

GRADY COUNTY OKLAHOMA 2040 LONG RANGE TRANSPORTATION PLAN



2040 Grady County Long Range Transportation Plan

Prepared by:

Southwest Oklahoma Regional Transportation Planning Organization

Bldg. 420 Sooner Drive
Burns Flat, OK 73624
580-562-4882

800 W. Main St.
Duncan, OK 73533
580-252-0595
www.sortpo.org

In cooperation with:

Cities and Towns of Grady County
Oklahoma Department of Transportation
Federal Highways Administration
Association of South Central Oklahoma Governments
South Western Oklahoma Development Authority
Grady County Health Coalition
Chickasha Economic Development Council

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.

The Southwest Oklahoma Regional Transportation Planning Organization (SORTPO) complies with all civil rights provisions of federal statutes and related authorities that prohibit discrimination in programs and activities receiving federal financial assistance. Therefore, SORTPO does not discriminate on the basis of race, sex, color, national origin, religion or disability, in the admission, access to and treatment in SORTPO programs and activities.

2040 Grady County Long Range Transportation Plan

Resolution

**Resolution No. 2019-1
Adopting the Grady County 2040
Long Range Transportation Plan**

Whereas, the South Western Oklahoma Development Authority by Resolution 09-04 created the Southwest Oklahoma Regional Transportation Planning Organization (SORTPO); and

Whereas, through a Resolution 16-06 the South Western Oklahoma Development Authority expanded the regional transportation planning area to include the Association of South Central Oklahoma Governments (ASCOG), and

Whereas, SORTPO is tasked with developing a regional long range transportation plan; and

Whereas, the long range transportation plan establishes goal and transportation strategies addressing the region's needs; and

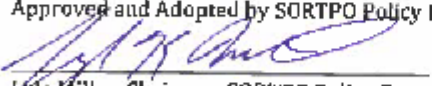
Whereas, the Grady County 2040 Long Range Transportation Plan (LRTP) was prepared by SORTPO consultation with member local and state governments and local, state and federal transportation agencies; and

Whereas, the Plan has been presented to the general public for review and comment in accordance with the SORTPO Public Participation Plan in addition to the series of public meetings between December 19, 2018 and January 21, 2019 and the Plan was posted on the SORTPO website for public review and comment; and

Whereas, the Plan has been prepared in accordance with all relative state and federal rules and regulations.

NOW, THEREFORE BE IT RESOLVED, that the SORTPO Policy Board hereby approves and adopts the Grady County 2040 Long Range Transportation Plan.

Approved and Adopted by SORTPO Policy Board and signed this 24th day of January, 2019.


Lyle Miller, Chairman SORTPO Policy Board

ATTEST:


Anita Archer, Secretary SORTPO Policy Board

Contents

Chapter 1: Goal, Strategies and Issues	1
SORTPO History	1
Map 1.1: SORTPO Region	2
Regional Transportation Planning	2
Purpose of Plan	3
Relationship and Requirements with State and Federal Agencies.....	4
Table 1.1: Planning Factors	4
Goals and Strategies	5
Table 1.2: Grady County Goal Categories	6
Goal 1: Accessibility and Mobility.....	7
Goal 2: Awareness, Education and Cooperative Process	7
Goal 3: Freight & Economic Vitality.....	7
Goal 4: Environment.....	8
Goal 5: Finance and Funding	8
Goal 6: Maintenance and Preservation	9
Goal 7: Safety and Security.....	9
Goal 8: Community & Health.....	9
Goal 9: Tourism & Travel.....	10
Key Issues, Challenges and Trends	10
 Chapter 2: Current Conditions	 12
History.....	12
Map 2.1: Grady County, Oklahoma	15
Table 2.1: Grady County Population 1980-2016 ACS Estimate.....	16
Figure 2.1: Grady County, Civilian Labor Force 1990-2016.....	18
Figure 2.2: Grady County, Civilian Labor Force 1990 – 2017	18
Figure 2.3: Grady County Business Patterns, 2010 and 2015	19
Figure 2.4: Grady County Motor Vehicle Registration, 2012-2017.....	20
Traffic Analysis Zones.....	20
Map 2.2: Grady County Traffic Analysis Zones.....	22
Map 2.3: Blanchard Traffic Analysis Zones.....	23
Map 2.4: Bridge Creek Traffic Analysis Zones	24
Map 2.5: Chickasha Traffic Analyses Zones	25
Map 2.6: Minco Traffic Analyses Zones.....	26
Map 2.7: Ninnekah Traffic Analysis Zones	27
Map 2.8: Rush Springs Traffic Analysis Zones.....	28
Map 2.9: Tuttle Traffic Analysis Zones (OCARTS)	29
Map 2.10: Verden Traffic Analysis Zones.....	30
Physical Development Constraints and Conditions	31
Map 2.11: Tribal Jurisdictions in Oklahoma.....	31
Historic, Natural or Man Made Significant Features.....	31
Public Safety Issues	32
Collisions.....	33
Table 2.2: Grady County Collision Total, 2012-2016.....	33

<i>Table 2.3: Grady County Collisions by Road Type, 2012-2016</i>	<i>34</i>
<i>Table 2.4: Grady County Collision Concentration, 2012-2016</i>	<i>34</i>
<i>Map 2.12: Grady County 2012-2016 Collision Map.....</i>	<i>36</i>
<i>Existing Road Network.....</i>	<i>37</i>
<i>Traffic Count.....</i>	<i>37</i>
<i>Functional Classification and Road Systems.....</i>	<i>37</i>
<i>Bridges</i>	<i>38</i>
<i>Traffic Control.....</i>	<i>39</i>
<i>Freight System.....</i>	<i>39</i>
<i>Table 2.5: Grady County Significant Freight Corridors.....</i>	<i>39</i>
<i>Map 2.13: National Highway Freight Network</i>	<i>41</i>
<i>Map 2.14: Regionally Significant Freight Routes</i>	<i>42</i>
<i>Figure 2.5 Average Daily Long-Haul Traffic on NHS 2011</i>	<i>43</i>
<i>Map 2.15: Oklahoma High Volume Truck Corridors</i>	<i>44</i>
<i>Map 2.16: Port of Entry.....</i>	<i>45</i>
<i>Railroads</i>	<i>45</i>
<i>Bicycle & Pedestrian System</i>	<i>46</i>
<i>Public Transit</i>	<i>47</i>
<i>Airports.....</i>	<i>47</i>
<i>Table 2.6: SORPTO Public Airports</i>	<i>48</i>
<i>Areas of Concern.....</i>	<i>48</i>
<i>Table 2.7: Grady County Transportation Areas of Concern</i>	<i>49</i>
 <i>Chapter 3: Future Conditions and Improvements.....</i>	 <i>51</i>
<i>Future Conditions</i>	<i>51</i>
<i>Figure 3.1: Projected Average Daily Long-Haul Traffic on NHS 2040.....</i>	<i>52</i>
<i>2040 Transportation Funding and Improvements</i>	<i>53</i>
<i>Federal.....</i>	<i>53</i>
<i>State</i>	<i>54</i>
<i>County.....</i>	<i>54</i>
<i>Local.....</i>	<i>55</i>
<i>Table 3.1: State Funding Categories</i>	<i>56</i>
 <i>Chapter 4: Public Participation.....</i>	 <i>57</i>
<i>Environmental Justice</i>	<i>57</i>
<i>Coordination with Other Plans.....</i>	<i>57</i>
 <i>Chapter 5: Transportation Recommendations</i>	 <i>59</i>
<i>Transportation Projects</i>	<i>59</i>
<i>Table 5.1: Grady County Transportation Projects</i>	<i>60</i>
 <i>APPENDICES.....</i>	 <i>66</i>
<i>Acronyms</i>	<i>67</i>
<i>Definitions</i>	<i>70</i>
<i>Appendix A: Resolution 09-04</i>	<i>73</i>
<i>Appendix B: Resolution 16-06</i>	<i>74</i>

2040 Grady County Long Range Transportation Plan

Appendix C: Performance Measures	75
<i>Appendix 2.1: Grady County, Demographic Information, 2012-2016 ACS</i>	<i>77</i>
<i>Appendix 2.2: Grady County, Occupation by Sex 2012-2016 ACS</i>	<i>78</i>
<i>Appendix 2.3: Grady County Industry by Sex, 2012-2016 ACS.....</i>	<i>80</i>
<i>Appendix 2.4: Grady County Educational Attainment 2012-2016, ACS.....</i>	<i>82</i>
<i>Appendix 2.5: Grady County, Housing Units and Vehicles Available 2012-2016 ACS</i>	<i>84</i>
<i>Appendix 2.6: Grady County Means of Transportation, 2012-2016 ACS.....</i>	<i>85</i>
<i>Appendix 2.7: Grady County Selected Economic, 2012-2016 ACS.....</i>	<i>87</i>
<i>Appendix 2.8: Grady County Population and Employment by TAZ</i>	<i>89</i>
<i>Appendix 2.9: Grady County Major Employers, 2018.....</i>	<i>95</i>
<i>Appendix 2.10: Environmental and Development Concerns.....</i>	<i>107</i>
<i>Appendix 2.11: Grady County Environmental Features</i>	<i>108</i>
<i>Appendix 2.12: Grady County Type of Collision Total, 2012-2016</i>	<i>108</i>
<i>Appendix 2.13: Grady County Collision Vehicles by Vehicle Type, Total, 2012-2016</i>	<i>109</i>
<i>Appendix 2.14: Two Lane Highways Without Paved Shoulders.....</i>	<i>110</i>
<i>Appendix 2.15: Steep Hills and Sharp Curves</i>	<i>111</i>
<i>Appendix 2.16: Grady County Annual Average Daily Traffic Count 2016.....</i>	<i>112</i>
<i>Appendix 2.17: Functional Classification and Road Systems</i>	<i>113</i>
<i>Appendix 2.18: Grady County Functional Classification</i>	<i>116</i>
<i>Appendix 2.19: Oklahoma Structurally Deficient and Functionally Obsolete Bridges</i>	<i>117</i>
<i>Appendix 2.20: Grady County On System Bridges with Sufficiency Rate.....</i>	<i>118</i>
<i>Appendix 2.21: Grady County Off System Bridges.....</i>	<i>126</i>
<i>Appendix 2.22: National Highway Freight Network – Oklahoma</i>	<i>149</i>
 APPENDIX 3: FUTURE CONDITIONS	 151
<i>Appendix 3.1: 2040 Population and Employment Projection by TAZ</i>	<i>151</i>
<i>Appendix 3.2: ODOT 8 Year Construction Work Program FFY 2018-2025 Map</i>	<i>157</i>
 Appendix 4: Public Participation	 158
<i>Appendix 4.1: Public Survey.....</i>	<i>158</i>
<i>Stakeholder Invitation Letter and Letter to State/Federal Agencies.....</i>	<i>170</i>

Chapter 1: Goal, Strategies and Issues

SORTPO History

In 1970, Oklahoma's governor established eleven (11) sub-state planning districts. Subsequently, the local governments served by the planning districts created the eleven (11) Councils of Governments (COGs) using the sub-state planning district boundaries. These districts make up the Oklahoma Association of Regional Councils (OARC). South Western Oklahoma Development Authority (SWODA) and the Association of South Central Oklahoma Governments are two of the eleven (11) COGs.

In April 2012, the Oklahoma Department of Transportation (ODOT) entered an agreement with OARC to oversee development of the regional transportation planning process and the regional public participation process in the non-metropolitan areas of the state. Three councils of governments were selected as pilot projects: SWODA, Northern Oklahoma Development Authority (NODA) and Central Oklahoma Economic Development District (COEDD). SWODA on October 13th, 2009 by Resolution 09-04 (Appendix A) created the Southwest Oklahoma Regional Transportation Planning Organization (SORTPO) and was tasked with the responsibility of developing a regional plan that included preparation of eight (az8) county plans. In Federal Fiscal Year (FFY) 2016, through a collaborative effort involving SORTPO, the Association of South Central Oklahoma Governments (ASCOG) and the ODOT a transportation planning pilot project comprising sixteen counties was initiated representing two Councils of Governments SWODA and ASCOG. The SWODA Board of Trustees adopted Resolution 16-06 (Appendix B) amending the SORTPO region.

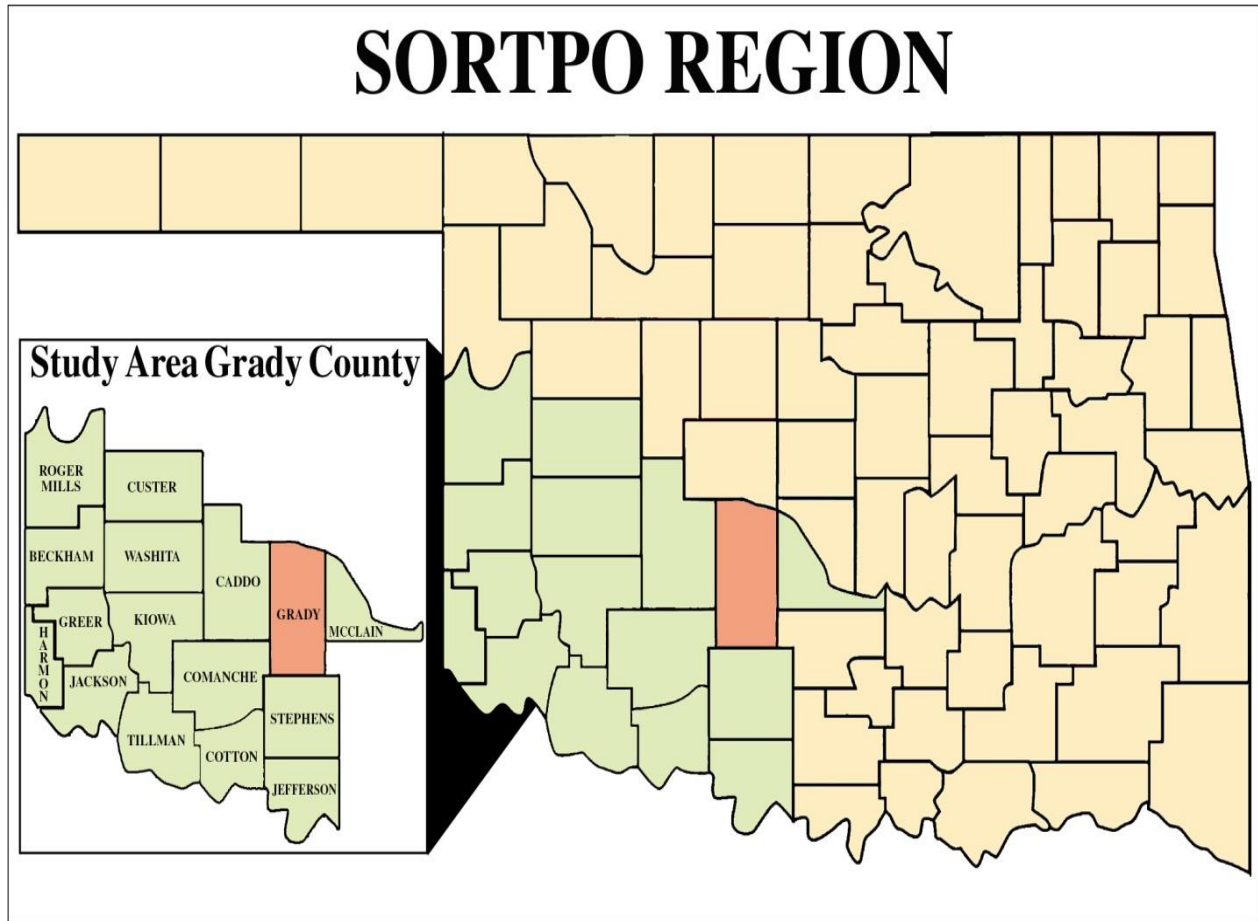
Located in southwest Oklahoma, the SORTPO region is comprised of 14,180 square miles. (Map 1.1). The SORTPO region is comprised of sixteen (16) counties, one hundred-twenty (120) cities and towns and nineteen (19) conservation districts. Total population for the SORTPO region according to the 2010 U.S. Census Bureau was 416,257. Population data obtained from the 2012-2016 American Community Survey (ACS) estimates the population has increased to 421,747. Although much of the region is comprised of large tracts of farming and agriculture lands there are multiple areas that contain urbanized areas that feature regional medical facilities, universities, military installations and governmental offices. Population growth and shifts for the SORTPO region are dependent on many factors depending on a county. Each County in the region although a separate entity is interconnected through commerce, employment, health services, education and transportation.



All aspects of the planning process are overseen by the SORTPO Policy Board. The SORTPO Technical Committee serves as the advisory group for transportation planning and policy initiatives. This committee reviews transportation planning work efforts and provides a recommendation to the SORTPO Policy Board for their consideration and action. The day-to-day activities of SORTPO are supported by staff located in the SWODA (Burns Flat) and

ASCOG (Duncan) offices. Staff, equipment, supplies, rent, consulting studies, and other expenses used to support staffing operations are reimbursable to SORTPO by the Federal Highway Administration (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 SWODA.

Map 1.1: SORTPO Region



Source: SWODA

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 public through a proactive public participation process. Emphasis by the FHWA and the 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 purpose of the transportation system is to move people and goods in the safest and most efficient manner possible. SORTPO envisions the transportation system as a critical element of the quality of life for the citizens. A regional approach to long range transportation planning is necessary because of the rural nature and diverse characteristics of the

population in Oklahoma. Transportation systems must safely, efficiently and effectively allow citizens to travel to work and to conduct their personal lives as well as 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 their location, their capacity and the future needs. The process of developing the LRTP provides an opportunity for participating in the planning of the future transportation system. The process allows the community to focus their attention on transportation in the context of Grady County as well as the SORTPO region. The LRTP was developed within the regulatory framework of MAP-21 and the Fixing America's Surface Transportation Act (FAST Act). The LRTP establishes the goals, objectives and transportation strategies for addressing the region's transportation needs. The LRTP establishes the goals, objectives and transportation strategies for addressing the region's transportation needs. This planning process follows the three "c's" identified by federal transportation regulations: continuing, cooperation and comprehensive.



Purpose of Plan

The 2040 Grady County LRTP is a document used by the county, cities, towns, agencies, businesses and residents as a guide to maintain and improve the region's transportation system through 2040. The year 2040 was chosen as the planning horizon year for the LRTP for the following reasons:

- The year 2040 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 plan for long range solutions to anticipated needs.

The Plan is an important tool and assists communities in focusing their limited funds on projects that give them the best value and benefit for funding. The purpose of the long-range transportation plan is to direct investment of available resources toward meeting the region's highest priority needs. The needs are determined by comparing the Plan's goals, "What do we want to accomplish over the life of the plan?" with current conditions and forecasts, "Where are we starting, and how are demographics and economics expected to change?" The projects and strategies included in the LRTP arise from the needs and span the twenty-year planning period.

A key concept that underlies the discussion of needs is affordability. With limited fiscal resources, every jurisdiction that owns and operates part of the countywide transportation system must consider what they can afford to operate and how to maintain into the future.

People of all ages are making different decisions about where they choose to live, and what constitutes a positive quality of life. SORTPO's transportation planning process includes opportunities for the community's transportation stakeholders to participate in development of the LRTP. This process includes soliciting comments from the public on current and future transportation needs. Appendix 4.1 illustrates survey results obtained during the planning process. Survey Question 11 includes information on the importance of selected transportation components in Grady County. Three components received the highest rating: maintenance improvements and bridge improvements, smooth driving surface, and adding shoulders. When selecting projects survey respondents indicated in Question 12 a higher preference for projects that improve safety, supports economic development, and reduces congestion.



As a means of achieving the successful implementation of the LRTP, the projects are developed in five-year increments. The five-year increment format will offer realistic goals in Chapter 5 relative to the LRTP's short range implementation activities. The incremental approach also provides a reasonable opportunity in scheduling state and /or federally funded transportation improvements within the county.

Relationship and Requirements with State and Federal Agencies

The plan was developed in cooperation and in collaboration with municipal, county governments, transit providers, ODOT and the Federal Highway Administration (FHWA). The plan is the culmination of a continuing, cooperative, coordinated and comprehensive planning effort among the federal, state and local governments directed by SORTPO that provides for consideration and implementation of projects, strategies and services that should address the planning factors identified in The Moving Ahead for Progress in the 21st Century Act (MAP-21) and the Fixing America's Surface Transportation Act (FAST) was signed into law in December 2015. The FAST Act added two additional factors for a total of ten (Table 1.1), which SORTPO should strive to address through their LRTP planning process.

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 23 U.S.C 135 (d)(1)

In addition, The FAST Act continues MAP-21 requirement to State Departments of Transportation and Metropolitan Planning Organizations to use a performance-based approach to support seven (7) 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, SORTPO recognizes the significance of such measures and will begin the collection of data needed to establish standards in future (Appendix C).

Goals and Strategies

The planning process follows a hierarchy that includes goals and strategies to assist Grady County in planning and prioritization of transportation projects and programs. Goals are general statements of what we want the future to be like. The goals are used as guiding principles to choose among various options for transportation improvements. Therefore, they should be attainable and realistic. In addition, the goals should relate to present conditions and expected changes in those conditions. Strategies are specific, quantifiable steps towards the realization of those goals. Table 1.2 identifies the goal categories for the 2040 Grady County LRTP.



Goals were developed from meetings held with stakeholders, technical committee and policy board meetings. It is important to recognize that many factors influence transportation system performance and transportation is only one component of a community. Economic development, housing, the economy and natural resources also can play a role. Implementing goals is the responsibility of local, county and state governments and SORTPO. Strategies were developed in coordination with partner agencies. The strategies developed do not fall solely under the responsibility of SORTPO. Local and community agencies should consider their roles in affecting outcomes. It will be necessary to prioritize the strategies and build the

data collection and analysis, for those deemed most important, into annual programs, such as the Planning Work Program (PWP).

Table 1.2: Grady County Goal Categories

Goal	Description
1. Accessibility and Mobility (pg. 7)	Improve accessibility and mobility for people and freight.
2. Awareness, Education and Cooperative Process (pg. 7)	Maintain intergovernmental cooperation and coordination, along with community participation and input in all stages of the transportation planning process.
3. Freight & Economic Vitality (pg. 7)	Support and improve the economic vitality of the county and region by providing access to economic development opportunities, such as business and industrial access, natural, scenic and historic resources or recreational travel and tourism.
4. Environment (pg. 8)	Reduce impacts to the county's natural environment, historic areas and underrepresented communities resulting from transportation programs and projects.
5. Finance & Funding (pg. 9)	Seek and acquire a variety of transportation funding sources to meet the many diverse system needs.
6. Maintenance and Preservation (pg. 9)	Preserve the existing transportation network and promote efficient system management to promote access and mobility for both people and freight.
7. Safety & Security (pg. 9)	Improve the safety and security of the transportation system by implementing transportation improvement that reduce fatalities and serious injuries as well as enabling effective emergency management operations.
8. Community & Health (pg. 9)	Facilitate development of transportation projects and programs that support economic development and healthy lifestyles in the county and region.
9. Tourism & Travel (pg. 10)	Improve travel opportunities through enhancement and preservation of access to tourism destinations or regionally significant facilities.

Goal 1: Accessibility and Mobility

Improve accessibility and mobility for people and freight.

Strategies:

1. Support opportunities to expand the transit system(s) in the county improving access to health care facilities, education facilities, recreation centers, cultural and tourist sites and employment.
2. Develop a system to collect and monitor changes in population, employment, and major employers by Traffic Analysis Zone (TAZ).
3. Conduct a freight assessment and study for the region.
4. Review transportation improvements and expansion of services to ensure that the facility for one (1) mode of transportation doesn't create barriers for the access or mobility of other modes.
5. Participate with ODOT, Class III Rail Companies and communities in activities that will upgrade rail tracks, bridges and trusses to support the standardized railcar weight of 286,000 pounds.
6. Participate with state agencies, such as the Oklahoma Department of Transportation, Department of Commerce, Metropolitan Planning Organizations (MPO), Regional Transportation Planning Organizations (RTPO), Regional Economic Development Agencies, rail industry and shippers of rail products to discuss and comment current rail issues affect the counties, regions and State.

Goal 2: Awareness, Education and Cooperative Process

Maintain intergovernmental cooperation and coordination, along with community participation and input in all stages of the transportation planning process.

Strategies:

1. Participate on state, regional, and local committees regarding County transportation issues.
2. Educate key stakeholders, businesses, local leaders and the public on the purpose and function of SORTPO.
3. Annually review the SORTPO Public Participation Plan.
4. Provide assistance in development of a bicycle and pedestrian public awareness and education program.
5. Develop a clearinghouse for regional data sets, such as pavement management systems and geographic information systems to help form sound planning decisions.
6. Facilitate and support the coordination of regional training opportunities.
7. Develop a method to track the implementation of projects and regularly update the public on the status of projects, programs and finances.

Goal 3: Freight & Economic Vitality

Support and improve the economic vitality of the county and region by providing access to economic development opportunities, such as business and industrial access, natural, scenic and historic resources or recreational travel and tourism.

Strategies:

1. Prioritize transportation projects that serve major employment and activity centers, rail facilities and freight corridors
2. Identify the locations of major employment centers, including existing and proposed developments and identify types of transportation available.
3. Coordinate with local and tribal governments on the placement of regionally significant developments.
4. Maintain local, state and federal support for regional business airport
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. Working with area employers and stakeholders develop a database and map identifying transportation needs.
7. Identify and designate routes and connectors with heavy freight movements as freight priority corridors.

Goal 4: Environment

Reduce impacts to the county's natural environment, historic areas and underrepresented communities resulting from transportation programs and projects.

Strategies:

1. Consult with local, state and national agencies in the areas of environmental protection and historic preservation, in terms of transportation programs and projects.
2. Promote proper environmental stewardship and mitigation practices to restore and maintain environmental resources that may be impacted by transportation projects.
3. Promote the use of alternative fuels and technologies in motor vehicles, fleet and transit vehicles.
4. Develop database and mapping to identify the County's underrepresented communities.
5. Support designs of the transportation system that will protect cultural, historic, and scenic resources, community cohesiveness, and quality of life.
6. Develop a data file and create a map identifying location of wind farms and pipelines and relationship to communities and the transportation system.

Goal 5: Finance and Funding

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

Strategies:

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, tribal, and state officials that includes public participation, private sector involvement, coordination among jurisdictions and modes and fiscal constraint.
4. Assist jurisdictions in identifying funding sources and applying for funds.

Goal 6: Maintenance and Preservation

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

Strategies:

1. Identify sources of transportation data and develop a procedure to collect the data and present to the public.
2. Identify and collect transportation performance data and compare to previous years' data.

Goal 7: Safety and Security

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

Strategies:

1. Coordinate with local governments and other agencies to identify safety concerns and conditions and recommend projects to address key deficiencies.
2. Coordinate county and regional actions with the Statewide Highway Safety Plan.
3. Collect and routinely analyze safety and security data by mode and severity to identify changes and trends.
4. Assist in the designation of corridors and development of procedures to provide for safe movement of hazardous materials.
5. Adopt best practices to provide and improve facilities for safe walking and bicycling.
6. Incorporate emergency service agencies in the transportation planning and implementation process.
7. Support the Oklahoma Department of Transportation in its plans to add and improve roadway shoulders on two lane highways.
8. Reduce the number of at grade rail highway crossings.
9. Upgrade passively protected at grade rail highway crossings.

Goal 8: Community & Health

Facilitate development of transportation projects and programs that support active lifestyles in the region.

Strategies:

1. Integrate healthy community design strategies and promote active transportation to improve the public health outcomes.
2. Develop and implement Complete Street Programs.
3. Support development of transportation systems that provide opportunities for populations walking, bicycling and utilizing non-motorized modes.
4. Identify funding opportunities and partners to increase low cost transportation opportunities.
5. Establish partnerships with local groups and agencies to provide transportation services.

Goal 9: Tourism & Travel

Improve travel opportunities through enhancement and preservation of access to tourism destinations or regionally significant facilities.

Strategies:

1. Develop a regional map that identifies tourism destinations and regionally significant facilities.
2. Establish procedures to increase coordination and communication with local governments, tribal governments and state agencies to identify projects that impact the communities' transportation system.
3. Collaborate with local economic development authorities, State and Federal economic development agencies in the identification of current and future transportation projects.

Key Issues, Challenges and Trends

There are many issues facing the area that have a direct or indirect impact on the transportation system. Rural communities have problematic transportation issues such as intersections, congestion and limited or no access to transit. This section is intended to identify these issues, challenges and trends. At the onset of the transportation planning process, the SORTPO staff, policy board and technical committee members identified key issues, trends and challenges that impact the transportation system. Key issues, challenges and trends were also identified through public surveys, stakeholder meetings, public comments, other plans, data sources, and reports.

Key Issues:

- Maintain access to healthcare and emergency services.
- Trucks hauling liquid and impact to roads and bridges.
- Demand Response transit services limited to city of Chickasha.
- Lack of shoulders on 2 lane highways.
- The area surrounding and including the towns of Bridgecreek and Tuttle are included in the Oklahoma City Metropolitan Statistical Area (MSA) and the Oklahoma City Area Regional Transportation Study Area (OCARTS).
- Lack of funding to adequately maintain roadway systems and bridges.
- Lack of funding for improvements of rail crossings.
- Steep hills and sharp curves.
- Problematic traffic issue locations (areas with high accidents, intersections, truck traffic generators).

Challenges:

- Competition for medical professionals between urban and rural.
- Age of infrastructure.
- Attracting workforce to support the employment needs.
- Access to affordable high-speed internet.
- Competition for industry/business.

- Communication and coordination with Quapaw Tribe of Indiana, Caddo Tribe, Chickasaw Nation, Fort Sill Apache Tribe, Chickasaw Nation and Delaware Nation on development projects and transportation needs.
- Economy is dependent on the agriculture and the oil and gas industry.
- Working together regionally to attract/maintain workforce, industry and community
- Funding limitation - revenues continue to be limited to meet the transportation system needs over time.
- Maintain access to healthcare and emergency services.
- Lack a system to reevaluate how, when and where new roads are built versus investment in upgrade to the existing road system.

Trends:

- Growth occurring in the TriCity Area (Tuttle, Newcastle, and Blanchard).
- Population is declining in the rural areas.
- Drilling activity in the STACK SCOOP will increase.
- Freight truck traffic will increase grow along US 81, US 62 and H.E. Bailey Turnpike/I-44.
- Grady County's population is aging. Median age in 2000 was 36.5 and now is 38.4 years of age according to the 2012-16 ACS.
- Motor vehicles will continue to be the primary means of transportation.
- The energy sector and farming community will continue to rely heavily on trucks in rural areas.
- Technology impact on retail, employment and how medical services are obtained.
- Autonomous vehicle technology.
- National Household Travel Survey data reveals greater number of people are working from home.
- State of Oklahoma's budget negative impact.
- Rural population shrinking due to long term outmigration of young adults, fewer births, increased mortality among working age adults and aging population. Increased mortality among working-age adults is recent trend contributing to lower population growth. Rising rates of prescription abuse, opioids and heroin overdose deaths contribute to this trend.

Chapter 2: Current Conditions

This chapter provides a “snapshot” of current conditions that relate to transportation in Grady County. Demographics, economic conditions, environmental factors, community development and transportation and traffic data are included in this chapter. Grady County is in central Oklahoma (Map 1.1). Grady County has an estimated population of 53,955 (2012-2016 ACS) and is located within the Oklahoma City Metropolitan Statistical Area (MSA). The county is adjacent to Canadian County (north) and McLain County (east), Stephens County (South) and Comanche County (SW). The Canadian River provides its northern border and the Washita River runs through the county's middle. These rivers and their tributaries contribute to its agricultural prosperity.

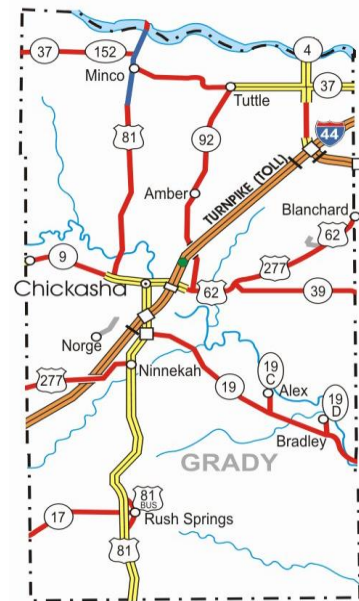
History

Grady County is in central Oklahoma and covers 1,105 square miles (1,100 land square miles and 4.4 square miles of water). Grady County was part of the land given to the Choctaw Nation in the early 1800's. In the mid 1850's the Chickasaw and Choctaw tribes were separated, and the Chickasaw were granted an area which included most of Grady County.

In 1908 the first state legislature founded the Oklahoma Industrial Institute and College for Girls, and the second legislature placed it in Chickasha. In 1916 the name officially changed to the Oklahoma College for Women. In 1965 renamed the Oklahoma College of Liberal Arts and in 1974 it became the University of Science and Arts of Oklahoma (USAO). Specialized educational needs are met by the Jane Brookes School for the Deaf.

Beginning in the late 1910s oil and gas exploration occurred near the Grady-Stephens county line. The two early production zones were the Carter-Knox oil field and the Chickasha gas field. The first gas well in the Chickasha Field was drilled in 1922. In 1923 Marland Oil Company successfully drilled a gas well in the Carter-Knox Field, and that same year the Becker-Reed Oil and Gas Company struck oil. In addition to the oil and gas industry, farming continues to be a significant industry in the County. Products include cotton, hay and wheat.

Major highways in the County include: Interstate I-44 (H.E. Bailey Turnpike), US 62, 81, 277, State Highways 4, 9, 17, 19, 37, 39, 92 and 152. Interstate I-44 traverses the county from the southwest to northeast providing a connection to Texas and extending through the Oklahoma City Metropolitan area onto Tulsa. US Highway 81 bisects the county to the north and south linking this area to Texas and Kansas (US 81 is parallel to the Old Chisholm Trail), US 62 continues from Chickasha northeast to Blanchard. US 277 continues from the Comanche County line and extends to US 81 continuing to US 62. Extending southeast SH

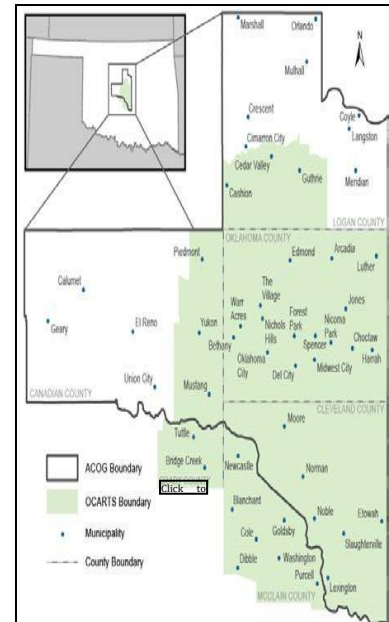


19 continues from US 81 at Ninnekah to the Garvin County line. State highway 9 extends from west of Chickasha to US 62. State Highway 92 extends north from US 62 to SH 37 in Tuttle then west to US 81.

The railroad has been significant to the County's history, beginning with the first railroad in 1890 in Minco. In 1892 rail tracks were constructed connecting Chickasha, Ninnekah and Rush Springs to the Texas board and from Chickasha to Mangum and from Chickasha to Oklahoma City. The Union Pacific operates the north south railline that traverses through the middle of the County. The Stillwater Central Railroad a Class III system operates a line from western Oklahoma connecting in Chickasha and continue northeasterly in the County through Canadian County into Oklahoma County and continuing north to Sapulpa. Map 2.1 illustrates the location of Grady County's transportation system.

Grady County's estimated population of 53,955 (2012-2016 ACS) equates to 48.82 people per square mile. The northeast quarter of the area covered by the LRTP also includes the metropolitan planning boundary, known as the Oklahoma City Area Regional Transportation Study (OCARTS) area. The OCARTS area includes approximately 2,085 square miles, which encompasses all of Oklahoma and Cleveland Counties and portions of Canadian, Grady, Logan, and McClain Counties¹. The OCARTS area is also designated as the Transportation Management Area (TMA) for the Oklahoma City metropolitan region.

The County includes twelve areas designated as a city or town, the largest being the City of Chickasha.



- **Alex** is located on SH 19 in southeastern Grady County approximately 10 miles southeast of Chickasha. The Town of Alex began to be settled in the late 1880s and was incorporated in 1910. Primarily a farm community the main commodities are wheat, alfalfa and livestock. The 2012-2016 ACS population for the town is 564.
- The Town of **Amber** is located on US 92 in north central Grady County. Amber is located along the St. Louis and San Francisco Railway. The Town was incorporated in 1970 and primarily is a farming community. The 2012-2016 ACS population for the town is 400.
- **Bridgecreek** was incorporated as a town in 2000. The Town and area surrounding the town are part of the fast-growing area of northern Grady and McClain counties known as the Tri-City Area with Newcastle, Tuttle and Blanchard. The 2012-2016 ACS population for the town is 337.
- **Chickasha** is the county seat of Grady County and is centrally located at the intersection of two highways: US 62 and US 81. In 1892 the Chicago, Rock Island and Pacific Railway (CRI&P) laid tracks from Minco to the Texas line, through the early areas known as Chickasha, Ninnekah, and Rush Springs. Chickasha's economic climate has predominantly centered around oil-related services, education and the

health industry. Areas of interest and recreation include: Lake Burtschi, University of Science and Arts (USAO), Shannon Springs Park and the Festival of Light. Industries and employment centers include: University of Science and Arts of Oklahoma, Grady Memorial Hospital, Canadian Valley Technology Center, and Chickasha Public Schools System. The 2012-2016 ACS population for the City was 16,342.

- **Minco** was originally settled around 1890 along the Chicago, Rock Island and Pacific Railroad. Minco is located 19 miles north of Chickasha on US 81. In 2012, three windfarms (Minco I, Minco II and Minco III) were constructed. Minco hosts an annual Honey Festival. The 2012-2016 ACS population for the town 1,450.
- **Ninnekah** borders Chickasha to the south and US 81 passes through the town. The Town was originally founded as a rest stop along the Chisholm Trail. Primarily a farm community the main commodities are alfalfa hay, wheat and livestock. The 2012-2016 ACS population for the town was 1,113.
- **Pocasset** is in northwestern Grady County approximately 11 miles north of Chickasha on US 81. The school districts for Amber and Pocasset were combined in 1965. In 1996 the Pocasset Gym (NR96001489) was listed on the National register of Historic Places. The 2012-2016 ACS population for the town was 170.
- **Rush Springs** was incorporated as a town in 1898. The town is in southern Grady County and US 81 passes through the town. Rush Springs is best known for their annual Watermelon Festival. The Rush Springs aquifer underlies approximately 2,400 square miles including large portions of Caddo, Custer Washita and Grady counties. It is the second largest most developed aquifer in the state. Rush Spring's economy depends on agriculture, ranching and the energy sector. Drift Sand Wind farm became operational in 2016 with 50 wind turbines The 2012-2016 ACS population for the town was 1,265.
- The City of **Tuttle** is in northeastern Grady County. Tuttle was located on the primary route of the Chisholm Trail. The official town site of Tuttle was platted in 1905 and incorporated in 1906. The City of Tuttle adopted a 2020 Comprehensive Plan in December 2004. Tuttle is home to the Braum's Dairy. The Red Bed Plains Wind farm with 48 turbines is located south of Tuttle. Tuttle is served by three State Highways: SH 37, SH 4 and SH 92. The City of Tuttle is greatly influenced by growth and expansion of the Oklahoma City metropolitan area Tuttle is a part of the OKC Metropolitan Statistical Area (MSA), Oklahoma City Area Regional Transportation Study Areas (OCARTS) and Association of Central Oklahoma Governments. The 2012-2016 ACS population for the town 6,576.
- The Town of **Verden** is located west of Chickasha on US 62. The 2012-2016 ACS population for the town was 599.

Table 2.1 provides population data for the cities, towns and County between 1980-2016. Additional demographic data can be found in Appendices 2.1-2.7. 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.

Transportation is crucial to keeping older adults independent, healthy and connected to friends, family, recreation, shopping and health services. 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 county area. The needs of this segment of population will continue to influence the transportation needs and services for this region.

