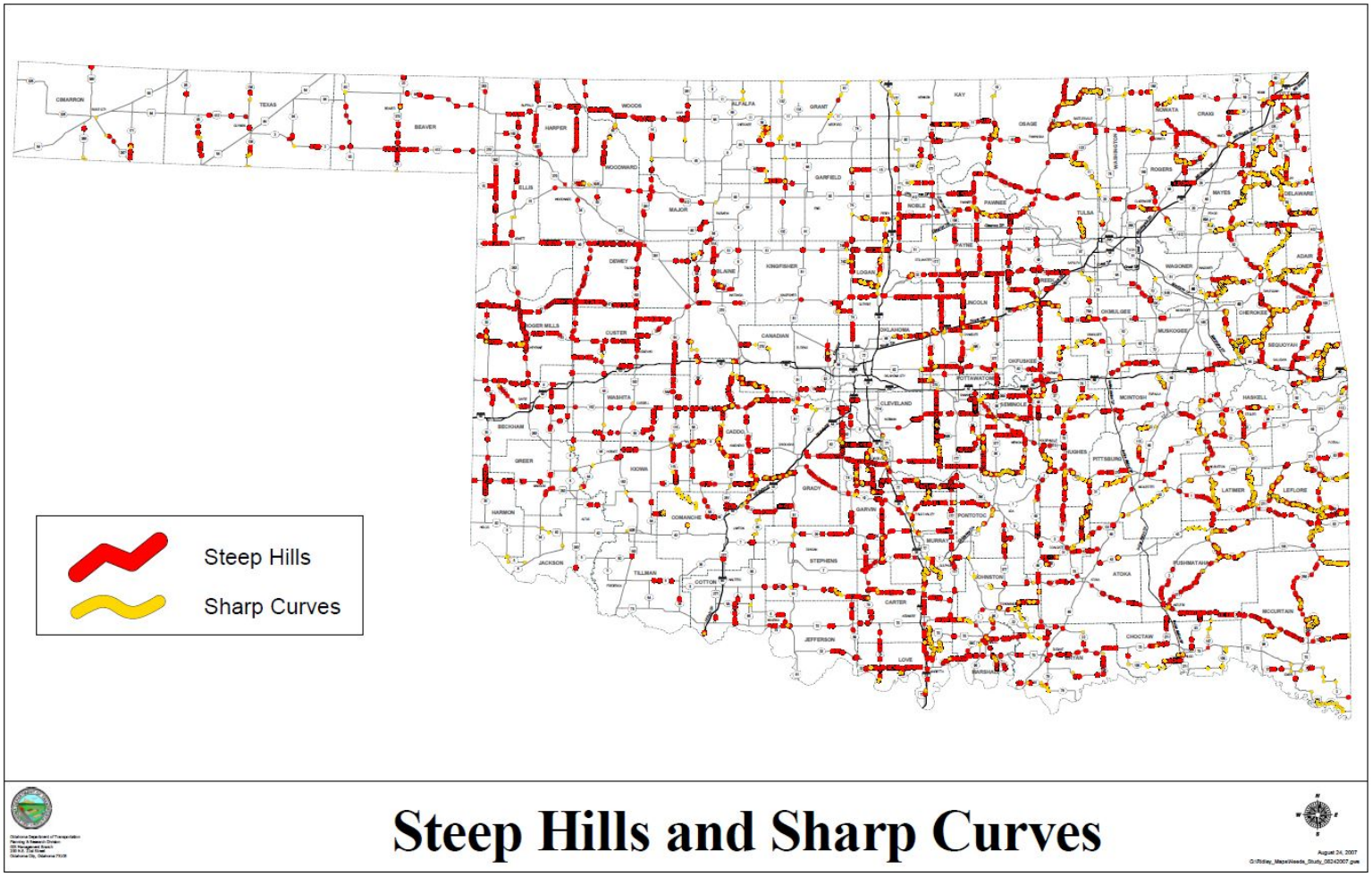
Source: Oklahoma Department of Transportation (ODOT)/Traffic Engineering Div. Collision Analysis and Safety Branch

Map 2.19 Noble County Two-Lane Highways without Shoulders

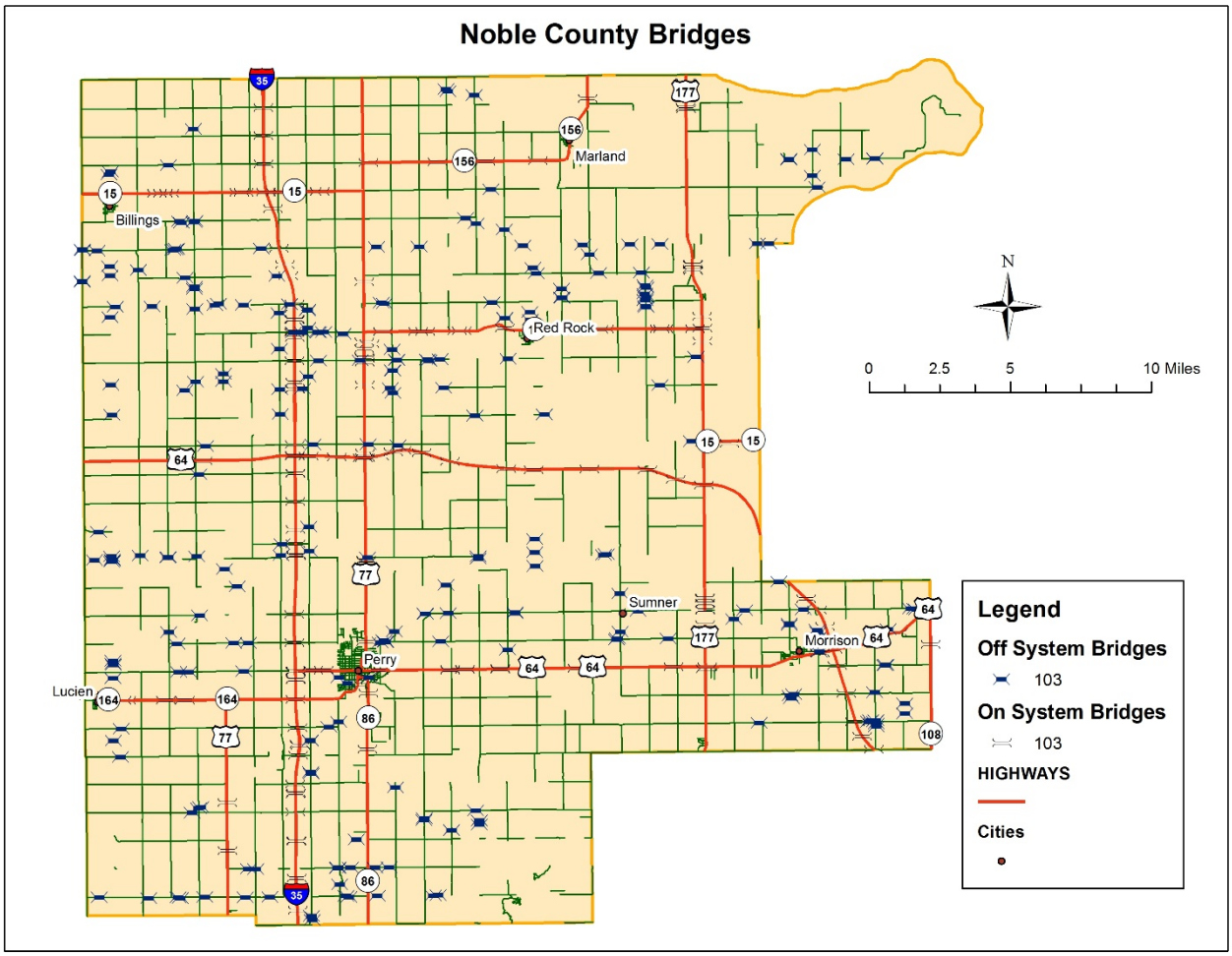


Source: Oklahoma Department of Transportation (ODOT)

Map 2.20 Oklahoma Steep Hills and Sharp Curves



Map 2.21 Noble County Bridges



Source: Oklahoma Department of Transportation (ODOT)

Table 2.11 Noble County Bridge Inventory

Owner	City	Facility	Feature	Location	Year Built	Design	Material
State	Unknown	SH 164	West Warren Creek	.1E of Garfield c/l	2004	Girder	Pre-stressed Conc.
State	Unknown	SH 164	East Warren Creek	1.3 Mi E Garfield Co	1927	Arch-Deck	Concrete
R.R.	Unknown	BNSF R.R.	SH 164 Under	1.5 Mi E Garfield Co	1927	Slab	Concrete
State	Unknown	SH 164	Creek	3 Mi E Garfield Co.	1927	Culvert	Concrete
State	Unknown	SH 164	Creek	3.7 Mi E Garfield Co	1927	Culvert	Concrete
State	Perry	US 64 (Fir St.)	Cow Creek	.7 Mi E Jct US77	1951	Girder	Steel

Owner	City	Facility	Feature	Location	Year Built	Design	Material
State	Unknown	US 64	Elm Creek	3.3 E. Jct US 77	2012	Culvert	Concrete
State	Unknown	US 64	Elm Creek	3.8 Mi E. Jct US 77	2012	Culvert	Concrete
State	Unknown	US 64	Creek	5.1 Mi E Jct US77	1928	Culvert	Concrete
State	Unknown	US 64	Mule Creek	7.8 Mi E Jct US77	1928	Girder	Steel
State	Unknown	US 64	Spring Creek	1.2 Mi W Jct US 177	1965	Culvert	Concrete
State	Unknown	US 64	Creek	.1 Mi E Jct US 177	1927	Culvert	Concrete
State	Unknown	US 64	Long Branch Creek	4.1 Mi E Jct US177	1928	Girder	Steel
State	Unknown	US 64	Oak Creek	7 Mi E Jct US177	1928	Girder	Steel
State	Unknown	US 64	Lion Creek	8.2 Mi E Jct US177	1960	Culvert	Concrete
State	Unknown	US 77	Little Stillwater Creek	2.3 Mi N Logan Co.	1980	Culvert	Concrete
State	Unknown	US 77	Cow Creek	4 Mi N of Logan c/l	1980	Culvert	Concrete
State	Perry	US 77 (7TH St.)	Calf Creek	0.4 Mi S Jct US 64	1956	Culvert	Concrete
State	Perry	US 77	Creek	1.3 Mi N Jct US64	1940	Culvert	Concrete
State	Unknown	US 77	Black Bear Creek	4.2 N Jct US 64	2012	Girder	Pre-stressed Conc.
State	Unknown	US 77	Creek	0.1 Mi N Jct US 412	1931	Culvert	Concrete
State	Unknown	US 77	Creek	2.5 Mi N Jct US 412	1931	Culvert	Concrete
State	Unknown	US 77	Red Rock Creek O'flow	11.0N of US 64	2009	Slab	Conc. Continuous
State	Unknown	US 77	Red Rock Creek O'flow	11.2Mi.N.Jct. US64	2009	Girder	Pre-stressed Conc.
State	Unknown	US 77	Red Rock Creek	11.7Mi.N. Jct. US64	2009	Girder	Pre-stressed Conc.
State	Unknown	US 77 / SH 15	Creek	7.3 Mi S Kay County Line	1927	Culvert	Concrete
State	Unknown	SH 156	Skinny Creek	.1 Mi E of Jct US77	1927	Culvert	Concrete
State	Unknown	SH 156	Creek	2.6 Mi E of Jct US77	1927	Culvert	Concrete
State	Unknown	SH 156	Creek	4.3 Mi E of Jct US77	1927	Culvert	Concrete
State	Unknown	SH 156	Creek	6.2 Mi E of Jct US77	1927	Culvert	Concrete
State	Unknown	SH 156	Dead Man Creek	0.8 Mi S Kay c/l	1925	Girder	Concrete

Owner	City	Facility	Feature	Location	Year Built	Design	Material
State	Unknown	SH 15	Creek	2.8E of Garfield c/l	2010	Girder	Pre-stressed Conc.
State	Unknown	SH 15	Creek	2.8E of Garfield c/l	2010	Girder	Pre-stressed Conc.
State	Unknown	SH 15	Bunch Creek East O'flow	3.1E of Garfield c/l	2010	Culvert	Concrete
State	Unknown	SH 15	Creek	5.5 Mi E Garfield Co	1927	Culvert	Concrete
State	Unknown	SH 15	Creek	5.7 Mi E Garfield Co	1927	Culvert	Concrete
State	Unknown	SH 15	Creek	6.9 Mi E Garfield Co	1927	Culvert	Concrete
State	Unknown	SH 15	Doe Creek	7.1 Mi E Garfield Co	1927	Culvert	Concrete
State	Unknown	SH 15	Creek	8.1 Mi E Garfield Co	1927	Culvert	Concrete
State	Unknown	SH 15	Creek	8.4 Mi E Garfield Co	1927	Culvert	Concrete
State	Unknown	SH 15	Creek	0.7Mi.E. Jct US77	2008	Girder	Pre-stressed Conc.
State	Unknown	SH 15	Creek	1.9 Mi E Jct US77	1918	Culvert	Concrete
State	Unknown	SH 15	Creek	2.2 Mi E Jct US77	1918	Culvert	Concrete
State	Unknown	SH 15	Creek	3.4 Mi E Jct US77	1918	Culvert	Concrete
State	Unknown	SH 15	Creek	3.5 Mi E Jct US77	1918	Culvert	Concrete
State	Unknown	SH 15	Red Rock Creek	5.2 Mi E of Jct US77	1952	Girder	Steel
State	Unknown	SH 15	Legend Creek	6.5E of Jct. US 77	2000	Girder	Pre-stressed Conc.
State	Unknown	SH 15	Creek	8.6 Mi E of Jct US77	1950	Culvert	Concrete
State	Unknown	SH 15	Creek	8.8 Mi E of Jct US77	1950	Culvert	Concrete
State	Unknown	SH 15	Little Crow Creek	1.5 Mi W Jct US 177	1950	Culvert	Concrete
State	Unknown	SH 15	Long Branch Creek	1.4 Mi W of Jct US 177	2000	Girder	Pre-stressed Conc.
State	Unknown	SH 15	Coon Creek	0.25 Mi W of Jct US 177	1951	Culvert	Concrete
State	Unknown	SH 15	Sooner Lake	1 Mi E of Jct US177	1979	Culvert	Concrete
State	Unknown	US 177	Creek	0.1 Mi S Jct US 64	1927	Culvert	Concrete
State	Unknown	US 177	Spring Creek	1.5 Mi N Jct US64	1937	Culvert	Concrete
State	Unknown	US 177	Black Bear Creek S O'flow	2.1N Jct US64/US177	2010	Girder	Pre-stressed Conc.

