

Ozarks Transportation Organization

JJOURNEY 2035

Long Range Transportation Plan

Approved by the OTO Board of Directors - December 15, 2011

Amended June 21, 2012



Amendments

Amendment 1 – June 21, 2012

There is one item included as part of Amendment Number One to the Long Range Transportation Plan, *Journey 2035*. The City of Springfield has requested to add a project to improve capacity along Glenstone Avenue from Battlefield Road to James River Freeway to the Constrained Project List. This is required in order to add the project to the Transportation Improvement Program.

To be included in the LRTP, demonstration of fiscal constraint must be maintained. This has been accomplished through a change to the funding projections included in the LRTP. The cost share funding which was awarded for this Glenstone Capacity Improvement Project, as well as cost share funding for a project at James River Freeway and Kansas Expressway, has been added to the balances for Cost Share Funding in FY2015. This adds an additional \$6,872,432 of FY2012 and FY2013 funding to the balances shown under FY2015. This is shown on pages 162-A1, 163-A1 and 165-A1.

Additionally, Project M95, with a projected cost of \$2,388,105, has been removed from the constrained project list (page 170-A1), as it is incorporated into this larger Glenstone Capacity Improvement Project.

Finally, through this review, it was discovered that the totals had been miscalculated in Table 34 – OTO Funding Projections, 2015-2035, adding an additional \$37 million in revenue. Also, by adding this project to the Constrained Project List, one project was able to be revised in the Unconstrained Project List – “Business 65 (Glenstone Avenue) Capacity Improvements from Sunset to Peele” now only needs to be listed as being from Sunset to Battlefield.

Summary of Amendment:

Page 162-A1	Increased Cost Share Funding for FY2015
Page 163-A1	Increased Cost Share and Total
Page 165-A1	Increased State and Federal and Total
Page 170-A1	Removed project M95
Page 183-A1	Added Project A1
Page 184-A1	Changed Project Limits from Peele to Battlefield for the Business 65 Capacity Improvement Project
Page 192-A1	Updated Constrained Project Map to reflect Amendment 1

Plan Summary

As part of the federal transportation planning requirements, the OTO is required to develop a long range transportation plan. This plan must be updated every five years. *Journey 2035* is the five year update of the Long Range Transportation Plan. *Journey 2035* serves as a blueprint that guides the OTO Metropolitan Area's transportation development over a 24-year period. The plan is based on projections of growth and travel demand coupled with financial assumptions.

The OTO region has grown to 310,283 people, according to the 2010 Census, from 258,335 in 2000. The region is projected to have nearly 470,000 people by 2035. This growth has a major impact on congestion in the region. As seen in Chapter 5, the region will be unable to build its way out of the congestion caused by growth. With limited funding, the region must find alternative approaches. *Journey 2035* proposes a multi-modal solution to the OTO region's transportation system, addressing transit, bicycling, and walking, in addition to the street network.

From all sources, \$605 million in funding has been projected during the life of the plan. Over \$1.6 billion in projects have been identified. OTO has prioritized \$600 million worth of projects that are financially feasible over the next 24 years. This means there are projects, totaling \$1.1 billion, with no funding source available. The funded and unfunded project lists can be found in Chapter 13.

Figure 1 - Population Change in the OTO Region, 2000-2035

Source: U.S. Census Bureau – 2000 SF1, 2010 SF1; Ozarks Transportation Organization

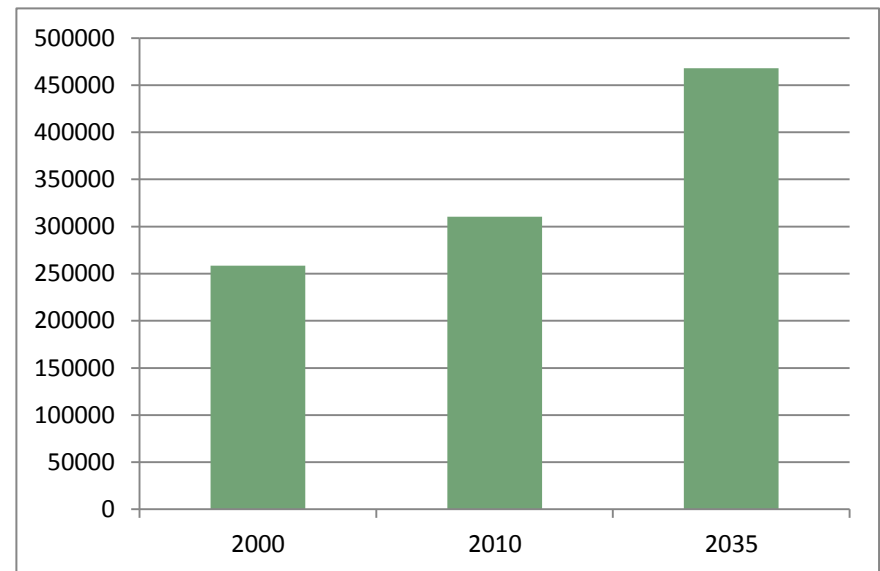


Table 1 - Financial Constraints

Total Revenue through 2035	\$605,641,614
Constrained Project List	\$599,713,898
Unconstrained Project List	\$1,107,096,392

Public Involvement

Journey 2035 was developed through an extensive public outreach process that spanned a year and a half. A community official kickoff meeting was held on April 8, 2010. This meeting was followed by public input meetings in various jurisdictions. The plan began to take shape through meetings of the Long Range Transportation Plan Subcommittee. The draft plan was released for public comment in September of 2011 with additional meetings in various locations held in September and October in order for the public to comment on the draft plan. An additional public hearing was held in conjunction with the October 2011 Board of Directors Meeting.

Plan Goals

The goals of the plan, found in Chapter 4, center around economic development, the provision of a multi-modal interconnected system, quality of life, operations and maintenance, safety and security, transportation advocacy and needs assessment. For the first time, performance measures, also in Chapter 4, are included to monitor the performance of the transportation system and to identify the projects that best address the needs of the system based on expected population, housing and employment growth, while taking forecast financial assumptions into account at the same time.

Plan Topics

- Public Participation – Chapter 2
- Regional Trends – Chapter 3
- Goals and Performance Measures – Chapter 4
- Major Thoroughfare Plan – Chapter 5
- Public Transit – Chapter 6
- Inter-City Surface Transportation – Chapter 7
- Bicycle and Pedestrian – Chapter 8
- Aviation – Chapter 9
- Goods Movement – Chapter 10
- Environmental Considerations – Chapter 11
- Financial Capacity – Chapter 12
- Project Selection – Chapter 13

About OTO

The Ozarks Transportation Organization (OTO) is the federal designated metropolitan planning organization (MPO) that serves as a forum for cooperative transportation decision-making by state and local governments, as well as regional transportation and planning agencies. MPOs are charged with maintaining and conducting a “continuing, cooperative, and comprehensive” regional transportation planning and project programming process for the MPO’s study area. The study area is defined as the area projected to become urbanized within the next 20 years.

The MPO includes local elected and appointed officials from Christian and Greene Counties, as well as the Cities of Battlefield, Nixa, Ozark, Republic, Springfield, Strafford, and Willard. It also includes technical staffs from the Missouri Department of Transportation, Federal Highway Administration, Federal Transit Administration, and the Federal Aviation Administration. Staff members from local governments and area transportation agencies serve on OTO’s Technical Planning Committee which provides technical review, comments, and recommendations on draft plans, programs, studies, and issues.

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This report was prepared in cooperation with the USDOT, including FHWA and FTA, as well as the Missouri Department of Transportation.

Chapter 1 – Introduction

The Ozarks Transportation Organization

The Ozarks Transportation Organization (OTO) is the federal designated metropolitan planning organization (MPO) that serves as a forum for cooperative transportation decision-making by state and local governments, as well as regional transportation and planning agencies. MPOs are charged with maintaining and conducting a “continuing, cooperative, and comprehensive” regional transportation planning and project programming process for the MPO’s study area. The study area is defined as the area projected to become urbanized within the next 20 years.

The MPO includes local elected and appointed officials from Christian and Greene Counties, as well as the Cities of Battlefield, Nixa, Ozark, Republic, Springfield, Strafford, and Willard. It also includes technical staffs from the Missouri Department of Transportation, Federal Highway Administration, Federal Transit Administration, and the Federal Aviation Administration. Staff members from local governments and area transportation agencies serve on OTO’s Technical Planning Committee which provides technical review, comments, and recommendations on draft plans, programs, studies, and issues.

The OTO study area has a population of about 310,000 people covering 428 square miles. Greene County is the fifth-largest county in the state of Missouri and Christian County was the 47th fastest growing county in the United States using Census data from 2000 and 2009. By the year 2035, the population of the OTO region is expected to reach 515,000, an increase of nearly 80 percent over the next 25 years.

The Long Range Transportation Plan

Journey 2035 is a multi-modal transportation plan that looks to 2035. It is meant to provide direction for regional transportation policy in the region for the next 24 years. The long range transportation plan (LRTP) is the basis for all other plans and programming documents for the OTO. The requirements for the LRTP are set forth by the current federal surface transportation authorization.

Though expired, the most recent guidance available comes from the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU). SAFETEA-LU was signed into law on August 10, 2005. Established as a 6-year authorization, the program has been operating on continuing resolutions since the conclusion of Fiscal Year 2009. Journey 2035 follows the guidance of SAFETEA-LU, but also considers the future trends of transportation planning in anticipation of the next authorization bill.

SAFETEA-LU Planning Factors

SAFETEA-LU describes the planning process for the Long Range Transportation Plan. As such, the LRTP should consider projects and strategies that will:

- A. Support the economic vitality of the metropolitan area, especially by enabling global competitiveness, productivity, and efficiency;
- B. Increase the safety of the transportation system for motorized and nonmotorized users;
- C. Increase the security of the transportation system for motorized and nonmotorized users;
- D. Increase the accessibility and mobility of people and for freight;
- E. 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 development patterns;
- F. Enhance the integration and connectivity of the transportation system, across and between modes, for people and freight;
- G. Promote efficient system management and operation; and
- H. Emphasize the preservation of the existing transportation system.

Livability Principles

In June of 2009, the US Secretary of Transportation Ray LaHood, US Secretary of Housing and Urban Development Shaun Donovan, and US Environmental Protection Agency Administrator Lisa Jackson announced an interagency Partnership for Sustainable Communities. To guide this effort, the three agencies outlined six livability principles that demonstrate how federal transportation policy, environmental protection efforts, and housing investment strategies can be coordinated:

- A. Provide more transportation choices to decrease household transportation costs, reduce our dependence on oil, improve air quality and promote public health;
- B. Expand location- and energy-efficient housing choices for people of all ages, incomes, races and ethnicities to increase mobility and lower the combined cost of housing and transportation;
- C. Improve economic competitiveness of neighborhoods by giving people reliable access to employment centers, educational opportunities, services and other basic needs;
- D. Target federal funding toward existing communities – through transit-oriented and land recycling – to revitalize communities, reduce public works costs, and safeguard rural landscapes;

- E. Align federal policies and funding to remove barriers to collaboration, leverage funding and increase the effectiveness of programs to plan for future growth; and
- F. Enhance the unique characteristics of all communities by investing in healthy, safe and walkable neighborhoods, whether rural, urban or suburban.

Completing the System

Travel choice is a key component for the livability of an area. The Livability Principles promoted by the Department of Transportation, Housing and Urban Development, and the Environmental Protection Agency, include travel choice. The Ozarks Transportation Organization plans for all users of the transportation system in the OTO region, including motorists, cyclists, pedestrians, and transit riders. Improved travel choices also reduce demand upon the roadway system. Providing options that are convenient, attractive, and safe encourages more motorists out of their automobiles, as well as supports those who are already walking, bicycling, or using transit.

A complete transportation system provides these travel choices and supports the Livability Principles, as well as makes efficient, productive use of the overall transportation system. There is not a standard complete street design, as each one should be tailored to the needs of each individual community. Common elements of complete streets include –

- Pedestrian and bicycle safety improvements
- Access improvements, including compliance with the Americans with Disabilities Act
- Public transit facilities accommodation, including, but not limited to, pedestrian access improvement to transit stops and stations
- Street trees and landscaping
- Street and sidewalk lighting
- Drainage
- Street amenities

The OTO region has been active in “completing the system” through the use of enhancement funds and during project design. The OTO design standards encourage accommodations for bicyclists and pedestrians. The OTO Bicycle-Pedestrian Plan recommends the incorporation of bicycle and pedestrian projects into other roadway construction and maintenance projects. OTO tracks roadway use by cyclists and makes recommendations to area agencies regarding which projects should incorporate bicycle improvements. The transit recommendations include considerations for all other modes. Each mode described in this Plan is tied to land use considerations, promoting the efficiency and appropriateness of the transportation system. By addressing the complete transportation system and accompanying land use, those living and working in the region have the ability to make transportation and housing choices that best work for them.

Chapter 2 – Public Participation

The OTO Public Participation Plan recommends that a plan-specific process be developed for the Long Range Transportation Plan. The OTO has employed a variety of methods to reach out to the public. The LRTP public participation process has included a paper and online survey, an all-day public official workshop, public input meetings with comment cards, a plan specific website, public comment meetings, and a presence at community events. In addition to these OTO directed efforts, each of the OTO member jurisdictions continually seek public input. Most recently, the City of Springfield, as part of their strategic planning process, engaged the public with an online survey and numerous listening sessions with anyone who requested one. The public input has served as a guide for goal development in this plan and has contributed to the strategies recommended herein.

OTO Website

A Plan website has been created through the OTO website. The web address is <http://www.ozarkstransportation.org/Journey2035>. Announcements regarding opportunities for public input and the progress of the Springfield Strategic Plan have been placed there. As the draft plan was developed, that information was posted as well.

Public Officials Workshop – April 8, 2010

As a kick-off event for Journey 2035, OTO conducted a brainstorming workshop with local public officials and their staff, as well as other interested parties. The workshop was one whole day which began with presentations by relevant professionals relating to the region's population and housing trends, transit, air, freight, roadways, bicycles and pedestrians, and future funding. This was followed by several brainstorming sessions in which attendees could contribute to general policies for the area, as well as specific directions OTO should take in relation to the various transportation modes. The Agenda and attendees can be found in Appendix A.

One unique feature of this event was the assignment of attendees to a table. Each breakout table was arranged so attendees were mixed based on their backgrounds and geographic representation. These groups sat together during the first visioning exercise and then were rearranged for the next set of

Figure 2 - Save the Date Card for Workshop



activities. This was done so everyone would have an opportunity to participate and so that everyone would have a chance to hear the varying perspectives of the attendees.

After each topical presentation, a copy of the presentation was hung on the wall. Each group was given a set of sticky notes and throughout the day, attendees were encouraged to use the sticky notes to make comments on the presentation wall. This would allow for comments to be collected throughout the day. A “digital” comment board was kept during the day too. As breakout groups reported the results of their visioning exercises, each comment was captured on the computer and displayed for all to see. This demonstrated that each comment was received and also allowed everyone to see that they were captured correctly.

The first visioning exercise of the day asked one question, “How can the transportation system help create the community you, your children, and your grandchildren want to live in, come 2035?” The following visioning sessions focused on modal changes for the future. The second session asked about the vision for Transit, Rail and Air in 2035. The third session focused on the vision for bicycles and pedestrians, while the fourth examined the vision for streets, highways, and freight.

A variety of answers were received for the questions and the full results can be seen in Appendix A, but the answers could be categorized into several themes:

- Regionalism, Partnerships, and Cooperation
- Multimodality and Interconnectivity
- Higher Density/Smart Growth/Efficient Land Use
- Bus Transit Expansion
- Bicycle/Pedestrian
- Corridor Maintenance and Preservation
- Passenger Rail
- Education
- Benchmark Cities

The results were summarized for the attendees before adjourning the workshop and the results carried forward into the information presented at the public input meetings.

Springfield Strategic Plan Process

The Springfield Strategic Plan update was a regional process, though the end product made recommendations for the City of Springfield. OTO was staff for the Transportation Committee for the Strategic Plan. There were over committee members who represented a variety of interests and covered a geography larger than the City of Springfield. The Transportation Committee met 13 times, not counting additional subcommittee meetings. Over 1200 volunteer hours were put into this effort. The Strategic Plan Committee participated in the initial planning workshop with the public officials. This joint public input provided direction for Journey 2035.

Public Input Meetings

In 2010, OTO held six public input meetings around the region. At each meeting, the public had the opportunity to review current trends, ask questions, complete a survey, and comment on what they would like to see in the future for the region. These meetings were advertised in a variety of ways. The OTO website and calendar listed each public input meeting. A press release was sent out ahead of each meeting. The meetings were also advertised in the Community Free Press and the Springfield News-Leader. The News-Leader package included online advertising as well. OTO also took advantage of the many online community calendars, and posted the meetings on those sites as well.

Figure 3 - Calendar Showing Meeting Dates



June 1, 4:30 to 6:30 p.m. – Strafford City Hall

June 4, 4:30 to 6:30 p.m. – Springfield's Downtown Farmer's Market

June 8, 4:30 to 6:30 p.m. – Ozark Community Center

June 10, 4:30 to 6:30 p.m. – Republic High School

June 15, 4:30 to 6:30 p.m. – Nixa City Hall

June 17, 4:15 to 6:15 p.m. – Willard Community Center

Almost 60 separate individuals attended the public input meetings. Though the meetings were held in different areas of the region, many comments at each meeting addressed transportation issues for the whole region, in addition to those community-specific concerns. Input addressed every type of transportation issue this region faces. The public requested road improvements, enhancements to the bus service, bicycle improvements, sidewalks and trail connections, and both freight and passenger rail changes. A list of the specific comments can be found in Appendix B.

Public Input Survey

A survey was available for completion by the public at the public meetings as well. The survey was then made available on the web and at community events for further public input.

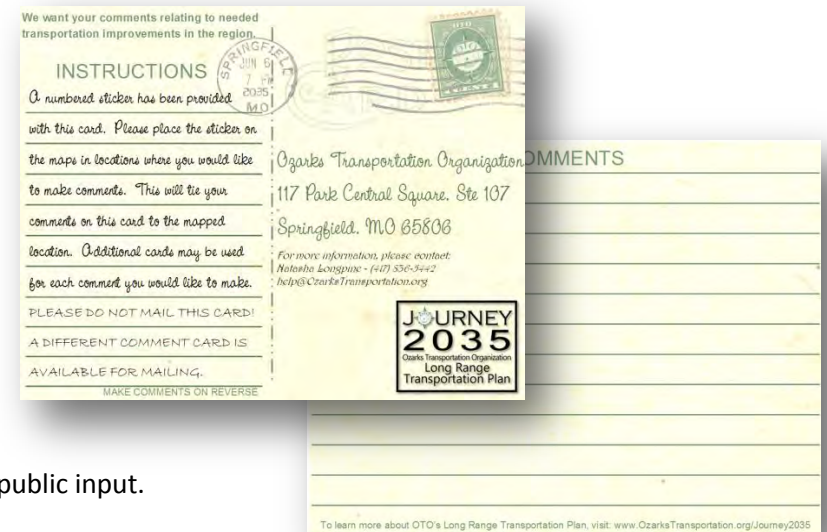
Results show that respondents believe traffic congestion is currently a problem in the community and that will continue for the next 10 and 20 years. The majority think that the existing transportation system does not meet the needs of all citizens. This is for a variety of reasons, including the aging population, the need for mass transit, more public transportation for those who can't drive, the need for a user friendly transportation system, traffic congestion, the region is growing faster than road improvements can be made, problematic railroad crossing, and other similar comments.

The public listed the top five measures for improving mobility as Widening Existing Roads first, Building New Roads, Increasing Bus Service, Adding Pedestrian Facilities, and Adding Bicycle Facilities fifth. This was out of a list of 10 options. The original survey and results can be seen in Appendix C. The public thought government officials should consider Congestion, the Efficiency of the System, and Safety over all else when making transportation decisions. Three changes the public would make regarding transportation in the region include Improving Roadway Design, Adding/Improving the Sidewalk Network, and Adding/Improving Bike Paths.

Long Range Transportation Plan Subcommittee Meetings

The Long Range Transportation Plan Subcommittee is comprised of OTO Technical Planning Committee members. The Subcommittee started meeting in September of 2010 and has been responsible for establishing the Plan Goals and Objectives, the Prioritization Criteria, and project submissions. Each of these items will be addressed in their respective Chapters.

Figure 4 - Comment Cards at Meetings



Bicycle Pedestrian Advisory Committee

The bicycle and pedestrian recommendations of the plan have been developed through the OTO Bicycle and Pedestrian Advisory Committee. The Committee has set additional bike/ped goals for Journey 2035, developed a process for tracking and prioritizing bicycle and pedestrian projects, and redesigned the bike/ped plan map.

Major Thoroughfare Plan Subcommittee Meetings

The Major Thoroughfare Subcommittee met and took public comment two times to specifically discuss the extension of East Republic Road. This then became part of a larger discussion on all necessary changes to the Major Thoroughfare Plan which was further discussed at another two meetings. The recommended changes will be discussed in the Streets and Highways Chapter. Public comment for changes to the Major Thoroughfare Plan was accepted at the Multicultural Festival on January 17, 2011, where OTO had a booth. Further comment was taken at the Public Hearings for the entirety of Journey 2035.

The Subcommittee meetings were well attended by the public, though spoken comment was given only regarding the extension of East Republic Road. No comments regarding the Major Thoroughfare Plan were received at the Multicultural Festival, although general public input was received regarding the transportation system. This information will be covered under the public comments and public input survey.

City Utilities Transit Fixed Route Advisory Committee

OTO staff met with the Fixed Route Advisory Committee at City Utilities Transit to further develop input on the transit system in its current form, as well as to gain insight for the future of transit in the region. Details from this meeting will be discussed in the Transit Chapter.

Public Hearings for Comment on the Plan

Public Hearings were scheduled in September and October of 2011 to gather comments on the final plan document. A public hearing was included as part of the regular OTO Board of Directors meeting on October 20, 2011. The meetings were advertised

Figure 5 - Advertisement for Public Hearings

Public Comment Meetings
See and comment on the recommendations in the
OTO Long Range Transportation Plan
Read the Plan!
www.OzarksTransportation.org

Sept. 22, 5pm to 7pm	Ozark Community Center 1530 W. Jackson
Sept 26, 5pm to 7pm	Springfield Library Station 2535 N. Kansas Expressway
Sept. 27, 5pm to 7pm	Strafford City Hall 126 S. Washington
Sept. 29, 5pm to 7pm	Republic Fire Station #1 701 US Hwy 60 East
Oct. 1, 10am to 12pm	Springfield Library Center 4653 S. Campbell Ave.
Oct. 3, 5pm to 7pm	Battlefield Community Room 5434 S. Tower Drive
Oct. 4, 5pm to 7pm	Willard Community Center 220 W. Jackson
Oct. 6, 5pm to 7pm	Nixa City Hall 715 W. Mount Vernon

OTO receives federal funding and may not discriminate against anyone on the basis of race, color, sex, creed, or national origin. For additional information or for special accommodations visit www.OzarksTransportation.org or call (417) 836-5442.

through several area newspapers, including the Christian County Headliner, Community Free Press, Marshfield Mailer, Nixa Xpress, Republic Monitor, and the Springfield News-Leader.

During the meetings, OTO staff provided comment cards, as well as kept track of verbal comments expressed by attendees. Each meeting consisted of a projected presentation and display boards highlighting the Plan and its recommendations. The meetings were held in an open house format that allowed the public time to visit on their own schedules and ask questions of staff as they had them. The specific comments received are listed in Appendix D.

Comments that were received during the public meetings have been shared with the Technical Planning Committee and the Board of Directors, as well as agencies that might also be impacted by the comments. Several comments are already addressed by the Plan or other OTO activities. Those comments pertaining to specific projects will be reviewed again as those projects move forward.

Figure 6 - At the Public Hearing in Ozark



Chapter 3 – Regional Trends and Existing Conditions

At the advent of the prior Long Range Transportation Plan, Journey 2030, the U.S. Census Bureau had finished releasing the 2000 data and was just beginning the American Community Survey. The OTO boundary had expanded to include seven additional jurisdictions beyond Springfield and Greene County, now encompassing Battlefield, Republic, Strafford, and Willard in Greene County, plus the northern portion of Christian County, including Nixa and Ozark. Now the 2010 Census is just starting to release numbers and the American Community Survey has just released its 2005-2009 data. As the new Census data and revised urbanized areas have not yet been released, OTO will not have any boundary changes reflected in this plan.

Population Trends and Analysis

The OTO region experienced significant growth from 1990 to 2000. The trend continued from 2000 to 2010. Portions of the OTO region grew faster than even the estimates projected.

Since 2000, in terms of total population, unincorporated Greene County added the most people, with the City of Ozark and then the City of Springfield following. Comparing rates of growth, since 2000, the City of Battlefield grew the fastest, with the City of Ozark and then the City of Republic following. The City of Springfield, as the region's largest city, has continued to grow steadily, and has added nearly 20,000 people since 1990. Overall, the OTO region has grown over 20 percent since the year 2000, and accounts for 13 percent of the State of Missouri's overall growth, while only accounting for only 5 percent of Missouri's population.

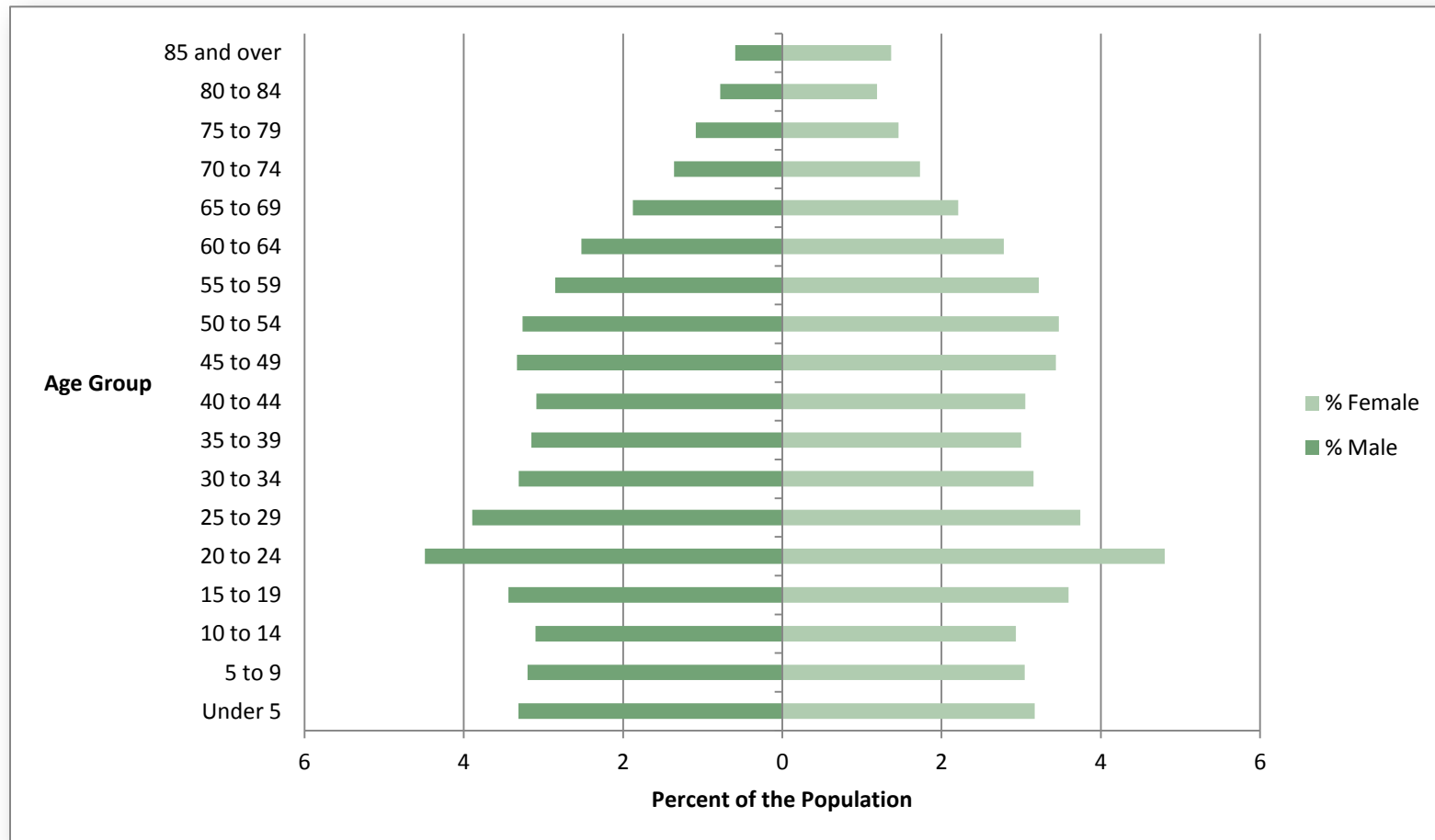
Table 2 - Total Population, 1990-2010

Source: U.S. Census Bureau – 1990 STF1, 2000 SF1, 2010 SF1

Jurisdiction	1990	2000	2010	1990-2000	2000-2010	1990-2010
Christian (All)	32,644	54,285	77,422	66.29%	42.62%	137.17%
Christian (MPO)	--	14,049	16,196	--	15.28%	--
Greene (All)	207,949	240,391	275,174	15.60%	14.47%	32.33%
Greene (MPO)	--	54,459	68,934	--	26.58%	--
Battlefield	1,526	2,385	5,590	56.29%	134.38%	266.32%
Fremont Hills	201	597	826	197.01%	38.36%	310.95%
Nixa	4,707	12,124	19,022	157.57%	56.90%	304.12%
Ozark	4,243	9,665	17,820	127.79%	84.38%	319.99%
Republic	6,292	8,438	14,751	34.11%	74.82%	134.44%
Springfield	140,494	151,580	159,498	7.89%	5.22%	13.53%
Strafford	1,166	1,845	2,358	58.23%	27.80%	102.23%
Willard	2,177	3,193	5,288	46.67%	65.61%	142.90%
OTO Region	--	258,335	310,283	--	20.11%	--

Figure 7 - OTO 2012 Population by Sex by Age

Source: U.S. Census Bureau – 2010 SF1 Table P12



The OTO region has a mix of ages in its population distribution. There is a higher percentage of persons aged 15 to 29 years, but this is likely related to the numerous institutions of higher education. There is also a higher percentage of persons aged 45 to 59 years. This would be consistent with the “baby boomer” generation. Over the age of 75, females tend to outnumber the males. Otherwise the male to female distribution appears to be even.

The largest concentrations of population in the OTO region are within the City of Springfield, with additional pockets within the City of Republic, and along US 160 South. The densest areas are in immediate downtown Springfield, the area surrounding downtown Springfield, an area between Kearney and Division, and then along either side of Battlefield Road from Kansas Expressway to National.

Figure 9 - 2000-2010 Springfield MSA Population Change by US Census Block
Source: US Census Bureau – 2000 SF1, 2010 SF1

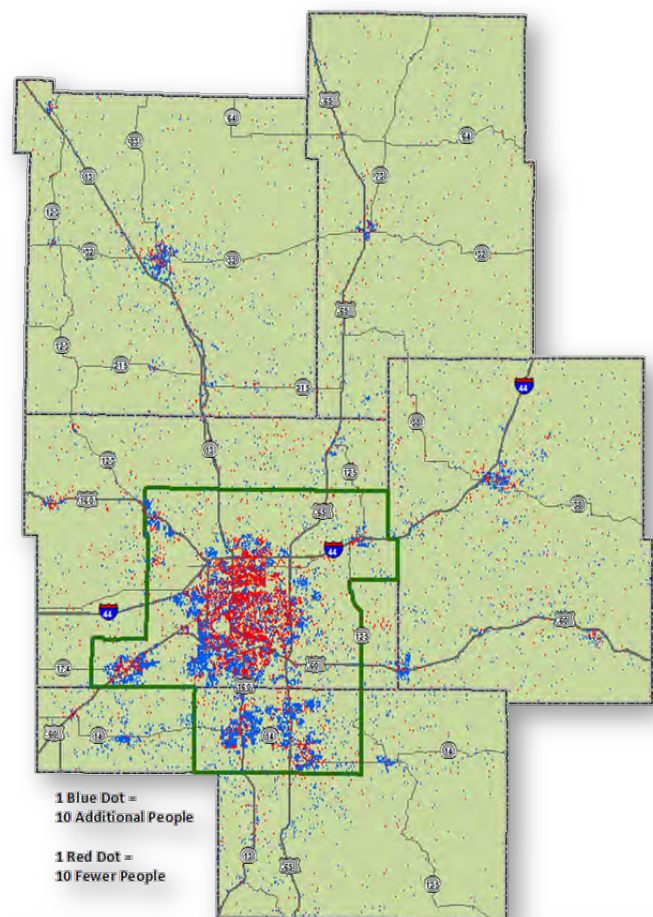
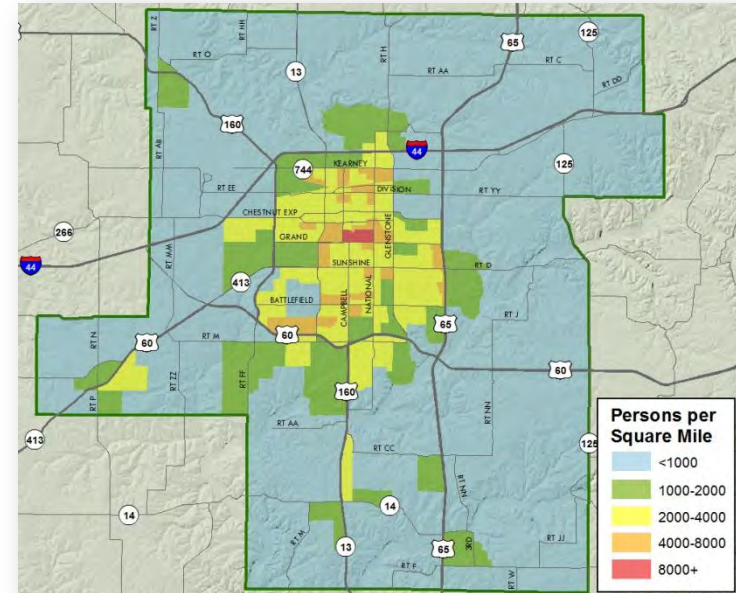


Figure 8 - 2010 Population Density by Census Block Group

Source: TIGER/Line Shapefile, 2010, Missouri, 2010 Census Block Group State-based



As demonstrated in this map, most of the OTO jurisdictions have lost population in their urban center, while urban edges and suburban/rural areas have gained population. The greatest population gains appear to be in southern Springfield, especially in the southwest, as well as the Christian County portion of the MPO, mostly in the areas surrounding Nixa and Ozark. This map also makes it evident that the population concentrations in the Springfield MSA are still within the OTO boundaries.

The youngest members of the OTO population live the furthest away from Springfield's downtown core. When mapping persons under the age of 18, the

OTO's population is youngest in Battlefield, Nixa, Ozark, Republic, Strafford, and Willard, as well as the area surrounding the Springfield-Branson National airport.

Those block groups with the most elderly populations are in southeast Springfield, with additional concentrations in north-central Greene County.

Figure 10 - 2010 Persons over the Age of 65 by Block Group

Source: US Census Bureau – 2010 SF1, Table P12

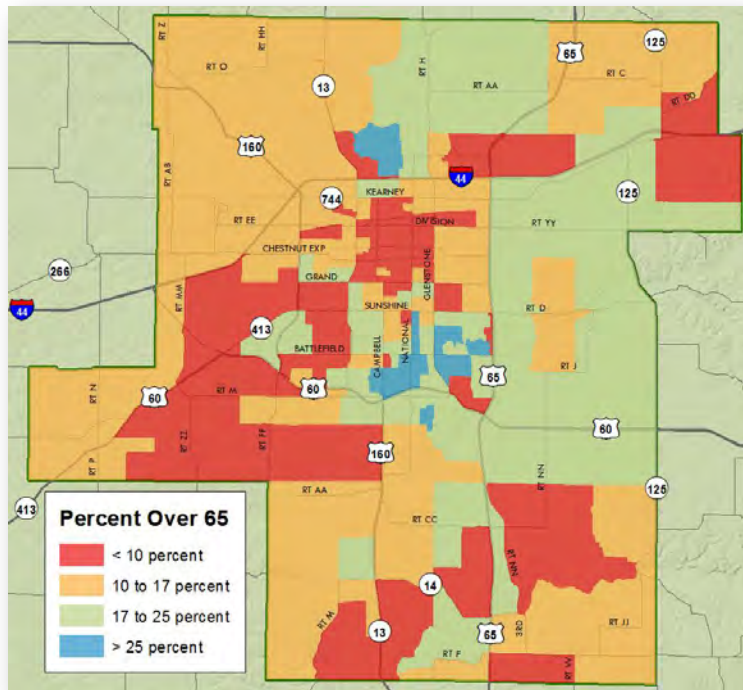
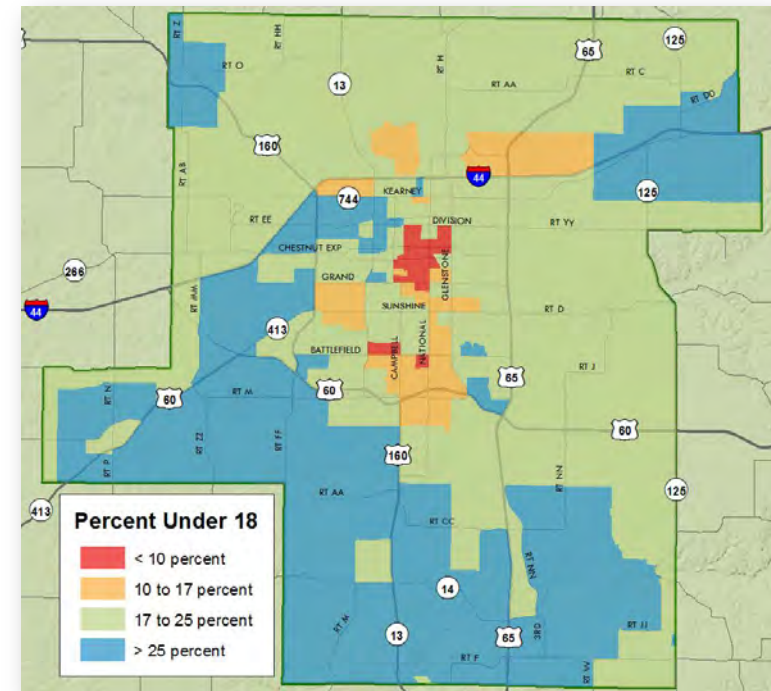


Figure 11 - 2010 Persons under the Age of 18 by Block Group

Source: US Census Bureau – 2010 SF1, Table P12



The largest concentrations of minority persons in the OTO region are in the area surrounding downtown Springfield, with additional concentrations to the immediate north and general southwest.