Map 2.1: Grady County, Oklahoma

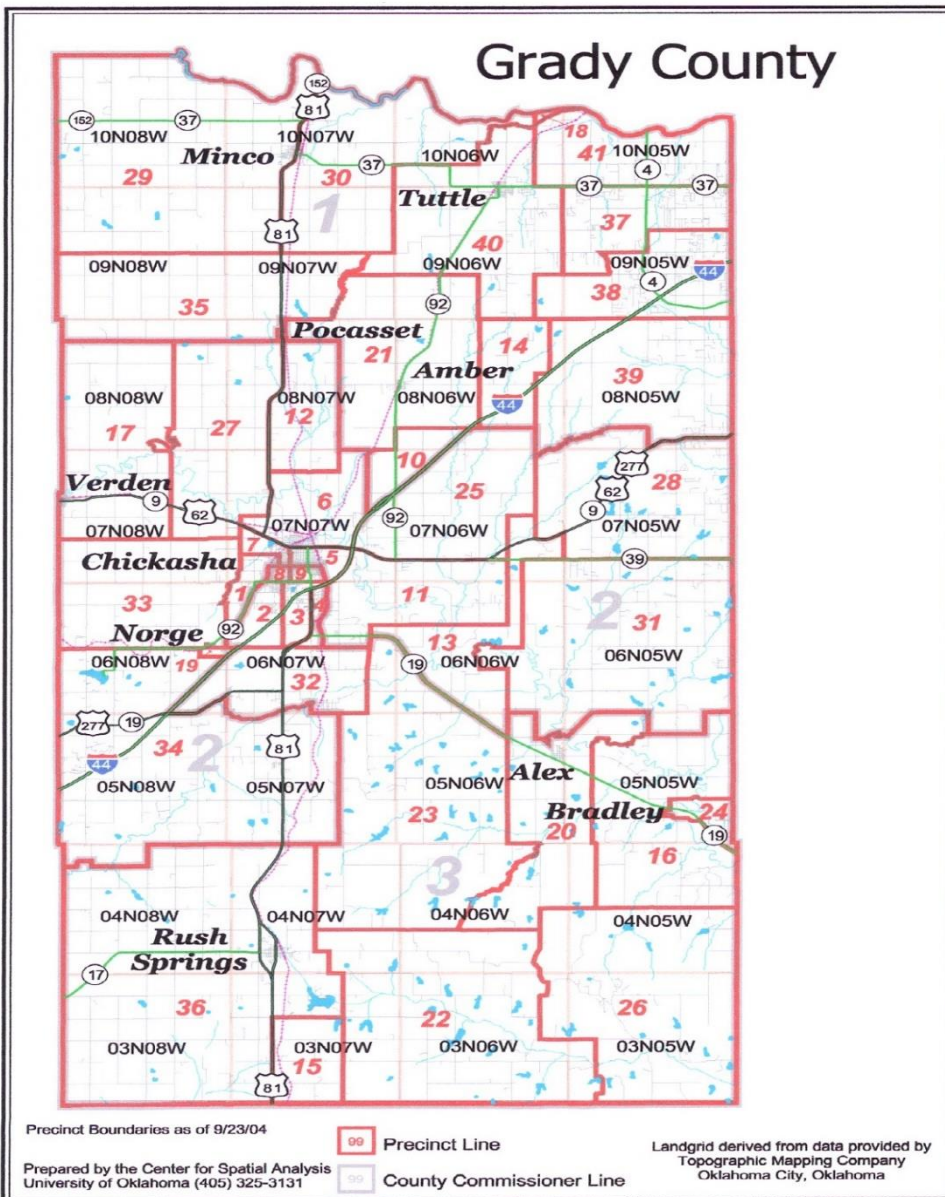


Table 2.1: Grady County Population 1980-2016 ACS Estimate

	1980	1990	2000	2010	2011- 2015 ACS	2012 - 2016 ACS
Alex	769	639	635	550	536	564
Amber	416	418	490	419	370	400
Bradley	284	166	182	130	-	120
Bridgecreek*	-	-	-	336	271	337
Chickasha	15,828	14,988	15,850	16,036	16,284	16,342
Minco	1,489	1,411	1,672	1,632	1,364	1,450
Ninnekah	-	-	994	1,002	1,018	1,113
Norge	87	97	82	145	145	154
Pocasset	-	-	192	156	151	170
Rush Springs	1,451	1,229	1,278	1,231	1,312	1,265
Tuttle	3,051	2,807	4,294	6,019	6,411	6,576
Verden	625	546	659	530	582	599
Balance of Grady County	15,490	19,446	19,188	24,245	25,168	24,865
Grady County	39,490	41,747	45,516	52,431	53,612	53,955

Source: American Fact Finder, US Census

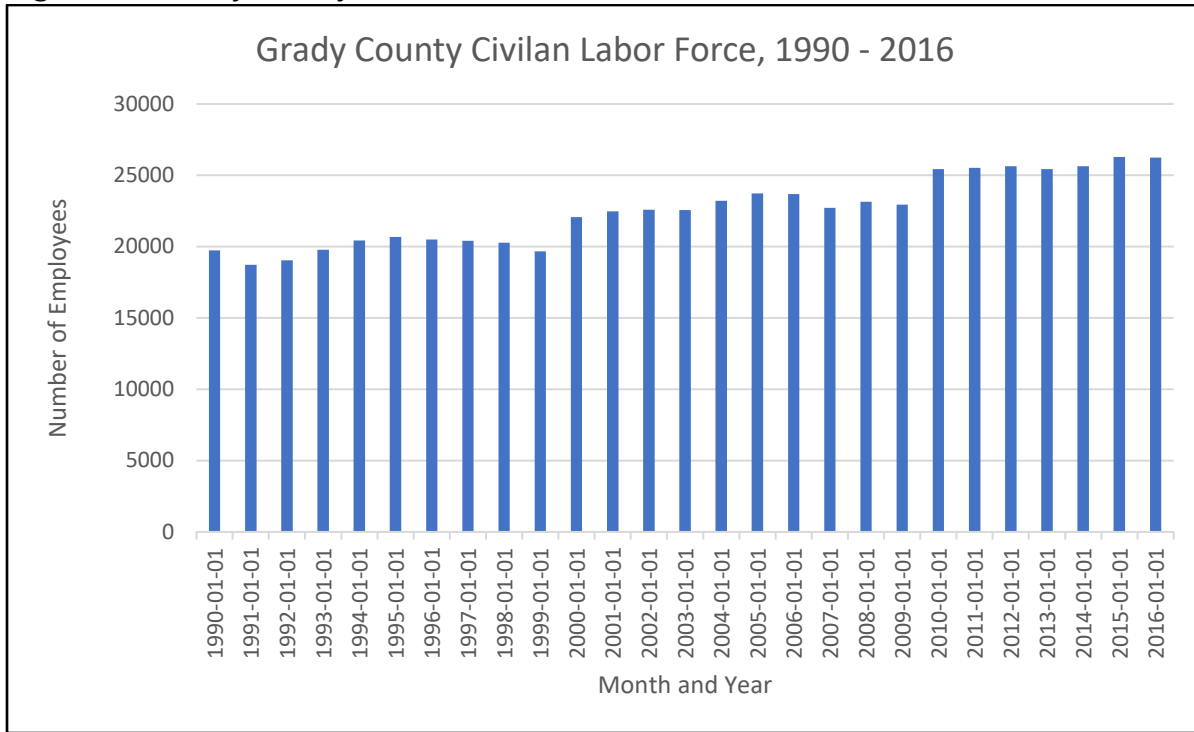
Data obtained from the 2012-2016 ACS further reveals:

- ✓ Population was distributed between male (49.8%) and female (50.2%),
- ✓ Median age of years of age - 38.4
- ✓ Race:
 - White - 85.8%,
 - African American – 2.2%,
 - American Indian – 5.0%,
 - Asian – 0.3% and
 - Hispanic/Latino – 5.4%,
- ✓ Mean travel time to work - 25.7 minutes
- ✓ Vehicles Available Workers 16 years and over – 24,022
 - No vehicles available – 1.1%
 - One vehicle available – 14.0%
 - Two vehicles available – 42.5%
 - Three or more vehicles available – 42.5%
- ✓ Total Housing Units – 22,482
 - Occupied Housing units – 19,554
 - Owner Occupied Units – 14,911
 - Renter Occupied Units – 4,643
 - Single Family Detached Housing Units – ;80.7%

- 2 apartments – 1.3%
- 3 or 4 apartments – 0.9%
- 5 to 9 apartments – 1.7%
- 10 or more apartments – 1.8%
- Mobile Home or Other type of Home – 12.9%
- ✓ Educational Attainment population 25 years and Older – 36,156
 - Less than 9th grade – 1,323
 - 9th to 12th grade, no diploma – 3,139
 - High School Graduate – 14,177
 - Some College, no degree – 8,933
 - Associates degree – 2,153
 - Bachelor's Degree – 4,727
 - Graduate or professional degree – 1,704
- ✓ Commute Patterns to Work Age 16 years and Older – 24, 096
 - Car, truck or van (drove alone) – 86.1%
 - Carpooled – 8.3%
 - Public Transportation – 0.1%%
 - Walked – 1.2%
 - Other Means – 1.2%%
 - Worked at Home – 3.1%
- ✓ Civilian Employed population 16 years and over – 24,297
 - Agriculture and forestry – 2,406
 - Construction – 1,846
 - Manufacturing – 2,227
 - Retail Trade – 3,008
 - Transportation and warehousing and utilities – 1,353
 - Professional, scientific and management – 1,529
 - Educational service and health care and social assistance – 5,212
 - Arts, entertainment and recreation and accommodations – 1,849
 - Other services, except public administration – 1,102
 - Public Administration – 1,629

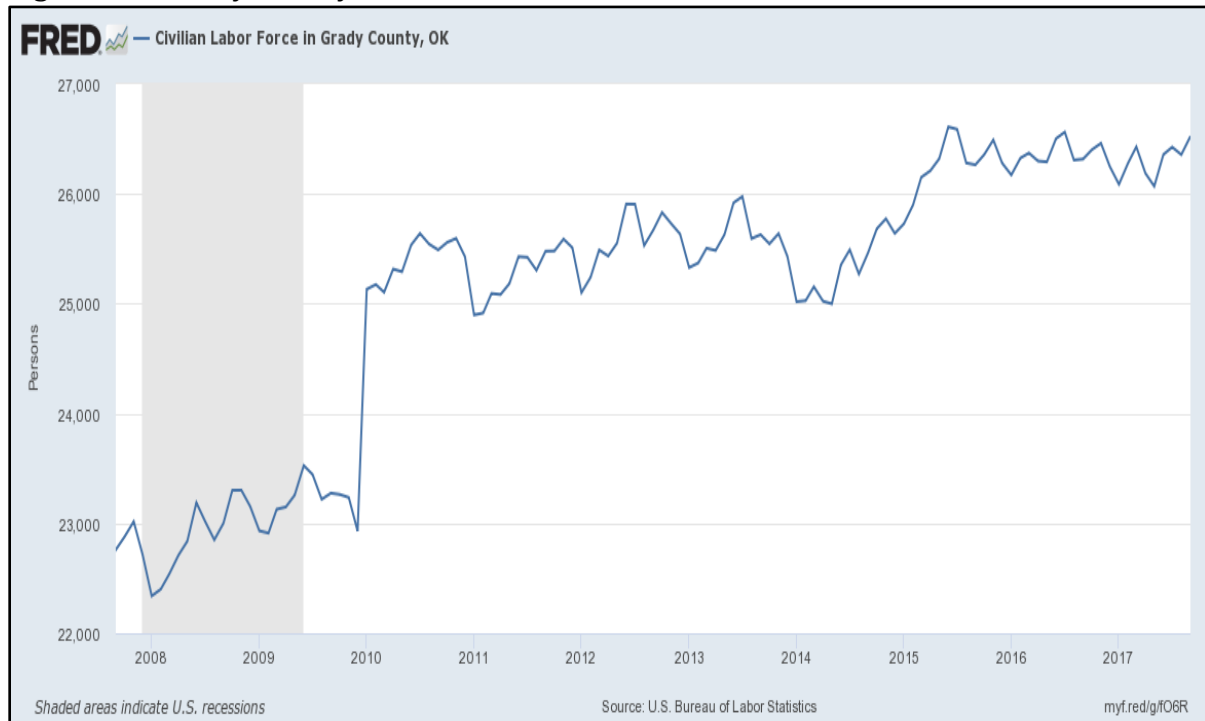
Figure 2.1 illustrates annual civilian labor force data for years 1990-2016 and Figure 2.2 illustrates the civilian labor force between 1990-2017. The information portrayed in this graph developed by the Federal Reserve Bank illustrates a 25-year picture of the fluctuation in the Grady County Civilian Labor Force. Figure 2.3 contains occupation and industry information for the County.

Figure 2.1: Grady County, Civilian Labor Force 1990-2016



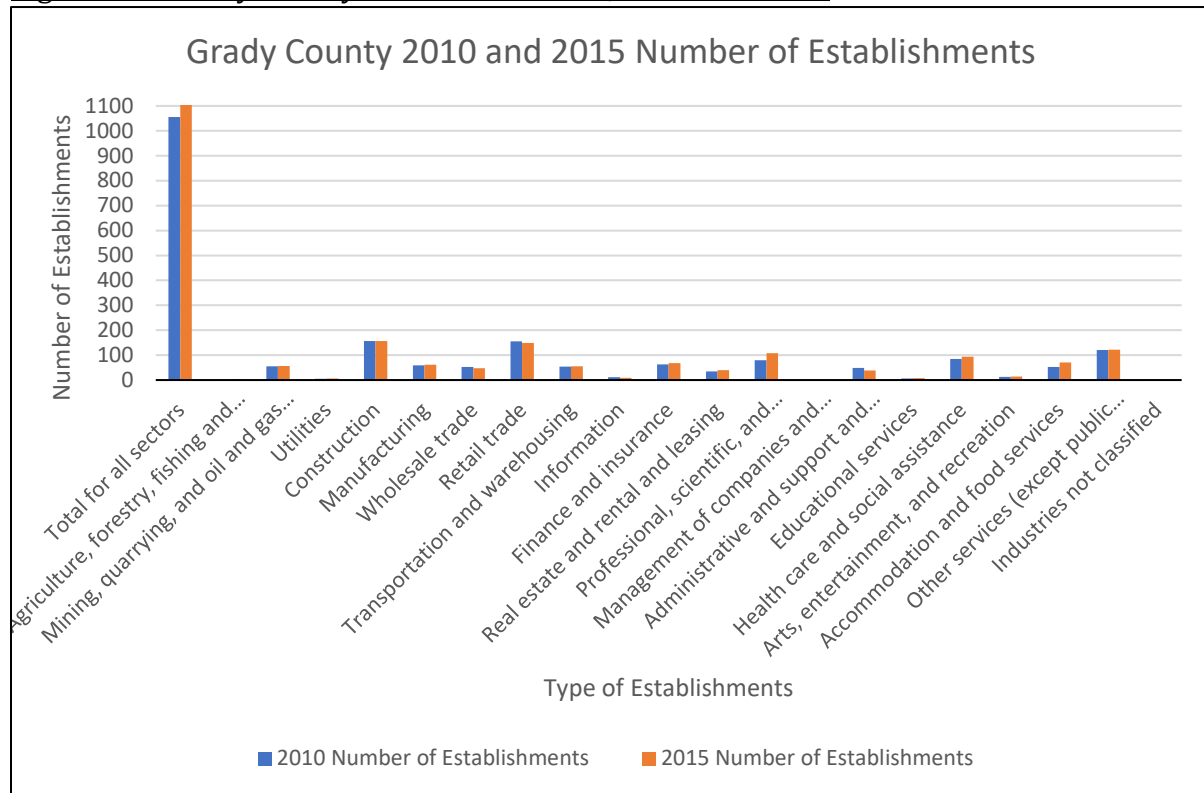
Source: BLS

Figure 2.2: Grady County, Civilian Labor Force 1990 – 2017



Source: US. Bureau of Labor Statistics. Release: Unemployment in States and Local Areas (all other areas) Growth Rate Calculations | US recession dates

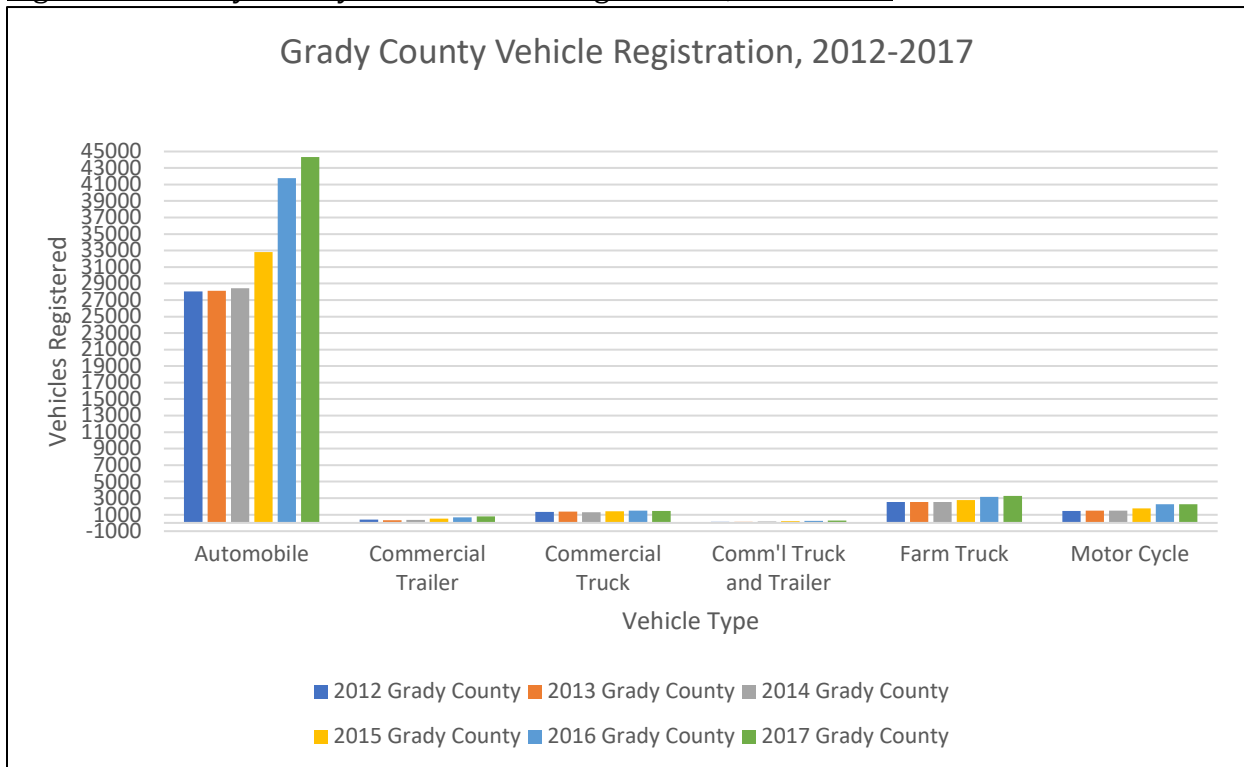
Figure 2.3: Grady County Business Patterns, 2010 and 2015



Source: American Fact Finder, Business Patterns

Figure 2.4 provides information related to vehicle registration data obtained from the Oklahoma Tax Commission (OTC). Automobile registration in Grady County between 2012-2017 increased 63% (16,253 automobiles). Vehicle registration overall during this period has increased. The data in the graph confirms that the primary vehicle is the automobile.

Figure 2.4: Grady County Motor Vehicle Registration, 2012-2017



Source: Oklahoma Tax Commission

Traffic Analysis Zones

The Traffic Analysis Zone (TAZ) Program is a specialized computer program used for delineating zones in support of the Census Transportation Planning Products (CTPP). TAZ delineation follows the decennial census and is designed to allow planning agencies the ability to define areas to associate demographic data that supports transportation system analysis. Boundaries of a TAZ typically follow U.S. Census boundaries and are an aggregation of several census blocks. Socio economic data for the plan was obtained by the 2010 U.S. Census Bureau and Oklahoma Department of Commerce. The year 2015 is the base year for the plan and 2012-2016 ACS population estimate is the base population.

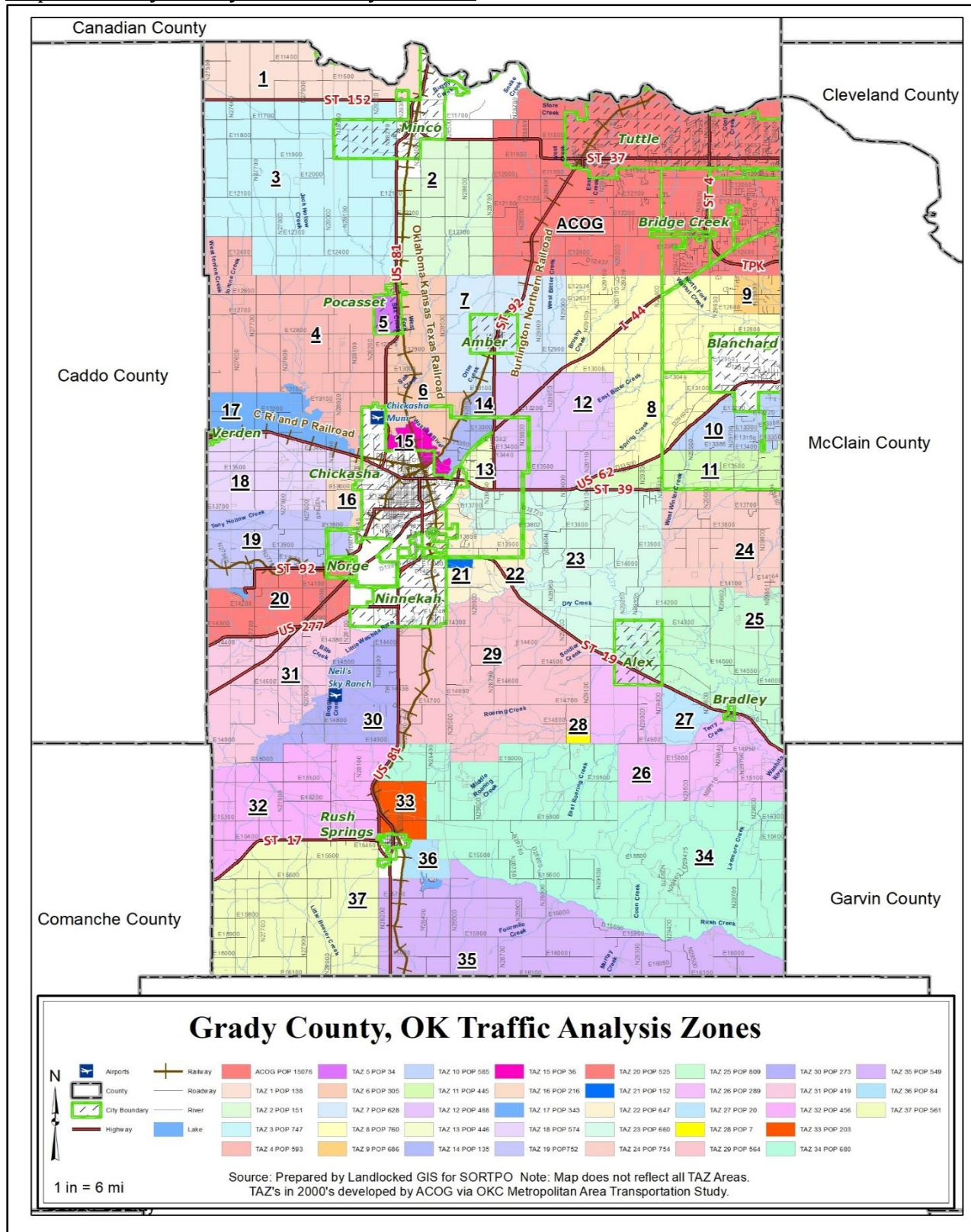
TAZ delineation for the areas other than Metropolitan Planning Organizations (MPO) are the responsibility of ODOT. Historically in non-MPO areas the TAZ boundary defaulted to the census tract boundary. The RTPPO's are responsible for developing these zones and supporting data. As rural transportation planning continues to mature the delineation of TAZ will allow acquisition of data that supports the transportation planning process. ACOG developed TAZ maps and data for the areas of Grady County within their transportation planning area and SORTPO developed TAZ maps and data for the remaining areas of Grady County. SORTPO staff developed TAZ boundaries based on county population as identified below:

- Small populated counties (population < 6,000)
 - population thresholds of 200 to 400 and employment thresholds of 200-300

- Medium populated counties (population 6,001 – 34,999)
 - population thresholds of 400 to 600 and employment thresholds of 300-400
- Large populated counties (population > 35,000)
 - population thresholds of 600 to 800 and employment thresholds of 400-500

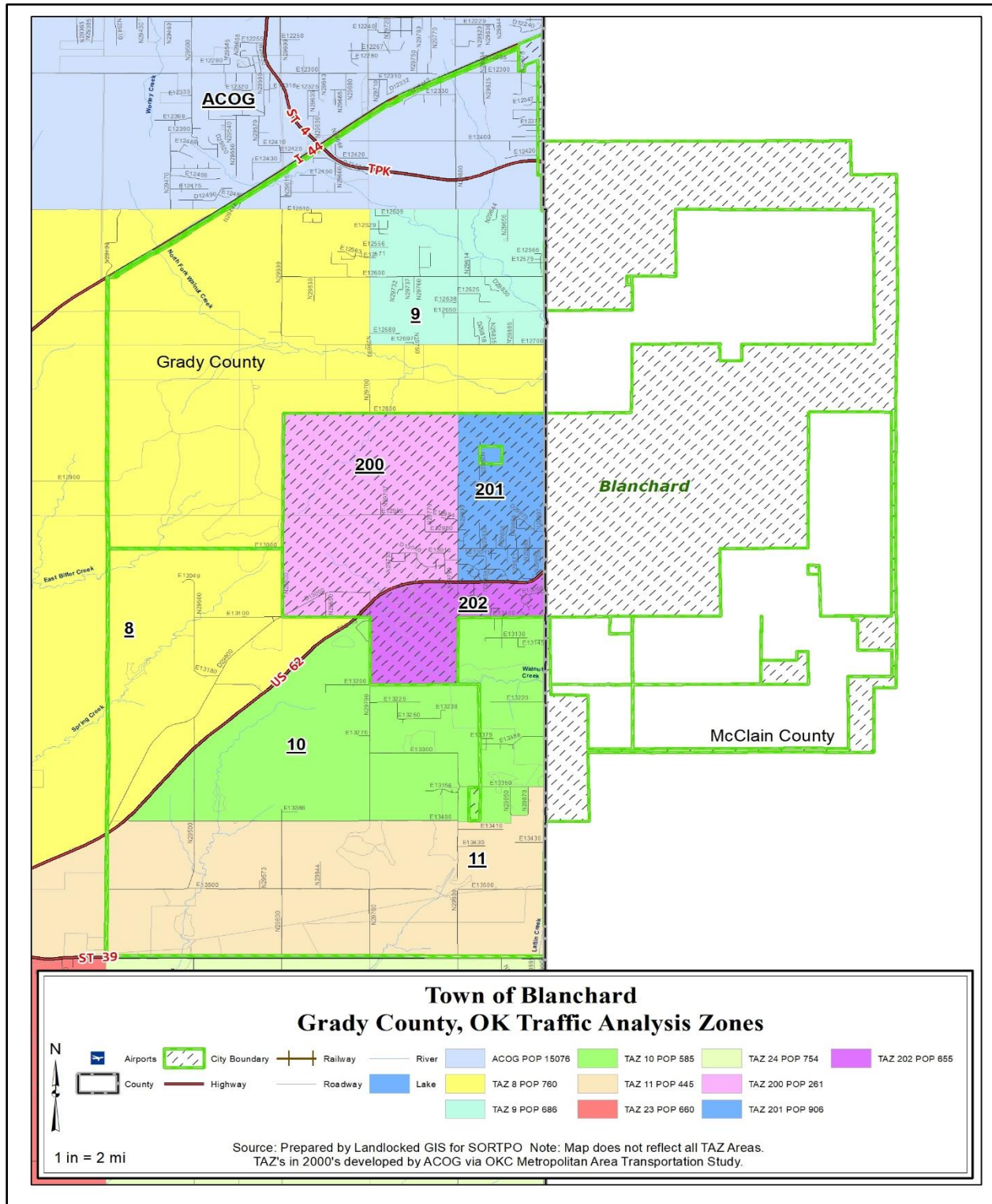
Geographically, the study area is subdivided into one hundred seventy nine (179) TAZs and the socio-economic data (including population and employment) are summarized for each TAZ. Map 2.2 illustrates TAZ boundaries for the county. Maps 2.3 through 2.10 illustrate TAZ areas for the county, cities and towns. The 2012-2016 ACS population estimate of 53,955 and civilian employment of twenty four thousand and eighty six (24,086) were distributed into the TAZs. Appendix 2.8 provides information on the population and employment data by TAZ. The TAZ within and surrounding the cities/towns of Bridge Creek, and Chickasha have the largest concentration of population and employment. The more rural areas of the County require the Plan development to consider that a major employer is determined by the individual community. In some instances, a major employer may be identified as an employer with as few as 1-4 employees. Major employers by city/town and County by TAZ are included in Appendix 2.9.

Map 2.2: Grady County Traffic Analysis Zones



Source: Prepared by Landlocked GIS for SORTPO

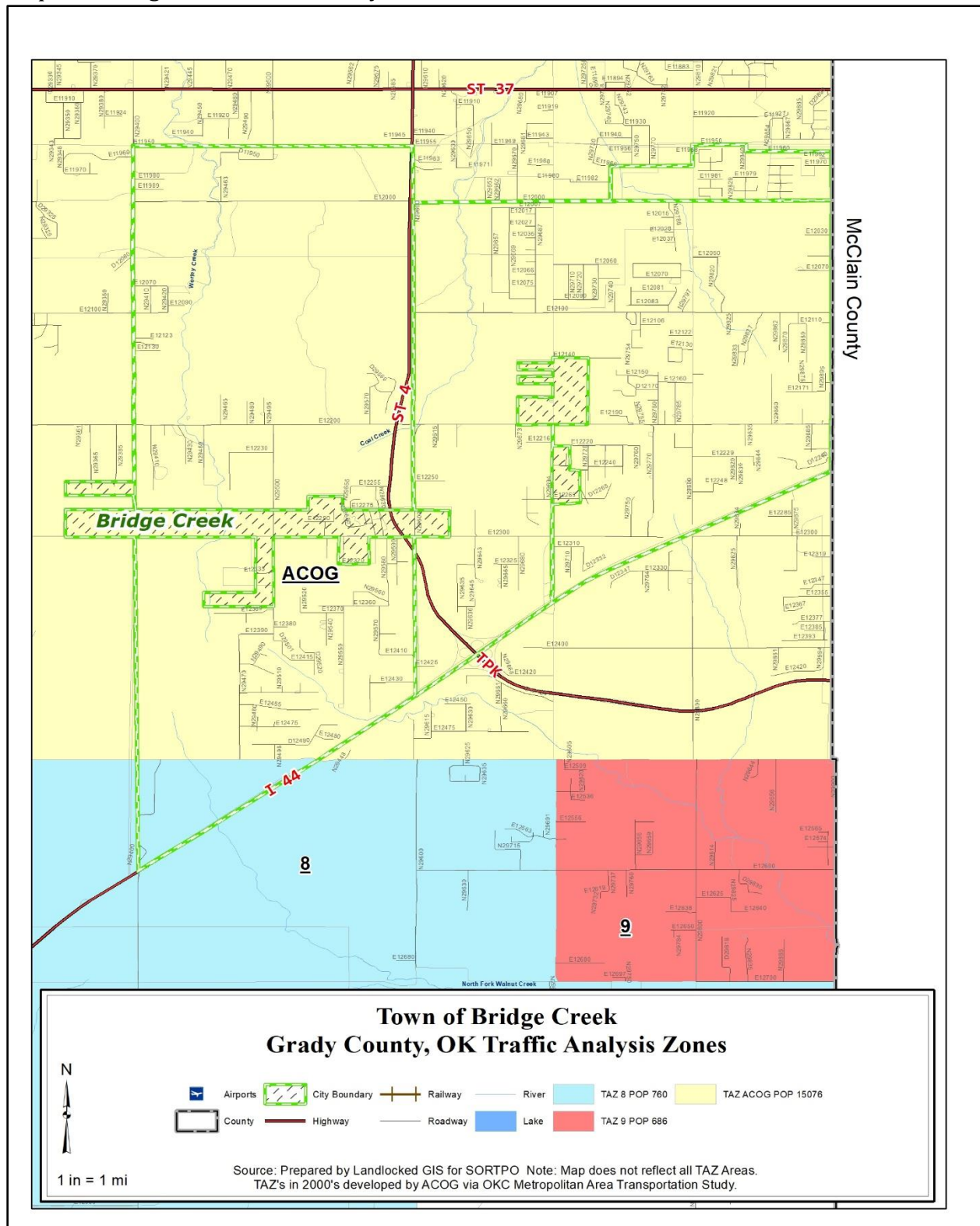
Map 2.3: Blanchard Traffic Analysis Zones



Source: Prepared by Landlocked GIS for SORTPO

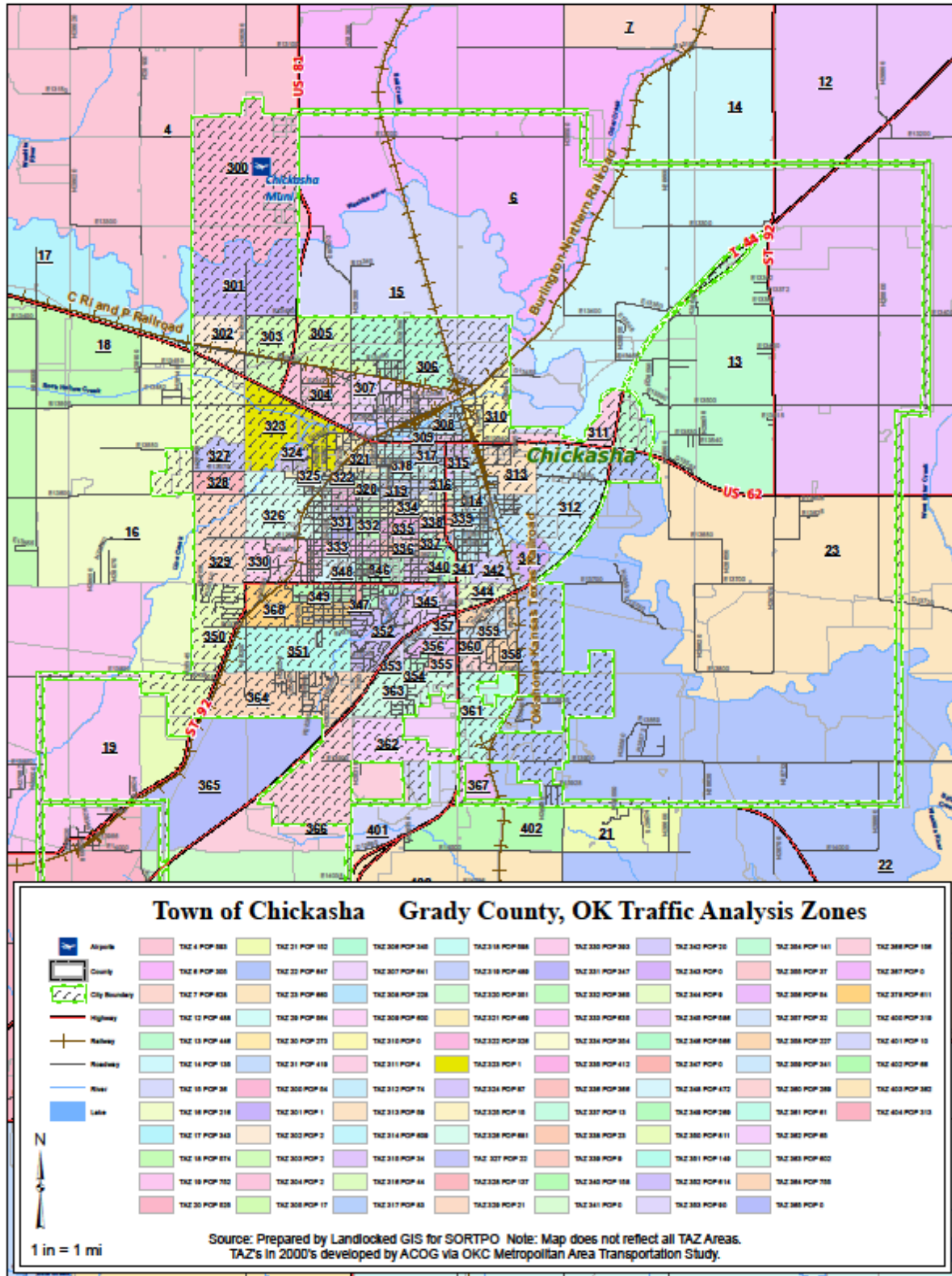
2040 Grady County Long Range Transportation Plan

Map 2.4: Bridge Creek Traffic Analysis Zones



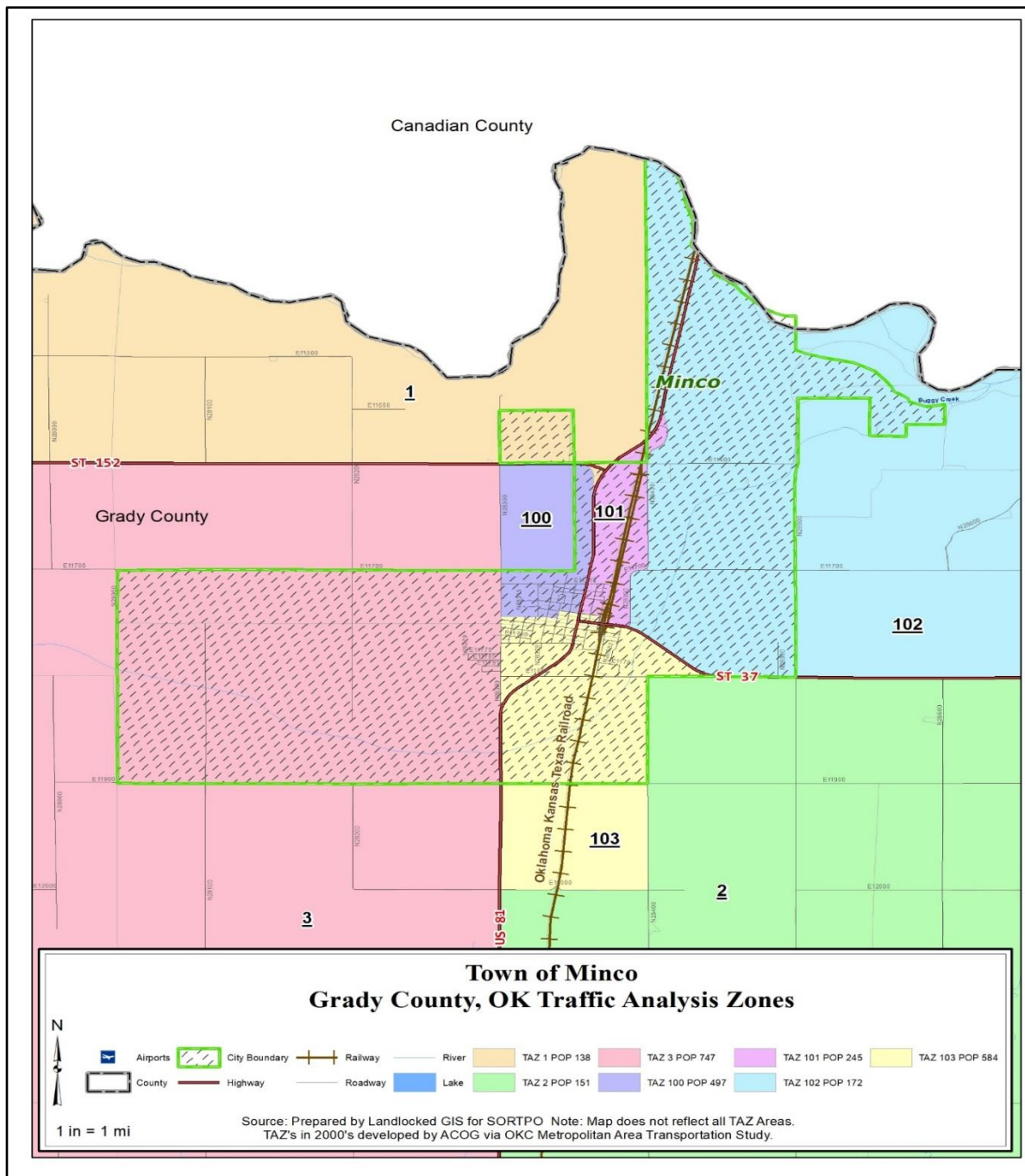
Source: Prepared by Landlocked GIS for SORTPO

Map 2.5: Chickasha Traffic Analyses Zones



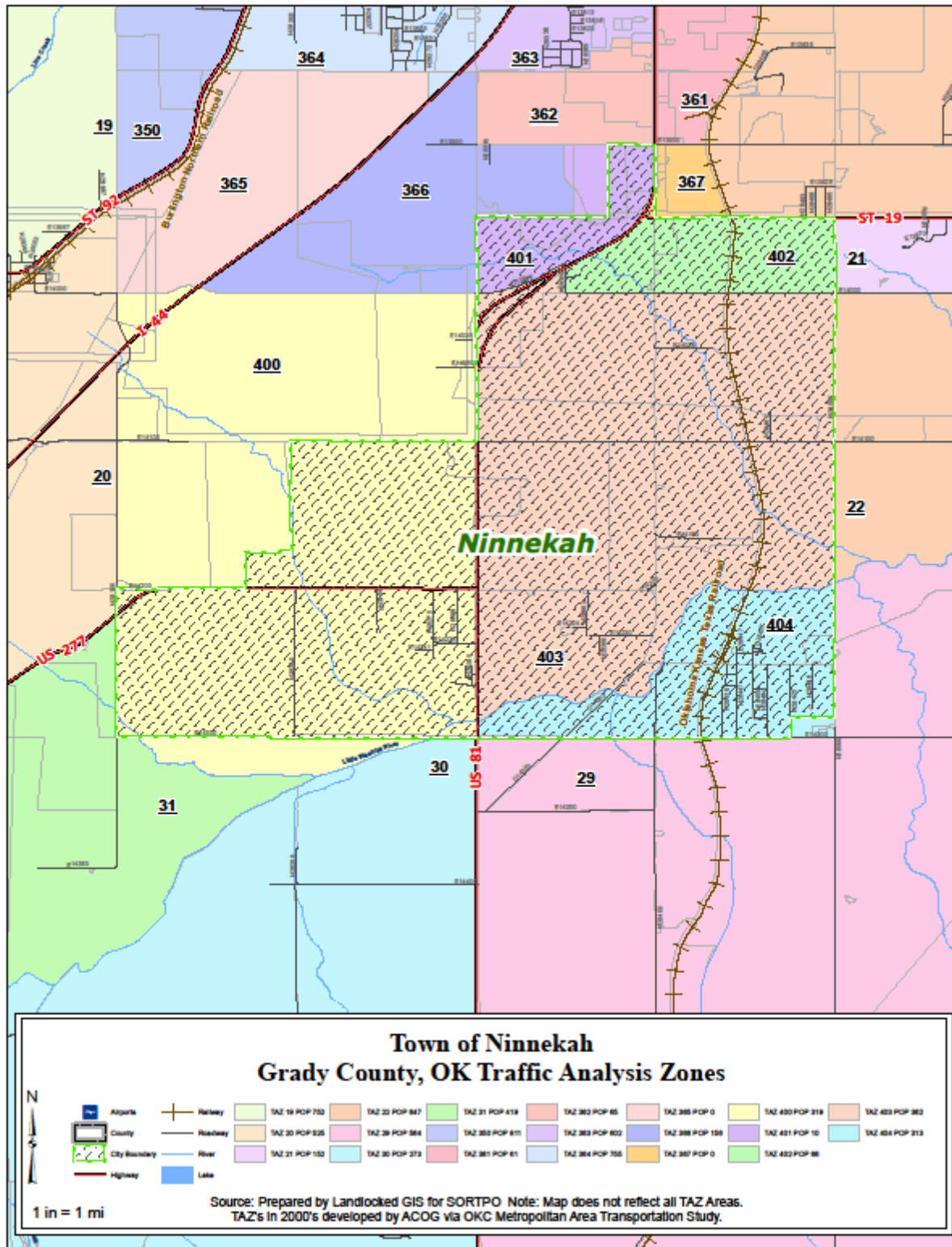
Source: Prepared by Landlocked GIS for SORTPO

Map 2.6: Minco Traffic Analyses Zones



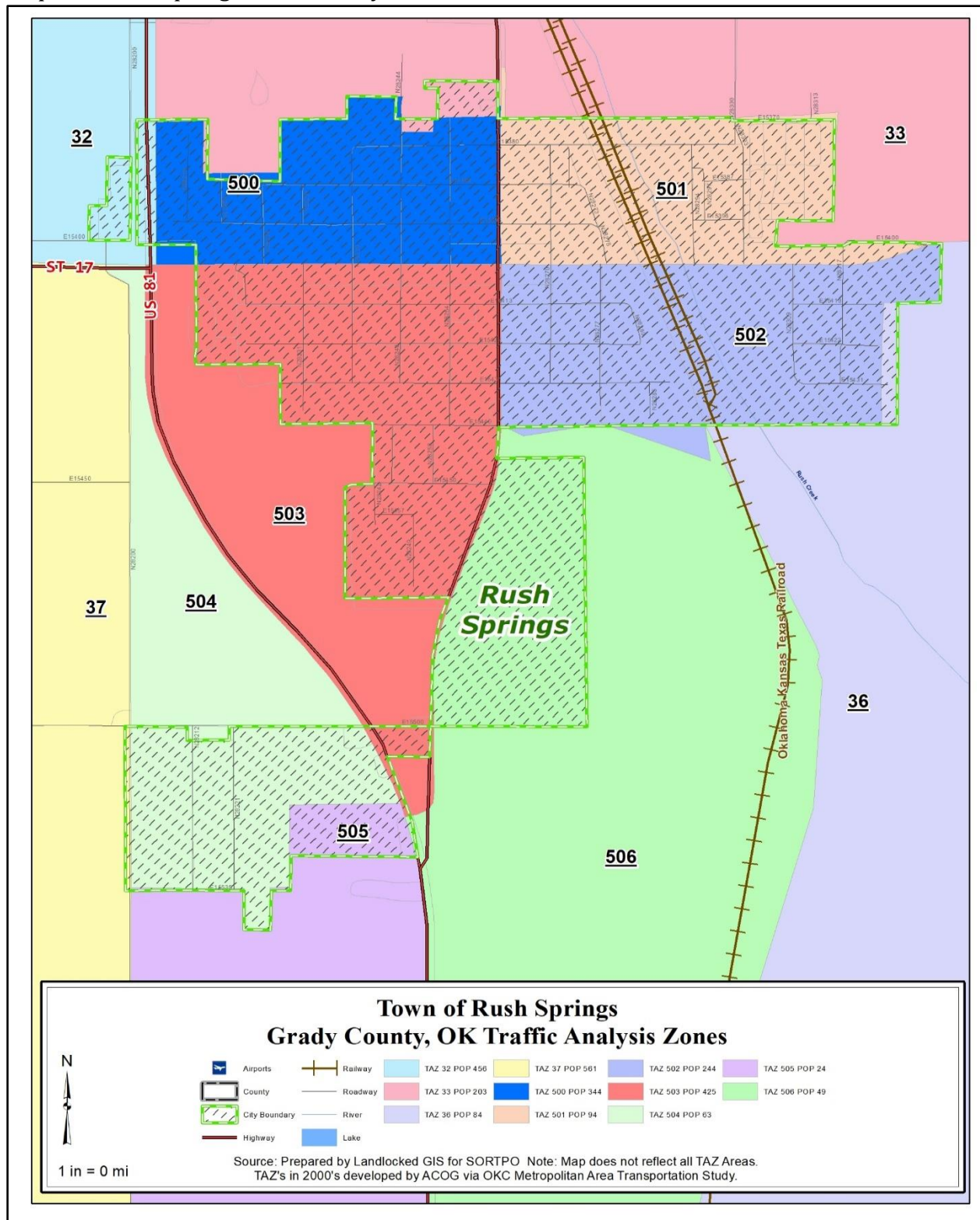
Source: Prepared by Landlocked GIS for SORTPO