Owner	City	Facility	Feature	Location	Year Built	Design	Material
State	Unknown	US 177	Black Bear Creek	2.3N Jct US64/US177	2010	Girder	Pre-stressed Conc.
State	Unknown	US 177	Black Bear Creek N O'flow	2.4N Jct US64/US177	2010	Girder	Pre-stressed Conc.
State	Unknown	US 177	Greasy Creek & Lake	7.9 Mi N Jct US 62	1979	Culvert	Concrete
State	Unknown	US 177	BNSF R.R.	0.4 Mi S Jct. SH15	1977	Girder	Pre-stressed Conc.
State	Unknown	US 177	Creek	75' N of Jct SH15 West	1936	Culvert	Concrete
State	Unknown	US 177	Coon Creek	0.5 Mi N Jct SH15 W	1936	Culvert	Concrete
State	Unknown	US 177	Red Rock Creek	2.3 Mi N Jct SH15 W	1997	Girder	Pre-stressed Conc.
State	Unknown	US 177	Red Rock Creek O'flow	2.4 Mi N Jct SH15 W	1997	Girder	Pre-stressed Conc.
State	Unknown	US 177	Salt Fork Arkansas River	8 Mi N Jct SH15 W	1996	Girder	Concrete
State	Unknown	US 177	Salt Fork Arkansas River O'flow	8.3 Mi N Jct SH15 W	1996	Girder	Pre-stressed Conc.
State	Unknown	US 177	Salt Fork Arkansas River O'flow	8.8 Mi N Jct SH15 W	1996	Girder	Pre-stressed Conc.
State	Unknown	SH 86	Creek	6.3 Mi N of Payne Co	1951	Culvert	Concrete
State	Unknown	SH 86	Creek	8.3 Mi N of Payne Co	1951	Culvert	Concrete
State	Perry	SH 86 (CEDAR ST)	Cow Creek	SH 86; 0.5 Mi E Jct US 77	1927	Girder	Steel
State	Unknown	I-35	Double Stock Pass Under	0.5 Mi N Payne c/l	1959	Culvert	Concrete
State	Unknown	I-35	Creek	1.7 Mi N Payne c/l	1959	Culvert	Concrete
State	Unknown	I-35	Co. Rd E0560 (Orlando UND	5.0 Mi S Jct US 77	1959	Slab	Conc. Continuous
State	Unknown	I-35	Co. Rd E0560 (Orlando UND	5.0 Mi S Jct US 77	1959	Slab	Conc. Continuous
State	Unknown	Co. Rd. E0550	I-35 Under	4.0 Mi S Jct US 77	1959	Slab	Conc. Continuous
State	Unknown	I-35	BNSF R.R.	3.3Mi S Jct US 77	1959	Girder	Steel Continuous
State	Unknown	I-35	BNSF R.R.	3.3 Mi S Jct US 77	1959	Girder	Steel Continuous

Owner	City	Facility	Feature	Location	Year Built	Design	Material
State	Unknown	Co. Rd. E0540	I-35 Under	3.0 Mi S Jct US 77	1959	Slab	Conc. Continuous
State	Unknown	Co. Rd. E0530	I-35 Under	2.0 Mi S Jct US 77	1959	Slab	Conc. Continuous
State	Unknown	I-35	Cow Creek	6.4 Mi N Payne c/l	1959	Girder	Steel Continuous
State	Unknown	I-35	Cow Creek	6.4 Mi N Payne c/l	1959	Girder	Steel Continuous
State	Unknown	Co. Rd. E0520	I-35 Under	1.5 Mi S Jct US 77	1959	Slab	Conc. Continuous
State	Perry	US 77	I-35 Under	US 77; @ Jct I-35	1961	Slab	Conc. Continuous
State	Perry	I-35	BNSF R.R.	0.7 Mi N Jct US 77	1961	Girder	Steel
State	Perry	I-35	BNSF R.R.	0.7 Mi N Jct US 77	1961	Girder	Steel
State	Perry	I-35	US 64 (Fir St.) Under	1.0 Mi N Jct US 77	1961	Slab	Conc. Continuous
State	Unknown	Co. Rd. E0490	I-35 Under	2.0 Mi N Jct US 77	1961	Slab	Conc. Continuous
State	Unknown	Co. Rd. E0480	I-35 Under	3 Mi N Jct US 77	1961	Slab	Conc. Continuous
State	Unknown	I-35	Black Bear Creek	5.1 Mi N Jct US 77	1961	Girder	Steel Continuous
State	Unknown	I-35	Black Bear Creek	5.1 Mi N Jct US 77	1961	Girder	Steel Continuous
State	Unknown	Co. Rd. E0455	I-35 Under	5.5 Mi N Jct US 77	1961	Slab	Conc. Continuous
State	Unknown	Co. Rd. E0450	I-35 Under	2.6 Mi S Jct US 412	1961	Slab	Conc. Continuous
State	Unknown	Co. Rd. E0440	I-35 Under	1.6 Mi S Jct US 412	1960	Slab	Conc. Continuous
State	Unknown	I-35	E0430 Under	0.6 Mi S Jct US 412	1960	Slab	Conc. Continuous
State	Unknown	I-35	E0430 Under	0.6 Mi S Jct US 412	1960	Slab	Conc. Continuous
State	Unknown	US 64 / US 412	I-35 Under	8.6 Mi N Jct US 77	1971	Girder	Pre-stressed Conc.
State	Unknown	US 412	I-35 Under	8.6 Mi N Jct US 77	1973	Girder	Pre-stressed Conc.
State	Unknown	Co. Rd. E0420	I-35 Under	0.4 Mi N Jct US 412	1960	Slab	Conc. Continuous
State	Unknown	I-35	Garber Rd. Under	2.4 Mi N Jct US 412	1960	Slab	Conc. Continuous

Owner	City	Facility	Feature	Location	Year Built	Design	Material
State	Unknown	I-35	Garber Rd. Under	2.4 Mi N Jct US 412	1960	Slab	Conc. Continuous
State	Unknown	I-35	Creek	2.8 Mi N Jct US 412	1960	Culvert	Concrete
State	Unknown	Co. Rd. E0390	I-35 Under	3.4 Mi N Jct US 412	1960	Slab	Conc. Continuous
State	Unknown	I-35	Hackberry Creek	4.2 Mi N Jct US 412	1960	Culvert	Concrete
State	Unknown	Co. Rd. E0380	I-35 Under	4.4 Mi N Jct US 412	1960	Slab	Conc. Continuous
State	Unknown	I-35	Creek	4.5 Mi N Jct US 412	1960	Culvert	Concrete
State	Unknown	I-35 NB	Red Rock Creek O'flow	21.5N Payne c/l	2008	Girder	Pre-stressed Conc.
State	Unknown	I-35 SB	Red Rock Creek O'flow	21.5N Payne c/l	2008	Girder	Pre-stressed Conc.
State	Unknown	I-35	Red Rock Creek	5.4 Mi N Jct US 412	1960	Girder	Steel Continuous
State	Unknown	I-35	Red Rock Creek	5.4 Mi N Jct US 412	1960	Girder	Steel Continuous
State	Unknown	I-35	Red Rock CR O'flow & Rd	4.5 Mi N Jct US 412	1960	Culvert	Concrete
State	Unknown	Co. Rd. E0360	I-35 Under	3.1 Mi S Jct SH 15	1960	Slab	Conc. Continuous
State	Unknown	I-35	Doe Creek	2.7 Mi S Jct SH 15	1960	Culvert	Concrete
State	Unknown	Co. Rd. E0350	I-35 Under	2.0 Mi S Jct SH 15	1960	Slab	Conc. Continuous
State	Unknown	I-35	Creek	0.6 Mi S Jct SH 15	1960	Culvert	Concrete
State	Unknown	SH 15	I-35 Under	SH 15; @ Jct I-35	1960	Slab	Conc. Continuous
State	Unknown	Co. Rd. E0320	I-35 Under	1.0 Mi N Jct SH 15	1960	Slab	Conc. Continuous
State	Unknown	Co. Rd. E0310	I-35 Under	2.0 Mi N Jct SH 15	1960	Slab	Conc. Continuous
State	Unknown	Co. Rd. E0300	I-35 Under	3.0 Mi N of Jct SH 15	1960	Slab	Conc. Continuous
State	Unknown	US 64 / US 412	Hackberry Creek	4.2 Mi E Garfield Co	1969	Culvert	Concrete
State	Unknown	SH 108	Lion Creek	1.2 Mi S of Jct US 64	1962	Culvert	Concrete
State	Unknown	US 177	Cimarron TP Gate Under	6.4 Mi N US 64	1975	Girder	Pre-stressed Conc.
OTA	Unknown	Co. Rd. N3190	Cimarron TP Under	.5 Mi E I-35	1973	Girder	Pre-stressed Conc.

Owner	City	Facility	Feature	Location	Year Built	Design	Material
OTA	Unknown	Co. Rd. N3200	Cimarron TP Under	1 Mi W Jct US 77	1973	Girder	Pre-stressed Conc.
OTA	Unknown	Cimarron TP	Creek	T.P. NO 2.40	1973	Culvert	Concrete
OTA	Unknown	Cimarron TP	US 77 Under	7.6 Mi N US 64	1975	Girder	Pre-stressed Conc.
OTA	Unknown	Cimarron TP	Creek	T.P. NO 2.98	1973	Culvert	Concrete
OTA	Unknown	Co. Rd. N3220	Cimarron TP Under	1 Mi E Jct US 77	1973	Girder	Pre-stressed Conc.
OTA	Unknown	Cimarron TP	Creek	1.5 Mi NE Jct US 77	1973	Girder	Pre-stressed Conc.
OTA	Unknown	Co. Rd. N3230	Cimarron TP Under	2 Mi E Jct US 77	1973	Girder	Pre-stressed Conc.
OTA	Unknown	Co. Rd. N3240	Cimarron TP Under	3 Mi E Jct US 77	1973	Girder	Pre-stressed Conc.
OTA	Unknown	Co. Rd. N3260	Cimarron TP Under	.2 Mi S SH 5	1973	Girder	Pre-stressed Conc.
OTA	Unknown	Cimarron TP	Co. Rd. N3270 & BNSF R.R	.2 Mi S SH 11	1973	Girder	Pre-stressed Conc.
OTA	Unknown	Cimarron TP	Co. Rd. Under	T.P NO 10.4	1973	Culvert	Concrete
OTA	Unknown	Co. Rd. N3310	Cimarron TP Under	2 Mi W US 177	1973	Girder	Pre-stressed Conc.
OTA	Unknown	Co. Rd. N3320	Cimarron TP Under	1 Mi E US 177	1973	Girder	Pre-stressed Conc.
OTA	Unknown	Cimarron TP	Creek	2 Mi N Morrison	1973	Girder	Pre-stressed Conc.
OTA	Unknown	N3370	Cimarron TP Under	1.6 Mi N SH 64	1973	Girder	Pre-stressed Conc.
OTA	Unknown	Cimarron TP	Black Bear Creek	.8 Mi N Jct SH 64	1973	Girder	Pre-stressed Conc.
OTA	Unknown	Cimarron TP	Co. Rd. E0490 Under	T.P. NO 22.02	1973	Culvert	Concrete
OTA	Unknown	Cimarron TP	US 64 & BNSF R.R.	16.6 Mi E SH 86	1975	Girder	Pre-stressed Conc.
OTA	Unknown	Co. Rd. E0500	Cimarron TP Under	1.3 Mi E Morrison	1973	Girder	Pre-stressed Conc.
OTA	Unknown	Co. Rd. E0510	Cimarron TP Under	2 Mi N County Line	1973	Girder	Pre-stressed Conc.
OTA	Unknown	Co. Rd. E0520	Cimarron TP Under	1 Mi N County Line	1973	Girder	Pre-stressed Conc.
OTA	Unknown	Cimarron TP	Oak Creek	.5 Mi N County Line	1973	Girder	Pre-stressed Conc.

Owner	City	Facility	Feature	Location	Year Built	Design	Material
OTA	Unknown	Co. Rd. E0530	Cimarron TP Under	.1 Mi N County Line	1973	Girder	Pre-stressed Conc.
County	Unknown	E0320	Bunch Creek	1.2N 2.2E of Billings	1948	Girder	Steel
County	Unknown	E0320	Creek	.6S 7.8E of Marland	1994	Girder	Steel
County	Unknown	E0320	Creek	.6S 10E of Marland	1950	Girder	Steel
County	Unknown	E0320	Creek	.6S 11E of Marland	2001	Girder	Steel
County	Unknown	E0330	Creek	1S 4.5E of SH156/US77	1947	Girder	Steel
County	Unknown	E0330	Creek	5.2N 10.2E of Red Rock	1918	Girder	Steel
County	Unknown	E0340	Bunch Creek	2.6E .8S of Billings	1992	Girder	Pre-stressed Conc.
County	Unknown	E0340	Creek	.8S 3.1E of Billings	1954	Girder	Steel
County	Unknown	E0340	Creek	2S 3.6E of SH156/US77	1950	Girder	Steel
County	Unknown	E0350	Creek	.2N .2W of Billings	1994	Girder	Steel
County	Unknown	E0350	Bunch Creek Trib.	1.8S 2.2E of Billings	2006	Culvert	Concrete
County	Unknown	E0350	Bunch Creek	1.8S 2.3E of Billings	2006	Girder	Pre-stressed Conc.
County	Unknown	E0350	Grassy Creek	.1W 2S of I-35/ SH15	1948	Girder	Steel
County	Unknown	E0350	Creek	2N .5E of Ceres	1958	Culvert	Concrete
County	Unknown	E0350	Skinny Creek	2N 2E of Ceres	1958	Culvert	Concrete
County	Unknown	E0350	Creek	3.2N .3W of Red Rock	1930	Girder	Steel
County	Unknown	E0350	Creek	3.2N 1.8E of Red Rock	1958	Culvert	Concrete
County	Unknown	E0350	Bird Creek	3.2N 3.5E of Red Rock	1957	Culvert	Concrete
County	Unknown	E0350	Creek	3.2N 4.5E of Red Rock	1956	Culvert	Concrete
County	Unknown	E0350	Houston Creek	3N 2.4E of US177/SH15	1955	Culvert	Concrete
County	Unknown	E0350	Creek	3N 2.5E of SH15/US177	1955	Culvert	Concrete
County	Unknown	E0360	Bunch Creek	2.6S 2.9E of Billings	1930	Girder	Steel