Figure 13 - 2010 Hispanic Persons by Block Group
Source: US Census Bureau – 2010 SF1, Table P5

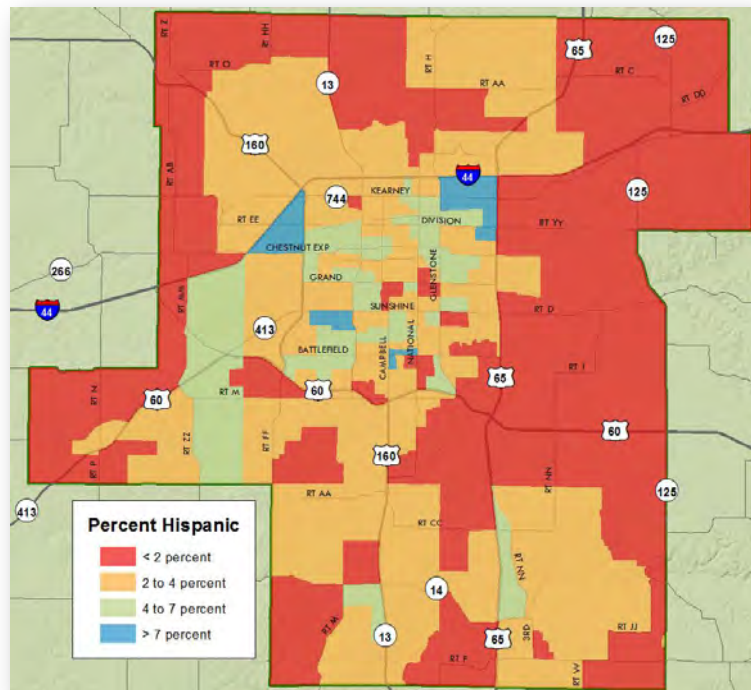
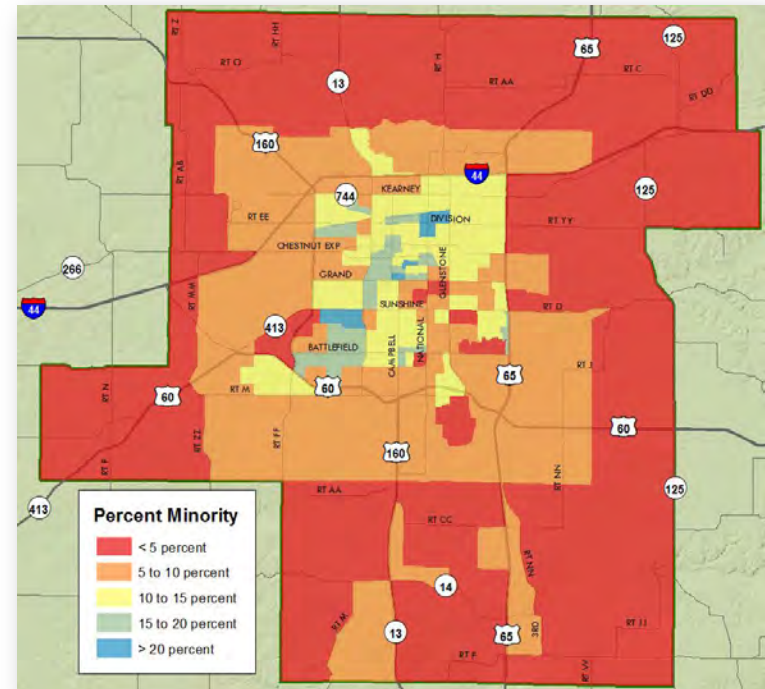


Figure 12 - 2010 Minority Persons by Block Group (Not Including Hispanics)
Source: US Census Bureau - 2010 SF1, Table P3



Hispanic persons are largely concentrated in northwest and northeast Springfield, with some additional concentrations to the central-south.

The disabled population is concentrated in Springfield with the majority of disabled persons between the ages of 35 to 64. An additional concentration can be found over the age of 75. In Christian County, a larger percentage of the population between the ages of 65 and 74, as well as the population over the age of 75, is disabled when compared to Springfield or Greene County. This data represents all of Christian and

Table 3 - 2009 Disabled Population for Christian and Greene Counties

Source: US Census Bureau – 2009 American Community Survey, Table B18101

2009 Disabled Population	Christian		Greene		Springfield	
	Number	Percent	Number	Percent	Number	Percent
TOTAL Sample Population	77,409	100	264,419	100	153,186	100
Under 5 years	0	0	156	.06	0	0
5 to 17 years	708	0.91	3,417	1.29	1,537	1.00
18 to 34 years	1,422	1.84	4,820	1.82	3,581	2.34
35 to 64 years	3,568	4.61	15,231	5.76	10,482	6.84
65 to 74 years	1,983	2.56	4,634	1.65	2,903	1.90
<i>Percent of 65 to 74 disabled</i>	5,462	36.31	18,478	23.62	10,335	28.09
Over 75 years	2,173	2.81	6,934	2.62	4,739	3.09
<i>Percent of over 75 disabled</i>	3,762	57.76	16,568	41.85	11,231	42.20
TOTAL Disabled	9,854	12.73	34,922	13.21	23,242	15.17

Greene Counties, beyond the OTO boundaries. Due to a modification in questions relating to disability in the American Community Survey, this information is not available at any additional geography levels.

Income

Central and west Springfield have the largest concentrations of people below the poverty level. Northwest Springfield, toward Willard, and southern Ozark also have populations with higher than average concentrations of people below the poverty level. The areas immediately surrounding Springfield have the lowest percentages of people below the poverty level.

Households that have no vehicles are most common in Springfield, but higher numbers can also be found in Republic and Ozark. In Springfield, the area north of Grand in the downtown, west Division, and along 13 north of I-44 all have concentrations of households without a vehicle. Generally, these households tend to follow the corridors of major streets, which is probably tied to transit access.

Figure 14 - 2009 Persons below Poverty Level by Tract

Source: US Census Bureau – 2009 American Community Survey, Table B17001

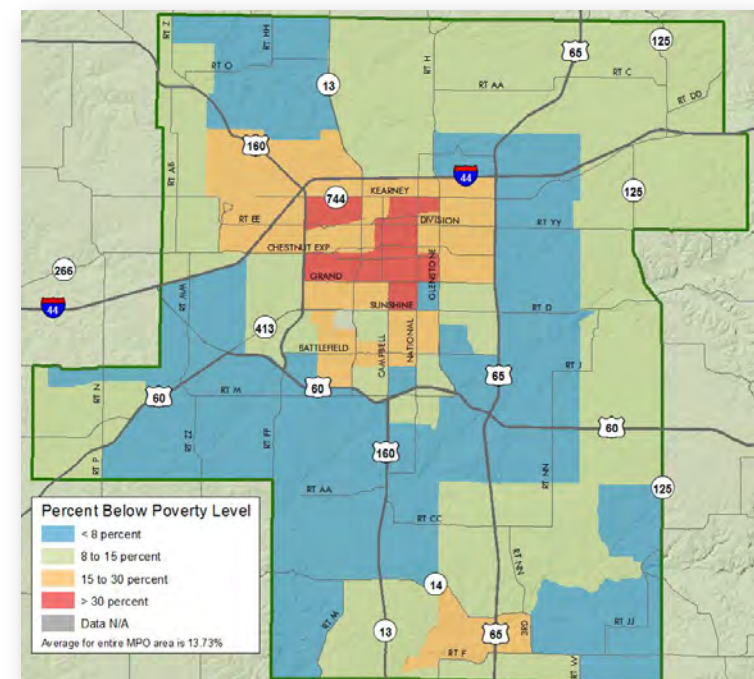
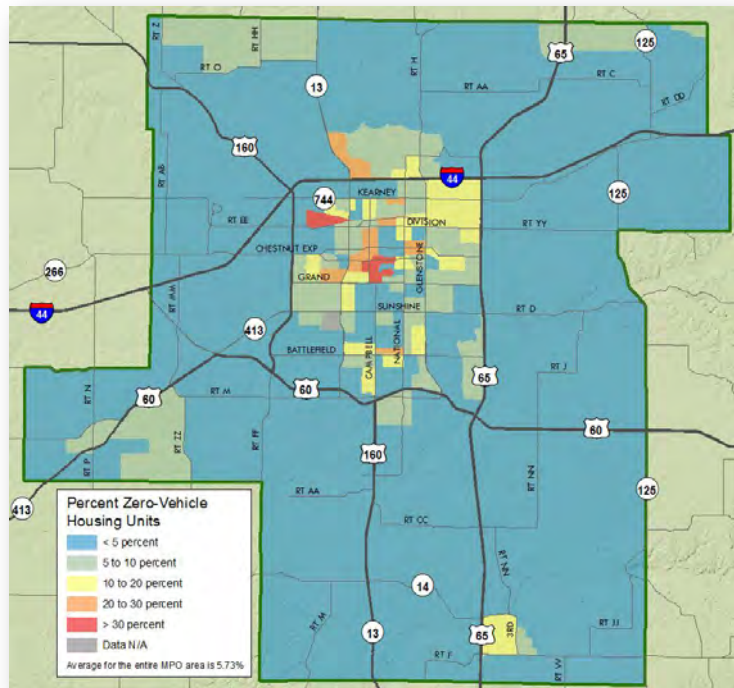


Figure 15 - 2005-2009 Percentage of Zero Car Households

Source: US Census Bureau – 2005-2009 American Community Survey, Table B25044



Employment

According to the Longitudinal Employer-Household Dynamics data from the U.S. Census Bureau, the OTO area had 161,231 jobs in 2009. The majority of jobs were held by those aged 30 to 54 at 54.9 percent. The majority of jobs were also in the Health Care and Retail sectors. Though each jurisdiction in the OTO area has a concentration of jobs, the majority are in Springfield along the National and Glenstone corridors.

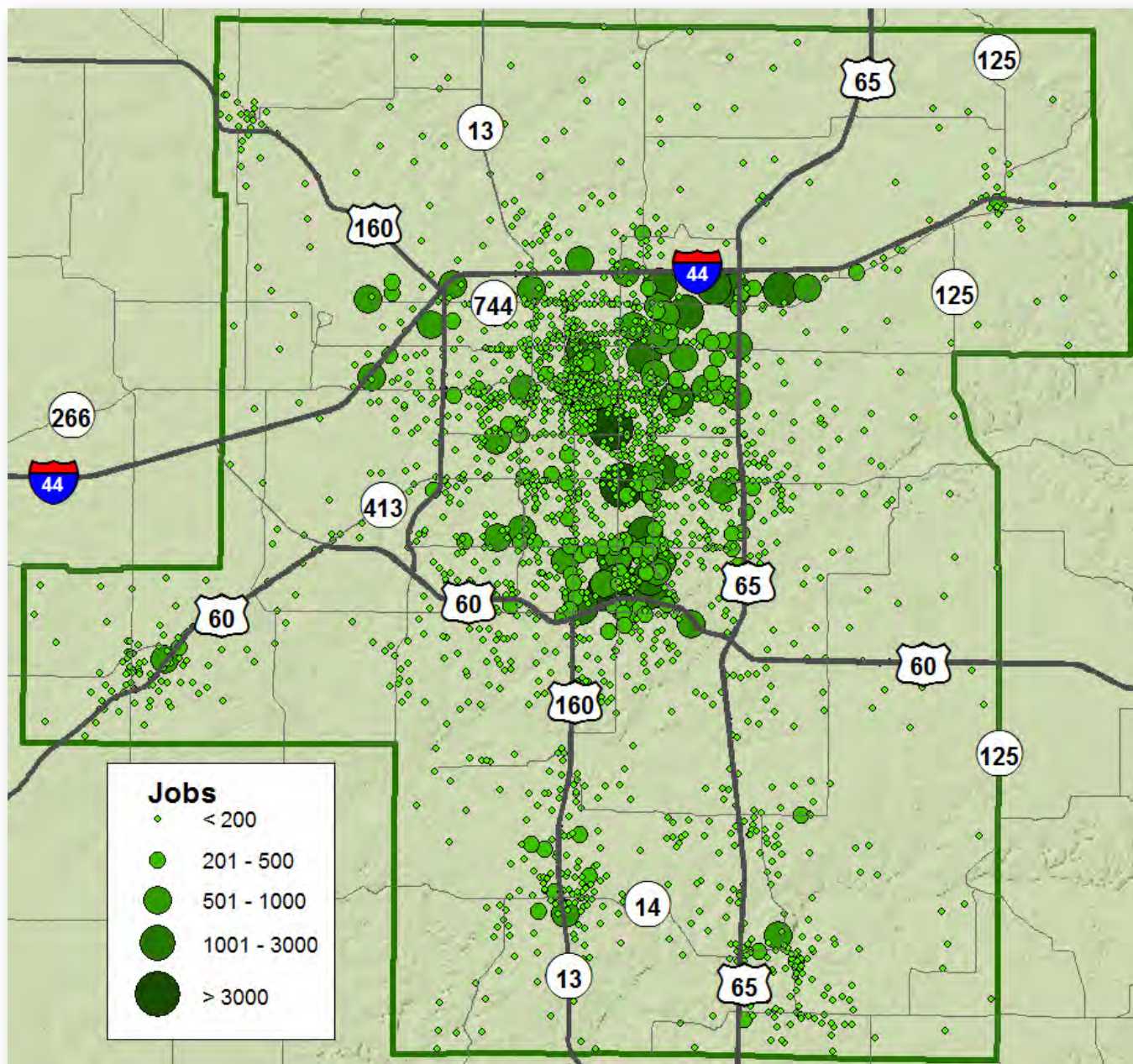
Table 4 - 2009 OTO Employment by Sector

Source: US Census Bureau – 2009 Longitudinal Employer-Household Dynamics

Employment Sectors	2009	
	Count	Share
Agriculture, Forestry, Fishing and Hunting	625	0.4%
Mining, Quarrying, and Oil and Gas Extraction	182	0.1%
Utilities	1,334	0.8%
Construction	6,060	3.8%
Manufacturing	13,056	8.1%
Wholesale Trade	8,269	5.1%
Retail Trade	21,431	13.3%
Transportation and Warehousing	7,374	4.6%
Information	3,098	1.9%
Finance and Insurance	6,913	4.3%
Real Estate and Rental and Leasing	2,717	1.7%
Professional, Scientific, and Technical Services	5,281	3.3%
Management of Companies and Enterprises	3,624	2.2%
Administration & Support, Waste Management and Remediation	8,213	5.1%
Educational Services	13,257	8.2%
Health Care and Social Assistance	29,161	18.1%
Arts, Entertainment, and Recreation	3,426	2.1%
Accommodation and Food Services	17,555	10.9%
Other Services (excluding Public Administration)	5,618	3.5%
Public Administration	4,037	2.5%

Figure 16 - 2009 Jobs in the OTO Area

Source: US Census Bureau – 2009 Longitudinal Employer-Household Dynamics



Summary

Population growth is over 20 percent between 2000 and 2010. Jurisdictions within the OTO have achieved record growth similar to that seen between 1990 and 2000. Southwest Missouri is still one of the fastest growing areas in Missouri and nationwide. Over one-third (36 percent) of the OTO population is either under 18 (22.4 percent) or over the age of 65 (13.6 percent). More than 10 percent of the population is disabled. In Springfield, more than 15 percent are disabled. Almost 15 percent of the population is under the poverty level and almost 10 percent of the OTO population is considered minority. The population is growing most outside of Springfield, and yet that is where the majority of jobs are located. Though not growing as fast as the population, congestion continues to increase throughout the region as well.

The diversity of the OTO population demonstrates the need for transportation options for every age group. This is especially true by 2035. The “baby boomer” generation, which is currently a large percentage of the OTO population, will be almost 25 years older, aging between 69 and 83. The elderly have unique transportation needs. This has implications both for the driving population and those who need another form of transportation, whether it be transit or walking.

Transportation System (Network) Performance

Congestion

The OTO uses the Congestion Management Process (CMP) to monitor the system and to evaluate the success of projects aimed at reducing congestion. The CMP is a systematic approach to addressing congestion within the OTO planning area. The process was developed through a collaborative effort involving area jurisdictions and technical experts. The intent of the CMP is to improve the efficiency and effectiveness of both the existing system and future transportation system through the implementation of Transportation System Management, which includes Intelligent Transportation Systems (ITS) and Travel Demand Management (TDM) techniques.

Phase I identified the CMP system, which includes those roadways which are part of the National Highway System. Phase II of the CMP identified locations where congestion is occurring or is expected to occur over the next 20 years. Phase III added several arterial roads to the network, including Battlefield and National, as well as developed a monitoring program to determine effectiveness of the strategies included in Phase II.

Congestion Monitoring Indicators

The following four measures are the indicators OTO uses to monitor congestion in the region. Phase III reviewed 2008 data and compared that with the state of the system in 2005. This analysis highlights the current needs of the roadway network within the OTO region.

Volume-to-Capacity Ratio

- Since 2005, much of the freeway system is experiencing a decrease in traffic volume, consistent with nationwide vehicle miles traveled data. Also, traffic moving between Christian and Greene County is decreasing, as are traffic volumes on National Avenue and Chestnut Expressway (Loop 44, Business 65). The following routes, however, are experiencing an increase in traffic – West Bypass (Route 160), Kansas Expressway (Route 13), Glenstone Avenue (route H, Loop 44, Business 65), Route 60 from Springfield to Republic, and Route 13 north of Springfield.

Accident Rates

- A segment of road is considered to have a high accident rate if the three-year average accident rate for that segment exceeds 150 percent of the area's average accident rate. Locations with high accident rates include –
 - Chestnut Expressway (Loop 44) from Kansas Expressway (Route 13) to National Avenue
 - Kansas Expressway (Route 13) from Sunshine Street (Route 413) to Chestnut Expressway (Loop 44)
 - James River Freeway (Route 60) from Kansas Expressway (Route 13) to Campbell Avenue (Route 160)
 - Glenstone Avenue (Business 65) from Sunshine Street (Route D) to Battlefield Road

- Route CC west of Route 65
- Route 14 west of Route 65
- Route 65 from I-44 to Kearney Street (Route 744)- likely due to the reconstructed interchange at I-44 and Route 65
- Accident rates improved at the following locations –
 - Kearney Street (Route 744) from Glenstone Avenue (Loop 44) to National Avenue
 - Glenstone Avenue (Loop 44) from Division Street to Chestnut Expressway (Loop 44, Business 65)
 - Sunshine Street (Route D) from Glenstone Avenue (Business 65) to Route 65
 - James River Freeway (Route 60) from National Avenue to Glenstone Avenue (Business 65)

Average Travel Speed

- Travel time runs are used to determine the average speed of travel along roadway segments. Specifically, segments with an average speed of more than 20 mph below the speed limit have been identified. The freeway system did not have any points of significant delay identified. The majority of the expressway and arterial system, however, did consistently have segments with significant delay. More importantly, the overall speed of the system appears to have slowed compared to 2005.

Intersection Level of Service

- Intersection level of service (LOS) is a function of delay. Intersections are graded on a scale of A through F, with a LOS A being better than a LOS F. The longer traffic is delayed at a particular intersection, the worse the LOS would be for that intersection. Historically, not as much data has been available for level of service. In 2008, many more intersections were analyzed. Though it is difficult to establish a trend without the prior year data, some intersections did stand out. Most of the intersections with a LOS F occurred at interchanges with the freeway system, though Glenstone and Sunshine also had some intersections with LOS F.

Congested Facilities

By putting all of this data together, several congested facilities can be identified. The first map shows roadways which have a significant travel delay, LOS E or greater, and a high accident rate. The second shows roadways which have significant travel delay, LOS E or greater, and intersection LOS E or greater. Glenstone shows significant congestion, as does Sunshine, Battlefield, and James River Freeway. Chestnut Expressway, Highway 14, and US 160 South also show significant levels of congestion. The primary arterials are more congested than the freeways.

Figure 17 - 2008 Congested Facilities
Source: Ozarks Transportation Organization

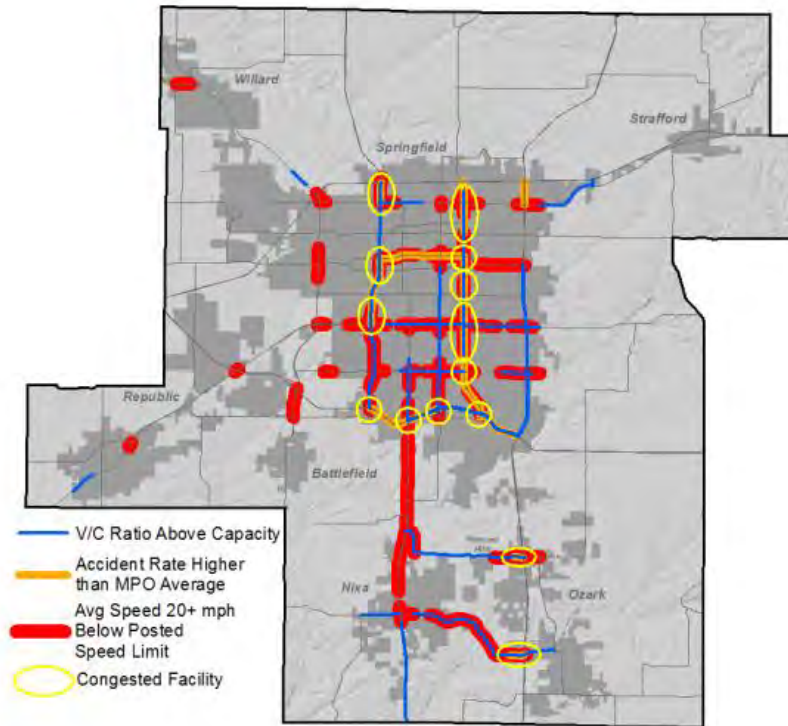


Figure 18 - 2008 Congested Facilities
Source: Ozarks Transportation Organization

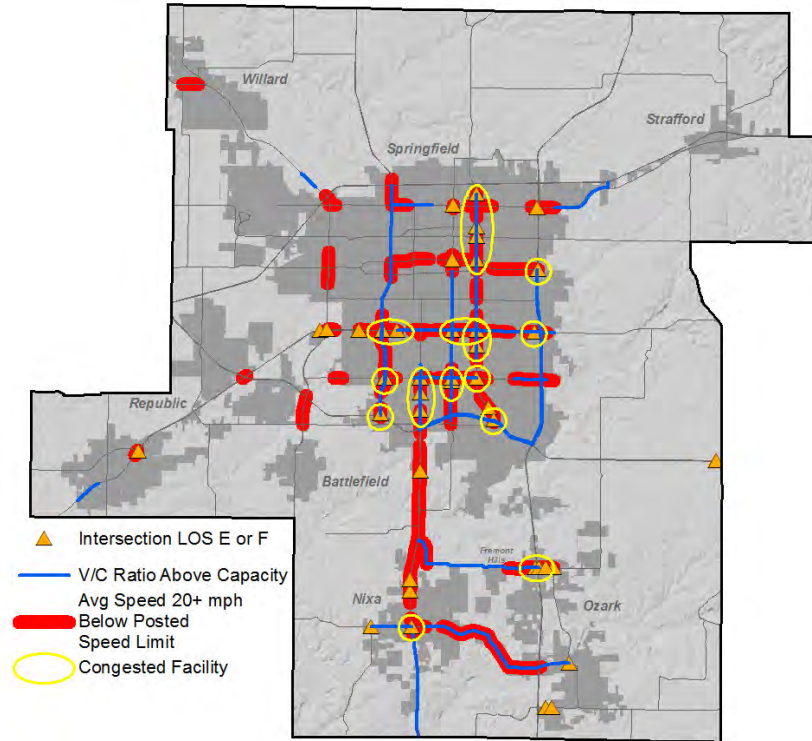


Table 5 - 2005-2009 OTO Mode Share
Source: 2005-2009 American Community Survey, Table B08301

Mode	Percent Share 2005-2009
Car, Truck, or Van	
Drove Alone	81.67
Carpooled	9.64
Public Transportation	0.82
Bicycle	0.48
Walked	2.83
Worked at Home	3.61

Bicycle and Pedestrian Networks

The region has a robust bicycle and pedestrian network. Over 30 percent (762 miles) of the roadways within the OTO area have sidewalks on at least one side of the road. There are over 52 miles of completed greenways. The City of Springfield has striped 3.2 miles of bike lanes and counting. There are 57 miles of designated and signed bike routes. Missouri State University maintains 1.3 miles of bikeways in addition to these routes. The Completed System Map shows where improvements have been made.

Even with these improvements, a small number of people bicycle or walk as a means of transportation to work, per the American Community Survey.

Table 6 - City of Springfield Bicycle Crashes

Source: City of Springfield

Year	Number of Bicycle Crashes	Non-Injury	Injury	Fatal
2003	41	11	30	0
2004	41	6	34	1
2005	50	10	39	1
2006	47	10	36	1
2007	50	12	37	1
2008	71	20	51	0
2009	59	9	49	1
2010	54	13	41	0

Bicycle crashes are currently monitored in the City of Springfield. These are classified by severity and location. Crashes with motor vehicles peaked in 2008, with reductions in 2009 and 2010. The majority of crashes occurred on primary arterials, as well as secondary arterials. Signed-bike routes are not exempt from crash statistics either. The highest numbers of crashes on signed-bike routes occurred in 2008, 2009, and 2010. As these numbers represent crashes with motor vehicles, most were injury crashes. Of the five years that experienced a fatality, there was just one per year. In 2008, the peak year, there were also more than usual non-injury crashes. In 2008 and 2009, the number of injury crashes was similar, with reductions seen in 2010. Though these numbers are for the City of Springfield, the opportunities for similar crashes exist throughout the region.

Table 8 - CU Transit Ridership

Source: Springfield City Utilities

Year	CU Ridership	Percent Change
2010	1,406,547	-4.68
2009	1,475,617	-7.73
2008	1,599,278	-21.89
2007	2,047,496	7.54
2006	1,903,926	14.74
2005	1,659,279	7.38
2004	1,545,267	0.39
2003	1,539,264	1.96
2002	1,509,686	-0.39
2001	1,515,611	4.36
2000	1,452,365	9.24

Pedestrian crashes are also monitored in the City of Springfield. A higher number of pedestrian crashes with motor vehicles occurred in 2009 as well. The majority of these took place on primary arterials, though Collector and Local roadways have had a moderate number of crashes as well.

Transit

City Utilities transit ridership rose steadily from 2000 to a peak in 2007. Ridership decreased every year from 2007 to 2010. Several reasons exist for this. The decrease in ridership from 2007 was caused by the fare increases that went into place in FY 2008, 2009, and 2010. CU also saw a dramatic increase in the usage of daily passes, since it was now more economical to purchase a weekly pass instead of the daily pass. In 2007, the daily pass was only twice the adult fare and now it is three times or \$3.75 and the weekly unlimited ride pass is only \$13.00. The downturn in the economy has also had a negative effect on ridership. This is evident, not only in Springfield, but across the nation.

Table 7 - City of Springfield Pedestrian Crashes

Source: City of Springfield

Year	Number of Pedestrian Crashes	Non-Injury	Injury	Fatal
2003	47	4	41	2
2004	52	7	42	3
2005	46	6	38	2
2006	50	4	42	4
2007	47	8	37	2
2008	53	2	50	1
2009	56	4	52	0
2010	49	8	37	4

Funding Trends

The current funding climate is unknown. OTO and the region are operating under continuing resolutions from the federal government regarding surface transportation authorization. The ability of the State of Missouri and local jurisdictions to match federal funding is also in question. These are short-term considerations that impact how OTO projects its funding for the long term.

MoDOT considers transportation funding projections to be unstable for the next five years. Cost saving measures have been put in place, which should help MoDOT better match available federal funding. Due to funding concerns, many projects funded by the state are maintenance or taking care of the system. Though MoDOT, in the near future, may not have as much funding available as in years past, this focus on taking care of the existing system will help preserve the gains made over the past five years in improving the quality of Missouri's roadways.

For OTO and its member jurisdictions, funding concerns also relate to the ability to match federal funds. As communities are able to recover from the economic slowdown, this should become less of an issue. Additional federal dollars do remain available at the local level through the SAFETEA-LU continuing resolutions. A new surface transportation authorization bill could impact how funding is delivered to the OTO region, but how is yet unknown.

Summary

The effectiveness and efficiency of the transportation system impacts not only those driving within the system, but the costs of goods and services dependent upon the system.

Vehicle miles traveled has reduced over the past few years. Coupled with the economic slowdown and higher rates of unemployment, fewer people are driving, turning to alternative modes for their transportation.

OTO should continue to be prepared to match federal dollars for local transportation projects, but projects in partnership with MoDOT may require additional cost shares from the local level.

Chapter 4 – Goals and Performance Measures

Goals

The Goals outlined here have been developed through a regional process of public input and review. As the foundation of this Plan, these goals guide the policies and recommendations contained within. From the project prioritization process to performance measures, these Goals shape the future this plan puts forth. These goals were developed from the public input received during the planning process. The Long Range Transportation Plan Subcommittee met, discussed the input, and agreed upon these goals. Care was also taken to ensure they align with the SAFETEA-LU planning factors and the Livability Principles.

Economic Development

Encourage economic growth and vitality for the region by providing transportation infrastructure and facilities that ensure opportunities for future economic development and promote desired growth.

Multi-Modal, Interconnected System

The OTO should work within the region to develop, implement, and maintain a multi-modal transportation system that supports jobs, housing, education, accessibility, recreation, clean air, water conservation and sustainability.

Quality of Life and Livability

The OTO should work to improve quality of life and livability by enhancing the effectiveness and aesthetics of the collective transportation system, improving the connectivity and accessibility of the street, pedestrian, and bicycle networks, promoting urban density and efficient development patterns, and increasing the efficiency and convenience of the existing public transit system.

Operations and Maintenance

The OTO should support the maintenance of streets, sidewalks, trails, transit, and the airport, using the most effective strategies to maximize the efficient operation of the existing systems, keeping in mind safety, accessibility, sustainability, and collaboration.

Safety and Security

The OTO should work within the region to ensure the safety and security of all users focusing on reductions in crash rates through engineering, education, enforcement and emergency response, as well as security improvements through incident management and partnerships with local and regional enforcement agencies and the public transit agency.

Transportation Advocacy and Needs Assessment

The transportation network should be monitored periodically, providing feedback for the support of the most comprehensive solution for transportation demand, safety, quality of life, economic development, availability of applicable funding, and the maximizing of beneficial returns on transportation investments.

Performance Measures

One of OTO's Major Goals in Journey 2035 is Transportation Advocacy and Needs Assessment. To meet this goal, OTO has identified eleven performance measures which can help to monitor the performance of the recommendations contained within the plan. The performance measures were developed through the LRTP Subcommittee. Key measures that had data available were selected based on their relevance to the Plan Goals. Accompanying each performance measure is a description, the associated Major Goal(s), and the current status of the measure. The recommendations found in this plan will help OTO meet these performance measures, as well as the broader goals which have been set for the region.

Table 9 - Summary of Performance Measures and Targets

Performance Measure	Target
Vehicle Miles Traveled per Capita	That VMT per Capita will grow no more than 5 percent from its peak in 2004, at a value of 19, by 2035. Growth should be captured in other modes
Modal Balance	Decrease "Drove Alone" to 75 percent for the region by 2035
Bicycle/Pedestrian Network Completion	If, on average, 4 miles of sidewalk are added each year within the OTO area, but no new roadways, by 2035, the total percent of roadways with sidewalks would be 33.5
Total Disabling Injury and Fatal Crashes per Million Vehicle Miles Traveled	That disabling injury and fatal crashes/MVMT will continue a downward trend as shown in the above graphic
On-Time Performance of Transit System	The CU service standard is 90 percent. The system will be considered to have acceptable on-time performance at this 90 percent level
Percent of Housing Units within ¼-mile of a Bus Route	That the percent of housing units within the CU Transit service area and the OTO area within ¼-mile of a bus route is on the upward trend between now and 2035
Average Commute Time	Keep the average commute time less than 25 minutes by 2035
Peak Travel Time	That less than 20 percent of the OTO area roadways will be severely delayed
Percent of Roadways in Good Condition	That 85 percent or more of the Major Roads in the OTO region are in Good condition
Bridge Condition	That the percent of bridges in fair or better condition will stay above 90 percent
Ozone Levels	That the region will be able to demonstrate transportation conformity for its plans, programs, and projects

1. Vehicle Miles Traveled per Capita

A lower value is better.

Description

Vehicle Miles Traveled (VMT) is the total number of miles driven by all vehicles within a given time period and geographic area. By comparing VMT to the number of persons in the region, OTO can gauge just how much VMT is changing in relation to the potential number of people driving. VMT is influenced both by the number of vehicles using the roadway system and the trip length of those vehicles, which increases with the geographic area that is urbanized.

Plan Goals Related to VMT per Capita

Economic Development

- The VMT trend is often an indicator of economic activity, however, once it has reached an optimal point, additional VMT can decrease economic activity. Those facilities, which were classified as congested in the most recent Congestion Management Process, are those arterial roadways with the most economic activity in the region. Strategies to reduce VMT often increase travel choice, which also means that these locations can benefit from reduced VMT with increased accessibility by other modes. Reduced VMT/capita results in reduced maintenance and operations expenses, which allows governmental entities to focus their resources on other ventures which can improve economic development activities.

Quality of Life and Livability

- VMT reductions can lead to decreased congestion and improved travel times for roadway users. Strategies to reduce VMT often increase travel choice. The ability to safely travel and avoid congestion, thereby decreasing travel time, increases the benefit available to residents and users of the system. Reduced VMT/capita can also mean less of the household budget is spent on transportation, allowing expenditures to go toward other needs or wants. Decreased congestion provides for decreased emissions from motor vehicles. Improved air quality has a positive impact on quality of life and livability. The goal to decrease VMT/capita is consistent with the livability principles put forth by the Environmental Protection Agency, the Department of Housing and Urban Development, and the Department of Transportation.

Operations and Maintenance

- Reductions in VMT/capita have a direct relationship to both operations and maintenance costs. Operations and maintenance costs can be lessened and additional improvements to the system may be delayed if VMT/capita is reduced.

Current Value/Trends

Table 10 - OTO Vehicle Miles Traveled per Capita

Source: Missouri Department of Transportation

Year	VTM	Population	VTM per Capita
2010	5,010,884	310,283	16.14
2009	4,969,336	*303,720	16.36
2008	5,063,022	*298,910	16.94
2007	5,185,837	*293,385	17.68
2006	5,115,547	*287,216	17.81
2005	4,904,027	*280,622	17.48
2004	4,946,098	*275,796	17.93
2003	4,630,231	*271,251	17.07
2002	4,540,996	*266,874	17.02
*Census Estimate			

Target

That VMT per Capita will grow no more than 5 percent, to a value of 19 from its peak in 2004, by 2035. Travel growth should be captured in other modes.

2. Modal Balance

A lower value is better for "Drive Alone," while a higher value is better other modes.

Description

Modal balance describes the varying proportions of mode choice at a given time. Modes can include walking, cycling, public transport, carpooling, and private motor vehicle, as well as taxicab, motorcycle, and no travel mode – as in working from home. As an indicator, modal balance provides information on how many types of users there are within the system. As a performance measure, modal balance shows the success of alternative forms of transportation. For this performance measure, OTO has decided to focus only on a certain subset of modes –

- Car, Truck, or Van – Drove Alone
- Car, Truck, or Van – Carpooled
- Public Transportation – All

- Bicycle
- Walked
- Worked at Home

This data is derived from the American Community Survey, which asks, “How did this person usually get to work last week?” Respondents are asked to mark the method they used most often if they used more than one mode of transportation during the trip. The American Community Survey collects data on a yearly basis, but on a smaller scale. To maintain reliability in the data in areas with smaller populations, yearly samples are aggregated over multiple years. This also limits the geography for which American Community Survey Data is available. For the OTO region, this data is offered at the County and Place level. In this analysis, the data for all of Christian and Greene Counties have been used, as the information was not available at just an MPO level.

Plan Goals Related to Modal Balance

Economic Development

- Modal choice can provide multiple economic benefits to the region. Alternative modes of transportation can result in job creation, time savings, emissions reductions, and increased labor force participation. All of these factors lead to increased investment within the region, allowing households to spend their money on something other than transportation. One study in Atlanta showed investments in transit allowed more money to stay in the local economy, where as automobile-related spending had greater “leakage” out of the area. Modal choice can have a direct impact on VMT in the region, also allowing for the earlier-listed benefits.

Multi-Modal, Interconnected System

- Modal balance demonstrates the success of a multi-modal interconnected system. Alternative modes of transportation often rely on each of the other modes for a complete trip within the system. The more connected each mode is to the other, the easier and more likely it is that an alternative mode will be used.

Quality of Life and Livability

- Travel choice is often included as one measure of quality of life and livability. Reduced congestion, emissions, and potential crashes, as well as improved aesthetics and function of local land use, will enhance the experience of both residents and visitors to the community. Bicycling, walking, and transit can provide safe ways for children to access school, especially when the infrastructure supports those modes. The U.S. Department of Transportation promotes bicycling and walking as family-friendly forms of transportation.

Operations and Maintenance

- Each non-driver trip reduces the size and weight footprint of the automobile on the roadway per person traveling, thereby freeing space for additional persons and lessening the operations and maintenance costs/person of those roadways. Reduced congestion allows for

more efficient operation of traffic in the region. The impacts of incidents or other forms of non-recurring delay, such as work zones, are mitigated by fewer vehicles on the roadway. Increasing infrastructure for additional modes, can create additional maintenance costs.

Safety and Security

- An increased presence by bicyclists and pedestrians within the transportation system can create a safer environment by those same users through their increased visibility. As users diversify within the system, additional planning, engineering, construction, education, and enforcement efforts should be put toward supporting those users.

Current Value/Trends

Data from 2005-2009 represents aggregated information provided by the US Census Bureau through the American Community Survey. Data is aggregated over multiple years to achieve a statistically significant sample.