Map 2.7: Ninnekah Traffic Analysis Zones



Source: Prepared by Landlocked GIS for SORTPO

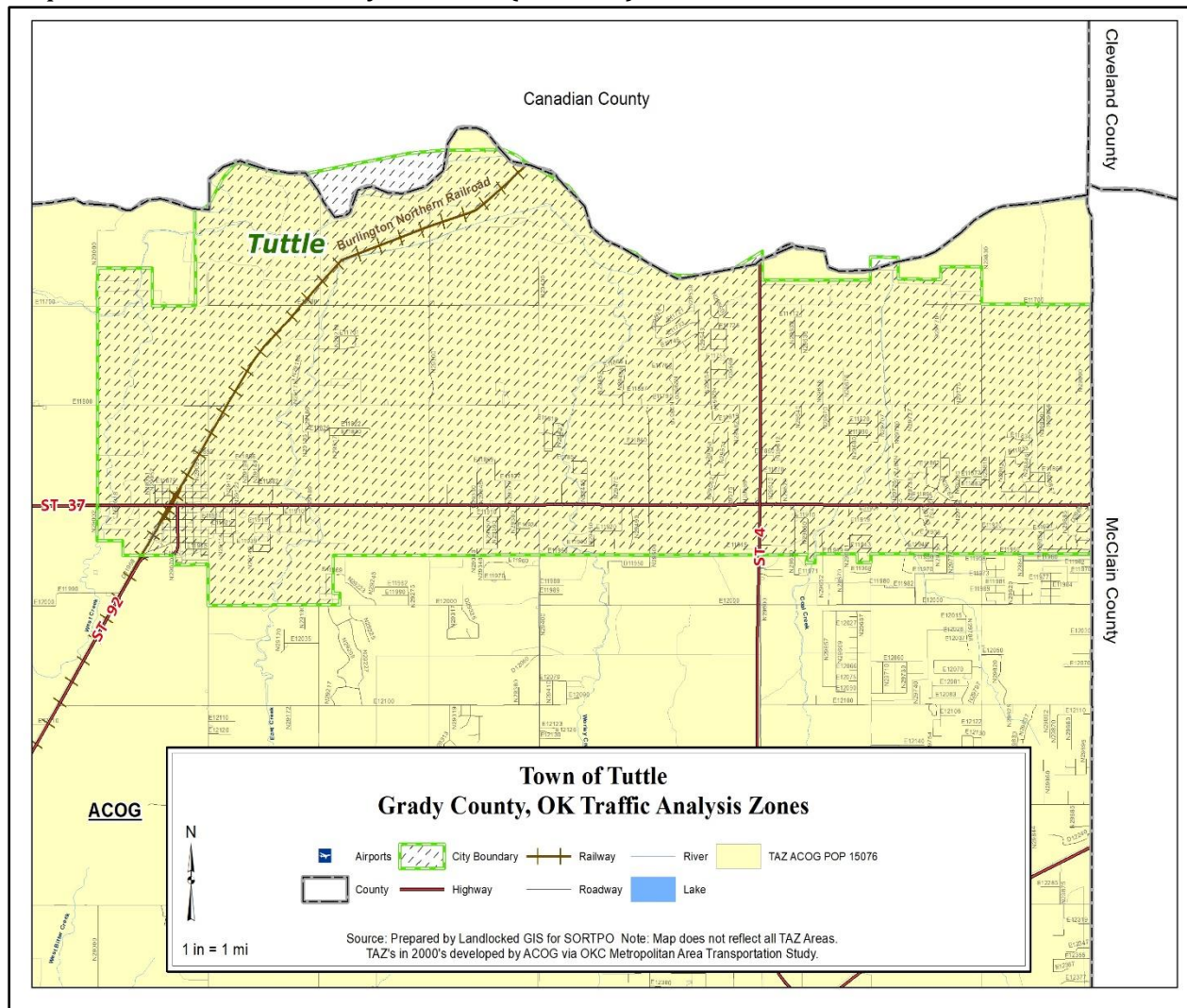
Map 2.8: Rush Springs Traffic Analysis Zones



Source: Prepared by Landlocked GIS for SORTPO

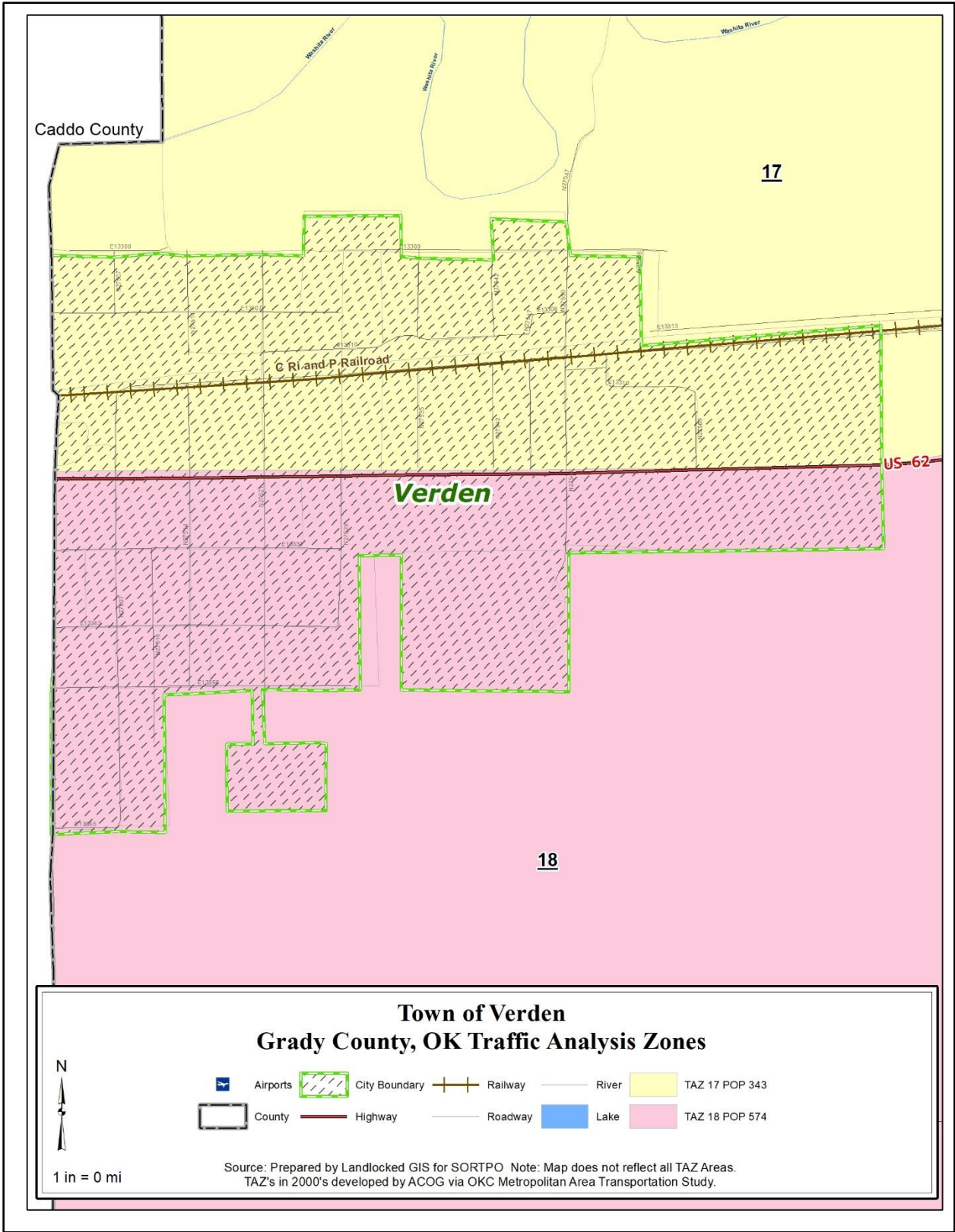
2040 Grady County Long Range Transportation Plan

Map 2:9: Tuttle Traffic Analysis Zones (OCARTS)



Source: Prepared by Landlocked GIS for SORTPO

Map 2:10: Verden Traffic Analysis Zones



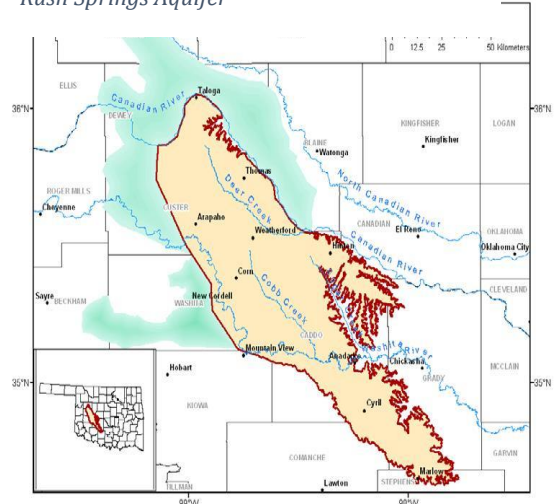
Source: Prepared by Landlocked GIS for SORTPO

impacts to the natural and human environment that may be affected by various actions associated with the plan. 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
- Scenic View sheds
- Traffic and Train Noise

State and federal environmental regulations, require that environmental considerations be addressed in transportation decision making, plans and programs. Most transportation capital and maintenance projects have the potential to affect natural and human-made resources in both positive and negative ways. Appendix 2.10 summarizes environmental concerns Appendix 2.11 provides description of significant environmental features to be considered in development of residential, commercial/industrial or transportation projects.

Rush Springs Aquifer



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 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. SORTPO and its member jurisdiction transportation and emergency service staff are regular participants in security planning and preparation activities include development of the Grady County Hazard Mitigation Plan. Ongoing participation in these planning activities helps prepare for and to better manage transportation safety and security situations.

MAP-21 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 State of Oklahoma Highway Safety Office's website (<http://ohso.ok.gov/strategic-planning-results>).

The safety of the traveling public, regardless of vehicle type or highway system classification, is of principal concern for ODOT and SORTPO. 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 provides a more accurate indication of the safety condition in the county. An analysis of collision records collected and maintained by ODOT was performed for the calendar years 2012-2016. Between 2012-2016 there were 4,114 collisions with seventy-nine (79) fatalities occurring on the highways and roadways in Grady County. The highest concentration of collisions occurred along US 81. Tables 2.2, 2.3 and 2.4 provides information on total collisions, collisions by road type and collisions by concentration and severity. Collisions with a Fixed Object represented 24.8% of collisions. Other collision types were caused by Rear End (18.8%) and right angle (14.0%). Map 2.12 illustrates the location of collisions between 2012-2016. Appendices 2.12 and 2.13 provide supplemental information on collision data.



Table 2.2: Grady County Collision Total, 2012-2016

	FAT	INCAP INJ	NON INCAP INJ	POSSIBLE INJURY	PROPERTY DAMAGE	TOTAL
Collisions	79	199	567	626	2,643	4,114
Persons	89	242	789	1,005		2,125

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

2040 Grady County Long Range Transportation Plan

Table 2.3: Grady County Collisions by Road Type, 2012-2016

	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	48	442	655	1145	-	-	-	-	12	262	319	593	60	704	974	1738
Alex	1	2	18	21	-	-	6	6	-	-	-	-	1	2	24	27
Bradley	-	1	1	2	-	-	-	-	-	-	-	-	-	1	1	2
Chickasha	2	273	635	910	2	249	712	963	-	-	-	-	4	522	1347	1873
Minco	1	6	12	19	1	1	4	6	-	-	-	-	2	7	16	25
Rush Springs	2	8	6	16	-	-	7	7	-	-	-	-	2	8	13	23
Tuttle	5	82	143	230	1	21	52	74	-	-	-	-	6	103	195	304
Verden	-	1	1	2	-	-	2	2	-	-	-	-	-	1	3	4
Norge	-	-	-	-	-	2	1	3	-	-	-	-	-	2	1	3
Amber	-	-	2	2	-	-	-	-	-	-	-	-	-	-	2	2
Ninnekah	3	27	40	70	1	5	12	18	-	-	-	-	4	32	52	88
Blanchard	-	9	9	18	-	1	6	7	-	-	-	-	-	10	15	25
Total:	62	851	1522	2435	5	279	802	1086	12	262	319	593	79	1392	2643	4114

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

* INCLUDES INCAPACITATING, NON-INCAPACITATING, AND POSSIBLE INJURIES

Table 2.4: Grady County Collision Concentration, 2012-2016

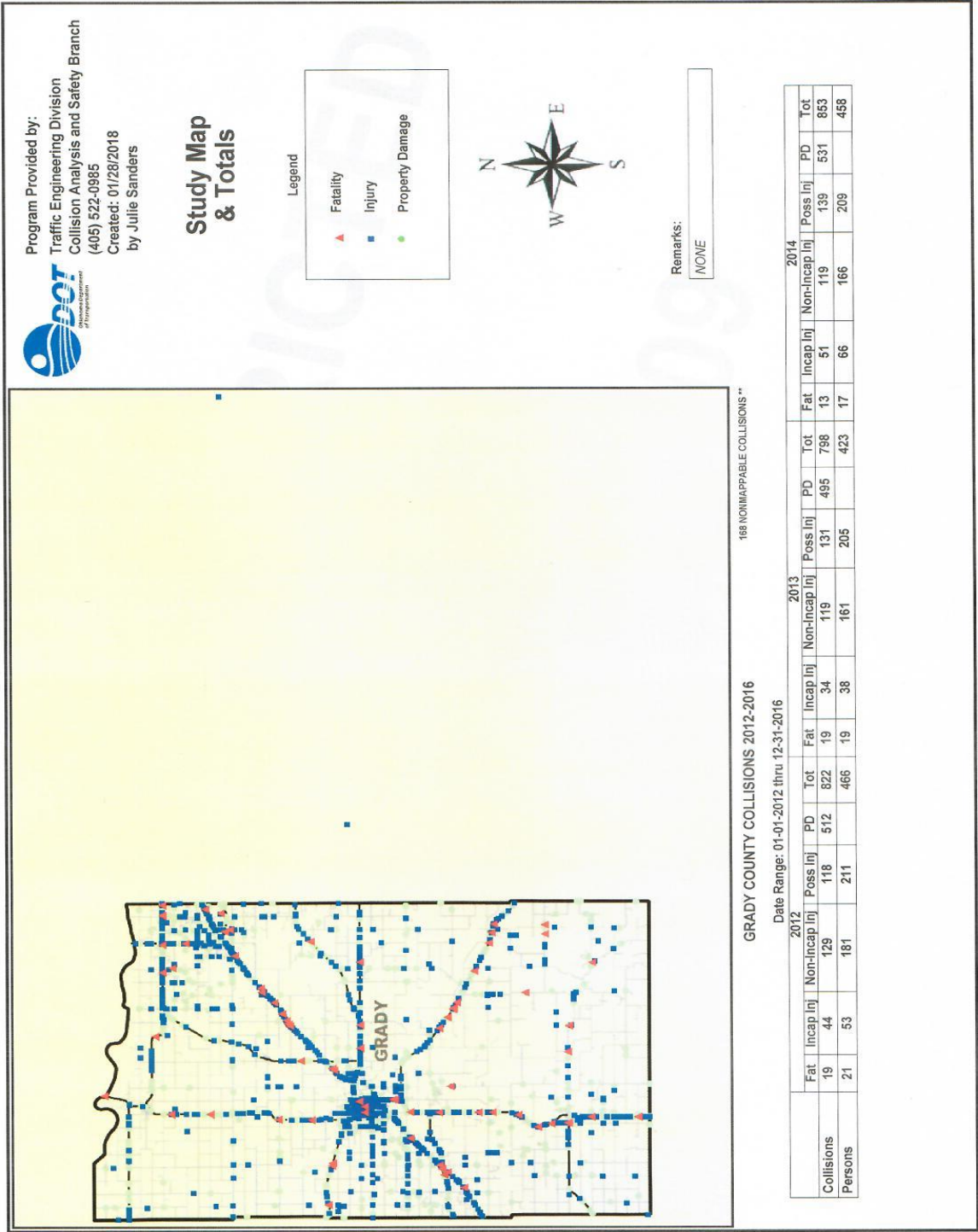
CITY	HWY	CITY STREET NAME	CITY STREET NAME	MILE/ ST.2	SEV INDEX	NUM COLLS	RANK
Chickasha	US 81	4 th St.	Chisholm/Walmart Dr.	02.62	90	54	1
Chickasha	US 62	Choctaw Ave.	4 th St.	09.38	76	65	2
Chickasha	US 81	4 th St.	Grand Ave.	02.50	67	53	3
	I-44	H. E. Bailey TPK.	Toll Plaza	29.78	63	45	4

2040 Grady County Long Range Transportation Plan

CITY	HWY	CITY STREET NAME	CITY STREET NAME	MILE/ ST.2	SEV INDEX	NUM COLLS	RANK
Chickasha	US 81	4 th St.	Country Club Rd.	01.50	61	41	5
Tuttle	SH 37		Mustang Rd/SH 4	13.60	47	32	6
Chickasha	US 81	4 th St.	Almar Dr.	01.87	45	33	7
Ninnekah	US 81		Harris Rd./US 277	02.17	42	24	8
Chickasha	US 81	4 th St.	H.E. Bailey TPK.	02.18	38	23	9
Chickasha		9 th St.	Grand Ave.		31	22	10

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

Map 2.12: Grady County 2012-2016 Collision Map



Existing Road Network

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 12,257 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.

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 4,500 miles of Oklahoma highways are two-lane facilities without paved shoulders Appendix 2.14 illustrates the location of two lane highways with no shoulders. Appendix 2.15 illustrates the Steep Hill/Sharp Curves areas of concern (statewide).

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 2017 reveals about 33% or approximately 4,038 of the State's 12,257 miles of highway rate as poor which includes 3,462 miles of two-lane highway.

Traffic Count

ODOT collects traffic count data on the highways and roads functional classified above a local street or road. Other governmental entities may also be a source of additional traffic counts. Appendix 2.16 illustrates the 2016 Annual Average Traffic Count Data collected by ODOT.

Functional Classification and Road Systems

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 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 functional classification of streets includes the following functional classes: Interstate, Freeway, Rural Principal Arterial, Rural Minor Arterial, Rural Major Collector and Rural Minor Collector. Appendix 2.17 provides additional information on this topic. Appendix 2.18 illustrates Grady County Functional Classification system.

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.



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” as illustrated in Appendix 2.19. The former may have any of many 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. These structures enable vehicles, bicycles, pedestrian and wildlife to cross an obstacle. Bridges are structures that span more than 20 feet between supports and 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 bridges undergo regular inspections by qualified engineers. Inspections help locate and identify potential problems early and trigger protection mechanisms when a problem is found.

Grady County bridge inventory includes one hundred fifty-five (155) On System and five hundred four (504) Off System Bridges that are critical for regional mobility. The bridges in the County vary greatly in their age with the oldest constructed in 1901 and most recent construction occurred in 2017. Between 2010 – 2017 eighteen (18) bridges have been replaced or constructed. County bridges (off system) with a sufficiency rating of 60 to 79 total one hundred twenty-seven (127) and bridges with a sufficiency rating of 59 or less total

two hundred forty-eight (248). Appendices 2.20 and Appendices 2.21 includes the On and Off-System bridges for Grady County.

Traffic Control

Traffic signals are a key element of traffic control. Their location and timing affect the mobility of vehicles and pedestrians. National studies demonstrate that poorly timed traffic signals are responsible for a significant proportion of urban traffic congestion. Signal timing that does not allow sufficient time for pedestrians to cross a street can contribute to safety problems and act as a barrier to walking. The Manual on Uniform Traffic Control Devices (MUTCD) establishes minimum warrants that are to be met for installation of a signal, and for designation of exclusive turn lanes and movements. Signal ownership is an important element, as each jurisdiction may have its own protocols for maintaining and retiming signals. There is currently no inventory of traffic control devices in Grady County which if developed can assist in prioritization of maintenance and scheduling upgrade.

Freight System

The Fixing America's Surface Transportation Act (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), additional information on the NHFN can be found in Appendix 2.22. The FAST Act includes 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 as shown on Map 2.13. The SORTPO Policy Board identified corridors listed in Table 2.5 and illustrated in Map 2.14 as significant statewide and regional highway freight corridors. Figure 2.5 illustrates the 2011 average daily long-haul truck volume and map 2.15 illustrates the Oklahoma 2014 High Volume Truck Corridors.



Table 2.5: Grady County Significant Freight Corridors

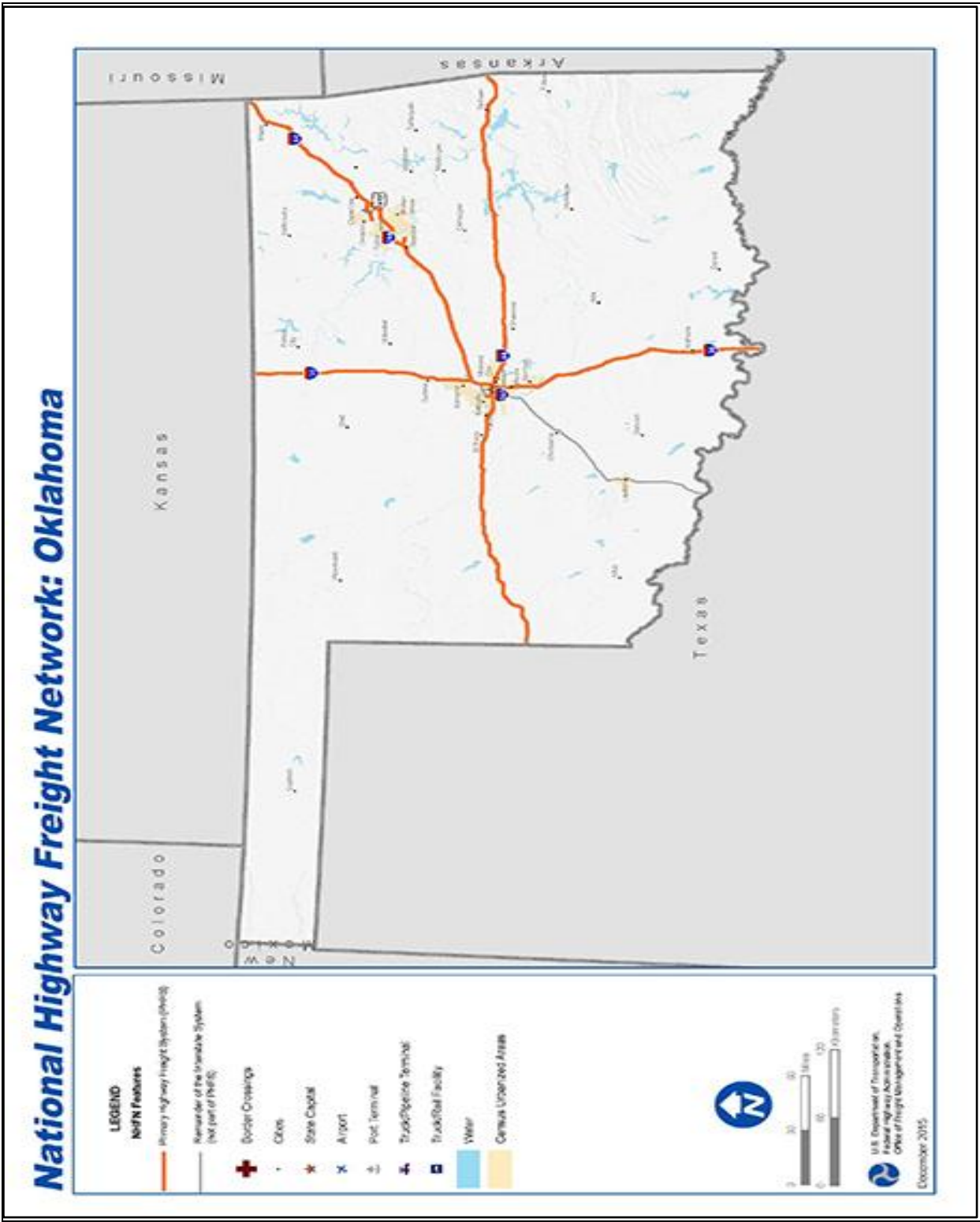
CITY/TOWN	LOCATION/DESCRIPTION
Grady, Jefferson, Stephens	US 81, 4 lane divided highway continuing from the Grady and Stephens County line north through Chickasha and then a 2-lane highway extending north of US 62 to I-40 in Canadian County. A proposed realignment of US 81 beginning approximately 2 miles south of the US 81/SH19 intersection proceeding northwest aligning between 29 th Street and the western city limits of Chickasha and connecting to the intersection of US 62 and north US 81.
Grady, Comanche	US 277 runs concurrent with US 62 through Blanchard into downtown Chickasha, where US 277 joins US 81 for several

2040 Grady County Long Range Transportation Plan

CITY/TOWN	LOCATION/DESCRIPTION
	miles to an intersection south of Chickasha near Ninnekah, where US 277 turns west/southwest.
Caddo, Grady, McClain	On the eastern edge of Chickasha, US-62/277/SH-9 have an interchange with I-44. Traveling northeast from Chickasha, US-62/277/SH-9 are routed to the town of Blanchard. Four miles later, SH-9 splits away from the two US routes at a diamond interchange that also serves as the eastern terminus of the H.E. Bailey Turnpike Spur.
Comanche, Grady	About five miles east of SH-65, SH-17 crosses the Comanche–Grady county line. On the west side of Rush Springs, it intersects the US-81 bypass of the town. SH-17 then continues east along Blakeley Avenue into downtown Rush Springs, where it ends at US-81's Rush Springs business loop. ^[4]
Grady	After splitting off, SH-19 travels in a southeast through Lindsay. Still continuing southeast, it has an interchange with Interstate 35 and an intersection with US Highway 77 in Pauls Valley.
Grady, McClain	SH-92 currently begins at an intersection with US-62/277/SH-9, a divided highway east of Chickasha. SH-92 heads northward from this intersection. SH-92 begins to run alongside the Stillwater Central Railroad as it continues farther through the town of Amber and Tuttle. In Tuttle SH 92 terminates at SH 37.
Grady	SH 17 (Comanche C/L east/southeast to SH 29 (Stephens County)
Grady	E1490 (Timber to N2920) Chitwood Refinery
Grady	E1490 (N2870/SH 17 to E1490 south) Chitwood Refinery
Grady	E 1490 (N2920 to SH 17) Chitwood Refinery
Grady	E1560, E1570, E1590/N2970 Intensity Compressor

Source: SORTPO

Map 2.13: National Highway Freight Network



Map 2.14: Regionally Significant Freight Routes

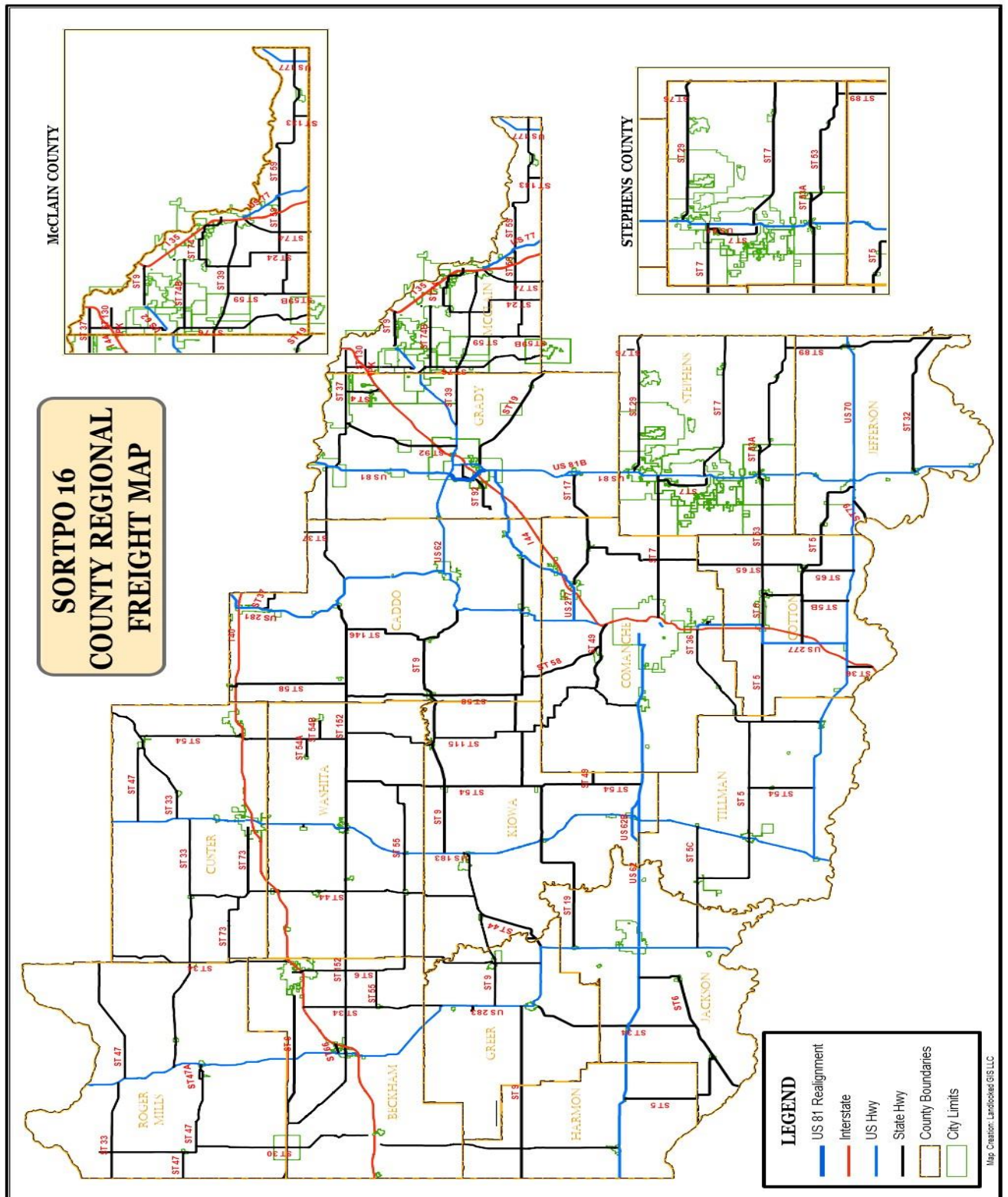
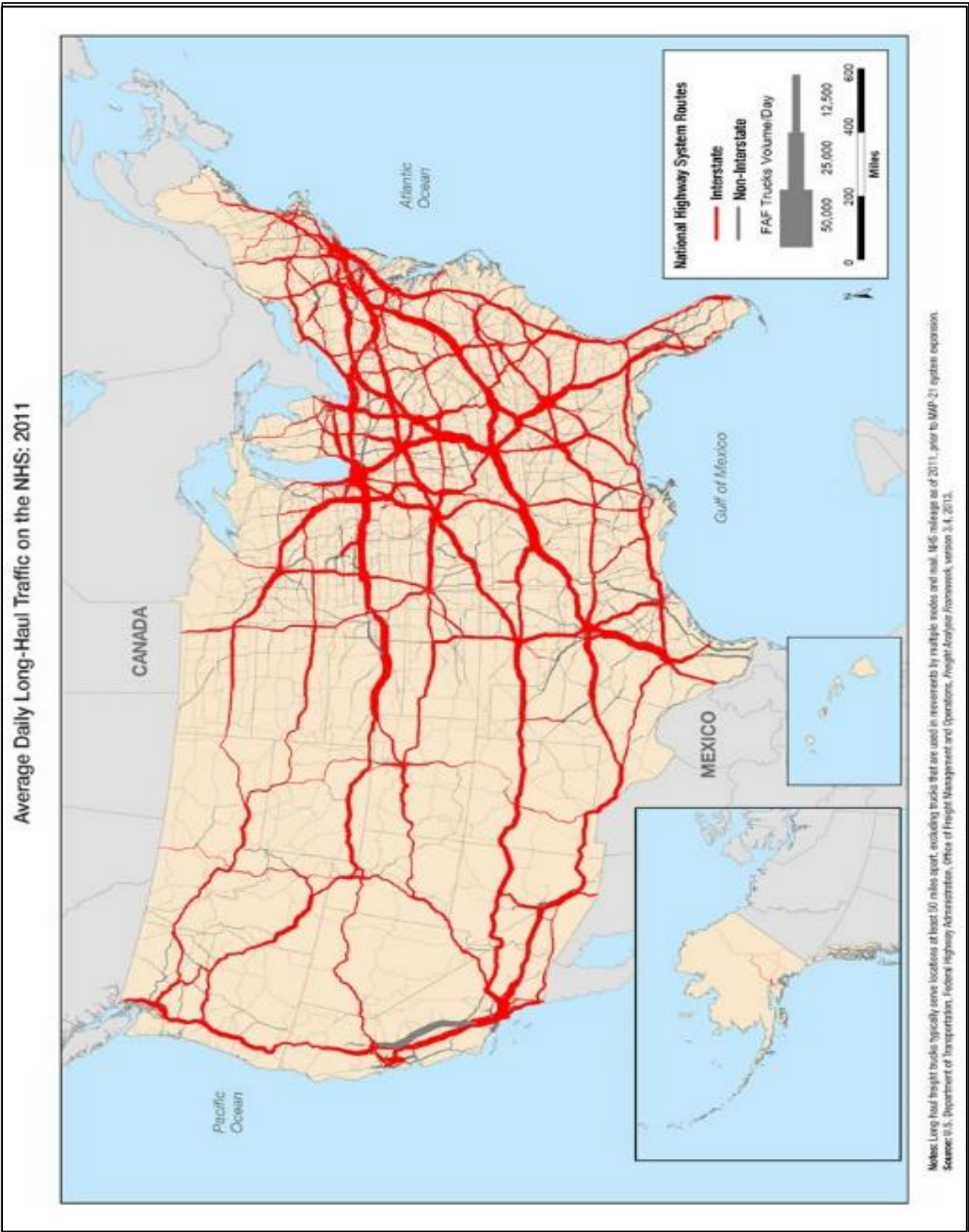
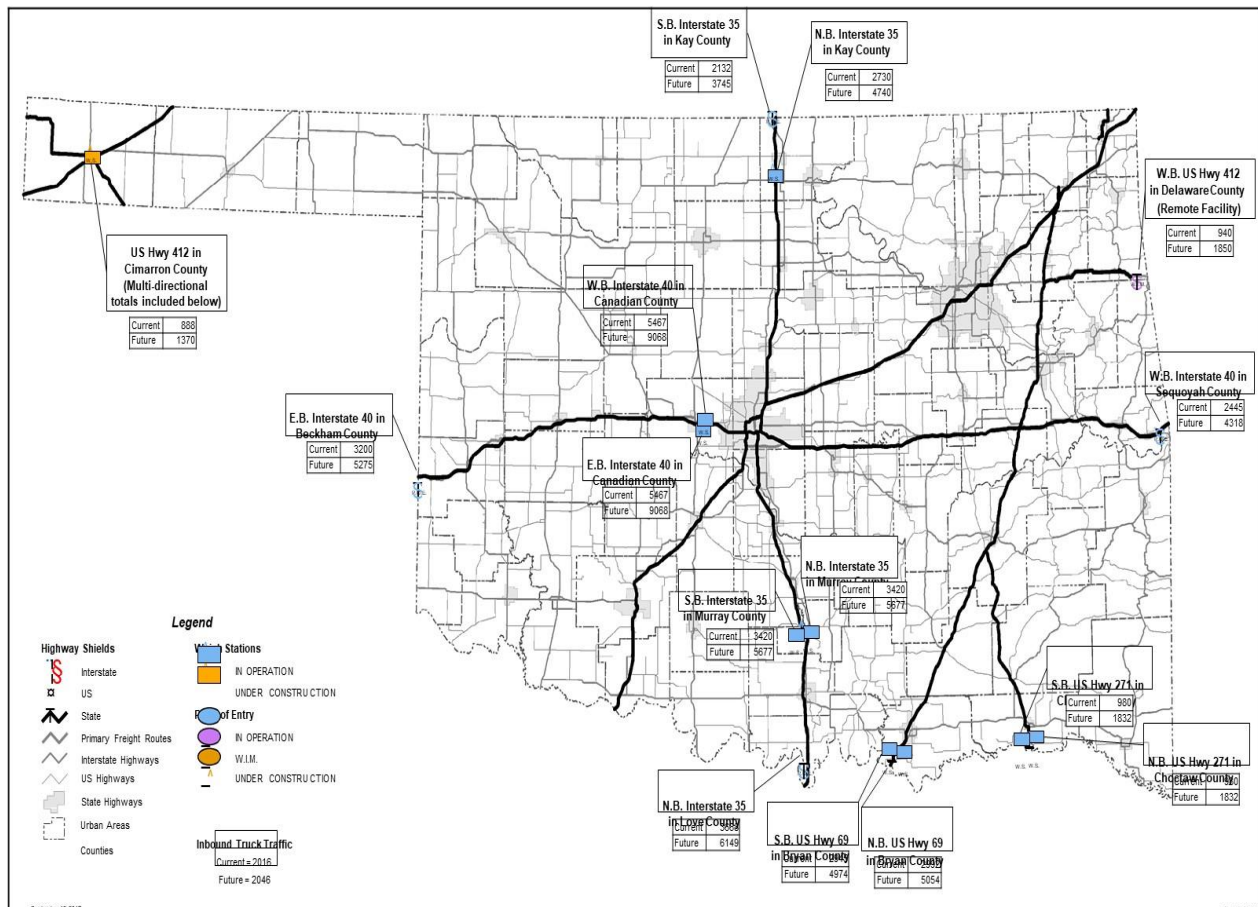


Figure 2.5 Average Daily Long-Haul Traffic on NHS 2011



To assist with the inspection and enforcement of truck permits Ports of Entry (POE) facilities were constructed by ODOT. This system of POE monitors freight ingress at the state line and allows better enforcement of vehicle and freight laws. The POE (Map 2.16) are state-of-the-art facilities established as the mechanism to create a more controlled freight transportation environment on the highway system.

Map 2.16: Port of Entry



Daily Inbound Truck Traffic for Weigh Stations & Ports of Entry



Railroads

ODOT Rail Programs Division oversees and monitors five different railroad companies operating through leases on approximately 212 miles of State owned track and serves as a liaison between ODOT and rail companies for ODOT projects which involve railroads or railroad property. In August 2014, ODOT and the Stillwater Central Railroad completed a sale of the Sooner Sub rail line between Midwest City and Sapulpa. After this sale ODOT began a \$100 million initiative to improve safety at railroad crossings statewide. The state-owned tracks are leased by



privately operated railroads. Statewide there are three (3) Class I railroads and nineteen (19) Class III railroads. Class I railroad lines include Burlington Northern Santa Fe Railway (BNSF), Union Pacific Railroad (UP), and Kansas City Southern Railway Co. (KCS).

Grady County is home to Union Pacific (UP) a Class I railroad line. This line is parallel to the west of US 81 connecting Texas to Kansas. Construction of this line by the Chicago, Rock Island and Pacific Railway generally followed the Chisholm Trail. UP trains travel northbound during the day and southbound in the evening. Stillwater Central Railroad (SLWC) III railroad operates from Snyder through Lawton and Chickasha to Oklahoma City.

Bicycle & Pedestrian System

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 and bicycle travel require protected crossings at busy intersections, marked crosswalks and pedestrian signals where warranted. The cities of Chickasha and Tuttle have completed walkability studies.

One opportunity to develop and implement bicycle and pedestrian facilities is the Transportation Alternative Projections (TAP) and Safe Routes to School (SRTS), administered by ODOT. In FFY 2016, seven TAP projects were awarded in the SORTPO region to the following communities: Apache, Bessie, Duncan, Elk City, Hobart, Lawton, Purcell, and Tuttle. Future TAP and SRTS projects in Grady County include:

- a. Chickasha – sidewalks to elementary schools, sidewalk improvements in downtown,
- b. Minco - sidewalks, downtown repair, sidewalks to parks, field house, and around town, with walk way in the cemetery.
- c. Rush Springs – sidewalks on Blakely and pedestrian walkway at the park.
- d. Tuttle - This project is Phase 3 of Tuttle's Sidewalk Plan. Phase 3 will focus on feeding residential areas into the Phase 1 and Phase 2 sidewalks already constructed. Additionally, Phase 3 connect two of parks in this area to the existing sidewalk network. The first proposed sidewalk will continue the sidewalk from downtown Tuttle west along SH-37 to ½ mile west to Schrock Park. The second sidewalk will extend from Tuttle Elementary School west along W Locust Street 1/3 mile west to the Tuttle Skate Park. This will include a marked crossing across SH-92. The third sidewalk will be constructed along Jeffries Dr from SH-37 south 1/3 mile to the existing sidewalks in the Castle Heights Addition.

Public Transit

Service provided within the SORTPO region is limited to demand response service. 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”). Washita Valley Transit has been providing service to communities in Grady County since 1997. Additional information on this transit service can be obtained from the Washita Valley Community Action Corporation and ODOT Transit Division.



Airports

The Oklahoma Airport System Plan classifies airports by their functional classification: Regional Business Airport (RBA), District Airport (DA) and Community Airport (CA). These classifications were developed to characterize each airport on how they relate to each other. The concept of classification of airports is like the concept of classifying the roadway system.

An RBA serves multiple communities. Normally, it will serve:

- a community of at least 5,000 persons, generally larger,
- a county population of 10,000 or more persons,
- serve major employers (businesses with 50 or more employees),
- located near the center of a local sustaining economy, and
- closely match the local sustaining economies identified by the Oklahoma Department of Commerce.



Features of a DA include providing access to a part of the state that is not well served by an RBA. Typically, these airports will:

- have a supporter with a defined interest in promoting airport and with a demonstrated financial capability,
- about five or more based aircraft at these airports or an equivalent number of annual itinerant operations, and
- airports are attended, aviation gasoline is available and there is a public terminal building.

The CA airports are entry-level airports. These airports regularly serve

- small communities, where the city population is less than 5,000, and for many, the population is less than 2,000,
- normally these airports are not attended, have no services available, and
- the sponsor has limited financial capability to fund capital improvement projects.

The SORTPO area consists of twenty-two (22) general aviation airports identified in Table 2.6. Grady County is home to one public airport and is illustrated on Map 2.1.

Table 2.6: SORPTO Public Airports

CITY	COUNTY	AIRPORT NAME	TYPE OF AIRPORT	OWNER
Sayre	Beckham	Sayre Municipal	CA	Municipal
Elk City	Beckham	Elk City Regional	RBA	Municipal
Carnegie	Caddo	Carnegie Municipal	CA	Municipal
Anadarko	Caddo	Anadarko Municipal	DA	Municipal
Hinton	Caddo	Hinton Municipal	DA	Municipal
Lawton	Comanche	Lawton-Ft. Sill Regional	RBA	Municipal
Walters	Cotton	Walters Municipal	CA	Municipal
Clinton	Custer	Clinton Regional	RBA	Municipal
Weatherford	Custer	Thomas P Stafford	RBA	Municipal
Chickasha	Grady	Chickasha Municipal	RBA	Municipal
Mangum	Greer	Scott Field	DA	Municipal
Hollis	Harmon	Hollis Municipal	DA	Municipal
Altus	Jackson	Altus/Quartz Mt. Reg.	RBA	Municipal
Hobart	Kiowa	Hobert Regional	RBA	Municipal
Purcell	McClain	Purcell	DA	Municipal
Cheyenne	Roger Mills	Migon Laird Municipal	CA	Municipal
Duncan	Stephens	Halliburton Field	RBA	Municipal
Tipton	Tillman	Tipton Municipal	CA	Municipal
Grandfield	Tillman	Grandfield Municipal	DA	Municipal
Frederick	Tillman	Frederick Regional	RBA	Municipal
Cordell	Washita	Cordell Municipal	CA	Municipal
Burns Flat	Washita	Clinton/Sherman	RBA	Municipal

Source: Oklahoma Aeronautics Commission

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 Transportation Technical Committee and Policy Board and the information obtained via public comment the data areas of concern were identified. These locations are shown in Table 2.7. The scope of the LRTP does not include solutions to the areas of concern.