Owner	City	Facility	Feature	Location	Year Built	Design	Material
County	Unknown	E0360	Doe Creek	1W 1N 2.1W of Red Rock	1995	Girder	Steel
County	Unknown	E0360	Creek	2.2N .1E of Red Rock	1962	Girder	Steel
County	Unknown	E0360	Creek	2.2N 2.3E of Red Rock	1938	Girder	Steel
County	Unknown	IRR E0360	Bird Creek	2.2N 3.8E of Red Rock	2011	Girder	Steel
County	Unknown	E0370	Creek	3.8S .3E of Billings	2011	Culvert	Steel
County	Unknown	E0370	Monkey Creek	7.5W of Ceres	1919	Slab	Concrete
County	Unknown	E0370	Red Rock Creek	5.2 W of Ceres	2000	Girder	Pre-stressed Conc.
County	Unknown	E0370	Creek	4.2W of Ceres	1924	Girder	Steel
County	Unknown	E0370	Doe Creek	2.6W of Ceres	1918	Truss-Thru	Steel
County	Unknown	E0370	Creek	.6E of Ceres	2000	Girder	Steel
County	Unknown	E0370	Skinny Creek	1.2N 1.5W of Red Rock	1969	Girder	Steel
County	Unknown	E0380	Creek	1S 2.5W of Ceres	1960	Culvert	Concrete
County	Unknown	E0380	Hackberry Creek	1S 2.3W of Ceres	1997	Girder	Steel
County	Unknown	E0380	Hackberry Creek	1.7E 1S of Ceres	1997	Girder	Steel
County	Unknown	E0380	Hackberry Creek	1S 1.4W of Ceres	1936	Girder	Steel
County	Unknown	E0380	Red Rock Creek	0.7W US77/SH15 SW Ceres	2010	Girder	Pre-stressed Conc.
County	Unknown	E0390	Creek	2S 0.7W Ceres	1952	Slab	Concrete
County	Unknown	E0390	Creek	1S .2W of SH77/SH15	2003	Girder	Steel Continuous
County	Unknown	E0390	Creek	2S 1.1E of Ceres	1939	Girder	Steel
County	Unknown	E0390	Creek	2S, 2.3E of Ceres	2008	Girder	Pre-stressed Conc.
County	Unknown	E0390	Cottonwood Creek	2S, 2.7E of Ceres	2008	Girder	Pre-stressed Conc.
County	Unknown	E0390	Creek	2S 5.2E of Ceres	1995	Girder	Steel
County	Unknown	E0390	Coon Creek	4.5N .2W of US117, CIM TP	1927	Girder	Wood or Timber
County	Unknown	E0400	Dean Creek	3.5W 2.8N of I35/CM TPK	1937	Slab	Concrete
County	Unknown	E0400	Creek	2.4N .5E Jct. US64/I35	1937	Slab	Concrete
County	Unknown	E0400	Creek	2.3W 3S of Ceres	1925	Girder	Steel
County	Unknown	E0400	Coon Creek	4.5N .2W of US117/CIM TP	1927	Culvert	Steel
County	Unknown	E0400	Long Branch	3.5N 1.5W of CM	1956	Girder	Steel

Owner	City	Facility	Feature	Location	Year Built	Design	Material
			Creek	TPK/US177			
County	Unknown	IRR E0410	Cottonwood Creek	2.8S 2.1W of Red Rock	2011	Girder	Steel
County	Unknown	IRR E0410	Squaw Creek	3S .3E of Red Rock	2011	Girder	Steel
County	Unknown	E0420	Hackberry Creek	3.1W .5N of I35/CM TPK	1952	Girder	Steel
County	Unknown	E0420	Creek	.5N .6E of CM TPK/I-35	1936	Slab	Conc. Continuous
County	Unknown	E0420	Creek	.5N .1E of CM TPK/US77	1952	Girder	Steel
County	Unknown	E0420	Creek	8.2N 4W of US64/US177	1978	Culvert	Concrete
County	Unknown	E0450	Creek	7W 2.5S of I-35/ CM TPK	1941	Girder	Steel
County	Unknown	E0455	Creek	.4W 3S of I-35/ CM TPK	1988	Girder	Steel
County	Unknown	E0460	Creek	.3W 5N .3E of Lucien	1955	Girder	Steel
County	Unknown	E0460	Turkey Creek	.7S 5N of Lucien	2007	Girder	Steel
County	Unknown	E0460	Creek	3.5S .1E of CM TPK/US77	1960	Culvert	Concrete
County	Unknown	E0460	Creek	3W 4N .5W of US64/US177	2000	Girder	Steel
County	Unknown	E0470	Creek	4N .4E SH164 & US77	1994	Girder	Steel Continuous
County	Unknown	E0470	Cow Creek	6.1W 1N .3W of Sumner	1909	Truss-Thru	Steel
County	Unknown	E0480	Warren Creek	3.9E 3N of Lucien	1983	Girder	Concrete
County	Unknown	E0480	Cow Creek	7Mi W of Sumner	1937	Truss-Thru	Steel
County	Unknown	E0480	Elm Creek	3N 5.4E of I-35 & US77	1954	Girder	Steel
County	Unknown	E0480	Willow Creek	3.8W of Sumner	2003	Girder	Pre-stressed Conc.
County	Unknown	E0480	Mule Creek	.6E of Sumner	1958	Girder	Steel
County	Unknown	E0480	Otoe Creek	4.2E of Sumner	1960	Girder	Steel
County	Unknown	E0480	Creek	6.4E of Sumner	1930	Slab	Concrete
County	Unknown	E0480	Black Bear Creek	.75W SH108/.75N US64	2004	Girder	Pre-stressed Conc.
County	Unknown	E0480	Black Bear Creek	.1N .5W of Lela	1952	Girder	Steel
County	Unknown	E0480	Creek	.1N .1W of Lela	1928	Arch-Deck	Concrete
County	Unknown	E0490	Creek	2.7E 2N .3E of	2001	Girder	Pre-stressed

Owner	City	Facility	Feature	Location	Year Built	Design	Material
				Lucien			Conc.
County	Unknown	E0490	Creek	2.2W 2N of I-35 & US77	1935	Arch-Deck	Concrete
County	Unknown	E0490	Creek	2N 1.7W of I-35 & US77	1937	Slab	Conc. Continuous
County	Unknown	E0490	Creek	3.1W 2N of I-35 & US77	1990	Culvert	Concrete
County	Unknown	E0490	Cow Creek	3.2E 2N of I-35 & US77	1990	Girder	Concrete
County	Unknown	E0490	Mule Creek	.1W 1S .1W of Sumner	1992	Girder	Concrete
County	Unknown	E0490	Creek	1.6E 1S of Sumner	1938	Slab	Concrete
County	Unknown	E0500	Creek	1N4.2W of I-35 & US77	2008	Girder	Steel
County	Unknown	E0500	Creek	1N, 3.8W of I-35 & US77	2008	Girder	Steel
County	Unknown	E0500	Creek	1N 1.9W of I-35 & US77	1936	Slab	Concrete
County	Unknown	E0500	Oak Creek	6.4E of US177 & US64	1910	Truss-Thru	Steel
CITY	Perry	CEDAR St.	Calf Creek	1.5E of I-35 on Cedar St	1998	Girder	Wood or Timber
CITY	Perry	CEDAR St.	Creek	100' East of SH-86 Jct	1923	Culvert	Concrete
County	Unknown	E0510	Long Branch Creek	1S 3.1E of US64 & US177	1989	Girder	Pre-stressed Conc.
County	Unknown	E0520	East Warren Creek	.7E 1S .4E of Lucien	1990	Girder	Steel
County	Unknown	E0520	Cow Creek	1.1E 1S I35/US77	1933	Slab	Concrete
County	Unknown	E0520	Long Branch Creek	2S 1.9E of US64 & US177	1984	Girder	Steel
County	Unknown	E0520	Creek	2S 5.8E of US64 & US177	1998	Girder	Steel
County	Unknown	E0520	Oak Creek	6E 2.1S of US177/US64	1997	Girder	Pre-stressed Conc.
County	Unknown	E0530	East Warren Creek	.7E 2S .3E of Lucien	1991	Girder	Steel
County	Unknown	E0550	Cow Creek	3.7W 4S of I-35 & US77	1940	Girder	Steel
County	Unknown	E0550	Creek	4S 6.3E of US77/I-35	2011	Girder	Steel
County	Unknown	E0560	Creek	1.5E 5S .6E I35 & US77	1990	Girder	Steel

Owner	City	Facility	Feature	Location	Year Built	Design	Material
County	Unknown	E0570	Stillwater Creek	2N 0.8E of Orlando	1945	Girder	Steel
County	Unknown	E0570	Creek	6.8S 1.W of Perry	1993	Girder	Steel
County	Unknown	E0570	Creek	6.75S, .6E of HWY 86/77	2007	Girder	Steel
County	Unknown	E0570	Creek	6S 2.7E of US77 & I-35	1989	Culvert	Concrete
County	Unknown	E0570	Creek	.2E 6.8S .8E of Perry	1942	Girder	Steel
County	Unknown	E0580	West Beaver Creek	.4W 7S .4E of Lucien	1985	Girder	Steel
County	Unknown	E0580	East Beaver Creek	1N 1.7W of Orlando	1996	Girder	Steel
County	Unknown	E0580	Creek	2.3W 7S of I-35 & US77	1948	Slab	Conc. Continuous
R.R.	Unknown	BNSF R.R.	E0580 Under	7S .6E of 77&164	1942	Girder	Steel
County	Unknown	E0580	Stillwater Creek	1W 7S of I-35 & US77	1924	Girder	Steel
County	Unknown	E0580	Creek	.2E 7.7S .7W of Perry	1995	Girder	Steel
County	Unknown	E0580	Creek	7S 2.9E of US77/ I-35	1973	Culvert	Concrete
County	Unknown	E0580	Creek	7.75S, 2.3W of HWY 86/77	2007	Girder	Steel
County	Unknown	E0580	Creek	7.75S, 2.6W of HWY 86/77	2007	Girder	Steel
County	Unknown	N3110	Red Rock Creek	1.8S .9E of Billings	1993	Girder	Pre-stressed Conc.
County	Unknown	E3110	Creek	.65W, 2.1 of Billings	2009	Girder	Steel
County	Unknown	N3120	Creek	1N of Billings	1993	Girder	Steel
County	Unknown	N3120	Creek	.1E 2.1S of Billings	1966	Culvert	Concrete
County	Unknown	N3120	Red Rock Creek	.1E 2.7S of Billings	1966	Girder	Pre-stressed Conc.
County	Unknown	N3120	Creek	4.4S Billings	1915	Slab	Conc. Continuous
County	Unknown	5244C	Creek	.1E 6.5S of Billings	1967	Culvert	Concrete
County	Unknown	N3120	Black Bear Creek	0.7E 5.2N of Lucien	1962	Girder	Steel Continuous
County	Unknown	N3120	Turkey Creek	.7E 4.9N of Lucien	1936	Slab	Concrete
County	Unknown	N3120	Creek	.7E 1.4N of	1939	Slab	Conc.

Owner	City	Facility	Feature	Location	Year Built	Design	Material
				Lucien			Continuous
County	Unknown	E3120	Warren Creek	.7E .3N of Lucien	2006	Girder	Pre-stressed Conc.
County	Unknown	N3120	East Warren Creek	.7M. E, .8M. N of Lucien	2011	Girder	Pre-stressed Conc.
County	Unknown	N3120	Creek	.7E 1.5S of Lucien	1941	Slab	Concrete
County	Unknown	N3130	Red Rock Creek	2.5S 1E of Billings	2009	Tee Beam	Pre-stressed Conc.
County	Unknown	N3130	Black Bear Creek	5.1N 1.7E of Lucien	1914	Truss-Thru	Steel
County	Unknown	N3140	Black Bear Creek	4.5W 3.4S Jct I-35/US64	2002	Girder	Pre-stressed Conc.
County	Unknown	N3140	Warren Creek	2.7E 2.5N of Lucien	1980	Girder	Steel
County	Unknown	N3150	Creek	2.5 Mi W of I-35 & SH15	1952	Culvert	Concrete
County	Unknown	N3150	Creek	2.5W 1.1S of I-35 & SH15	1951	Girder	Steel
County	Unknown	N3150	Red Rock Creek	3.2E 3.S of Billings	1990	Girder	Concrete
County	Unknown	N3150	Red Rock Creek	2.5W 3.4S of I-35/SH15	1990	Girder	Pre-stressed Conc.
County	Unknown	N3150	Dean Creek	3.5W 2.3N of I35/CM TPK	1937	Slab	Conc. Continuous
County	Unknown	N3150	Creek	3.5W 3.4S of I-35/US64	1930	Girder	Steel
County	Unknown	N3150	Cow Creek	3.5W 3.8Sof I-35/U.S77Jct	2006	Girder	Steel
County	Unknown	N3160	Dean Creek	2.5W 3N of I-35/CM TPK	1994	Girder	Steel
County	Unknown	N3160	Hackberry Creek	2.5W 2.7N of I35/CM TPK	1940	Girder	Steel
County	Unknown	N3160	Black Bear Creek	2.5W 4.5N of I-35/US77	1981	Tee Beam	Pre-stressed Conc.
County	Unknown	N3170	Stillwater Creek	1.5W 6S of I-35/ US77	1989	Girder	Steel
County	Unknown	N3180	Red Rock Creek	3W .3S of Ceres	1910	Truss-Thru	Steel
County	Unknown	N3180	Hackberry Creek	.5W 4N of I-35/ Cim. TPK	1938	Girder	Steel
County	Unknown	N3180	Creek	.5W 1.7N of I-35/Cim. TPK	1949	Girder	Steel
County	Unknown	N3180	Creek	.5W 3.S of I-35/ C.TPK	1946	Girder	Steel

Owner	City	Facility	Feature	Location	Year Built	Design	Material
County	Unknown	N3190	Red Rock Creek	2W .2S of Ceres	1999	Girder	Pre-stressed Conc.
County	Unknown	N3190	Hackberry Creek	2W .9S of Ceres	2012	Girder	Steel
County	Unknown	N3190	Creek	2W 2.5S of Ceres	1958	Girder	Steel
County	Unknown	N3190	Creek	2.4S 2W of CM TPK/US77	1938	Slab	Conc. Continuous
County	Unknown	N3190	Black Bear Creek	3.2S 2W of CM TPK/US77	1984	Girder	Pre-stressed Conc.
County	Unknown	N3190	Cow Creek	1.5S, .5E of Perry	2010	Girder	Pre-stressed Conc.
County	Unknown	N3190	Creek	.5E 2.7S Jct I-35/ US77	2006	Girder	Steel
County	Unknown	N3190	Creek	.5E 7.8S of Jct I-35/US77	2003	Girder	Steel
County	Unknown	N3200	Cow Creek	1.5E .7S of I-35/ US77	1983	Girder	Pre-stressed Conc.
County	Unknown	N3200	Creek	1.5E 6.6S of I-35 /US77	1989	Culvert	Concrete
CITY	Perry	11TH ST	Calf Creek	.3S of Perry	1940	Slab	Concrete
County	Unknown	N3215	Creek	3E 1.9N of I-35/ US77	1950	Girder	Steel
County	Unknown	N3220	Red Rock Creek	1E 1.7 S of Ceres	1910	Truss-Thru	Steel
County	Unknown	N3220	Creek	1E, 2.4S of Ceres	2011	Culvert	Steel
County	Unknown	N3220	Creek	1E 3.2S of Ceres	1951	Girder	Steel
County	Unknown	N3220	Cow Creek	8.1W .7S of Sumner	1988	Girder	Steel
County	Unknown	N3220	North Stillwater Creek	3.5E 3.1S of I-35/ US77	1926	Girder	Steel
County	Unknown	N3230	N. Stillwater Creek	4.5E 4.3S of I-35/ US77	2007	Girder	Steel
County	Unknown	N3240	Bird's Nest Creek	3W 2.5N of US177/SH156	2003	Girder	Steel
County	Unknown	N3240	North Stillwater Creek	9W 5.6S of US177/US64	1965	Girder	Steel
County	Unknown	N3250	Bird's Nest Creek	4W 2.5N of US77/SH156	1931	Girder	Steel
County	Unknown	N3250	Creek	4W 2.2S of SH156/US77	1947	Girder	Steel
County	Unknown	N3250	Creek	5.1W 2N of Sumner	1973	Culvert	Concrete
County	Unknown	N3250	Black Bear Creek	5.1W 1.9N of Sumner	1987	Tee Beam	Pre-stressed Conc.
County	Unknown	5250C	Creek	4.4S 6.5E of US77/I-35	1921	Girder	Steel