Table 11 - 2005-2009 OTO Mode Share

Source: 2005-2009 American Community Survey, Table B08301

	Car, Truck, or Van				% Public Transportation		% Bicycle		% Walked		% Worked at Home	
	% Drove Alone		% Carpooled									
	2000	2005-2009	2000	2005-2009	2000	2005-2009	2000	2005-2009	2000	2005-2009	2000	2005-2009
TOTAL	81.90	81.67	10.56	9.64	0.81	0.82	0.37	0.48	2.48	2.83	3.13	3.61

	Blue cells show improvement
	Red cells show decline
	White cells show no change

Target

Decrease “Drove Alone” to 75 percent for the region by 2035.

3. Bicycle/Pedestrian Network Completion

A higher value is better.

Description

Using aerial photography and data from individual jurisdictions, OTO tracks where sidewalks exist within the OTO study area. This plan recommends sidewalks be located in residential, as well as commercial areas. This performance measure will compare the miles of roadway with sidewalk to the miles of roadway without and will not include roadways with a classification of Expressway or higher. The measure will not

distinguish between those roads with sidewalks on one side of the street versus both sides of the street. Sidewalks are usually added to existing roadways at a rate of just a few miles per year. Sidewalks should be included with construction of new roadways.

OTO has also identified the future trail network for the region. This performance measure will be assessed by the miles of completed trails. Only those trails used for transportation will be counted. The Frisco Highline Trail will only be counted to the Greene County northern boundary. Currently, 225 miles of trail are planned for the region.

Plan Goals Related to the Completion of the Bicycle/Pedestrian Network

Economic Development

- Sidewalks and trails are an amenity to the community. Not only do they enhance aesthetics and provide recreational opportunities, but they also provide accessible and efficient connections between neighborhoods, schools, public transportation, and commercial/office destinations. Sidewalks and trails promote travel choice and increase the opportunity for access to employment. Both sidewalks and trails can promote the use of public transportation by making it safer to reach bus stops. Areas that receive the attention and investment sidewalks, trails, and trail connections provide, will see an increase in economic activity and often, property values.

Multi-Modal, Interconnected System

- Streets, which incorporate sidewalks and are supplemented with a trail system, provide for a more complete and inter-connected transportation system. By providing connections within the community and to other forms of transportation, sidewalks and trails allow for use of the transportation system by a variety of users.

Quality of Life and Livability

- The same elements that enhance economic development add to the quality of life and livability of the region. Through improved safety, reduced congestion and emissions, and the ability to be active, sidewalks and trails can have a significant positive impact on the quality of life within an area. Sidewalks and trails provide a connection between geographic areas of a community, while fostering social connections and awareness.

Operations and Maintenance

- Sidewalks and trails add to the available travel choices to the public. This allows the public to avoid congestion, while increasing the capacity, thereby improving operations, of the transportation network. Walking and cycling can move many more people at a lower cost than driving.

Safety and Security

- Sidewalks and trails can provide a safe way for pedestrians and cyclists to travel. Children, seniors, and those who cannot afford to own a car must use walking, cycling, and transit to move about the community. Without appropriate accommodation along streets designed mainly for motor vehicles, walking and cycling can be a dangerous way to travel.

Current Value/Trends

Miles of Roadway* with Sidewalks – 762.96

Miles of Roadway* without Sidewalks – 1750.07

Total Miles of Roadway* – 2513.03

Total Percent of Roadways* with Sidewalks – 30.36

Miles of Existing Greenway Network – 52.03

**excluding Freeways, Freeway Ramps, and Expressways (per the OTO Major Thoroughfare Plan)*

Target

If, on average, 4 miles of sidewalk are added each year within the OTO area, but no new roadways, by 2035, the total percent of roadways with sidewalks would be 33.5.

- 1) That 35 percent of roadways have sidewalks, excluding those with Expressway classification or above.
- 2) That 80 miles of the trail network be completed by 2035.

4. Total Disabling Injury and Fatal Crashes per Million Vehicle Miles Traveled

A lower value is better.

Description

Crash rates are defined by crashes per Million Vehicle Miles Traveled (MVMT). This can be an effective way to gauge roadway safety trends. This does not account for how many disabling injuries or fatalities occurred with a single crash, rather, it considers if any disabling injury or fatality was associated with a crash, and then compares that to the vehicle miles traveled. By indexing the number of crashes to vehicle miles traveled, one can take into account the risk involved given the number of miles driven. The more miles one travels, the higher their risk for a crash. This exposure factor is more accurate in determining roadway safety.

Plan Goals Related to Crashes per Million Vehicle Miles Traveled

Operations and Maintenance

- Incidents are a leading contributor to non-recurring delay in the transportation network. By improving the safety of the roadway, incidents can be minimized, reducing delay and congestion. Strategies, such as guard cable in the median, can further reduce fatalities by preventing cross-over collisions. These large-scale crashes can dramatically slow traffic, especially during peak travel times.

Safety and Security

- Reducing the fatal crash rate has a direct impact on the safety of the system. Reducing incidents along the roadway can also improve the safety of those responders who work crashes, often next to moving traffic.

Current Value/Trends

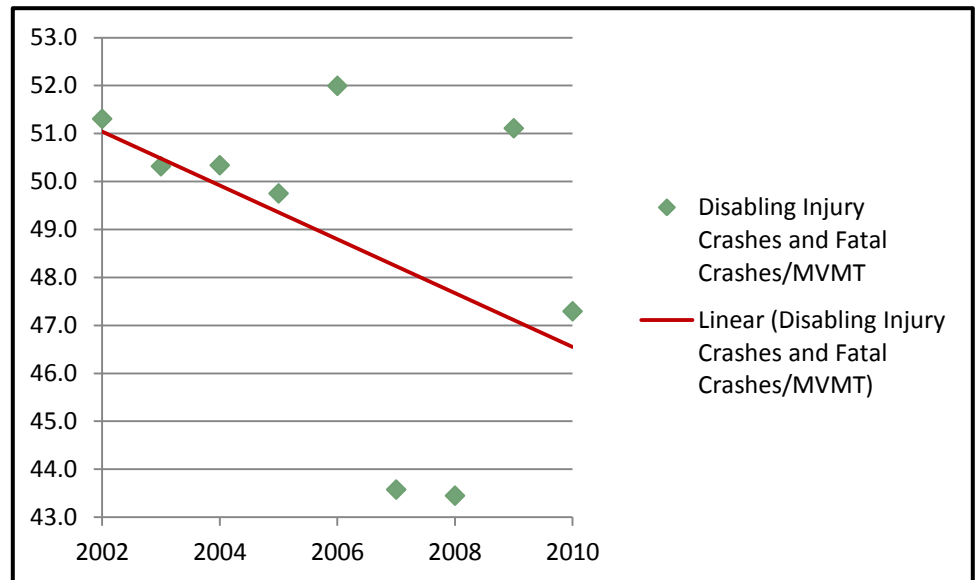
Table 12 - OTO Total Disabling and Fatal Crashes per Million Vehicle Miles Traveled

Source: Missouri Department of Transportation

Year	VMT	Disabling Injury Crashes and Fatal Crashes	Disabling Injury Crashes and Fatal Crashes/MVMT
2010	5,010,884	237	47.3
2009	4,969,336	254	51.1
2008	5,063,022	220	43.5
2007	5,185,837	226	43.6
2006	5,115,547	266	52.0
2005	4,904,027	244	49.8
2004	4,946,098	249	50.3
2003	4,630,231	233	50.3
2002	4,540,996	233	51.3

Figure 19 - OTO Disabling Injury and Fatal Crashes per MVMT

Source: Missouri Department of Transportation



Target

That disabling injury and fatal crashes/MVMT will continue a downward trend as shown in the above graphic.

5. On-Time Performance of Transit System

A higher value is better.

Description

The timeliness of each bus route is determined through spot checks by a supervisor. Such checks are performed randomly. Timeliness can help determine if a route needs adjusting, if there are issues at stops along a route, or if there is a broader roadway efficiency issue. Timeliness also demonstrates the reliability of the system. System reliability can be more important to a user than frequency of service.

Plan Goals Related to the On-Time Performance of the Transit System

Multi-Modal, Interconnected System

- A reliable transit service can promote additional use of the system. Public transit is the “long-haul” provider of alternative transportation, often completing the connection across town between bicycling and walking.

Quality of Life and Livability

- A robust transit system, that is able to move freely through the region, provides another element toward quality of life and livability. As a tool of accessibility to employment and retail destinations, public transit adds value to the community. For visitors to the region, public transit can provide a way to visit more of the community.

Operations and Maintenance

- Timeliness of the transit system can be an indicator of how well the overall transportation system operates. Also, more people will use a reliable system, reducing the overall traffic demands upon the network.

Current Trends/Values

Table 13 - City Utilities Transit On-Time Performance

Source: City Utilities Transit

Year	Percent on Time
2007	89.21
2008	91.47
2009	91.32
2010	93.54

Target

The CU service standard is 90 percent. The system will be considered to have acceptable on-time performance at this 90 percent level.

6. Percent of Housing Units within ¼-mile of a Bus Route

A higher value is better.

Description

The percent of housing units within a ¼-mile of a bus route is an indicator of how many potential people are available to use the transit system. This measure examines the City Utilities Transit service area at the proximity of housing units to CU bus service.

Plan Goals Related to the Percent of Housing Units within ¼-mile of a Bus Route

Multi-Modal, Interconnected System

- Proximity to housing is a strong measure for possible transit use. If people are connected to the transit system, then they are connected to the remainder of the community.

Quality of Life and Livability

- More housing near transit provides travel choice for that community. Encouraging that additional housing promotes density, which is often followed by additional services. This is accompanied by other transportation options, including a more complete sidewalk network, and increased accessibility. Travel options tend to reduce the amount of the household budget spent on transportation. Housing near transit can be referred to as transportation-efficient housing. Freeing resources and time for those who live near transit increases livability and the quality of life in that neighborhood.

Current Trends/Values

For 2010:

Housing units in OTO area – 138,620

Housing units in CU Transit Service Area – 111,653

Housing units within ¼-mile of a bus route – 57,048

Percent housing units in OTO area within ¼-mile of a bus route – 41%

Percent housing units in CU Transit service area within ¼-mile of a bus route – 51%

Target

That the percent of housing units within the CU Transit service area and the OTO area within ¼-mile of a bus route is on the upward trend between now and 2035.

7. Average Commute Time

A lower value is better.

Description

Average commute time is the amount of time taken to travel to work as reported by workers over the age of 16 on the American Community Survey and the decennial Census. This data is not available at the OTO level, so it will include all of Christian and Greene Counties. This measure is an indicator of both the distance commuters are traveling and the potential congestion drivers face during their commute.

Plan Goals Related to Average Commute Time

Economic Development

- Transportation system improvements, which reduce average commute time, can have multiple economic benefits. Average commute time is an indicator of mobility throughout the system. A reduced average commute time can benefit business by allowing goods to be transported faster or at a lower cost. This also expands the labor market for employers. Individuals can benefit with reductions in travel time and fuel consumption, resulting in increased labor force participation.

Quality of Life and Livability

- With Quality of Life, the work/life balance often comes into the discussion. Shorter commute times allow for employees to dedicate more time to the life side of the equation. Reduced commute times are an indicator of reduced congestion. This lessens the stress of the commute, and the mental and physical impacts that stress has.

Operations and Maintenance

- Projects that positively impact the operations of the roadway, or direct commuters to other forms of travel, will also reduce the average commute time. Average commute time is an indicator of how well the roadway operates, its efficiency, reliability, and options for travelers.

Current Value/Trends

Table 14 - 2005-2009 Travel Time to Work in the OTO Region

Source: US Census Bureau – 2005-2009 American Community Survey, Table B08303

	1980	1990	2000	2005-2009	Percent Change b/t 2000 and 2005-2009
Christian	24.0	27.4	25.1	24.1	-3.98
Greene	17.2	17.6	19.2	19.5	1.56
Battlefield	22.1	22.6	23.1	22.7	-1.73
Fremont Hills	N/A	17.0	19.8	19.7	-0.51
Nixa	20.8	19.1	23.8	21.9	-7.98
Ozark	21.0	19.2	21.6	22.0	1.85
Republic	20.5	21.6	25.1	23.4	-6.77
Springfield	15.4	15.7	17.0	17.6	3.53
Strafford	19.2	20.4	22.4	23.0	2.68
Willard	20.6	23.2	23.0	23.8	3.48
Average of Greene/Christian	20.6	22.5	22.2	21.8	-1.80

	Blue cells show improvement
	Red cells show decline
	White cells show no change

Target

Keep the average commute time less than 25 minutes by 2035.

8. Peak Travel Time

A lower value is better.

Description

Travel time along the roadway system is determined through travel time runs which utilize Global Positioning System (GPS) units. These units collect data to determine the average time it takes to travel a corridor. When the speed of travel drops more than 20 mph below the posted speed limit, a roadway is determined to have significant delay.

Plan Goals Related to Peak Travel Time

Economic Development

- Transportation facilities, which reduce travel times and fuel consumption, increase reliability and safety. Roadways with reduced congestion levels have decreased travel times. Improved functionality of the roadway improves access and mobility, allowing for greater employment opportunities and ease of access to businesses, increasing the opportunities for economic activity. Goods can also move more easily within a system that has less congestion.

Quality of Life and Livability

- Travel time is a measure of congestion. Reduced congestion means less stress for the commuter and less time they spend to commute. Reduced delay can mean that travelers have more options for moving around the system.

Operations and Maintenance

- Travel speed is an indicator of the operational efficiency of the system. Significant delay can be an indicator that more options are needed for the traveling public, either other modes or alternative routes. Signal timing can be affected by the changes in travel speed caused by a congested roadway.

Safety and Security

- Though incidents may occur at a lower speed on a roadway at or near capacity, the chances of having an incident increases. Congested roadways can increase aggressive driving habits, which can lead to more crashes. Improving travel time on a roadway can decrease injury crashes, but create a larger increase in property damage only crashes.

Current Value/Trends

Table 15 - AM Peak Travel Time, Significant Delay

Source: Ozarks Transportation Organization

	AM Peak							
	Eastbound		Westbound		Northbound		Southbound	
	2005	2008	2005	2008	2005	2008	2005	2008
Significantly Delayed Mileage	1.80	10.22	2.74	6.56	2.60	7.12	2.17	7.42
Total Travel Time Mileage	71.27	90.97	71.34	90.96	48.83	70.99	48.80	71.18
Percent Significantly Delayed	2.53	11.23	3.84	7.21	5.32	10.03	4.45	10.42

Table 16 - PM Peak Travel Time, Significant Delay

Source: Ozarks Transportation Organization

	PM Peak							
	Eastbound		Westbound		Northbound		Southbound	
	2005	2008	2005	2008	2005	2008	2005	2008
Significantly Delayed Mileage	4.43	12.09	4.32	9.59	3.64	11.26	4.81	10.68
Total Travel Time Mileage	71.30	90.97	69.57	87.76	48.83	70.99	48.83	71.18
Percent Significantly Delayed	6.21	13.29	6.21	10.93	7.45	15.86	9.85	15.00

Target

That less than 20 percent of the OTO area roadways will be significantly delayed.

9. Percent of Roadways in Good Condition

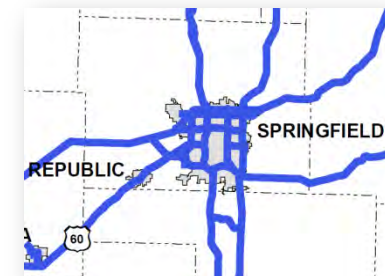
A higher value is better.

Description

The Missouri definition of good condition uses factors such as smoothness and physical distress to determine quality. The goal for the Missouri Department of Transportation is to have 85 percent of all Major Roads in Good Condition. The current OTO values for 2010 are higher than for the entire State of Missouri. Overall, in Missouri, the Major Roads were more than 85 percent good, while in the OTO, 93

Figure 20 - Major Roads in the OTO Region

Source: Missouri Department of Transportation



percent are considered good. Major Roads are principal arterials, including interstates, freeways and expressways. This map highlights the major roads in the OTO region.

Plan Goals Related to Roadway Condition

- *Economic Development*

Road condition has an impact on economic development by demonstrating investment in the infrastructure which surrounds business.

Deteriorating road conditions can discourage new business from coming to an area, as well as discourage existing businesses from expanding.

Improved road condition reduces maintenance costs on vehicles, allowing households to put more money into other aspects of the economy.

- *Quality of Life and Livability*

Road condition is directly felt by road users. As one component of road condition is the smoothness of that road, drivers can immediately relate to the condition of the roadway. Poor road condition can greatly increase vehicle maintenance costs. Poor road condition can also affect other modes of travel, such as bicycling, removing options from travelers.

- *Operations and Maintenance*

A road in good condition is easier to maintain than one that is not. It costs more to bring a road into good condition, than to just keep it that way. As a roadway deteriorates, the elements can have a greater impact on its future condition. Operations can also be affected by changes in driving habits along a route in poor condition.

- *Safety and Security*

Safety is greatly impacted by road condition. A roadway in poor condition can create hazards for drivers. Drivers and vehicles can react unpredictably to changes in road surface. Changes in the roadway surface can also reduce friction, decreasing the ability of a vehicle to stop or maneuver.

Current Value/Trends

Table 17 - Percent OTO Major Roads in Good Condition

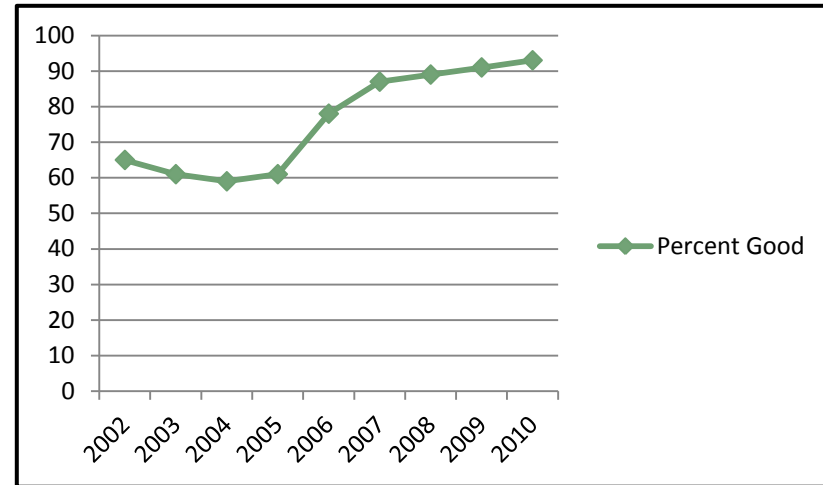
Source: Missouri Department of Transportation

Year	Major % Good
2002	65
2003	61
2004	59
2005	61
2006	78
2007	87
2008	89
2009	91
2010	93

For MoDOT owned roads only.
Based on MoDOT Tracker Data.

Figure 21 - Percent OTO Major Roads in Good Condition

Source: Missouri Department of Transportation



The results of the Smooth Roads Initiative, which started in 2006, are evident.

Target

That 85 percent or more of the Major Roads in the OTO region are in Good Condition.

10. Bridge Condition

A higher value is better.

Description

Bridge condition ratings are calculated by taking the lowest sub-rating of the super-structure, sub-structure, and deck. Ratings range from 3 to 9. At a bridge rating of 3, bridges are closed to the public. A bridge rating of 5 is considered Fair, with all primary structural elements as sound, though they may have minor section loss, cracking, spalling, or scour. A bridge rating of 9 is Excellent. The Missouri Department of Transportation does not have a set goal for this measure. This measure shows those bridges which are rated 5 or higher, in Fair or better condition.

Table 18 - Bridge Condition Scale

Source: Missouri Department of Transportation

Rating	Description
9	Excellent
8	Very Good
7	Good
6	Satisfactory
5	Fair
4	Poor
3	Serious
2	Critical
1	Imminent Failure
0	Failed

Plan Goals Related to Bridge Condition

Operations and Maintenance

- A bridge in poor condition can have reduced weight limits, lane closures, or be closed entirely, reducing travel options for roadway users. Maintenance needs may increase so that a bridge can remain open to the public.

Safety and Security

- Bridges separate traffic from other hazards, whether that be other traffic, waterways, or trains. The ability of the bridge to maintain that separation is important to the safety of the roadway user. Bridge surface conditions can impact user safety through pavement condition or surface friction. A bridge with weight limits or fewer lanes than the surrounding roadway can also create operational hazards.

Current Value/Trends

Table 19 - Bridge Condition in the OTO Region

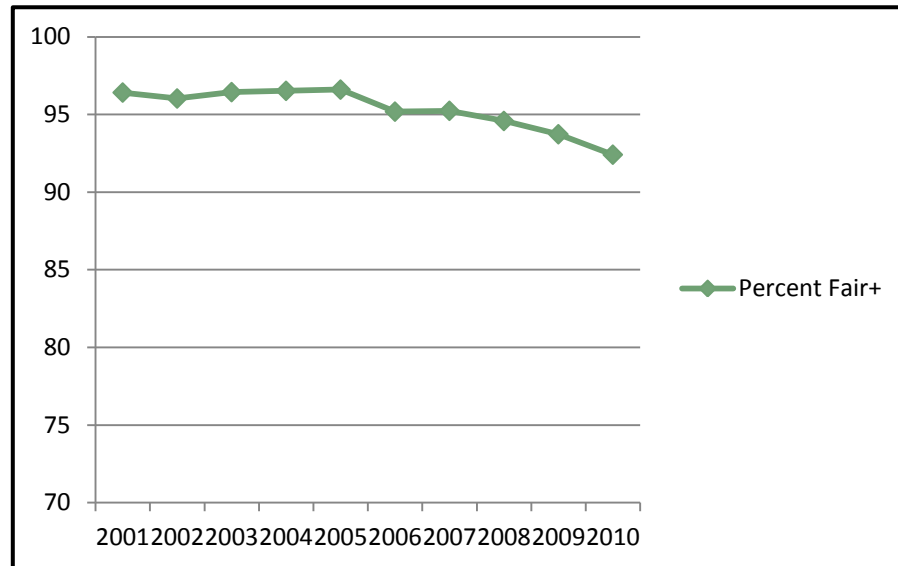
Source: Missouri Department of Transportation

	Total Bridges	Total Fair+	Percent Fair+
2001	251	242	96.41
2002	252	242	96.03
2003	253	244	96.44
2004	259	250	96.53
2005	265	256	96.60
2006	270	257	95.19
2007	273	260	95.24
2008	277	262	94.58
2009	287	269	93.73
2010	290	268	92.41

Includes state and non-state bridges

Figure 22 - Percent of OTO Bridges in Fair or Greater Condition

Source: Missouri Department of Transportation



Target

That the percent of bridges in fair or better condition will stay above 90 percent.

11. Ozone Levels

A lower value is better.

Description

Ozone is a regulated pollutant under the Clean Air Act and the allowable amount is set by the National Ambient Air Quality Standards. Ozone is measured on a three-year design value. This is based on the 4th highest ozone value during each of those three years. The standard in place is set at 75 ppb. The standard is reviewed at least once every five years and either stays in place or is adjusted downward. The next review is scheduled for 2013. As a metropolitan transportation organization, the OTO is responsible for ensuring that the region complies with

transportation conformity requirements. This essentially states that the transportation projects within the non-attainment area are consistent with air quality goals.

Plan Goals Related to Ozone Levels

Economic Development

- If an area is non-attainment for ozone, there can be impacts on new business, especially manufacturing, in an area. Industrial sources and businesses with fuel-burning generators may face restrictions on how they operate. In order to control ozone, jurisdictions may change zoning and development requirements. At the same time, if the area is to stay in attainment, or have a need for few controls on ozone, it should be able to better compete for economic development.

Multi-Modal, Interconnected System

- The need to control ozone levels encourages a multi-modal interconnected system. If vehicle emissions can be reduced, ozone levels can also be reduced. Emissions from motor vehicles can account for 35 to 45 percent of ozone-related emissions.

Quality of Life and Livability

- The Clean Air Act and future amendments were enacted to protect human and plant/ecosystem health. Long-term exposure to ozone can inflame and damage the lining of the lungs. Children and adults with asthma or other respiratory conditions can expect increased aggravation and limited activity on high ozone days. Ground-level ozone can interfere with the ability of plants to produce and store food, increasing their vulnerability. This can lead to negative appearances in urban vegetation, as well as vegetation in national parks and recreation areas. Additional impacts can be seen on forest growth and crop yields. Programs to reduce ozone can require behavioral changes from the general population, but can also provide opportunities for other forms of travel, placing emphasis on transit, bicycling, and walking.

Operations and Maintenance

- Certain road projects can be limited by the need to meet transportation conformity, especially those which increase capacity. Projects that focus on improving operations, however, would receive priority. This includes ITS, incident management, and signal timing.

Safety and Security

- When meeting transportation conformity, safety projects are exempt from transportation conformity requirements. Other measures, which would aim to reduce congestion along the roadway, would also improve safety for the region. On a broader health perspective, reduced ozone levels, would improve air quality and reduce the affects of such.

Current Value/Trends

Table 20 - OTO Ozone Design Values

Source: Missouri Department of Natural Resources

Years	Value
2002-2004	70
2003-2005	71
2004-2006	71
2005-2007	77
2006-2008	73
2007-2009	69
2008-2010	67

Target

That the region will be able to demonstrate transportation conformity for its plans, programs, and projects.

Chapter 5 – Major Thoroughfare Plan

The OTO Major Thoroughfare Plan (MTP) provides guidelines for designing a roadway network for the efficient movement of people and goods throughout the metropolitan area. The Major Thoroughfare Plan (MTP) was first adopted by the OTO Board of Directors in October 2004, with several amendments since then. The MTP classifies roadways based on their intended function and shows both existing and future roadways. These future major transportation corridors should serve as a general guide for securing street rights-of-way, though the locations are general in nature and final alignments will depend on a detailed location study. The classifications shown on the MTP map direct the application of the OTO Design Standards.

Additional considerations should be made regarding the application of the MTP roadway classifications besides potential function, including alignment and corridor preservation, as well as land use and development.

Minimum Design Standards

OTO has an established Major Thoroughfare Plan that shows the projected functional class of the roadway system through 2035 and beyond. This differs from the Federal Highway Administration Functional Classifications which reflect how the roadways function today. The roadway classification system provides guidelines for designing a roadway network for the efficient movement of people and goods throughout the OTO study area. Both systems use a set of standards which group roadways based on similar characteristics.

In Journey 2030, the OTO adopted design standards which are desired minimums based on the recommendations of the Major Thoroughfare Plan. These standards are intended for new construction or the retrofitting of existing roadways. In the event that a roadway project has not been constructed, but it has been designed and right-of-way has been purchased to previous standards, the project is not required to meet these standards. Otherwise, deviations from the OTO design standards require recommendation of a variance from a special subcommittee of the OTO Technical Planning Committee to the Board of Directors, who can approve or deny the request. These standards have been published under separate cover, but are also excerpted here.

These design standards are desired minimums, but OTO jurisdictions are encouraged to adopt more stringent standards, as well as employ best practices. “Complete Streets” and “Livable Streets” are among the more recent best practices in roadway design.

Strategies to Implement Plan Goals

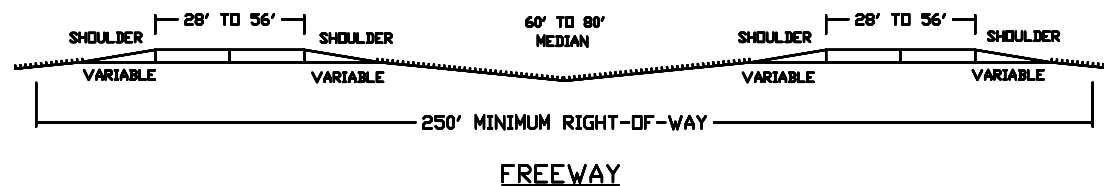
- *OTO should work with the Federal Highway Administration and the Missouri Department of Transportation to regularly update the Functional Classification Map to align with the recommendations of the Major Thoroughfare Plan, within the confines of the federal requirements.*
- *The classifications of street types contained in Zoning Ordinances, Subdivision Regulations, and Design Standards of the various jurisdictions within the OTO Study Area should agree with those discussed here.*
- *OTO jurisdictions should design roadways for all users, when appropriate. The adoption of a complete streets ordinance or guidelines can aid staff as they retrofit and construct new and existing roadways.*

Freeway

- Full access control with continuous traffic flow separated in grade from other facilities.
- Intended for high-volume, high-speed traffic movement between cities and across the metropolitan area.
- No direct access is provided to adjacent land.

Figure 23 - Freeway

Source: Ozarks Transportation Organization



**Medians and Shoulders provide options for landscaping where appropriate*

Expressway

- Partial access control and high priority for traffic flow with at-grade signalized intersections for major streets.

- Intended for high-volume, moderate- to high-speed traffic movement across the metropolitan area with minimal access to adjacent land.
- May be designed as a highway with separation from adjacent land uses or as a street with controlled access to adjacent land uses.
- Service access should be provided from lower-order streets.

Figure 24 - Urban Expressway

Source: Ozarks Transportation Organization

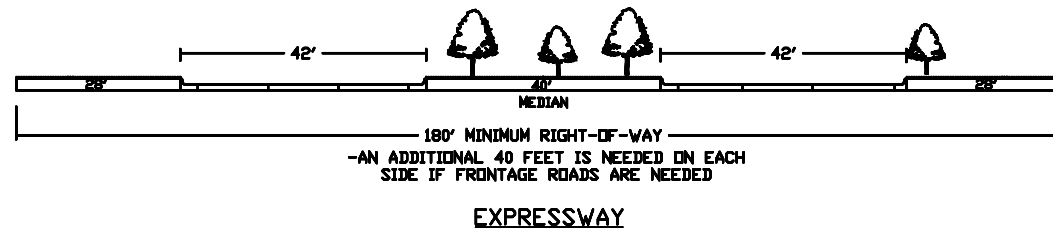
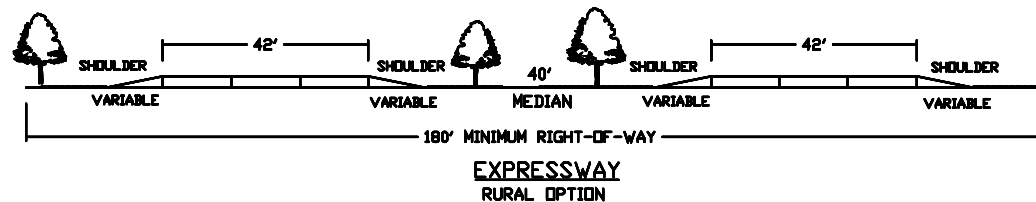


Figure 25 - Rural Expressway

Source: Ozarks Transportation Organization



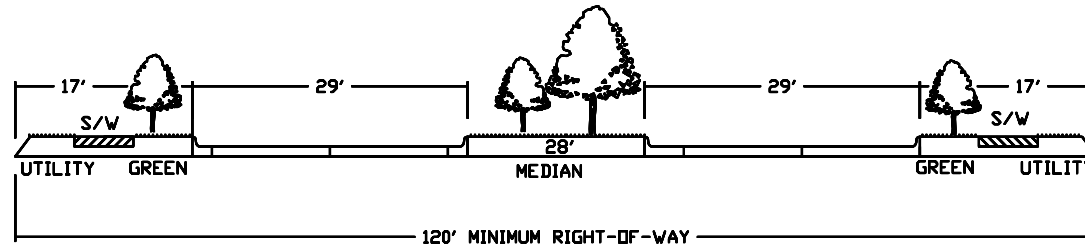
**Medians and Shoulders provide options for landscaping where appropriate*

Boulevard

- Partial access control and high priority for traffic flow with at-grade signalized intersections for major streets.
- Intended for high-volume, moderate- to high-speed traffic movement across the metropolitan area with minimal access to adjacent land.
- Designed with a landscaped median, which includes trees as well as greenspace and sidewalks on both sides to accommodate pedestrians.

Figure 26 - Boulevard

Source: Ozarks Transportation Organization



BOULEVARD

**Greenspace and Median provide options for landscaping where appropriate*

**Utility and Greenspace areas may switch locations if needed*

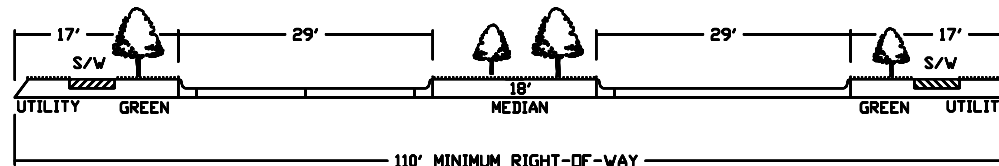
**Utilities may be placed under sidewalks*

Primary Arterial

- Provides for high- to moderate-volume, moderate-speed traffic movement between and through major activity centers.
- Access to abutting property is subordinate to traffic flow and is subject to necessary control of entrances and exits.

Figure 27 - Primary Arterial

Source: Ozarks Transportation Organization



PRIMARY ARTERIAL

**Greenspace and Median provide options for landscaping where appropriate*

**Utility and Greenspace areas may switch locations if needed*

**Utilities may be placed under sidewalks*

Secondary Arterial

- Augments and feeds the primary arterial system and is intended for moderate-volume, moderate-speed traffic movement.
- Access to adjacent property is partially controlled.

Figure 28 - Secondary Arterial

Source: Ozarks Transportation Organization

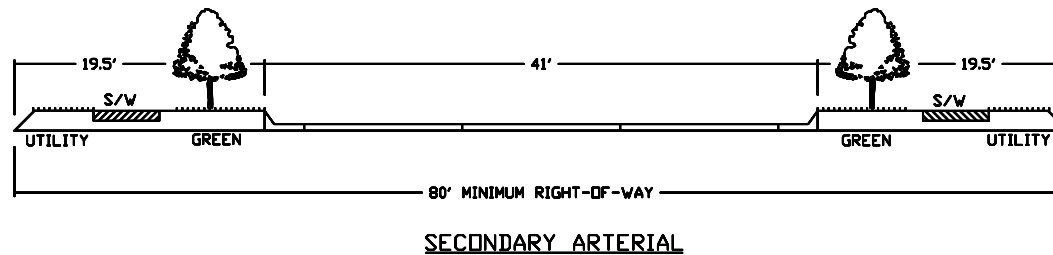
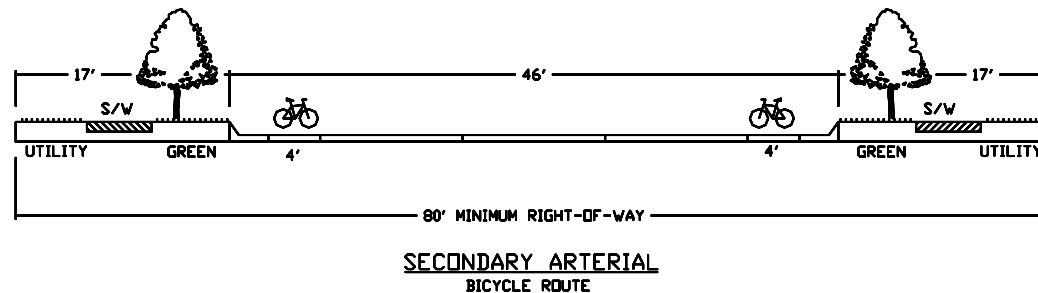


Figure 29 - Secondary Arterial with Bicycle Route

Source: Ozarks Transportation Organization



**Greenspace and Median provide options for landscaping where appropriate*

**Utility and Greenspace areas may switch locations if needed*

**Utilities may be placed under sidewalks*

Collector

- Collects and distributes traffic between arterial streets and local streets.

- Intended for short-length trips while also providing access to abutting properties.
- Design of collector streets varies depending on the character and intensity of traffic generated by adjacent land development.

Figure 30 - Collector

Source: Ozarks Transportation Organization

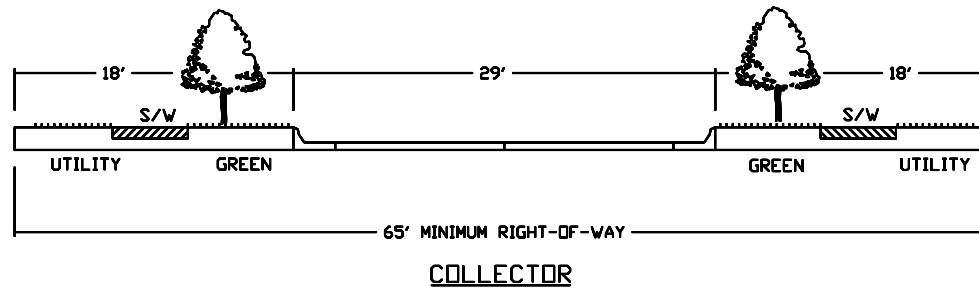
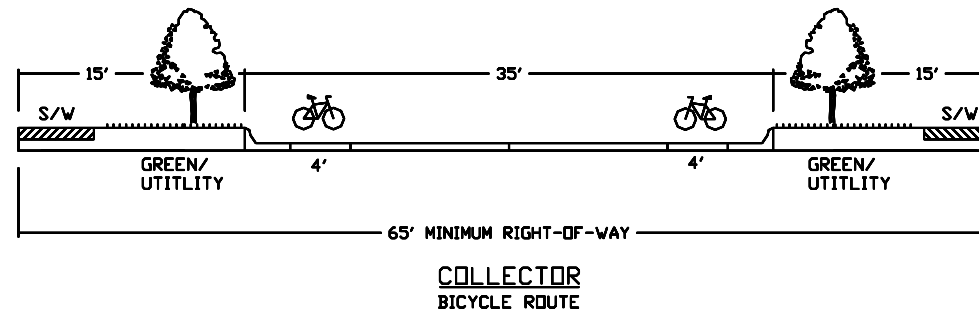


Figure 31 - Collector with Bicycle Route

Source: Ozarks Transportation Organization



**Greenspace and Median provide options for landscaping where appropriate*

**Utilities may be placed under sidewalks*

Residential Collector

- Collects and distributes traffic between arterial streets and local residential streets.
- Intended for short-length trips while also providing access to abutting properties.

- Design of residential collector streets varies depending on the character and intensity of traffic generated by adjacent land development.
- Parking may be allowed on the street and bicycle lanes may be provided.
- Each local jurisdiction should develop design standards for residential collectors.