Table 2.7: Grady County Transportation Areas of Concern

CITY/TOWN	LOCATION	DESCRIPTION
Bridgecreek	E1220 (N2940-N2960)	Oil and gas traffic impact on roads
Chickasha	16th St. & Grand Ave.	High traffic area needs, low lights/visibility
Chickasha	4th & Grand	Congestion: Trucks and new retail
Chickasha	4th & Grand Ave.	Needs turn lanes
Chickasha	4th and Choctaw Ave.	Needs turn lanes
Chickasha	4th St. (Kansas - Texas)	Flooding
Chickasha	6th/Choctaw	Railroad Crossing update needed
Chickasha	Carolina/29	Railroad Crossing update needed
Chickasha	Grand Ave/USAO	Railroad Crossing update needed
Chickasha	Iowa / 6th St.	Flooding
Chickasha	Minnesota/19th	Railroad Crossing update needed
Chickasha	Railroad Crossings	Trains blocking for extended periods
Chickasha	Shannon Springs Light Festival	Entrance & Exit
Chickasha	US 81 (Grand Ave. - Iowa)	Flooding
Chickasha	US 81 (through Chickasha)	Intersections dangerous due to truck traffic
Chickasha		Need sidewalks
Chickasha		Flooding need alternate routes
Chickasha		Widen streets narrow parkway
Chickasha		Need designated truck routes
Chickasha Airport	US 81/CR 1330	Accidents at curve, entrance to airport, speeding
County		Need sidewalks and bicycle paths where feasible, identify in planning stage
County		Lack of transportation makes access to healthcare more difficult
County		Delivery problems/unable to locate addresses
Countywide		Enforcement of safety laws.
Countywide		Not in NFIP
Countywide		Not good access to everyone for transportation, times, expense, etc.
Grady County	US 81	Needs to 4 lanes
Ninnekah	US 81 / E 1470	Flooding
Ninnekah	US 81/277	Intersection dangerous; High truck traffic
Ninnekah	US 81/US 277	Flashing light intersection, high accidents.
Rush Springs	US 81/SH 17	High number of accidents at flashing lights.

2040 Grady County Long Range Transportation Plan

CITY/TOWN	LOCATION	DESCRIPTION
Verden	US 62	Speed Trap
	E1280 (N2960-N2980)	Truck traffic
	Morgan Rd. (E1720-E1280)	Truck traffic
	Morgan Rd. (US 62 north)	Increasing truck traffic, no shoulders, curve between 1280 and 1270
	SH 19 (Dell Rd. to Countyline)	Water ponding, vehicles hydroplane, 2 lane/no shoulders, vehicle crossovers,
	SH 37 (N2850 to N2890)	Access to Braum's farm, 2 lane no shoulders, freight route
	SH 4/Mustang Rd. (N2960)	
	US 62 (N2890-N2940)	2 lanes with lots of truck traffic
	US 81 (E1290 - E1300)	Accidents
	US 81 (E1490-E1550)	Hill with RV Park pull out
	US 81 (US 62 north to I-40 west)	Needs to be 4 lanes with shoulders
	US 81 /E 1230	Flooding
	US 81/E 1300 (north to Pocasset)	New Casino, 2 lanes, limited shoulders, freight route

Source: Stakeholder Meetings, Surveys, SORTPO

Chapter 3: Future Conditions and Improvements

The objective of the Future Conditions and chapter is to portray a “snapshot” of future population and employment growth and transportation improvements. It is assumed that only those transportation projects included in the current ODOT eight (8) year construction plan, County Improvements for Road & Bridges Program (CIRB) and projects funded by local governments will be constructed by the year 2040.

Future Conditions

Grady County’s population and employment development patterns are concentrated in the cities/towns of Bridge Creek, Chickasha and Tuttle and surrounding areas. Growth in the Bridge Creek and Tuttle areas are driven by their proximity to the Oklahoma City Metropolitan area. Growth in other parts of the County are highly dependent on the cyclical oil and gas industry, healthcare, education and farming.

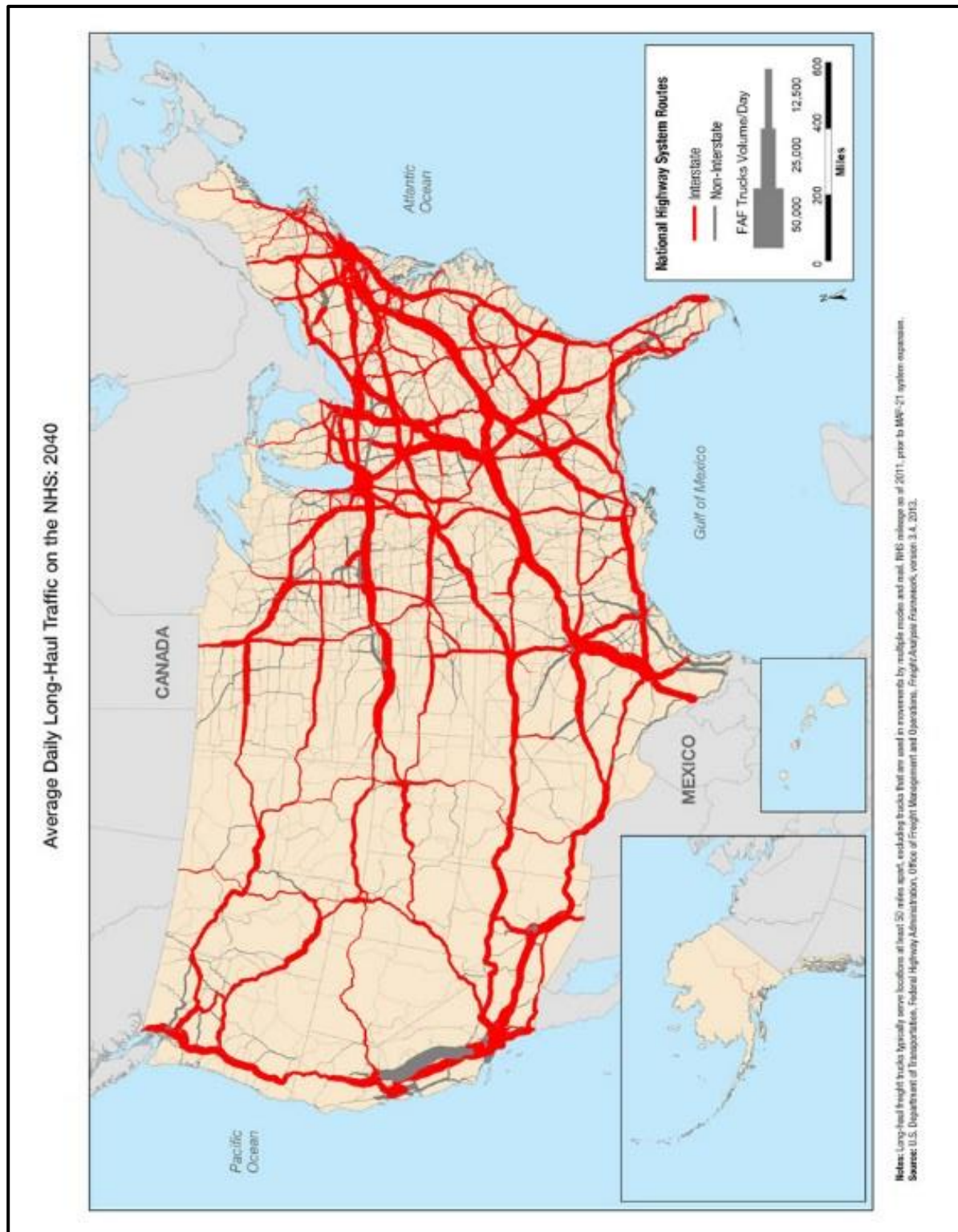


Projections for population and employment for Grady County (excluding the OKARTS areas) was based on data obtained from the US Census from 1980 – 2012-16 ACS, local development knowledge, location of employment and activity centers and proposed development. These projections were developed based on Countywide data without consideration of the overlapping boundaries of SORTPO and OKARTS. Due to overlapping boundaries SORTPO did not assign projections to the OKARTS area. Growth was calculated at approximately 10% per decade between years 2017 and 2035 and a 1.0% growth between years 2036 through 2040. Population by 2040 is projected at 67,356 and civilian employment is projected at 31,367. A portion of these projections were distributed through the SORTPO region (42,562 population and 23,304 employment). The assumption is made the remaining balance of the projections (24,794 population and 8,063 employment) will be absorbed by the areas within the OKARTS area. The projections were primarily distributed in Chickasha, and the towns as well as projected growth areas surrounding Blanchard, Bridge Creek and Tuttle. Appendix 3.1 provides the Grady County 2040 projected population and employment by TAZ.

Within Grady County, there may be areas that experience congestion such as areas near major activity generators. Studies to identify specific causes and solutions for these areas will need to be considered on a case by case basis. As population changes the impact on the traffic volume and roadway capacity will need to be re-examined. Future truck freight growth is projected to continue. Development of southwest Oklahoma regional freight plan will provide the region an opportunity to look long term at the needs of the freight industry, interconnecting between regions and identification of future freight projects that will support the growth. Figure 3.1 illustrates the Projected Average Daily Long-Haul Traffic on NHS.



Figure 3.1: Projected Average Daily Long-Haul Traffic on NHS 2040



2040 Transportation Funding and 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.

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 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 Highway Trust Fund.



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 Federal Highway Trust Fund (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-cent per gallon tax on gasoline and 24-cent 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) is 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.

State

The ODOT 8 Year Construction Work Program 2018-2025 assembles projects according to anticipated state and federal fund categories. Regarding 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 federal regulations dictate 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 (6) years.

Funding of local transportation projects and programs is heavily influenced by State of Oklahoma's annual budget, and the Highway Trust Fund. Three key components for Oklahoma transportation funding and investment include: House Bill 1078 (Rebuilding Oklahoma Access and Driver Safety), House bill 2248 and House Bill 2249. 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 shortfalls since 2010 continues to have a negative impact on the transportation system. In FY 2017 there was a \$367 million reduction in transportation funding. During FY 2018 \$156.6 million was transferred from the State Transportation fund which led to a reduction and removal of projects under the 8 Year Construction Work Program.

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 to accomplish the projects. The total expenditures identified in Table 3.1 are within the total federal, state and local revenues estimated for the 2040 LRTP and are adequate to fund the projects listed

County

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 seven percent (7%) 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.

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 specifically for the CIRB category are collected from state gasoline and diesel tax, special fuel tax and state gross production tax on oil. The county uses a small percentage of tax revenues for maintenance and minor improvements, relying on outside funding sources for major improvements.

The County Commissioners established Circuit Engineering Districts (CEDs) to provide common engineering and project support services. All potential transportation projects are initiated by the County Commissioners and are coordinated with the appropriate CED who directs the development of the recommended list of projects to be considered by ODOT for inclusion in the CIRB Construction Work Plan. ODOT and the Transportation Commission have the responsibility for the expenditure of the CIRB funding. When the CIRB Construction Work Plan is approved, ODOT coordinates and cooperates with the Counties and the CEDs in management of the project.

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 Grants (CDBG) through Oklahoma Dept. 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).

2040 Grady County Long Range Transportation Plan

Table 3.1: State Funding Categories

	FY 2011-12	FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16	FY 2016-17
Circuit Engineering District Revolving Fund	\$4,463,612.89	\$3,759,042.61	\$4,257,973.22	\$3,606,553.45	\$2,454,282.96	\$2,573,399.41
Counties for Bridge & Road Improvement	\$29,469,291.00	\$24,556,139.05	\$28,025,910.64	\$23,430,017.08	\$15,225,256.66	\$16,200,387.04
Counties for Roads	\$233,167,431.04	\$224,693,222.81	\$252,415,798.31	\$254,470,157.23	\$228,861,816.51	\$233,699,714.86
County Improvement Road and Bridge (CIRB) Revolving Fund	\$96,381,44.43	\$99,297,039.31	\$129,693,227.84	\$138,133,545.79	\$120,000,000.00	\$120,000,000.00
County Road Fund	\$16,567,078.24	\$17,075,040.15	\$18,701,249.31	\$17,701,249.31	\$17,933.883.32	\$17,212,153.19
County Road Improvement Revolving Fund	\$23,162,249.21	\$23,869,001.05	\$26,138,425.71	\$26,138,425.71	\$25,065,890.98	\$24,057,140.75
High Priority State Bridge Revolving Fund	\$63,036,200.98	\$5,932,688.65	\$6,159,069.25	\$6,225,331.10	\$6,393,096.46	\$6,333,887.30
Public Transit Revolving Fund	\$3,850,000.00	\$3,850,000	\$3,850,000	\$3,850,000	\$3,640,000.00	\$3,829,000.00
Railroad Maintenance Revolving Fund	\$666,387.67	\$716,415.44	\$837,887.56	\$826,792.79	\$850,452.97	\$796,860.87
Rebuild Oklahoma Access & Driver Safety (ROADS) Fund	\$250,700,000.00	\$292,400,000.00	\$352,100,000.00	\$411,800,000.00	\$441,045,432.00	\$508,678,655.32
State Hwy. Construction & Maintenance Funds	\$2,079,421.18	\$3,123,679.15	\$7,246,116.42	\$4,785,497.76	\$4,144,636.34	\$4,110,742.06
State Transportation Fund	\$208,864,879.28	\$204,316,899.57	\$213,905,376.86	\$214,115,706.14	\$217,307,803.50	\$216,795,526.28

Source: ODOT

Chapter 4: Public Participation

This chapter presents and describes the public participation tools the RTPOs utilize as part of the planning process. Public participation is a federal requirement outlined in MAP21 and The FAST Act. SORTPO has an adopted Public Participation Plans (PPP) that was followed.

Environmental Justice

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, Hispanic, 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 (EJ).

Grady County's racial and ethnic composition is 85.8% White, 2.2% Black or African American, 5.0% Native American, 0.3% Asian and 5.4% Hispanic or Latino. In comparison, Oklahoma's racial ethnic composition for 2012-2016 ACS was 72.9% White, 7.3% African American, 7.4% American Indian, 2.0% Asian and 9.8% Hispanic or Latino. Data from 2012-2016 ACS identifies 12.7% of the County's population below the poverty level. Low income populations are defined by the FHWA for transportation planning purposes as families of four (4) with a household income that is below the poverty guidelines set by HHS. The HHS 2018 poverty guidelines for a family of four is \$25,100.



As part of the LRTP development and public outreach process, consultation with federally recognized tribes in the region was initiated. Several environmental laws require tribal consultation during project development. The Quapaw Tribe of Indiana, Caddo Tribe, Chickasaw Nation, Wichita & Affiliated Tribe, Fort Sill Apache Tribe and Delaware Nation were identified and invited to participate in the planning process. In addition, a copy of the LRTP was mailed to each tribal headquarters during the public review process.

Coordination with Other Plans

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,
- MAP-21 Federal Planning Factors,
- 2012 Transit Gap Overview and Analysis,
- Oklahoma Mobility Plan,
- 2017 ODOT Rail Plan,

- OKCARTS 2035 Plan,
- US 81 Corridor Study Executive Summary 2007
- Oklahoma Aeronautics Commission,
- 2018-2022 Oklahoma Freight Transportation Plan
- ODOT 2015-2040 Long Range Transportation Plan.

Conversation and consultation were initiated and will be ongoing with the local and State Agencies (including, but not limited to: State Historic Preservation Office, Oklahoma Department of Transportation, Oklahoma Department of Environmental Quality, Oklahoma Water Resources Board, Oklahoma Department of Wildlife Conservation, Aeronautics Commission, and Bureau of Indian Affairs. All the above agencies will be given an opportunity for input during the Public Review and Comment period.

Public involvement is an integral part of the transportation process. SORTPO is proactive in its efforts to effectively communicate with the public and has adopted a PPP 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.



The SORTPO hosted public meetings and/or provided notice of availability for public outreach to involve interested parties in the early stages of the plan development. Notices of public hearings and/or notices of availability for public outreach for the RTPD were published in local newspapers and SORTPO website. Surveys were distributed throughout the County and were made available at www.sortpo.org. Appendix 4.1 provides a summary of the survey results. Appendix 4.2 contains information identifying the public outreach processes utilized in development of the 2040 Grady County LRTP.

Chapter 5: Transportation Recommendations

This chapter identifies the recommendations and summary of improvements that were developed because of the previous review of demographics, growth, activity generators, transportation system and other such issues. It is assumed that only Grady County projects included in the FFY 2018-2025 ODOT 8 Year Construction Work Program, FFY 2018-2021 Asset Preservation Program, FFY 2018-2022 CIRB and those identified by cities and towns will be constructed by the year 2040.

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 while many potential funding sources are identified for each project, these represent the primary sources and additional sources not listed may also be available. When implementing this plan, SORTPO will continue to review potential funding sources as they become available or as projects become eligible for other sources. SORTPO 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.



Not all 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 to develop a comprehensive set of solutions.

Transportation Projects

The ODOT 8 Year Construction Work Program FFY 2018-2025 assembles projects according to anticipated state and federal fund categories. Regarding 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 federal regulations dictate 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 (6) years.

Table 5.1 identifies projects through the year 2040 and includes those identified in the FFY 2018-2025 ODOT 8 Year Construction Work Program, FFY 2018-2021 Asset Preservation Program, FFY 2018-2022 CIRB and other projects such as development of studies, plans, and collection of data identified in Chapter 1 goals and strategies. The development of studies, plans and collection of data can be included in SORTPO's Planning Work Program (PWP).

2040 Grady County Long Range Transportation Plan

Table 5.1: Grady County Transportation Projects

GENERAL LOCATION	PROJECT YEAR	DESCRIPTION	FUNDING STATE / FEDERAL
Grady County	2018-2022	Develop a clearinghouse for regional data sets, such as pavement management systems and geographic information systems.	SPR/Local
Grady County	2018-2022	Conduct a freight assessment for the county.	SPR/Local
Grady County	2018-2022	Develop a system to collect and monitor changes in population, employment, and major employers by Traffic Analysis Zone (TAZ).	SPR/Local
Grady County	2018-2022	Develop data collection standards.	SPR/Local
Grady County	2018-2022	Establish procedures that enhance the consultation and coordination of transportation planning with local, regional, state and tribal government representatives.	SPR/Local
Grady County	2018-2022	Conduct speed study at intersection locations with high accident severity index and corridors with major attractors.	SPR/Local
Grady County	2018-2022	RESURFACE US-81: BEGIN 12.5 MI. NORTH OF STEPHENS C/L EXTEND. N. 4.98 MI SOUTH BOUND LANES ONLY.	\$1,520,422
Grady County	2018-2022	BRIDGE REHABILITATION US 81 OVER THE WASHITA RIVER & 2 O'FLOWS 1.4, 1.5 & 1.75 MIS. NORTH OF US 62.	\$4,400,000
Grady County	2018-2022	RESURFACE US-62 FROM 3 MILES EAST OF THE CADDO C/L EAST APPROX 4.49 MILES WEST BOUND LANES ONLY.	\$1,400,000
Grady County	2018-2022	RESURFACE US 81 FROM 12.5 MIS. N. OF THE STEPHENS C/L N. 4.98 MI, NORTH BOUND LANES ONLY.	\$1,476,138
Grady County	2018-2022	ADA PROJECTS FOR COMPLIANCE US-81: ADA FROM 0.15 MILES SOUTH OF SH-37, EXTEND. NORTH 0.51 MI.	\$250,000
Grady County	2018-2022	ROW FOR 24428(04) US-81 REALIGNMENT FROM 1 MI. N. OF THE US 81/US 277 JCT. SOUTH OF CHICKASHA EXIT NORTH 8.63 MI. TO .85 MI. NORTH OF THE US 62/US 81 JCT.	\$ 11,509,000
Grady County	2018-2022	GRADE, DRAINING, BRIDGE & SURFACE CO ON EW-142 BEGIN AT US-81 EXTEND EAST 1.0 MI ON NS-284 BEGIN AT SH-19 EXTEND SOUTH 3.0 MI ON EW-142.5 AT NS-284 EXTEND EAST 1.0 MI.	\$8,400,000

2040 Grady County Long Range Transportation Plan

GENERAL LOCATION	PROJECT YEAR	DESCRIPTION	FUNDING STATE / FEDERAL
Grady County	2018-2022	ROW FOR 28442(04) BRIDGE & APPROACHES (EW-137) OVER TRIB. TO WEST BITTER CR, 0.4 MI WEST AND 1.0 MI SOUTH OF JCT US 62/SH-39.	\$ 40,000.00
Grady County	2018-2022	UTILITIES FOR 28442(04) BRIDGE & APPROACHES (EW-137) OVER TRIB. TO WEST BITTER CR, 0.4 MI WEST AND 1.0 MI SOUTH OF JCT US 62/SH-39.	\$ 40,000
Grady County	2018-2022	UTILITIES FOR 28442(04) BRIDGE & APPROACHES (EW-137) OVER TRIB. TO WEST BITTER CR, 0.4 MI WEST AND 1.0 MI SOUTH OF JCT US 62/SH-39.	\$ 816,000
Grady County	2018-2022	BRIDGE & APPROACHES ON (NS-277) OVER TRIBUTARY. TO BUGGY CREEK APPROX. 6.7 MI WEST & 0.8 MI SOUTH OF SH-152/US-81 JCT.	\$ 620,000
Grady County	2018-2022	P.E. FOR 30462(04) BRIDGE & APPROACHES (NW-276) OVER LAKE BURCHI, .4 MI WEST AND 1.3 MI SOUTH OF NORGE.	\$ 90,000
Grady County	2018-2022	BRIDGE & APPROACHES (NW2958) OVER RUSH CREEK, 13.3 MI EAST AND 4.7 MI SOUTH OF RUSH SPRINGS.	\$ 1,500,000
Grady County	2018-2022	ROW FOR 31113(04) BRIDGE & APPROACHES (NW2958) OVER RUSH CREEK, 13.3 MI EAST AND 4.7 MI SOUTH OF RUSH SPRINGS.	\$ 50,000
Grady County	2018-2022	UTILITIES FOR 31113(04) BRIDGE & APPROACHES (NW2958) OVER RUSH CREEK, 13.3 MI EAST AND 4.7 MI SOUTH OF RUSH SPRINGS.	\$ 50,000
Grady County	2018-2022	BRIDGES AND APPROACHES CO RD (2618C) LAFIN CREEK ROAD, 0.36 MI EAST OF NS-297 (DIR 0608-26-04) ER-0K2015-01.	\$ 1,000,000
Grady County	2018-2022	RESURFACE US-62; FROM 1.00 MILE EAST OF THE CADDO C/L, EXTEND EAST 6.49 MI. EAST BOUND LANES ONLY.	\$2,040,000
Grady County	2018-2022	RESURFACE SH-92: FROM US-62 NORTH 4 MI.	\$1,019,535
Grady County	2018-2022	ADA PROJECTS FOR COMPLIANCE US-62: ADA FROM CADDO C/L EXTEND EAST 0.66 MI.	\$150,000
Grady County	2018-2022	ADA PROJECTS FOR COMPLIANCE US-81: ADA FROM SH-19 NORTH JCT, EXTEND NORTH 2.13 MI.	\$149,500

2040 Grady County Long Range Transportation Plan

GENERAL LOCATION	PROJECT YEAR	DESCRIPTION	FUNDING STATE / FEDERAL
Grady County	2018-2022	GRADE, DRAINING, BRIDGE & SURFACE SH-37: BEGIN 0.8 MI EAST OF US-81 IN MINCO, EXTEND E. 3.8 MI TO BRAUM'S ROAD WEST OF TUTTLE.	\$ 6,833,776
Grady County	2018-2022	BRIDGE AND APPROACHES (EW-137) OVER TRIBUTARY TO WEST BITTER CREEK, 0.4 MI WEST AND 1.0 MI SOUTH OF JCT US-62/SH-39.	\$ 687,000
Grady County	2018-2022	ROW FOR 30364(04) US 277: OVER SMITH CREEK 2.7 MI WEST OF US 81.	\$ 192,032
Grady County	2018-2022	UTILITIES FOR 30364(04) US 277: OVER SMITH CREEK 2.7 MI WEST OF US 81.	\$ 735,844
Grady County	2018-2022	ROW FOR 30426(04) SH 19: FROM 13.58 MI EAST OF US 81 EAST 4.22 MI TO THE WASHITA RIVER BR.	\$ 817,500
Grady County	2018-2022	UTILITIES FOR 30426(04) SH 19: FROM 13.58 MI EAST OF US 81 E. 4.22 MI TO THE WASHITA RIVER BR.	\$ 1,035,500
Grady County	2018-2022	ROW FOR 30462(04) BRIDGE AND APPROACHES (NS-276) OVER LAKE BURCHI, 4.4 MI WEST AND 1.3 MI SOUTH OF NORGE.	\$ 40,000
Grady County	2018-2022	UTILITIES FOR 30462(04) BRIDGE AND APPROACHES (NS-276) OVER LAKE BURCHI, 4.4 MI WEST AND 1.3 MI SOUTH OF NORGE.	\$ 40,000
Grady County	2018-2022	PE FOR 31803(04) BRIDGE AND APPROACHES (EW-139) OVER WASHITA RIVER, 1.7 MI SOUTH AND 4.5 MI EAST OF JCT I-44/US-81.	\$90,000
Grady County	2018-2022	ADA PROJECTS FOR COMPLIANCE SH-37: ADA AT SH-4 INTERSECTION.	\$75,000
Grady County	2018-2022	BRIDGE REHABILITATION US-62 OVER SLWC RR 2.31 WEST OF I- 44.	\$1,100,000
Grady County	2018-2022	UTILITIES FOR 24428(04) US-81 REALIGNMENT FROM 1 MI. NORTH OF THE US 81/US 277 JCT. SOUTH OF CHICKASHA EXTEND NORTH 8.63 MI. TO .85 MI. NORTH OF THE US 62/US 81 JCT.	\$6,273,826
Grady County	2018-2022	ROW FOR 30425(04) (07) SH 19: FROM 5.03 MI EAST OF US 81 EAST 8.35 MI.	\$1,250,000
Grady County	2018-2022	UTILITIES FOR 30425(04) (07) SH 19: FROM 5.03 MI EAST OF US 81 EAST 8.35 MI.	\$1,300,000

2040 Grady County Long Range Transportation Plan

GENERAL LOCATION	PROJECT YEAR	DESCRIPTION	FUNDING STATE / FEDERAL
Grady County	2018-2022	BRIDGE AND APPROACHES (NS-276) OVER LAKE BURCHI, 4.4 MI WEST AND 1.3 MI SOUTH OF NORGE	\$850,000
Grady County	2018-2022	ROW FOR 3180304 BRIDGE AND APPROACHES (EW-139) OVER WASHITA RIVER, 1.7 MI SOUTH AND 4.5 MI EAST OF JCT. I-44/US-81.	\$40,000
Grady County	2018-2022	UTILITIES FOR 31803(04) BRIDGE AND APPROACHES (EW-139) OVER WASHITA RIVER, 1.7 MI SOUTH AND 4.5 MI EAST OF JCT. I-44/US-81.	\$40,000
Grady County	2018-2022	P.E. FOR 3353604 CO BR (EW-142) OVER UNNAMED CREEK, 2.5 MI SOUTH AND 3.1 MI EAST OF JCT. SH-19/US-81.	\$ 90,000
Grady County	2018-2022	ROW FOR 27169(04) US-81: PARALLEL LANES FROM 0.9 MI NORTH OF US-62 IN CHICKASHA, NORTH APPROX. 2.0 MI.	\$1,731,800
Grady County	2018-2022	UTILITIES FOR 27169(04) US-81: PARALLEL LANES FROM 0.9 MI NORTH OF US-62 IN CHICKASHA, NORTH APPROX. 2.0 MI.	\$722,300
Grady County	2018-2022	GRADE, DRAIN, BRIDGE AND SURFACE ON AMBER ROAD (EW-128), BEGIN AT US-81 AND EXTEND EAST 4.1 MI TO SH-92.	\$5,300,000
Grady County	2018-2022	BRIDGE AND APPROACHES (EW-139) OVER WASHITA RIVER, 1.7 MI SOUTH AND 4.5 MI EAST OF JCT. I-44/US-81.	\$1,500,000
Grady County	2018-2022	ROW FOR 3353604 CO BR (EW-142) OVER UNNAMED CREEK, 2.5 MI SOUTH AND 3.1 MI EAST OF JCT. SH-19/US-81.	\$40,000
Grady County	2018-2022	UTILITIES FOR 33536(04) CO BR (EW-142) OVER UNNAMED CREEK, 2.5 MI SOUTH AND 3.1 MI EAST OF JCT SH-19/US-81.	\$40,000
Grady County	2018-2022	BRIDGES & APPROACHES US-62: EAST BOUND & WEST BOUND BRIDGES OVER THE WASHITA RIVER 1.9 MI EAST OF US-81 SOUTH.	\$14,140,000
Grady County	2018-2022	GRADE, DRAINING, BRIDGE & SURFACE SH 19: FROM 8.87 MI EAST OF US 81 EAST 4.51 MI TO THE ROARING	\$12,500,000
Grady County	2018-2022	BRIDGE & APPROACHES CO BR (EW-142) OVER UNNAMED CREEK, 2.5 MI SOUTH AND 3.1 MI EAST OF JCT SH-19/US-81.	\$600,000

2040 Grady County Long Range Transportation Plan

GENERAL LOCATION	PROJECT YEAR	DESCRIPTION	FUNDING STATE / FEDERAL
Grady County	2018-2022	ROW FOR 3354404 CO BR (NS-294) OVER WINTER CREEK, 6.0 MI EAST & 3.2 MI SOUTH OF JCT SH-39/SH-76.	\$40,000
Grady County	2018-2022	UTILITIES FOR 33544(04) CO BR (NS-294) OVER WINTER CREEK, 6.0 MI EAST & 3.2 MI SOUTH OF JCT SH-39/SH-76.	\$40,000
Grady County	2018-2022	P.E. FOR 33552(04) CO BR SARA ROAD OVER I-44.	\$90,000
Grady County	2018-2022	BRIDGES & APPROACHES US 277: OVER SMITH CREEK 2.7 MI WEST OF US 81.	\$3,160,000
Grady County	2018-2022	GRADE, DRAINING, BRIDGE & SURFACE SH 19: FROM 5.03 MI EAST OF US 81 E. 3.84 MI.	\$7,918,200
Grady County	2023-2027	Develop procedures to identify and collect traffic count data at specific locations within the county.	SPR/Local
Grady County	2023-2027	Develop method to track the implementation of projects and regularly update the public on the status of projects, programs and finances.	SPR/Local
Grady County	2023-2027	Identify the locations of major employment centers, including existing and proposed developments and identify types of transportation available.	SPR/Local
Grady County	2023-2027	Working with area employers and stakeholders develop a database and map identifying transportation needs	SPR/Local
Grady County	2023-2027	Develop database and mapping to identify the County's underrepresented	SPR/Local
Grady County	2023-2027	GRADE, DRAINING, BRIDGE & SURFACE US-81 REALIGNMENT FROM 1 MI NORTH OF THE US 81/US 277 JCT. SOUTH OF CHICKASHA EXTEND NORTH 8.63 M. TO .85 MI. NORTH OF THE US 62/US 81 JCT. (PHASE 1)	\$15,500,000
Grady County	2028-2032	Develop a data file and create a map identifying location of wind farms and pipelines and relationship to communities and the transportation system.	SPR/LOCAL
Grady County	2028-2032	Develop a regional map that identifies tourism destinations and regionally significant facilities	SPR/LOCAL

2040 Grady County Long Range Transportation Plan

GENERAL LOCATION	PROJECT YEAR	DESCRIPTION	FUNDING STATE / FEDERAL
Grady County	2028-2032	Collect and routinely analyze safety and security data by mode and severity to identify changes and trends.	SPR/LOCAL
Grady County	2033-2037	Collect and routinely analyze safety and security data by mode and severity to identify changes and trends.	SPR/LOCAL
Grady County	2033-2037	Conduct study at intersection locations with high accident severity index and corridors with major attractors.	SPR/LOCAL
Grady County	2038-2040	Collect and routinely analyze safety and security data by mode and severity to identify changes and trends.	SPR/LOCAL
Grady County	2038-2040	Conduct study at intersection locations with high accident severity index and corridors with major attractors.	SPR/LOCAL

Source: ODOT, SORTPO

APPENDICES

Acronyms

ACS	American Community Survey
ADA	Americans with Disabilities Act
AADT	Average Annual Daily Traffic
ASCOG	Association of South Central Oklahoma Governments
C/L	County Line
CA	Community Airport
CIP	Capital Improvement Program
COEDD	Central Oklahoma Economic Development District
COG	Council of Government
CORTPO	Central Oklahoma Regional Transportation Planning Organization
DA	District Airport
EJ	Environmental Justice
FAST Act	Fixing America's Transportation Act
FAT	Fatality
FHWA	Federal Highway Administration
FTA	Federal Transit Administration
FY	Fiscal Year
FFY	Federal Fiscal Year
GIS	Geographic Information System
HHS	Health and Human Services
HWY	Highway
INJ	Injury
JCT	Junction
LEP	Limited English Proficiency
LOS	Levels of Service
LRTP	Long Range Transportation Plan
MAP-21	Moving Ahead for Progress in the 21st Century Act

MI	Mile
MSA	Metropolitan Statistical Area
MUTCD	Manual of Uniform Traffic Control Devices
NHFN	National Highway Freight Network
NHS	National Highway System
NODA	Northern Oklahoma Development Authority
NORTPO	Northern Oklahoma Regional Transportation Planning Organization
NRHP	National Register of Historic Places
OARC	Oklahoma Association of Regional Councils
ODEQ	Oklahoma Department of Environmental Quality
ODOT	Oklahoma Department of Transportation
OKCARTS	Oklahoma City Area Regional Transportation Study
PD	Property Damage
PHFS	Primary Highway Freight System
POE	Port of Entry
PPP	Public Participation Plan
PWP	Planning Work Program
RBA	Regional Business Airport
ROW	Right of Way
RTPO	Regional Transportation Planning Organization
S/L	State Line
SAFETEA-LU	Safe, Accountable, Flexible and Efficient Transportation Equity Act: A Legacy for Users
SORTPO	Southwest Oklahoma Regional Transportation Planning Organization
SLWC	Stillwater Central
STIP	Statewide Transportation Improvement Program
STP	Surface Transportation Program
STRAHNET	Strategic Highway Network

SWODA	South Western Oklahoma Development Authority
TAP	Transportation Alternate Program
TAZ	Traffic Analysis Zone
USDA	U.S. Department of Agriculture
USDOT	U.S. Department of Transportation

Definitions

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

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

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.

Capital Improvement Plan (CIP) - 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.

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

Environmental Justice (EJ) - A 1994 Presidential Executive Order requiring agencies receiving federal funds to review if 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 - 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.

Functionally Obsolete Bridge - A bridge inadequate to properly accommodate the traffic can be due to inadequate clearances, either horizontal or vertical, approach roadway alignment, structural condition, or waterway adequacy. Any posted bridge which is not structurally deficient would be included in this category. Structures in this category could include narrow bridges.

General Aviation Airport - Provide access to the population and economic activity centers of the state.

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.

Local Sustaining Economies - Geographical regions that function with some degree of

independence from the rest of the state. The Oklahoma Department of Commerce (ODOC) has identified 47 of these regions.

Long Range Transportation Plan - Every state and MPO must develop a long-range transportation plan (LRTP) for transportation improvements, including a bicycle and pedestrian element. The LRTP looks twenty (20) years ahead and is revised every five (5) years.

Metropolitan Statistical Area - As designated by the U.S. Office of Management and Budget and defined by the U.S. Bureau of the Census, an MSA consists of the central county or counties containing a city or an urbanized area with a population of at least 50,000 and the adjacent or outlying counties that have close economic and social relationships with the central counties, with a total metropolitan population of at least 100,000.

Multi-modal - The consideration of more than one mode to serve transportation needs in each 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 - Represents four percent (4%) to five percent (5%) of the total public road mileage in the U.S. 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, airports, international border crossings, public transportation and transit facilities, interstate bus terminals and rail and intermodal transportation facilities.

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

Oklahoma City Area Regional Transportation Study (OCARTS) - refers to a geographical area within Central Oklahoma (for transportation planning) which includes all the currently urbanized area plus the surrounding area which is anticipated to become urbanized over the next 20 years. The OCARTS area encompasses all of Oklahoma County and Cleveland County and portions of Canadian, Cleveland, Grady, Logan and McClain Counties.

Primary Commercial Service Airport - An airport that receives scheduled passenger service and enplanes 10,000 or more passengers annually, as reported by the FAA.

Strategic Highway Network(STRAHNET) - Designation given to roads that provide

“defense access, continuity, and emergency capabilities for movements of personnel and equipment in both peace and war.” STRAHNET includes Routes (for long-distance travel) and Connectors (to connect individual installations to the Routes). This system includes the Dwight D. Eisenhower System of Interstate and Defense Highways, identified as strategically important to the defense of the United States.

Structurally Deficient Bridge - A bridge can be inadequate to carry legal loads, whether caused by obsolete design standards, structural deterioration, or waterway inadequacy. Structures in this category may include those posted to restrict load limits as well as those closed to all traffic.

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.

Appendix A: Resolution 09-04

RESOLUTION NO. 09-04

CREATION OF THE RURAL TRANSPORTATION PLANNING
ORGANIZATION COMMITTEE

WHEREAS, local business and community leaders have expressed a strong desire to convene and discuss transportation needs and goals in the eight-county SWODA Region, and

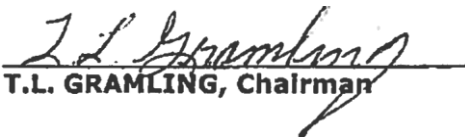
WHEREAS, regional transportation planning is encouraged by legislation of the Federal Highway Administration, and

WHEREAS, SWODA is the federally recognized regional planning organization for the eight-county area, and

WHEREAS, the SWODA Board of Trustees seeks to facilitate the planning process for surface, air and rail development to aid the region in economic development, workforce development, business and industry growth, tourism development and other pursuits;

NOW THEREFORE, BE IT RESOLVED by the Board of Trustees of the South-Western Oklahoma Development Authority does hereby create the Rural Transportation Planning Organization as a standing committee of the Authority.

PASSED AND APPROVED this 13th day of October 2009.


T.L. GRAMLING, Chairman

ATTEST:

Mike Brown

MIKE BROWN, Secretary

Appendix B: Resolution 16-06

RESOLUTION NO. 16-06

EXPANSION OF THE REGIONAL TRANSPORTATION PLANNING

ORGANIZATION COMMITTEE

WHEREAS, local business and community leaders have expressed a strong desire to convene and discuss transportation needs and goals in the sixteen (16) county South Western Oklahoma Development Authority (SWODA) and Association of South Central Oklahoma Governments (ASCOG) region, and

WHEREAS, regional transportation planning is encouraged by legislation of the Federal Highway Administration, and

WHEREAS, SWODA is the federally recognized regional planning organization for the sixteen (16) county area, and

WHEREAS, the SWODA Board of Trustees seeks to facilitate the planning process for surface and rail development to aid the region in economic development, workforce development, business and industry growth, tourism development and other pursuits;

NOW THEREFORE, BE IT RESOLVED by the Board of Trustees of the South Western Oklahoma Development Authority does hereby expand the Regional Transportation Planning Organization as a standing committee of the Authority.

PASSED AND APPROVED this 8th day of November, 2016



John Schaufele, Chairman

ATTEST:



John Dee Butcher, Secretary

Appendix C: Performance Measures

Performance measures for State departments of transportation (State DOT) and Metropolitan Planning Organizations (MPO) were established by the Moving Ahead for Progress in the 21st Century Act (MAP-21). This Act transformed the Federal-aid highway program by establishing new requirements for performance management to ensure the most efficient investment of Federal transportation funds. Performance management increases the accountability and transparency of the Federal-aid highway program and provides a framework to support improved investment decision-making through a focus on performance outcomes for key national transportation goals. As part of performance management, recipients of Federal-aid highway funds will make transportation investments to achieve performance targets that make progress toward the following national goals:

- Safety—To achieve a significant reduction in traffic fatalities and serious injuries on all public roads.
- Infrastructure condition—To maintain the highway infrastructure asset system in a state of good repair.
- Congestion reduction—To achieve a significant reduction in congestion on the NHS.
- System reliability—To improve the efficiency of the surface transportation system.
- Freight movement and economic vitality—To improve the national freight network, strengthen the ability of rural communities to access national and international trade markets, and support regional economic development.
- Environmental sustainability—To enhance the performance of the transportation system while protecting and enhancing the natural environment.
- 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.

State Department of Transportations and Metropolitan Planning Organizations will be expected to use the information and data generated because of the new regulations to inform their transportation planning and programming decisions. The new performance aspects of the Federal-aid highway program that result from this rule will provide FHWA the ability to better communicate a national performance story and to assess the impacts of Federal funding investments more reliably.

The FHWA is required to establish performance measures to assess performance in 12 areas 1 generalized as follows:

- (1) Serious injuries per vehicle miles traveled (VMT);
- (2) Fatalities per VMT;
- (3) Number of serious injuries;
- (4) Number of fatalities;

- (5) Pavement condition on the Interstate System;
- (6) Pavement condition on the non-Interstate NHS;
- (7) Bridge condition on the NHS;
- (8) Performance of the Interstate System;
- (9) Performance of the non-Interstate NHS;
- (10) Freight movement on the Interstate System;
- (11) Traffic congestion; and
- (12) On-road mobile source emissions.

Table 3-1 in ODOT's 2015-2040 Long- Range Transportation Plan compares the 2015-2040 LRTP Goals and Performance Measures. Below is information contained in Table 3.1 of this Plan.

Table 3-1 ODOT 2015-2040 Long Range Transportation Plan.