Owner	City	Facility	Feature	Location	Year Built	Design	Material
County	Unknown	N3250	N. Stillwater Creek	8W 5.5S of US177/US64	1990	Girder	Steel
County	Unknown	N3260	Creek	5E 2.5S of US7/SH156	1947	Girder	Steel Continuous
County	Unknown	IRR N3260	Skinny Creek	.2N 1.W .4N of Red Rock	1992	Girder	Pre-stressed Conc.
County	Unknown	N3260	Willow Creek	4.1W 1.3S of Sumner	1948	Girder	Steel
County	Unknown	N3270	Creek	2.3N of Red Rock	1937	Culvert	Concrete
County	Unknown	N3270	Creek	.2E .7N of Red Rock	1938	Culvert	Concrete
County	Unknown	N3270	Red Rock Creek	.2E .4N of Red Rock	1976	Girder	Pre-stressed Conc.
County	Unknown	N3270	Creek	3.1W 2.4N of Sumner	1964	Culvert	Concrete
County	Unknown	N3270	Black Bear Creek	3.1W 2.2N of Sumner	1964	Girder	Steel Continuous
County	Unknown	N3270	Creek	3.1W 1.7N of Sumner	1966	Girder	Concrete
County	Unknown	N3280	Red Rock Creek	.4W 5.2S of Marland	1997	Girder	Pre-stressed Conc.
County	Unknown	N3290	Creek	2.6N HWY 15,4W of 177 Jct	1951	Girder	Steel
County	Unknown	N3300	Black Bear Creek	.1W .6N of Sumner	1983	Girder	Steel
County	Unknown	N3300	Creek	.1W .7S of Sumner	1953	Girder	Steel
County	Unknown	N3310	Red Rock Creek	.2N 4.1E 1.5N of Red Rock	1999	Tee Beam	Pre-stressed Conc.
County	Unknown	N3310	Creek	4E 1.2N of Red Rock	2006	Girder	Steel
County	Unknown	N3310	Long Branch Creek	4E 1.1N of Red Rock	1947	Girder	Steel
County	Unknown	N3310	Long Branch Creek	4E .8N of Red Rock	2003	Girder	Pre-stressed Conc.
County	Unknown	N3310	Black Bear Creek	.9E .3N of Sumner	1991	Girder	Pre-stressed Conc.
County	Unknown	N3440	Black Bear Creek	1E 1.7N of US177/US64	1919	Truss-Thru	Steel
County	Unknown	N3360	Creek	3.E 1.5N of US177/US64	1954	Girder	Steel
County	Unknown	N3360	Black Bear Creek	3E 1.4N of US177/US64	1960	Girder	Steel

Owner	City	Facility	Feature	Location	Year Built	Design	Material
County	Unknown	NS3360	Long Branch Creek	3Mi.E 1.1Mi.S US-177/US64	2008	Girder	Pre-stressed Conc.
County	Unknown	N3370	Creek	.6S 8.7E .6S of Marland	2000	Girder	Steel
County	Unknown	N3370	Black Bear Creek	.8E .8N of Morrison	1996	Girder	Pre-stressed Conc.
County	Unknown	N3370	Creek	4E .1N of US177/US64	1928	Girder	Steel
County	Unknown	N3370	Long Branch Creek	.6E .2N of Morrison	1931	Girder	Steel
R.R.	Unknown	BNSF R.R.	N3370 Under	.6E .2N of Morrison	1950	Box Bm. Multi	Pre-stressed Conc.
County	Unknown	N3390	Oak Creek	6E 1.1S of US177/US64	1982	Girder	Steel
County	Unknown	N3395	Black Bear Creek	6.5E 1.2N of US177/US64	1985	Girder	Steel Continuous

Source: Oklahoma Department of Transportation (ODOT)

Table 2.12 Noble County Structurally Deficient and Functionally Obsolete Bridges

Carries	Crosses	Location	Design	Year Built	SD/ FO
E0500	Oak Creek	6.4E of US177 & US64	Steel Truss - Thru	1910	SD
N3220	Red Rock Creek	1E 1.7 S of Ceres	Steel Truss - Thru	1910	SD
N3130	Black Bear Creek	5.1N 1.7E of Lucien	Steel Truss - Thru	1914	SD
E0330	Creek	5.2N 10.2E of Red Rock	Steel Stringer/Multi-beam or girder	1918	SD
E0370	Monkey Creek	7.5W of Ceres	Concrete Slab (3 spans)	1919	SD
E0330	Creek	5.2N 10.2E of Red Rock	Steel Stringer/Multi-beam or girder	1918	SD
E0580	Stillwater Creek	1W 7S of I-35 & US77	Steel Stringer/Multi-beam or girder	1924	FO
E0400	Creek	2.3W 3S of Ceres	Steel Stringer/Multi-beam or girder	1925	FO
N3220	North Stillwater Creek	3.5E 3.1S of I-35/US77	Steel Stringer/Multi-beam or girder	1926	SD
SH 86 (Cedar St.)	Cow Creek	SH 86; 0.5 Mi E Jct US 77	Steel Stringer/Multi-beam or girder (3 spans)	1927	SD
N3370	Creek	4E .1N of US177/US64	Steel Stringer/Multi-beam or girder	1928	SD
N3150	Creek	3.5W 3.4S of I-35/US64	Steel Stringer/Multi-beam or girder	1930	FO
E0350	Creek	3.2N .3W of Red Rock	Steel Stringer/Multi-beam or girder	1930	SD

Carries	Crosses	Location	Design	Year Built	SD/ FO
E0480	Creek	6.4E of Sumner	Concrete Slab	1930	SD
E0360	Bunch Creek	2.6S 2.9E of Billings	Steel Stringer/Multi-beam or girder (2 spans)	1930	SD
N3370	Long Branch Creek	.6E .2N of Morrison	Steel Stringer/Multi-beam or girder (2 spans)	1931	SD
E0520	Cow Creek	1.1E 1S I35/US77	Concrete Slab	1933	FO
E0490	Creek	2.2W 2N of I-35 & US77	Concrete Arch - Deck	1935	FO
E0360	Creek	2.2N 2.3E of Red Rock	Steel Stringer/Multi-beam or girder	1938	FO
N3160	Hackberry Creek	2.5W 2.7N of I35/CM TPK	Steel Stringer/Multi-beam or girder	1940	SD
E0550	Cow Creek	3.7W 4S of I-35 & US77	Steel Stringer/Multi-beam or girder	1940	FO
E0450	Creek	7W 2.5S of I-35/CM TPK	Steel Stringer/Multi-beam or girder	1941	SD
E0570	Stillwater Creek	2N 0.8E of Orlando	Steel Stringer/Multi-beam or girder	1945	FO
N3180	Creek	.5W 3.S of I35/C.TPK	Steel Stringer/Multi-beam or girder	1946	FO
N3250	Creek	4W 2.2S of SH156/US77	Steel Stringer/Multi-beam or girder	1947	SD
N3310	Long Branch Creek	4E 1.1N of Red Rock	Steel Stringer/Multi-beam or girder	1947	SD
E0330	Creek	1S 4.5E of SH156/US77	Steel Stringer/Multi-beam or girder	1947	SD
N3260	Willow Creek	4.1W 1.3S of Sumner	Steel Stringer/Multi-beam or girder	1948	SD
E0580	Creek	2.3W 7S of I-35 & US77	Concrete Slab (2 spans)	1948	SD
E0320	Bunch Creek	1.2N 2.2E of Billings	Steel Stringer/Multi-beam or girder	1948	SD
E0350	Grassy Creek	.1W 2S of I-35/SH15	Steel Stringer/Multi-beam or girder	1948	SD
N3180	Creek	.5W 1.7N of I-35/CM TPK	Steel Stringer/Multi-beam or girder	1949	FO
E0340	Creek	2S 3.6E of SH156/US77	Steel Stringer/Multi-beam or girder	1950	SD
N3290	Creek	2.6N HWY 15,4W of 177 Jct	Steel Stringer/Multi-beam or girder	1951	SD
N3220	Creek	1E 3.2S of Ceres	Steel Stringer/Multi-beam or girder	1951	SD
E0420	Creek	.5N .1E of CM TPK/US77	Steel Stringer/Multi-beam or girder (2 spans)	1952	SD
E0390	Creek	2S 0.7W Ceres	Concrete Slab	1952	FO

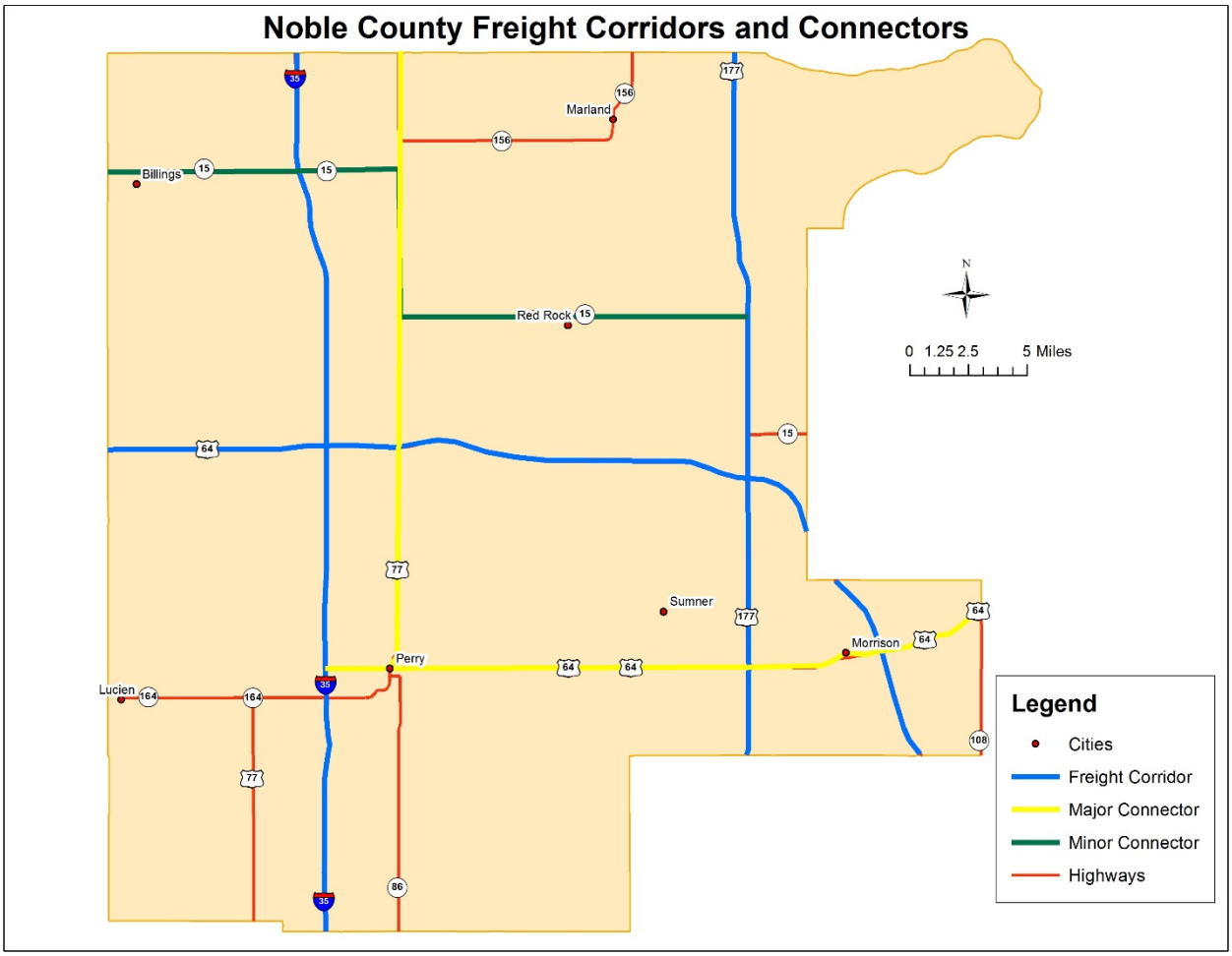
Carries	Crosses	Location	Design	Year Built	SD/ FO
E0480	Black Bear Creek	.1N .5W of Lela	Steel Stringer/Multi-beam or girder	1952	SD
E0340	Creek	.8S 3.1E of Billings	Steel Stringer/Multi-beam or girder	1954	SD
E0480	Elm Creek	3N 5.4E of I-35 & US77	Steel Stringer/Multi-beam or girder	1954	FO
N3360	Creek	3.E 1.5N of US177/US64	Steel Stringer/Multi-beam or girder (2 spans)	1954	SD
E0460	Creek	.3W 5N .3E of Lucien	Steel Stringer/Multi-beam or girder (2 spans)	1955	FO
Co. Rd. E0550	I-35 Under	4.0 Mi S Jct US 77	Concrete Slab (4 spans)	1959	FO
Co. Rd. E0540	I-35 Under	3.0 Mi S Jct US 77	Concrete Slab (4 spans)	1959	FO
Co. Rd. E0530	I-35 Under	2.0 Mi S Jct US 77	Concrete Slab (4 spans)	1959	FO
Co. Rd. E0520	I-35 Under	1.5 Mi S Jct US 77	Concrete Slab (4 spans)	1959	FO
E0480	Otoe Creek	4.2E of Sumner	Steel Stringer/Multi-beam or girder	1960	FO
I-35	Red Rock CR O'flow & Rd	4.5 Mi N Jct US 412	Concrete Culvert (3 spans)	1960	FO
I-35	Garber Rd. Under	2.4 Mi N Jct US 412	Concrete Slab (3 spans)	1960	FO
I-35	Garber Rd. Under	2.4 Mi N Jct US 412	Concrete Slab (3 spans)	1960	FO
N3360	Black Bear Creek	3E 1.4N of US177/US64	Steel Stringer/Multi-beam or girder (3 spans)	1960	SD
Co. Rd. E0380	I-35 Under	4.4 Mi N Jct US 412	Concrete Slab (4 spans)	1960	FO
Co. Rd. E0350	I-35 Under	2.0 Mi S Jct SH 15	Concrete Slab (4 spans)	1960	FO
Co. Rd. E0320	I-35 Under	1.0 Mi N Jct SH 15	Concrete Slab (4 spans)	1960	FO
Co. Rd. E0310	I-35 Under	2.0 Mi N Jct SH 15	Concrete Slab (4 spans)	1960	FO
Co. Rd. E0300	I-35 Under	3.0 Mi N of Jct SH 15	Concrete Slab (4 spans)	1960	FO
SH 15	I-35 Under	SH 15; @ Jct I-35	Concrete Slab (4 spans)	1960	SD
Co. Rd. E0360	I-35 Under	3.1 Mi S Jct SH 15	Concrete Slab (4 spans)	1960	FO
Co. Rd. E0480	I-35 Under	3 Mi N Jct US 77	Concrete Slab (4 spans)	1961	FO
Co. Rd. E0455	I-35 Under	5.5 Mi N Jct US 77	Concrete Slab (4 spans)	1961	FO
US 77	I-35 Under	US 77; @ Jct I-35	Concrete Slab (4 spans)	1961	SD
E0360	Creek	2.2N .1E of Red Rock	Steel Stringer/Multi-beam or girder	1962	SD
Co. Rd. N3190	Cimarron TP Under	.5 Mi E I-35	Prestressed Stringer/Multi-beam or girder (2 spans)	1973	FO
Co. Rd. N3200	Cimarron TP Under	1 Mi W Jct US 77	Prestressed Stringer/Multi-beam or girder (2 spans)	1973	FO
Co. Rd. E0500	Cimarron TP Under	1.3 Mi S E Morrison	Prestressed Stringer/Multi-beam or girder (2 spans)	1973	FO
Co. Rd. N3220	Cimarron TP Under	1 Mi E Jct US 77	Prestressed Stringer/Multi-beam or girder (2 spans)	1973	FO