Local

- Provides direct access to abutting property.
- Intended for low-speed, low-volume traffic movement and for short-length trips.
- Design of local streets varies depending on the character and intensity of traffic generated by adjacent land development and the design standards developed by each local jurisdiction.

Downtown Local

- Provides direct access to abutting property.
- Intended for low-speed, low-volume traffic movement and for short-length trips.
- Design of downtown local streets varies depending on the character and intensity of traffic generated by adjacent land development, as well as the existing right-of-way and significant buildings and on the design standards developed by each local jurisdiction.

Residential

- Provides direct access to abutting property.
- Intended for low-speed, low-volume traffic movement and for short-length trips.
- Typically utilized for volumes of 300 vehicles per day or less.
- Design of residential streets varies depending on the standard.

Table 21 - OTO Summarized Roadway Design Standards

	FREEWAY	EXPRESSWAY	BOULEVARD	PRIMARY ARTERIAL	SECONDARY ARTERIAL	COLLECTOR
Minimum Right-of-Way	250' minimum	180' + 40' each side if frontage roads are needed	120' plus intersection triangles	110' plus intersection triangles	80' plus intersection triangles	65' plus intersection triangles
Number of Lanes	4 to 8	4 to 6	4	4 to 6	2 to 3	2
Turning Lanes	N/A	At intersections only	At intersections only	At intersections only	Left turn lane	Left turn lane when needed
Lane Width	12' per lane	12' (plus shoulders in rural areas only)	12' per lane	12' per lane	12' (Bicycle Routes: 11' vehicle and 4' bicycle lanes)	12' (Bicycle Routes: 11' vehicle and 4' bicycle lanes)
Median	50' to 80'	40' landscaped	28' (landscaping desired)	18'	None required	None required
Minimum Area Behind Curb	N/A	N/A	17' used for sidewalks, utilities, and landscaping (where appropriate)	17' used for sidewalks, utilities, and landscaping (where appropriate)	19.5' (17' when bicycle lanes are provided) used for sidewalks, utilities, and landscaping (where appropriate)	18' (15' when bicycle lanes are provided) used for sidewalks, utilities, and landscaping (where appropriate)
Design Service Volume	20,000 - 100,000	20,000 - 50,000	10,000 - 40,000	10,000 - 30,000	6,000 - 20,000	1,500 - 8,000
Design Service Speed	55 - 70 mph	40 - 55 mph	35 - 45 mph	35 - 45 mph	30 - 35 mph	30 mph
Intersection	N/A	Left and right turn lanes desired	Left and right turn lanes desired	Left and right turn lanes desired	4 lanes	up to 4 lanes

	FREEWAY	EXPRESSWAY	BOULEVARD	PRIMARY ARTERIAL	SECONDARY ARTERIAL	COLLECTOR
Drainage/Shoulders	Variable. 10 - 12 foot shoulders minimum	Curb and gutter or shoulders (rural areas)	Curb and gutter. If shoulder used, 6' - 10'	Curb and gutter (shoulders permitted in rural areas). If shoulder used, 6' - 10'	Curb and gutter (shoulders permitted in rural areas). If shoulder used, 6' - 10'	Curb and gutter (shoulders permitted in rural areas). If shoulder used, 6' - 10'
On-Street Parking	Not permitted	Not permitted	Not permitted	Not permitted	Not permitted	Not permitted
Median Breaks	N/A	Allowed at signalized intersections only	N/A	N/A	N/A	N/A
Pedestrian Provisions	Pedestrians prohibited (No Sidewalks Required)	Sidewalks required on Frontage Roads	4' - 6' sidewalks (minimum on both sides)	4' - 5' (minimum) sidewalks both sides	4' - 5' (minimum) sidewalks on both sides	4' - 5' (minimum) sidewalks on both sides
Bicycle Provisions	Bicycles not recommended	Bicycle lane provided	Bicycle facilities provided according to adopted bicycle plan	Bicycle facilities provided according to adopted bicycle plan	Bicycle facilities provided according to adopted bicycle plan	Bicycle facilities provided according to adopted bicycle plan
Interchange Spacing	1 - 3 miles	N/A	N/A	N/A	N/A	N/A
Driveway Spacing	Not Permitted	N/A	330' (right-in/right-out only). Allowed only if internal circulation cross access and minimum driveway radii and grade are provided	330' (right-in/right-out only). Allowed only if internal circulation cross access and minimum driveway radii and grade are provided		

	FREEWAY	EXPRESSWAY	BOULEVARD	PRIMARY ARTERIAL	SECONDARY ARTERIAL	COLLECTOR
Traffic Flow/Access Priority	99/1	90/10	70/30	70/30	70/30	30/70
Facility Spacing	4 - 8 miles	3 - 5 miles	3 - 5 miles	1 - 2 miles	1/2 - 1 mile	1/4 - 1/2 mile
Trip Length	Between cities and across metropolitan area (2+ miles)	Across metropolitan area and between major activity centers. (2+ miles)	Across metropolitan area and between activity centers (2+ miles)	Between and through major activity centers (2 - 8 miles)	Between and within major activity centers (1-4 miles)	Local street to arterial Street (1/2 to 2 miles)
Transit Provisions	No stops, express routes only	Turnouts at major generators	Turnouts at major generators	Scheduled stops every 1/4 mile (where transit service is provided)	Scheduled stops every 1/4 mile (where transit service is provided)	Scheduled regular and paratransit service
<u>Access</u>						
Full Access Intersection Spacing	N/A	1/2 mile	1/4 mile	1/4 mile	600'	660'
Non-Signalized Intersection/Driveway Spacing	N/A	660' (Right- In/Right-Out only)	N/A	N/A	N/A	N/A
Directional Median Break Spacing		N/A	660'	660'		
Residential Driveway Spacing	N/A	Not permitted	Not permitted	Not permitted	Not permitted	Not permitted
Commercial Driveway Spacing					210' center to center. Allowed only if internal circulation, cross access and minimum driveway radii and grade are provided	160' center to center

Alignment Preservation

The main purpose of the Major Thoroughfare Plan is to ensure that existing and proposed facilities are sufficient for the future needs of the OTO region. It is necessary, then, to preserve the corridors for those facilities shown on the Plan map, protecting them from encroaching development. Preservation tools can include annexation or development agreements, regulating the use of such land, and land acquisition. Development often occurs at a faster pace than the construction of a new facility. The development of new major thoroughfares is a lengthy process, involving years of planning, design, environmental studies, funding, right-of-way acquisition, and the construction itself. Each jurisdiction has tools available to protect future corridors in advance of this process. These tools can also protect existing corridors through the application of access management.

Corridor Preservation Tools:

Source – Access Management and Regulation of Traffic Flow Toolkit

<http://www.ksdot.org/PublicLib/doccontent.dll?LibraryName=PublicDocs^dt00mx38&SystemType=2&LogonId=6b52867ec27b642c8238e359a76687c1&DocId=003715320>

Land Acquisition

- Public sector entities have the authority to acquire land for public improvements, including state highways and local roads and streets by gift, purchase, or condemnation. Sufficient land may be acquired to accommodate immediate construction needs, as well as for future needs. In appropriate circumstances, public sector entities can acquire interests in land for public improvements in advance of the date of the start of construction.

Transfer of Development Rights

- The transfer or removal of the right to develop or build, expressed in units per acre or floor area ratio, from one lot or parcel to another, or from a portion of a lot to another part of the same lot. This transfer generally occurs in accordance with a legislative established program that allows the relocation of potential development (that is authorized under applicable zoning regulations) from areas where proposed land uses or environmental impacts are considered undesirable (the donor site or sending zone), such as at locations where interchanges are to be constructed, to another area (receiver or receiving zones) chosen on the basis of its ability to accommodate additional units of development beyond that for which it was zoned, with minimal environmental, social, and aesthetic impacts.

Density Transfers

- The transfer of all or a part of the permitted density on a parcel to another parcel or to another portion of that same parcel at higher density that would be allowed under the existing zoning regulations. A way of retaining open space or land for future improvements by concentrating densities usually in compact areas at other locations while leaving unchanged historic, sensitive or hazardous areas. In

some jurisdictions, for example, developers can buy development rights of properties targeted for public open space and transfer the additional density to the base number of units permitted in the zone in which they propose to develop.

Cluster Development

- Similar to density transfers. Generally authorized by specific district regulations, such as a cluster subdivision. A development design technique that concentrates buildings in specific areas on a site to allow the remaining land to be used for recreational, common open space, preservation, or historically or economically sensitive areas.

Impact Fees

- A payment of money imposed by a public sector entity on development activity as a condition of granting development approval and/or a building permit in order to pay for the planned facilities needed to serve new growth and development activity. Involves the development of a legislative adopted system that provides the calculation methodology for the fee, and a system of credits, edemptions and appeals, etc.

Economic Incentives

- Measures that can be taken by a public sector entity to encourage certain types of development, such as: the grant of additional development capacity in exchange for the developer's provision of a public benefit or amenity, an increase in permitted density, tax abatement, and other forms of development subsidies.

Development Moratorium

- The adoption by a public sector entity of a temporary halt on the processing of applications for all or a specified type of development until a governmental activity is completed such as the adoption of a plan or the passage of a revised ordinance on a specified subject. The Supreme Court recently held that a reasonable moratorium fulfills a legitimate public purpose and is not, per se, a taking.

Subdivision Regulation and Platting

- The control of the division of a tract of land by requiring development according to design standards and procedures adopted by local ordinance. These regulations usually specify what improvement the subdivider will be required to provide and the standard to which the improvements will need to be constructed. A plat is a map prepared by a registered civil engineer or licensed land surveyor showing the boundaries and locations of individual properties and streets of a proposed subdivision. The plat generally also shows land to be dedicated to a public sector entity for streets and easements for public utilities.

Zoning

- A process utilizing the police power of local governments classifying land into areas and districts, such areas and districts being generally referred to as “zones” and imposing, in each area and district, regulations concerning building and structure designs, building and structure placement, and uses to which land, buildings, and structures within these districts may be put, including setbacks and height restrictions, lot coverage restrictions, impervious cover restrictions and typically allowing for certain uses only by special or conditional use permit.

Overlay Districts

- A zoning district that can be either initially mapped or narratively described to be mapped at some later point in time. An overlay district superimposes certain additional requirements that modify or supplement the regulations of the underlying general zoning district or districts, in recognition that distinguishing circumstances exist within the area that must be regulated in a manner different from the regulations of the underlying district. In the instance of conflicting requirements, the stricter of the requirements apply.

Setback Ordinances

- Regulations establishing the requirement that a building or structure be set back a certain distance from a road, street highway, or lot line, generally at street-grade level, although it can be at a prescribed height.

Official Map

- A legally adopted map that conclusively shows the location and width of proposed roads or streets, public facilities, and public areas, as well as drainage rights-of-way.

Land Use Considerations

Transportation has a close relationship with the adjacent land uses. The function and design of a street is an important component to the character of the surrounding area. Properly locating major streets can foster desirable land use patterns and promote neighborhood integrity in the urban area. Appendix E demonstrates this with before and after visualizations of area roadways.

Strategies to Implement Plan Goals

- ***The Major Thoroughfare Plan should ensure the continuity of the arterial, collector, and local street systems, while preventing unnecessary traffic through urban neighborhoods.***
-

- *When practicable, land uses should be developed that are compatible with the classification of adjoining streets.*
- *OTO jurisdictions should regularly update the adopted Major Thoroughfare Plan, subdivision ordinance, zoning controls, and criteria for the installation of traffic controls to ensure land use compatibility and the preservation of the neighborhood unit in urban areas.*

The following table indicates the maximum land use intensities that should be allowed along each type of street.

Table 22 - Land Use Intensity by Street Classification

Source: Ozarks Transportation Organization, Journey 2030

Street Classification		Maximum Land Use Intensity Types			
		Residential	Commercial	Office	Industrial
Freeway/Expressway		None	Regional Centers (250,000+ ft ²)	Office Park	Industrial Park
Primary Arterial		High Density	Community Centers (100,000-250,000 ft ²)	Office Park	Industrial Park
Secondary Arterial		High Density	Neighborhood Centers (30,000-100,000 ft ²)	Office Park	Industrial Park
Collector	<i>Commercial/Industrial</i>	High Density**	Neighborhood Serving*	Office Park**	Industrial Park
	<i>Residential</i>	High Density***	None	None	None
Local	<i>Commercial/Industrial</i>	High Density**	Neighborhood Serving*	Other Office***	Other Industrial
	<i>High Density Residential</i>	High Density***	None	None	None
	<i>Normal Residential</i>	Medium Density	None	None	None
	<i>Low Volume Residential</i>	Low Density	None	None	None

*At intersection of arterial, with orientation toward the arterial

**If it functions as a buffer or transitional use

***If easily accessible to a primary or secondary arterial

Land use decisions can also impact street functionality. Decisions on type, density, and access may require additional improvements to the adjacent roadway system. When reviewing requests that deviate from the established land use pattern of an area, the capacity of the current system should be considered. When a proposed development is found to generate traffic volumes that would exceed the design level of service (LOS) standards of both the existing system and the planned system, then the development should be prohibited unless the developer agrees to make on-site or off-site improvements that would correct the deficiencies. When the proposed development will generate traffic volumes that exceed the design level of service of the planned system, the development should be delayed until the system can be upgraded. Developers should make off-site improvements when it can be shown that the development is primarily responsible for creating a situation that necessitates the improvement. If the improvement has already been scheduled to be made, it may be provided at public expense. A developer can advance the schedule by sharing in the cost or advancing funds to the public agency.

Typical Off-Site Improvements

Right-of-Way

- In all cases, the developer should be required to dedicate the right-of-way needed to achieve the standard for the functional classification system of an adjacent street.

Pavement

- Streets can be considered substandard when they do not have the capacity to adequately handle the anticipated additional traffic. When a rezoning occurs along an existing substandard street, the developer should be required to upgrade the adjoining portion of the substandard street to meet the standards. For local and collector streets, the developer should be required to upgrade it to meet the standards for that functional classification. For an arterial street, the developer should at least upgrade the street to collector standards, provided that would provide sufficient capacity to handle traffic generated by the development. If collector street standards are not sufficient, the developer should be required to construct an arterial street before the rezoning is granted. The same conditions apply for new streets.

Traffic Control

- The Manual on Uniform Traffic Control Devices (MUTCD) defines the standards to install and maintain traffic control devices on all public streets, highways, bikeways, and private roads open to public traffic. Per the MUTCD, “Traffic control signals are valuable devices for the control of vehicular and pedestrian traffic, assigning right-of-way to various traffic movements and thereby profoundly influence traffic flow.” Traffic signals and other controls are warranted by traffic volumes listed in the MUTCD. When volumes meet the warrants as described in the MUTCD, typical stop control of approach streets and driveways can result in undue delay and hazards for the motorist. In these cases, the developer should be asked to provide an acceptable traffic operations plan by providing alternative access points,

providing signal control at major intersections, or designing the roadway system to provide passive intersection control. The developer would be expected to pay a proportional share that traffic contributed by the development warrants the need for the traffic controls.

Left-Turn Lanes

- Left-turn lanes should be located at all signalized intersections, at intersections of collector streets with primary and secondary arterials, at other locations with primary and secondary arterials, and at all other locations where traffic volumes and operating conditions warrant. A developer should be required to provide left-turn lanes at private entrances, which meet this standard, and at public intersections where the need for the turning lane is directly attributable to the development.

Right-Turn Lanes

- Right-turn lanes should be located at the intersection of major arterial streets and expressways. Right-turn lanes should be considered at other locations where right turn movements are more than 20 percent of the approach volume, on arterial streets where there are more than 100 vehicles turning right in the peak hour, and on expressways at any intersection. Developers should install right turn lanes when warranted by projected turning movements to and from their development. Internal Circulation Drives

Typical On-Site Improvements

Internal Circulation Drives

- Internal circulation drives may be required in order to improve traffic flow in parking lots serving major commercial developments. Smaller facilities, such as banks and fast-food restaurants, may also require a special circulation pattern to avoid disrupting traffic on adjacent thoroughfares. Internal circulation systems should be designed to allow sufficient space for stacking of entering and exiting vehicles, and to avoid use of public streets for moving from one part of the site to another. The ability to move off-street between adjacent developments can also greatly enhance the traffic flow in and around a development. Internal circulation drives should accommodate both customer vehicles and freight delivery vehicles. More specific design requirements should be developed during the review of the driveway permit application, the subdivision, or the site plan, on the basis of the particular site, as well as the type and intensity of the development.

Turn-Around Driveways

- Turn-around driveways permit vehicles (including trucks) to enter and exit a site without having to back into a street. They are generally required whenever residential dwellings or commercial facilities take direct access from an arterial or collector street. Direct access from individual dwelling units to major streets should normally be prevented through the subdivision process. If this situation is unavoidable, a turnaround drive is often the best means to address the issue.

Strategies to Implement Plan Goals

- *OTO jurisdictions should, at a minimum, require a simplified traffic analysis with every rezoning request.*
- *OTO jurisdictions should utilize the guidelines contained in this plan for off-site and on-site improvements related to development proposals.*

Traffic Model Forecast

OTO employs a travel demand model to predict future traffic volumes which utilizes population and employment projections. An initial model was developed in the 1990's, which was updated in 2004 to include data from the 2000 Census. It was again updated to include all network improvements in 2009. The 2030 population and employment projections were extended out to 2035, accounting for the economic slowdown of the past few years. For Journey 2035, OTO used these projections and roadwork which had been completed since the previous model run, and projected a future "no-build" scenario. Once projects for this Plan were prioritized and selected, another "build" scenario was developed to include the fiscally constrained project list.

Population and Employment Forecasts

The population and employment forecasts for the initial model development were developed jointly by the model consultant and OTO staff in conjunction with the local jurisdictions. These forecasts were then assigned to TAZs based upon the future development pattern for the metropolitan area, level of land use intensity, environmental features, open space provisions, among other factors. These forecasts were entered into the travel demand model which in turn developed the future roadway volume projections. With the economic slowdown, there has not been the same amount of growth the past few years as has been seen before. It is still assumed that southwest Missouri and the OTO region will continue to see rapid growth once the economy recovers. Therefore, the 2030 population forecasts were considered to still be a good measure of population in 2035.

Table 23 - OTO 2035 Population Projections

Source: Ozarks Transportation Organization

Jurisdiction	Population		% Change Population 2010-2035
	2010	2035	
Battlefield	5,590	11,167	99.77
Nixa	19,022	39,807	109.27
Ozark	17,820	40,106	125.06
Republic	14,751	40,889	177.20
Springfield	159,498	178,093	11.67
Strafford	2,385	4,910	105.87
Willard	5,288	6,911	30.69
Christian County (MPO)	16,196	58,413	260.66
Greene County (MPO)	68,934	87,742	27.28

Description of Forecasting Process

OTO uses the TRANSCAD model, a computer simulation of current and future traffic volumes, placed on a current and future street and highway network. The simulation is developed through a series of steps, in which development is translated into traffic and vehicle movements throughout the metropolitan region. The typical steps include:

Network Development

- The process of determining which roadways are to be included in the study area network and identification of the pertinent roadway information to be included.

Socioeconomic Data Definition

- The process of quantifying the type and intensity of current and future demographics in the study area. Demographics are divided into population, households, and employment.

Trip Generation

- The process of quantifying the number of daily trips associated with the current and proposed levels of demographic development in the OTO jurisdictions.

Mode Split

- The process of division of trips into three categories of automobile, transit, and non-motor vehicle trips.

Trip Assignment

- The process of placing study area trips onto roadways that represent the travel route between traffic analysis zones.

The “no-build” scenario, Figure 29, shows that if no action is taken to improve capacity on the roadways between now and 2035, the majority of the roadways in the OTO will be above capacity, thus having reached a traffic volume that is considered unacceptable in terms of congestion. The “build” scenario, Figure 30, which models traffic volumes assuming the entirety of the constrained project list is constructed, shows that though congestion improves around the project areas, congestion throughout the transportation system does not.

Table 24 - OTO 2035 Employment Projections

Source: Ozarks Transportation Organization

Jurisdiction	Employment 2035
Battlefield	1,750
Nixa	16,383
Ozark	18,370
Republic	10,794
Springfield	251,183
Strafford	2,527
Willard	2,895
Christian County	8,291
Greene County	29,205

Figure 32 - 2035 Capacity based on No-Build Scenario

Source: Ozarks Transportation Organization

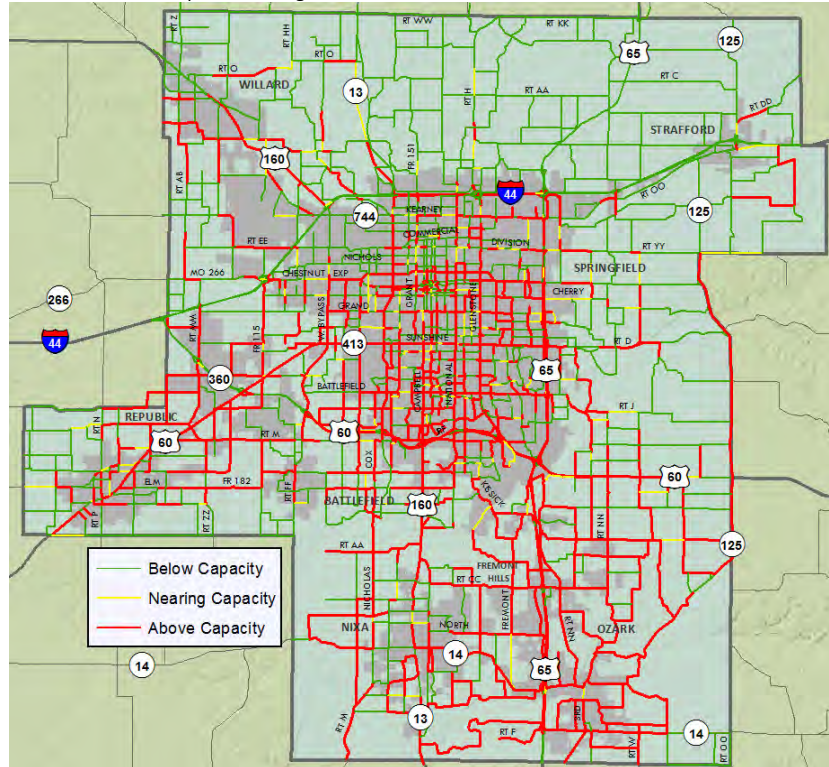
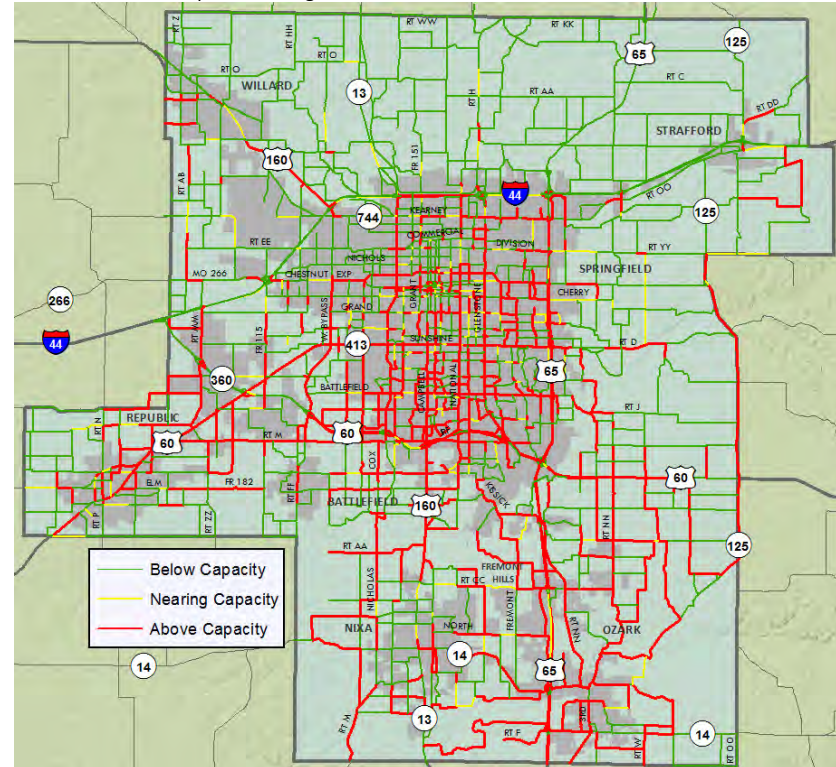


Figure 33 - 2035 Capacity based on Build Scenario

Source: Ozarks Transportation Organization



The forecast traffic volume by roadway can be found in Appendix F.

The results of the “build” scenario demonstrate that the region will not be able to build enough roadways to eliminate congestion. Additional techniques, such as improving the operations of the system or reducing the demand for the roadway network, are necessary to ease congestion on the region’s roadways.

Transportation System Management

In addition to increasing the capacity of a roadway through construction, improving the operational efficiency of the roadway will also improve congestion. Intelligent transportation systems (ITS) use technology to control the flow of traffic along a roadway. This can be done by controlling signal timing, by informing motorists of congestion or incidents further down the road, by informing traffic engineers of icy roads and bridges. ITS can include many different technologies and implementations.

In the OTO region, ITS is managed at the Transportation Management Center, staffed by the Missouri Department of Transportation and the City of Springfield. In 1989, MoDOT and the City of Springfield entered into a contract to implement a multi-user, multi-jurisdictional centralized closed loop signal system. This cooperative agreement allowed each agency to implement mutual signal coordination at locations where jurisdictions overlap. Traffic signal timing plans are developed and implemented at the Transportation Management Center (TMC) by the MoDOT and City of Springfield. By having an interconnected signal system, each jurisdiction is able to coordinate signal timing between all signals.

Since this initial agreement, MoDOT and the City of Springfield have expanded ITS services throughout the region. Working to implement an Advanced Traffic Management System (ATMS), the two agencies have installed cameras at 42 locations, with 32 more planned. These cameras help operators at the TMC track issues within the system. Various methods of signal timing have also been employed. A new technology, adaptive signal technology, is about to be installed in Republic. Adaptive signal technology tracks traffic flow in real time and adjusts signal timing based on the volume and speed of traffic. In the next phases of ATMS implementation, freeway detector loops will be installed to track traffic along US 65 and US 60. Freeway message signs will be located in a loop around Springfield, on I-44, US 65, US 60, and Hwy 360. Signs will also be placed on the arterial system within Springfield, mostly in the area between Battlefield, Glenstone, Sunshine, and Kansas Expressway. The message signs will relay information in real time to drivers about roadway conditions. A

The TMC has an operations concentric design with modular ergonomic workstations and a video monitoring wall.



Figure 34 - Transportation Management Center
Source: Transportation Management Center

website, OzarksTraffic.info, broadcasts images from intersection cameras and informs the traveling public of incidents or delay in the system. The system is tied together with miles of fiber optic cable.

The Traffic Management Center, itself, is newly built. Previously, the TMC operated out of existing buildings that were not equipped for the unique nature of monitoring traffic throughout the region. The new TMC was constructed with specific functions in mind.

Functions of the TMC

- Live monitoring and reporting of real-time travel information to motorists, safety personnel, and emergency management.
- Facilitate communication between public transportation agencies in the case of a major incident or special event.
- Improved management of regional arterial signal systems and freeway system.
- Improve incident response to traffic crashes and other non-recurring congestion.

Transportation system management is always evolving. Through the TMC, the region is prepared to continue to take advantage of future technologies and best practices regarding ITS. Long term goals include ATMS expansion to other growing communities such as Ozark, Nixa, Republic, and Branson.

Strategy to Implement Plan Goals

- *OTO should support the implementation and expansion of advanced traffic management systems within the OTO region.*
-

Transportation Demand Management

Transportation Demand Management (TDM) focuses on ways of minimizing the number of vehicular trips on the roadway network, reducing the demand. TDM encourages vehicular trip reduction through incentives for transit and carpooling, flexible work schedules to decrease peak hour travel, and mixed land uses that allow residents to live near their place of employment and other activity centers.

Benefits of TDM

- Reduced congestion
- Monetary savings
- Reduced stress

- Reduced pollution
- Reduced commute times
- Increased family time
- Expanded social network

TDM Methods

Promoting Other Modes

- Increasing the number of people that use transit, ride a bike, or walk, reduces the number of trips made by a single-occupancy vehicle. Strategies that increase the attractiveness of these other modes makes this easier.

Ridesharing

- Ridesharing, also known as carpooling or vanpooling, reduces the number of vehicles on a roadway at a given time.

Flexible Work Schedules

- Staggered hours are an arrangement where subgroups of a workforce operate on fixed schedules, but starting times are staggered to relieve congestion. Work hours may also be staggered to nearby employers.
- The Shortened Work Week concept is based on rescheduling the normal work week for increased hours per day, but fewer hours per week, such as four 10-hour days. The strategy provides an additional leisure day and reduces energy consumption for cooling and heating (when all employees work the same days). The longer work day also means that employees travel outside of peak commute hours. Finally, the number of total work trips is reduced.
- Flextime allows individual employees to set their own arrival and departure times within prescribed limits. Employees are usually required to be present during core working hours. A flextime program may require daily adherence to a chosen schedule or the program may permit variation as long as a specified number of hours are worked daily or weekly. This strategy is applicable where employees are less dependent upon others for the accomplishment of work tasks. Flextime may also be viewed as an employee benefit.

Telework

- Telework encourages employee productivity and work/life balance, and it lowers emissions by reducing commuter traffic.
- Employees can work from home, work from a telework center, or work from another alternative location. The most common arrangement involves working from home.
- It is generally the employee's responsibility to prepare and support the home office requirements, such as telecommunications, office equipment and supplies.

- The rules of availability for teleworking should be set in a written contract between the employee and their supervisor.
- Telework time is often considered more productive than time in the office, as it offers reduced distractions and interruptions.
- It is not recommended to use teleworking as a substitute for child care.

OzarksCommute

OTO offers a rideshare program for carpoolers interested in finding a match. Through a website, OzarksCommute.com, and a phone number, 831-RIDE, OTO helps carpoolers connect with others in a 19-county area of southwest Missouri. OTO promotes this program to area employers and the general public. Official highway signs advertise the program and contact information. The MoDOT website provides a portal for website visitors to click on the county they work or live in and they will be taken to the appropriate rideshare website in the state. OTO has partnered with other rideshare programs in the state as part of a statewide promotion program. The program is also advertised through bus wraps, light pole banners, and a billboard. Several employer portals give employees a unique web address where they can find carpool matches with co-workers.

OzarksCommute.com also allows users to find matches for bicycling and transit. Registered users can track their commute which also calculates monetary savings, emissions reductions, and calories burned. OzarksCommute.com operates as a database to allow OTO to track the number of people seeking carpools.

Strategies to Implement Plan Goals

- *OTO should continue to promote travel demand strategies throughout the OTO region.*
 - *OTO should continue to support the OzarksCommute.com website and seek new technologies for ridesharing as they become available.*
-

Safety

In 2004, MoDOT partnered with safety advocates throughout the state to develop Missouri's Blueprint for Safer Roadways. The strategies of the Blueprint worked toward a goal of 1,000 or fewer roadway fatalities by 2008. This goal was reached a year early, with only 992 fatalities in 2007. A new goal was set to 850 or fewer fatalities by 2012. MoDOT and partners are starting work on a new Blueprint, as this goal was met two years early.

The MoDOT Southwest District follows the recommendations in the statewide Blueprint. OTO is a partner in this coalition.

Blueprint Emphasis Areas

- Serious Crash Types
 - Run-off road crashes
 - Crashes involving horizontal curves
 - Collisions with trees or poles
 - Intersection crashes
- High-Risk Drivers and Occupants
 - Unrestrained occupants
 - Crashes involving inattentive drivers
 - Crashes involving aggressive drivers
 - Crashes involving drivers impaired by alcohol and/or other drugs
 - Crashes involving young drivers (15 through 20 years of age)
 - Crashes involving unlicensed, revoked, or suspended drivers
 - Crashes involving older drivers (65 years of age or older)
- Special Vehicles
 - Commercial motor vehicles
 - Motorcycles
 - School buses/school bus signal
- Vulnerable Roadway Users
 - Pedestrians
 - Cyclists
- Special Roadway Environments
 - Work zones
 - Highway/rail crossings

Local Strategies

- Education
- Enforcement (overtime and equipment)

- Information
 - Radio and TV public service announcements
 - Springfield Cardinals and MSU Bears events
- Engineering
- Removing obstacles on minor roadways, such as trees
- Adding center line and edge line rumble strips

Strategies to Implement Plan Goals

- ***OTO should continue to participate in the Blueprint for Roadway Safety.***
 - ***Projects that improve safety should receive priority for funding.***
-

Changes to the Major Thoroughfare Plan

Changes to the MTP take place through the OTO Major Thoroughfare Plan Subcommittee, who makes a recommendation to the OTO Technical Planning Committee (TPC). If agreeable, the TPC makes a recommendation to the Board of Directors and upon their approval, the change is documented in the Major Thoroughfare Plan map. When a jurisdiction or agency wishes to deviate from the OTO Design Standards, they must either request a variance, or request a change to the MTP.

The Major Thoroughfare Plan was last updated in August 21, 2008. Over the past year, in conjunction with the Long Range Transportation Plan, additional changes have been recommended to be made to the MTP. The OTO Major Thoroughfare Plan Subcommittee held a series of public meetings to discuss and review the potential updates. At these meetings, the subcommittee reviewed possible changes from a variety of sources and sought public feedback on each proposal. The specific changes can be seen in Appendix G. The Major Thoroughfare Plan map included here incorporates these changes. The MTP will be considered updated with the adoption of Journey 2035.

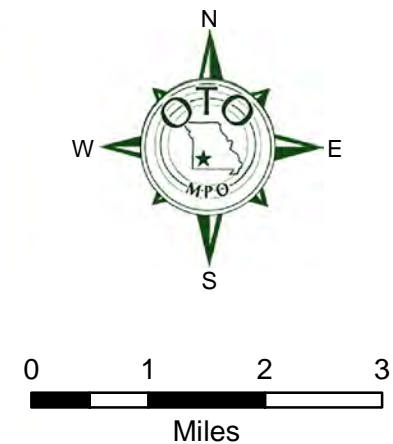
Legend

Existing Roads

- Freeway
- Expressway
- Primary Arterial
- Secondary Arterial
- Collector
- Local Street
- Railroad

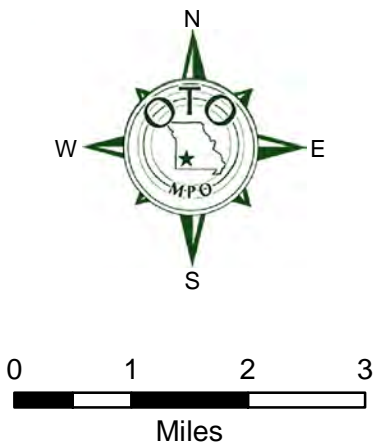
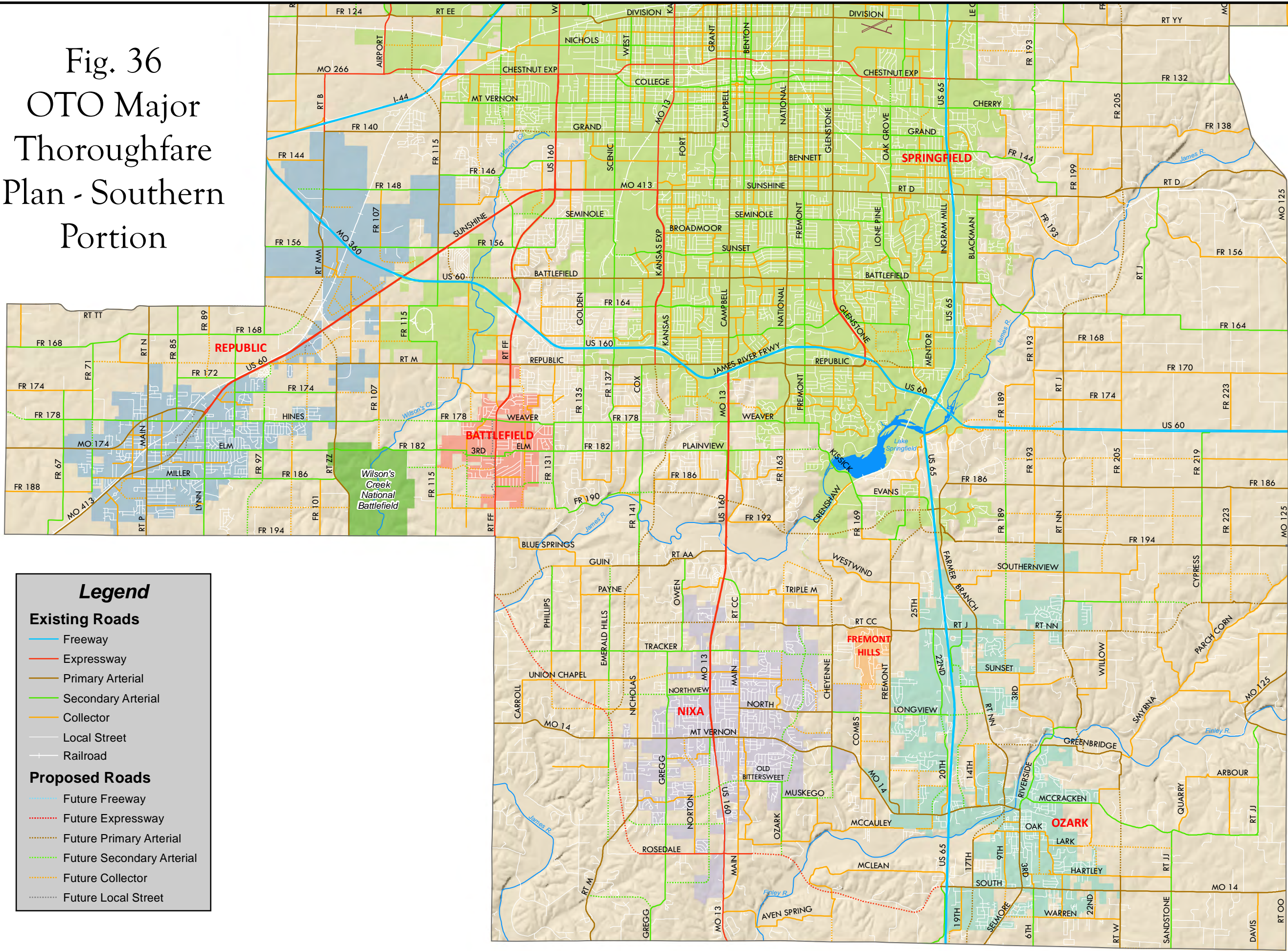
Proposed Roads

- Future Freeway
- Future Expressway
- Future Primary Arterial
- Future Secondary Arterial
- Future Collector
- Future Local Street



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Fig. 36
OTO Major
Thoroughfare
Plan - Southern
Portion



Disclaimer: This map is provided "as is" without warranty, representation or guaranty as to the accuracy or completeness of the data presented herein.