2015-2040 LRTP Goals	Recommended Performance Measure
Safe and Secure Travel	<ul style="list-style-type: none"> • Reduction in traffic related fatalities and serious injuries <ul style="list-style-type: none"> – Rate and number of traffic fatalities annually on all Oklahoma public roads – Rate and number of traffic-related serious injuries annually on all Oklahoma public roads
Infrastructure Preservation	<ul style="list-style-type: none"> • Bridge Condition – Number of structurally deficient bridges • Preservation of Pavement – Good/fair/poor condition index for NHS highways
Economic Vitality	<ul style="list-style-type: none"> • Freight Movement <ul style="list-style-type: none"> – Annual freight tonnage/value for truck, rail, and barge modes – Measure of freight travel time reliability and/or speed • Congestion <ul style="list-style-type: none"> – Travel time-based measure(s) of congestion
Mobility Choice, Connectivity and Accessibility	<ul style="list-style-type: none"> • Public Transit- Annual rural transit vehicle revenue miles • Passenger Rail - Annual ridership and on-time performance for Amtrak Heartland Flyer
Environmental Responsibility	<ul style="list-style-type: none"> • Clean fuels and improved air quality - Clean fuels as a share of ODOT's total fleet fuel use in gasoline gallon equivalents • Reduce roadway flooding and support improved water quality - Quantity of Litter/Debris (cubic yards or other measure of weight and volume) cleared from storm drains/culverts/roadsides

Source: Oklahoma Department of Transportation

2040 Grady County Long Range Transportation Plan

Appendix 2.1: Grady County, Demographic Information, 2012-2016 ACS

SEX AND AGE	2012-2016 ACS ESTIMATE	MARGIN OF ERROR	PERCENT
Total population	53,955	*****	53,955
Male	26,854	+/-51	49.8%
Female	27,101	+/-51	50.2%
Under 5 years	3,319	+/-70	6.2%
5 to 9 years	3,455	+/-260	6.4%
10 to 14 years	4,140	+/-248	7.7%
15 to 19 years	3,751	+/-124	7.0%
20 to 24 years	3,134	+/-129	5.8%
25 to 34 years	6,815	+/-112	12.6%
35 to 44 years	6,648	+/-78	12.3%
45 to 54 years	7,490	+/-56	13.9%
55 to 59 years	4,117	+/-262	7.6%
60 to 64 years	3,074	+/-259	5.7%
65 to 74 years	4,823	+/-72	8.9%
75 to 84 years	2,359	+/-170	4.4%
85 years and over	830	+/-152	1.5%
Median age (years)	38.4	+/-0.4	(X)
18 years and over	40,699	+/-33	75.4%
21 years and over	38,590	+/-190	71.5%
62 years and over	9,624	+/-201	17.8%
65 years and over	8,012	+/-66	14.8%

2040 Grady County Long Range Transportation Plan

SEX AND AGE	2012-2016 ACS ESTIMATE	MARGIN OF ERROR	PERCENT
RACE			
Total population	53,955	*****	53,955
White	46,279	+/-260	85.8%
Black or African American	1,169	+/-111	2.2%
American Indian and Alaska Native	2,685	+/-347	5.0%
Asian	142	+/-83	0.3%
Native Hawaiian and Other Pacific Islander	6	+/-8	0.0%
Hispanic or Latino (of any race)	2,897	*****	5.4%

Source 2012-2016 ACS, Demographic and Housing

Appendix 2.2: Grady County, Occupation by Sex 2012-2016 ACS

EMPLOYMENT STATUS	2012-2016 ACS ESTIMATE	MARGIN OF ERROR	PERCENT MALE	PERCENT FEMALE
Civilian employed population 16 years and over	24,297	+/-527	54.5%	45.5%
Management, business, science, and arts occupations:	7,341	+/-455	45.9%	54.1%
Management, business, and financial occupations:	3,268	+/-311	60.9%	39.1%
Management occupations	2,517	+/-291	66.4%	33.6%
Business and financial operations occupations	751	+/-145	42.2%	57.8%
Computer, engineering, and science occupations:	713	+/-139	73.1%	26.9%
Computer and mathematical occupations	318	+/-108	58.8%	41.2%

2040 Grady County Long Range Transportation Plan

EMPLOYMENT STATUS	2012-2016 ACS ESTIMATE	MARGIN OF ERROR	PERCENT MALE	PERCENT FEMALE
Architecture and engineering occupations	291	+/-80	93.1%	6.9%
Life, physical, and social science occupations	104	+/-52	60.6%	39.4%
Education, legal, community service, arts, and media occupations:	1,998	+/-229	27.5%	72.5%
Community and social services occupations	403	+/-101	32.8%	67.2%
Legal occupations	141	+/-60	58.2%	41.8%
Education, training, and library occupations	1,249	+/-185	17.9%	82.1%
Arts, design, entertainment, sports, and media occupations	205	+/-79	54.1%	45.9%
Healthcare practitioner and technical occupations:	1,362	+/-189	22.6%	77.4%
Health diagnosing and treating practitioners and other technical occupations	830	+/-152	23.4%	76.6%
Health technologists and technicians	532	+/-119	21.4%	78.6%
Service occupations:	4,212	+/-360	37.6%	62.4%
Healthcare support occupations	679	+/-172	10.3%	89.7%
Protective service occupations:	768	+/-166	82.8%	17.2%
Firefighting and prevention, and other protective service workers including supervisors	395	+/-143	82.8%	17.2%
Law enforcement workers including supervisors	373	+/-88	82.8%	17.2%

2040 Grady County Long Range Transportation Plan

EMPLOYMENT STATUS	2012-2016 ACS ESTIMATE	MARGIN OF ERROR	PERCENT MALE	PERCENT FEMALE
Food preparation and serving related occupations	1,206	+/-220	25.8%	74.2%
Building and grounds cleaning and maintenance occupations	895	+/-162	51.6%	48.4%
Personal care and service occupations	664	+/-107	15.7%	84.3%

Source: 2012-2016 ACS, Occupation by Sex

Appendix 2.3: Grady County Industry by Sex, 2012-2016 ACS

OCCUPATION	2012-2016 ACS ESTIMATE	MARGIN OF ERROR	PERCENT MALE	PERCENT FEMALE
Civilian employed population 16 years and over	24,297	+/-527	54.5%	45.5%
Agriculture, forestry, fishing and hunting, and mining:	2,406	+/-236	92.4%	7.6%
Agriculture, forestry, fishing and hunting	545	+/-113	88.1%	11.9%
Mining, quarrying, and oil and gas extraction	1,861	+/-236	93.7%	6.3%
Construction	1,846	+/-193	89.8%	10.2%
Manufacturing	2,227	+/-276	68.6%	31.4%
Wholesale trade	745	+/-148	75.4%	24.6%
Retail trade	3,008	+/-296	48.1%	51.9%
Transportation and warehousing, and utilities:	1,353	+/-171	81.9%	18.1%
Transportation and warehousing	1,040	+/-150	79.0%	21.0%
Utilities	313	+/-100	91.4%	8.6%
Information	301	+/-94	42.2%	57.8%

2040 Grady County Long Range Transportation Plan

OCCUPATION	2012-2016 ACS ESTIMATE	MARGIN OF ERROR	PERCENT MALE	PERCENT FEMALE
Finance and insurance, and real estate and rental and leasing:	1,090	+/-158	36.4%	63.6%
Finance and insurance	834	+/-151	34.3%	65.7%
Real estate and rental and leasing	256	+/-77	43.4%	56.6%
Professional, scientific, and management, and administrative and waste management services:	1,529	+/-216	54.5%	45.5%
Professional, scientific, and technical services	1,007	+/-192	49.2%	50.8%
Management of companies and enterprises	12	+/-18	100.0%	0.0%
Administrative and support and waste management services	510	+/-135	64.1%	35.9%
Educational services, and health care and social assistance:	5,212	+/-402	19.7%	80.3%
Educational services	2,061	+/-238	24.1%	75.9%
Health care and social assistance	3,151	+/-302	16.9%	83.1%
Arts, entertainment, and recreation, and accommodation and food services:	1,849	+/-232	39.7%	60.3%
Arts, entertainment, and recreation	445	+/-115	63.1%	36.9%
Accommodation and food services	1,404	+/-197	32.3%	67.7%

2040 Grady County Long Range Transportation Plan

OCCUPATION	2012-2016 ACS ESTIMATE	MARGIN OF ERROR	PERCENT MALE	PERCENT FEMALE
Other services, except public administration	1,102	+/-151	52.6%	47.4%
Public administration	1,629	+/-234	61.7%	38.3%

Source 2012-2016 ACS, Industry by Sex

Appendix 2.4: Grady County Educational Attainment 2012-2016, ACS

SUBJECT	2012- 2016 ACS ESTIMATE	MARGIN OF ERROR	PERCENT MALES ESTIMATE	PERCENT FEMALE ESTIMATE
Population 18 to 24 years	4,543	+/-77	(X)	(X)
Less than high school graduate	915	+/-193	19.4%	20.9%
High school graduate (includes equivalency)	1,735	+/-216	45.7%	29.9%
Some college or associate degree	1,731	+/-204	31.8%	45.1%
Bachelor's degree or higher	162	+/-76	3.1%	4.1%
Population 25 years and over	36,156	+/-77	(X)	(X)
Less than 9th grade	1,323	+/-187	4.3%	3.1%
9th to 12th grade, no diploma	3,139	+/-304	9.2%	8.1%
High school graduate (includes equivalency)	14,177	+/-544	39.6%	38.9%
Some college, no degree	8,933	+/-528	25.2%	24.3%
Associate degree	2,153	+/-230	5.3%	6.6%
Bachelor's degree	4,727	+/-351	12.0%	14.1%
Graduate or professional degree	1,704	+/-238	4.4%	5.0%
Percent high school graduate or higher	(X)	(X)	86.5%	88.8%

2040 Grady County Long Range Transportation Plan

SUBJECT	2012-2016 ACS ESTIMATE	MARGIN OF ERROR	PERCENT MALES ESTIMATE	PERCENT FEMALE ESTIMATE
Percent bachelor's degree or higher	(X)	(X)	16.4%	19.1%
Population 25 to 34 years	6,815	+/-112	(X)	(X)
High school graduate or higher	6,120	+/-177	87.1%	92.5%
Bachelor's degree or higher	1,384	+/-203	16.1%	24.5%
Population 35 to 44 years	6,648	+/-78	(X)	(X)
High school graduate or higher	6,147	+/-113	90.9%	93.9%
Bachelor's degree or higher	1,562	+/-218	20.2%	26.6%
Population 45 to 64 years	14,681	+/-87	(X)	(X)
High school graduate or higher	13,004	+/-218	87.0%	90.2%
Bachelor's degree or higher	2,335	+/-248	14.9%	16.9%
Population 65 years and over	8,012	+/-66	(X)	(X)
High school graduate or higher	6,423	+/-196	80.9%	79.6%
Bachelor's degree or higher	1,150	+/-186	16.2%	12.8%

Source 2012-2016 ACS, Educational Attainment

Appendix 2.5: Grady County, Housing Units and Vehicles Available 2012-2016 ACS

Subject	Grady County, Oklahoma					
	Occupied housing units		Owner-occupied housing units		Renter-occupied housing units	
	2012-2016 ACS ESTIMATE	Margin of Error	2012-2016 ACS ESTIMATE	Margin of Error	2012-2016 ACS ESTIMATE	Margin of Error
Occupied housing units	19,554	+/-232	14,911	+/-283	4,643	+/-241
UNITS IN STRUCTURE						
1, detached	80.7%	+/-1.3	87.1%	+/-1.2	60.3%	+/-3.7
1, attached	0.7%	+/-0.3	0.3%	+/-0.2	2.1%	+/-1.0
2 apartments	1.3%	+/-0.3	0.0%	+/-0.1	5.4%	+/-1.5
3 or 4 apartments	0.9%	+/-0.3	0.0%	+/-0.1	3.7%	+/-1.5
5 to 9 apartments	1.7%	+/-0.5	0.2%	+/-0.2	6.7%	+/-1.7
10 or more apartments	1.8%	+/-0.5	0.0%	+/-0.1	7.5%	+/-2.0
Mobile home or other type of housing	12.9%	+/-1.0	12.5%	+/-1.2	14.3%	+/-2.1
VEHICLES AVAILABLE						
No vehicle available	3.2%	+/-0.6	1.6%	+/-0.5	8.2%	+/-2.0
1 vehicle available	25.8%	+/-1.6	18.8%	+/-1.5	48.4%	+/-4.0
2 vehicles available	42.6%	+/-1.7	45.3%	+/-1.8	33.7%	+/-3.4
3 or more vehicles available	28.4%	+/-1.3	34.2%	+/-1.5	9.8%	+/-2.1

Source: 2012-2016 ACS, Physical Housing Characteristics for Occupied Housing Units

Appendix 2.6: Grady County Means of Transportation, 2012-2016 ACS

Subject	2012-2016 ACS ESTIMATE	Margin of Error
Workers 16 years and over	24,096	+/-546
Means of Transportation to Work		
Car, truck, or van	94.4%	+/-0.8
Drove alone	86.1%	+/-1.4
Carpooled	8.3%	+/-1.2
In 2-person carpool	6.9%	+/-1.1
In 3-person carpool	1.0%	+/-0.4
In 4-or-more person carpool	0.3%	+/-0.2
Workers per car, truck, or van	1.05	+/-0.01
Public transportation (excluding taxicab)	0.1%	+/-0.1
Walked	1.2%	+/-0.4
Bicycle	0.1%	+/-0.1
Taxicab, motorcycle, or other means	1.1%	+/-0.5
Worked at home	3.1%	+/-0.6
<u>Time Leaving Home To Go To Work</u>		
12:00 a.m. to 4:59 a.m.	4.0%	+/-0.6
5:00 a.m. to 5:29 a.m.	3.8%	+/-0.6
5:30 a.m. to 5:59 a.m.	4.9%	+/-0.7
6:00 a.m. to 6:29 a.m.	10.2%	+/-1.1
6:30 a.m. to 6:59 a.m.	10.6%	+/-1.1
7:00 a.m. to 7:29 a.m.	19.5%	+/-1.5

2040 Grady County Long Range Transportation Plan

Subject	2012-2016 ACS ESTIMATE	Margin of Error
7:30 a.m. to 7:59 a.m.	14.2%	+/-1.3
8:00 a.m. to 8:29 a.m.	10.1%	+/-1.1
8:30 a.m. to 8:59 a.m.	3.1%	+/-0.7
9:00 a.m. to 11:59 p.m.	19.6%	+/-1.4
<u>Travel Time To Work</u>		
Less than 10 minutes	17.7%	+/-1.3
10 to 14 minutes	14.3%	+/-1.2
15 to 19 minutes	11.3%	+/-1.1
20 to 24 minutes	10.6%	+/-1.2
25 to 29 minutes	5.3%	+/-0.9
30 to 34 minutes	15.9%	+/-1.4
35 to 44 minutes	7.4%	+/-1.0
45 to 59 minutes	10.9%	+/-1.2
60 or more minutes	6.7%	+/-0.9
Mean travel time to work (minutes)	25.7	+/-0.8
<u>Vehicles Available</u>		
Workers 16 years and over in households	24,022	+/-545
No vehicle available	1.1%	+/-0.4
1 vehicle available	14.0%	+/-1.4
2 vehicles available	42.5%	+/-2.0
3 or more vehicles available	42.5%	+/-1.9

Source: 2012-2016 ACS Commute Characteristics

Appendix 2.7: Grady County Selected Economic, 2012-2016 ACS

Subject	2012-2016 ACS ESTIMATE	Margin of Error
<u>Commuting to Work</u>		
Workers 16 years and over	24,096	+/-546
Car, truck, or van -- drove alone	20,750	+/-586
Car, truck, or van -- carpooled	1,990	+/-283
Public transportation (excluding taxicab)	27	+/-19
Walked	301	+/-100
Other means	292	+/-119
Worked at home	736	+/-136
Mean travel time to work (minutes)	25.7	+/-0.8
<u>Class of Worker</u>		
Civilian employed population 16 years and over	24,297	+/-527
Private wage and salary workers	18,457	+/-565
Government workers	4,181	+/-400
Self-employed in own not incorporated business workers	1,635	+/-184
Unpaid family workers	24	+/-19
<u>Income and Benefits (In 2015 Inflation Adjusted Dollars)</u>		
Total households	19,554	+/-232

2040 Grady County Long Range Transportation Plan

Subject	2012-2016 ACS ESTIMATE	Margin of Error
Less than \$10,000	1,277	+/-183
\$10,000 to \$14,999	1,043	+/-169
\$15,000 to \$24,999	1,959	+/-232
\$25,000 to \$34,999	2,028	+/-223
\$35,000 to \$49,999	2,781	+/-258
\$50,000 to \$74,999	3,961	+/-265
\$75,000 to \$99,999	2,417	+/-237
\$100,000 to \$149,999	2,608	+/-227
\$150,000 to \$199,999	757	+/-126
\$200,000 or more	723	+/-133
Median household income (dollars)	54,043	+/-2,147

Source 2012-2016 ACS, Industry by Sex, Occupation by Sex, Selected Economic Characteristics

2040 Grady County Long Range Transportation Plan

Appendix 2.8: Grady County Population and Employment by TAZ

SORTPO CITY	TAZ No	POP 2010	TOT EMP 2010	POP 2040	TOT EMP 2040
Blanchard					
	200	261	75	800	85
	201	906	55	1200	55
	202	655	45	800	45
Chickasha					
(pt 6, 12, 13, 14, 16, 19, 22, 23)	300	54	25	54	25
	301	1	10	1	10
	302	2	10	2	10
	303	2	125	2	125
	304	2	525	2	585
	305	17	175	17	185
	306	345	15	355	15
	307	641	345	655	400
	308	228	95	230	95
	309	600	285	600	305
	310	0	145	105	145
	311	4	55	4	55
	312	74	140	74	155
	313	59	100	59	105
	314	609	300	700	300
	315	34	595	34	600
	316	44	595	44	600
	317	83	595	83	600
	318	598	595	600	600
	319	489	15	505	15
	320	351	55	355	55
	321	469	45	475	45
	322	326	35	335	35
	323	1	485	15	500
Hospital/Medical com	324	87	755	125	800
	325	15	115	15	125
	326	681	65	800	65
	327	22	175	50	185
	328	137	115	155	125

2040 Grady County Long Range Transportation Plan

SORTPO CITY	TAZ No	POP 2010	TOT EMP 2010	POP 2040	TOT EMP 2040
	329	21	115	25	115
	330	393	45	400	45
	331	347	0	365	0
	332	365	45	375	45
	333	635	15	645	15
	334	354	45	355	45
	335	412	75	415	75
	336	366	0	370	0
	337	13	50	10	50
	338	23	85	20	85
	339	9	450	5	450
	340	158	590	158	600
	341	0	500	0	500
	342	20	350	20	350
	343	0	25	0	25
	344	9	350	9	350
	345	586	600	600	600
	346	566	200	569	200
	347	0	100	0	100
	348	472	275	550	275
	349	269	50	335	50
	350	811	335	850	335
	351	149	105	500	105
	352	614	108	615	108
	353	90	65	90	65
	354	141	225	165	225
	355	37	235	37	235
	356	54	300	54	300
	357	32	225	100	225
	358	227	225	400	225
	359	341	500	341	500
	360	269	225	275	225
	361	61	300	61	300
	362	65	300	70	300
	363	602	105	655	105
	364	755	75	800	75

2040 Grady County Long Range Transportation Plan

SORTPO CITY	TAZ No	POP 2010	TOT EMP 2010	POP 2040	TOT EMP 2040
	365	0	25	10	25
	366	156	25	350	25
	367	10	250	10	250
	368	611	0	650	0
Minco					
(pt 1 ad 3)	100	497	65	450	65
	101	245	85	205	85
	102	172	45	225	45
	103	584	400	540	400
Rush Springs					
(pt 32)	500	344	125	360	125
	501	94	50	94	50
	502	244	65	244	65
includes pt of county	503	425	105	416	105
includes pt of county	504	63	85	63	85
	505	24	85	24	85
includes pt of county	506	49	45	49	45
Ninnekah					
(pt 400)	400	319	75	400	75
	401	10	425	10	500
	402	66	105	50	105
	403	362	65	395	65
	404	313	245	318	245
Verden					
(pt 17 and 18)	17	343	105	244	115
	18	574	115	355	121
Grady County					
	1	138	40	145	40
	2	151	75	279	75
	3	747	75	800	75

2040 Grady County Long Range Transportation Plan

SORTPO CITY	TAZ No	POP 2010	TOT EMP 2010	POP 2040	TOT EMP 2040
	4	593	105	645	105
	5	34	300	85	300
	6	305	75	395	75
	7	628	320	700	320
	8	760	600	800	600
	9	686	255	745	255
	10	585	185	625	185
	11	445	45	500	45
	12	488	350	700	350
	13	446	225	500	225
	14	135	85	250	85
Major Employer	15	36	255	45	255
	16	216	600	400	600
pt	17	343	85	350	85
pt	18	574	135	700	135
	19	752	145	800	145
	20	525	95	600	95
	21	152	205	201	205
	22	647	185	700	185
	23	660	475	675	475
	24	754	45	760	45
	25	809	45	815	45
	26	289	85	294	85
Major Employer	27	20	295	20	300
Major Employer	28	7	295	7	300
	29	564	55	580	55
	30	273	35	273	35
	31	419	35	425	35
	32	456	45	460	45
	33	203	75	215	75
	34	680	145	680	150
	35	549	105	555	105
	36	84	35	95	35
	37	561	85	570	85

2040 Grady County Long Range Transportation Plan

SORTPO CITY	TAZ No	POP 2010	TOT EMP 2010	POP 2040	TOT EMP 2040
OCARTS CITY					
Blanchard	2240.0000	65	0	181	0
Blanchard	2279.0000	7	0	22	0
Bridge Creek	2114.0000	6	54	12	54
Bridge Creek	2137.0000	0	0	0	0
Bridge Creek	2138.0000	17	0	46	0
Bridge Creek	2139.0000	35	0	46	0
Bridge Creek	2161.0000	0	0	8	0
Bridge Creek	2162.0000	55	0	87	0
Bridge Creek	2189.0000	15	0	44	0
Bridge Creek	2190.0000	49	0	106	0
Bridge Creek	2191.0000	81	34	87	34
Bridge Creek	2211.0000	17	226	25	226
Bridge Creek	2237.0000	24	0	45	0
Bridge Creek	2238.0000	35	0	47	0
Grady County	2058.0000	60	308	82	325
Grady County	2059.0000	0	0	0	0
Grady County	2063.0000	18	0	31	20
Grady County	2086.0000	10	0	15	0
Grady County	2112.0000	89	10	102	34
Grady County	2113.0000	680	32	707	46
Grady County	2114.0000	657	14	718	14
Grady County	2135.0000	97	0	142	0
Grady County	2136.0000	158	0	188	16
Grady County	2137.0000	473	125	543	140
Grady County	2138.0000	456	34	563	34
Grady County	2139.0000	641	167	680	182
Grady County	2161.0000	3	0	3	0
Grady County	2162.0000	1506	2	1654	2
Grady County	2167.0000	44	4	50	4

2040 Grady County Long Range Transportation Plan

SORTPO CITY	TAZ No	POP 2010	TOT EMP 2010	POP 2040	TOT EMP 2040
OCARTS CITY					
Grady County	2189.0000	683	10	786	27
Grady County	2190.0000	2	0	30	0
Grady County	2191.0000	770	4	825	17
Grady County	2211.0000	342	70	411	99
Grady County	2235.0000	22	0	24	0
Grady County	2236.0000	183	39	216	39
Grady County	2237.0000	160	10	251	38
Grady County	2238.0000	779	4	859	4
Grady County	2239.0000	48	0	49	0
Grady County	2240.0000	538	0	611	0
Grady County	2278.0000	215	0	229	0
Grady County	2279.0000	17	0	39	0
Tuttle	2058.0000	36	25	234	25
Tuttle	2059.0000	923	23	2308	90
Tuttle	2063.0000	633	11	1562	11
Tuttle	2086.0000	938	140	1372	716
Tuttle	2087.0000	629	160	1250	174
Tuttle	2088.0000	601	108	796	141
Tuttle	2112.0000	141	57	154	57
Tuttle	2113.0000	676	375	923	436
Tuttle	2114.0000	429	155	541	197
Tuttle	2136.0000	336	160	353	167
Tuttle	2137.0000	201	39	299	39
Tuttle	2138.0000	247	35	407	93
Tuttle	2139.0000	229	74	352	74

Source: SORTPO

2040 Grady County Long Range Transportation Plan

Appendix 2.9: Grady County Major Employers, 2018

BUSINESS / INDUSTRY NAME	STREET ADDRESS	CITY	2018 # EMPLOYEES	TAZ
1st National Bank & Trust Co.	102 S. Main St.	Alex	5-9	23
Alex School District	209 S. 2nd St.	Alex	50-99	23
Blackjack Express		Alex	5-9	23
Chisholm Corner	601 SH 19	Alex	10-19	23
City of Alex	103 N. Main St.	Alex	1-4	23
Longhorn Express	705 S. Main St.	Alex	1-4	23
Subway	619 W. SH 19	Alex	5-9	23
US Post Office	111 S. Main St.	Alex	1-4	23
Waste Connections Landfill		Alex	10-19	23
Amber Town Hall	404 Holly	Amber	1-4	7
AMPO High School	401 E. Main St.	Amber	20-49	7
Garrett Trucking	1338 County Road 1270	Amber	20-49	7
Garrett Tubular Svc	1338 County Road 1270	Amber	10-19	7
Grady County Rural Water District	1078 CR 1280	Amber	1-4	7
Kens Steaks and Ribs	408 E. Main St.	Amber	10-19	7
Kids	212 SH 92	Amber	10-19	7
Major League Concrete	104 Clearview Dr.	Amber	5-9	7
Town of Amber Fire Dept.	212 E. Main St.	Amber	20-49	7
Turner Welding	1496 County Road 1280	Amber	20-49	7
US Post Office	402 E. Main St.	Amber	1-4	7
Williams Express	212 SH 92	Amber	5-9	7
M2 Fabrication & Repair	1025 S. Sara Rd.	Blanchard	5-9	9
Paw Paws Hamburgers	1103 S. County Line Rd.	Blanchard	5-9	202
Bridge Creek School District	2209 E. Sooner Rd.	Bridge Creek	20-49	OCARTS
Durham School Service	2228 E. Sooner Rd.	Bridge Creek	50-99	OCARTS
Pennington Industries	2325 Fox Ln.	Bridge Creek	10-19	OCARTS
Town of Bridge Creek Fire Dept.	2297 County Road 1222	Bridge Creek	10-19	OCARTS
1st National Bank & Trust Co.	602 W. Grand Ave.	Chickasha	50-99	345
A & E Grill	802 W Grand Ave.	Chickasha	50-99	345
Access Health Care	902 W. Chickasha Ave.	Chickasha	10-19	318

2040 Grady County Long Range Transportation Plan

BUSINESS / INDUSTRY NAME	STREET ADDRESS	CITY	2018 # EMPLOYEES	TAZ
Ace Hardware	1617 S. 4th St.	Chickasha	10-19	341
Aethon Emergency Line	528 W. Kansas Ave.	Chickasha	10-19	317
Aggreko Rental	1335 US 62	Chickasha	20-49	23
Alliance Health Inc	328 S. 29th St.	Chickasha	100-249	327
Angel Johnson & Blasingame	2700 S. 4th St.	Chickasha	10-19	357
Apache Corporation	1710 Charles Allen Dr.	Chickasha	20-49	304
Around the Clock Home care	313 W. Chickasha Ave.	Chickasha	10-19	315
Arvest Bank	1927 S. 4th St.	Chickasha	50-99	341
Atwoods	2221 Ponderosa Dr.	Chickasha	20-49	359
Badget Corporation	4009 S. 4th St.	Chickasha	10-19	361
Bailey's Welding	3601 SH 92	Chickasha	10-19	364
Baity Screw Machine Products	302 Genevieve St.	Chickasha	20-49	310
Ben Milam Htg/AC/Elec	409 W. Kansas Ave.	Chickasha	10-19	317
Bill Wallace EC Center	2301 S. 16th St.	Chickasha	20-49	347
Billy Sims BBQ	1812 S. 4th St.	Chickasha	10-19	340
Bob Lowe Farm Machinery Inc.	1524 E. Choctaw Ave.	Chickasha	20-49	312
Bradley Machine & Design	816 N. 18th St.	Chickasha	10-19	304
Braum's Ice Cream & Dairy Store	2028 S. 4th St.	Chickasha	20-49	340
Brookdale Chickasha	801 W. Country Club Rd.	Chickasha	20-49	354
Byford Auto Group	2900 S. US 81	Chickasha	50-99	356
Byford Chrysler Dodge	3121 S. 4th St.	Chickasha	20-49	359
Canadian Valley Tech Center	1401 W. Michigan Ave.	Chickasha	50-99	307
Carbon Economy LLC	12 Miller Dr.	Chickasha	10-19	350
Charles Allen Ford	1717 S. 4th St.	Chickasha	20-49	339
Chickasha City Hall	117 N. 4th St.	Chickasha	20-49	317
Chickasha Daily Express	411 W. Chickasha Ave.	Chickasha	20-49	317
Chickasha High School	101 John P. Cowan St.	Chickasha	50-99	323
Chickasha Industrial & Welding	728 S. 3rd St.	Chickasha	10-19	316
Chickasha Laundry	327 S. 2nd St.	Chickasha	10-19	315
Chickasha Lumber Co	1620 S. 4th St.	Chickasha	20-49	340
Chickasha Manufacturing	5501 S. 4th St.	Chickasha	20-49	367
Chickasha Middle School	1000 S. 9th St.	Chickasha	20-49	319

2040 Grady County Long Range Transportation Plan

BUSINESS / INDUSTRY NAME	STREET ADDRESS	CITY	2018 # EMPLOYEES	TAZ
Chickasha Nursing Center	2701 S. 9th St.	Chickasha	20-49	345
Chickasha Police Dept.	2001 W. Iowa Ave.	Chickasha	20-49	325
Chickasha Post Office	725 W. Chickasha Ave.	Chickasha	20-49	317
Chickasha Public Works	502 N. Genevieve St.	Chickasha	50-99	310
Chicken Express	1700 S. 4th St.	Chickasha	10-19	340
Chief Fire & Safety Co.	927 S. 4th St.	Chickasha	10-19	339
China Moon Café	1328 S. 4th St.	Chickasha	10-19	338
Cimarron Trailer Mfg.	1442 US 62	Chickasha	100-249	12
CMS Willowbrook	3108 S. 9th St.	Chickasha	20-49	353
Cochran Abstract Co.	314 W. Choctaw Ave.	Chickasha	10-19	309
Comfort Keepers	210 S. 4th St.	Chickasha	20-49	317
Comfort Keepers Staffing Agency	401 W. Chickasha Ave.	Chickasha	10-19	317
Convalescent Center-Grady County	2300 W. Iowa Ave.	Chickasha	50-99	324
Cotton Patch Café	2135 S. 4th St.	Chickasha	10-19	344
Cottonwood Creek Golf Course	2900 S. 16th St.	Chickasha	20-49	364
CVS Pharmacy	1802 S. 4th St.	Chickasha	10-19	340
Da Vita Inc	228 S. 29th St.	Chickasha	10-19	327
Dairy Queen	720 W. Choctaw Ave.	Chickasha	10-19	308
DCP Midstream	175 County Road 1420	Chickasha	10-19	20
DeHart A/C	1201 S. 4th St.	Chickasha	10-19	339
Department of Human Services Grady County	1707 Frisco Ave.	Chickasha	50-99	304
Dollar Tree	1804 S. 4th St.	Chickasha	10-19	340
Dominos	806 S. 4th St.	Chickasha	20-49	318
Dusters & Sprayers Supply Inc.	2163 US 81	Chickasha	10-19	6
Electrical Technologies	1201 S. 4th St.	Chickasha	10-19	319
Encompass Home Health	106 S. 2nd St.	Chickasha	20-49	315
EZ Go	1896 IH 44	Chickasha	20-49	13
Faith Hospice	420 S. 22nd St.	Chickasha	20-49	370
Fenimore Mfg.	900 N. 18th St.	Chickasha	10-19	304
First National Bank & Trust Co.	602 W. Grand Ave.	Chickasha	50-99	345
Five Oaks Medical Group	2100 W. Iowa Ave.	Chickasha	50-99	324

2040 Grady County Long Range Transportation Plan

BUSINESS / INDUSTRY NAME	STREET ADDRESS	CITY	2018 # EMPLOYEES	TAZ
Friend K-8	1307 County Road 1350	Chickasha	20-49	12
Gabriel Ride Control Products	700 N. Industrial Blvd.	Chickasha	closed	304
Gas N Go	2901 W. US 62	Chickasha	10-19	16
Glen Haven Retirement Village	3003 W Iowa Ave.	Chickasha	50-99	16
Godfather's Pizza	1001 W. Choctaw Ave.	Chickasha	10-19	318
Godfather's Pizza	1326 S. 4th St.	Chickasha	10-19	338
Grace Living Center	2300 W. Iowa Ave.	Chickasha	50-99	324
Grady County Barn #1	S. 4th St	Chickasha		362
Grady County Courthouse	320 W. Choctaw Ave.	Chickasha	50-99	309
Grady County Detention Center	215 N. 3rd St.	Chickasha	20-49	309
Grady County Fairgrounds	500 E. Choctaw Ave.	Chickasha	10-19	313
Grady County Health Dept.	2116 W. Iowa Ave.	Chickasha	10-19	324
Grady County Sheriff	320 N. 3rd St.	Chickasha	20-49	309
Grady Memorial Hospital	2220 W. Iowa Ave.	Chickasha	250-499	324
Grady Memorial Hospital ER Physicians	2220 W. Iowa Ave.	Chickasha	10-19	324
Grand Ave. Dental Center	720 W. Grand Ave.	Chickasha	10-19	345
Grand Care Pharmacy	2103 W. Iowa Ave.	Chickasha	10-19	325
Green Bay Packaging Inc	1800 Charles Allen Blvd.	Chickasha	20-49	304
Greg's Welding & Backhoe Svc.	1388 E. SH 19	Chickasha	10-19	21
Hamm & Phillips Svc Co	1100 N. Industrial Blvd.	Chickasha	20-49	304
Hampton Inn	3004 S. 4th St.	Chickasha	20-49	356
Hart Mfg.	3909 S. 4th St.	Chickasha	20-49	361
Healthback of Chickasha	420 S. 22nd St.	Chickasha	10-19	325
Highway Patrol	IH 44	Chickasha	10-19	14
Hoffman Transportation	1201 N. 16th St.	Chickasha	50-99	305
Holiday Inn Express	2610 S. 4th St.	Chickasha	20-49	357
Homeland	859 W. Grand Ave.	Chickasha	20-49	345
Hospice of Chickasha	328 S. 29th St.	Chickasha	20-49	16
HSI Sensing	3100 S. Norge Rd.	Chickasha	100-249	350
Indian Territory Home Health	2201 W. Iowa Ave.	Chickasha	10-19	321

2040 Grady County Long Range Transportation Plan

BUSINESS / INDUSTRY NAME	STREET ADDRESS	CITY	2018 # EMPLOYEES	TAZ
Indigenous Technologies	519 W. Chickasha	Chickasha	10-19	317
Industrial Compounding	2500 W. US 62	Chickasha	50-99	303
Jackson MFG Inc	2153 County Street 2827	Chickasha	10-19	301
Jake's Ribs	100 Ponderosa Dr.	Chickasha	20-49	359
John Holt Chevrolet Cadillac	2501 S. US 81	Chickasha	50-99	358
John Phillips Dentistry	2900 W. Grand Ave.	Chickasha	10-19	329
KFC	1228 S. 4th St.	Chickasha	20-49	340
KSW Oilfield Rentals	2758 County Street 2857	Chickasha	20-49	22
Liberty Drug Inc	315 W. Chickasha Ave.	Chickasha	10-19	315
Liberty National Bank	1924 S 4th St. # A	Chickasha	50-99	340
Lifeline health Care	1701 W. Iowa Ave.	Chickasha	50-99	322
Livestock Nutrition Center	409 Sheppard St.	Chickasha	10-19	314
Livingston Machinery	5201 US 81	Chickasha	100-249	367
Loves Country Store	1326 S. 4th St.	Chickasha	20-49	338
Low E T Logistics	401 W. Chickasha Ave. #500	Chickasha	10-19	317
Mama Carols	625 S. 4th St.	Chickasha	10-19	315
Mazzio's Italian Eatery	1127 S. 4th St.	Chickasha	10-19	339
McDonalds	323 W. Chickasha	Chickasha	20-49	315
McDonalds / Travel Plaza	1901 IH 44	Chickasha	50-99	13
McDonalds of Chickasha	2027 S. 4th St.	Chickasha	50-99	341
Midfirst Bank	228 W. Chickasha	Chickasha	10-19	315
Morgan Well Svc	820 N. 29th St.	Chickasha	20-49	323
Nash Library	1727 W. Alabama Ave.	Chickasha	10-19	330
New China	510 W. Grand Ave.	Chickasha	10-19	340
Nicola Banking Systems Inc	709 W. Country Club Rd.	Chickasha	20-49	355
OK Heart Hospital Physicians	2201 W. Iowa Ave.	Chickasha	10-19	325
Oklahoma Child Welfare	1707 Frisco Ave.	Chickasha	50-99	307
Ouachita Exploration Inc	402 W. Chickasha Ave., Suite 200	Chickasha	10-19	317
Pioneer K-8	3686 SH 92	Chickasha	20-49	19
Pizza Hut	2001 S. 4th St.	Chickasha	10-19	341
Quality Inn	2101 S. 4th St.	Chickasha	20-49	344

2040 Grady County Long Range Transportation Plan

BUSINESS / INDUSTRY NAME	STREET ADDRESS	CITY	2018 # EMPLOYEES	TAZ
Red Rock Behavioral Health Svc.	804 W. Choctaw Ave.	Chickasha	10-19	308
River Bend Golf Club	1156 County Road 1345	Chickasha	20-49	311
Ross Health Care/Alliance Health Care	328 S. 29th St.	Chickasha	250-499	329
Ross True Value Hardware	412 W. Choctaw Ave.	Chickasha	20-49	309
Royal Filter Mfg.	4327 S. 4th St.	Chickasha	20-49	361
Save A Lot Food Stores	1840 S. 4th St.	Chickasha	10-19	340
Sequoyah Enterprises	2027 W. Idaho Ave.	Chickasha	20-49	326
Service Teck PM LLC	801 S. 29th St.	Chickasha	10-19	326
Shannon Springs Residence	2500 S. 12th St.	Chickasha	50-99	345
Simer Pallet Recycling	3000 Industrial Rd.	Chickasha	10-19	18
Social Services Dept.	1707 Frisco Ave.	Chickasha	50-99	304
Sodexo	1727 W. Alabama Ave.	Chickasha	20-49	330
Sonic Drive In	428 S. 4th St.	Chickasha	20-49	317
Southern Plains Medical	2222 W Iowa Ave.	Chickasha	100-249	324
Southwest Youth & Family Services Inc.	198 E. Almar Dr.	Chickasha	10-19	359
Special Young Adults Inc	826 W. Oregon Ave.	Chickasha	50-99	316
Special Young Adults Inc.	1407 W. Mississippi Ave.	Chickasha	20-49	352
Spencer's Supermarket	208 S. 5th St.	Chickasha	20-49	316
Stage	627 W. Grand Ave.	Chickasha	10-19	345
Standley's Office Equipment	528 W. Iowa Ave.	Chickasha	20-49	317
Standridge Equipment	627 N. 16th St.	Chickasha	20-49	304
Star Well Svc	5401 Glenwood Dr.	Chickasha	10-19	368
Steagal Oil Co Inc	616 N. 16th St.	Chickasha	20-49	307
Sterling House of Chickasha	801 W. Country Club Rd.	Chickasha	20-49	363
Taco Bell	1782 S. 4th St.	Chickasha	10-19	340
Taco Bueno	2121 S. 4th St.	Chickasha	10-19	345
Taco Mayo	410 W. Grand Ave.	Chickasha	10-19	340
Taylor & Sons Farms	2479 County Street 2865	Chickasha	20-49	23
Taylor Sons Pipe & Steel	2479 County Street 2865	Chickasha	20-49	23
Temazcal Mexican Restaurant	117 N. 2nd St.	Chickasha	10-19	315

2040 Grady County Long Range Transportation Plan

BUSINESS / INDUSTRY NAME	STREET ADDRESS	CITY	2018 # EMPLOYEES	TAZ
Tractor Supply Co.	330 E. Grand Ave.	Chickasha	10-19	344
University of Science & Arts	1727 W. Alabama Ave.	Chickasha	100-249	348
US Post Office	702 W. Kansas Ave.	Chickasha	20-49	318
Van Dyck Mechanical	1228 S. 3rd St.	Chickasha	10-19	339
Walgreens	2120 S. 4th St.	Chickasha	20-49	345
Walmart Supercenter	2001 S. 1st St.	Chickasha	100-249	342
Washita Construction	527 W. Oklahoma Ave	Chickasha	10-19	307
Washita Pipe and Steel	115 Frisco Ave.	Chickasha	10-19	310
Washita Valley Abstract Co.	317 W. Choctaw Ave.	Chickasha	10-19	315
Washita Valley Community Action Agency	1000 W Minnesota Ave.	Chickasha	100-249	318
Washita Valley Transit	1000 W. Minnesota Ave.	Chickasha	10-19	315
WCA Waste Corp	1105 N. Industrial Blvd.	Chickasha	50-99	304
Wee Care Learning	3340 S. 16th St.	Chickasha	10-19	364
Western Sizzlin	3001 S. 4th St.	Chickasha	50-99	359
Wing Street	2001 S. 4th St.	Chickasha	20-49	341
YMCA Greater OKC	725 W. Chickasha Ave.	Chickasha	20-49	317
Smith Dressler Electrical	708 County Road 1600	Marlow	20-49	35
Middleburg Schools K-8	2130 County Road 1317	Middleberg	20-49	8
1st National Bank & Trust Co.	524 SW 3rd St.	Minco	5-9	103
A & J Fabricators	201 SW. 10th St.	Minco	20-49	103
AccuFab Welding	1320 W. Gin Rd.	Minco	5-9	100
BBQ Barn	302 W. Main St.	Minco	5-9	103
Dairy Boy	217 SW 3rd St.	Minco	1-4	103
Dollar General	528 SW 3rd St.	Minco	5-9	109
First National Bank & Trust Co	524 SW 3rd St.	Minco	5-9	103
Fitzgerald Trucking	1071 SH 37	Minco	20-49	2
Full Circle Millwork	105 W. Main St.	Minco	5-9	103
Gas N Go	425 S. US 81	Minco	5-9	101
Grace Electrical Svs	1157 SW Gin Rd.	Minco	5-9	3
Great Plains Cotton Gin	905 SH 37	Minco	1-4	103
Hamm & Phillips Svc Co	27084 SH 152	Minco	10-19	1
Harris Hardware & General Store	215 Main St.	Minco	1-4	103

2040 Grady County Long Range Transportation Plan

BUSINESS / INDUSTRY NAME	STREET ADDRESS	CITY	2018 # EMPLOYEES	TAZ
Huber Reynolds Funeral Home	301 N. 4th St.	Minco	1-4	100
James Halley Farm	603 County Street 2850	Minco	1-4	103
Koerner Farms	900 SH 152	Minco	1-4	1
Mac's Corner Store	429 US 81	Minco	1-4	103
Minco City Hall	202 NW Main St.	Minco	5-9	103
Minco Dental Clinic	311 Main St.	Minco	1-4	103
Minco Elementary School	304 SW 7th St.	Minco	20-49	103
Minco Elevator & Supply	22 NE Railroad	Minco	5-9	101
Minco Fire Dept.	103 N. 2nd St.	Minco	20-49	103
Minco Grain & Feed	826 SW 3rd St.	Minco	1-4	101
Minco High School	311 SW 6th St.	Minco	20-49	103
Minco High School	701 SW 3rd St.	Minco	20-49	103
Minco Middle School	210 SW 7th St.	Minco	10-19	100
Minco Wind	491 County Road 1180	Minco	5-9	3
Morning Glory Flower Shop	217 Main St.	Minco	1-4	103
Morrison Propane	804 US 81	Minco	10-19	3
Nachitos Mexican Amirian Grill	427 S. US 81	Minco	5-9	103
NAPA Auto Parts	201 W. Main St.	Minco	1-4	103
Oilfield Welding	Gin Rd.	Minco	1-4	100
Ok Folding Carton	118 Main St.	Minco	20-49	103
Oklahoma Folding Carton	107 W. Main	Minco	20-49	103
ONEOK Inc.	119 County Road 1150	Minco	10-19	1
Phillips 66 Conv Store	425 S. US 81	Minco	5-9	101
Sid's Diner	109 Wichita St.	Minco	5-9	103
Sister Act 3	212 Main St.	Minco	1-4	103
Sooner Easy Shop	415 S. US 81	Minco	5-9	101
US Post Office	301 Main St.	Minco	5-9	103
A G Solutions	405 Pike Peaks Rd.	Ninnekah	10-19	401
Bordwine Development	1102 Pikes Peak Rd.	Ninnekah	10-19	401
C Bar C Trailers	1284 W. US 277	Ninnekah	1-4	400
Can OK Oil Field Service	887 County Road 1405	Ninnekah	10-19	400
Can Ok Oil Field Svc	887 County Road 1405	Ninnekah	10-19	400
Crawford Roofing	701 Pikes Peak Rd.	Ninnekah	100-249	401
DCP Midstream	1609 County Road 1490	Ninnekah	1-4	401