Carries	Crosses	Location	Design	Year Built	SD/ FO
Co. Rd. N3230	Cimarron TP Under	2 Mi S E Jct US 77	Prestressed Stringer/Multi-beam or girder (2 spans)	1973	FO
Co. Rd. E0510	Cimarron TP Under	2 Mi S N County Line	Prestressed Stringer/Multi-beam or girder (2 spans)	1973	FO
Co. Rd. E0520	Cimarron TP Under	1 Mi N County Line	Prestressed Stringer/Multi-beam or girder (2 spans)	1973	FO
Co. Rd. N3240	Cimarron TP Under	3 Mi S E Jct US 77	Prestressed Stringer/Multi-beam or girder (2 spans)	1973	FO
Co. Rd. N3260	Cimarron TP Under	.2 Mi S SH 5	Prestressed Stringer/Multi-beam or girder (2 spans)	1973	FO
Co. Rd. N3310	Cimarron TP Under	2 Mi S W US 177	Prestressed Stringer/Multi-beam or girder (2 spans)	1973	FO
Co. Rd. N3320	Cimarron TP Under	1 Mi E US 177	Prestressed Stringer/Multi-beam or girder (2 spans)	1973	FO
Co. Rd. E0530	Cimarron TP Under	.1 Mi N County Line	Prestressed Stringer/Multi-beam or girder (2 spans)	1973	FO
US 177	Cimarron TP Gate Under	6.4 Mi N US 64	Prestressed Stringer/Multi-beam or girder (3 spans)	1975	FO

Source: Federal Highway Administration/National Bridges Inventory

Map 2.22 National Highway Freight Network, Oklahoma

Map 2.23 Noble County Freight Corridors and Connectors



Source: Oklahoma Department of Transportation (ODOT)

Table 2.13 Cherokee Strip Transit Ridership and Revenue for Noble County

Noble County	Oct. 2013-Sept. 2014	Oct. 2014-Sept. 2015
Trips	19,515	19,967
Passenger Miles	205,162.20	210,380.50
Revenue Miles	206,099.50	198,604.50

Source: Cherokee Strip Transit

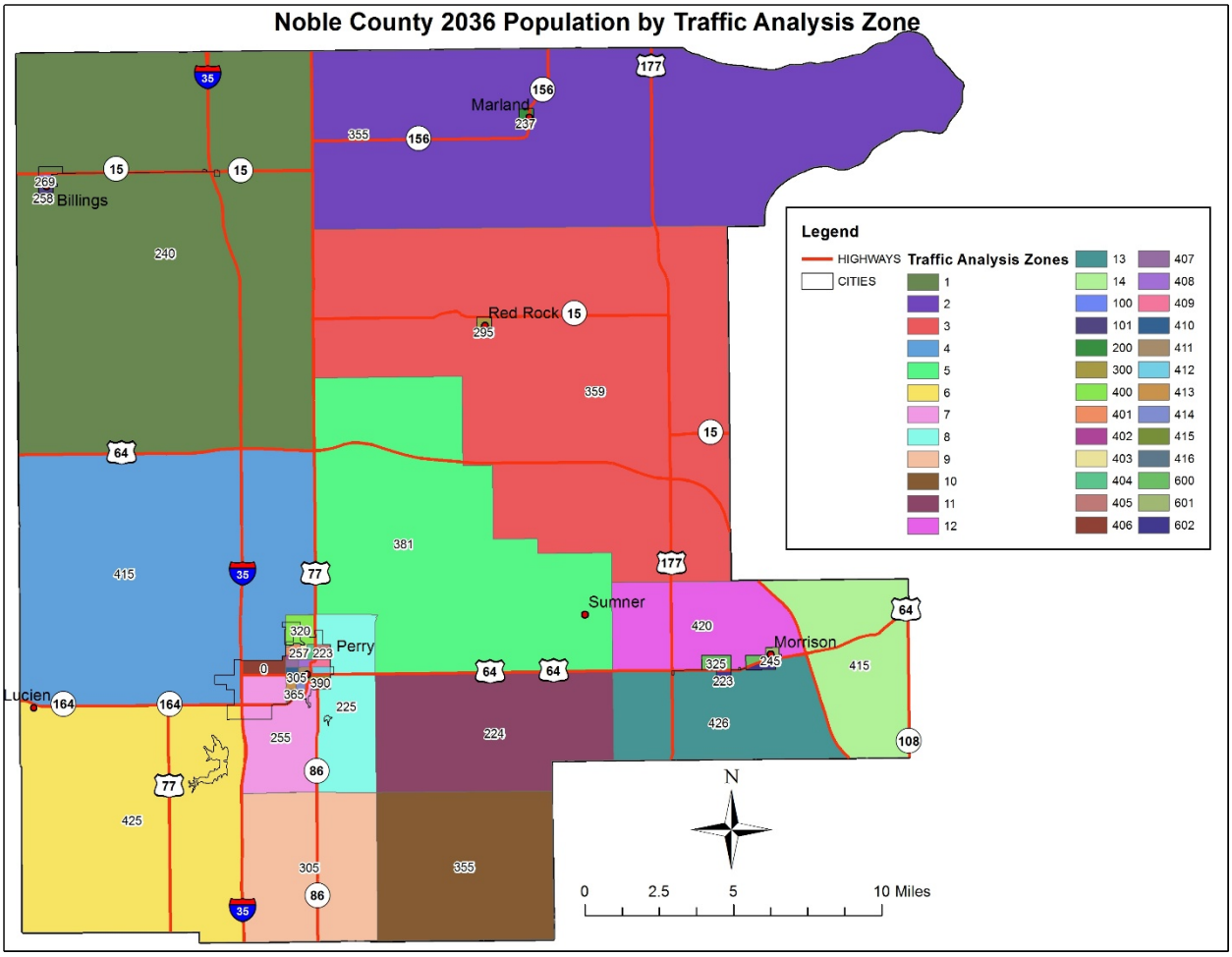
Appendix H-3
Chapter 3

Table 3.1 Noble County 2036 Population & Employment Projection

Noble	1% Per Decade	Civilian Labor Force
1980	11,573	
1990	11,045	
2000	11,411	4,915
2010	11,561	5,340
2015	11,554	5,497
2020	11,677	5,393
2030	11,793	5,447
2035	11,911	5,502
2040	11,971	5,530

Source: NORTPO

Map 3.1 Noble County 2036 Population Projection by TAZ



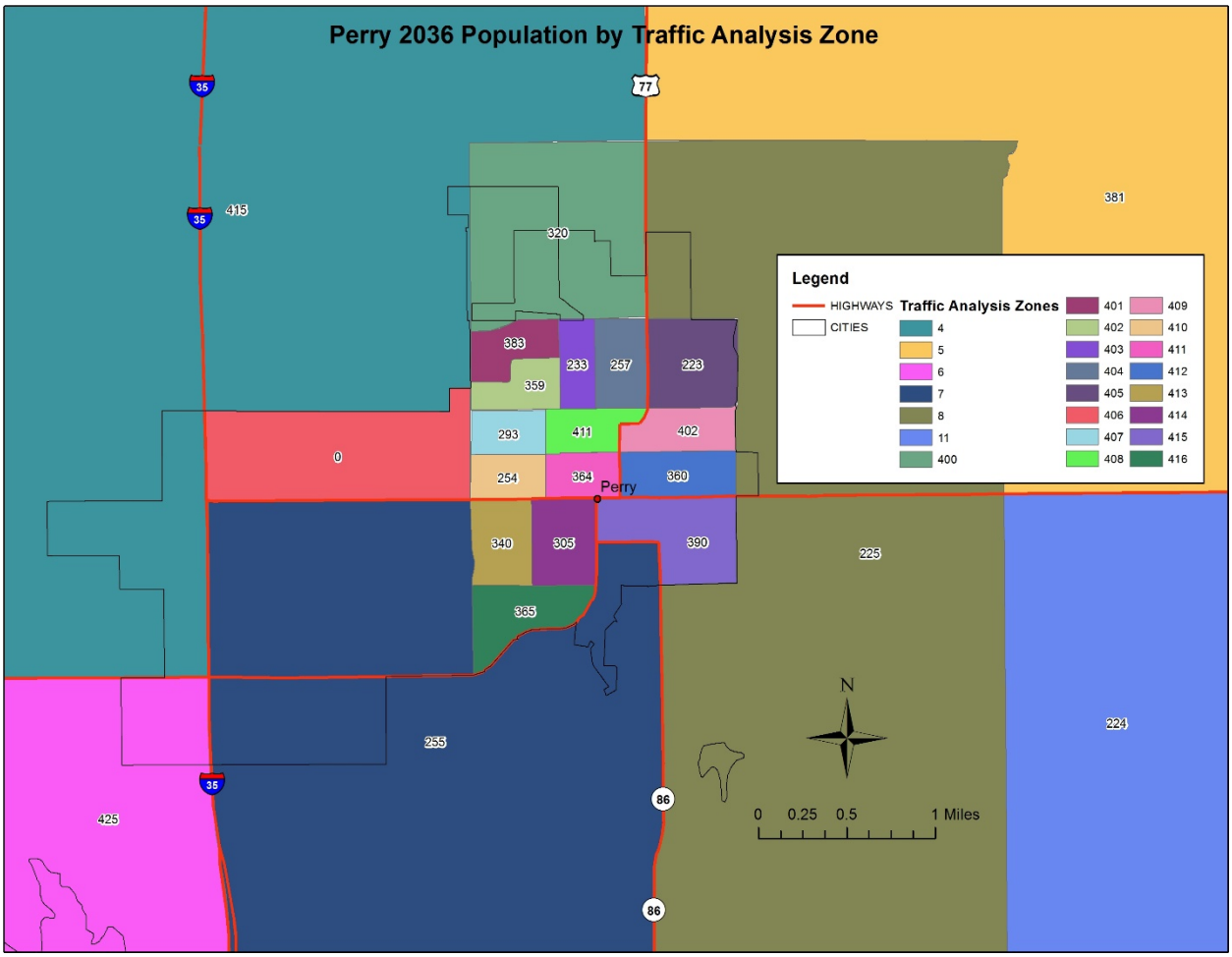
Source: NORTPO

Table 3.2 Noble County 2036 Population Projection by TAZ

Noble County 2036 Population Projection by TAZ			
TAZ	2036 Population	TAZ	2036 Population
1	240	401	383
2	355	402	359
3	359	403	233
4	415	404	257
5	381	405	223
6	425	406	Charles Machine Works
7	255	407	293
8	225	408	411
9	305	409	402
10	355	410	254
11	224	411	364
12	420	412	360
13	426	413	340
14	415	414	305
100	269	415	390
101	258	416	365
200	237	600	325
300	295	601	245
400	320	602	223