Chapter 6 – Public Transit

City Utilities is the primary fixed-route transit operator in the OTO region. Fixed route service is provided within the City of Springfield seven days a week. City Utilities also offers paratransit service for those who cannot ride the fixed-route bus due to a disability or health condition.

Missouri State University contracts with a private provider for regular shuttle service in and around the MSU campus. This service is available to the public at no charge.

Numerous agencies provide additional human-service transportation throughout the region. Some serve only their specific clients, and others, like OATS, provide demand-response service for the disabled and elderly in Springfield, and the general public in Christian and Greene Counties.

City Utilities

City Utilities offers service on 14 daytime routes and 4 night and Sunday routes. Ten of the daytime routes and each of the 4 night and Sunday routes utilize the downtown transfer station on a hub and spoke pulse system. Most routes enter the station twice hourly, enabling passengers to transfer to another bus quickly. Four north routes make connections at Kearney and Glenstone and three south routes make connections at the Battlefield Mall. Four of these routes do not use the downtown transfer station. All transfers are good for 90 minutes for any route, but are route specific. Transfers cost 10 cents. City Utilities provides transit service to the higher education institutions in Springfield, as well as most of the elementary and secondary schools in Springfield. Discounted fares are available for youth riders. A semester pass is available for full time college students.

The City Utilities transit service is funded through multiple revenue sources, including farebox revenue, advertising, federal and state grants, and CU utility customers. On average, CU relies on utility customers for about \$4 million each year (or over 50 percent of the needed funding) to cover the costs that fares, advertising, and grants do not.

The maps included here show the CU Day Routes, as well as the CU Nights, Weekends, and Holidays. The quarter-mile buffer around each route indicates the typical distance one will walk to a bus stop.

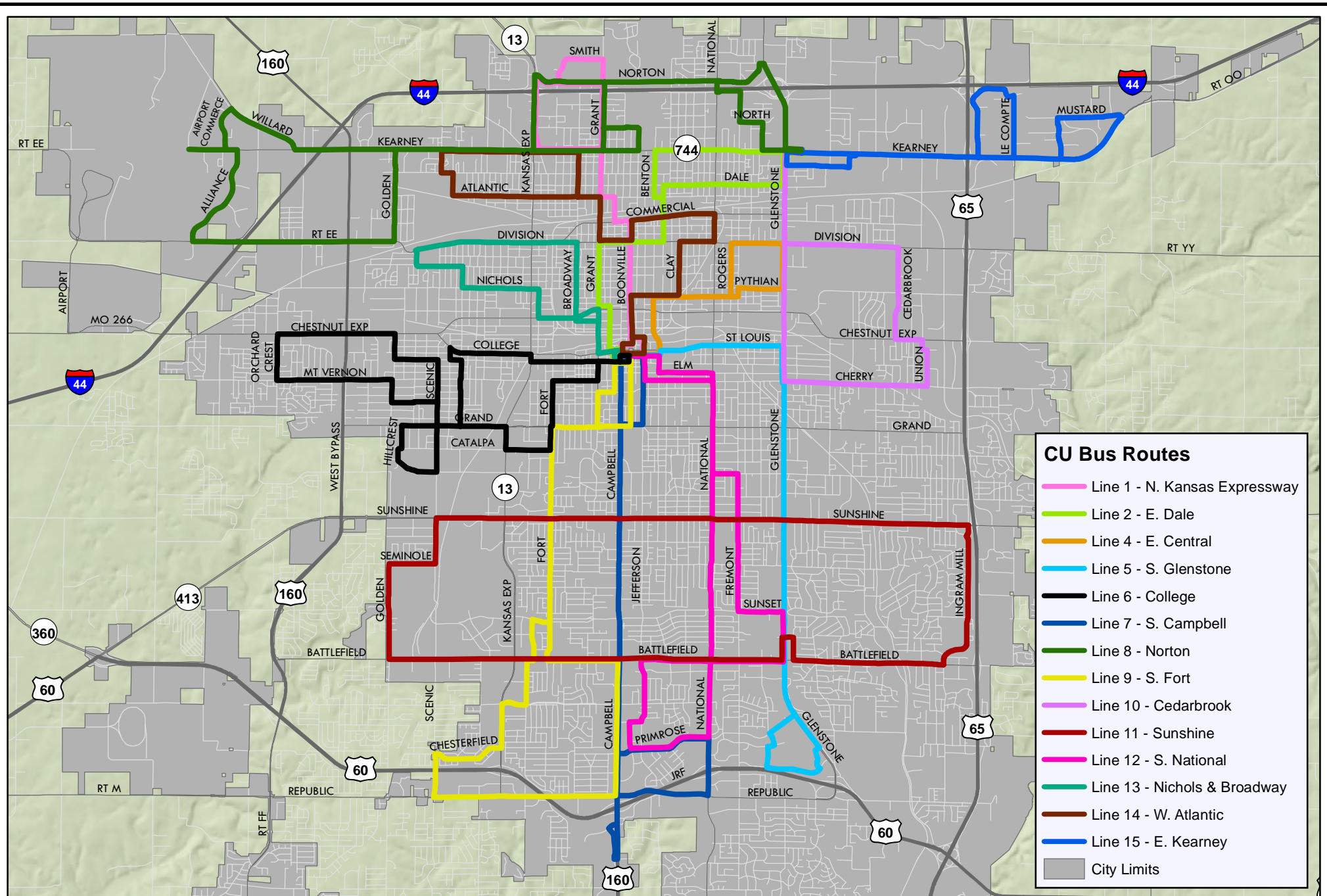


Fig. 37 - CU Fixed Route
Bus System Weekday Routes

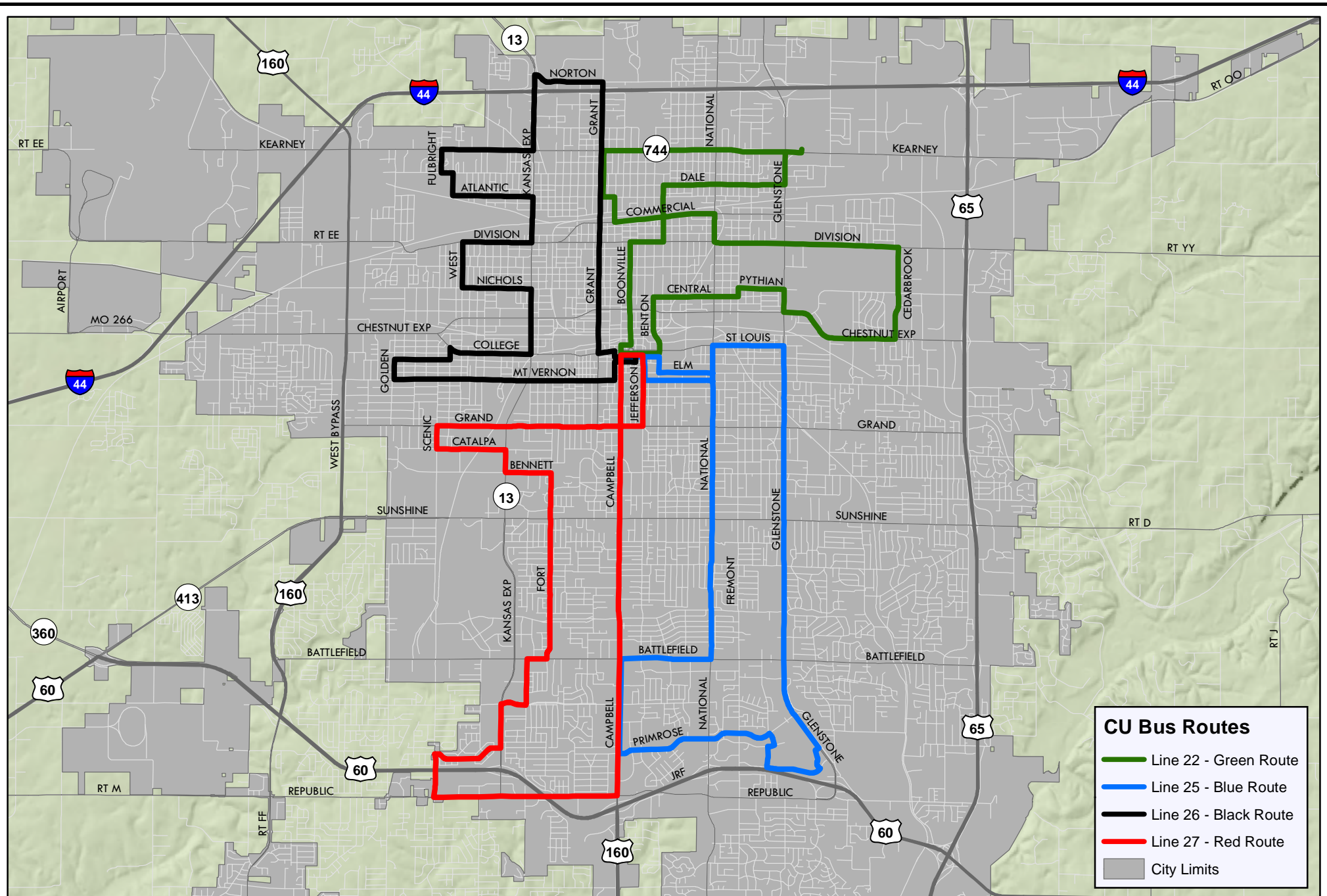


Fig. 38 - CU Fixed Route Bus System
Evening/Sunday/Holiday Routes

CU Transit Statistics

Population (2010) within ¼ mile of daytime bus route	132,293
Total OTO 2010 population.....	310,283
% of OTO Population within ¼ mile of a route	42.64
Number of minority residents within ¼ mile of a route	16,285
Percent of residents within ¼ mile of a route that are minorities.....	12.31
Total number of minorities in OTO	27,016
Percent of all minorities living within ¼-mile of a route.....	60.28
Total length in miles of daytime routes	173.37

Figure 39 - Farebox Revenue

Source: City Utilities Transit

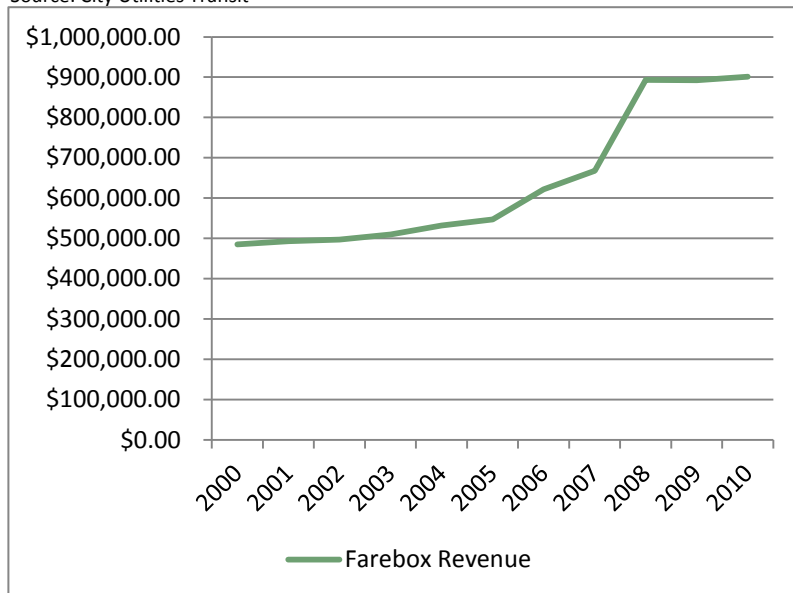
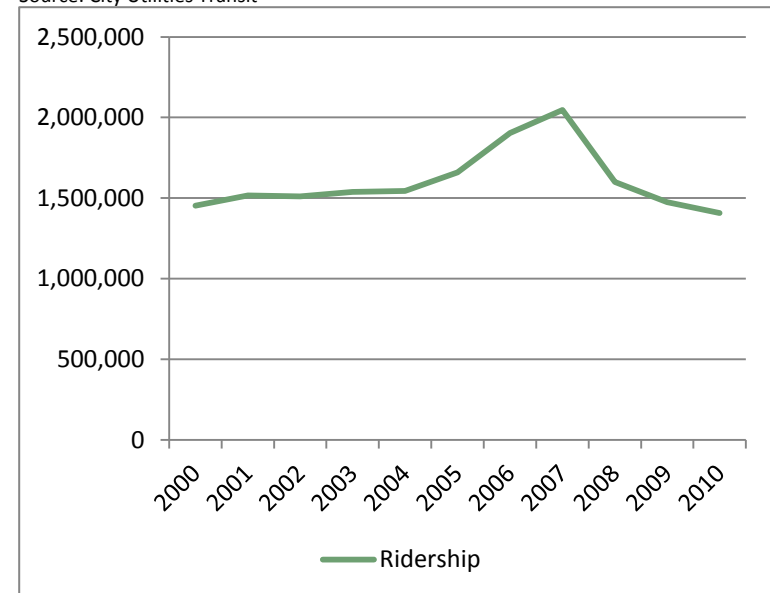


Figure 40 – CU Ridership

Source: City Utilities Transit



City Utilities transit ridership rose steadily from 2000 to a peak in 2007. Ridership decreased each year from 2007 to 2010, however ridership is on the rise again in 2011. Several reasons exist for this. The decrease in ridership from 2007 was caused by the fare increases that went into place in FY 2008, 2009, and 2010. CU also saw a dramatic decrease in the usage of daily passes, since it was more economical to purchase a weekly pass instead of the daily pass. In 2007, the daily pass was only twice the adult fare and now it is three times or \$3.75 and the weekly unlimited ride pass is only \$13.00. The downturn in the economy has also had a negative effect on ridership. This is evident, not only in Springfield, but across the nation.

Figure 41 - Total Operating Expenses
Source: City Utilities Transit

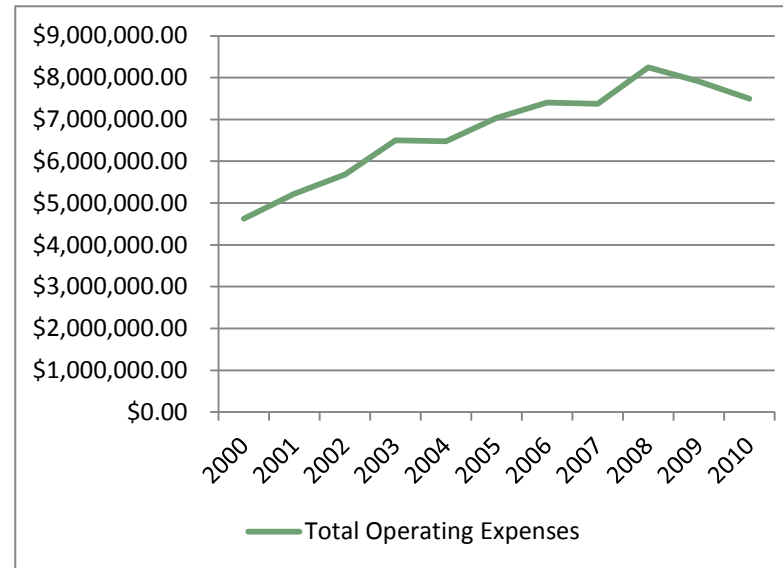


Table 25 - Farebox Recovery
Source: City Utilities Transit

Year	Farebox Recovery Ratio
2010	12.02
2009	11.28
2008	10.84
2007	9.06
2006	8.40
2005	7.77
2004	8.21
2003	7.84
2002	8.75
2001	9.44
2000	10.50

Previous Planning Efforts

Several studies have recommended a variety of changes to the CU transit system. The *Transit Service Study*, by the Corradino Group in 1995, was intended to help CU prepare for the potential loss of federal funding. Recommendations included fare increases, route changes, paratransit operations, enhancements to the transfer station, marketing of transit service, and an expanded advertising program for revenue. CU implemented many of these recommendations. The *Springfield Planning and Organizational Management Services Study*, by Urbitrans in 2002, reviewed the various transit routes and mostly suggested minor changes. City Utilities did incorporate several of these recommendations.

The most recent plan regarding transit in the region was the OTO Transit Development Plan, adopted in 2007. The Transit Development Plan (TDP) made recommendations based on one-, three-, and five-year time frames. Recommendations included moving forward with a regional transit system, fare increases, additional service on weeknights and weekends, stop improvements, review of the bus route structure, coordination with area universities, technology enhancements, a new bus transfer facility, and exploring opportunities for bus rapid transit. These recommendations are included in Appendix H. City Utilities has moved forward with several of these recommendations, including

expanding service and increasing fares. CU is currently working to finalize a location for the new bus transfer station. In conjunction with OTO, a study is just commencing to review the current route structure and the demand/requirements for a regional transit system.

Since the conclusion of the Transit Development Plan, OTO has also convened several meetings of a TDP study group to review the costs of a different route structure, a new transfer station, alternative fuels for buses, and the need for regional transit. The TDP study group concluded that the costs could be significant for a high-frequency, high density grid system, but that a new transfer station is needed in downtown Springfield regardless of the type of transit route system in place. The group recommended that CU should design and build for a 40-foot bus, if and when larger buses are purchased. The Study Group concluded, however, that the fuel these buses would use requires further study.

Strategies to Implement Plan Goals

- ***City Utilities should continue to seek a location and construct a new transfer facility in downtown Springfield as recommended by the OTO Transit Development Plan Study Group.***
 - ***When planning for and designing facilities, CU should make accommodations for a larger 40-foot bus, recognizing that future buses may not all be that large.***
-

The Transit Route Analysis, to be conducted in 2012, will provide a three-phase analysis of transit in Christian and Greene Counties. Phase I will be a Fixed-Route Operations Analysis of City Utilities Transit service, addressing how route service planning can provide the most cost efficient and effective bus service. Phase II will include recommendations for system improvements regarding route structure and decreasing headways within the City of Springfield city limits in the event additional investment were made in 20 percent increments, up to a doubling of operating costs. An additional final scenario will be provided showing the route structure and operating costs for 15-minute service on ½-mile route spacing. Phase III will include recommendations for adding commuter lines within Christian and Greene Counties, specifically including the Cities of Battlefield, Nixa, Ozark, Republic, Strafford, and Willard in the OTO, as well as Ash Grove, Fair Grove, Rogersville, and Walnut Grove. This final analysis will also include configuration of the fixed-route service within the City of Springfield to maximize the efficiency of the commuter routes. It is estimated this study will conclude in March of 2012.

By knowing the costs and possibilities of service different than what is provided now, the region will be better able to decide if and what changes should be made. There has been much discussion over the past few years regarding regional service, as well as a grid system. Additional service will require additional funding. By knowing the potential costs, the region can decide if this additional service is practicable and if a tax or some other funding source should be sought.

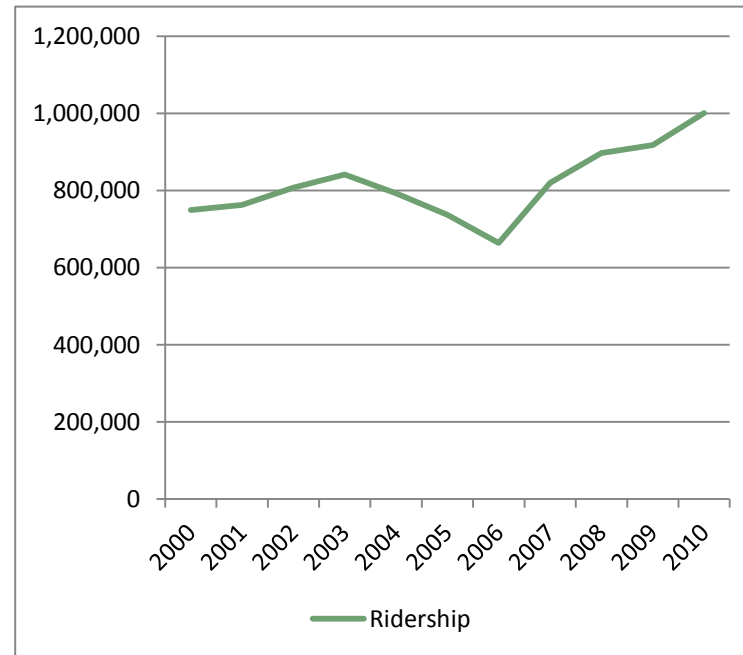
Missouri State University

Missouri State University, located in central Springfield, offers a free campus shuttle, known as the “Bear Line,” that also takes students to University offices and classrooms in downtown Springfield. The Bear Line operates weekdays from 7 am to 6 pm and offers varying weeknight, weekend, and holiday schedules. Shuttles are equipped with wheelchair lifts. Stops are marked with signs along the routes. Time between stops averages 5 to 8 minutes. Though primarily offered for students, faculty and staff of Missouri State University, any member of the community may ride the service for free. Since 2006, ridership has been steadily increasing, as seen in Figure 42.

MSU has two intermodal transfer facilities, located on the north and south ends of campus. These facilities include a multi-story parking garage, covered transit shelters with benches, as well as bicycle racks and pedestrian connections to campus. City Utilities transit also has stops near these facilities. The downtown shuttle brings riders within a block of the CU transfer facility.

Figure 42 - MSU Ridership

Source: Fisk Transportation



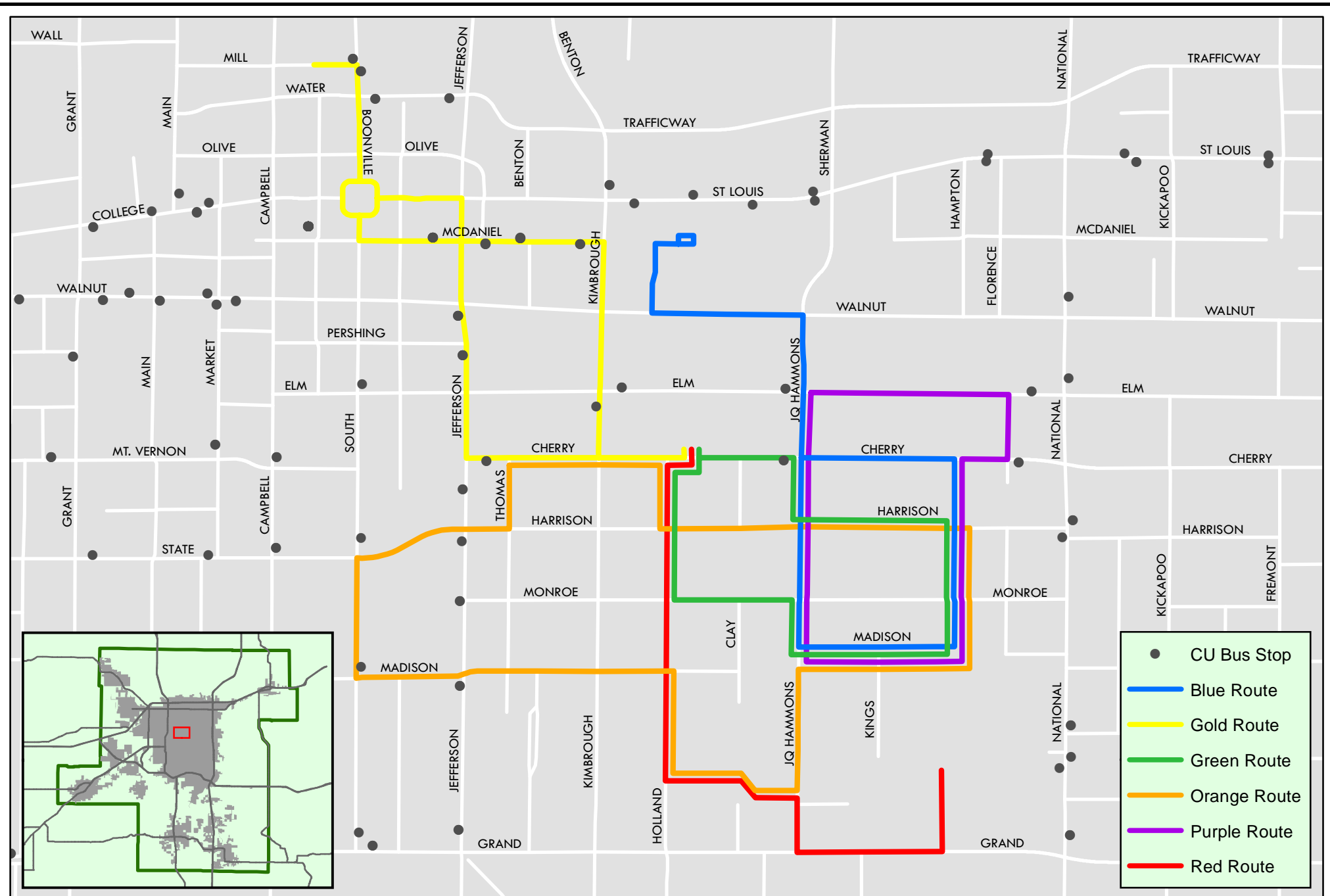


Fig. 43 - Missouri State University
Daytime Shuttle Routes

Regional Transit

Currently, there is no fixed-route transit service offered beyond the City of Springfield. Previous plans have encouraged the consideration of regional, commuter transit. During the development of this plan, the Long Range Transportation Plan subcommittee echoed that recommendation. The Transit Route Study, currently underway, will review possibilities for offering commuter service to the surrounding jurisdictions. Success of commuter transit service depends on the connections to the Springfield fixed-route service. Commuters will need to be able to count on timed transfers and quick travel to their ultimate destination.

Funding is an important consideration for commuter service. Fares must keep the service competitive with gas prices. The service would need to be subsidized by an as yet, unknown source. Potential funding sources include a regional tax, a local tax, or local general revenue funds.

Operation of such a service could happen one of several ways. City Utilities could contract with a local jurisdiction, which would pay for the service. A new regional transit agency could be formed. This agency could be, but does not have to be, a taxing authority. The regional agency could become the new transit provider for the region, or could contract back with City Utilities to offer regional service. Previous plans have cited the need for a regional transit authority, and possibly the need for a change in state law. Greene County, as a first class county, can decide to create up to a 1-cent sales tax to support a regional transit authority. Services outside of Greene County could still be provided through contract and external funding, however, without the change in state law, the Greene County Transit Authority cannot tax in Christian County. Christian County jurisdictions would need to locate their own funding source.

Strategy to Implement Plan Goals

- *OTO and its jurisdictions should continue to review the possibility and funding options for offering regional, commuter transit service.*
-

Thresholds for Transit Service

Though it is unknown how soon transit in the OTO region may differ from that offered now, there are many ways the OTO jurisdictions can prepare for future transit service. Land use decisions can make a difference in how well transit is supported within a region. Specific land use policies can determine future ridership and efficiencies of transit.

Table 26 - Thresholds for Transit Service
Source: ITE "A Toolbox for Alleviating Traffic Congestion"
http://ntl.bts.gov/lib/jpodocs/repts_te/10803.pdf

Type of Service	Frequency	Minimum Housing Unit Density	Minimum Population Density (Persons per Square Mile)	Non-Residential Floor Space (Concentrated Square Feet)
Bus - Local	1 hour	4 – 5	3,000 – 4,000	5 – 8 million
Bus - Intermediate	½ hour	6 – 7	5,000 – 6,000	8 – 20 million
Bus – Frequent	10 minute	15	10,000	15 – 20 million
Light Rail		9 (within ¼ to ½ mile of route)	--	35 – 50 million
Commuter Rail		1 – 2	--	100 million

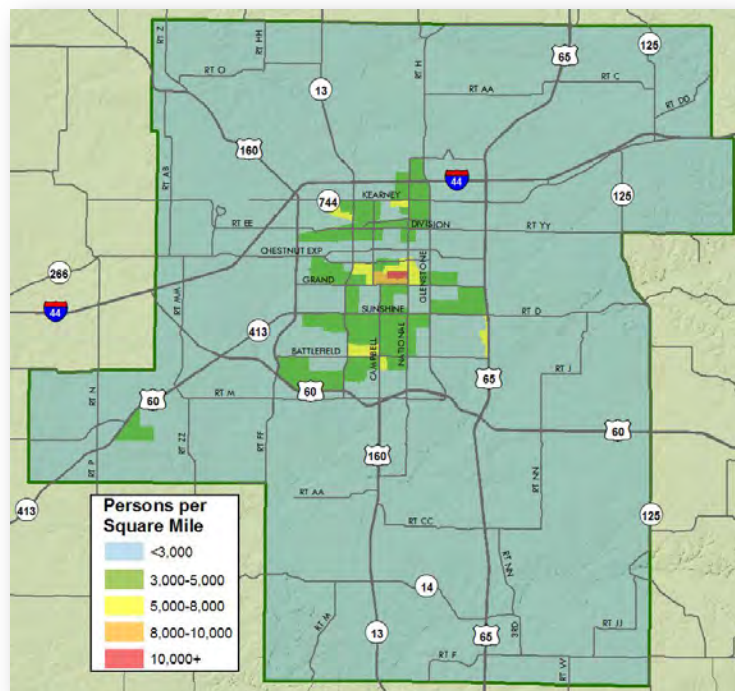


Figure 44 - Persons per Square Mile

Source: TIGER/Line Shapefile, 2010, Missouri, 2010 Census Block Group State-based

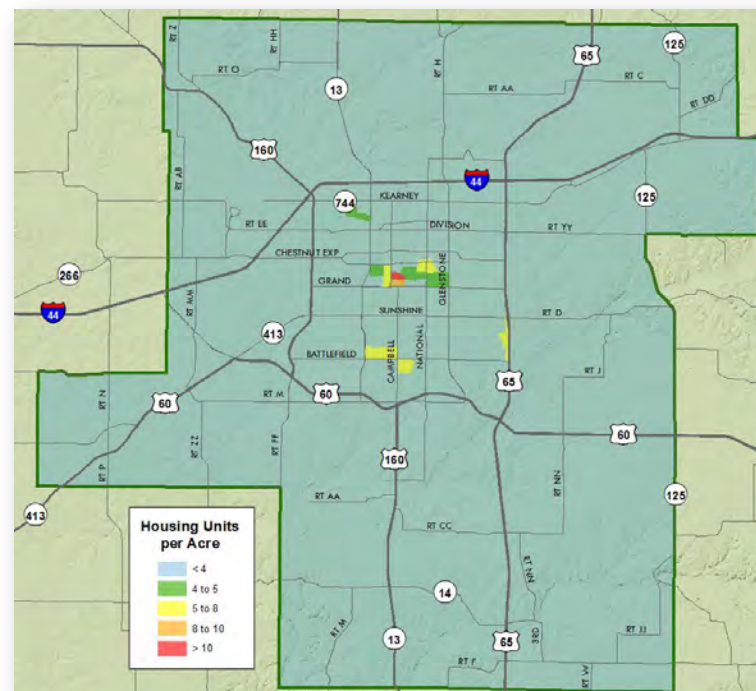


Figure 45 - Housing Units per Acre

Source: TIGER/Line Shapefile, 2010, Missouri, 2010 Census Block Group State-based

Currently, most of Springfield, but little elsewhere within the OTO, meets the threshold for ½ hour bus service. Only in downtown Springfield, do population densities support more frequent (10-minute) service. Using housing density, fewer areas of Springfield support frequent service and nowhere does Springfield have the 15 units per acre needed to support 10-minute service. Employment levels, do however, support additional service frequency. ITE’s “A Toolbox for Alleviating Traffic Congestion,” states that the likelihood for success of transit services increases in the range of 4,500 population or employment per square mile. Transit ridership is said to increase significantly as employment density exceeds 50 employees per acre or in activity centers having more than 10,000 jobs. Along National Avenue, which includes three of the region’s largest employers – Cox Hospital, St. John’s Hospital, and Missouri State University – employment exceeds 10,000 jobs per square mile. For reference, the Battlefield Mall is 1.2 million square feet, a single-level building on just over 30 acres. Hammons Tower is just under 300,000 square feet, a 23 story building on just over 4 acres. The Transit Route Study will further review these characteristics and will make route and service recommendations that support existing population and employment dynamics.

Supporting Transit

Using these thresholds, additional recommendations can be made to support recommended increases in service. According to the ITE “A Toolbox for Alleviating Traffic Congestion,” transit works best when “density of development occurs linearly along a corridor, with heavy trip generators located at either end of the corridor and other generators spaced along the corridor’s length.” It is also recommended that transit service be designed in advance of development, allowing for development decisions that support and generate peak period commuters. Before density increases, growth management and designs for open space can preserve corridors for transit supportive development. Zoning and development tools that support transit include planned urban developments, overlay zoning, special districts, mixed-use zones, land banking, traffic impact fees, and development exactions.

Source: US Census Bureau – 2009 Longitudinal Employer-Household Dynamics



Methods to Support Transit

- Encourage high density along transit corridors.
- Encouraging in-fill development.
- Encouraging mixed-use activities, especially placing housing and employment centers in close proximity to each other.
- Developing transit-supportive site design criteria such as –
 - Minimal walking distances to transit corridors
 - Buildings oriented to the street with parking in the back rather than the front
 - Provision of sidewalks, bus stops, and bus turnouts
 - Minimal block lengths in business districts
 - Sidewalks on one-side, if not both, sides of the street
- Limiting parking and discouraging single-occupancy vehicle trips.
- Target office parks and shopping centers for transit reforms, such as drop-off zones and shelters. At these locations, the walking distance from the main building to transit should be less than the distance to the middle of the parking lot.
- Street geometrics should also support use by transit vehicles, such as keeping automobiles from parking too close to intersections and providing wider lane widths at intersections.

Strategies to Implement Plan Goals

- *OTO should identify recommended transit routes and encourage future transit along those routes.*
 - *OTO jurisdictions should develop land use and growth management policies that encourage transit efficiency along recommended routes.*
-

Encouraging Transit

Creating Attractive Service

Transit is one option for travel and must compete against other modes for passengers. The transit industry recognizes several factors which improve the attractiveness of transit. ITE's "A Toolbox for Alleviating Traffic Congestion" contains a comprehensive list of these factors.

Availability

- Transit service should exist within a convenient distance of $\frac{1}{4}$ to $\frac{1}{2}$ mile from the rider's destination

Level of Service

- Frequency of transit service
- Convenient hours of service

Travel Time

- Calculated as door-to-door, including time to and from transit stops and time spent waiting for the bus
- Travel time should be comparable to other modes

Parking

- Limited parking availability
- Higher costs

Price

- Transit pricing is elastic, as in when the price increases, demand decreases

Reliability

- Adherence to published schedules
- Industry standards consider on-time performance to include not more than 5 minutes late or 2 minutes early

Convenience

- The service should be convenient to use
- The schedule and fare structure should be easily understood

Comfort

- Vehicles should be comfortable to ride
- Stops should contain amenities such as benches or shelters

Safety

- Service should be free from crime

Marketing

Marketing provides a number of benefits to transit agencies. First and foremost, it can increase ridership, but marketing also enhances public support, enhances the agency's image, counters negative publicity, creates customer awareness, addresses specific issues, introduces new service, and introduces new facilities. Marketing is the transit agency's opportunity to present a specific image of itself to the public. The CU Transit Fixed Route Advisory Committee thought marketing of the system could encourage more people to use it.

Strategy to Implement Plan Goals

- ***Both City Utilities and Missouri State University should use marketing techniques to inform the public that they offer quality service.***
-

Targeted messages should include

- Let the public know how important transit is in this community
- Inform the community about who uses transit and that there are riders who are absolutely dependent upon transit
- The type of service offered
- Transit is another option for travel
- Transit can help bicyclists and pedestrians get around town
- Transit is a sustainable travel choice

A comprehensive campaign should include print, radio, television advertising, and social media marketing. Advertisements should air during prime listening and viewing hours to be effective.

Besides the immediate benefits of a marketing campaign, there are also sustained and long term benefits. Should the region decide to pursue a new funding source for transit, through a tax for example, a marketing campaign will have built knowledge and goodwill toward the system and its needs. Marketing can be a form of education, while also selling a product.

Technology

Investments in technology can provide a more efficient transit service while offering an improved experience to riders. Automated Vehicle Locators (AVL) can provide CU operators with statistics relating to service levels, while linking this information to variable message signs can inform riders of their projected wait time. Automated Stop Announcements can also use the AVL technology to ensure that stops are announced clearly and on-time. City Utilities has already implemented Google Transit, making route planning even easier for riders. For the customer, these enhancements improve the perceived reliability of the transit system.

Strategy to Implement Plan Goals

- *City Utilities and Missouri State University should take advantage of available technologies that improve transit service, when not cost prohibitive.*
-

Supporting Other Modes

Most users of transit are also bicyclists or pedestrians at some point in their trip. Every CU bus has front-mounted racks for two bicycles and bicycles are allowed on the buses, as long as they are kept to the back and out of the way. Buses also share the roadway with other users. A number of considerations can improve the relationship between transit and other modes. In the ITE publication, “Designing Walkable Urban Thoroughfares: A Context Sensitive Approach,” describes elements that

At Bus Stops

Placement considerations should include

- Proximity to major trip generators
- Presence of sidewalks, crosswalks, and curb ramps
- Pedestrian crossings – midblock or at intersections
- Accommodations for people with disabilities

Traffic considerations should include

- Conflict between buses, other traffic, and pedestrians
- Crossing to an opposite bus stop – every bus stop will probably become a pedestrian crossing point
- Passenger protection from passing traffic
- Sidewalk width
- Lane width to minimize pedestrian crossing times
- Pedestrian activity near the stop
- Paved surface
- Street lighting

Bus operational considerations should include

- Accessibility and availability of convenient curb space
- On-street parking and loading zones
- Traffic control devices
- Volumes and turning movements of other traffic, including bicycles
- Proximity and traffic volumes of nearby driveways
- Street grade
- Ease of re-entering traffic
- Proximity to at-grade rail crossings

Specifically, bus stops should be located near intersections to facilitate pedestrian accessibility. Mid-block bus stops should be accompanied by mid-block crosswalks that are placed behind where the bus would stop. This promotes pedestrian visibility to on-coming traffic. Mid-block bus stops may be closer to destinations but, if crossings are uncontrolled, they may create additional safety concerns.