2040 Grady County Long Range Transportation Plan

BUSINESS / INDUSTRY NAME	STREET ADDRESS	CITY	2018 # EMPLOYEES	TAZ
DCP Midstream	175 County Road 1420	Ninnekah	10-19	401
DCP Midstream	3900 N. 81 Frontage Rd.	Ninnekah	1-4	401
DCP/Chitwood Gas Plant	1610 County Road 1490	Ninnekah	50-99	28
Fluid	3688 N. US 81 Frontage Rd.	Ninnekah	1-4	401
Gerald's Welding Shop	150 Quail Rd.	Ninnekah	20-49	401
Glenn's Used Cars	582 Quail Rd.	Ninnekah	1-4	401
Gorilla World		Ninnekah	5-9	401
H & B Machine & Mfg.	1003 Quail Ln.	Ninnekah	10-19	401
H & B Machine & Mfg.	1003 Quail Ln.	Ninnekah	10-19	401
Midwest Cooling Towers Inc	1156 E. SH 19	Ninnekah	100-249	401
Morris Motorsports	4400 S. 4th St.	Ninnekah	20-49	401
Ninnekah City Hall	301 N. Old US 81	Ninnekah	5-9	403
Ninnekah Fire Dept.	202 N. 4th St.	Ninnekah	20-49	404
Ninnekah High School	810 S. Walnut St.	Ninnekah	50-99	404
Ninnekah Police Dept.	301 N. Old US 81	Ninnekah	1-4	404
Ninnekah Public Schools Elementary	904 E. Dell St.	Ninnekah	20-49	404
Ninnekah Public Schools Middle	904 E. Dell St.	Ninnekah	50-99	404
Ninnekah Quick Mart	100 S. Grand Ave.	Ninnekah	1-4	404
Ninnekah Truck Stop	1250 W. US 277	Ninnekah	5-9	403
Pritchard's Welding Svc.	2525 W. US 277	Ninnekah	10-19	400
Southern Plains Landfill	3198 County Street 2910	Ninnekah	5-9	23
US Post Office	905 Walnut St.	Ninnekah	1-4	404
Woods Ditching Svc	1163 County Road 1410	Ninnekah	5-9	403
Amber-Pocasset Elementary School	511 Washington	Pocasset	20-49	5
Chickasaw Nation Salt Creek	1600 US 81	Pocasset	100-249	5
ETI Equipment Tech	220 Adams St.	Pocasset	10-19	5
Halliburton	300 N. Main St.	Pocasset	20-49	6
Pocasset Grain & Supply	200 Main St.	Pocasset	5-9	6
Richardson Farms	324 County Road 1260	Pocasset	10-19	4
US Post Office	130 N. Main St.	Pocasset	1-4	6

2040 Grady County Long Range Transportation Plan

BUSINESS / INDUSTRY NAME	STREET ADDRESS	CITY	2018 # EMPLOYEES	TAZ
1st. National Bank & Trust Co.	222 W. Blakely St.	Rush Springs	5-9	502
A Bek Mechanical	Blakely Ave.	Rush Springs	1-4	503
AG Oil	4584 US 81	Rush Springs	5-9	504
Callaway Smith & Cobb Funeral Home	326 W. Blakely St.	Rush Springs	5-9	503
City of Rush Springs	314 W. Blakely St.	Rush Springs	1-4	500
Creek Trucking Rush	4648 US 81	Rush Springs	5-9	30
Cruz A Long convenience Store	401 S. Rush Ave.	Rush Springs	5-9	503
Delbert's Grocery	4636 S. US 81	Rush Springs	10-19	504
Dollar General	1501 S. Rush Ave.	Rush Springs	5-9	503
Enable Midstream Partners Gas Plant	1747 County Road 1530	Rush Springs	10-19	34
Farm Fresh Produce	N. US 81	Rush Springs	5-9	33
Foster Feed & Produce	Blakely Ave.	Rush Springs	1-4	503
Grady County Barn #2	4248 County Street 2820	Rush Springs	10-19	37
Grady Memorial Family Med	113 S. Rush Ave.	Rush Springs	5-9	503
Hometown Hardware	Blakely St.	Rush Springs	1-4	501
Hop & Sack	308 S. Rush Ave.	Rush Springs	10-19	502
K & K Tire Inc	Blakely Ave.	Rush Springs	5-9	501
Lindsey Printing	207 W. Blakely St.	Rush Springs	10-19	502
Mack Oil Co.	2380 Cox City Rd.	Rush Springs	10-19	34
Melton's Heat and Air	4904 S. US 81	Rush Springs	5-9	37
NAPA Auto Parts	112 S. 3rd St.	Rush Springs	5-9	503
R P Trucking	702 S. Rush Ave.	Rush Springs	5-9	506
Rush springs Family Medical Clinic	S. Rush Ave.	Rush Springs	1-4	503
Rush Springs Fire Dept.	110 N. Rush Ave.	Rush Springs	20-49	501
Rush Springs Police Dept.	110 N. 3rd St.	Rush Springs	1-4	501
Rush Springs Public Schools	601 W Blakely St.	Rush Springs	50-99	500
Sharon's Diner	S. Rush Ave.	Rush Springs	1-4	503
Smokin Joes Rib Ranch	W. Blakely St.	Rush Springs	10-19	503
Tag Agency	218 W. Blakely Ave.	Rush Springs	1-4	502
Teel Grocery & Mkt	312 W. Blakely Ave.	Rush Springs	5-9	500
The Secret Garden	Blakely	Rush Springs	1-4	500
TriRed Fabrication	S. US 81	Rush Springs	5-9	504

2040 Grady County Long Range Transportation Plan

BUSINESS / INDUSTRY NAME	STREET ADDRESS	CITY	2018 # EMPLOYEES	TAZ
Troutman Dragline Svc	4401 County Street 2760	Rush Springs	10-19	32
US Post Office	317 W. Blakely St.	Rush Springs	5-9	500
Wheels Express	4702 S. US 81	Rush Springs	20-49	505
1t National Bank & Trust Co	5311 E. SH 37	Tuttle	10-19	OCARTS
Alliance Health Inc	4805 E. SH 37	Tuttle	5-9	OCARTS
Braum's Dairy Farm	491 County Street 2880	Tuttle	500-999	OCARTS
Casey's Cajun Fried Catfish Plus	151 E. Main St.	Tuttle	5-9	OCARTS
City of Tuttle	221 W. Main St.	Tuttle	5-9	OCARTS
City of Tuttle Police Dept.	4 SE 2nd St.	Tuttle	10-19	OCARTS
DCP Midstream	2609 E. Tyler Dr.	Tuttle	10-19	OCARTS
Deaconess Family Care	4805 E. SH 37	Tuttle	5-9	OCARTS
Encompass Home Health	4705 E. SH 37	Tuttle	10-19	OCARTS
Grady County Barn #3	860 County Street 2910	Tuttle	20-49	OCARTS
Great Plains National Bank	5002 E. SH 37	Tuttle	10-19	OCARTS
Hatcher Nolan Construction Svc	2601 E. SH 37	Tuttle	10-19	OCARTS
Hop & Sack	5025 E. SH 37	Tuttle	10-19	OCARTS
P & L Fire Protection	5518 E. SH 37	Tuttle	20-49	OCARTS
Richardson Farms	2618 E. SH 37	Tuttle	20-49	OCARTS
Sooner State Bank	2 SE 4th St.	Tuttle	10-19	OCARTS
Tanner Pump Co		Tuttle	10-19	OCARTS
TriCity Seal Co	2723 E. SH 37	Tuttle	10-19	OCARTS
Tuttle Care Center	104 SE 4th St.	Tuttle	20-49	OCARTS
Tuttle Elementary School	106 SW 2nd St.	Tuttle	50-99	OCARTS
Tuttle Fire & EMS	4 SE 2nd St.	Tuttle	20-49	OCARTS
Tuttle Learning Center	4 Briscoe Dr.	Tuttle	10-19	OCARTS
Tuttle Medical Clinic	6 E. Main St.	Tuttle	1-4	OCARTS
Tuttle Police Dept.	4 SE 2nd St.	Tuttle	10-19	OCARTS
Tuttle Public Schools	302 SW 2nd St.	Tuttle	100-249	OCARTS
Tuttle Public Schools EC	400 E. Oak	Tuttle	10-19	OCARTS
Tuttle Public Schools Elementary	206 SW 2nd St.	Tuttle	10-19	OCARTS
Tuttle Public Schools High School	300 N. Cimarron	Tuttle	20-49	OCARTS

2040 Grady County Long Range Transportation Plan

BUSINESS / INDUSTRY NAME	STREET ADDRESS	CITY	2018 # EMPLOYEES	TAZ
Tuttle Public Schools Intermediate	402 E. Oak	Tuttle	10-19	OCARTS
Tuttle Public Schools Middle	604 S. Cimarron	Tuttle	20-49	OCARTS
US Post Office	407 E. Main St.	Tuttle	1-4	OCARTS
Walker Oil Co.	318 W. Main St.	Tuttle	10-19	OCARTS
WHB Transportation LLC	491 County Street 2880	Tuttle	100-249	OCARTS
Whites' Concrete	3203 Stone Dr.	Tuttle	10-19	OCARTS
Williams Corp	3 NW 1st St.	Tuttle	10-19	OCARTS
Williams Foods	100 Don Williams Ave.	Tuttle	20-49	OCARTS
Abbott's Stop and Shop	335 US 62	Verden	10-19	17
Bank of Verden	101 W. US 62	Verden	10-19	17
Burtschi Conoco	512 US 62	Verden	5-9	18
Community Bank of Oklahoma	Main & US 62	Verden	5-9	17
US Post Office	100 Morris Ave.	Verden	1-4	17
Verden Elementary School	196 Locust St.	Verden	20-49	18
Verden Fire Dept.	202 N. Main St.	Verden	20-49	17
Verden High School	100 Locust St.	Verden	20-49	18
Verden Police Dept.	101 Morris Ave.	Verden	1-4	17
Vivian's Café	411 US 62	Verden	10-19	17

Source: SORTPO, US Census, OESC

Appendix 2.10: Environmental and Development Concerns

The environmental features and constraints were identified using secondary source information from the following: United States Environmental Protection Agency (USEPA), Oklahoma Geological Survey, Oklahoma Department of Fish and Wildlife Resources, Oklahoma Department for Environmental Quality (ODEQ), United States Department of Agriculture (USDA), United States Department of the Interior Fish and Wildlife Service (USFWS), United States Geological Survey (USGS), Oklahoma University Geographic Information System (GIS) and other state and local agencies

Streams are natural corridors that provide habitat for fish, insects, wildlife and recreational benefits to people such as hunting, fishing, boating, bird watching, as well as, aesthetic benefits. Streams also provide drinking water for wild animals, livestock and people. There are two (2) major rivers in the county, supplied by numerous streams; however, following years of extreme drought, many of these streams are dry. As of the origin of this plan, none are on the “watch list” of the Oklahoma Department of Environmental Quality (ODEQ) and none are designated as scenic waterways.

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. However, there is no state or federally listed endangered species specific to Grady County.

The Special Flood Hazard Area is an area designated width along a stream or river with a 1% chance of flooding annually. These areas are protected to prevent any increase in the risks or severity of possible future floods and to maintain their natural and ecological benefits.

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, to ensure their protection, either through preservation, or minimization and mitigation of impact.

2040 Grady County Long Range Transportation Plan

Appendix 2.11: Grady County Environmental Features

DESCRIPTION	LOCATION
Rush Springs Aquifer	
Chickasha Downtown Historic District (NR 05000132)	Chickasha
Grady County Courthouse (NR 05000131)	Chickasha
Griffin House	Chickasha
Jewett Archaeological Site (NR 79001995)	Bradley
Knippelmier Farmstead	Minco
Minco Armory (NR 94000484)	Minco
New Hope Baptist Church (NR 03000515)	Chickasha
Oklahoma College for Women Historic District (NR 01000950) (USAO)	Chickasha
Pocasset Gymnasium (NR 96001489)	Pocasset
Rock Island Depot (NR 85000699)	Chickasha
Silver City Cemetery	Tuttle
US Post Office & Federal Courthouse	Chickasha
Verden Separate School	Chickasha

Source: SORTPO

Appendix 2.12: Grady County Type of Collision Total, 2012-2016

Type Of Collision	Total				
	Fat	Inj *	PD	Tot	Pct
Rear-End (front-to-rear)	9	301	465	775	18.8
Head-On (front-to-front)	10	33	23	66	1.6
Right Angle (front-to-side)	8	228	342	578	14.0
Angle Turning	4	158	384	546	13.3
Other Angle		3	9	12	0.3
Sideswipe Same Direction	1	31	171	203	4.9
Sideswipe Opposite Direction	3	19	58	80	1.9
Fixed Object	18	392	612	1,022	24.8
Pedestrian	4	13	1	18	0.4
Pedal Cycle		7		7	0.2
Animal	2	30	111	143	3.5
Overturn/Rollover	12	126	113	251	6.1
Vehicle-Train					
Other Single Vehicle Crash	2	6	41	49	1.2
Other	6	45	313	364	8.8
Total	79	1,392	2,643	4,114	100
Percent	1.9	33.8	64.2	100	

Source: ODOT Traffic Engineering Div. Collision Analysis and Safety Branch *Include incapacitating, non-incapacitating and possible injuries.

2040 Grady County Long Range Transportation Plan

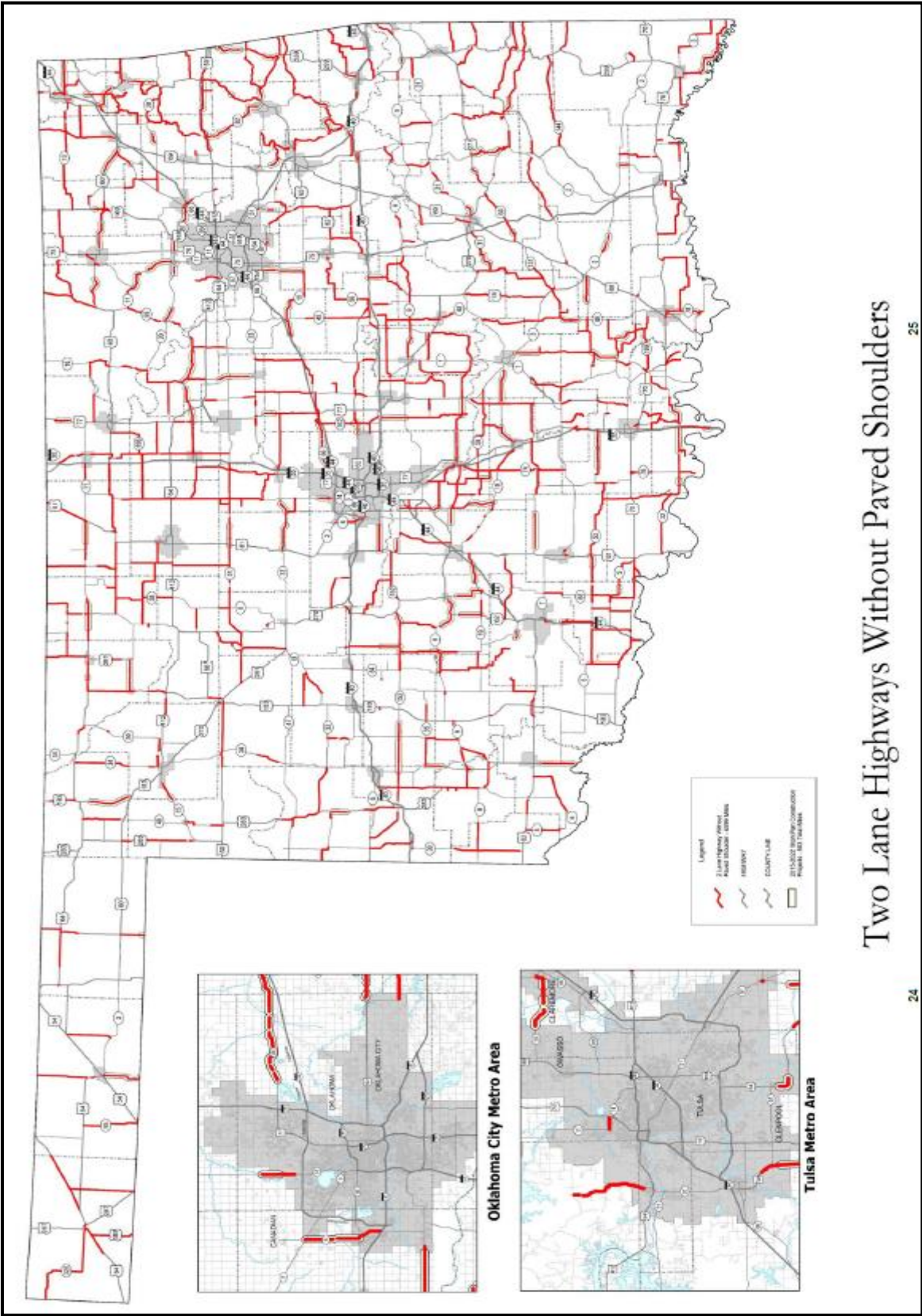
Appendix 2.13: Grady County Collision Vehicles by Vehicle Type, Total, 2012-2016

VEHICLE TYPE	FAT	INJ*	PD	TOT	PCT
Passenger Vehicle-2 Door	8	121	324	453	6.6
Passenger Vehicle-4 Door	23	578	1,485	2,086	30.3
Passenger Vehicle-Convertible	1	8	18	27	0.4
Pickup Truck	21	447	1833	2,301	33.4
Single-Unit Truck (2 axles)		7	48	55	0.8
Single-Unit Truck (3 or more axles)	1	5	25	31	0.5
School Bus			9	9	0.1
Truck/Trailer	2	10	53	65	0.9
Truck-Tractor (bobtail)		5	34	39	0.6
Truck-Tractor/Semi-Trailer	2	22	246	270	3.9
Truck-Tractor/Double			1	1	
Truck-Tractor/Triple			1	1	
Bus/Large Van (9-15 seats)		1	6	7	0.1
Bus (16+ seats)			9	9	0.1
Motorcycle	11	57	2	70	1.0
Motor Scooter/Moped		1	2	3	
Motor Home			6	6	0.1
Farm Machinery		1	5	6	0.1
ATV		6		6	0.1
Sport Utility Vehicle (SUV)	2	294	825	1,121	16.3
Passenger Van		36	146	182	2.6
Truck More Than 10,000 lbs.		1	9	10	0.1
Van (10,000 lbs. or less)	1	10	28	39	0.6
Other	1	5	83	89	1.3
Total	73	1,615	5,198	6,886	100
Percent	1.1	23.5	75.5	100	

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

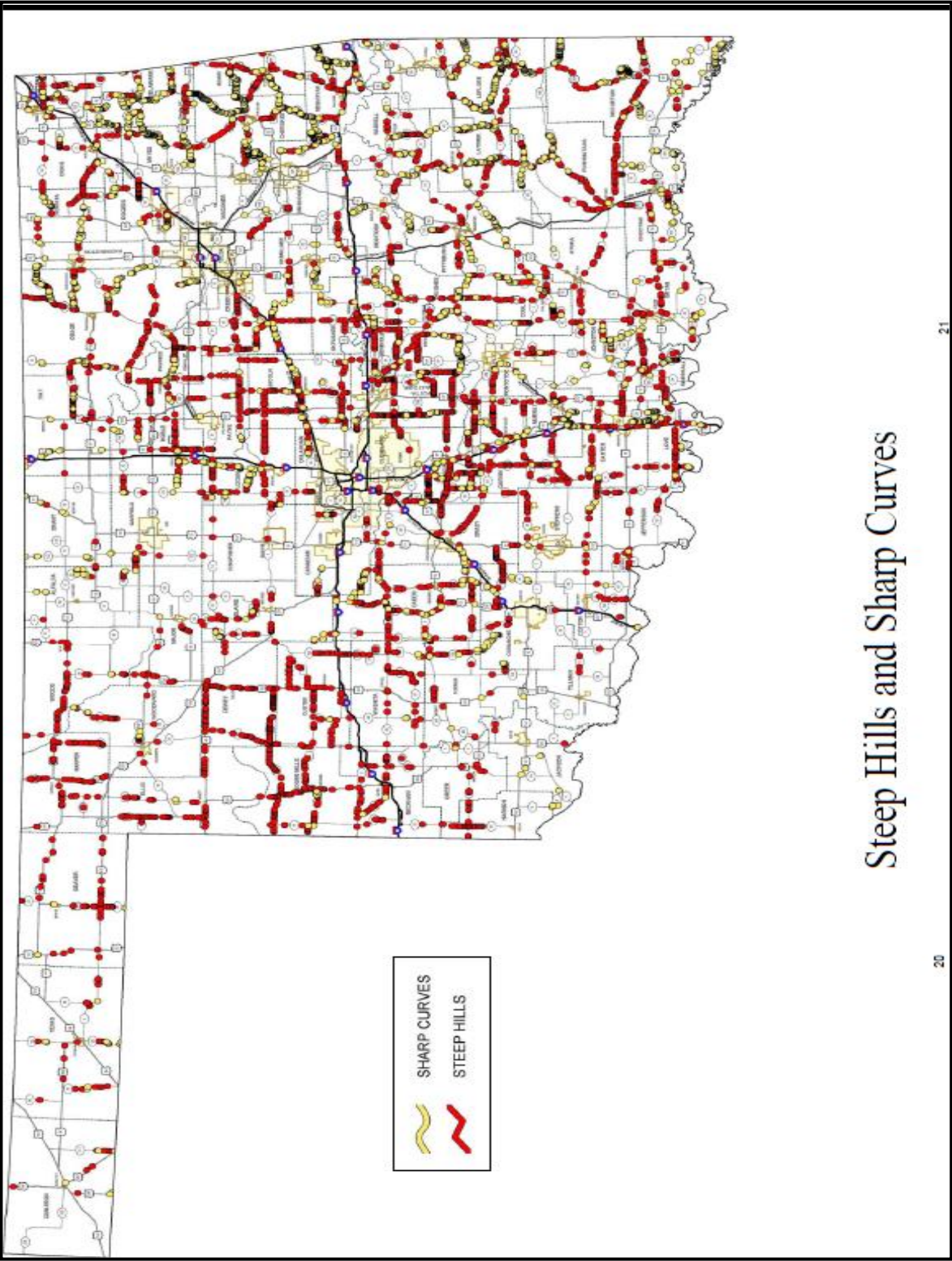
*Include incapacitating, non-incapacitating and possible injuries

Appendix 2.14: Two Lane Highways Without Paved Shoulders



Two Lane Highways Without Paved Shoulders

Appendix 2.15: Steep Hills and Sharp Curves



Appendix 2.17: Functional Classification and Road Systems

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 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.

Functional classification can be used for, but is not limited to, the following purposes:

- Provide a framework for highways serving mobility and connecting regions and cities within a state.
- Provide a basis for assigning jurisdictional responsibility according to the overall importance of a road.
- Provide a basis for development of minimum design standards according to function.
- Provide a basis for evaluating present and future needs.
- Provide a basis for allocation of limited financial resources.

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 functional classification of streets includes the following functional classes: Interstate, Freeway, Rural Principal Arterial, Rural Minor Arterial, Rural Major Collector and Rural Minor Collector.

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, 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.

Level of Service

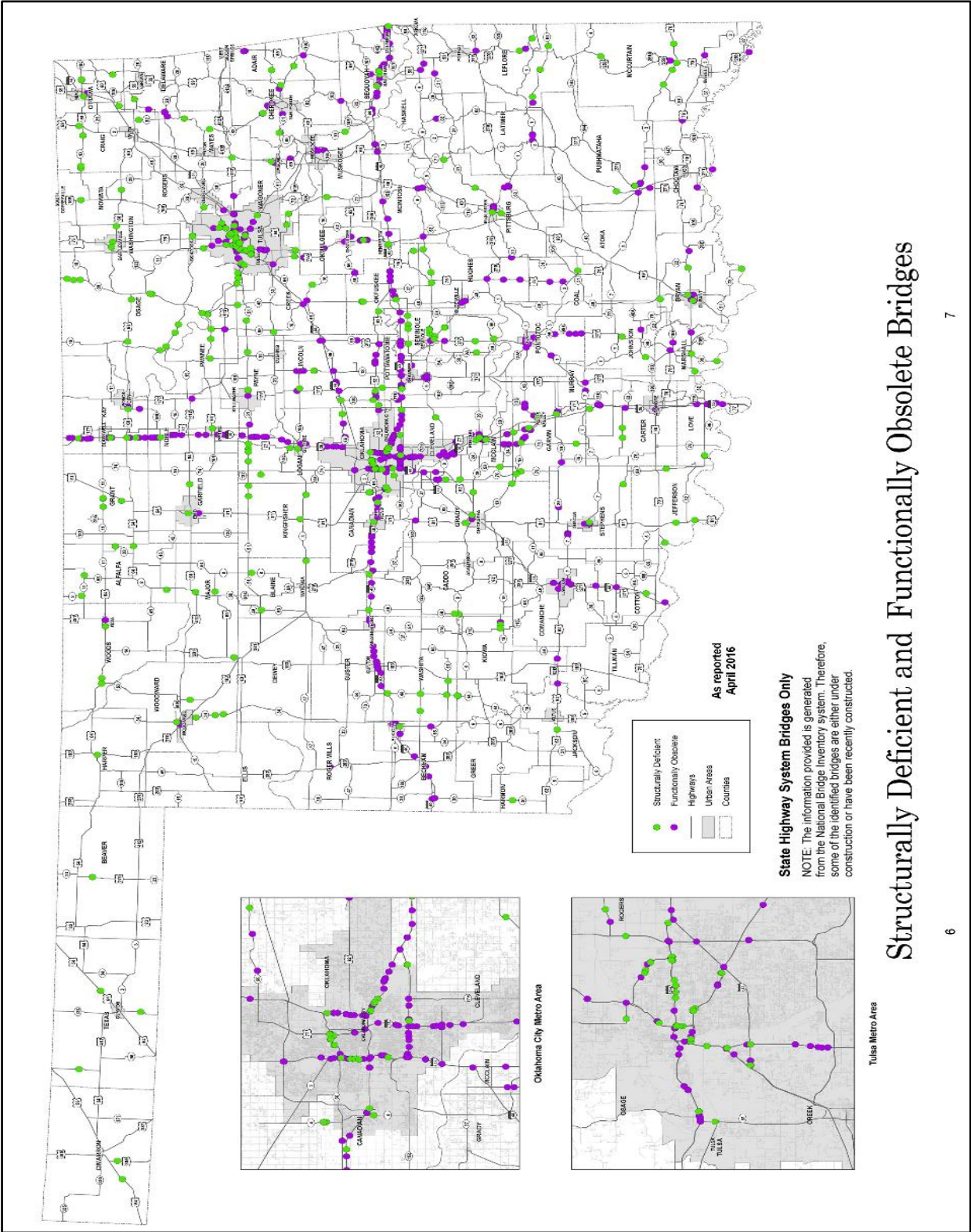
Street Capacity: The measure of a street's ability to accommodate the traffic volume along

the street. Level of Service Ranges from LOS A: 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 thirty percent (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 fifty percent (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 sixty-nine percent (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 seventy percent (70%) to ninety percent (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 ninety percent (90%) to ninety-nine percent (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 one hundred percent (100%) of capacity.

Appendix 2.19: Oklahoma Structurally Deficient and Functionally Obsolete Bridges



2040 Grady County Long Range Transportation Plan

Appendix 2.20: Grady County On System Bridges with Sufficiency Rate

FACILITY	LOCATION	SUFFICIENCY	FOSD	YEAR BUILT
US 62	1.9 E. US 81	-1	-	1901
US 62	1.9 E. US 81	-1	-	1901
US 277	3.6 E. OF CADDO C/L	-1	-	1901
US 277	2.7 W. JCT US 81	-1	-	1901
SH 37	4.5 E. OF US 81	-1	-	1901
SH 19	0.5 MI W. US 81	4	0	1936
SH 19	5.9 MI. NW GARVIN C/L	9.8	1	1949
SH 39	4.4 MI. E. US 62	13.4	1	1937
SH 19	4.7 MI E. US 81	29.1	0	1940
US 81	21.5 MI N. US 62	32.1	1	1955
SH 37	0.6 MI E. US 81	38.5	1	1947
SH 37	1.7 MI E. CADDO C/L	39.5	1	1951
SH 19	1.0 MI NW GARVIN C/L	44.3	1	1953
SH 39	6.6 MI E. US 62	45.5	0	1937
SH 37	6.4 MI E. SH 92	50.6	0	1939
US 81	6.9 MI N. STEPHENS C/L	52.6	0	1971
US 81	1.7 MI N. US 62	55.2	1	1971
US 277	1.4 MI E. CADDO C/L	58.1	0	1928
CO. RD. N2771	HE BAILEY T.P. BR.NO 37.43	61	2	1964
CO. RD. N2800	HE BAILEY T.P. BR.NO.33.06	61	2	1964
CO. RD. N2810	HE BAILEY T.P. BR NO 31.34	61	2	1964
CO. RD. HE BAILEY T.P.	HE BAILEY T.P. BR NO 11.56	61	2	1964
CO. RD. E1410	HE BAILEY T.P. BR NO 32.17	62.3	2	1964
CO. RD. E1345	HE BAILEY T.P. BR NO 23.50	62.3	2	1964

2040 Grady County Long Range Transportation Plan

FACILITY	LOCATION	SUFFICIENCY	FOSD	YEAR BUILT
CO. RD. N2860	HE BAILEY T.P. BR NO 22.82	62.3	2	1964
CO. RD. N2880	HE BAILEY T.P. BR NO 19.90	62.3	2	1964
CO. RD. N2900	HE BAILEY T.P. BR.NO.17.02	62.3	2	1964
CO. RD. E1270	HE BAILEY T.P. BR.NO.13.03	62.3	2	1964
CO. RD. N2990	HE BAILEY T P BR NO 5.41	62.3	2	1964
SH 37	5.9 MI E. SH 92	62.7	0	1939
US 62	2.1 MI E. CADD0 C/L	62.9	0	1929
US 277	1.0 MI W, US 81	63.3	0	1925
CO. RD. E1440	HE BAILEY T.P. BR NO.36.09	63.5	2	1964
CO. RD. E1301	HE BAILEY T.P. BR NO.17.57	63.5	2	1964
SH 37	4.3 MI E. US 81	66.3	0	1947
SH 19	6.3 MI NW GARVIN C/;	66.3	0	1949
SH 19	7.4 MI E. US 81	69.4	0	1940
US 81	17.7 MI N. SH 17	69.4	0	1957
US 81	11.8 MI N. SH 19	69.4	0	1957
US 81	1.2 MI N. SH 17	69.4	0	1967
US 81	4.0 MI N. SH 17	69.4	0	1967
SH 37	1.0 MI E. SH 92	69.7	0	1958
SH 37	3.5 MI E. SH 92	69.7	0	1959
SH 37	5.9 MI E. SH 92	69.7	0	1997
US 62 EB	8.6 MI E CADD0 C/L	69.9	1	1970
US 62	1.9 MI E. US 81	70.9	0	1967
US 62	1.9 MI E. US 81	70.9	0	1967
SH 19	4.4 MI W. US 81	71.2	0	1940
SH 37	4.5 MI E. US 81	71.4	0	1947

2040 Grady County Long Range Transportation Plan

FACILITY	LOCATION	SUFFICIENCY	FOSD	YEAR BUILT
US 277	0.7 MI E. CADDO C/L	72.4	0	1928
SH 19	7.3 MI E. US 81	72.6	0	1940
SH 19	7.5 MI E. US 81	72.6	0	1940
CO. RD. N2830	HE BAILEY T.P. BR.NO.28.58	72.8	2	1964
SH 19	10.1 MI E. US 81	73.8	0	1949
US 81	1.3 MI N. US 62	74.1	0	1971
SH 19	5.1 MI E. US 81	74.7	0	1940
US 81	16.5 MI N. US 62	76.7	0	1972
SH 19	0.8 MI NW GARVIN C/L	77	0	1953
US 81	16.3 MI N. US 62	77.5	0	1931
CO. RD. FAS 2627	HE BAILEY T.P. BR.NO.30.79	77.7	2	1964
US 277	4.2 MI E. CADDO C/L	78.2	0	1963
CO. RD. FAS 2629	HE BAILEY T.P. BR.NO 9.94	78.7	2	1964
US 81	0.6 MI W. SH 19	79.1	0	1958
CO. RD. FAS 2603	HE BAILEY T. P. BR NO 14.46	80.1	2	1964
US 81	18.4 MI N. JCT US 62	80.1	2	1979
US 62	3.6 MI E. CADDO C/L	80.5	0	1929
US 62	0.2 MI E. US 81	80.5	2	1974
US 277	2.7 MI W. US 81	81	0	1928
US 277	3.6 MI E. CADDO C/L	81.1	0	1972
HE BAILEY A TP (I-44)	HE BAILEY T. P. BR NO 36.42	81.4	1	1964
US 62	1.6 MI NE SH 39	81.6	0	1929
US 62	2.9 MI E. CADDO C/L	81.9	0	1929

2040 Grady County Long Range Transportation Plan

FACILITY	LOCATION	SUFFICIENCY	FOSD	YEAR BUILT
US 81	1.2 MI S. US 62	82.8	0	1953
US 81	18.4 MI N. STEPHENS C/L	83	0	1957
US 81	18.4 MI N. STEPHENS C/L	83	0	1957
US 62	2.3 MI W. SH 39	83.7	0	1983
SH 37	6.4 MI E. SH 92	83.7	0	1997
US 62	0.3 MI W. SH 39	83.8	0	1983
US 62	0.1 MI W. SH 39	83.8	0	1983
CO. RD. 2648C	HE BAILEY T.P. BR NO 38.85	83.9	2	1964
US 62	1.9 MI W. SH 39	84.1	0	1983
US 81	4.4 MI N. STEPHENS C/L	84.4	0	1955
US 81	18.6 MI N. SH 17	84.4	0	1957
US 81	6.8 MI N. SH 17	84.4	0	1967
US 81	1.9 MI N. STEPHENS C/L	84.4	0	1987
US 62	3.8 MI W. SH 39	84.5	0	1927
US 62	2.1 MI E. CADDO C/L	84.9	0	2001
CO. RD. 2686C	HE BAILEY T.P. BR.NO.7.73	85	2	1964
US 81	19.7 MI N. US 62	85.8	0	1976
US 81	1.5 MI N. US 62	86.7	0	1971
SH 39	5.0 MI E. US 62	86.8	0	1937
US 81 BUS.	1.3 MI N. SH 17	87.1	0	1967
US 277	0.1 MI W. US 81	87.9	0	1938
SH 19	0.5 MI W. US 81	89.1	0	2002
CO. RD. FAU 4020	HE BAILEY T.P. BR.NO 28.11	89.4	2	1964
SH 37	1.2 MI E. CADDO C/L	89.8	0	1951
SH 37	1.3 MI W. US 81	89.8	0	1951

2040 Grady County Long Range Transportation Plan

FACILITY	LOCATION	SUFFICIENCY	FOSD	YEAR BUILT
SH 19	9.9 MI E. US 81	89.9	0	1949
SH 37	1.7 E. OF CADDO C/L	90	0	2011
HE BAILEY A TP (I-44)	HE BAILEY T.P. BR.NO.26.46	90.1	0	1964
HE BAILEY A TP (I-44)	HE BAILEY T.P. BR.NO.23.84	90.1	0	1964
HE BAILEY A TP (I-44)	0.5 MI E. US81	90.1	0	1964
HE BAILEY A TP (I-44)	HE BAILEY T.P. BR NO.18.27	90.1	0	1964
CO. RD. FAU 4051	HE BAILEY T.P. BR.NO.27.65	90.3	2	1964
SH 37	7.8 MI E. US 81	90.4	0	1946
US 81	16.2 MI N. US 62	91	0	1931
HE BAILEY A TP (I-44)	HE BAILEY T.P. BR NO 24.86	91.2	2	1964
US 62	7.65 MI NE OF TABLER	91.2	0	2000
US 81	6.9 MI N. US 62	91.3	0	1975
US 81 BUS.	0.1 MI S. SH 17	91.4	0	1929
HE BAILEY A TP (I-44)	HE BAILEY T. P. BR NO 35.34	91.4	0	1964
HE BAILEY A TP (I-44)	HE BAILEY T.P BR NO 8.66	92.3	0	1963
HE BAILEY A TP (I-44)	HE BAILEY T.P. BR NO 25.77	92.3	0	1964
SH 19	4.4 MI W. US 81	92.3	0	2002
SH 19	4.7 MI E. US 81	92.3	0	2002
SH 37	.6 MI. E. OF US 81	92.4	0	2013

2040 Grady County Long Range Transportation Plan

FACILITY	LOCATION	SUFFICIENCY	FOSD	YEAR BUILT
US 277	1.0 MI W. US 81	93	0	1994
HE BAILEY TP NORMAN SPUR	00.01S	93	0	2000
HE BAILEY TP BAILEY NORMAN SPUR	00.01N	93	0	2000
SH 19	3.2 MI NW GARVIN C/L	93.1	0	1949
HE BAILEY A TP (I-44)	HE BAILEY T.P. BR NO 31.39	93.5	0	1963
HE BAILEY A TP (I-44)	HE BAILEY T.P BR. NO.33.16	93.5	0	1964
HE BAILEY A TP (I-44)	HE BAILEY T.P.BR NO 27.45	93.5	0	1964
MORGAN RD.	MP 1.70	93.5	0	2000
SH 19	4.5 MI NW GARVIN C/L	93.7	0	1949
HE BAILEY TP NORMAN SPUR	MP 0.90	93.7	0	2000
HE BAILEY A TP (I-44)	2.0 MI S. US 62	93.8	2	1963
US 62	1.0 MI NE SH 39	94.1	0	1929
US 277	1.4 MI E. CADDO C/L	94.1	0	1994
SH 92	2.1 MI N. US 62	94.2	0	1951
SH 19	0.3 MI NW GARVIN C/L	94.2	0	1953
SH 19	1 MI NW GARVIN C/L	94.2	0	2016
HE BAILEY A TP (I-44)	HE BAILEY T.P. BR NO 19.02	94.3	0	1963

2040 Grady County Long Range Transportation Plan

FACILITY	LOCATION	SUFFICIENCY	FOSD	YEAR BUILT
HE BAILEY A TP (I-44)	HE BAILEY T.P. BR NO.18.55	94.3	0	1964
HE BAILEY A TP (I-44)	HE BAILEY T.P. BR NO. 16.38	95.3	0	1964
HE BAILEY TP NORMAN SPUR	MP 0.46	95.7	0	2000
HE BAILEY TP NORMAN SPUR	MP 2.17	95.7	0	2000
US 62	0.1 MI NE SH 39	96.8	0	1983
US 62	1.0 MI NE SH 39	96.8	0	1998
HE BAILEY A TP (I-44)	3.1 MI N. US 62	97	0	1963
US 62 WB	8.6 MI E. CADDO C/L	97	0	1970
SH 39	6.6 MI E. US 62	97.5	0	2000
SH 39	4.4 MI. E. OF US 62	97.5	0	2017
SH 39	3.3 MI E. US 62	97.8	0	1937
SH 39	0.4 MI E. US 62	97.8	0	1953
HE BAILEY A TP (I-44)	1.5 MI E. US 81	97.8	0	1963
HE BAILEY A TP (I-44)	HE BAILEY T. P. BR NO 36.42	98	0	2008
US 62	8.3 MI E. CADDO C/L	98.4	0	1970
US 62	8.3 MI E. CADDO C/L	98.4	0	1970
SH 4	5E 4S JCT SH-37/SH-92	98.7	0	2001
SARAH RD.	MP 0.70	98.8	0	2000
COUNTY LINE RD.	MP 2.75	98.8	0	2000

2040 Grady County Long Range Transportation Plan

FACILITY	LOCATION	SUFFICIENCY	FOSD	YEAR BUILT
SH 19	5.9 MI. NW OF GARVIN C/L	99.4	0	2010
US 81	21.6 MI N. OF US 62	100	0	2010
SH 39	5 MI. E. OF US 62	100	0	2017

Source: ODOT

2040 Grady County Long Range Transportation Plan

Appendix 2.21: Grady County Off System Bridges

FEATURE INTERSECTION	LOCATION	SUFFICIENCY	FOSD	YEAR BUILT
WEST BITTER CREEK	1.9 MI. E. & 4 MI. N. of JCT US62/SH92	-1	-	1901
LAFLIN CREEK	7MI. N. & .7 MI. E. of BRADLEY	-1	-	1901
LITTLE WASHITA RIVER	1.1 MI. E. & .5 MI. S. of JCT US81/277	-1	-	1901
LITTLE WASHITA TRIB	.5 MI. S. & 1.3 MI. E. of JCT US81/277	-1	-	1901
BUGGY CREEK TRIB. CREEK	6.8 MI. W. & .8 MI S. JCT SH152/US81	-1	-	1901
LINE CREEK	0.1 MI. E. OF 29 ST.	11	0	1960
LINE CREEK	0.1 MI. E. OF 29ST ON IOWA	12.3	0	1924
CREEK	1.7 MI. W. OF US 81	15.7	0	1936
EAST BITTER CREEK	2 MI. N. & 3.6 MI. E. JCT US62 / SH92	16.7	1	1920
LINE CREEK	0.2 MI. E. OF 29ST ON IOWA	17.1	0	1924
TONY HOLLOW CREEK	.7 MI N. OF SH 92 AND .6 MI W. OF 4TH	18	1	1967
WASHITA RIVER	.6 MI. N. US 62 IN VERDEN	18.7	1	1939
CREEK	6.8 MI. W. OF US 81	19.1	0	1945
CREEK	1 MI. S. & 2.5 MI. E. COX CITY	19.1	0	1965
CREEK	7.5 MI. S. & 2.5 MI E. OF US 81	19.3	1	1979
CREEK	1.5 MI. S. OF US 277	20.1	0	1955
CREEK	10 MI. E. SH 92 & 2.5 MI. N. US62	20.3	0	1972
CREEK	.4 MI. E. & 1.1 MI. N. OF ALEX	20.6	0	1945
CREEK	E1410N2860002	20.7	0	1952
SPRING CREEK	2.1 MI. E. & 2 MI. N. OF TABLER	20.7	0	1955

2040 Grady County Long Range Transportation Plan

FEATURE INTERSECTION	LOCATION	SUFFICIENCY	FOSD	YEAR BUILT
CREEK	4 MI. S. US62 & 6.2 MI. W. US81	20.8	0	1920
CREEK	.5 MI. E. & 6.4 MI. S. OF SH 37	21.1	0	1940
CREEK	N2770E1560004	21.2	0	1938
CREEK	4 MI. S. & .5 MI. E. OF NINNEKAH	21.2	0	1955
CREEK	2 MI. E. & 3.1 MI. N. JCT US62 & SH92	21.6	0	1970
BRIDGE CREEK	7.5 MI. E. & 6.5 MI. S. JCT SH92 SH37	21.7	0	1955
WEST JACK HOLLOW CREEK	5 MI. S. & 5.3 MI. W. OF US81	22.2	0	1927
CREEK	7.2 MI. E. & 1 MI. N. JCT US 62 SH 39	22.4	0	1976
CREEK	7.5 MI. S. & 1 MI. E. OF ACME	22.5	0	1935
CREEK	6.8 MI. W. US81 & 3 MI. S. SH17	22.8	0	1949
EAST CREEK	.9 MI. E. & 1 MI. S. JCT SH37 & SH92	23.6	1	1950
CREEK	2.5 MI. N. & 2 MI. W. OF POCASSET	23.7	1	1965
CREEK	2.4 MI. E. & 2.6 MI. N. JCT SH37 & SH92	23.8	1	1930
LITTLE WASHITA RIVER	.4 MI. N. FARWELL	23.8	1	1956
CREEK	7 MI. S. & .5 MI. W. JCT US81 & SH152	24	0	1955
CREEK	4.5 MI. N. & 3.7 MI. W. US62 & US81	24	0	1970
CREEK	3 MI. N. & 9.4 MI. E. JCT US81 & SH 17	24.2	0	1915
OTTER CREEK	3 MI. S. & 1 MI. W. OF AMBER	24.2	0	1920