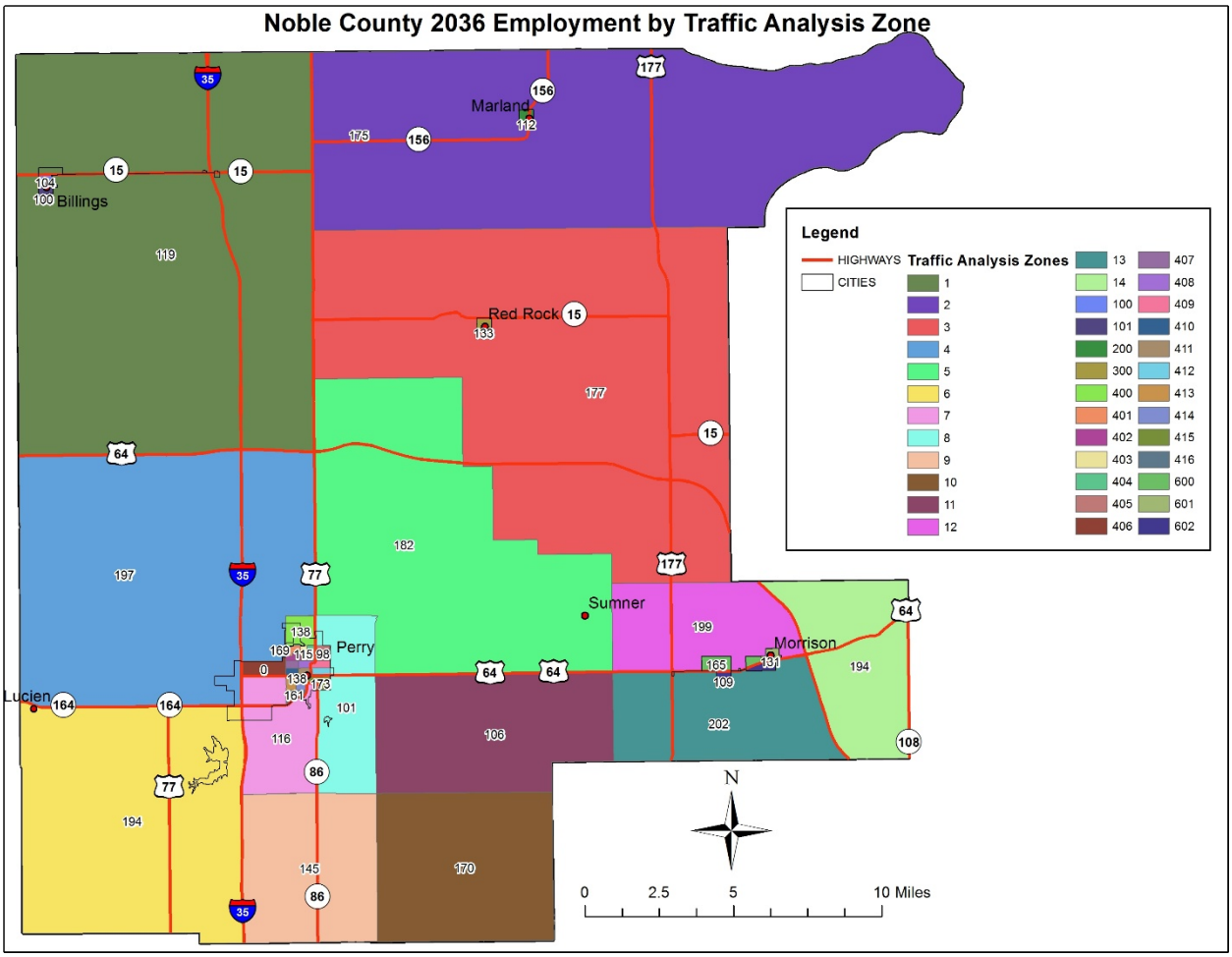
Source: NORTPO

Map 3.2 Perry 2036 Population Projection by TAZ



Source: NORTPO

Map 3.3 Noble County 2036 Employment Projection by TAZ



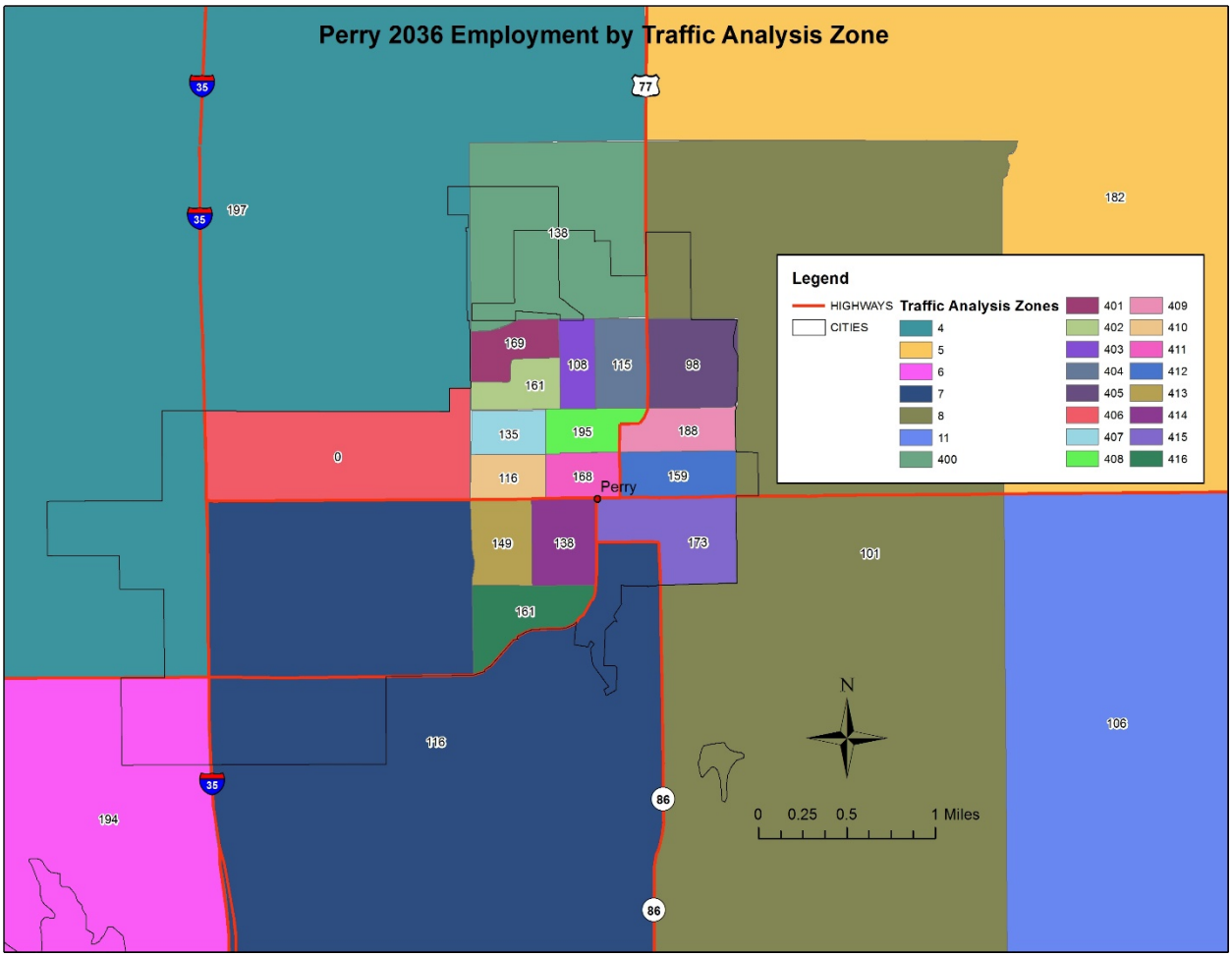
Source: NORTPO

Table 3.3 Noble County 2036 Employment Projection by TAZ

Noble County 2036 Employment Projection by TAZ			
TAZ	**2036 Employment**	**TAZ**	**2036 Employment**
1	119	401	169
2	175	402	161
3	177	403	108
4	197	404	115
5	182	405	98
6	194	406	Charles Machine Works
7	116	407	135
8	101	408	195
9	145	409	188
10	170	410	116
11	106	411	168
12	199	412	159
13	202	413	149
14	194	414	138
100	104	415	173
101	100	416	161
200	112	600	165
300	133	601	131
400	138	602	109

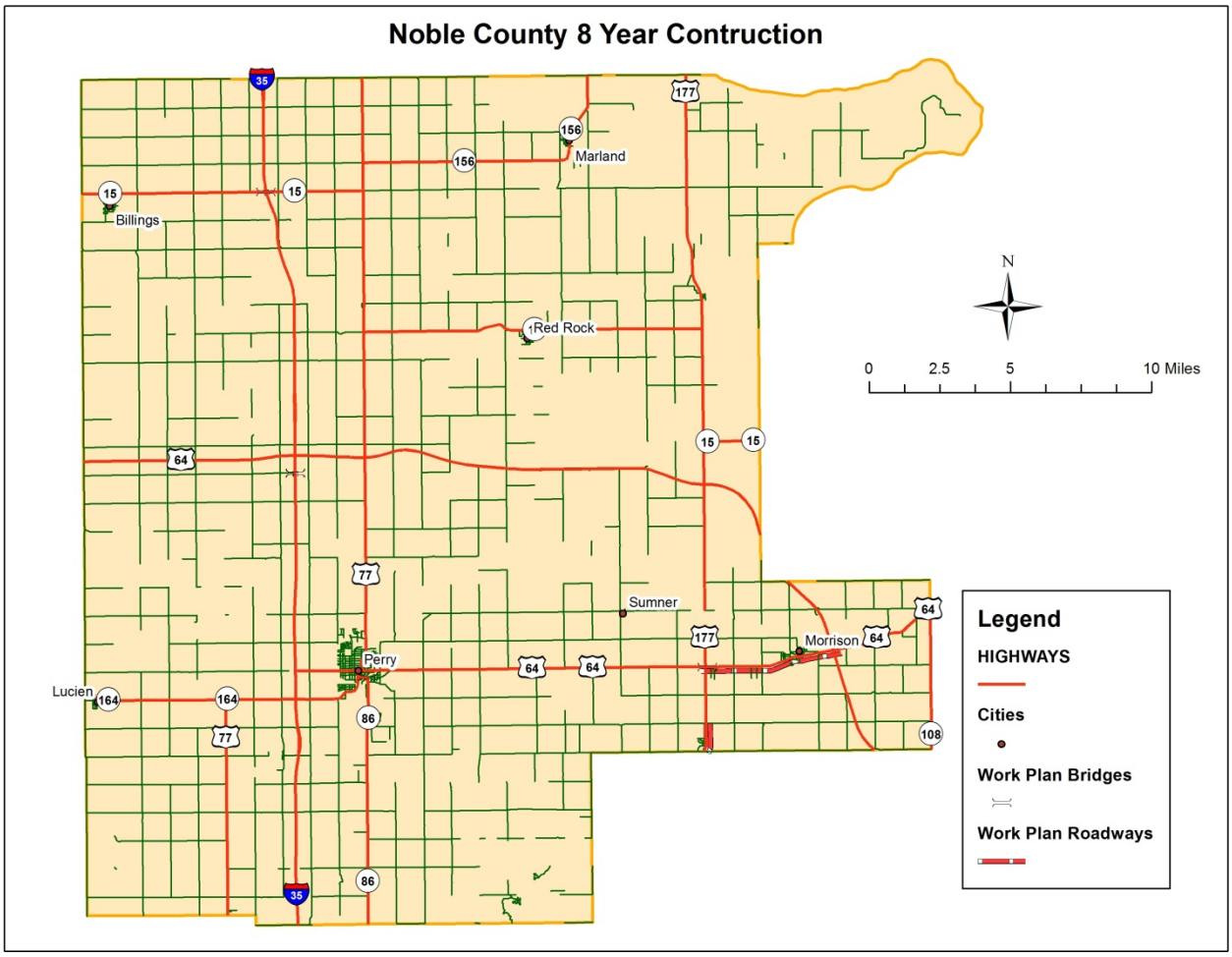
Source: NORTPO

Map 3.4 Perry 2036 Employment Projection by TAZ



Source: NORTPO

Map 3.5 ODOT Eight Year Construction Work Program 2016-2024



Source: Oklahoma Department of Transportation (ODOT)

Table 3.4 ODOT Construction Work Program 2016-2023

Location	Project Type	Project Year	Project Cost
SH-15 over I-35	Bridges & Approaches	FFY 2016	$2,250,000.00
I-35 over Airport Road	Bridges & Approaches	FFY 2022 Pending Funding by Others	$2,000,000.00
SH-86 over Cow Creek	Bridges & Approaches	FFY 2017	$950,000.00
US-64 from US-177 E 5 mi	Grade, Draining, Bridge and Surface	FFY 2022	$8,000,000.00
US-64 from US-177 E 5 mi	Right of Way	FFY 2018	$1,100,000.00
US-64 from US-177 E 5 mi	Utilities	FFY 2018	$1,100,000.00
		Total:	**$15,400,000.00**

Source: Oklahoma Department of Transportation (ODOT)

Table 3.5 ODOT CIRB Work Program

Fiscal Year	JP #	Stage #	Project #	Item	CIRB Funds	CBRI Funds	Other Funds	Estimated Total Cost
2017	31949	(05)		Engineering D1 CN 21B STP/BR	$75,000	$0	$0	$75,000
2018	31967	(05)		Engineering STP Bridge CN 116	$75,000	$0	$0	$75,000
2018	31215	(07)		Utilities D3 STP/BR CN 129	$10,000	$0	$0	$10,000
2018	31215	(06)		Right of Way D3 STP/BR CN 129	$25,000	$0	$0	$25,000
2018	31215	(04)		Construction D3 STP/BR CN 129	$120,000	$0	$480,000	$600,000
2018	31189	(04)		Construction STP Rd D3 Lake McMurtry EW 58 start at S.H. 86 and Extend 2 Mi East to NS 323	$500,000	$0	$740,000	$1,240,000
2018	29867	(04) CT		CT Construction D1 CN 170A CIRB-252D(019)RB	$700,000	$0	$0	$700,000
2019	29869	(04) CT		CT Construction D1 CN51	$400,000	$0	$0	$400,000
2020	31949	(04)		Construction D1 CN 21B STP/BR	$150,000	$0	$600,000	$750,000
2020	31190	(07)		Utilities Lake McMurtry EW 58 Start NS 323 End At NS 326	$10,000	$0	$0	$10,000
2020	31190	(06)		Right Of Way Lake McMurtry EW 58 Start NS 323 End At NS 326	$10,000	$0	$0	$10,000
2020	25421	(13)	STP-152C(160)CI	Phase 3 Con 3.5 Miles	$3,630,000	$0	$0	$3,630,000
2020	25421	(05)	STP-152C(160)CI	Construction for Red Rock Rd Ph 2. 4.0 MI CIRB-152C(161)RB J/P#: 25421(05) Phase 3 2018 Estimated 4 million CO RD (NS 327) Begin approx 4.5 Mi N of SH 64 EXT N approx. 7.5 Mi to	$4,300,000	$0	$0	$4,300,000

Fiscal Year	JP #	Stage #	Project #	Item	CIRB Funds	CBRI Funds	Other Funds	Estimated Total Cost
				SH 15 Phase 2 5254C				
2021	31967	(04)		Construction STP Bridge CN 116	$160,000	$0	$640,000	$800,000
2023	31190	(04)		Construction Lake McMurtry EW 58 Start NS 323 End At NS 326	$2,500,000	$0	$0	$2,500,000
				Total	**$12,665,000**		**$2,460,000**	**$ 15,125,000**

Source: Oklahoma Department of Transportation

Appendix H-4
Chapter 4

Table 4.1 Funding Categories Summary

State	Funding Eligibility	Funding Limits
County Equipment Revolving Fund		$4.5 to$ 5 million a year
Industrial, Historic site and Lake Access Funds,	Can be used on city streets and county roads.	$2.5 million, FY 2011, industrial access $2.5 million, FY 2011, lake/historic access
County Improvements for Roads and Bridges (CIRB)	Only Contract projects let thru ODOT	Averages $75 million/year, divided evenly between ODOT's Field Divisions
Federal		
Federal Bridge Funds Bridge Replacement Funds (BR) Bridge Rehabilitation (BH) Preventive Maintenance (PM) Safety Bridge Inspection	Bridge <50 sufficiency rating & functionally obsolete or structurally deficient. Bridge between 50 & 80 sufficiency rating. Must have a systematic process for project selection. Mandated by Federal Highway Administration (FHWA) on bridge length structures.	BR, BH and PM all together limited to $16.5 million in odd numbered years and $20 million in even numbered years. Safety Bridge Inspection funded with $3.5 million in odd numbered years.
Surface Transportation Program	Road projects, grade, drain and surface on county major and minor collectors. Funding may provide up to 80 percent of the construction costs. Local governments fund the remaining 20 percent match plus costs for engineering, right of way and utility relocation.	$6 million for roadway projects $20 million for safety bridge inspections, replacement or repair of county bridges. ODOT is currently funding the 20 percent match on regular safety bridge inspection costs and 100 percent of all the county fracture critical bridge inspection costs.
Emergency Relief (ER) Funds	Disaster funding on Major x	
Emergency Transportation and Revolving Fund (ETR)	The funds are split amongst the eight CEDs. Counties can apply to their CED and borrow any amount of money from the fund.	In FY 2009, ODOT made a one-time appropriation of $25 million to the Emergency and Transportation Revolving Fund.
Circuit Engineering District Revolving fund		$3.5 million annually