City Utilities has worked with Springfield Public Works to place bus turnouts at locations throughout the City. Bus turnouts allow for the loading and unloading of passengers without restricting the flow of traffic in travel lanes. Bus turnouts should be placed carefully, as there could be delay while waiting to re-enter traffic.

Bicycle lanes should be limited in areas with frequent bus stops. Buses will often need to cross the bike lane to reach the bus stop and this can create conflict as buses leave and enter the roadway. When transit is located along bike routes, sharrows should be used to indicate the presence of bicyclists, also allowing bicyclists to stay in the through travel lane.

Strategies to Implement Plan Goals

- ***When bus stops are moved or when new ones are placed, consideration should be made for pedestrian accessibility.***
 - ***Sharrows, shown to the right, rather than bicycle lanes, should be used along transit routes, especially those with frequent stops.***
-

Figure 47 - Example of a Sharrow

Source: Natasha L. Longpine



Stop Amenities

City Utilities bases the availability of stop amenities on the needs of the ridership of each route. Stop amenities include benches and shelters. Amenities provide a certain level of comfort as well as protection from the elements for transit riders. At locations along The Link, additional amenities will include water fountains, bike racks, and lockers. These stops will be known as Link Stations. The Link is a planned bicycle and pedestrian route through Springfield's core that will connect existing and planned greenways. Transit connections with The Link will provide additional access throughout the City, and eventually the region, by Link users.

With Thoroughfare Design

Transit considerations should be included in thoroughfare planning and design. Even when transit will not be immediately present, streets should be designed in such a way, that transit could be easily accommodated. Having identified routes for future transit use will guide when these decisions should be made. Likewise, considerations should be made when placing transit on existing streets.

Transit-friendly streets should have slower traffic speeds and a strong pedestrian orientation. Physical design elements which encourage traffic calming can improve transit efficiency, as vehicular traffic may move to alternative routes. Narrow traffic lanes can minimize pedestrian conflicts with traffic, allowing pedestrians to cross the street quickly while encouraging slower travel speeds. Intersections should consider the size of buses, providing the appropriate turning radii. Based on these factors, in the OTO area, secondary arterials and collectors in commercial areas are better suited for local transit service than primary. Primary arterials and expressways are more appropriate for express transit service. High traffic volumes can delay travel by bus due to difficulties re-entering traffic after pulling into a bus stop.

When completing a roadway improvement or maintenance project along current or future transit routes, designers should work with City Utilities or the current transit provider to review the locations of transit stops, provide pedestrian accommodations at intersections, consider mid-block crossings, and other techniques that prioritize transit, such as permitting movements not otherwise authorized by other vehicles, transit activated signal phases, traffic signal progression better matched to transit operating speeds, and possible queue jump lanes or bus only lanes. Queue jump lanes provide an additional lane at intersections, allowing buses to move ahead of other traffic waiting at a stop light.

Strategy to Implement Plan Goals

- ***Transit should be considered when designing and implementing new roadways, as well as when completing retrofit or maintenance projects.***
-

Paratransit and Human Service Transportation

Access Express

For those passengers unable to ride the regular bus route due to a disability or health condition, City Utilities offers Access Express. Access Express is an origin-to-destination paratransit service that does not operate on a fixed route or schedule and provides transit service in an area that at least extends $\frac{3}{4}$ of a mile beyond the fixed-route system, as well as within the entire city limits of Springfield. City Utilities has five Access Express buses, but only four are operated for maximum service. Riders must apply for eligibility and reservations may be made next day up to seven days in advance, though reservations are recommended to be made in as much advance as possible. Reservations are made on a first-come, first-serve basis. During FY2011, CU has averaged over 1,700 passengers a month on Access Express, with a peak over 2,000 in March. The prior three years only averaged about 1,400 passengers, with peaks no higher than 1,700. The percentage of rides that have been turned down has traditionally been less than 1 percent, though that have been increasing over the past few years, with 2011 currently at 1.4 percent of all ride requests denied.

OATS, Inc.

OATS, Inc. provides demand-response service for the elderly and disabled in Springfield, and the general public in Christian and Greene Counties. In Springfield, two buses are offered three days a week that provide service to the elderly and disabled ages 18 to 59. The remaining buses in Springfield provide service to the elderly only. Though anyone can use OATS service in the remainder of Christian and Greene Counties, due to space limitations, medical appointments are given priority.

Taxicabs

Taxis are normally operated by the private sector and are hired by an individual for door-to-door transportation. Taxis may provide shared-ride service, carrying several individuals from different origins or to different destinations. In the OTO area, two known taxi companies provide accessible service. These are Blue Taxi Company and Springfield Yellow Cab.

Human Service Transportation

Human service transportation is usually provided by a public or private not-for-profit agency to meet the particular needs of its clients. This service is normally operated by vans or similar vehicles on a regular schedule or on a demand responsive basis. A list of known human service transportation providers is included in Appendix I.

Paratransit Service Coordination

In 2007, the OTO adopted a Transit Coordination Plan (TCP) in order to identify strategies and preferred alternatives for initiating or improving coordination between public, private, and non-profit providers that receive public funding for transportation disadvantaged individuals, including older adults, people with disabilities, and human service agency clients within the OTO region. By ascertaining available service and user needs, the Plan identified gaps in human service transportation. From these gaps, strategies were developed and prioritized.

Gaps in Human Service Transportation as Identified in the TCP

- Evening service
- Understanding of services
- Geographic availability of services
- Lack of sidewalks
- Necessary walking distances
- Lack of benches at stops

Table 27 - OATS Total Trips

Source: OATS, Inc.

Year (7/1-6/30)	Christian	Greene
2004-2005	5,367	37,523
2005-2006	5,919	40,796
2006-2007	6,436	48,997
2007-2008	6,403	55,072
2008-2009	7,456	66,895
2009-2010	7,477	65,302
2010-2011	7,642	66,686

- Cost
- Timeliness
- Service outside of Springfield
- Funding limits
- Sharing agency vehicles

High Priority Strategies and Actions as Identified in the TCP

Sustain current mobility services

- Replace vehicles at end of life
- Renovate vehicles to extend life
- Get people to/from work, education, job training, shopping, medical, social services

Increase utilization of services

- Rideshare and dispatch program
- Ride coordination program
- Dispatch program
- Interagency communication
- Intervehicle communication
- Scheduling program

Increase/improve mobility services and infrastructure

- ADA accessibility at stop
- Accessibility to stop
- Accessibility from home to sidewalk (door-to-door)
- Uniform administration of service
- Expand coverage area
- Coordinate OTO area services with SMCOG service area

These high priorities have directed how OTO prioritizes requests for human service transportation vehicle funding, ADA accessibility, and job access. Since the Transit Coordination Plan was adopted in 2007, OTO and area providers have worked to implement the actions and strategies. Transit vehicles which need replacing receive priority for funding over vehicles which expand service. City Utilities has partnered with Springfield

Public Works to construct sidewalks and concrete pads at bus stops. Through the creation of the Local Coordinating Board for Transit, which reports to the OTO Board of Directors, a transit brochure was developed which lists area transit providers, and private companies with accessible vehicles.

Challenges since adoption of the TCP include efforts to promote vehicle sharing. Each agency must meet varying insurance requirements. Many do not have the same driver training requirements. A 211 call-in information service has been developed, but if transportation is not an agency's primary service, it may be difficult to find. A lead agency is needed for dispatching and scheduling. If a lead agency could be found or created, many of the vehicle sharing and driver sharing issues could also be addressed.

Additional service needs which continue to be cited in the region include more door-to-door service. This is defined as transit service which helps clients from the door of their home to the door of their destination. Most service is considered curb-to-curb, where the client must exit their home and meet the bus at the street. Door-to-door service requires additional considerations including time and liability. This also means such a service requires more funding.

The Transit Coordination Plan will be updated in 2012. The Plan update will reassess services and needs and will develop a revised list of priorities for the region.

Strategy to Implement Plan Goals

- ***The Transit Coordination Plan update should further address the need for central dispatching and a single-call service such as 511 for scheduling rides.***
-

Chapter 7 – Inter-City Passenger Surface Transportation

Bus

Inter-City Passenger Bus

The OTO region is currently served by one inter-city bus company, Greyhound Lines, Inc., which serves over 2,300 destinations in North America. There are 31 Greyhound locations in Missouri, including Springfield, Kansas City, and St. Louis. Branson is also served by Greyhound. Many calls are received through the OTO Rideshare telephone number requesting transit between Springfield and Branson, or Kansas City and Branson. Greyhound is one of the few affordable services for such transportation. As Branson is about 50 miles from the north edge of Springfield, taxi or other private services can be expensive. One difficulty, however, is connecting to Greyhound from the airport. Greyhound connects many smaller towns in southwest Missouri, but City Utilities transit no longer directly serves the Springfield-Branson Airport. Private ground transportation services, such as taxicabs, are available. The Greyhound bus station in Springfield is on the northeast corner of Springfield, whereas the airport is on the very northwest. Greyhound's service to St. Louis and Kansas City provides a connection to Amtrak service.

Strategy to Implement Plan Goals

- *Pursue options to connect fixed-route transit service to the Springfield-Branson National Airport, providing a better connection to inter-city bus service such as Greyhound.*
-

Charter Service

The Springfield area also has a number of charter bus companies and companies offering bus tours to popular tourist area in the region. Local school districts will also utilize charter bus service to provide transportation for out-of-town school trips, including sporting events.

Train

Springfield does not have passenger train service. Current discussions regarding national transportation infrastructure have focused on high-speed passenger rail. Numerous proposals exist, but most focus on improving existing passenger rail service. Proposals for future corridors

show new rail lines extending from Kansas City, through Wichita and on to Tulsa. Springfield is shown to provide connecting bus service to these high speed passenger corridors.

In 2007, due to congestion along the corridor between St. Louis and Kansas City, Missouri Department of Transportation officials requested that Amtrak study the possibility of service between St. Louis and Springfield. The mainline between St. Louis and Springfield is predominantly single-track, travels through rural countryside with varying terrain and nearly half the trackage is on curves. As of 2007, BNSF Railway Company operated 12 freight trains per day on this track. About 90 miles of track remains jointed, whereas most is welded. Due to funding constraints, it could be several years before it has all been replaced with welded track. Much of the maximum authorized speed along this track is 40 to 45 miles per hour. Though passenger trains can travel at higher speeds, their train speed is limited to the track speed imposed upon the line by the Federal Railroad Administration. Track improvements and a MoDOT evaluation of the adequacy of signaling requirements for at-grade crossings would be necessary.

Should the route between St. Louis and Springfield be funded, the following station stops have been recommended –

- St. Louis
- Kirkwood
- Sullivan
- Rolla
- Lebanon
- Springfield
- (Branson) - possible connection by shuttle

Stations and shelters do not currently exist at these locations along the route and funding sources for those facilities, as well as passenger platforms, would have to be identified. Once in Springfield, this BNSF line intersects the heavily traveled Thayer Sub (Memphis-Springfield route), a primary coal route from the Powder River Basin to the southeast. It has been recommended that a Springfield station be located east of downtown to avoid conflicts with this rail traffic.

Figure 48 - National High Speed Rail Plan

Source: US Department of Transportation



A trip to St. Louis from Springfield by automobile takes about 3 hours. The same trip by Greyhound bus takes about 4 hours. Direct flights between the two cities are no longer offered. It is estimated that given the current track conditions and the stops along the way, a passenger train trip between St. Louis and Springfield would take nearly 6 hours.

The study recognizes that the connection between St. Louis and Springfield has strategic merit and could potentially carry 34,000 passengers per year, but service is not feasible given today's current track conditions and population densities. Significant capital would need to be invested along the corridor and for each station.

The Missouri Department of Transportation has not precluded the possibility of passenger rail service to and from Springfield. The Missouri State Rail Plan will study both freight and passenger rail in the state. OTO will participate in this planning process.

Interest in passenger rail also exists locally. The draft Springfield Strategic Plan recommends conducting a study to determine the feasibility of passenger rail service between Springfield, St. Louis, and Kansas City. The Plan recommends looking for corridors beyond existing freight track, with one option being the medians along Interstate I-44 and Highway 13.

Strategy to Implement Plan Goals

- ***OTO should stay involved with discussions that would bring passenger rail to Springfield.***
-

The most prevalent concern regarding passenger rail, high speed or otherwise, is funding for operations. Federal grants can contribute significantly to capital costs for passenger rail, but operations must be paid for by each state. In Missouri, funding for Amtrak operations comes from general revenue and must be approved annually by the General Assembly. This creates an unstable funding situation.

Strategy to Implement Plan Goals

- ***The Missouri General Assembly is encouraged to find a stable funding source for passenger rail in Missouri.***
-

Chapter 8 – Bicycle and Pedestrian

Previous Planning Efforts

Vision 20/20 – Springfield Transportation Plan

Adopted June 2001

Prior to the expansion of its boundaries in 2003, the Springfield MPO followed the guidance of Vision 20/20, a joint comprehensive planning effort between the City of Springfield and Greene County. Vision 20/20 included recommendations for a 134-mile trail network, as well as guidelines for bikeway location and design, a bicycle route system, signing and marking, and priorities for addressing the sidewalk system.

Comprehensive OTO Area Bicycle-Pedestrian Plan

Adopted December 15, 2005

The OTO boundaries grew in 2003 to encompass the larger urbanized area. It was decided that a new bicycle-pedestrian plan should be developed, incorporating the expanded region. This purpose of this plan was to identify both off-street (trail) and on-street routes that establish and complete the transportation network for pedestrians and cyclists. The planning process included regional surveys of both cyclists, non-cyclists, and pedestrians. The existing system was inventoried to determine a baseline for bicycle and pedestrian facilities. Goals and objectives were established for future planning considerations. Recommendations were made regarding the purpose and design of specific bicycle and pedestrian facilities. The transit system was addressed as a critical connection for the pedestrian and cyclist. Implementation actions were identified for each OTO community, referencing both greenways and on-street connections.

Journey 2030

Adopted April 2006

Journey 2030 is the OTO Long Range Plan prior to Journey 2035. As Journey 2030 was adopted just after the adoption of the Comprehensive OTO Area Bicycle-Pedestrian Plan, the document only contained an Executive Summary of the Bike-Ped Plan. Of additional importance, however, Journey 2030 also contained design standards for roadways. These standards require sidewalks along appropriate roadways and allow for additional right-of-way where there should be bicycle routes. Most OTO jurisdictions have adopted these design standards for themselves, or at least enforce a similar set of guidelines.

Individual Jurisdictions

Various Adoption Dates

Most of the OTO jurisdictions have individual bicycle and pedestrian plans for their internal systems. Where they do not have plans in place, the current OTO plan serves as a reference for bicycle and pedestrian improvements and design guidelines.

Journey 2035 Planning Process

The planning process for this update of the Bicycle-Pedestrian Plan was conducted through the OTO Bicycle Pedestrian Advisory Committee and the Long Range Transportation Plan Subcommittee. Meetings were held monthly to develop goals and objectives, a project list, a prioritization process, and an updated bicycle-pedestrian plan map. The following pages contain the recommendations for bicycle and pedestrian improvements through 2035.

Goals and Objectives

The following were developed by reviewing the Goals and Objectives in the previous Bicycle-Pedestrian plan and from the public input received at the OTO Public Input Meetings, as well as the Public Input Survey. These goals should be considered during the development and implementation of future bicycle and pedestrian activities. These are the guidelines by which all recommendations were made in this plan.

Vision

Improve the safety, access, connectivity, convenience, and prevalence of bicycling and walking as a transportation choice supporting livability within the Ozarks Transportation Organization (OTO) region.

Goal 1

Develop a comprehensive regional bicycle and pedestrian network by identifying both on-street and off-street facilities within the OTO.

Objectives

- Identify the safe and efficient bicycle/pedestrian routes that connect existing and planned bicycle routes, major destinations, attractions, and neighborhoods in the OTO planning area, minimizing vehicular trips, especially within a 1-mile radius of residential areas.

- Promote a bicycle/pedestrian system that maximizes the use of all bicycle and pedestrian facilities.
- Target the preservation of open space, such as floodways, utility corridors, rail corridors, neighborhood common space, etc., for future development of multipurpose trails and multi-modal commuter routes.
- Identify facilities which can facilitate community connections.
- Encourage land use development patterns that promote and accommodate bicycle and pedestrian use.
- Encourage compliance with ADA standards, such as pavement markings, surface grade, ramps, etc., for all bicycle and pedestrian facilities.
- Provide a bicycle and pedestrian system that promotes bicycling and walking as a mode of transportation for employment, school, shopping, social, recreation, and other trip purposes.
- Encourage the OTO member jurisdictions to implement their internal bicycle/pedestrian component of their comprehensive or long range plan, which complements the regional OTO bike/ped plan and is consistent with OTO's design standards.

Goal 2

Integrate the bicycle and pedestrian network with the existing transportation system.

Objectives

- Encourage and promote a policy of a complete street system that accommodates all users including trucks, automobiles, buses, bicycles, and pedestrians within the street network.
- Establish safe, direct routes that connect to desired destinations.
- Encourage review of all bicycle and pedestrian facilities for consistency with the regional bicycle/pedestrian system plan.
- Unify design standards for bicycle and pedestrian facilities among OTO member jurisdictions.
- Use road and trail infrastructure to create a functional bicycle/pedestrian system that is continuous and coordinated among OTO member jurisdictions.
- Connect existing and planned linear park trails using on-street bicycle and pedestrian facilities to foster a multi-modal transportation network.

Bicycle and pedestrian improvements can provide additional benefits like traffic calming. This pathway in Fayetteville was possible by narrowing the travel lanes across the bridge. The narrow lanes slowed traffic as it entered a nearby residential area.

- Improve the connectivity of the bicycle and pedestrian network to transit stops and transfer stations.
- Continue to allow, encourage and promote the use of bicycles in conjunction with transit vehicles.
- Provide bicycle and pedestrian facilities at frequent intervals across barriers, especially on all bridges, where space allows.
- Provide sufficient and safe bicycle parking to complement the bicycle network.
- Provide suitable crosswalks for pedestrians at key major intersections.
- Promote safety measures such as medians and refuge areas near major intersections, particularly where there are wide streets.
- Consider integration of bicycle and pedestrian travel when planning and designing all roadway improvements.
- Maintain a Bicycle/Pedestrian Advisory Committee, consisting of OTO representatives and residents of the OTO member jurisdictions as appointed by their respective City Councils or Board of Aldermen, which will advise OTO on all matters related to bicycle and pedestrian issues.

Figure 49 - Example of Narrowing Traffic Lanes to Provide Path on Bridge, Calm Traffic

Source: Terry Whaley



Goal 3

Enhance and promote bicycling and pedestrian safety.

Objectives

- Encourage development of safe direct routes that connect to area schools.
- Support the coordination of education programs for bicyclists, pedestrians, and motorists.
- Encourage enforcement of laws and ordinances related to safe bicycle operation and pedestrian safety.
- Support safe routes to school programs in the OTO member jurisdictions.
- Explore partnerships with other organizations to promote safe bicycling and walking in the OTO region.
- Encourage training of law enforcement officers regarding pedestrian safety and law.
- Be aware of technologies that may impact future trail users.

Goal 4

Identify and target sources to fund pedestrian and bicycle facilities and programs.

Objectives

- Identify and pursue funds for improvements to the bicycle and pedestrian system.
- Provide for the effective administration of a bicycles and pedestrian system and policy including the creation and support of a bicycle/pedestrian coordinator(s) in partnership with and within the OTO region.
- Use this plan as a tool to access possible public and private funding sources.
- Seek and encourage funding for education, encouragement, and promotion activities.
- Encourage local communities to designate continuing funding to be spent on the construction and maintenance of bicycle and pedestrian facilities.

Goal 5

Promote bicycling and walking as a means of transportation integral to daily activities.

Objectives

- Encourage provision of shower and changing facilities and end-of-trip services at work or at trail facilities for cyclists.

- Develop model ordinances to require provision of bicycle parking where auto parking is required. This should be considered for all new development, and for existing developments, jurisdictions should consider requiring compliance by a set date.
- Promote bicycling and walking as transportation to and from school at all levels.
- Encourage local jurisdictions to offer incentives that promote bicycling and walking to employers that offer employee incentives.
- Increase awareness of the availability of bicycle and pedestrian facilities.
- Involve the media in the promotion of bicycling and walking as a transportation alternative.
- Promote the economic, health, and environmental benefits of bicycling and walking.
- Facilitate member jurisdictions with Bicycle Friendly Community status, as well as other designations and opportunities that exist.

Goal 6

Support bicycling and walking for the promotion of tourism in the OTO region.

Objectives

- Encourage bicycling for tourism, focusing on historical and natural attractions and destinations within the OTO region.
- For route development, use an inventory of possible attractions within cycling distance that may be of interest to local and visiting cyclists.
- Support the development and signage of the Trans-America Trail cycle route and Historic Route 66 as cycling attractions.

Figure 50 - Example of a Trail as an Amenity

Source: Terry Whaley



Bicycle and pedestrian improvements are attractive amenities for nearby business and residential developments. Trails can also provide convenient connections between residential and shopping or office centers.

- Promote improvements such as signage, for themed local bike routes which access or connect attractions, i.e., historic schools and sites, Wilson’s Creek National Battlefield, State Parks, and local landscape.

Project Submissions

Bicycle and pedestrian projects were solicited in a variety of ways. OTO jurisdictions and stakeholders were asked to submit any and all projects they thought would be necessary through 2035. A total of 105 were submitted. A number of bicycle and pedestrian projects were submitted along with roadway projects. Most were submitted as stand-alone projects. In addition to these two sources, OTO staff added projects that had been submitted through other means, whether by public comment or knowledge of particular needs. The goal was to create a comprehensive list of possible needed projects. Prioritization of this list was discussed, but the variety of projects made this difficult. Also, many of the projects could be done in conjunction with a roadway project, and the Committee did not want such opportunities to be affected by a prioritization list. Many of the bicycle and pedestrian projects are also likely to be addressed in the near-term. Some projects also were not listed, as their specific extents may not be known. This includes school sidewalks. Rather than list each gap within a certain distance around each school, a more general recommendation was made that these be addressed. The difficulty is then how to compare and rank all of these varied projects.

This plan recommends instead that this comprehensive list of needs be maintained by OTO and that it is reviewed annually by OTO staff and the Bicycle Pedestrian Advisory Committee. As projects are completed, they can be removed and as new projects are needed they can be added. This list will be especially important because it can provide information on where accommodations are most needed in the network.

Strategy to Implement Plan Goals

- *OTO should maintain a comprehensive list of bicycle and pedestrian needs that is reviewed annually.*
-

Prioritization

The Bicycle Pedestrian Advisory Committee initially developed a prioritization process for the submitted projects. This was a detailed and quantitative process and was based upon the Goals already set forth in this plan. As the process was developed, however, it became apparent

that the data needed for this process was not available for all projects. This plan recommends that OTO staff works with the area jurisdictions and agencies to develop this data and build the capacity for this detailed analysis in the future. Prioritization factors that need data include:

- Bicycle and pedestrian crashes
- Current and projected use of the proposed facility improvements
- System condition in the form of bicycle/pedestrian level of service

Instead, the Committee selected a set of policy priorities and a set of regional project priorities. The policy priorities represent those general projects that may not currently have an identified location, like school sidewalks. The project priorities help work toward the effort to build-out a regional trail system. The projects selected would make the larger regional connections, and do not include the necessary portions of a more local trail network in each community. These priorities are based on the Bicycle-Pedestrian Goals and Objectives and recommend which should initially be implemented.

Strategy to Implement Plan Goals

- ***OTO should work with member jurisdictions to expand data availability for bicycling and pedestrian activities. This includes, but is not limited to, bicycle and pedestrian crashes, current and projected use of facilities, system condition, and level of service calculations.***
-

Regional Bicycle/Pedestrian Priorities

(not in any prioritized order)

Support the Goals and Objectives of the OTO Bicycle/Pedestrian Element of the Long Range Transportation Plan through –

Top 5 Policy Priorities

- Sidewalks on School Walking Routes
- Sidewalks on Streets with Commercial Land Use, especially High Volume Bus Routes
- Emphasize Projects that Extend from Communities and Enhance the Regional System
- Complete Bike/Ped Projects with appropriate Roadway Projects
- Develop Implementation Plan for Bike/Ped Plan, including details such as easements

Additional Policy Priorities

- North-South Connections between Trails, including The Link in Springfield
- Streetscapes in Urban Centers
- Trail Connections between Communities
- Development of a Trail Loop around Springfield
- Reclamation of Rail Bed – including following the status of active rail
- Educational Campaign
- Focus on bringing Trails toward Wilson’s Creek National Battlefield at a Designated Access Point
- Support the Goals and Objectives of the OTO Bike/Ped Element of the Long Range Transportation Plan

Top Project Priorities

- Wilson Creek/Jordan Valley Creek from South Creek to Smith Park
- Trail of Tears – from Close Memorial Park to City of Battlefield
- Republic Shuyler Creek and North Fork Shuyler Creek Trails
- Strafford Route 66 Trail from Springfield to Farm Road 249 (the ball fields)
- Ozark Finley River Trail and other Future Linear Trails as shown on the OTO Bike/Ped Map in Christian County
- Greene County Destination Plan with the addition of a Christian County/Regional addendum
- James River Trail – from Crichton Landing east of Springfield to Delaware landing west of Nixa

This list of regional priorities will be supplemented by the database of bicycle and pedestrian needs. The needs list will help identify specific projects within these priorities.

Strategies to Implement Plan Goals

- ***Bicycle and Pedestrian project selection and funding priorities should support the priorities included in this Plan.***
- ***OTO, in partnership with member jurisdictions and Ozark Greenways, should develop an implementation plan which identifies strengths, challenges, necessary easements, and cost for future trail development.***

Figure 51 - Trail of Tears

Source: Natasha L. Longpine



Bicycle and Pedestrian Plan Map

The Bicycle and Pedestrian Plan Map shows those facilities which currently exist and those that should receive the most attention in the future. The map is comprehensive, but is not meant to be the sole source for the region's priorities. Instead, it is meant to be a current representation of the projects and policies in the plan. Both the map and the priorities listed above should set the course for bicycle and pedestrian improvements. This map was first produced with the prior Comprehensive OTO Area Bicycle-Pedestrian Plan. That version of the map illustrated the trails from Vision 20/20, the on-street connections between communities and trails, connections to the interior city systems, and can be characterized as primarily a bicycle-oriented map.

The map included with this plan incorporates both bicycle and pedestrian improvements and in addition to connecting the area communities, it emphasizes the connections between various modes. One of the new elements shown on this map is for Priority Sidewalk Gaps. It is desirable to create a continuous system of sidewalks, and in commercial areas, this includes both sides of the street, where street crossings are not close together. Even though many roadways have sidewalk along one side of the street, if the sidewalk alternates from side-to-side, it cannot be considered continuous. Some roadways have sections of continuous sidewalks, but this may be broken by gaps, preventing an even longer system connection. The Priority Sidewalk Gaps highlighted on the map show corridors and important connections where additional sidewalk is needed. This was thought to create a definite picture of where sidewalks are needed rather than highlighting every individual gap in the system.

Another new concept shown on the map is that of the Link. The Link has first been implemented in Springfield and is meant to connect greenway trails through a series of on-street improvements. Streets which serve the Link will have additional amenities to support bicycling and walking and will have minimal vehicular traffic. Improvements to these routes will include sidewalks, on-street bicycle markings, Link-specific signage, innovative stormwater solutions, improved lighting, and amenity-rich bus stops that will have benches, bike racks and lockers, water fountains, and unique branding at each stop. The Link is currently under development in the City of Springfield and the initial alignment has already been selected to connect Cox South Hospital to Doling Park, as well as the east-west greenway trails in between. The remaining Link corridors have yet to be defined with specific roadways. These have been identified on the map with a broader line, both in- and outside of Springfield. Though many miles of trail have been constructed over the years, on-street improvements have been identified as the most cost-effective way to expand the system and make bicycling and walking for transportation safer, until more trails can be built.

Figure 52 - Branding for the Link
Source: City of Springfield



The bike routes shown on this bicycle pedestrian map are more defined. Rather than just highlighting all on-street connections, those routes which have been designated – either by signage or through striping – are identified separately from those which are potential future routes.

Each jurisdiction in the OTO area has provided their own plans for future bicycle infrastructure and those have been shown on the map as well. Potential Bike Routes, such as those in the county, can be signed “Share the Road” rather than as bike routes. The specific corridor shown may not be the ultimate route selected, as routes will be signed with safety as a consideration. This may lead to an adjacent parallel route selected as a bike route instead. Also, Potential Bike Routes may be already used by cyclists, and as other road improvements are made, bicycle accommodations should be considered.

Fig. 53 - OTO Bike/Ped Facilities Existing and Proposed - Northern Portion

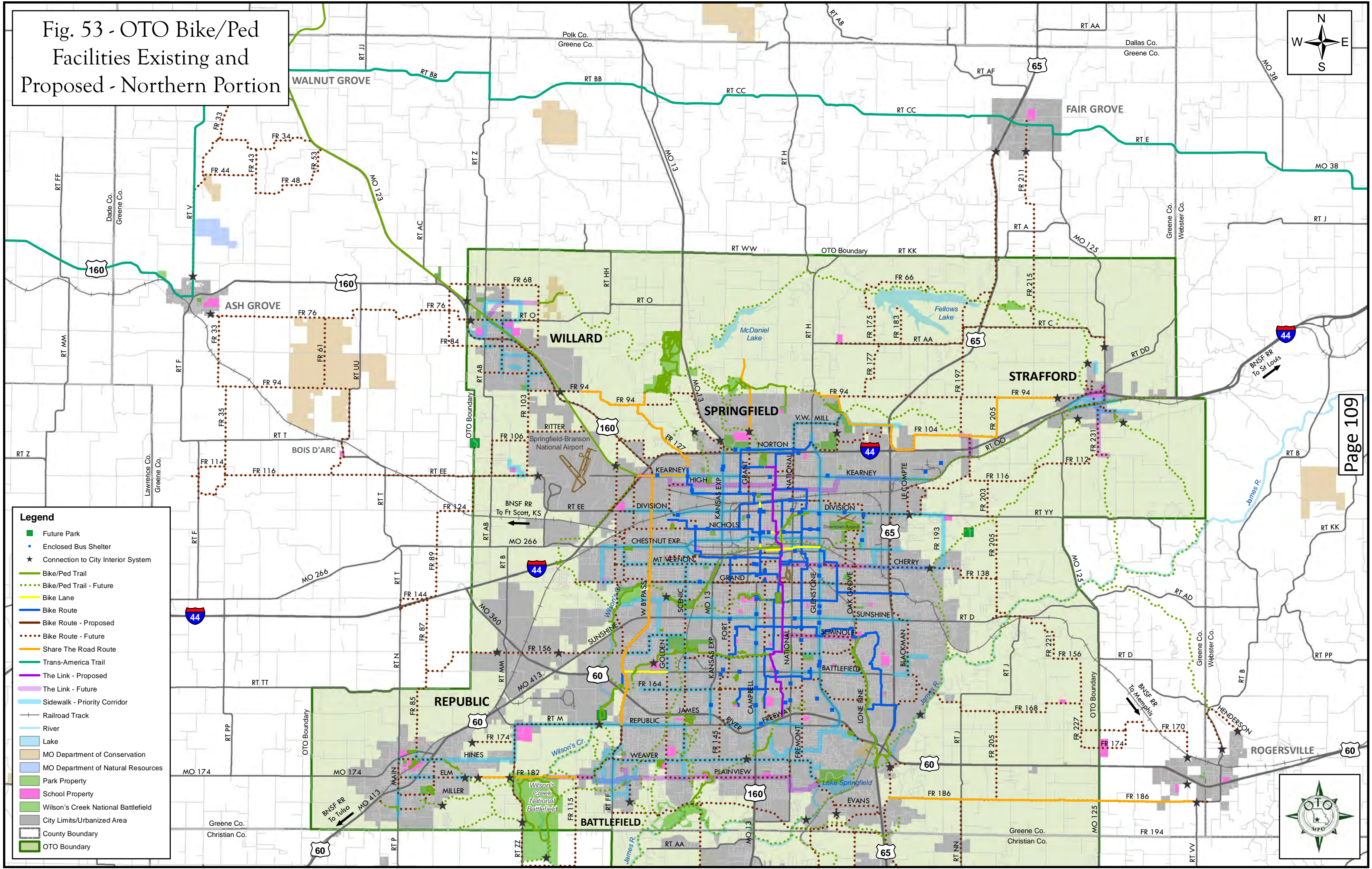
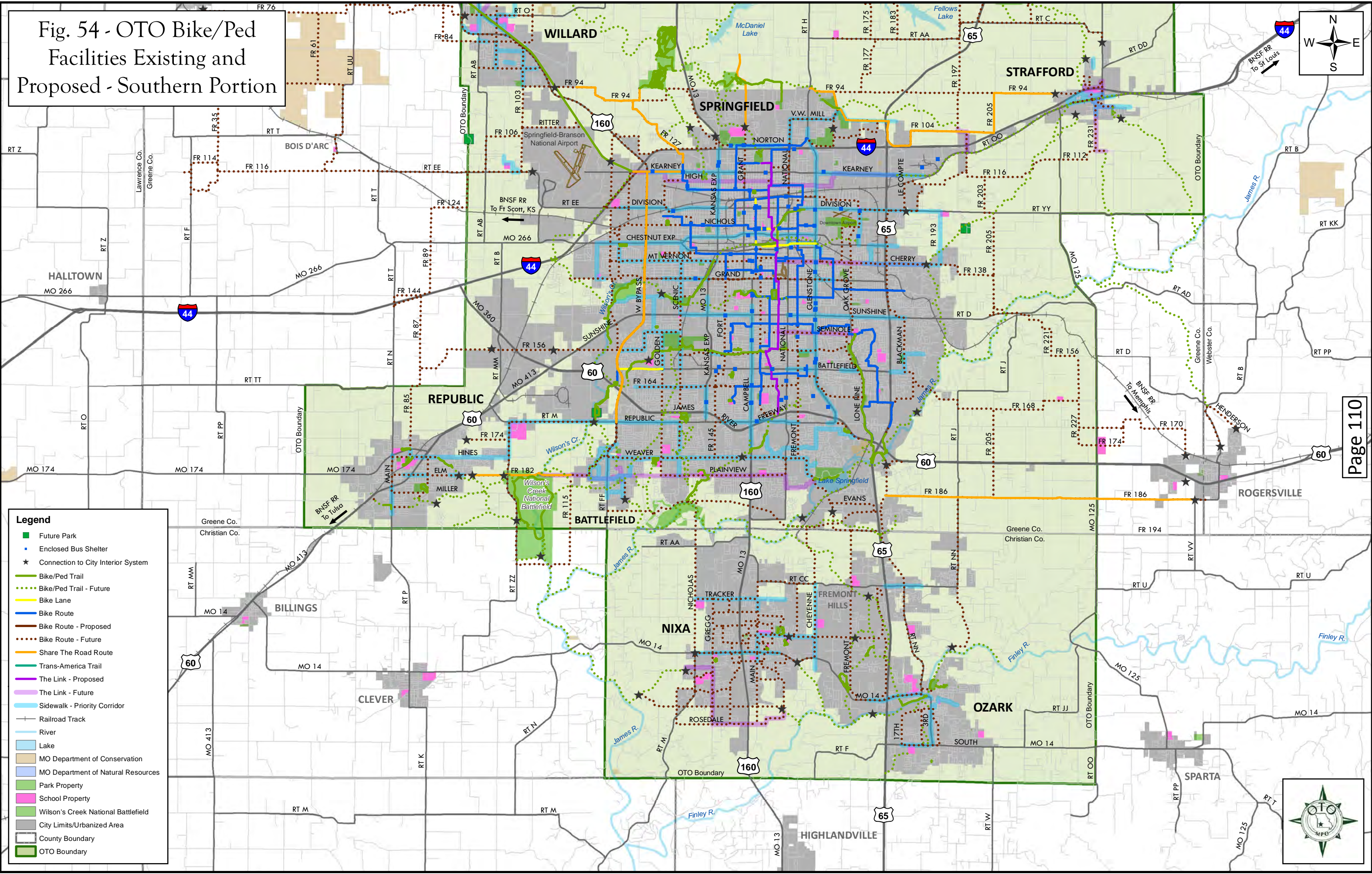


Fig. 54 - OTO Bike/Ped Facilities Existing and Proposed - Southern Portion



Bicycle and Pedestrian Design Standards

Many national organizations define and describe differing types of bicycle facilities and continually improve these definitions and standards to match current best practices. In the past, OTO has recommended following those promoted in the AASHTO Guide for the Development of Bicycle Facilities, the Manual on Uniform Traffic Control Devices, and FHWA's Designing Sidewalks and Trails for Access. The 2011 Edition of the AASHTO Guide for Development of Bicycle Facilities should be released by January of 2012. The FHWA Guide is becoming dated, however, and other documents provide more current information. NACTO, the National Association of City Transportation Officials, has recently published an online and printed Urban Bikeway Design Guide. This includes best practices, but many recommendations are for environments more urban than Springfield. As new guidelines are introduced by varying organizations, the OTO region should assess their suitability for local implementation.

OTO would like to encourage best practices as future bicycle and pedestrian improvements are implemented, but at the same time, would like to provide some general criteria to be followed. The OTO Roadway Design Standards do not provide for bicycle accommodations on freeways, but do allow for them on all other roadway classifications. Sidewalks are required along Boulevards and all other roadways classified Primary Arterial down to Collector. Local roadways should meet the standards set by each jurisdiction. The schematics for secondary arterials and collectors demonstrate how a bicycle lane can be incorporated into the roadway design. The recommended design guidelines apply not only to city streets, but can be utilized along county roadways. Additional standards were set within the prior Comprehensive OTO Area Bicycle-Pedestrian Plan. These standards, however, have not kept pace with current practice. OTO and the Bicycle Pedestrian Advisory Committee have revised these standards to reflect lessons learned to accommodate future best practices.