2040 Grady County Long Range Transportation Plan

FEATURE INTERSECTION	LOCATION	SUFFICIENCY	FOSD	YEAR BUILT
ROARING CREEK	1.0 MI. W. & 3.5 MI. S. OF ALEX	24.2	0	1957
CREEK	1.5 MI. N. OF US 277	24.2	1	1972
CREEK	1 MI. N. & .9 MI. E. JCT US62 & SH92	24.3	0	1924
CREEK	5 MI. S. & .2 MI. W. OF US81	24.3	0	1930
CREEK	0.7 MI. N. SH 39	24.3	0	1930
CREEK	17 MI. E. & 2.9 MI. N. JCT US81 & SH17	24.3	0	1945
SALT CREEK	5.5 MI. S. & 1.8 MI. E. JCT US81 & SH37	24.3	0	1950
CREEK	1.3 MI. E. & 1 MI. N. JCT SH37 & SH92	24.3	0	1955
SANDY CREEK	N2960E1510007	24.3	0	1955
CREEK	2.7 MI. S. & 3 MI. W. OF POCASSET	24.3	0	1968
BUGGY CREEK	2.5 MI. W. & .7MI S. OF MINCO	24.4	0	1910
WEST BITTER CREEK	1.3 MI. W. & .9 MI. S. OF TABLER	24.4	1	1919
DRY CREEK	5.2 MI. E. & 9 MI. N. JCT US 81& SH 17	24.4	0	1930
CREEK	2.5 MI. S. OF SH 37	24.4	0	1968
CREEK	1.3 MI. W. & 3.1 MI. S. OF TABLER	24.8	0	1925
BRUSHY CREEK	3.4 MI. E. & 6 MI. N. JCT US62 & SH92	24.8	0	1940
BITTER CREEK	3.8 MI. E. & 1 MI. N. JCT SH37 & SH92	24.8	0	1950
CREEK	8.7 MI. E. & 3 MI. S. JCT US62 & SH39	24.8	0	1950

2040 Grady County Long Range Transportation Plan

FEATURE INTERSECTION	LOCATION	SUFFICIENCY	FOSD	YEAR BUILT
CREEK	2.S 1.2E OF DUTTON	24.8	0	1965
CREEK	E1580N2970000	25.3	0	1950
WASHITA RIVER	6 S 3.4 MI. E DUTTON	25.7	0	1930
CREEK	2.7W 2.N JCT SH37 & SH92	25.8	0	1950
CREEK	1 N US 62 IN VERDEN	26	1	1938
EAST WINTER CREEK	5.2 E 1.4 S OF US 62	26.1	1	1925
CREEK	D2785E1440005	26.3	0	1920
BUGGY CREEK	4.5W&1.8S, JCT US81&SH152	26.3	0	1975
CREEK	6.N US62 5.W US81	27.1	0	1920
CREEK	1.5 MI. E COX CITY	27.1	0	1940
MURRAY CREEK	5.S 10.5E JCT US81 SH17	27.2	0	1909
EAST JACK HOLLOW CREEK	6. S 4.1W US81	27.2	0	1910
CONGO CREEK	S OF IDAHO AVE ON SHEPARD	27.5	0	1960
CREEK	3.N 9.5E JCT US81 SH17	28	0	1940
BILL'S CREEK	.6S US277 & 6W OF US81	28.3	0	1947
TONY HOLLOW CREEK	2.6S US62 5.5W US81	28.4	1	1920
SPRING CREEK	4.7E 5.N JCT US62 SH39	28.4	1	1950
CREEK	N2960E1410009	28.4	0	1955
CREEK	1.N .3W JCT SH37 SH92	28.4	0	1987
WEST BITTER CREEK	1.9E 4.N JCT US62 SH92	28.7	1	1926
CREEK	2 S 7.6 MI. E AMBER	28.8	1	1940
LAFLIN CREEK	4 E 3.5 MI. N ALEX	28.8	0	1940

2040 Grady County Long Range Transportation Plan

FEATURE INTERSECTION	LOCATION	SUFFICIENCY	FOSD	YEAR BUILT
CREEK	4.2 S 1.5 W OF BRADLEY	28.9	0	1955
CREEK	6.8E 2.S JCT SH92 SH37	28.9	1	1960
CREEK	6.N US62 5.W US81	29.4	0	1920
ROCK HOLLOW CREEK	.4S OF US162&4.5W OF US81	29.4	0	1920
CREEK	11.5S .5W JCT US81 SH37	29.4	0	1924
CREEK	8.S 1.4W US81 SH152	29.4	0	1945
CREEK	0.7W 5.1S JCT SH37 & SH92	29.4	1	1950
CREEK	.2S OF SH37,7.8W OF US81	29.4	0	1952
CREEK	5.7 E .3 N OF TABLER	29.4	0	1968
CREEK	4.2S&5W OF JCT US81&US277	29.5	0	1948
CREEK	N2960E1430006	29.5	0	1989
WEST IONINE CREEK	8.4 W 5.5 S OF US 81	29.7	1	1930
BUGGY CREEK	2.E .5N JCT US81 & SH37	29.9	1	1972
WASHITA RIVER	.5 NE OF ALEX	30	0	1959
CREEK	3.6 E 2.9 N OF COX CITY	30	0	1960
CREEK	.5 W .5 N OF SH 37	30.5	0	1950
CREEK	2.4 MI. N CHICKASHA	30.9	0	1937
BUGGY CREEK	.5 N .5 E OF MINCO	30.9	0	1960
CREEK	3.3 MI. E 2670C	31	0	1929
CREEK	8.5S 5.6W JCT US81 SH37	31	0	1971
CREEK	.4N JCT SH19 & 19D	31.2	0	1925
CREEK	5.8N 2.E JCT US81 & 62	31.8	0	1924
CREEK	8.5S 1.3E JCT US81 SH37	31.9	1	1915
ROARING CREEK	.8 W 1. N OF BRADLEY	31.9	1	1928

2040 Grady County Long Range Transportation Plan

FEATURE INTERSECTION	LOCATION	SUFFICIENCY	FOSD	YEAR BUILT
EAST BITTER CREEK	5.0 E 3.3 S OF AMBER	31.9	1	1936
CREEK	6.5S .4E JCT US81 SH37	31.9	0	1950
CREEK	8.1 MI. N OF FARWELL	32.2	0	1920
SOLDIER CREEK	.8 W .1 N OF ALEX	32.9	0	1950
CREEK	1. W 1.1 N OF US 277	33.2	1	1928
WASHITA RIVER	1.2 MI. N CHICKASHA	33.2	0	1930
EAST JACK HOLLOW CREEK	3.5 N 4.3 W OF POCASSET	33.9	0	1927
BUGGY CREEK	.5S .5E JCT US81 SH37	33.9	1	1935
CREEK	1.7 N 2. E OF POCASSET	33.9	1	1976
BITTER CREEK	4.3E 2.N JCT SH37 & SH92	34.1	0	1940
CREEK	1.S US62 5.W US81	34.1	0	1970
CREEK	5.N US62 5.1W US 81	34.2	0	1955
CREEK	3N US62, 6.5W US 81	34.3	1	1950
EAST BILLS CREEK	2N OF US277&6W OF US81	34.9	1	1920
WASHITA RIVER	1.8 N .2 W OF 16 ST.	34.9	1	1931
CREEK	2.5 E .5 MI. N NINNEKAH	35.7	1	1938
ROCK HOLLOW CREEK	N OF FRISCO AVE ON 29TH	35.9	0	1930
CREEK	2.N SH 17 3.8W US 81	36	0	1935
CREEK	1.5 E 1.7 N OF SH 37	36	0	1945
CREEK	6.9E 1.S JCT US 62 SH 39	36.4	1	1972
CREEK	7.8E 1.N JCT US81 & SH152	37.5	1	1972
CREEK	8.2 E 1.9 N OF SH 92	37.5	1	1972
CREEK	16.4 E 3. N OF US 81	37.6	0	1935

2040 Grady County Long Range Transportation Plan

FEATURE INTERSECTION	LOCATION	SUFFICIENCY	FOSD	YEAR BUILT
CREEK	3N OF US62&5.5W OF US81	38	1	1956
BRIDGE CREEK	8.E 7. S SH92 SH37	38	1	1991
SPRING CREEK	2.3E 2.N JCT US62 SH39	38.2	1	1915
CREEK	7.4 ML. E OF FARWELL	38.3	0	1970
IONINE CREEK	6.9 W 6.5 S OF US 81	38.5	1	1945
CREEK	4. S .6 W OD SH 37	38.5	1	1970
CREEK	.4 W 5.1 S OF RUSH SPRING	38.9	0	1925
CREEK	3.6 ML. N OF US 62	38.9	0	1955
CREEK	7.4W 8.5S JCT US81 & SH37	38.9	0	1971
RUSH CREEK	5.2S 12.E JCT US81 SH17	39	1	1910
CREEK	3.6 E 2.9 N OF COX CITY	39.8	1	1997
WASHITA RIVER	2.2 N 1.2 W OF SH 9	39.9	1	1931
WASHITA RIVER O'FLOW	1.3 N .5 E OF US 81	39.9	1	1931
CREEK	2E&.9N OF SH152 & SH37	39.9	0	1940
BUGGY CREEK	.5S .7E JCT US8 & SH37	39.9	0	1950
SOLDIER CREEK	17.5E 5.5S JCT US81 SH19	39.9	0	1960
CREEK	.6S US62 4.W US81	39.9	1	1986
DRY CREEK	1.S 6.3E JCT US81 US277	40	1	1918
SALT CREEK	.5 N 1.5 E OF POCASSET	40.4	0	1930
BUGGY CREEK	.2N SH37 AND 7.8W OF US81	40.4	0	1965
CREEK	5.8N SH17 7.W US81	40.7	1	1935
CREEK	2.2 ML. E FARWELL	40.8	0	1937
CREEK	4.6W 2.S JCT US81 & SH152	40.9	0	1937
CREEK	1.S 1.9W JCT US81 US277	40.9	1	1940

2040 Grady County Long Range Transportation Plan

FEATURE INTERSECTION	LOCATION	SUFFICIENCY	FOSD	YEAR BUILT
CREEK	3.8N SH17 & 5.8W OF US81	40.9	0	1940
CREEK	4.7 S 4 MI. E DUTTON	40.9	0	1940
SALT CREEK	11.0S 1.7E OF US81 SH37	41	0	1922
CREEK	2.7W 4.N JCT US81 SH17	41	1	1986
CREEK	.5 W 1.8 N OF SH 37	41	1	1989
CONGO CREEK	E OF 3RD ST&.6N OF SH92	41.1	0	1930
CREEK	4 S 4.3 MI. E DUTTON	42.1	0	1948
CREEK	6.S SH17 4.4W US81	42.6	0	1952
BUGGY CREEK	.3S OF SH37& 6.8W OF US81	42.6	0	1965
CREEK	1.4E .5S JCT US 81 SH19	42.8	1	1991
CREEK	6.9 W 5.5 S OF US 81	43	1	1945
CREEK	.4 W .1 N OF MIDDLEBURG	43	2	1960
BRIDGE CREEK	6. S 6.4 E OF TUTTLE	43.7	0	1950
CREEK	1 E .3 MI. N NINNEKAH	43.8	0	1938
EAST ELM CREEK	1.S .4W JCT US 62 SH 39	44	1	1930
LINE CREEK	N OF IOWA AVE ON 21 ST	44.1	1	1980
SOLDIER CREEK	8.4E 4.9S JCT US81 SH19	44.2	0	1919
BUCKHORN CREEK	2.S 2. W OF RUSH SPRINGS	44.5	1	1941
CREEK	1.4E, 0.4S JCT SH-4/SH-37	44.7	1	1985
TONY HOLLOW CREEK	1.6S US62 3.8W US81	45.4	1	1939
OTTER CREEK	2E&5.5S OF AMBER	45.8	0	1919
LINE CREEK	ON 16ST..2S OF FRISCO AV	45.8	1	1933
DRY CREEK	2 W 2 MI. N ALEX	45.8	2	1950
CREEK	3.5N US62& 4.5W US81	46	0	1955

2040 Grady County Long Range Transportation Plan

FEATURE INTERSECTION	LOCATION	SUFFICIENCY	FOSD	YEAR BUILT
CREEK	1.6 MI. E AMBER	46.1	1	1940
CREEK	6. S .2 E OF TUTTLE	46.2	0	1940
WINTER CREEK	1.2 E 5. N OF ALEX	46.9	1	1949
TONY HOLLOW CREEK	.1N OF FRISCO&.2E OF 3RD	46.9	1	1988
BILL'S CREEK	4.3 S 3. E OF LAVERTY	47	1	1925
CREEK	1.8 N 1.9 E OF AMBER	47	1	1950
BUGGY CREEK	1.5N 1.4E JCT US 81 SH 37	47.2	1	1928
CREEK	.4 W 1.9 S OF NORGE	47.2	1	1989
LITTLE WASHITA RIVER	1.1E .5S JCT US81 US277	47.3	0	1930
MIDDLE ROARING CREEK	3.5 MI. W 4 MI. S ALEX	47.3	1	1957
RUSH CREEK	0.6 MI. SE OF COX CITY	47.5	1	1947
CREEK	2.5 MI. N OF SH 37	47.7	1	1950
CREEK	.5 N 2.8 E OF POCASSET	47.8	0	1930
CREEK	.7 W LAKE LEWIS	47.8	0	1940
LAKE BURCHI	2.4N US277 & 7W OF US81	48.2	1	1986
TONY HOLLOW CREEK	ON 6TH .2S OF FRISCO AVE	48.4	2	1939
CREEK	6.1 W 1. S OF UNION CITY	48.4	1	1942
CREEK	2.N .1N JCT SH37 SH92	48.5	0	1960
ROCK HOLLOW CREEK	.1E OF 29TH ON FRISCO	48.7	1	1930
CREEK	10.4 MI. E DUTTON	48.8	0	1930
CREEK	1.N 1.4E JCT US81 & US277	49.3	1	1990

2040 Grady County Long Range Transportation Plan

FEATURE INTERSECTION	LOCATION	SUFFICIENCY	FOSD	YEAR BUILT
LITTLE WASHITA RIVER	4.N SH17 5.8W US81	49.3	1	1992
CREEK	5.5S 9.4E JCT US 81SH 19	49.4	1	1925
WEST FORK CREEK	4.5 MI. NE CHICKASHA	49.5	0	1918
BITTER CREEK	2.1 MI. E AMBER	49.5	0	1960
CREEK	6. S 7.2 E OF TUTTLE	49.8	0	1950
CREEK	1. S .3 E OF DUTTON1	49.8	0	1965
WASHITA RIVER	1.6S 4.6E JCT US 81 I44	49.8	1	1987
SALT CREEK	2.8 MI. W AMBER	50.8	0	1965
CREEK	6. S 6.3 E OF TUTTLE	51.4	0	1925
TONY HOLLOW CREEK	300' N OF OHIO ON 4TH	51.7	0	1939
WALNUT CREEK	4.1 MI. N SH 39	51.9	0	1982
CREEK	7 MI. N .7 E OF BRADLEY	51.9	1	1987
CREEK	2.E & .1 N SH152 & SH37	52.4	0	1950
SALT CREEK	.5 N 1.3 E OF POCASSET	52.5	0	1930
TONY HOLLOW CREEK	3.6S OF US62, 6W OF US81	52.5	0	1988
EAST CREEK	1.3E 2.0N JCT SH-37/SH-92	52.7	1	1939
CREEK	4N 2W OF JCT 81/62	53	1	1989
CREEK	3.5N OF CHICKASHA	54.6	0	1937
CREEK	1. W .4 S OF US 62	54.6	0	1989
CREEK	11.1 MI. N E VERDEN	54.7	0	1950
LITTLE WASHITA RIVER	4.N SH17 5.8W US81	55.4	1	1992
CREEK	1.1E, 1.0N JCT SH-4/SH-37	55.5	0	1987

2040 Grady County Long Range Transportation Plan

FEATURE INTERSECTION	LOCATION	SUFFICIENCY	FOSD	YEAR BUILT
BILL'S CREEK	2.2 MI. N FARWELL	56.2	0	1960
CREEK	1.5 N 2.9 E OF AMBER	56.3	1	1941
CREEK	6.3W 5.S JCT 81 SH53	56.5	0	1919
CREEK	4.3 MI. S OF US 277	56.5	1	1995
CREEK	.5S 1.3E JCT US 81 & 277	56.6	0	1939
CREEK	5N OF US62 4.3W OF US 81	57	2	1910
ROCK HOLLOW CREEK	4.9 E 1.8 S OF VERDEN	57.5	1	1925
CREEK	2.9 E 3.9 N OF AMBER	58.2	0	1950
CREEK	6.6 E 1 MI. S AMBER	58.5	2	1940
CREEK	1.1S 1.2E JCT US 62 SH 92	59.3	0	1960
CREEK	0.2 MI. E OF N2810	59.6	1	1970
LINE CREEK	.2S OF FRISCO ON 12 ST	59.6	0	1980
CREEK	2.8 MI. E FARWELL	59.8	1	1983
CREEK	1.N .3W JCT US62 & SH92	59.8	1	1987
MIDDLE ROARING CREEK	8. E 5.6 N OF US 81 -SH17	61.6	0	1991
CREEK	2.0 MI. W CHICKASHA	61.7	1	1987
CREEK	2.9E 1.N JCT SH37 SH92	62	1	1960
CREEK	.8S OF SH37&6.8W OF US81	62	1	1965
CREEK	6.8E 5.S JCT SH92 SH37	62.3	0	1972
LINE CREEK	.1E OF 9 ST ON ILLINOIS	62.4	0	1984
CREEK	4.3 MI. S OF US 277	62.9	0	1939
CREEK	4 MI. S 1.8 E VERDEN	62.9	1	1986
CREEK	3.5 W .2 S OF NINNEKAH	63	0	1940
CREEK	8.S 1.1W JCT US81 SH152	63	1	1948

2040 Grady County Long Range Transportation Plan

FEATURE INTERSECTION	LOCATION	SUFFICIENCY	FOSD	YEAR BUILT
SALT CREEK	.5 N 1.3 E OF POCASSET	63.6	0	1994
CREEK	5.N US62 5.1W US 81	63.6	0	1994
BUGGY CREEK	.9E .5N JCT US81 SH37	64	1	1989
CREEK	4.2S&5W OF JCT US81&US277	64	0	1995
CREEK	2.S SH17 2.2W US81	64.5	0	1941
SANDY CREEK	15. E 3.8 N OF US 81&SH17	65	0	1992
CREEK	2.7W 2.N JCT SH37 & SH92	65	0	1993
LITTLE WASHITA RIVER	1.5 W .2 S OF NINNEKAH	65.7	0	1925
COLBERT CREEK	.5 N 2 MI. E BRADLEY	65.8	0	1989
CREEK	6.S SH17 1.4W US81	66.3	2	1990
CREEK	4 S 3.5 MI. E DUTTON	66.4	0	1955
LITTLE WASHITA RIVER	3.S 2.8W OF US81 US277	66.4	0	1979
CREEK	3 MI. N 4 E OF DUTTON	66.5	0	1939
CREEK	6.1S SH37,4W OF US81	66.7	0	1939
FORK CREEK	5.2E & .5N JCT US81 SH19	66.7	0	1989
CREEK	.5 N 6. E OF US 81 & 37	67.9	1	1993
CREEK	.7S US62 4.3W US81	68.4	0	1986
LATHERAN CREEK	2. N .6 W OF FARWELL 7	68.4	0	1992
CREEK	7.S 1.4W JCT US81 SH152	68.5	2	1945
WINTER CREEK	9.1E 1.5S JCT US81 SH19	68.5	0	1990
LAFLIN CREEK	.5 N 2.7 MI. E ALEX	68.6	0	1989
CONGO CREEK	0.2 MI. W US81	68.8	0	1960
CREEK	0.7W,1.0N JCT SH-37/SH-92	69.2	0	1998
CREEK	5.W 2. S JCT US81 SH152	69.3	0	1942

2040 Grady County Long Range Transportation Plan

FEATURE INTERSECTION	LOCATION	SUFFICIENCY	FOSD	YEAR BUILT
CREEK	16.8 1. S JCT US81 SH17	69.3	1	1989
CREEK	1.8W 0.9N JCT SH19 SH19C	69.3	1	1994
ROCK HOLLOW CREEK	.4S OF US162&4.5W OF US81	69.3	0	1995
CREEK	1. S .8 W OF NORGE	69.5	2	1965
CREEK	1.5 W 4.9 S OF SH 37	69.5	2	1965
CREEK	1.2E US81 5.5N US62	70	1	1991
JACK HOLLOW CREEK	.5 N 4.2 W OF POCASSET	70.1	0	1950
CREEK	2. S 1.4W RUSH SPRINGS	70.2	0	1941
EAST JACK HOLLOW CREEK	8.5S 5.4W JCT US81 SH37	70.2	0	1991
CREEK	1.2 N 5 MI. E VERDEN	70.3	0	1946
CREEK	.7E .8N JCT US62 SH39	70.3	0	1989
CREEK	1.6S US62 3.4W US81	70.8	0	1939
ROARING CREEK	8. E 5.8 N OF US 81	71.2	0	1991
RUSH CREEK	7. E 2.7 S OF US 81	71.2	0	1992
LINE CREEK	1 BLK N OF US62 ON 9TH ST	71.6	2	1948
CREEK	2.4 MI. W MCCLAIN C/L	71.7	0	1982
CREEK	3.2 E 2.5 S OF TUTTLE	71.8	0	1989
CREEK	1 MI. E US 81	72.2	0	1939
CONGO CREEK	.3S OF IDAHO AVE ON HENDERSON	72.3	0	1960
CONGO CREEK	S. OF IDAHO AVE.	72.4	0	2006
CONGO CREEK	BETWEEN 2ND AND 3RD ST.	72.5	0	1960
CONGO CREEK	BETWEEN ARKANSAS-GEORGIA	72.5	0	1960

2040 Grady County Long Range Transportation Plan

FEATURE INTERSECTION	LOCATION	SUFFICIENCY	FOSD	YEAR BUILT
WEST FORK CREEK	10S .9W JCT US81 SH152	72.7	0	1921
ROARING CREEK	2.8 W .1 N OF BRADLEY	72.7	0	1975
CREEK	3.N 15.3E JCT US81 SH17	73.3	0	1985
DRY CREEK	2 W 2.6 MI. N ALEX	73.3	0	1990
CREEK	3.8E 2.S JCT US81 SH17	73.7	0	1941
CREEK	2.2E,2.4N JCT SH-37/SH-92	73.9	0	2010
CREEK	.3 S .2 E OF POCASSET	74.3	2	1930
IONINE CREEK	9.6 MI. N E VERDEN	74.6	0	1972
CREEK	0.6W,2.0N JCT SH-37/SH-92	74.8	0	1993
WEST BITTER CREEK	2.3E 7.N JCT US62 SH92	74.9	0	1987
BITTER CREEK	5.2E 1.4N JCT US81 SH19	74.9	0	1992
WEST FORK CREEK	4.5 MI. NE CHICKASHA	75.1	0	1994
CREEK	1.2 S 1. E OF US 277	75.8	0	1991
CREEK	5.7 E .3 N OF TABLER	75.8	0	1996
ROCK HOLLOW CREEK	2.S US62 6.3W US81	76.1	0	1989
EAST JACK HOLLOW CREEK	3.5 N 4.3 W OF POCASSET	76.1	0	1998
LITTLE WASHITA RIVER	.8 W .3 S OF NINNEKAH	76.2	0	1925
BITTER CREEK	1.2W, 2.0N JCT SH-4/SH-37	76.7	0	1993
CREEK	3.2 S .2 E OF FARWELL	77.5	0	1989
SOLDIER CREEK	.8 W .1 N OF ALEX	77.5	0	1994
CREEK	2.6 N 1. W OF POCASSET	78	0	1945
SPRING CREEK	1.6N 1.7E OF TABLER	78	0	1983

2040 Grady County Long Range Transportation Plan

FEATURE INTERSECTION	LOCATION	SUFFICIENCY	FOSD	YEAR BUILT
BUGGY CREEK	.2N SH37 AND 7.8W OF US81	78.1	0	1993
CONGO CREEK	BETWEEN FLORIDA-MISSOURI	79.2	0	1960
CONGO CREEK	BETWEEN FLORIDA-MISSOURI	79.2	0	1960
CREEK	1 N US 62 IN VERDEN	79.8	0	1938
CREEK	1.1W 3.S JCT US81 SH152	79.9	0	1989
BUCKHORN CREEK	2.2 MI. W 4 S RUSH SPRINGS	80	0	1988
CREEK	2.5 E 2.3 MI. N COX CIT	80.1	0	1989
CREEK	4.5N, 3.7W US62&US81	80.1	0	1995
CREEK	14. E 6.2 S OF US 81	80.2	0	1989
CREEK	10.E SH92 2.5N US62	80.6	0	1998
CREEK	3 S 2.4 E RUSH SPRINGS	80.6	2	2000
CREEK	.4E OF US81 ON GRAND AVE	80.8	2	1988
CREEK	7.4W 8.5S JCT US81 & SH37	80.8	0	1995
CREEK	.6N OF US 277&7W OF US 81	80.9	0	1966
CREEK	3.S US 62 8.4W US 81	81.4	0	1989
CREEK	1.3 W 3.1 S OF TABLER	81.8	0	1997
BRIDGE CREEK	3.2 N 9.8 E OF AMBER	82	0	1989
CREEK	2.1 MI. W AMBER	82.1	0	1985
SOLDIER CREEK	17.5E 5.5S JCT US81 SH19	82.1	0	1995
CREEK	1.3E,1.7N JCT SH-37/SH-92	82.1	0	1996
CREEK	0.4E 16TH ON COUNTRY CLUB	82.6	0	1963
CREEK	1.3N 1.S JCT US81 US277	82.8	1	1940
COAL CREEK	1.0E, 0.4N JCT SH-4/SH-37	82.9	0	1982
CREEK	1. S .3 E OF DUTTON1	83	0	1995
CREEK	7.S .5W JCT US81 SH152	83.1	0	1994

2040 Grady County Long Range Transportation Plan

FEATURE INTERSECTION	LOCATION	SUFFICIENCY	FOSD	YEAR BUILT
CREEK	.9W 1.7N JCT US81 & US62	83.2	0	1989
WASHITA RIVER O'FLOW	1N OF US62 IN VERDEN	83.6	0	2011
CREEK	3. S 1. E OF AMBER	83.9	0	1987
CREEK	1.5 MI. E COX CITY	83.9	0	1994
CREEK	N OF IOWA AVE ON 21 ST	84.5	0	2004
CREEK	3.7 E 2.4 S OF TABLER	84.6	0	1949
TONY HOLLOW CREEK	5S OF US62,8W US81	84.7	0	1966
CREEK	4 S 3.7 MI. E DUTTON	84.7	0	1983
CREEK	2N & 13.3E JCT US81 SH17	84.7	0	1994
WEST WINTER CREEK	3.E 2. S JCT US62 SH 39	84.8	0	1987
DRY CREEK	5 W 0.2 MI. N ALEX	84.8	0	1990
CREEK	5.S .2W OF US81	84.8	0	1994
CONGO CREEK	E OF 3RD ST & .6N OF SH 92	84.8	0	2000
ROARING CREEK	11.E 5.9N JCT US81 & SH19	84.9	0	1989
CREEK	.8E US81 5.S SH37	85	0	1991
CREEK	2.S 1.2E OF DUTTON	85	0	1993
CREEK	5. N 3.3 W JCT US62/US81	85	0	1993
CREEK	.2S OF SH37,7.8W OF US81	85	0	1995
CREEK	8.1 MI. N OF FARWELL	85	0	1996
RUSH CREEK	3.0E 2.4S JCT US81/SH17	85.3	0	1995
ROCK HOLLOW CREEK	2.2S OF US62,6.3W OF US81	85.6	0	1970
CONGO CREEK	E. OF CHICKASHA SPORT COMPLEX	85.6	0	2006

2040 Grady County Long Range Transportation Plan

FEATURE INTERSECTION	LOCATION	SUFFICIENCY	FOSD	YEAR BUILT
CREEK	.7 E .2 S OF TABLER	85.7	0	1936
CREEK	0.3 MI. E OF N2810	85.7	0	1937
CREEK	W OF US81	85.7	0	1981
WORLEY CREEK	4.E 1. S OF JCT SH37 SH92	85.7	0	1983
LAFLIN CREEK	.5S 14.1E JCT US 81 SH 19	85.7	0	1984
TONY HOLLOW CREEK	1.3 M WEST JCT 62 & 81	85.7	0	1984
WORLEY CREEK	3.9E 3.S JCT SH37 SH92	85.7	0	1989
BRIDGE CREEK	6. S 6.3 E OF TUTTLE	85.7	0	1993
BRIDGE CREEK	7.5E 6.5S JCT SH92 SH37	85.8	0	1993
BILL'S CREEK	.6S US277 & 6W US81	85.8	0	2002
BUGGY CREEK	2E 5N OF JCT US81/SH37	85.8	0	2012
CREEK	1.9W OF US 81	85.9	0	1947
CREEK	4S 3.3 E VERDEN	85.9	0	1950
CREEK	4.N US62 5.W US81	86	0	1983
ROCK HOLLOW CREEK	.9S OF US62&5.3W OF US81	86	0	1989
CREEK	1.E 2. S JCT SH37 & SH92	86	0	1990
CREEK	3N US62& 4.5W US 81	86	0	1991
CREEK	10.5 S 1.5 E OF US 81	86	0	1991
CREEK	2.2 S 4 MI. E DUTTON	86	0	1992
CREEK	1. S 5.5 E OF AMBER	86	0	1993
CREEK	1.S US62 5.W US81	86	0	1993
CREEK	1.1S 1.2E JCT US 62 SH 92	86	0	1993
FOUR MILE CREEK	6 E 4.9 S JCT US81 & SH17	86	0	1993
CREEK	5.5S 2.8E JCT US81 SH37	86	0	1994

2040 Grady County Long Range Transportation Plan

FEATURE INTERSECTION	LOCATION	SUFFICIENCY	FOSD	YEAR BUILT
CREEK	6. S 7.2 E OF TUTTLE	86	0	1994
BUGGY CREEK	.5S .7E JCT US8 & SH37	86	0	1995
CREEK	2.7 S 3. W OF POCASSET	86	0	1995
CREEK	1.0E,1.0N JCT SH-37/SH-92	86	0	1996
CREEK	5 W & 1 N US62/US81 JCT	86	0	1997
CREEK	.5 W .5 N OF SH 37	86	0	1998
CREEK	6.8E 5S JCT SH92	86	0	2000
CREEK	8.5 S 5.6 W JCT US81	86	0	2000
CREEK	3N 2.1E OF POCASSET	86	0	2004
BUGGY CREEK	.9E .5N JCT US 81/SH	86	0	2006
BUGGY CREEK	.3S OF SH37& 6.8W OF US81	86.4	0	1997
WASHITA RIVER	.5N .25W OF VERDEN	86.7	0	2009
WEST WINTER CREEK	4.8E 1.N JCT US 62 SH 39	86.8	0	1987
CREEK	3.4E 3.S JCT US62 SH39	86.8	0	1989
CREEK	2.2 MI. E FARWELL	86.8	0	1993
LITTLE BEAVER CREEK	4 S 3.5 W RUSH SPRINGS	86.9	0	1983
CREEK	.5 E 6.4 S OF SH 37	86.9	0	1996
CREEK	15. E 2.5 N OF US 81&SH17	87.1	0	1998
COLBERT CREEK	7.5S 13.6E JCT US 81 SH19	87.2	0	1989
CONGO CREEK	S OF IDAHO AVE ON SHEPARD	87.2	0	1994
CREEK	8.7MI. N ALEX	87.5	0	1962
CREEK	6.9 E 5. S RUSH SPRINGS	87.5	0	1990
CREEK	1.2 E 4.1 N OF ALEX	87.6	0	1962
SALT CREEK	.5 N 1.5 E OF POCASSET	88.4	0	1994

2040 Grady County Long Range Transportation Plan

FEATURE INTERSECTION	LOCATION	SUFFICIENCY	FOSD	YEAR BUILT
SALT CREEK	.5 N 1.5 E OF POCASSET	88.4	0	1994
BUGGY CREEK	4.5 W & 1.8 S, JCT US81 & SH152	88.5	0	1995
CREEK	2.E 3.1N JCT US62 & SH92	88.6	0	1996
CREEK	0.2 MI. N OF ACME	88.7	0	1960
TONY HOLLOW CREEK	1.7MI. E RT 2617	88.7	0	1980
WEST BITTER CREEK	2 MI. S 2.2 E AMBER	88.7	0	1987
LOST ROARING CREEK	4.0 MI. S SH 19	88.7	0	1992
CREEK	1.5N OF US 277	88.7	0	2009
CREEK	.4 E 1.1 N OF ALEX	88.8	0	1995
CREEK	.4E OF 29 ST&.5N OF SH92	89.5	0	1985
MIDDLE ROARING CREEK	3.5W, 4S OF ALEX	89.9	0	2009
BUGGY CREEK	2.0 MI. S SH 152	90	0	1982
SOLDIER CREEK	8.4 E 5 S JT US81 & SH19	91.1	0	2000
CREEK	3.5 E 1.5 S OF SH 37	91.4	0	1992
CREEK	6. S .2 E OF TUTTLE	91.4	0	1998
EAST WINTER CREEK	4.3E 2.S JCT US 62 SH39	92.1	0	1987
CREEK	.4 W 5.1 S OF RUSH SPRING	92.1	0	1995
BRIDGE CREEK	8E 7S OF JCT SH92 / SH37	92.1	0	2009
LINE CREEK	2.2S 1.5W JCT US 81 US 62	92.4	0	1989
BITTER CREEK	.5 N 6.8 E OF POCASSET	92.8	0	1992
EAST CREEK	.9E, 1S OF JCT SH37/SH92	93	0	2009
CREEK	4 S 4.3 MI. E DUTTON	93.5	0	1992

2040 Grady County Long Range Transportation Plan

FEATURE INTERSECTION	LOCATION	SUFFICIENCY	FOSD	YEAR BUILT
CREEK	3.9 MI. E AMBER	93.8	0	1985
WEST BILLS CREEK	4 W 3.3 MI. N FARWELL	93.9	0	1984
ROARING CREEK	1.9 W 3.6 S OF ALEX	93.9	0	1987
IONINE CREEK	4.3 MI. N OF US 62	93.9	0	1988
BILL'S CREEK	4.3S, 3E OF LAVERTY	93.9	0	2009
CREEK	2.E 4.3N JCT US81 & SH17	94	0	1989
BUGGY CREEK	.5 N .5 E OF MINCO	94.1	0	1995
CREEK	3.8 W 5.8 N JCT US62 US81	94.5	0	1993
CREEK	.8 W 5. N OF ALEX	94.9	0	1989
CREEK	1.9E 6.N JCT US62 SH92	94.9	0	1990
LITTLE RUSH CREEK	6.S US 277 4.5W US 81	94.9	0	1992
CREEK	2.0W,1.0N JCT SH-37/SH-92	94.9	0	1993
ROARING CREEK	1.0 W 3.5 S OF ALEX	94.9	0	1993
ROCK HOLLOW CREEK	4.9 E 1.6 S OF VERDEN	95	0	1925
CREEK	12. E 2.3 N OF US 81	95.3	0	1991
CREEK	3.5N US62& 4.5W US81	95.8	0	1994
CREEK	6.4S 2.3E JCT SH19 SH19C	95.8	0	1994
CREEK	3.6 MI. N OF US 62	95.8	0	1995
CREEK	1.N SH17 4.5W US81	96	0	1992
CREEK	5.9E 2.S JCT US81 SH17	96	0	1992
CREEK	1.7S & 5.4W JCT SH19/19C	96	0	1994
CREEK	2.N SH 17 3.8W US 81	96	0	1994
CREEK	6.N US62 5.W US81	96	0	1995
CREEK	3. N 3.5 W OF MINCO	96	0	2010

2040 Grady County Long Range Transportation Plan

FEATURE INTERSECTION	LOCATION	SUFFICIENCY	FOSD	YEAR BUILT
WASHITA RIVER	6 S 3.4 MI. E DUTTON	96.1	0	1994
CREEK	3.8E 3.S JCT US	96.3	0	1988
ROARING CREEK	5.0E 5.9S JCT US81/US277W	96.3	0	1996
CREEK	2E 1N SH 152/SH 37	96.3	0	2006
LINE CREEK	.1S OF 29TH / IDAHO	96.7	0	2010
BRUSHY CREEK	3.4E 6.N JCT US62 SH92	96.8	0	1993
BITTER CREEK	1.3W, 2.0N JCT SH-4/SH-37	96.8	0	1998
W. FORK SALT CREEK	8 S 1.4 W US-81/SH152	96.8	0	1999
LITTLE WASHITA RIVER	4.S US277 3.5W US 81	96.9	0	1981
CREEK	2.N .1W JCT US62 SH92	97	0	1986
CREEK	5.5 E 8. S OF SH 92	97	0	1992
CREEK	2.E .5N JCT US81 & SH37	97	0	1993
CREEK	2.E .5N JCT US81 & SH37	97	0	1993
CREEK	6.5S .4E JCT US81 SH37	97	0	1993
CREEK	6.9 E 6. S OF 92 & 37	97	0	1993
CREEK	11.5S .5W JCT US81 SH37	97	0	1995
CREEK	2.5 MI. S OF SH 37	97	0	1995
WEST JACK HOLLOW CREEK	5. S 5.3W OF US81	97	0	1996
SALT CREEK	5.5S 1.8E JCT US81 SH37	97	0	1996
CREEK	2.6E,2.0N JCT SH-37/SH-92	97	0	1998
EAST JACK HOLLOW CREEK	6. S 4.1W US81	97	0	1998
MURRAY CREEK	5S 10.5E JCT US81/SH17	97	0	2002

2040 Grady County Long Range Transportation Plan

FEATURE INTERSECTION	LOCATION	SUFFICIENCY	FOSD	YEAR BUILT
CREEK	2.5N 2W OF POCASSET	97	0	2004
SALT CREEK TRIB.	8.5S 1.3E OF US81/SH37	97.1	0	2015
RUSH CREEK	.2 MI. NE BAILEY	97.3	0	1982
WASHITA RIVER	1.2 MI. N CHICKASHA	97.4	0	2000
CREEK	0.4N COUNTRY CLUB ON 9TH	97.8	0	1963
WASHITA RIVER	7.5S 13.6E JCT US81 SH19	98	0	1986
LINE CREEK	.1E OF 29TH ST ON IOWA	98.7	0	1995
LINE CREEK	0.2E OF 29TH ST. ON IOWA	98.7	0	1995
LINE CREEK	0.1 E OF 29TH ST. ON IOWA	98.7	0	1995
LITTLE WASHITA RIVER	.4N OF FARWELL	99	0	2011
BUGGY CREEK	2E&.9N OF SH152 & SH37	99.4	0	1998
WASHITA RIVER	.5 NE OF ALEX	99.8	0	1997
EAST WINTER CREEK	5.2E 1.4S OF JT US62/SH39	99.9	0	2005
LITTLE BEAVER CREEK	2.7S SH17 & 4.5W OF US81	100	0	1985
W FORK SALT CREEK	.5E 6.8N JCT US81 US 62	100	0	1987
WEST BITTER CREEK	1.N 1.8E JCT US 62 SH 92	100	0	1987
SALT CREEK	8.8N 1.2E JCT US81 & 62	100	0	1988
LITTLE WASHITA RIVER	3. E .5 N OF US 81	100	0	1990
EAST FORK CREEK	6.5 MI. NE CHICKASHA	100	0	1992
LAFLIN CREEK	4 E 3.5 MI. N ALEX	100	0	1999
CREEK	7.5 S 1. E OF ACME	100	0	2001

2040 Grady County Long Range Transportation Plan

FEATURE INTERSECTION	LOCATION	SUFFICIENCY	FOSD	YEAR BUILT
BUGGY CREEK	2.3W .7S OF MINCO	100	0	2002
SALT CREEK	11S 1.7E OF US81/SH37	100	0	2003
CREEK	5.8N 2E JCT US81/62	100	0	2003
BUGGY CREEK	.5S &.5E OF US-81	100	0	2004
EAST BITTER CREEK	4W BLANCHARD, SW OF I-44	100	0	2004
RUSH CREEK	2N STEPHENS C/L,2E BAILEY	100	0	2004
WEST IONINE CREEK	8.4W 5.5S OF US81	100	0	2006
WEST CREEK	0.4W,2.0N JCT SH-37/SH-92	100	0	2008
OTTER CREEK	.2E 5.5S OF AMBER	100	0	2010
SALT CREEK	1.5N 2E OF POCASSET	100	0	2013
EAST BITTER CREEK	5E 3.3S OF AMBER	100	0	2014
ROARING CREEK	.8W 1N OF BRADLEY	100	0	2015

Source: ODOT

Appendix 2.22: National Highway Freight Network – Oklahoma

The NHFN includes the following subsystems of roadways:

- **Primary Highway Freight System (PHFS):** This is a network of highways identified as the most critical highway portions of the US freight transportation system determined by measurable and objective national data. The network consists of 41,518 centerlines miles, including 37,436 centerline miles of Interstate and 4,082 centerline miles of non-Interstate roads.
- **Other Interstate portions not on the PHFS:** These highways consist of the remaining portion of Interstate roads not included in the PHFS. These routes provide important continuity and access to freight transportation facilities. These portions amount to an estimated 9,511 centerline miles of Interstate, nationwide, and will fluctuate with additions and deletions to the Interstate Highway System.
- **Critical Rural Freight Corridors (CRFCs):** These are public roads not in an urbanized area which provide access and connection to the PHFS and the Interstate with other important ports, public transportation facilities, or other intermodal freight facilities.
- **Critical Urban Freight Corridors (CUFCs):** These are public roads in urbanized areas which provide access and connection to the PHFS and the Interstate with other ports, public transportation facilities, or other intermodal transportation facilities.