County Road & Bridge Improvement Fund (CBR)	County Built, contract projects and maintenance on roads/bridges	
County Highway Fund		

Source: Oklahoma Department of Transportation (ODOT)

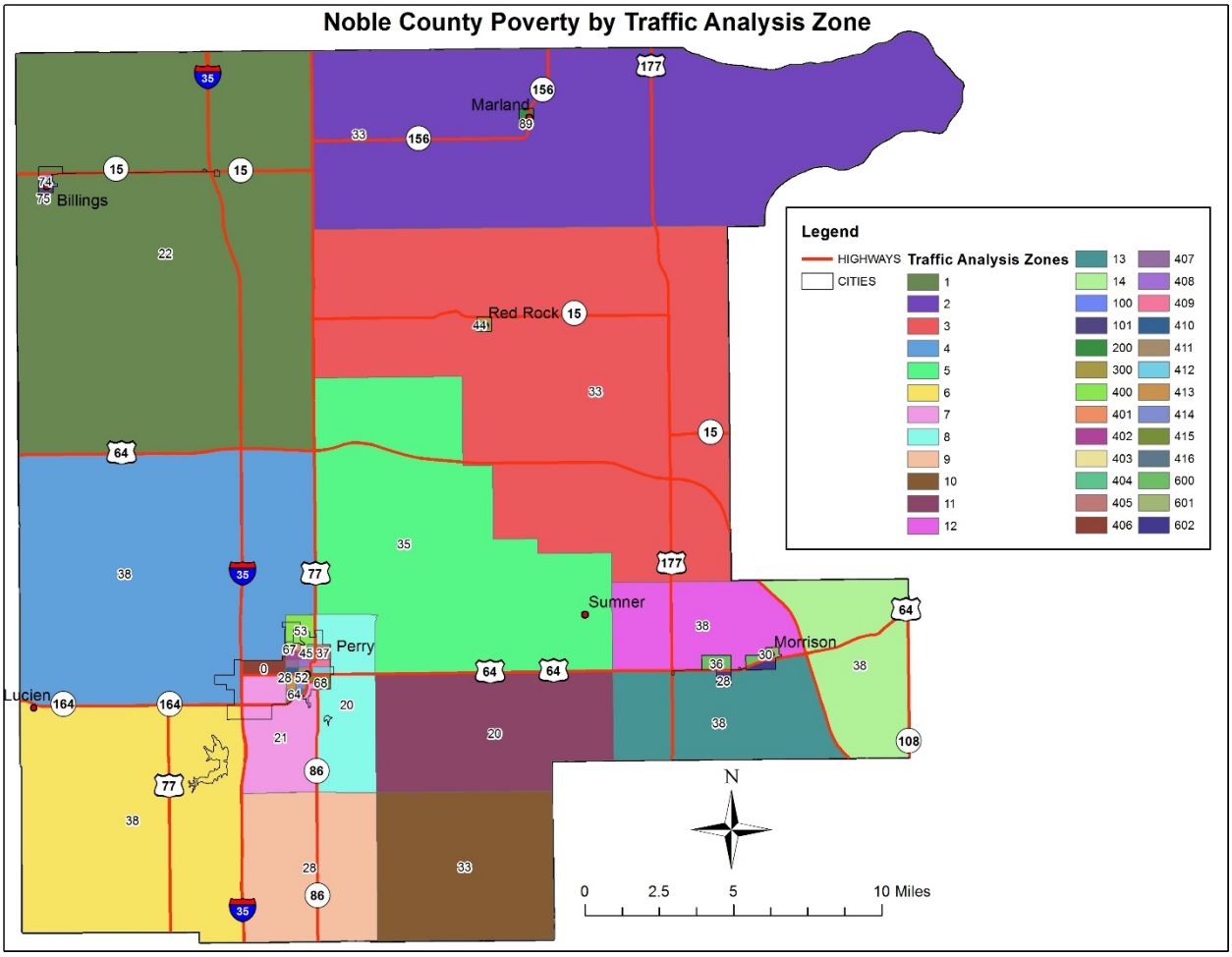
Table 4.2 State Funding Categories

	FY13 Actual	FY14 Actual	FY15 Actual	FY16 Budget
State Transportation Fund	$206,405,702	$208,707,119	$197,228,227	$184,901,463
Motor Fuel Tax - HP Bridges	$6,047,108	$6,130,546	$6,238,149	$6,200,000
Income Tax	$297,400,000	$357,100,000	$416,800,000	$476,500,000
Total allocation	$509,852,810	$571,937,665	$620,266,376	$667,601,463
OTA Transfers	$41,340,937	$41,712,534	$44,049,331	$42,000,000
Total State Revenue	$551,193,747	$613,650,199	$664,315,707	$709,601,463
CIP Debt Service	$11,526,973	$11,358,296	$0	$0
ROADS Debt Service	$32,367,490	$35,971,788	$42,599,529	$36,434,743
Highways and Bridges	$495,399,284	$554,420,115	$612,316,178	$662,766,720
Lake & Industrial Access	$5,000,000	$5,000,000	$2,500,000	$3,500,000
Passenger Rail	$2,000,000	$2,000,000	$2,000,000	$2,000,000
Public Transit	$3,000,000	$3,000,000	$3,000,000	$3,000,000
Intermodal	$1,900,000	$1,900,000	$1,900,000	$1,900,000
Total Allocation	$551,193,747	$613,650,199	$664,315,707	$709,601,463

Source: Oklahoma Department of Transportation (ODOT)

Appendix H-5
Chapter 5

Map 5.1 2014 Noble County Poverty Status by TAZ



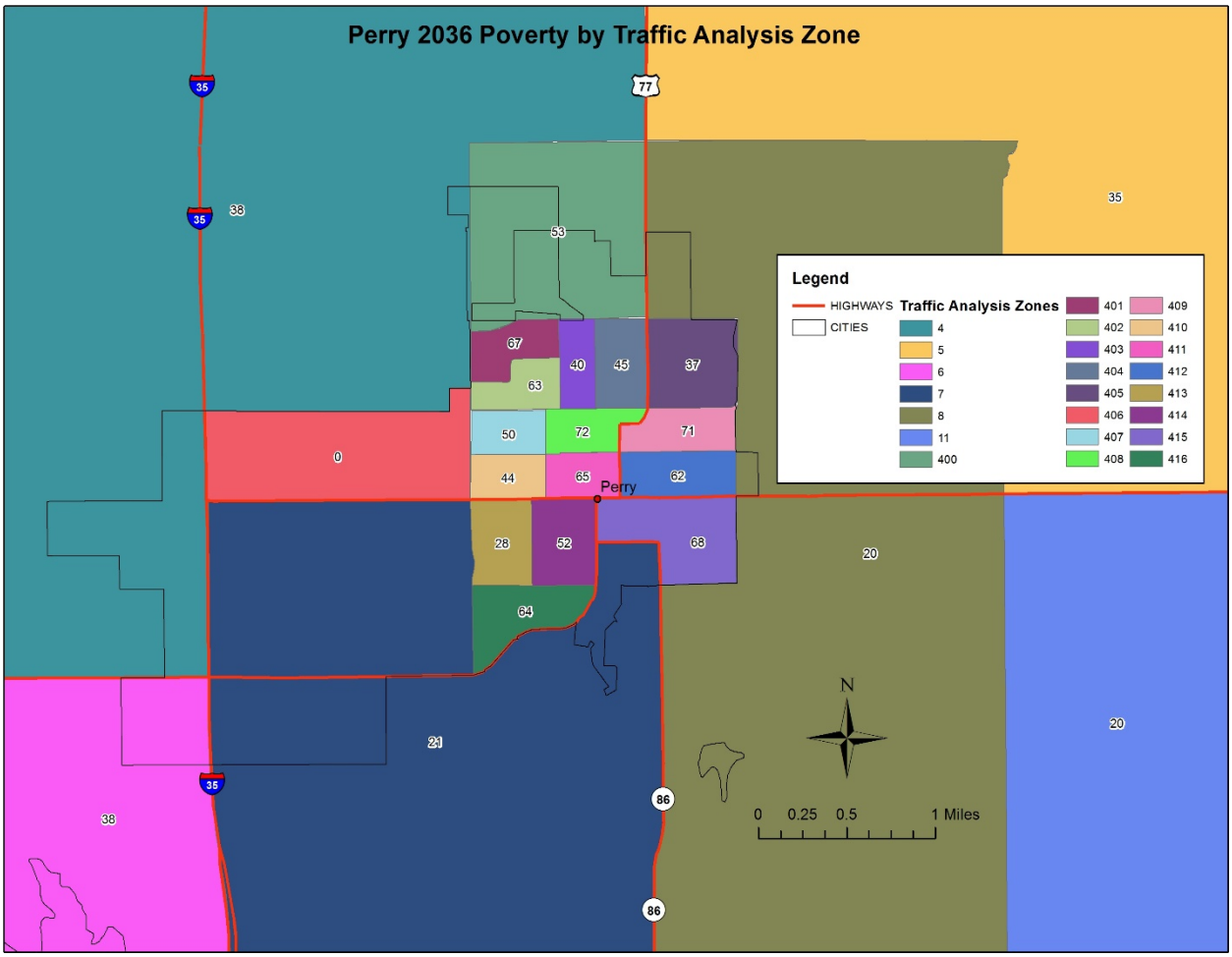
Source: NORTPO

Table 5.1 2014 Noble County Poverty Status by TAZ

Noble County Poverty Status by TAZ			
TAZ	Poverty	TAZ	Poverty
1	22	401	67
2	33	402	63
3	33	403	40
4	38	404	45
5	35	405	37
6	38	406	0
7	21	407	50
8	20	408	72
9	28	409	71
10	33	410	44
11	20	411	65
12	38	412	62
13	38	413	28
14	38	414	52
100	74	415	68
101	75	416	64
200	89	600	36
300	44	601	30
400	53	602	28