Pedestrian

- The OTO Minimum Design Standards requires sidewalks to be a minimum of 4 feet wide. The recommended width stated in the Comprehensive OTO Area Bicycle-Pedestrian Plan was 5-feet wide. This plan continues to recommend 5-foot widths for sidewalks.
- Sidewalks should be constructed with a barrier separating pedestrians from the roadway. Where right-of-way allows, this should be accomplished with planting strips and street trees. In more urban areas, on-street parking can also separate the pedestrian from motor vehicles.
- Overall, improved streetscapes, including lighting, can improve safety and security for pedestrians.
- Sidewalks should be built to current ADA (Americans with Disabilities Act) standards. This includes considering the slope, cross-slope, and intersection/crosswalk treatments of all sidewalks. ADA standards should also be taken into account when constructing multi-use trails.

- At intersections and crosswalks, the MUTCD (Manual on Uniform Traffic Control Devices) sets the standards for pedestrian signals and crosswalk markings.
- Pedestrian Level of Service is most impacted by lane width, distance from traffic (including presence of buffers), and motor vehicle speed

Bicycle

Off-Street Bicycle Paths

Paths made of asphalt or other materials on exclusive rights-of-way with minimal cross flow by motor vehicles.

- Minimum width should be 10 feet with 2-foot shoulders.
- Surface should be smooth and preferably paved.
- Maximum grade should be 5 percent.
- Bikeways should be clearly marked by “Bike Route” or similarly appropriate signs.
- Equine and motor vehicles (including mopeds, but excluding motorized assistive devices and path service vehicles) should be prohibited.

On-Street Bicycle Lanes

Striped lanes (pavement markings) with signing along streets.

- Minimum width should be 4-feet on roadways with a shoulder
- Minimum width should be five feet from face of curb and three feet from edge of gutter for curb-and-gutter streets.
- Where the street is too narrow for bike lanes, sharrows should be marked in the outside lanes at intervals of 250 feet or less.
- Bike lanes should be a smooth paved surface, free of bumps and dips.
- A solid white line should delineate lanes.
- Positive guidance should be given to bicyclists and motorists for crossing intersections and describing how bicyclists interact with right-turning motorists.
- Lanes should be one-way facilities carrying traffic in the same direction as motor traffic.
- Drainage grates should be flush with the surface and of a bicycle tire-friendly

Figure 55 - Example of a Sharrow

Source: Terry Whaley



design.

- Lanes should be clearly marked by standard “Bike Route” signs mounted on posts.
- Bicycles should be considered in the timing of traffic signal cycles and in the placement of stop signs.

On-Street Signed Shared Roadways

Streets and county roads shared with motor vehicles and designated by signs. They are intended to provide continuity to other facilities or to designate preferred routes through high-demand corridors.

- On streets with moderate traffic volumes, a 14-foot curb lane can accommodate both bicycles and motor vehicles.
- Streets with low traffic volumes (5,400 vehicles per day) and speed limits of 30 mph or less are adequate for designation as a bike route.
- Bicyclists and pedestrians can be accommodated on shoulders of roadways with adequate continuous shoulder width.
- Streets designed as bike routes should have a smooth paved surface, free of bumps and dips.
- Drainage grates should be flush with the surface and of a design that will not allow bicycle tires to drop into the grate.
- Bike routes should be designated by standard “Bike Route” signs, which should be mounted on posts.
- County roadways designated as shared roadways should have mounted “Share the Road” signs.
- Sharrows and other on-street markings may be used to provide additional guidance and awareness.
- Bicycles should be considered in the timing of traffic signal cycles and in the placement of stop signs.

Bicycle Boulevards

A system of local and collector streets with low speeds and low traffic volumes that provide connections to off-street bicycle and multipurpose paths and local attractions.

- Streets identified as bicycle boulevards provide continuity for bicyclists while discouraging use by through motor vehicles with geometric changes in the roadway such as traffic calming devices and diverters.
- Traffic control devices, warning devices, and refuge spaces are used where bicycle boulevards cross major streets.
- Streets identified as bicycle boulevards should normally have standard 12-foot traffic lanes with curbs and gutters.
- Speed limits should generally be 25 mph or less.
- Streets identified as bicycle boulevards should have a smooth paved surface, free of bumps and dips.
- Drainage grates should be flush with the surface and of a design that will not allow bicycle tires to drop into the grate.
- A system of signing and marking should be used to provide identification of the route and guidance along the route. Sharrows should be used to show the joint use by bicyclists and motor vehicles.

Suitable Local Streets

All local streets with low traffic volume and low speeds may be used to provide connections among specific destinations. Local streets are not designated by signs or markings.

Additional Guidelines

General

- Off-street paths are a suitable place for children, seniors, recreational riders, and commuters.
- The on-street system, consisting of striped lanes, sharrows, and signed-only routes, will be primarily oriented to utilitarian trips.
- Connections will be provided between the linear paths and the on-street system.
- Whenever space allows on the designated on-street system, striped lanes or sharrows will be used instead of merely erecting signs.
- If spacing does not allow for a striped lane, sharrows are another way to provide bicycle accommodation.
- The edge of the road must be kept well swept and maintained for both streets with bicycle lanes and signed routes.
- Sidewalks are not appropriate for bicycling except by very slow riders and young children. Bicyclists using sidewalks should yield to pedestrians and act as pedestrians when crossing driveways and streets.
- Bicyclists on sidewalks are often not seen by motorists at intersections/driveways and can be more effectively seen when acting as a vehicle in the roadway.
- Bicycle Level of Service calculations support wider bike lanes, minimal truck traffic, reduced traffic speed, and reduced traffic volumes.

Off-Street Bicycle and Multipurpose Paths

- Where usage is low-to-moderate, bicycles are permitted on paths that also permit uses such as walking, running, and roller-blading.
- Where usage is high, a separate path is needed for commuter bicyclists who often travel at speeds six times that of other users or a width of 16 feet or more is needed to provide adequate separation on the path.
- In corridors serving a high volume of cyclists, bicycle paths are the preferred type of bikeway when land is available for their development.
- Bicycle paths are generally two-way facilities or a pair of one-way paths.
- Paths provide the best mobility where the path is between two major trip generators or between a major trip generator and a service area for that trip generator.
- Paths function best when isolated from motor vehicles, such as along floodways, abandoned railways, or in parks, campuses, or other vehicle-free areas.
- Intersecting roadways and driveways create hazards and delays on bicycle paths and should be minimized.

- Bicycle path crossings for streets function best at mid-block locations (desirably more than 300 feet from an intersection) when grade separated crossings cannot be provided so that both bicyclists and motorists can see all movements and be aware of the crossing point.
- Use of a crosswalk at intersections requires the user to be aware of motorists turning right and left from the parallel street as well as all movements on the cross street and functions best when bicyclists dismount and act as pedestrians.
- The recommended all-paved width for a two-directional bike path is 10 feet. Whenever possible 12-foot paths will be built for comfort and safety. An 8-foot width should only be used when there is low bicycle use, little expected pedestrian use, and no anticipated maintenance vehicles. Bicycle paths may use narrow facilities on bridges and tunnels for short distances where a facility with adequate width is not available.
- A minimum of a 2-foot clear zone should be maintained adjacent to both sides of a bicycle path.
- The recommended width of bicycle path structures (overpasses, underpasses, long bridges) is 12-feet (8-foot minimum with 2-foot clear zone on each side).
- The minimum width for one-directional bicycle paths is 5-feet.

On-Street Bicycle Lanes

- There are two locations for on-street bicycle lanes (assuming parallel parking) –
 - Adjacent to the curb
 - Adjacent to paved shoulders
- When parking is permitted on streets with bicycle lanes, lanes should always be placed between the parking lane and motor vehicle lanes, but a 3-foot door zone should be painted between the outside parking edge and the start of the bicycle lane.
- Bicycle lanes should always be one-way facilities and carry traffic in the same direction as motor vehicle traffic.
- Contra-flow lanes can be considered on one-way streets when marked with a double yellow stripe and consideration is given at all intersections that the roadway functions as a two-way roadway.
- Two-way bicycle lanes on one side of the roadway are not acceptable as they promote riding against the flow of motor vehicle traffic.
- Bicycle lanes should be 5-feet wide (the gutter pan plus 3-feet).

- If the bicycle lane is a combined bicycle/parking lane, it should be at least 13-feet wide and shall not be less than 12-feet.
- Combined bicycle lane/parking lanes should only be used in locations where parking is already at a minimum.
- Paved shoulders intended for use by bicyclists should not exceed 8-feet because they tend to look like auto driving lanes and could inadvertently be used as such.

On-Street Shared Roadways

- There are two types of on-street signed bicycle routes –
 - Wide curb lanes
 - Signed-only routes
- Wide Curb Lanes
 - On arterials and collector streets with high motor vehicle volumes, truck traffic and/or bus traffic, the outside travel lane should at least be 14-feet wide with two feet of gutter so it can accommodate cyclists.
 - A wide curb lane is not striped as a “bicycle route” unless the roadway is designated as part of the regional bicycle route system.
 - Safety would be greatly enhanced if shoulders were added to the paved county roadways, even if just 3-feet wide.
- Signed-only routes
 - When the volume and speed of motorized traffic is low and intersections are widely spaced, bicyclists can be safely accommodated. This often includes local and collector residential streets.
 - On streets designated as bicycle routes, signs will be erected to indicate that the street is suitable for bicycling and to alert motorists to the possible presence of bicyclists.
 - Pavement markings should be used as well. Sharrows may be used to provide additional guidance and awareness.

Other Local and Collector Streets

- Low-volume local and collector streets do not require markings or signage to be considered suitable for bicycle travel.
- Local residential streets should be interconnected with collector streets.

Figure 56 - Example of a Bike Lane in Springfield

Source: Terry Whaley



- When bicyclists and motorists will be sharing the same travel lane, design standards should offer street widths that promote traffic calming and safety.

Strategy to Implement Plan Goals

- ***Promote adherence to the bicycle and pedestrian design standards as set forth in this plan and encourage the continued implementation of additional best practices.***
-

Chapter 9 – Aviation

The main air facility in southwest Missouri is the Springfield-Branson National Airport. This is the primary air connection to the national and international markets. The region also has a private aircraft airport, the Downtown Airport, which coupled with the general aviation facility at the Springfield-Branson airport, serves the charter and private aircraft needs for the community. Additional commercial airports that also serve the Springfield region include Branson, Joplin, Tulsa, Northwest Arkansas, Kansas City, and St. Louis.

According to the Boeing Current Market Outlook, nationally, passenger air traffic rose 8 percent in 2010, after a 2 percent decline in 2009. Traffic is projected to increase in 2011 and at least maintain the historical growth rate of 5 percent for the next 5 years. Low-cost carriers continue to see growth, even in 2009 when there was overall decline. Springfield is served by Allegiant Airlines, a low cost carrier that connects Springfield to specific markets and offers no connecting service beyond those destinations. The network carriers have consolidated their service through mergers. The top four US airlines include American Airlines, Delta, Southwest, and United. Southwest Airlines is the only one that does not serve the Springfield-Branson National Airport. These four airlines control 80 percent of the capacity in the US. The Current Market Outlook projects that this will lead to increased stability in the air travel market.

Springfield-Branson National Airport

The Springfield-Branson National Airport is owned by the City of Springfield and managed by an 11 member administrative board, appointed by the Springfield city manager, with confirmation by the City Council. The Airport Board has the power and duty to operate the airport and related facilities, including day-to-day care, as well as supervision and custody of airport activities and properties. They can also acquire property, hire

Figure 57 - Airport Service Area

Source: Draft Airport Master Plan, June 28, 2011



employees, and adopt by-laws, rules, and regulations for the control and management of airport facilities with approval from City Council. The City of Springfield does not contribute local tax revenues or general funds to the airport, meaning the airport must operate as a self-sustaining facility. The Airport does, however, contribute to the local tax base through sales and the car rental agencies.

The draft Airport Master Plan estimates that 400,000 people live within a 45-minute drive of the airport and an additional 393,000 live within a less than two-hour drive. As of December 2010, there were ten destinations for air service from Springfield:

- Atlanta
- Chicago O'Hare
- Dallas/Fort Worth
- Denver
- Las Vegas
- Los Angeles
- Memphis
- Orlando
- Phoenix
- St. Petersburg, FL

Air service in Springfield is dependent upon the hub market which connects the major airlines to additional destinations nationwide and internationally. Allegiant Airlines, which flies direct to Las Vegas, Los Angeles, Orlando, Phoenix, and St. Petersburg, is the only airline which does not offer any connecting service to onward destinations. Dallas/Fort Worth is the only destination with enough demand to support nonstop, point-to-point service. Two Allegiant destinations serve the most passengers per day – Las Vegas and Los Angeles. Dallas/Fort Worth is third, but the first for the major commercial airlines.

The airlines and destinations serving the Springfield-Branson National Airport have been varied over the previous decade, but through 2007, and even into 2008, there has been growth in the passengers and flights serving those passengers. The downturn of the economy in 2008 has affected the industry overall. The number of passengers flying through the airport has decreased since 2007. The number of flights has also been reduced since 2007. Revenue passenger-miles have grown, however. This could be due to the addition of destinations which are further from Springfield, such as Los Angeles.

Table 28 - SGF Passenger Data

Source: Bureau of Transportation Statistics T-100 Market data
http://www.transtats.bts.gov/Data_Elements.aspx?Data=1

YEAR	Revenue Passenger-miles (SGF)	Percent Change	Passengers (SGF)	Percent Change	Load Factor (SGF)	Percent Change	Flights (SGF)	Percent Change
2000	82,195		264,207		54		6,909	
2001	71,402	-13.13%	226,217	-14.38%	54.25	0.46%	6,716	-2.79%
2002	80,024	12.08%	247,231	9.29%	59.23	9.18%	7,768	15.66%
2003	112,546	40.64%	311,662	26.06%	70.37	18.81%	9,904	27.50%
2004	149,158	32.53%	351,253	12.70%	69.36	-1.44%	10,826	9.31%
2005	204,037	36.79%	431,668	22.89%	69.23	-0.19%	12,450	15.00%
2006	213,121	4.45%	426,115	-1.29%	74.9	8.19%	11,164	-10.33%
2007	226,504	6.28%	430,578	1.05%	72.35	-3.40%	11,362	1.77%
2008	207,931	-8.20%	376,887	-12.47%	68.31	-5.58%	11,030	-2.92%
2009	232,904	12.01%	395,396	4.91%	75.51	10.54%	9,986	-9.47%
2010	235,755	1.22%	378,150	-4.36%	74.85	-0.87%	9,600	-3.87%

Midfield Terminal

The new midfield terminal opened in May of 2009 and was built with expansion in mind. The previous terminal had capacity issues and was not designed with the current security requirements in mind. The new terminal was built with 10 gates in operation, but can grow to 60 gates at full operation. Having been designed post-9/11, the new terminal also has the appropriate accommodations for the new security measures.

Besides containing ticketing and baggage claim, the new terminal has currently facilities for five rental car companies – Avis, Budget, Enterprise, Hertz, and Thrifty.

General Aviation

The general aviation facility at the Springfield-Branson National Airport serves all the additional flights at the airport that are not part of the scheduled passenger flights or related to cargo. The Airport owns 8 hangars with 36 aircraft stalls. The City of Springfield also owns and leases hangar space. The general aviation facility at the airport is near capacity, however, additional development will not occur until the land at the former Air Park South location in Ozark is sold. Aircraft parking is available in addition to the hangar space.

Air Cargo

The Springfield-Branson National Airport also supports cargo. The cargo facilities are utilized by UPS, FedEx, BAX Global, U.S. Customs, and Eagle Global Logistics. The cargo facility is considered a Foreign Trade Zone. This allows for deferment of U.S. Customs' duty payment until goods are sold in the United States.

Surface Transportation

The new midfield terminal was constructed in a different location on airport property, which required access from a new network of roads. Whereas the prior terminal was the terminus of Kearney Street, the new terminal required the construction of a new roadway, Airport Boulevard, and access from Chestnut (Route 266) and Division (Route EE). The general aviation facilities are located along General Aviation Boulevard, and can be accessed from West Kearney. These two access points can be seen in Figure 49.

Farm Road 103, which is a road that exits Willard and heads south toward EE, has seen an increase in traffic since the new terminal and airport access road have been constructed. The OTO Major Thoroughfare Plan classifies the road as a secondary arterial, but the Federal Functional Class has been that this is a local street. OTO has reviewed and approved that an application be made to upgrade the classification to a collector. The designation of a collector or above would allow the roadway to be eligible for federal funding when making the necessary future improvements.

Downtown Airport

According to OzarksWatch Video Magazine, the Downtown Airport was one of the first airports in the Ozarks region. The City of Springfield bought the land where the airport is located in 1928, paying \$55,000 for approximately 360 acres. The terminal building was built in 1929 and is now the Alpha House on East Division. The airport has played host to a number of important dignitaries and aviators and served as a link to medical care during World War II. The Park Board were the designated managers of the airport. Half of the original airport has now become the Cooper Sports Complex. Road access to the Downtown Airport is from East Division, between U.S. 65 and Glenstone. The Downtown Airport now has one runway, which has gotten longer over time and can accommodate most modern private aircraft.

Figure 58 - Airport Access

Source: OTO Major Thoroughfare Plan

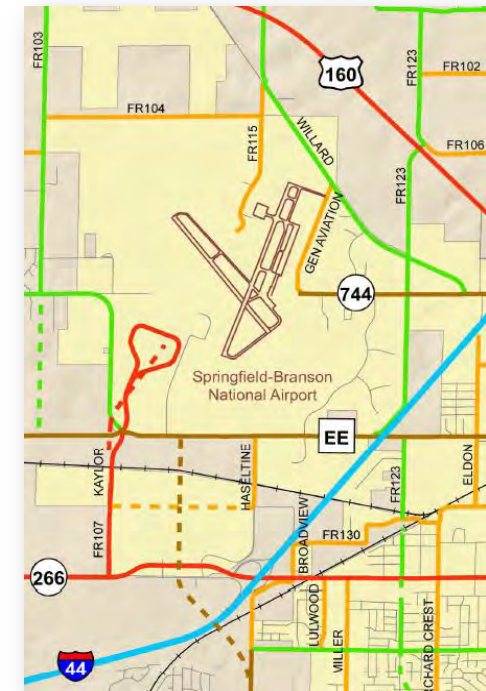


Figure 59 - Downtown Airport Location

Source: Wikimapia

<http://wikimapia.org/99028/Springfield-Downtown-Airport-3DW>



Land Use Considerations

Existing Land Use

Existing land use around the Springfield-Branson National Airport is mostly residential and rural, as well as industrial. Partnership Industrial Center West is located between the airport and I-44. Nearly 50 percent of the sites are now occupied. Some commercial is also located along Chestnut which is a major east-west road to the south of the airport.

Figure 60 - Springfield Airport Overlay Districts

Source: Springfield Zoning Ordinance

http://www.springfieldmo.gov/zoning/pdfs/ZO_041811.pdf

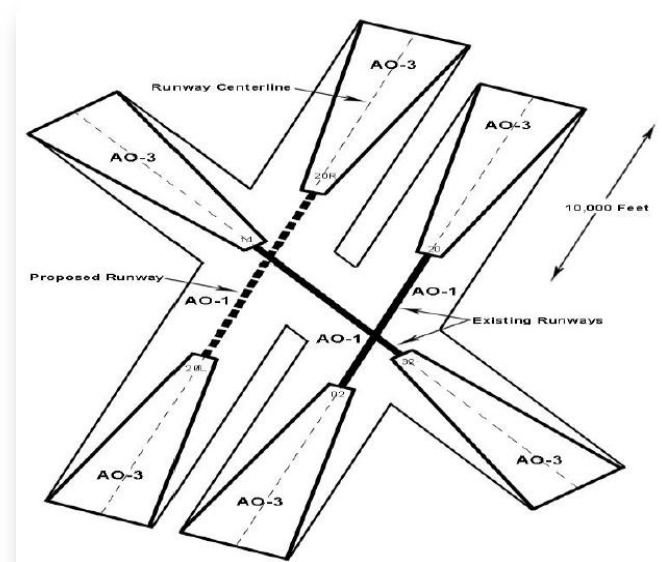


Figure 61 - Springfield Zoning around Airport

Source: City of Springfield

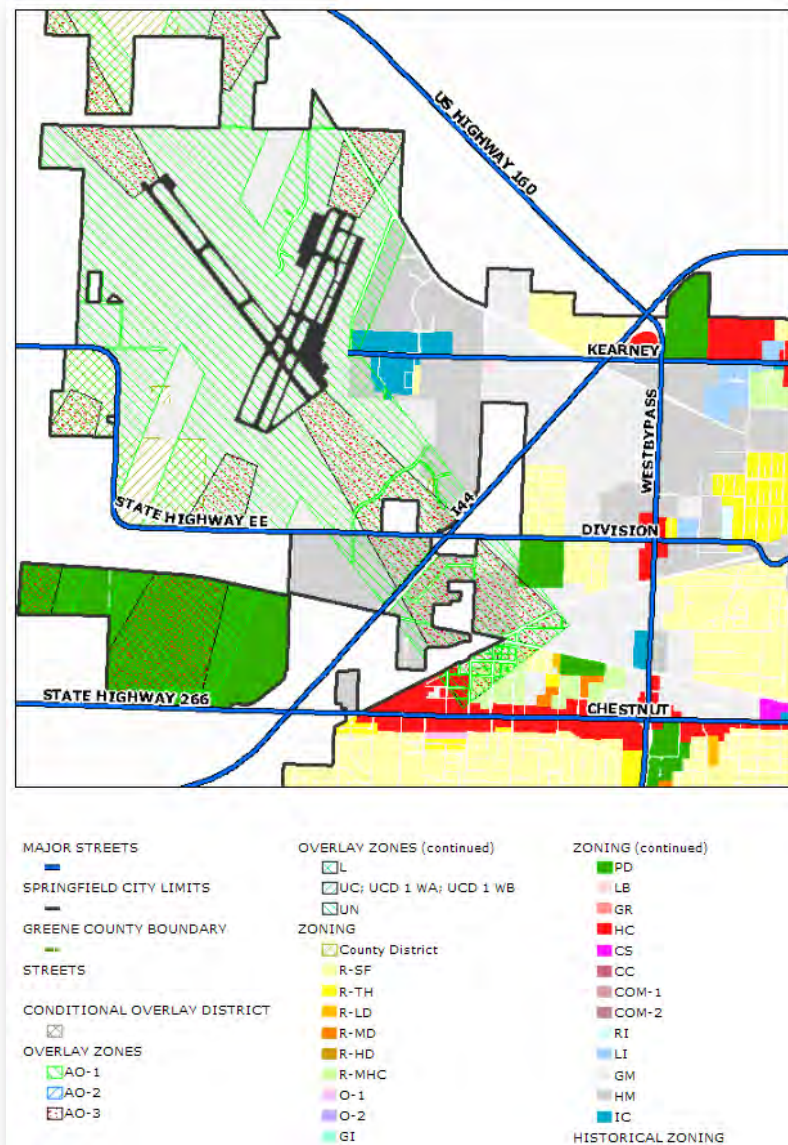
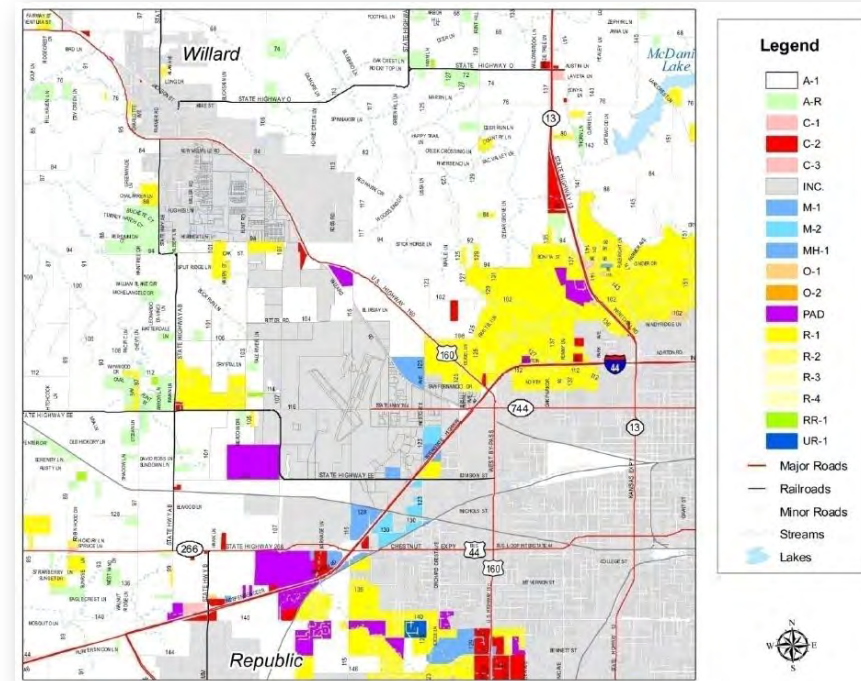


Figure 62 - Greene County Zoning around Airport

Source: Greene County



Zoning

The existing zoning near the airport, yet outside of the city limits, is mainly agricultural, with some residential. The area to the south of the airport is zoned industrial, while that to the northeast is mainly residential. Commercial is concentrated on Chestnut, with some along Kearney, near West Bypass. The City of Springfield also has airport overlay zones that extend beyond the runways. The Airport Overlay Zoning District 1 prohibits residential, public uses, and recreational uses. Airport Overlay Zoning District 3 supersedes AO-1 and restricts land use to single-family on minimum 10-acre tracts and limiting the height of structures on those lots. Greene County has a similar airport zoning district, restricting uses and heights of structures. Both City and County

zoning districts also govern the transmission of radio signals, electronic emissions, and lights.

Noise Impacts

Noise is a concern surrounding airports. The Federal Aviation Administration (FAA) has established criteria to help protect public health and safety, though the Airport has no noise abatement procedures of its own, due its somewhat rural location. This includes Day-Night Sound Level (L_{dn}) contours as a guide to identify areas susceptible to noise from aircraft operations. The FAA also looks at factors such as noise duration, number of aircraft operations, flight paths, and time of day. These criteria are based on known effects of noise on people, such as hearing loss, communication interference, sleep interference, physiological responses, and annoyance. According to the FAR Part 150 Land Use Compatibility Matrix, residential land use is deemed acceptable for noise exposures up to 65 L_{dn} . Certain sensitive land uses, such as hospitals, nursing homes, churches, auditoriums, and concert halls, must have structures that are compatible to noise level readings of 25-35 decibels. The Land Use Compatibility Matrix is meant to be used in conjunction with the noise level contours which specify a maximum amount of noise exposure (L_{dn}) that will be considered acceptable or compatible with people living and working within these areas. The new noise level contours for the Springfield-Branson National Airport have not yet been incorporated into the new draft Airport Master Plan. The current contours date back to 1988, forecasted to 2000.

The FAA notes that the responsibility for determining the acceptability and permissible land uses remains with the local authorities. It is important that Greene County and the City of Springfield continue their existing airport zoning policies. As a general rule, land within any of the defined noise contours (65-75 L_{dn}) should not be zoned to allow construction of residences, hospitals, theaters, outdoor amphitheaters, or other noise-sensitive uses. Such uses may be permitted, however, if a detailed noise analysis is conducted and noise control features are included in the building design.

Strategy to Implement Plan Goals

- ***The City of Springfield and Greene County should continue the existing zoning patterns in effect around the Springfield-Branson National Airport. No rezoning of agricultural land use to noise-sensitive uses should be allowed within the noise contours unless a noise analysis is conducted and noise control features are included in the building design.***
-

Table 29 - Suggested Land Use Compatibility for Airport Development

Source: FAR Part 150, <http://www.risingup.com/fars/info/part150-A-APPX.shtml>

Land use	Yearly day-night average sound level (L_{dn}) in decibels					
	Below 65	65–70	70–75	75–80	80–85	Over 85
Residential						
Residential, other than mobile homes and transient lodgings	Y	$N_{(1)}$	$N_{(1)}$	N	N	N
Mobile home parks	Y	N	N	N	N	N
Transient lodgings	Y	$N_{(1)}$	$N_{(1)}$	$N_{(1)}$	N	N
Public Use						
Schools	Y	$N_{(1)}$	$N_{(1)}$	N	N	N
Hospitals and nursing homes	Y	25	30	N	N	N
Churches, auditoriums, and concert halls	Y	25	30	N	N	N
Governmental services	Y	Y	25	30	N	N
Transportation	Y	Y	$Y_{(2)}$	$Y_{(3)}$	$Y_{(4)}$	$Y_{(4)}$
Parking	Y	Y	$Y_{(2)}$	$Y_{(3)}$	$Y_{(4)}$	N
Commercial Use						
Offices, business and professional	Y	Y	25	30	N	N
Wholesale and retail—building materials, hardware and farm equipment	Y	Y	$Y_{(2)}$	$Y_{(3)}$	$Y_{(4)}$	N
Retail trade—general	Y	Y	25	30	N	N
Utilities	Y	Y	$Y_{(2)}$	$Y_{(3)}$	$Y_{(4)}$	N
Communication	Y	Y	25	30	N	N
Manufacturing and Production						
Manufacturing, general	Y	Y	$Y_{(2)}$	$Y_{(3)}$	$Y_{(4)}$	N
Photographic and optical	Y	Y	25	30	N	N
Agriculture (except livestock) and forestry	Y	$Y_{(6)}$	$Y_{(7)}$	$Y_{(8)}$	$Y_{(8)}$	$Y_{(8)}$
Livestock farming and breeding	Y	$Y_{(6)}$	$Y_{(7)}$	N	N	N
Mining and fishing, resource production and extraction	Y	Y	Y	Y	Y	Y
Recreational						
Outdoor sports arenas and spectator sports	Y	$Y_{(5)}$	$Y_{(5)}$	N	N	N
Outdoor music shells, amphitheaters	Y	N	N	N	N	N
Nature exhibits and zoos	Y	Y	N	N	N	N
Amusements, parks, resorts and camps	Y	Y	Y	N	N	N
Golf courses, riding stables and water recreation	Y	Y	25	30	N	N

*The designations contained in this table do not constitute a Federal determination that any use of land covered by the program is acceptable or unacceptable under Federal, State, or local law. The responsibility for determining the acceptable and permissible land uses and the relationship between specific properties and specific noise contours rests with the local authorities. FAA determinations under part 150 are not intended to substitute federally determined land uses for those determined to be appropriate by local authorities in response to locally determined needs and values in achieving noise compatible land uses.

Key to Table 29

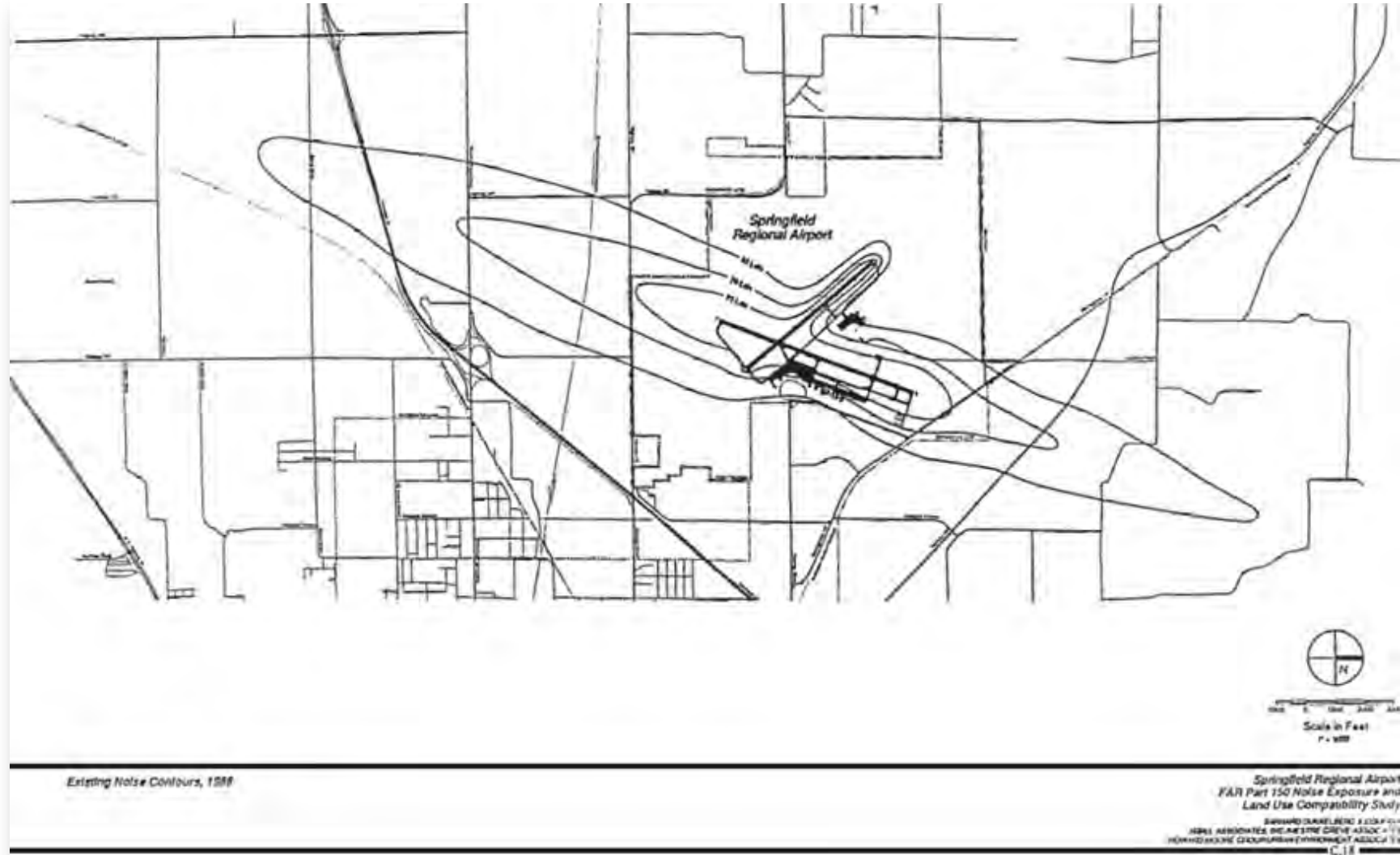
SLUCM	Standard Land Use Coding Manual.
Y (Yes)	Land Use and related structures compatible without restrictions.
N (No)	Land Use and related structures are not compatible and should be prohibited.
NLR	Noise Level Reduction (outdoor to indoor) to be achieved through incorporation of noise attenuation into the design and construction of the structure.
25, 30, or 35	Land use and related structures generally compatible; measures to achieve NLR of 25, 30, or 35 dB must be incorporated into design and construction of structure.

Notes for Table 29

- (1) Where the community determines that residential or school uses must be allowed, measures to achieve outdoor to indoor Noise Level Reduction (NLR) of at least 25 dB and 30 dB should be incorporated into building codes and be considered in individual approvals. Normal residential construction can be expected to provide a NLR of 20 dB, thus, the reduction requirements are often stated as 5, 10 or 15 dB over standard construction and normally assume mechanical ventilation and closed windows year round. However, the use of NLR criteria will not eliminate outdoor noise problems.
- (2) Measures to achieve NLR 25 dB must be incorporated into the design and construction of portions of these buildings where the public is received, office areas, noise sensitive areas or where the normal noise level is low.
- (3) Measures to achieve NLR of 30 dB must be incorporated into the design and construction of portions of these buildings where the public is received, office areas, noise sensitive areas or where the normal noise level is low.
- (4) Measures to achieve NLR 35 dB must be incorporated into the design and construction of portions of these buildings where the public is received, office areas, noise sensitive areas or where the normal level is low.
- (5) Land use compatible provided special sound reinforcement systems are installed.
- (6) Residential buildings require an NLR of 25.
- (7) Residential buildings require an NLR of 30.
- (8) Residential buildings not permitted.

Figure 63 - Springfield-Branson National Airport Noise Contours

Source: Journey 2030



Current land uses appear to be in keeping with the previous noise contours. Having updated contours in the new Airport Master Plan will be key to ensuring this compatibility in the future.

Chapter 10 – Goods Movement

Rail

The OTO region is primarily served by Class I Railroad, owned by BNSF Railway Company (BNSF). There is one Class II line that serves customers to the south of Springfield and that is owned by Union Pacific Railroad Corporation (UP) and operated by Missouri & Northern Arkansas Railroad Company (MNA). Not far from Springfield are the second and third largest rail hubs in the United States, located in Kansas City and St. Louis, respectively.

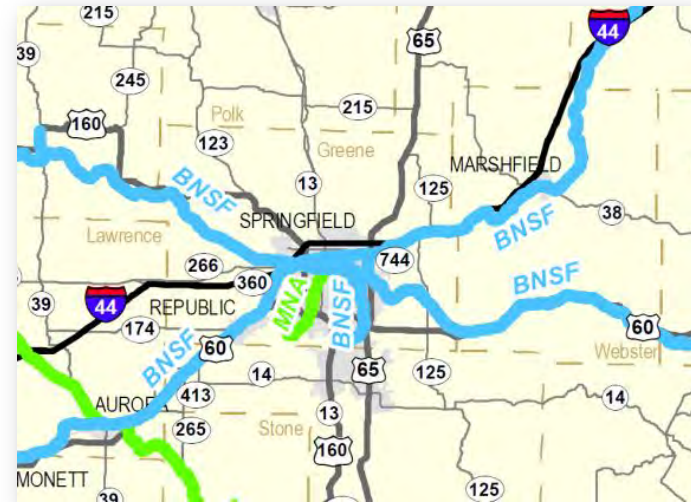
According to the 2007 MoDOT Long Range Plan, approximately 35 percent of all products moved in the state is by rail. Of this, 74 percent has neither an origin nor destination in Missouri, 20 percent is imports, 5 percent are exports, and the product value accounts for approximately 21 percent of the overall value of all product movements in Missouri. Coal is the most commonly shipped product.

The Partnership Industrial Center and several industries throughout Springfield are served by rail. Rail delivers coal to the City Utilities power plants. The Thayer Subdivision, from Springfield to Memphis and the Fort Scott Subdivision, from Kansas City to Springfield move large coal trains to Springfield and the southeastern United States from the Powder River Basin. MNA uses BNSF track from Aurora to Springfield, but switches to UP ownership once in Springfield to deliver to their south side customers.

A ton of freight can move 422 miles on a single gallon of fuel.