Primary Highway Freight System (PHFS) Routes			
	START ROUTE No POINT	END POINT	LENGTH (MILES)
Creek Type	I44	U75	4.9
I240	I44	I35	4.61
I244	OK3R	I44	3.52
I35	TX/OK Line	OK/Ks Line	236.13
I40	TX/OK Line	I35	151.76
I40	I35	OK/AR line	177.96
I44	I240	4.68 Miles North of I40	7.92
I44	I35	OK/MO Line	194
U412	OK6P	I44	6.4
Subtotal			787.19

2040 Grady County Long Range Transportation Plan

PHFS Intermodal Connectors			
FACILITY ID	FACILITY NAME	FACILITY DESCRIPTION	LENGTH (MILES)
OK2L	Williams Pipeline Station	21st St. (33rd W. Avenue to Burlington Northern RR at 23rd St.)	1.27
OK3R	Burlington Northern Railroad	23rd St. (BN Terminal to Southwest Avenue) SW Avenue (23rd St. to I-244 ramp.)	0.56
OK5P	Port of Catoosa	SR 266 (Port to US 169)	11.42
OK6P	Johnston's Port 33 (Verdigris River near Muskogee)	From US 412/NS 414, south 0.25 miles, east 1 mile to Terminal	1.14
Subtotal			14.39
PHFS TOTAL			801.58

Interstate Not on the PHFS			
ROUTE No.	START POINT	END POINT	LENGTH (MILES)
I235	I40	I44	5.14
I240	I35	I40	11.68
I244	S. 21st St.	I44	12.24
I44	TX/OK Line	I240	114.91
I44	0.35 miles S. of S66	I35	7.7
I444	I244 S	I244 N	2.5
Subtotal			154.15

APPENDIX 3: FUTURE CONDITIONS

Appendix 3.1: 2040 Population and Employment Projection by TAZ

SORTPO CITY	TAZ No	POP 2010	TOT EMP 2010	POP 2040	TOT EMP 2040
Blanchard					
	200	261	75	800	85
	201	906	55	1200	55
	202	655	45	800	45
Chickasha					
(pt 6, 12, 13, 14, 16, 19, 22, 23)	300	54	25	54	25
	301	1	10	1	10
	302	2	10	2	10
	303	2	125	2	125
	304	2	525	2	585
	305	17	175	17	185
	306	345	15	355	15
	307	641	345	655	400
	308	228	95	230	95
	309	600	285	600	305
	310	0	145	105	145
	311	4	55	4	55
	312	74	140	74	155
	313	59	100	59	105
	314	609	300	700	300
	315	34	595	34	600
	316	44	595	44	600
	317	83	595	83	600
	318	598	595	600	600
	319	489	15	505	15
	320	351	55	355	55
	321	469	45	475	45
	322	326	35	335	35
	323	1	485	15	500
Hospital/Medical com	324	87	755	125	800
	325	15	115	15	125
	326	681	65	800	65

2040 Grady County Long Range Transportation Plan

SORTPO CITY	TAZ No	POP 2010	TOT EMP 2010	POP 2040	TOT EMP 2040
	327	22	175	50	185
	328	137	115	155	125
	329	21	115	25	115
	330	393	45	400	45
	331	347	0	365	0
	332	365	45	375	45
	333	635	15	645	15
	334	354	45	355	45
	335	412	75	415	75
	336	366	0	370	0
	337	13	50	10	50
	338	23	85	20	85
	339	9	450	5	450
	340	158	590	158	600
	341	0	500	0	500
	342	20	350	20	350
	343	0	25	0	25
	344	9	350	9	350
	345	586	600	600	600
	346	566	200	569	200
	347	0	100	0	100
	348	472	275	550	275
	349	269	50	335	50
	350	811	335	850	335
	351	149	105	500	105
	352	614	108	615	108
	353	90	65	90	65
	354	141	225	165	225
	355	37	235	37	235
	356	54	300	54	300
	357	32	225	100	225
	358	227	225	400	225
	359	341	500	341	500
	360	269	225	275	225
	361	61	300	61	300
	362	65	300	70	300

2040 Grady County Long Range Transportation Plan

SORTPO CITY	TAZ No	POP 2010	TOT EMP 2010	POP 2040	TOT EMP 2040
	363	602	105	655	105
	364	755	75	800	75
	365	0	25	10	25
	366	156	25	350	25
	367	10	250	10	250
	368	611	0	650	0
Minco					
(pt 1 ad 3)	100	497	65	450	65
	101	245	85	205	85
	102	172	45	225	45
	103	584	400	540	400
Rush Springs					
(pt 32)	500	344	125	360	125
	501	94	50	94	50
	502	244	65	244	65
includes pt of county	503	425	105	416	105
includes pt of county	504	63	85	63	85
	505	24	85	24	85
includes pt of county	506	49	45	49	45
Ninnekah					
(pt 400)	400	319	75	400	75
	401	10	425	10	500
	402	66	105	50	105
	403	362	65	395	65
	404	313	245	318	245
Verden					
(pt 17 and 18)	17	343	105	244	115
	18	574	115	355	121
Grady County					
	1	138	40	145	40
	2	151	75	279	75

2040 Grady County Long Range Transportation Plan

SORTPO CITY	TAZ No	POP 2010	TOT EMP 2010	POP 2040	TOT EMP 2040
	3	747	75	800	75
	4	593	105	645	105
	5	34	300	85	300
	6	305	75	395	75
	7	628	320	700	320
	8	760	600	800	600
	9	686	255	745	255
	10	585	185	625	185
	11	445	45	500	45
	12	488	350	700	350
	13	446	225	500	225
	14	135	85	250	85
Major Employer	15	36	255	45	255
	16	216	600	400	600
pt	17	343	85	350	85
pt	18	574	135	700	135
	19	752	145	800	145
	20	525	95	600	95
	21	152	205	201	205
	22	647	185	700	185
	23	660	475	675	475
	24	754	45	760	45
	25	809	45	815	45
	26	289	85	294	85
Major Employer	27	20	295	20	300
Major Employer	28	7	295	7	300
	29	564	55	580	55
	30	273	35	273	35
	31	419	35	425	35
	32	456	45	460	45
	33	203	75	215	75
	34	680	145	680	150
	35	549	105	555	105
	36	84	35	95	35
	37	561	85	570	85

2040 Grady County Long Range Transportation Plan

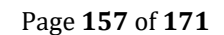
OCARTS CITY	TAZ2010	POP 2010	TOT EMP 2010	POP 2040	TOT EMP 2040
Blanchard	2240.0000	65	0	181	0
Blanchard	2279.0000	7	0	22	0
Bridge Creek	2114.0000	6	54	12	54
Bridge Creek	2137.0000	0	0	0	0
Bridge Creek	2138.0000	17	0	46	0
Bridge Creek	2139.0000	35	0	46	0
Bridge Creek	2161.0000	0	0	8	0
Bridge Creek	2162.0000	55	0	87	0
Bridge Creek	2189.0000	15	0	44	0
Bridge Creek	2190.0000	49	0	106	0
Bridge Creek	2191.0000	81	34	87	34
Bridge Creek	2211.0000	17	226	25	226
Bridge Creek	2237.0000	24	0	45	0
Bridge Creek	2238.0000	35	0	47	0
Grady County	2058.0000	60	308	82	325
Grady County	2059.0000	0	0	0	0
Grady County	2063.0000	18	0	31	20
Grady County	2086.0000	10	0	15	0
Grady County	2112.0000	89	10	102	34
Grady County	2113.0000	680	32	707	46
Grady County	2114.0000	657	14	718	14
Grady County	2135.0000	97	0	142	0
Grady County	2136.0000	158	0	188	16
Grady County	2137.0000	473	125	543	140
Grady County	2138.0000	456	34	563	34
Grady County	2139.0000	641	167	680	182
Grady County	2161.0000	3	0	3	0
Grady County	2162.0000	1506	2	1654	2
Grady County	2167.0000	44	4	50	4
Grady County	2189.0000	683	10	786	27
Grady County	2190.0000	2	0	30	0
Grady County	2191.0000	770	4	825	17
Grady County	2211.0000	342	70	411	99
Grady County	2235.0000	22	0	24	0

2040 Grady County Long Range Transportation Plan

OCARTS CITY	TAZ2010	POP 2010	TOT EMP 2010	POP 2040	TOT EMP 2040
Grady County	2236.0000	183	39	216	39
Grady County	2237.0000	160	10	251	38
Grady County	2238.0000	779	4	859	4
Grady County	2239.0000	48	0	49	0
Grady County	2240.0000	538	0	611	0
Grady County	2278.0000	215	0	229	0
Grady County	2279.0000	17	0	39	0
Tuttle	2058.0000	36	25	234	25
Tuttle	2059.0000	923	23	2308	90
Tuttle	2063.0000	633	11	1562	11
Tuttle	2086.0000	938	140	1372	716
Tuttle	2087.0000	629	160	1250	174
Tuttle	2088.0000	601	108	796	141
Tuttle	2112.0000	141	57	154	57
Tuttle	2113.0000	676	375	923	436
Tuttle	2114.0000	429	155	541	197
Tuttle	2136.0000	336	160	353	167
Tuttle	2137.0000	201	39	299	39
Tuttle	2138.0000	247	35	407	93
Tuttle	2139.0000	229	74	352	74

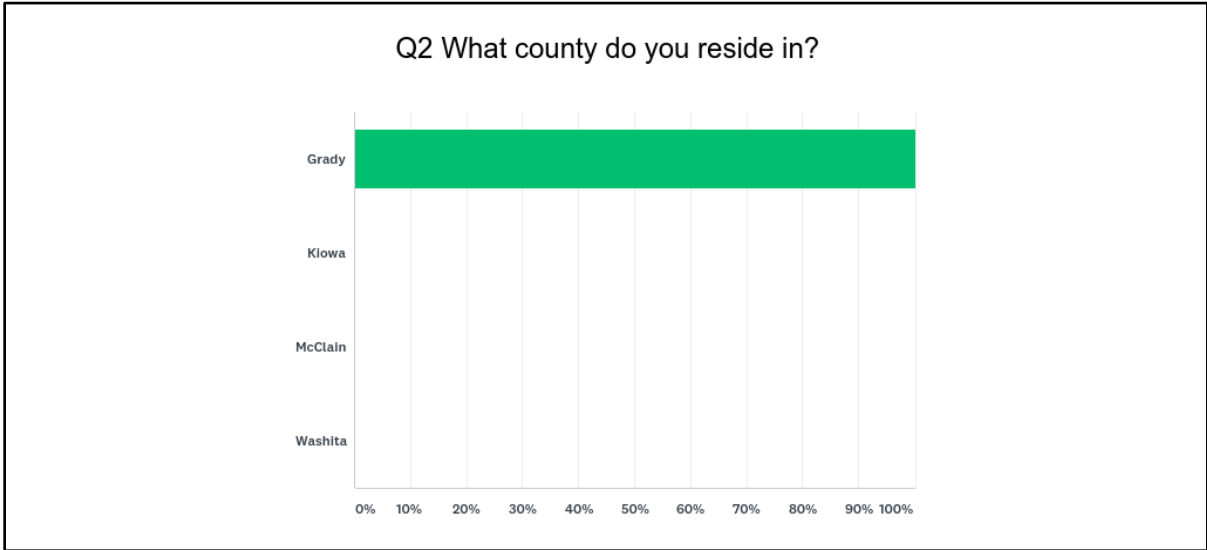
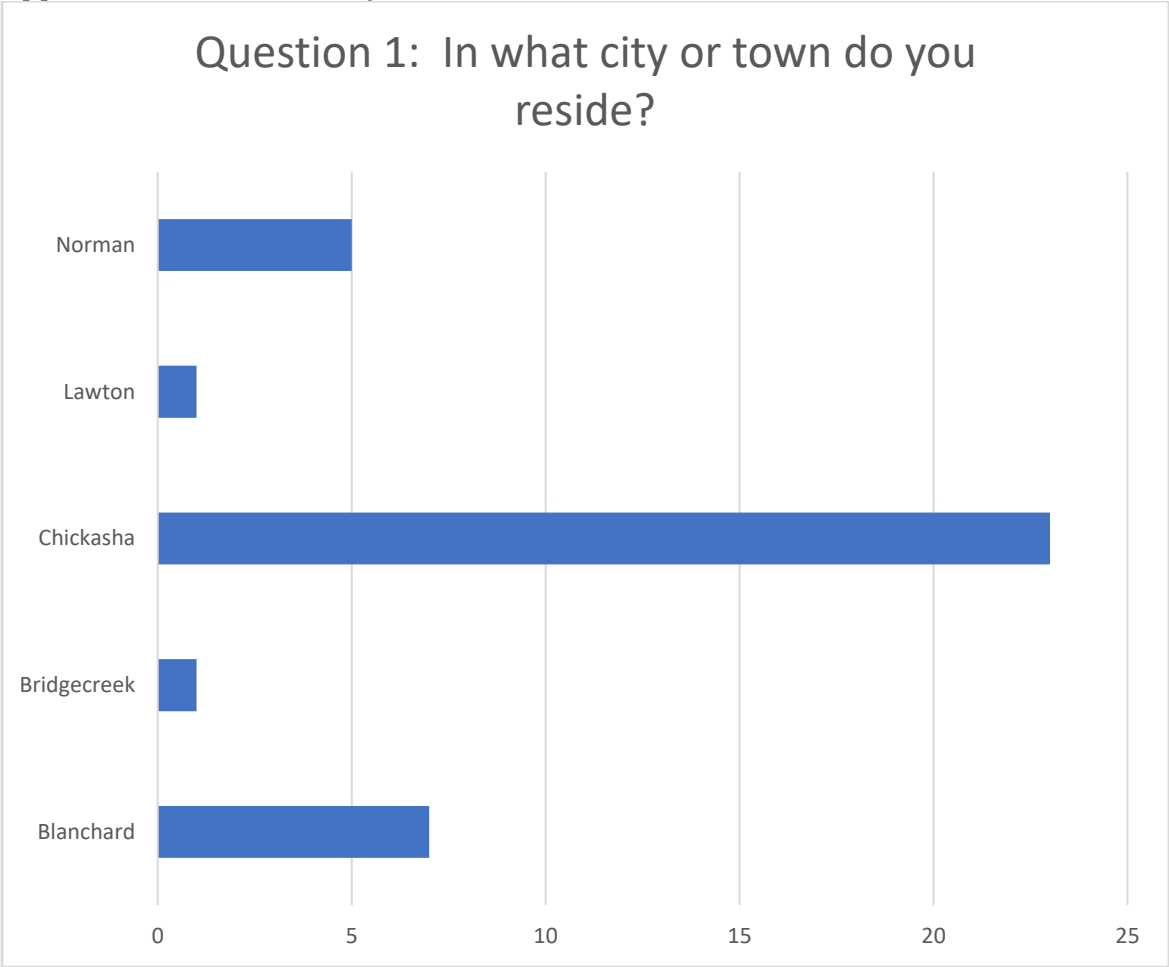
*The SORTPO 2040 projection for Grady County was developed using the 2012-16 ACS population data. The assignment of growth for the SORTPO region cannot absorb the total projected growth; therefore the assumption is made that the additional growth will be in the OCARTS area.

Appendix 3.2: ODOT 8 Year Construction Work Program FFY 2018-2025 Map

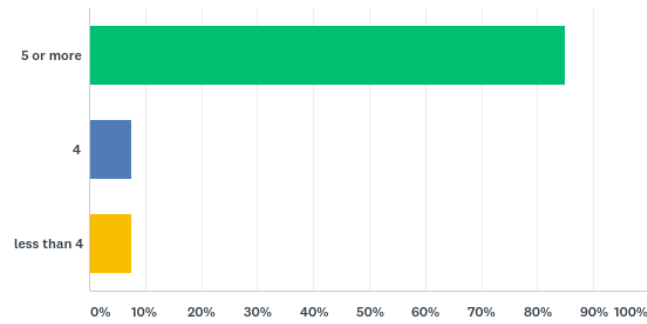


Appendix 4: Public Participation

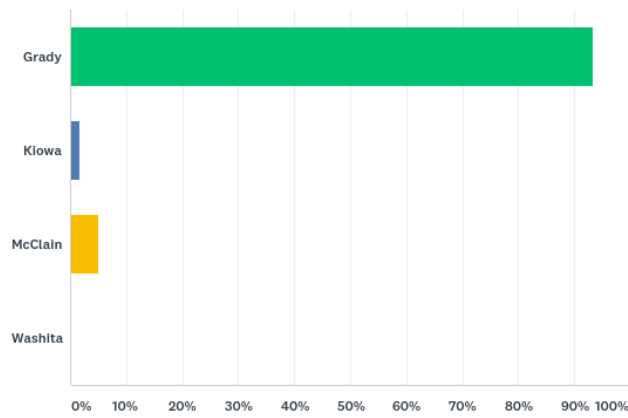
Appendix 4.1: Public Survey



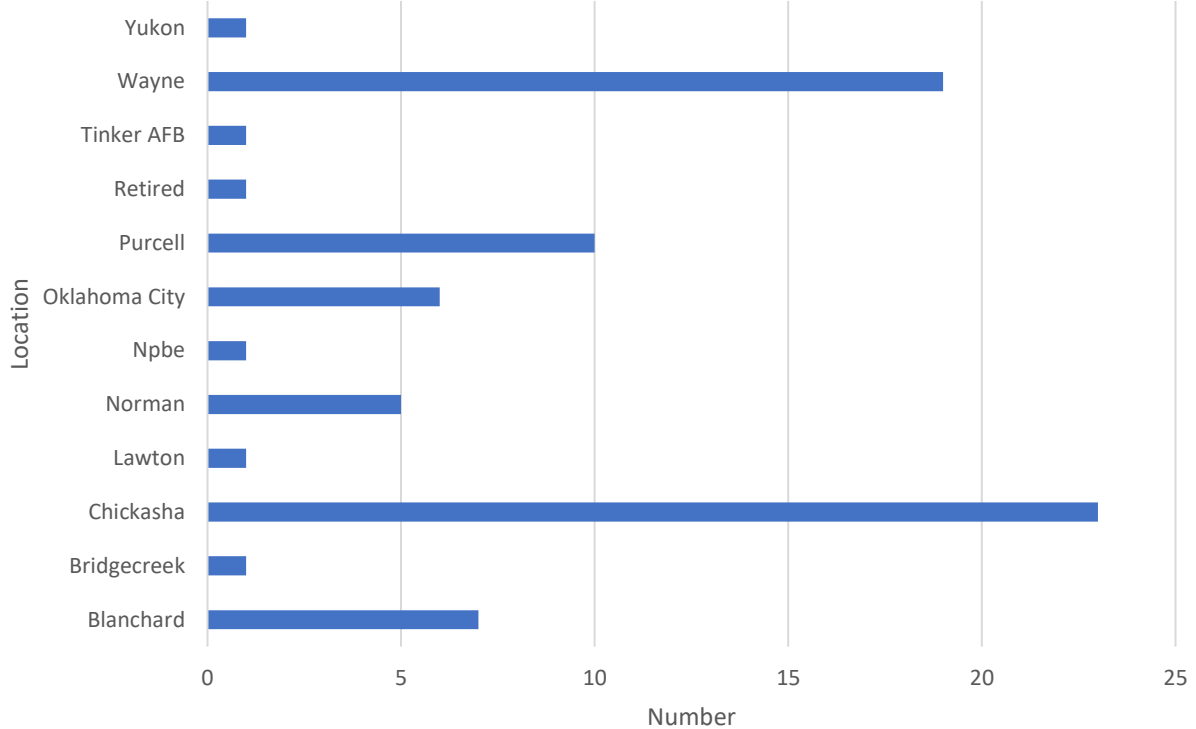
Q3 If you work or attend school outside the home, how many days per week?



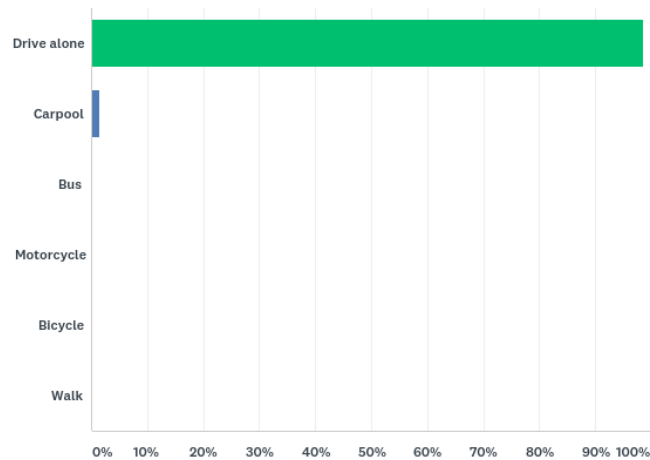
Q4 In which county do you work or attend school?



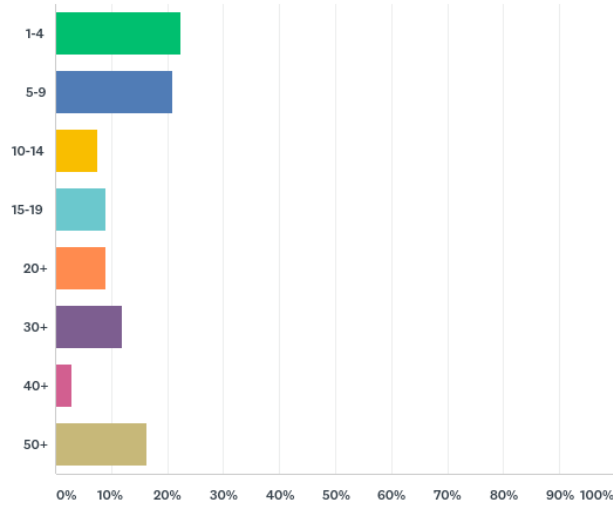
Question 5: In what city or town do you work?



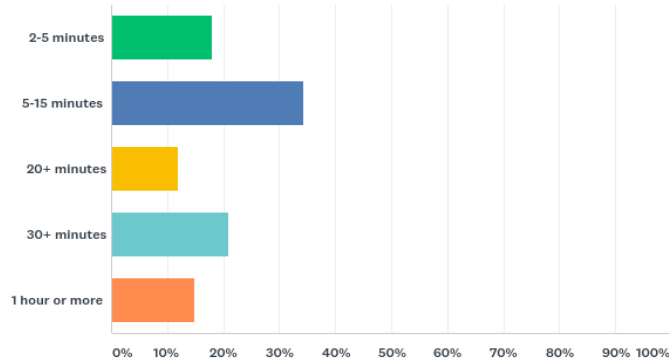
Q6 What type of transportation do you use most often to go to work/school?



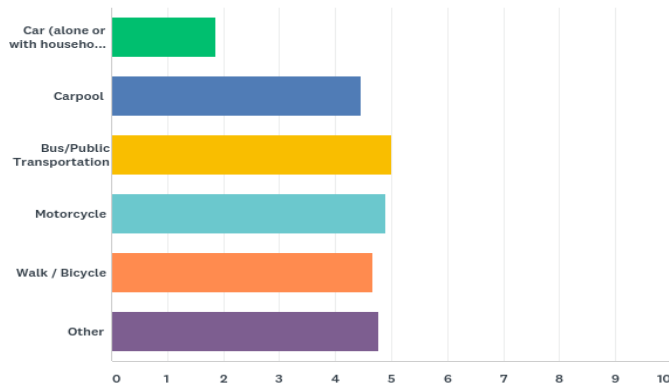
Q7 Number of miles traveled (round trip) for work/school?



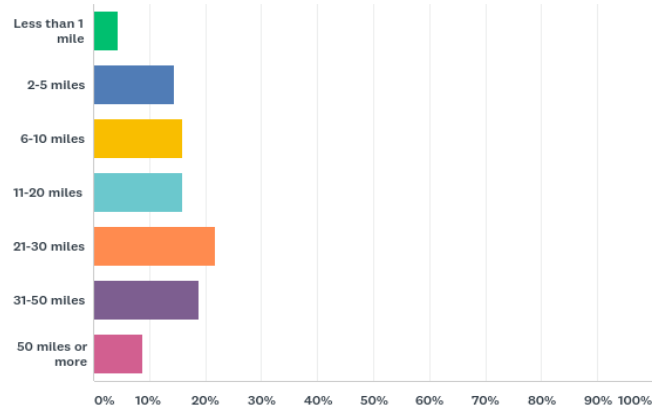
Q8 How much TIME does it usually take to travel (round trip) to work/school?



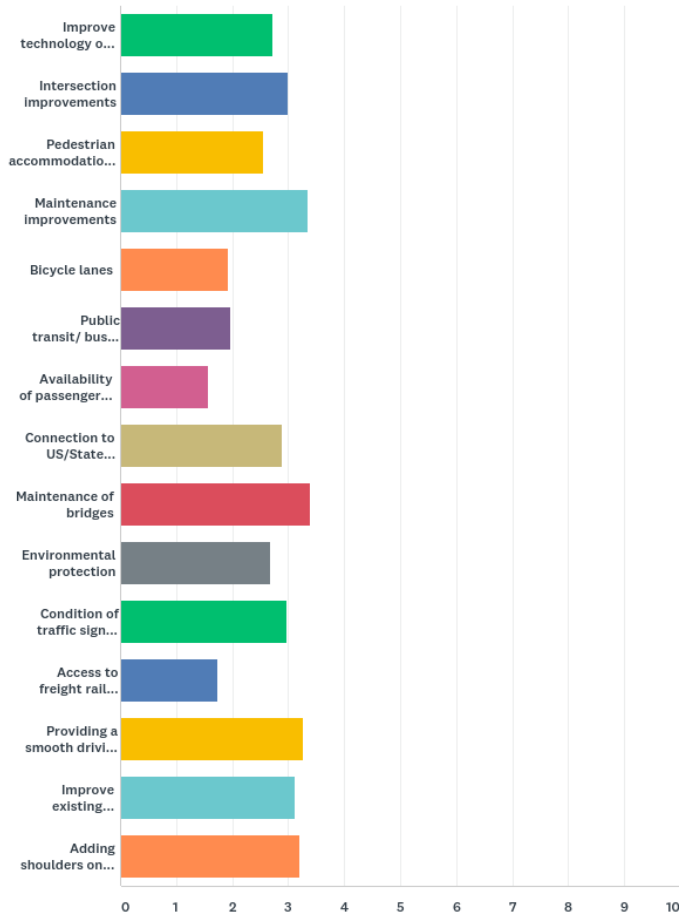
Q9 What is your usual method of transportation for OTHER trips such as shopping, appointments, or social outings?



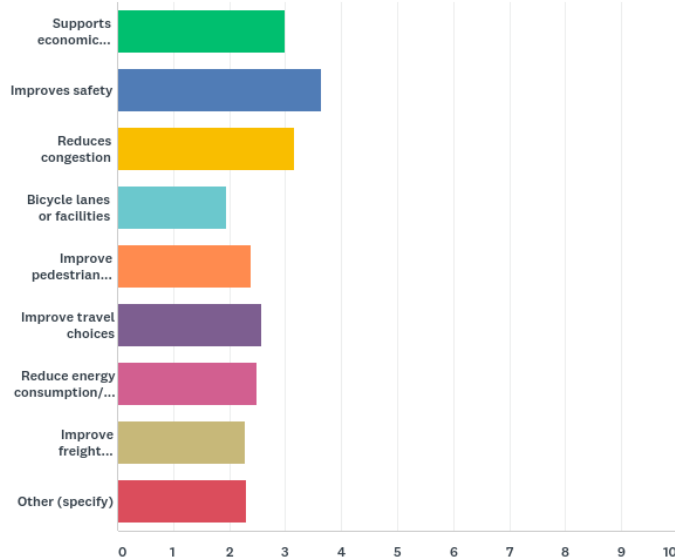
Q10 How many miles do you usually travel for these other trips (per outing)?



Q11 Please indicate how important each of these transportation system components is to you:

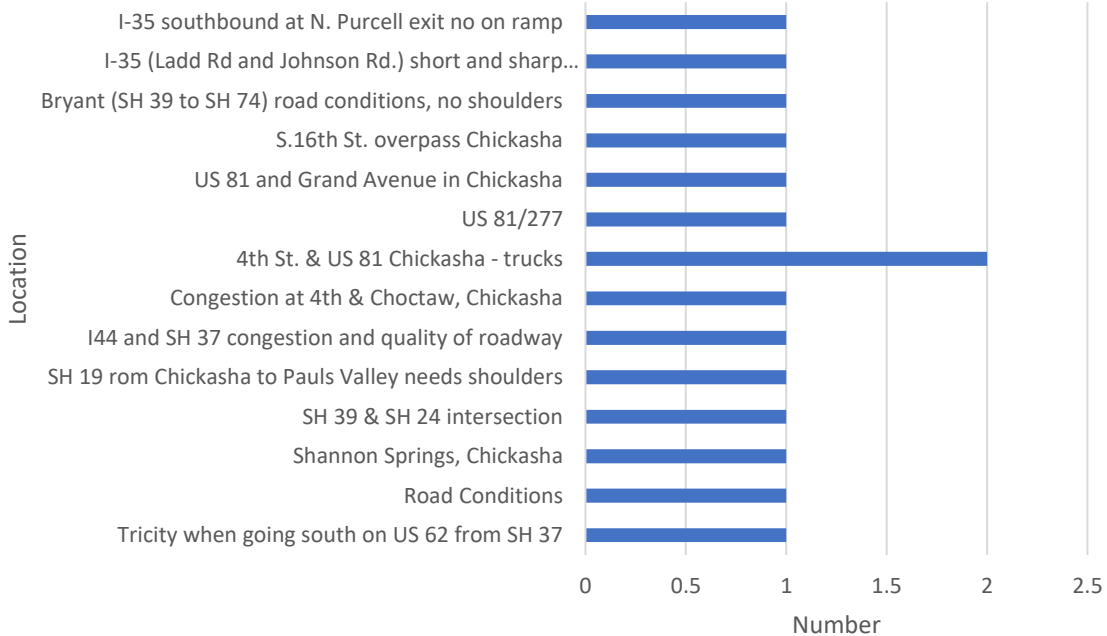


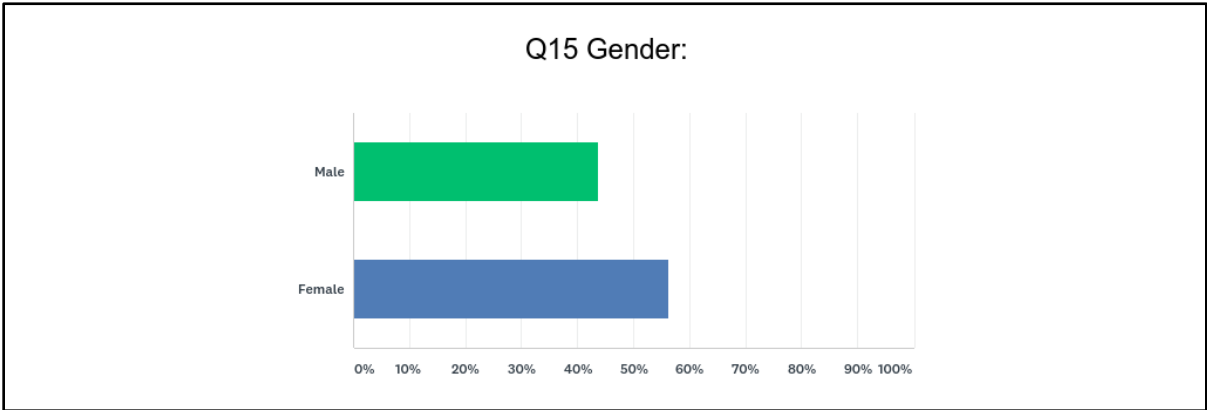
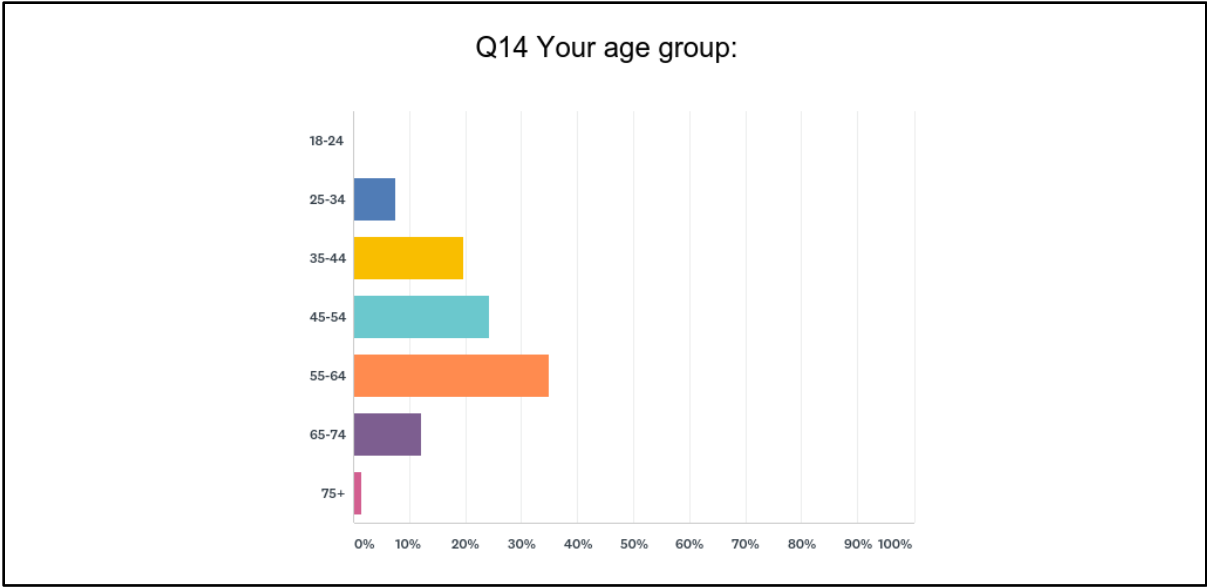
Q12 Which do you think should be a priority when selecting transportation projects?



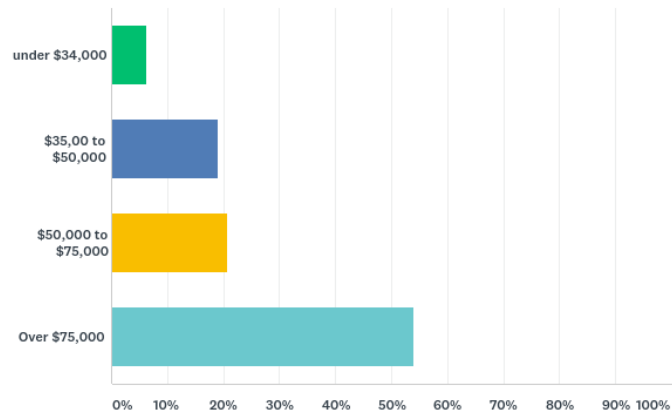
Q13 What are some specific locations with traffic problems that you encounter?

Specific locations with traffic problems

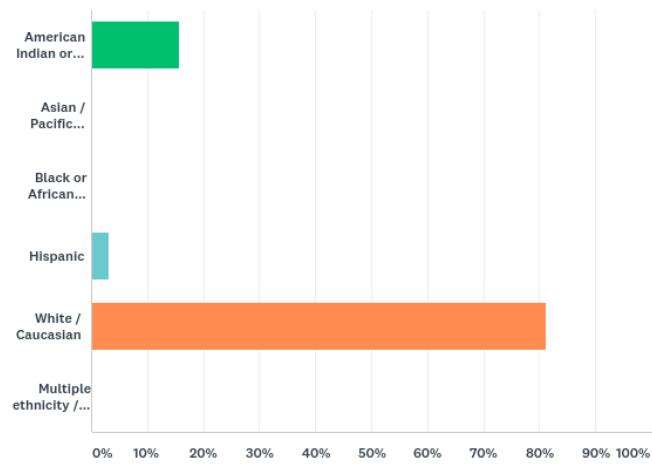




Q16 Household income:



Q17 Which race/ethnicity best describes you? (Please choose only one.)



2040 Grady County Long Range Transportation Plan

Q18 Please feel free to provide additional comments regarding transportation improvement needs:

#	RESPONSES	DATE
1	Need additional lanes on Shannon Springs and Ninekah.	7/18/2018 1:25 PM
2	Portions of Highway 19 between Chickasha and Pauls Valley already has shoulders. All of the roadway needs shoulders. Since this road is right down the backbone of the SCOOP oil play, there will be more and more trucks using this section of highway 19 in the near future. The passing zones are few and far between.	6/6/2018 1:40 PM
3	heavy oilfield vehicles are causing extra deterioration of secondary roads in McClain County	6/4/2018 4:42 PM
4	Chickasha US 81 Bypass is needed!	5/30/2018 3:55 PM
5	Need for bus transportation to Norman or OKC from the countryside	5/29/2018 5:02 PM
6	better roads	5/29/2018 1:29 PM
7	Bicycle Bridges Safety State Highways Lots and lots of bicyclist use hwy 77 - please maintain the shoulder to give them a safe place to exercise.	5/29/2018 1:14 PM
8	Bridges Interstate The bridges over I-35 between Purcell and Norman are for the most part in bad need of repair.	5/29/2018 1:13 PM
9	Enforcement Weight Law Enforcement in Wayne, Trucks on Highway 59 drive at an extremely high rate of speed, and use their "jake brake" Jake Brakes are Prohibited in Wayne, but the current Law Enforcement will do nothing about it.	5/29/2018 1:04 PM
10	Needs shoulders State Highways State highway 74 between Purcell and Maysville needs a shoulder and it needs to be four lanes between Purcell and Washington.	5/24/2018 4:47 PM
11	City County Roads Maintenance & Preserve The road conditions in and around chickasha (rural areas especially) are absolutely horrible! It cost me \$400 to repair my truck, due to damage caused by poor road conditions in my area, something need to be done about it!!	4/23/2018 2:57 AM
12	Rideshare, transit Need transportation for elderly for medical cares.	4/2/2018 11:54 AM
13	Rideshare, transit Need other transportation options for people.	4/2/2018 11:49 AM
14	County Roads Maintenance & Preserve Improve county roads.	4/2/2018 11:38 AM
15	Bicycle Weight State Highways Wal ways sidewalks, bike lanes, truck routes	4/2/2018 11:34 AM
16	Enforcement State Highways please lower the speed limit from 65 to 50 or less from the hwy 92& hwy 62 intersection east to point of the hwy changing back to 2 lanes.	3/29/2018 9:50 AM
17	Rideshare, transit think encouraging ride share opportunities within the community would be greatly beneficial.	2/17/2018 3:29 PM
18	City Signals State Highways Wk in or add lanes Blanchard needs a traffic light at 10th and main. Highway 76 North from Blanchard to highway 37 need to be four lane and at least 65 mph	2/17/2018 9:24 AM
19	Maintenance & Preserve think we need to focus on bettering what we already have. Improving our current roadways and bridges by widening and resurfacing.	2/10/2018 11:16 AM
20	Bicycle would like to see bike lanes to encourage better fitness in our community	2/10/2018 8:14 AM
21	Walkways We would love walkways to school! Walkways to parks, walkways to the library, walkways to downtown. This town needs to be more walkable! Its better for our overall health.	2/1/2018 4:18 PM
22	Enforcement State Highways I am a runner, and all of my long distance runs are on the road, usually hwy 62. I have had people swerve at me, I see people constantly on their phones. I use all pedestrian traffic laws. However, I can tell a lot of people don't know the laws. Or maybe they just don't care. A refresher would be great to educate people.	1/31/2018 11:51 AM

2040 Grady County Long Range Transportation Plan

23	I think, with specialists required for many illnesses now, transportation to and from those appointments is a great need at least in my life.	1/29/2018 2:14 PM
24	Rideshare, transit don't use it but I know some elderly/disabled that could use buses to Lawton and other places out of town that are not provided for them.	1/29/2018 1:45 PM
25	Just leave shit alone we don't want you or your police up our ass thats why we don't live in town fuck you	1/29/2018 12:14 PM
26	Uber or taxis needed in the area for the elderly who can not drive. It is hard to find rides to and from stores and doctors offices.	1/29/2018 11:43 AM
27	none	1/24/2018 3:25 PM
28	Our County roads are in extreme need of being rebuilt. For safer highways the addition of shoulders would be of great importance for safety of travelers.	1/23/2018 2:57 PM
29	City Rideshare, transit The public transportation in Blanchard is good but could be expanded to include more hours.	1/21/2018 7:54 PM
30	Maintenance & Preservation State Highways Smooth roads and bridges would be nice. Also would like a better way to get from Blanchard to Norman and OKC; don't like the traffic at entrance ramp to I-35 and lights in Newcastle, especially.	1/20/2018 9:02 AM
31	County Roads State Highway 19 between Chickasha and Pauls Valley needs to be a super two highway the full length.	12/22/2017 4:55 PM
32	City Maintenance & Preservation West Redbud Rd needs to be resurfaced with a strong hard surface	12/2/2017 5:52 PM
33	Unknown Thank you.	11/30/2017 1:03 PM
34	State Highways Would be nice to have a turnpike entrance either on highway 92 or off of 1280 outside of Amber	11/29/2017 11:28 AM
35	County Roads The county roads and county streets are in very poor condition in Grady County. Much of this is due to the heavy traffic of oil field related vehicles. There are three roads that connect Highway 277 to the Norge Highway also known as Highway 92. All three of these roads are almost impassable in places. Thank you.	11/29/2017 10:23 AM
36	State Highways LIVE AT 291 CR 1400 THAT ROAD NEEDS TO BE REDONE	11/29/2017 10:11 AM
37	County Roads Some road surfaces in the region are atrocious (Large pot holes, uneven surfaces/washboarding, etc.) compared to roads I have driven on in other counties and states	11/29/2017 9:14 AM
38	Unknown Already did, the city of Chickasha is a great place to live but has a management deficiency due to poor hiring practices and a micro managing City Council. You could say that we have a Good O Boy System still alive here and to many personal agendas going on. Rules are made, not enforced. Hard to keep qualified managers because of poor oversight and back stabbing. With that said, Chickasha is a great place to live if you ignore city government.	11/28/2017 4:04 PM
39	State Highways U.S. Highway 81 between Chickasha & Union City is the last part that has not been converted to a 4 lane configuration. The amount of traffic that uses that road is rapidly reaching the saturation point. It is also becoming more dangerous daily. There have been 2 accidents within 48 hours involving trucks, one of which included a fatality. There is so much traffic that is almost impossible to pass a slow moving vehicle. This increases the anger level in drivers, and results in unsafe behavior. This stretch of road is long over-due for improvement.	11/28/2017 3:16 PM
40	State Highways Overall ODOT does a great job with the highways in Grady County. I do hope the by-pass will start soon on the west side of Chickasha. It is much needed to divert truck traffic around town.	11/20/2017 11:29 AM
41	City Interstate Need an interstate exit on the north end of Purcell	11/17/2017 5:14 AM
42	Maintenance & Preservation Just fix our potholes. We don't want three year projects we just want a road. Turn it to gravel if you must but just let us have roads. We aren't picky	11/14/2017 6:39 PM
43	City County Roads Widen or add lanes Chestnut/290th in Goldsby to Blanchard need to be widened to have room for two cars and assigned traffic lanes.	11/14/2017 5:53 PM
44	County Roads Maintenance & Preservation County roads in the Wayne area are very bad.	11/14/2017 4:39 PM

Appendix 4.2: Pubic Outreach



On November 28, 2017, a stakeholder's meeting was held at Canadian Valley Technology Center. Prior to this meeting invitation were sent to local stakeholders. SORTPO staff distributed a copy of the Grady County 2040 LRTP to the following agencies: Grady County Commissioners, ASCOG, and city/town halls. On March 28, 2018, a public meeting was sponsored by the Grady County Health Coalition at the Canadian Valley Technology Center in Chickasha.

A legal notice advertising SORTPO's public hearing to adopt the Grady County 2040 LRTP was placed in The Chickasha Express. The SORTPO Policy Board held a public hearing on January 24, 2019 to receive comments on the Grady County 2040 LRTP prior to its' adoption.

No comments were received during the public review and comment period or at the public hearing.

Stakeholder Invitation Letter and Letter to State/Federal Agencies



November 2, 2017

The Southwest Oklahoma Regional Transportation Planning Organization (“SORTPO”) is the regional transportation planning organization for southwest Oklahoma. Within this region are 16 counties, including the eight counties within the Southwestern Oklahoma Development Authority (SWODA) Council of Government and the eight counties comprising the Association of South Central Oklahoma Government (ASCOG). SORTPO is in the process of developing a regional long-range transportation plan for the sixteen counties.

A stakeholder meeting is scheduled to introduce the long-range transportation planning process and to engage you in the early stage of this plan development.

Date: Tuesday November 28, 2017

Time: 10:00 am

Location: Canadian Valley Technology Center, Room

Chickasha, Ok

This meeting will present opportunities for you to share your areas of concern as well as to help identify transportation programs to meet the needs of the future. Please share this invitation with your associates, as all are welcome, and the meeting is open to the public. We look forward to seeing you there!



September 5, 2018

Honorable Tom Cole
Congressman
2424 Springer Dr., Ste. 201
Norman, OK 73069

Dear Congress Cole,

The **Southwest Oklahoma Regional Transportation Planning Organization (SORTPO)** is a regional transportation planning organization involving a collaboration between the Association of South Central Oklahoma Governments (ASCOG), the South Western Oklahoma Development Authority (SWODA) and the Oklahoma Department of Transportation (ODOT). SORTPO is responsible for the development of long range transportation plans for 16 counties in southwest Oklahoma.

At their **October 25, 2018** SORTPO Policy Board meeting a 30-day public review and comment period for **(September 4, 2018 - October 3, 2018)** was approved for the purpose of obtaining public comments on the 2040 Long Range Transportation Plans for the following counties: Grady and McClain. These plans are the principal of a transportation planning document for each county. During this comment period we are encouraging individuals, agencies, and organizations to review the 2040 Long Range Transportation Plans for both counties and submit written comments.

The plans are available for public review on the www.sortpo.org website and hard copy is available in the County Commissioners office of each county starting **September 5, 2018**. If you are unable to attend the public hearing meeting on **January 24, 2019** to give your input on the important transportation issues on the two counties please submit comments no later **than January 21, 2019** at the address below:

Becky Cockrell
Transportation Director
South Western Oklahoma Development Authority
PO Box 569
98 Frontier
Burns Flat, OK 73624
580-562-4885
becky@swoda.org