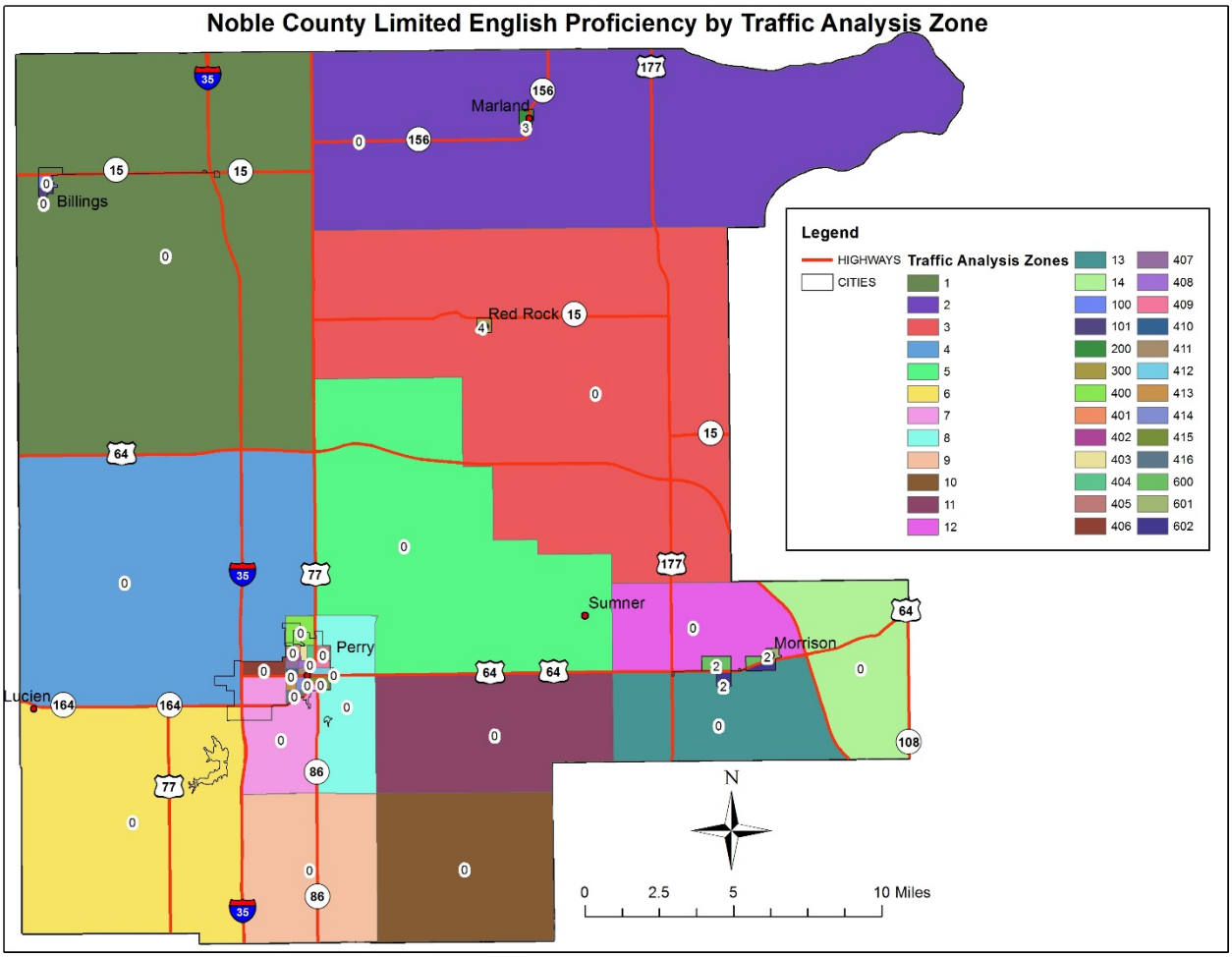
Source: NORTPO

Map 5.2 2014 Perry Poverty Status by TAZ



Source: NORTPO

Map 5.3 2014 Noble County Limited English Proficiency by Household by TAZ



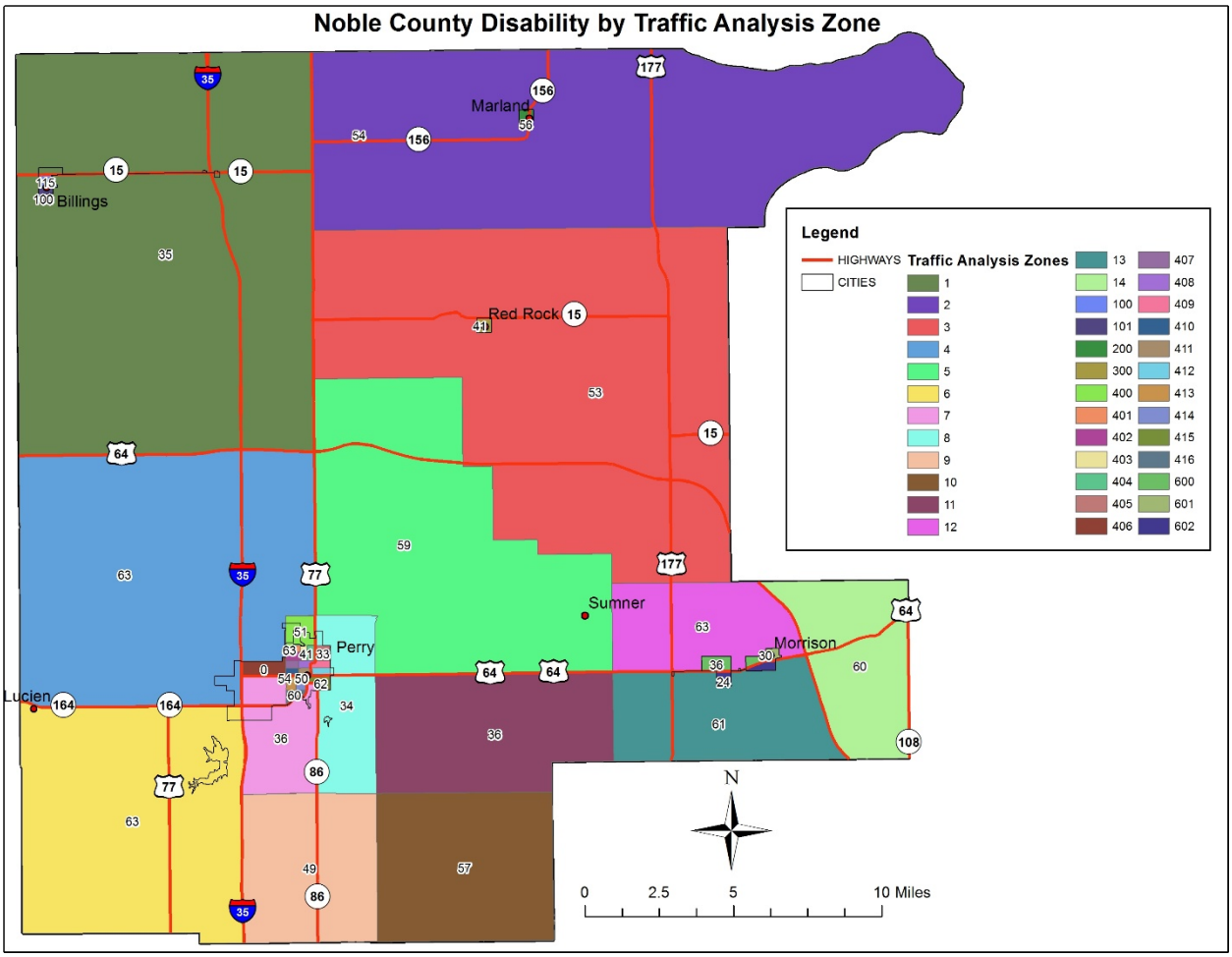
Source: NORTPO

Table 5.2 2014 Noble County Limited English Proficiency by Household by TAZ

Noble County Limited English by Household by TAZ			
TAZ	Limited English	TAZ	Limited English
1	0	401	0
2	0	402	0
3	0	403	0
4	0	404	0
5	0	405	0
6	0	406	0
7	0	407	0
8	0	408	0
9	0	409	0
10	0	410	0
11	0	411	0
12	0	412	0
13	0	413	0
14	0	414	0
100	0	415	0
101	0	416	0
200	3	600	2
300	4	601	2
400	0	602	2

Source: NORTPO

Map 5.4 2013 Noble County Disabled Residents by TAZ



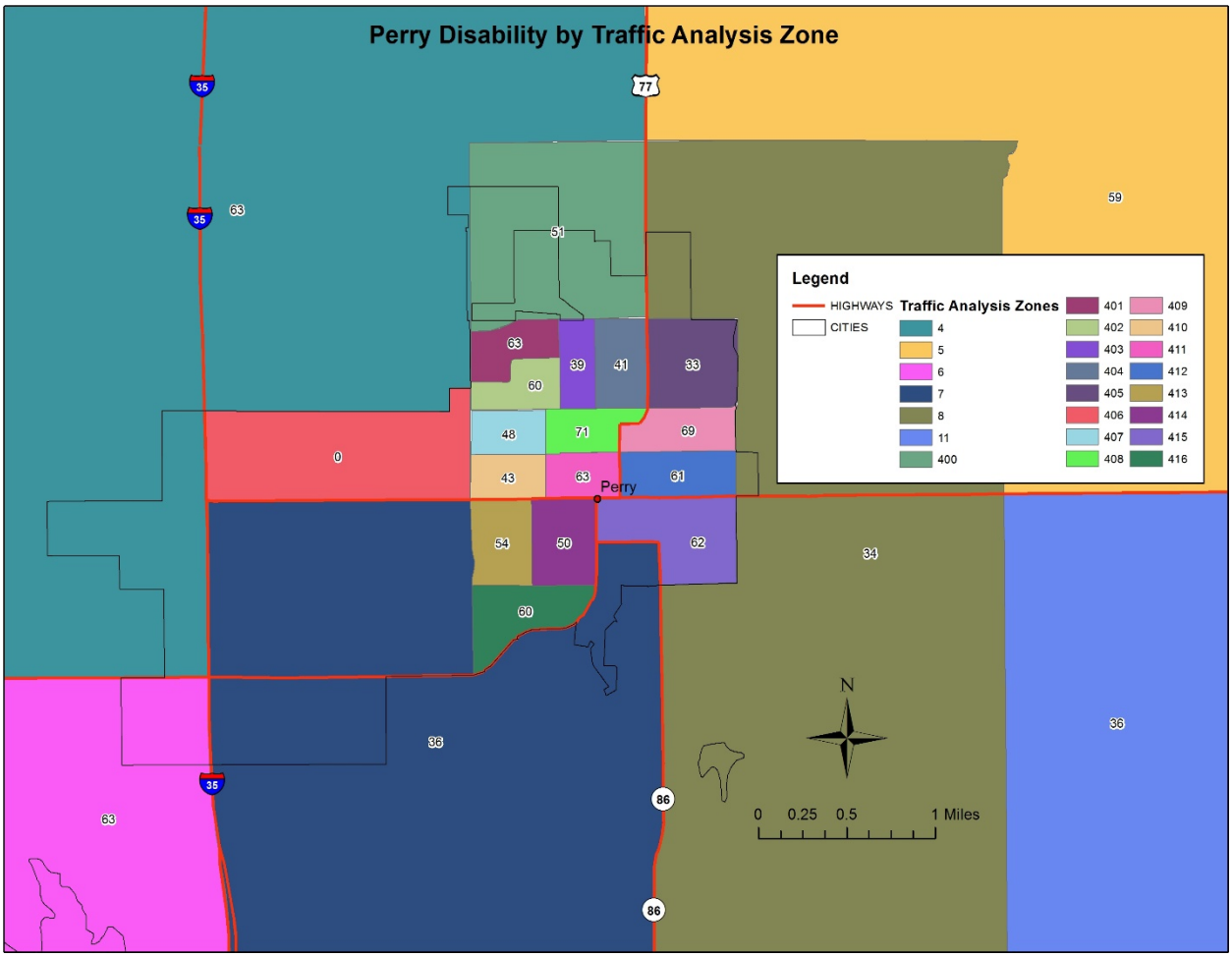
Source: NORTPO

Table 5.3 2013 Noble County Disabled Residents by TAZ

Noble County Disability by TAZ			
TAZ	Disabled	TAZ	Disabled
1	35	401	63
2	54	402	60
3	53	403	39
4	63	404	41
5	59	405	33
6	63	406	0
7	36	407	48
8	34	408	71
9	49	409	69
10	57	410	43
11	36	411	63
12	63	412	61
13	61	413	54
14	60	414	50
100	115	415	62
101	100	416	60
200	56	600	36
300	41	601	30
400	51	602	24

Source: NORTPO

Map 5.5 2013 Perry Disabled Residents by TAZ



Source: NORTPO

Table 5.4 2014 Noble County Residents by Race

Noble County Population by Race 2014 ACS		
Race	Total	Margin of Error
White	10,261	153
Black or African America	285	15
American Indian and Alaska Native	1,460	66
Asian	24	21
Native Hawaiian and Other Pacific Islander	0	15
Some Other Race	104	81

Source: US Census Bureau

Stakeholder and Public Surveys Summary

1. In which City/County do you reside? *Noble; Covington; Garfield Co.; Perry;*
2. In which City/County do you work? *Perry; Noble;* or attend school?_____
3. How many days per week do you travel to work? *1(1) 2(1) 5(12) 6(1)* to school?_____
4. What type of transportation do you use most often to go to work/school? (Circle one)
   Drive(alone) *(15)* Carpool Bus Motorcycle Bicycle Walk
   Other (please specify)
5. How many miles do you travel (round trip) for work and/or school? (Circle one)
   Less than 1 mile*(3)* 2 – 5 miles*(5)* 6-10 miles *(2)*
   11-20 miles 21-30 miles*(1)* 31 – 50 miles*(1)* 50 miles +*(2)*
6. How much time does it usually take to travel to and from work? (Circle one)
   Less than 10 minutes*(10)* 11 to 15 minutes 16-30 minutes *(3)*
   31-45 minutes 46-60 minutes 61 minutes +*(2)*
7. How much time does it usually take to travel to and from school? (Circle one)
   Less than 10 minutes*(1)* 11 to 15 minutes 16-30 minutes
   31-45 minutes 46-60 minutes 61 minutes +*(1)*
8. How many total miles do you travel for other trips per day? (Circle your response)
   Less than 1 mile*(2)* 2 – 5 miles *(5)* 6-10 miles*(3)*
   11-20 miles *(4)* 21-30 miles*(1)* 31 – 50 miles 50 miles +
9. What are your usual methods of transportation for other trips such as shopping, appointments, entertainment?

	Every Day	3-4 Times a Week	1-2 Times Week	1-2 Times a Month	Never
Car (alone or with household members)	11	2	1	2	
Carpool with others					8
Bus/Public Transportation					8
Motorcycle					8
Bicycle/Walk		1			7
Other? Please list.					

10. So that we can ensure this survey has reached a variety of individuals in the community, please provide the information below (Circle your response):

    Your Age Group: 18-24 25-34*(1)* 35-44*(1)* 45-54*(3)* 55-65 *(6)* 65-74*(4)* Over 75 *(1)*
    Gender: Male *(4)* Female *(11)*
    Household Income: Under $34,000 *(3)* $35,000 to $50,000 *(2)* $50,001 - $75,000 *(3)* Over $75,000 *(8)*
    American Indian/Alaska Native *(1)* Asian __ Black or African American __ Hispanic __
    Native Hawaiian or other Pacific Islander __ White *(14)* __ Other _____

11. Please indicate how important each of the transportation system components is to you.

	Not Important	Somewhat Important	Important	Very Important
Improve Technology of Signals	3	3	6	2
Intersection Improvements		3	7	6
Pedestrian Facilities/Sidewalks	1	1	4	7
Maintenance Improvements		1	6	7
Bicycle Lanes	5	5	4	
Public Transportation	3	4	4	3
Availability of Passenger Rail Service	5	4	4	1
Connection to State or S Highways		4	5	5
Maintenance of Bridges		2	4	9
Protecting the environment	1	2	8	4
Improving access to freight rail service	1	5	5	2
Providing a smooth driving surface	1	1	4	8
Improve existing roadways			5	9
Add shoulders on State or US Highways		3	2	10
Improve signs along existing roadways		4	5	5

12. Which do you think should be a priority when selecting transportation projects?

	Not Important	**Somewhat Important**	**Important**	**Very Important**
Supports Economic Development		1	9	4
Improves Safety		1	6	8
Reduces Congestion	1		11	2
Bicycle Lanes or Facilities	3	8	3	
Improve Pedestrian walkways	1	6	3	4
Improves Travel Choices	2	2	6	3
Reduces Energy Consumption/Pollution		5	6	3
Improves freight movement	1	6	4	3
Other (specify) *RR Crossings*				1

13. In your community are there challenges to access the transportation system? Yes *(10)* No *(4)* (Circle one) Please describe access limitations:

Congestion at RR crossing 80 or more trains a day.
Airport is 1 hr drive.
All Streets.
Blocked Railroad Crossings
Need middle turn lanes
Train Traffic - major routes frequently blocked by trains
Transit only runs a limited amount of time - no other transportation.
Rail train shut down.
Bus only goes certain places.
Public transportation limited
Shoulders on sides of roads
Bike Path
No passenger rail

No public transportation
No daily bus system

14. What are some specific locations with traffic problems that you encounter through the day?

Fir St- RR Crossings
Cedar St - RR Crossing
RR Crossings
15th & Fir St - 7th & Fir st when school lets out along with Ditch Witch traffic
In Perry when RR crossings on Fir, Cedar, 11th, 15th, 25th, 32nd and 35th are blocked, emergency vehicles unable to respond.
Intersection (large) unable to move safely 5th & Kaw on 77 Hwy.
Fir Ave Railroad crossing is a nuisance and safety issue - blocked excessively by train traffic.
U-turns on the Town Square.
Small farm town-no traffic problems.
The Hwy 77 has no access ramp to go to Enid on 412. They have them coming from Tulsa, but if you want to go to Enid and live on North Side of Perry you either have to go all the way to town or take a very bumpy county road.
Hwy 77, fir st, Hwy 86
15th & Fir - needs turning lanes or signal going east/west

15. Please provide additional comments regarding transportation improvement needs

Upgrade RR crossings
Bike Lanes
New paving on Fir
New surface paving on US 64 through Perry
RR crossings at 11th and Birch
Must have a grade separated RR crossing
Repair streets and highways more timely
Overpass on Highway 64 over BNSF railroad is needed to allow emergency vehicles to respond when called; otherwise service is delayed for extended time when all crossings are blocked by a stopped train.
Would like to see a roundabout at the intersection of hwy 77 and Kaw St/5th St area just east of Casino in Perry.
Roads & Highways need to be better maintained
We closed the old elementary school-signage has not changed.
Jackson street should be reopened between 12th and 13th streets
Improve state highways (noticeable difference in OK roads and KS roads.
Free public transportation - even though transit is low cost, some people still cannot afford to use it.
Bus transit availability.
Railroad crossings are horrible.
Community needs to improve quality of streets.
Need major help with county roads.