Figure 64 - Rail Ownership in the OTO Region

Source: Missouri Department of Transportation



BNSF Railway Company is the second largest Class 1 Railroad operating in the United States. BNSF and their physical infrastructure are regulated by the Federal Railroad Administration and the Missouri Department of Transportation. BNSF has a long history of significant investment in its infrastructure, accompanied by long term asset management strategies and practices to assure long term viability of the company and the significant infrastructure investment required to meet the

country's national transportation needs. BNSF Railway Company maintains and operates over 30,000 miles of rail infrastructure serving 28 states, as well as 2 provinces of Canada and Mexico. Self-imposed company standards ensure long term maintenance requirements are met.

Railroad Reconfiguration and Grade Separation Study

Adopted by Springfield, November 2006; OTO MOU – October 2007

The Railroad Reconfiguration and Grade Separation Study addressed three main areas in Springfield.

- Jordan Valley Park – West Meadows Expansion
 - Remove all railroad tracks within the West Meadows area and Jordan Valley Park, with exception of a reduced switch yard for the interchange of BNSF and MNA rail traffic, to enable the continued development of the Park.
- Springfield Railroad System Overview – Coal Delivery to James River Power Plant, specifically the James River Freeway At-Grade Crossing
 - Ensure that rail served customers continue to maintain service or are relocated to a mutually agreed upon location to continue rail service.
- Division Street, East Chestnut Expressway, and East Cherry Street Grade Separation Concept Plan Development.
 - Reduce the train versus vehicle and pedestrian exposure at grade separated crossings to zero.

Figure 65 - Train Service Levels in Springfield

Source: Railroad Reconfiguration and Grade Separation Study, City of Springfield

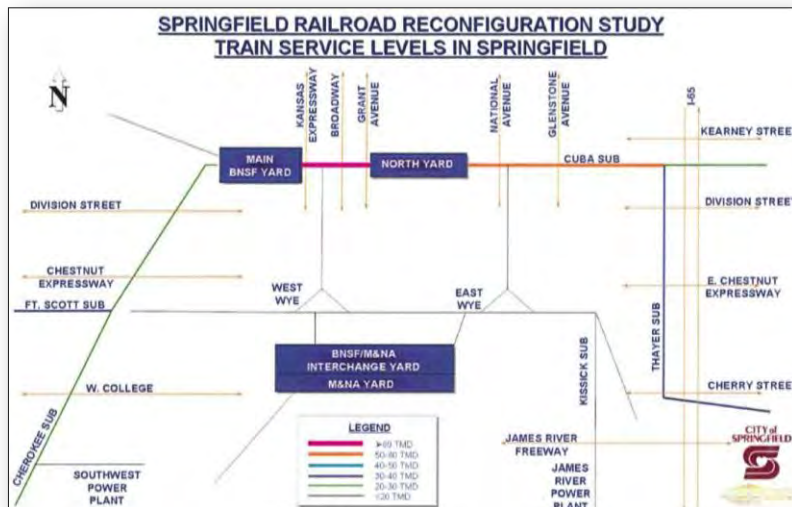


Table 30 - Train Movements in Springfield

Source: Railroad Reconfiguration and Grade Separation Study, City of Springfield

Track Segment	Train Movements per Day
Cuba Sub Main Yard to North Yard	> 80
Cub Sub North Yard to Thayer Sub	50-80
Thayer Sub Springfield to Memphis	30-40
Ft. Scott Sub Fort Scott to Springfield	30-40
Cherokee Sub Tulsa to Springfield	20-30

The Railroad Reconfiguration Study is the region's long term vision for rail. The implementation of the Rail Reconfiguration Plan has made progress. The grade separation on James River Freeway will be accomplished with the conclusion of the new US 60/65 interchange. The construction began in May of 2009 and is scheduled for completion in the fall of 2012. This project consists of two directional flyover ramps and new bridges over the railroad tracks on US 60 (James River Freeway). There will be four bridges total over the railroad tracks. This will be the final stage of construction, providing grade separation at one of the busiest at-grade railroad crossings in the region.

Figure 66 - Rendering of Redesigned US60/US65 Interchange

Source: Missouri Department of Transportation



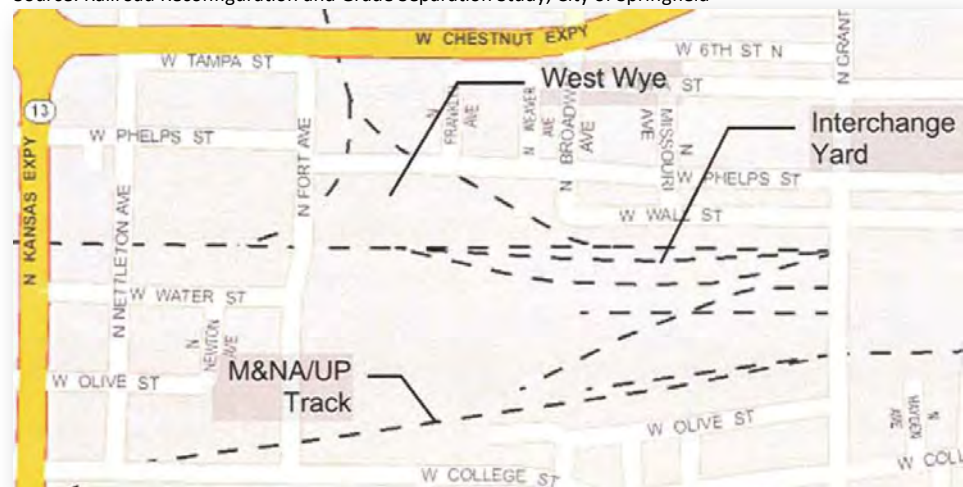
BNSF's main switching yard in north Springfield, requiring a reverse move from the North Yard to CU's west locations. The new wye would facilitate direct inbound delivery to the Southwest Plant. This change expedites direct coal delivery and eliminates redundant train movements through at-grade crossings which create vehicular traffic delays. The change also improves safety, as the new Wye would be operated with two electric switches as opposed to four hand-thrown switches. This would also move two at-grade crossings on higher volume streets to two lower volume streets. The City of Springfield has received a Federal Railroad Administration-Rail Line Relocation and

The grade separation at Chestnut, Division and Cherry will become a phased project. The Chestnut grade separation is currently being scoped and design is scheduled for FY2012. Grade separations at Division and Cherry are unknown and could be affected by the final design of the separation on Chestnut.

A main project for Jordan Valley-West Meadows is the relocation of BNSF's West Wye. The West Wye is currently located in the Jordan Valley West Meadows. Currently, active rail bisects the future park and there are no easements for public access across the rail line. The relocation would move the West Wye further west and out of the downtown area. At present, coal trains inbound for CU's west facilities must come into

Figure 67 - Location of West Wye in Springfield

Source: Railroad Reconfiguration and Grade Separation Study, City of Springfield



Improvement Program grant for \$500,000. This will be used to purchase right-of-way for the relocated West Wye. The City of Springfield has just recently been awarded a \$2 million grant toward construction.

Strategy to Implement Plan Goals

- ***Continue to pursue funding for implementing the Rail Reconfiguration Plan.***

MoDOT State Rail Plan

MoDOT has received funding to complete a State Rail Plan. The prior State Rail Plan was completed in 2002 and primarily contained an inventory of rail assets. The proposed plan will include public and stakeholder involvement from railroads, shippers, receivers, trucking companies, grain dealers, ports, miscellaneous businesses, regional planning commissions, metropolitan planning organizations, counties, cities, and other businesses that either may have rail service or may be in a position to someday receive it. The Plan will address freight and passenger rail and the need for cooperation and planning in these areas across governmental- and business-related barriers.

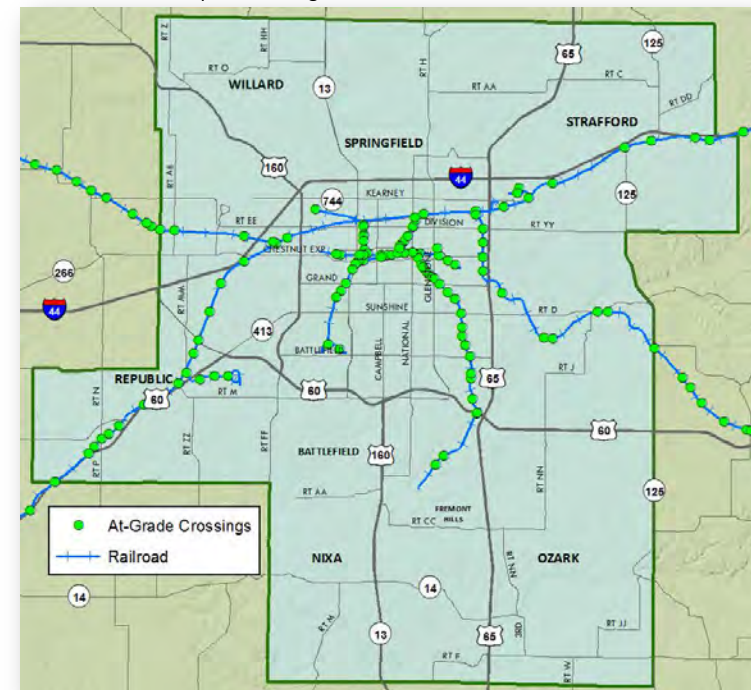
The Ozarks Transportation Organization will be participating in this Planning process. MoDOT proposes that the Missouri State Rail Plan will be designed to be a comprehensive, thought-provoking and planning document that will be used by the state for many years and will serve as a guidebook for all rail issues in the near future.

At-Grade Crossings

There are numerous at-grade railroad crossings in the OTO area, 115 in total. At-grade crossings present safety and traffic concerns, both of which OTO believes should be addressed. Statewide, there are approximately \$5.9 million of FHWA Surface Transportation Program Safety Funds and approximately \$1.2 million in state funds from the state Grade Crossing Safety Account to address safety issues at these crossings. To determine how this funding is distributed, each crossing is evaluated and ranked annually according to a hazard exposure index that considers such items as

Figure 68 - At-Grade Crossings in the OTO Region

Source: Ozarks Transportation Organization



train traffic and speed, vehicle traffic and speed, crossing accident history, and sight distance. On average, it costs \$200,000 to \$250,000 per crossing for highway/rail safety improvements, resulting in improvement to approximately 30 to 35 crossings per year. Project improvements typically include the installation of railroad crossing signal devices, and may vary in scope and completion dates depending on funding availability and programming restrictions each fiscal year. MoDOT, and not the railroad, determines the type of signalization for each crossing. Statewide, since 1979, this program has resulted in an 81 percent decrease in crashes, a 76 percent decrease in fatalities, and an 83 percent decrease in injuries. Current projects in the OTO region relate to either installing or upgrading active warning devices.

Schools near at-grade crossings should receive special attention. New schools should avoid locating near railroad tracks where students will be walking across the tracks and a majority of school buses will be required to cross at-grade crossings. School buses are required to stop at all rail crossings and these stops can affect travel time to school. Pedestrian access across at-grade crossings imposes additional costs for signalization and safety considerations. This cost is usually paid by the entity requesting the crossing.

Railroads with frequent train traffic should have an adequate number of grade-separated crossings. If a train blocks an at-grade crossing, there should be an alternate way to cross the track with a travel time increase of not more than five minutes. If public necessity is not applicable to a specific at-grade crossing, the crossing should be closed.

Table 31 - Level of Protection between Motor Vehicle Thoroughfares and Rail Lines

Source: Ozarks Transportation Organization, Journey 2030

Thoroughfare Classification	Main Line Railroad Track	Local Railroad Track
Freeway	Grade separation required	Grade separation encouraged; Gates, signals and extensive warning devices required
Expressway	Grade separation strongly encouraged; Gates and signals required	Gates and signals required
Principal Arterial	Grade separation strongly encouraged; Gates and signals required	Gates and signals required
Secondary Arterial	Avoid crossing if alternative is available; Gates and signals required	Gates and signals required
Collector	Avoid crossing Gates and signals required	Gates and signals required
Local	Avoid crossing Gates and signals required	Gates and signals required

Strategies to Implement Plan Goals

- *Through subdivision review, OTO jurisdictions should ensure that all new developments have adequate access to the major thoroughfare system without crossing railroad tracks at grade.*
 - *As plans are developed for new thoroughfares, the type of necessary crossing should be considered. At-grade crossings of main line tracks should be avoided to provide for maximum safety and minimal disruption for the motoring public, including additional idling time resulting in additional pollution concerns.*
 - *Adequate warning devices should be provided at railroad crossings when a grade separation is not feasible.*
 - *OTO jurisdictions should consider grade crossing elimination projects or “quiet zone” designations in areas where noise and congestion at grade crossings have adverse community impacts. A quiet zone is a grade crossing at which trains are prohibited from sounding their horns, thereby decreasing the noise level for nearby residential communities. Quiet zones typically require additional engineering solutions which are paid for at the requesting community’s expense.*
-

Inter-Modal Connections

Multi-modal facilities are best located where connections between multiple modes, such as rail and trucking, as well as connections between carriers of the same mode, occur. Major multi-modal facilities for the Midwest are located in Kansas City, St. Louis, Chicago, and Memphis.

Outbound intermodal traffic from Springfield are taken by truck to an intermodal facility, usually Kansas City, but sometimes Memphis or St. Louis, depending upon the final destination and shipping costs. Once at that intermodal facility, the container is placed on a railcar for outbound shipping. At the destination, the load will be taken from the rail car and delivered by truck. Inbound traffic is handled the same way. Items will be shipped by rail to an intermodal facility, and then will be brought to Springfield by truck to the intended recipient.

According to the Association of American Railroads, rail, on average, is three or more times fuel efficient than trucks on a ton-mile transported basis.

Land Use Considerations

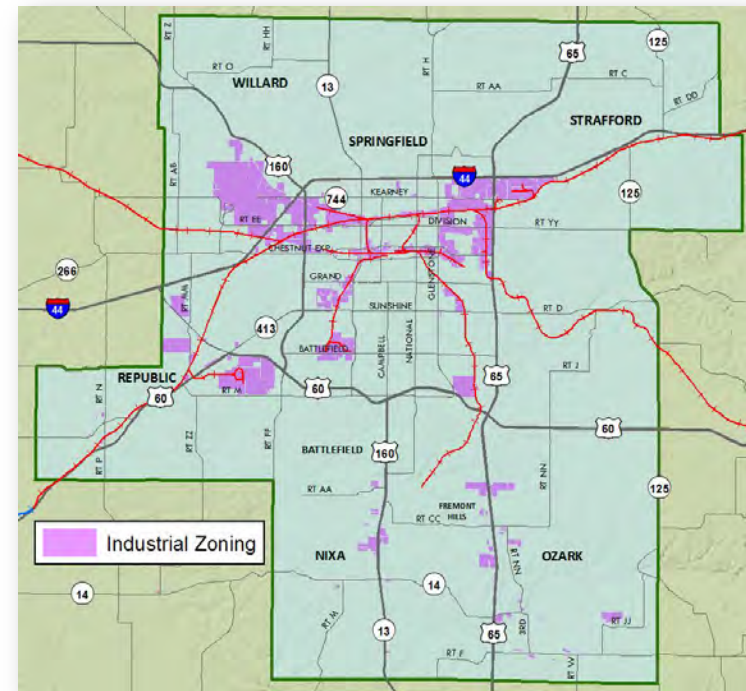
Railroad compatible land uses are not always practical, particularly along lightly traveled rail lines, in areas with unsuitable topographic features, or in areas containing existing development. Much of the land along rail lines in the OTO area is already developed or zoned for industrial uses. The main exception is the southeast portion of Springfield, where a secondary rail line bisects several residential neighborhoods.

Freight intensive land uses should be located near major highways and freight rail routes. This encourages concentrations of industrial development at suitable locations. Residential is the least compatible land use with rail, due to noise, vibration, and air quality concerns. Buffers and setbacks can mitigate rail's proximity to incompatible land uses.

As industry relocates throughout the region and rail needs change, certain rail lines may no longer be needed or used. Converting abandoned rail to greenways trails provides a preservation tool for railroads while also providing a community enhancement. The Frisco Highline Trail, which connects Springfield through Willard to Bolivar, and segments of the Trail of Tears Trail in southwest Springfield and Battlefield, are examples of rail trails.

Figure 69 - Industrial Zoning in the OTO Region

Source: Ozarks Transportation Organization and Member Jurisdictions



Strategies to Implement Plan Goals

- *When evaluating rezoning requests near a rail line, OTO jurisdictions should consider the suitability of the proposed use. If manufacturing or industrial uses are not feasible and the site characteristics permit, the use of tools like a Planned Development District, can provide for buffer requirements along the rail lines.*
- *As tracks are no longer needed by the railroad, organizations like Ozark Greenways should be the first contact for rail preservation and trail projects.*

Trucking

The trucking industry is well represented in the OTO area, and all of southwest Missouri. Census Employment Dynamics numbers show that trucking and warehousing accounts for nearly 5 percent of the jobs in the OTO region. Numerous trucking firms are headquartered locally. Local trucking firms are located mostly in northeast Springfield. I-44 has some of the highest truck volumes in Missouri.

MoDOT currently provides 17 spaces for truck parking in Strafford, along I-44. Additional private parking locations are available at truck stops.

There is one load posted bridge on US 65. This is a state bridge structure with an approved posting of less than 80,000 pounds gross weight. Additional bridge restrictions in the area relate to width, not height or weight.

The highest truck volumes on the OTO highway network are on I-44 and US 65. As of 2007, I-44 through Springfield has Annual Average Daily Truck Traffic between 10,000 and 20,000. US 65 shows volumes between 5,000 and 10,000. The only locations in Missouri with more than 20,000 are at small segments in St. Louis, Kansas City, and Columbia.

Congestion on the National Highway System is found on US 65, US 60 and US 160 south. Congestion is worst on US 160 south and on US 60 between West Bypass and US 60/413.

Interstate 44 carried more tonnage across the state in 2007 than even I-70. Local truck traffic travels on I-44, US 65, US 60, Kearney Street, Glenstone Avenue, and Kansas Expressway.

This information has been projected to 2040. By 2040, I-44 will become the significant truck route through Missouri, with daily truck tonnage exceeding that all along I-70. Most of I-44, US 65 and US 60 will experience significant congestion. Local truck traffic will also increase by 2040. Additional routes in Springfield will be used to help direct that traffic. Beyond I-44, US 65 and US 60, local truck traffic will be found on Glenstone, Sunshine, Fremont, and West Bypass.

Figure 70 - Truck Carriers in the OTO Region

Source: Ozarks Transportation Organization, Journey 2030

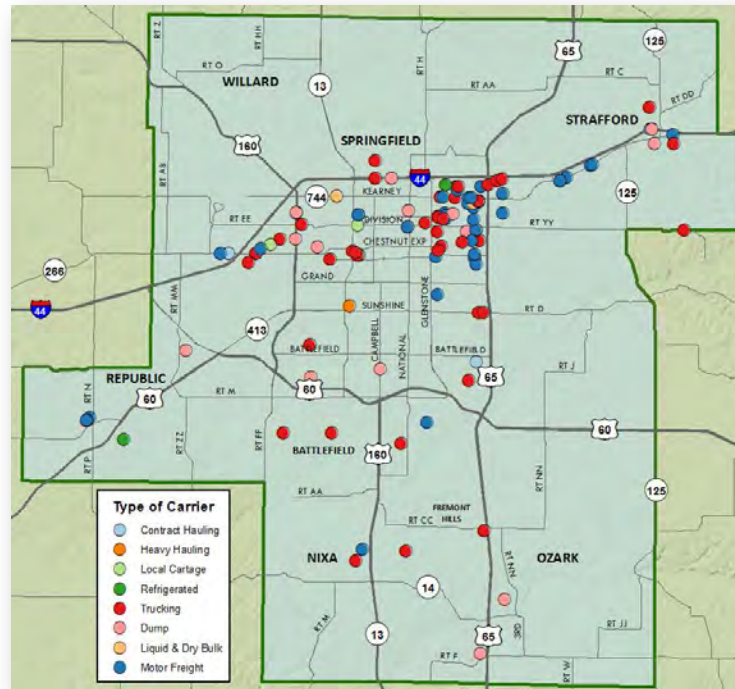


Figure 71 - 2007 Tons per Day

Source: Federal Highway Administration, Freight Analysis Framework

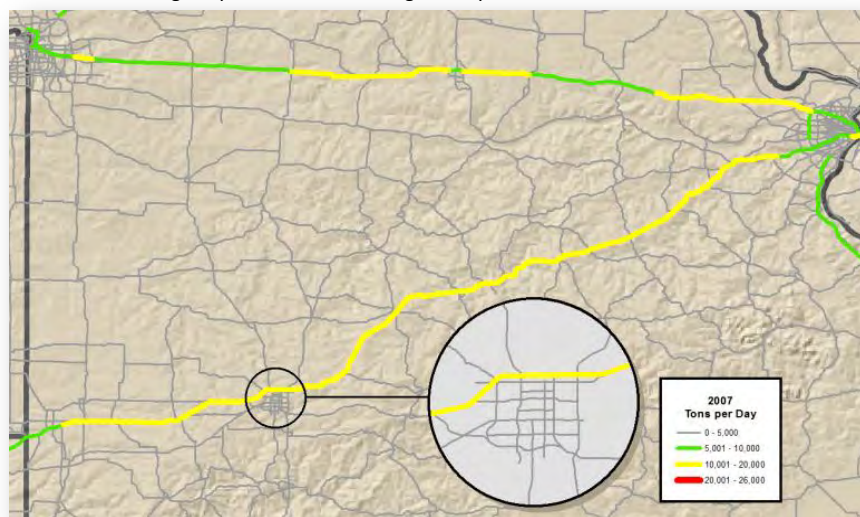


Figure 72 - 2007 Local Daily Truck Volume

Source: Federal Highway Administration, Freight Analysis Framework

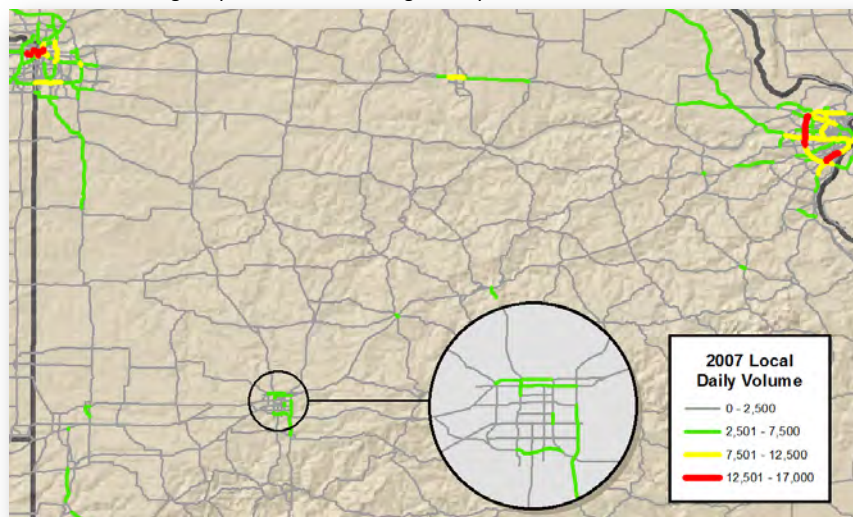


Figure 73 - 2007 Daily Truck Volume

Source: Federal Highway Administration, Freight Analysis Framework

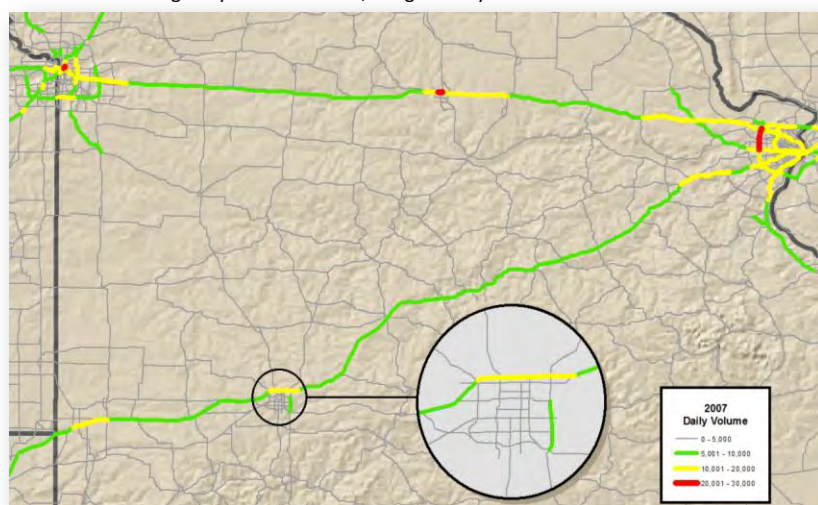


Figure 74 - 2007 Levels of Congestion

Source: Federal Highway Administration, Freight Analysis Framework

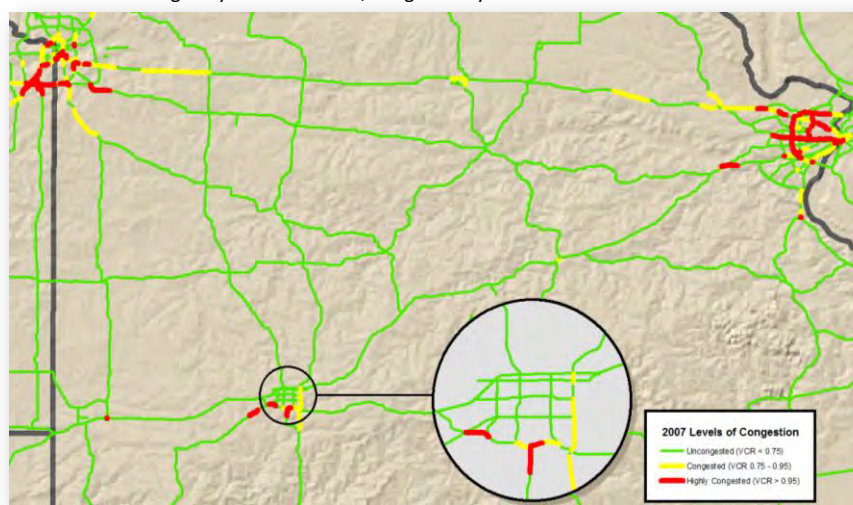


Figure 75 - 2040 Levels of Congestion

Source: Federal Highway Administration, Freight Analysis Framework

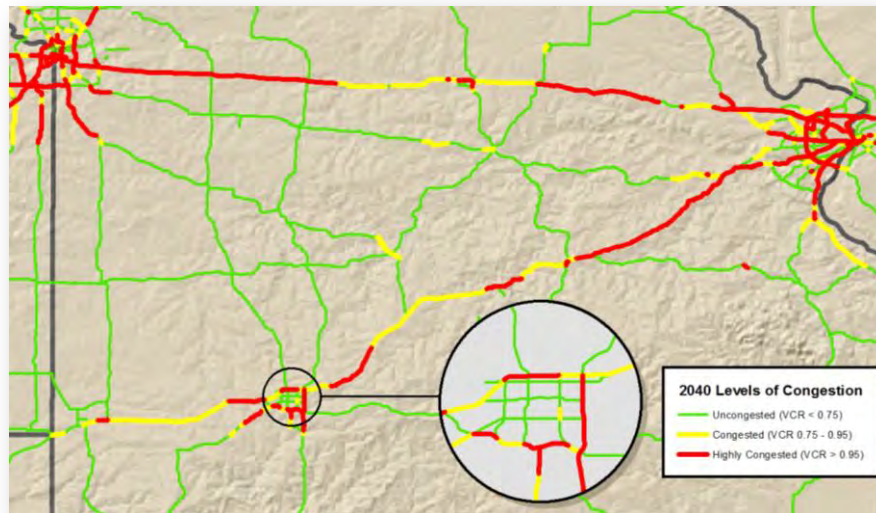


Figure 76 - 2040 Daily Truck Volume

Source: Federal Highway Administration, Freight Analysis Framework

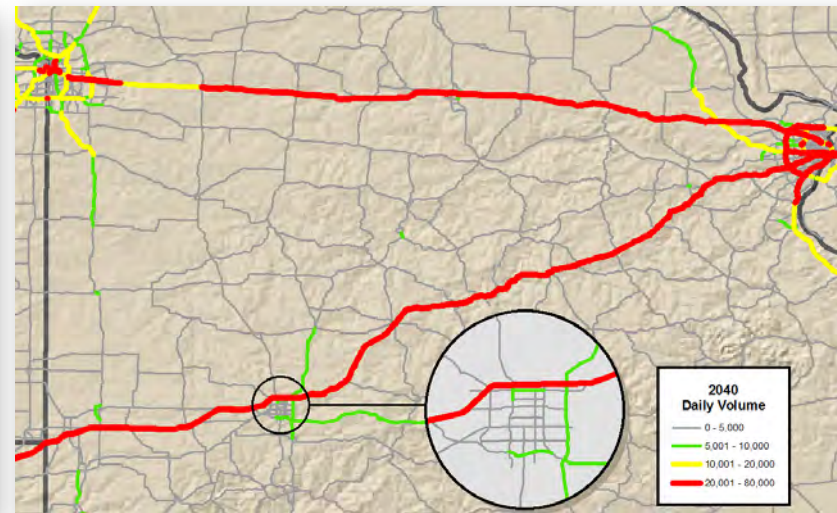


Figure 77 - 2040 Tons per Day

Source: Federal Highway Administration, Freight Analysis Framework

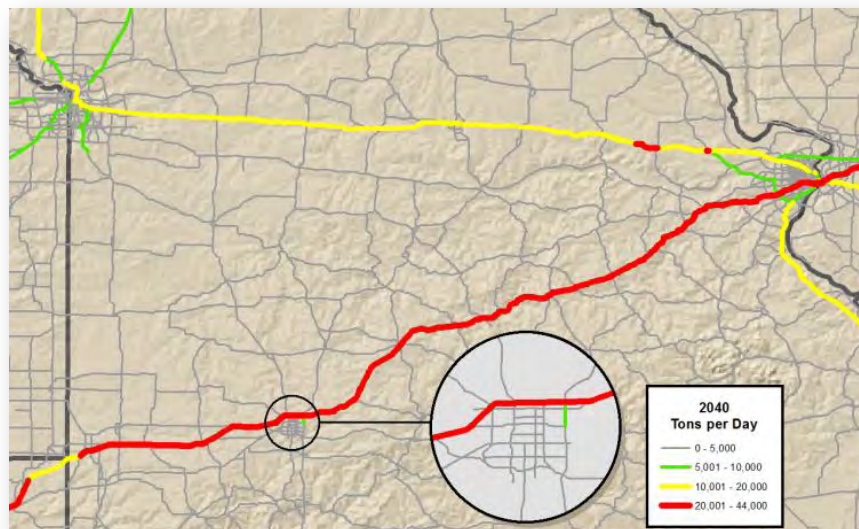
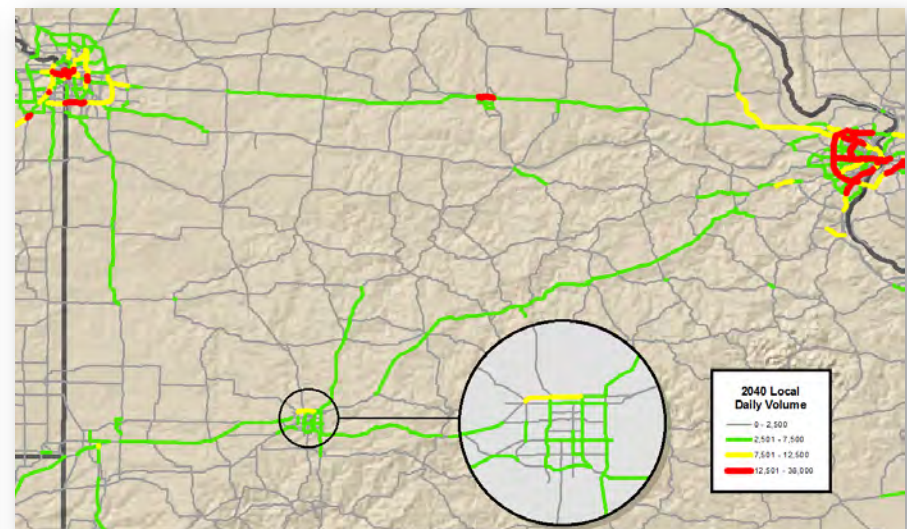


Figure 78 - 2040 Local Daily Truck Volume

Source: Federal Highway Administration, Freight Analysis Framework



This information has been projected to 2040. By 2040, I-44 will become the significant truck route through Missouri, with daily truck tonnage exceeding that all along I-70. Most of I-44, US 65 and US 60 will experience significant congestion. Local truck traffic will also increase by 2040. Additional routes in Springfield will be used to help direct that traffic. Beyond I-44, US 65 and US 60, local truck traffic will be found on Glenstone, Sunshine, Fremont, and West Bypass.

Promoting Efficient Truck Movement

Moving freight quickly and economically enables the region to be competitive. Transportation infrastructure should support the forecasted growth in freight movement. Both through and local truck traffic are forecasted to increase significantly. The number of local carriers demonstrates the need to accommodate efficient truck movements. Due to their larger size and slower acceleration, heavy trucks contribute more to congestion than lighter vehicles. Freight trucks also cause higher levels of road wear. According to an FHWA study, a heavy truck can impose road wear costs 100 times greater than an automobile.

Efficient freight operation can be affected by the level of congestion on the overall system. Height and weight limits can also affect how freight can move through the system. When roadways are not designed for freight users, truck travel can impact all users of the roadway network. Goods movement and logistics should be a part of the land development process. The use of intelligent transportation systems (ITS) can also help manage capacity and demand.

Strategy to Implement Plan Goals

- *OTO should work to enhance the integration and connectivity of the transportation system, across and between modes, preserving freight mobility as the region continues to develop.*
-

Identifying and marking truck routes can guide truck traffic as to the best way to move through an area. Truck routes should receive additional consideration during the design and construction of intersections and at other key turning locations along the route. While certain streets may be promoted for truck use, others may need to restrict use by trucks. Truck prohibitions should be placed on all collector and local streets in residential area based on two conditions – truck traffic volume and inadequate street design.

Volume of Truck Traffic

- Total daily traffic volume is less than 3,500 vehicles per day.
- Percentage of trucks exceeds five percent of the total traffic volume in the same four-hour time period.
- An acceptable alternative route for trucks exists.

Inadequate Street Design

- When the alignment of a street is not adequate to accommodate all trucks as evidenced by accidents leaving the roadway.
- When the permitting of truck traffic would aggravate existing street maintenance issues.

If truck prohibitions have been placed due to inadequate street design only, the restrictions can be lifted once the concerns have been corrected.

Truck traffic on bicycle routes is also not recommended, as the presence of trucks can quickly deteriorate the bicycle level of service and impact the perceived safety of the roadway for cyclists.

In downtown areas, truck traffic is usually related to deliveries. Having appropriate parking for the loading and unloading of delivery trucks can relieve truck-related congestion in urban areas. This can be accomplished by providing an adequate number of loading zones at block ends, stricter enforcement of no-parking zones, and limiting the hours and areas of delivery.

Strategies to Implement Plan Goals

- *OTO jurisdictions should encourage truck-generating facilities to locate along major streets, or on collector streets connecting directly to major streets in order to encourage trucks to confine their travels to arterials and expressways.*
 - *Streets with existing or potential truck traffic problems should be identified. OTO jurisdictions should consider recommending truck routes and/or restricting truck use on inappropriate streets.*
 - *Major activity centers requiring extensive goods and service movements should be located near major highway interchanges and along major arterial streets.*
 - *Local standards and regulations should provide adequate off-street loading spaces for businesses which receive or distribute goods by truck. When off-site accommodations cannot be made, there should be an adequate number of on-street loading zones.*
-

Land Use Considerations

Freight can be supported through land use planning. By locating freight intensive uses in suitable areas and applying the appropriate controls and design standards, both freight and non-freight uses can benefit. Uses that will generate truck traffic should be located close to major highways, promoting the concentration of industrial development. Using minimum buffers and setbacks between industrial sites and nearby sensitive land uses can mitigate the impact of a freight facility. Undeveloped land near freight facilities should be protected as well. This land could be used to promote future freight expansion, while also providing a buffer near incompatible land uses.

Clustering common destinations, such as in an industrial park, can improve accessibility by trucks, as well as reduce the amount of travel required for goods distribution. When reviewing site plans, truck access and circulation should be considered.

Facilities that generate heavy truck movements are generally permitted in certain commercial, manufacturing, or industrial zoning districts. Given proper land use and subdivision design, most trucks will tend to use the major arterial system without being required to do so. The ability to handle truck traffic should be considered when evaluating rezoning requests, especially near residential areas.

Considerations when Zoning for Freight

- Directness of access to a major street.
- Proximity of facility to a residential area.
- Adequacy of surrounding street system for truck traffic.
- Impact on adjoining land uses of possible noise and air pollution
- Developer's willingness to make any needed improvements within a specified period of time.

Strategies to Implement Plan Goals

- *OTO jurisdictions should incorporate delivery and access needs into the site design and review process.*
 - *OTO jurisdictions should prevent zoning that would result in truck traffic through a residential area.*
 - *Developers should be encouraged to design subdivisions that channel truck traffic to the arterial system without passing through residential areas.*
-

Safety

Many of the strategies recommended in this Chapter relate to freight safety concerns with the traveling public. Additional safety concerns relate to the cargo freight carriers transport. Both truck and rail carry hazardous materials such as explosives, flammable liquids, and toxic chemicals. Accidents can happen, increasing the opportunity for a spill or explosion which could impact the safety of those in the OTO area. This only emphasizes the need to segregate freight facilities from sensitive land uses such as residential areas, as well as the need to mitigate the risk of crashes with these vehicles.

Strategies to Implement Plan Goals

- *OTO jurisdictions should enact regulations which direct how hazardous materials are transported, including the designation of truck routes for hazardous materials.*
 - *Local jurisdictions, MoDOT, and Emergency Management Departments, as well as other pertinent parties, should coordinate the planning efforts necessary to respond to hazardous material incidents.*
-

Chapter 11 – Environmental Considerations

Already this Plan recommends many strategies that benefit the environment by reducing congestion, encouraging transit and promoting facilities that support bicycling and walking. The OTO region and southwest Missouri have experienced an incredible amount of growth over the past 20 years. This can be attributed to the natural environment and open spaces that exist in this region. The region also has a number of cultural and historic resources that continue to make the area attractive. The transportation system should strive to protect and enhance these advantageous qualities of the Ozarks.

Natural Environment

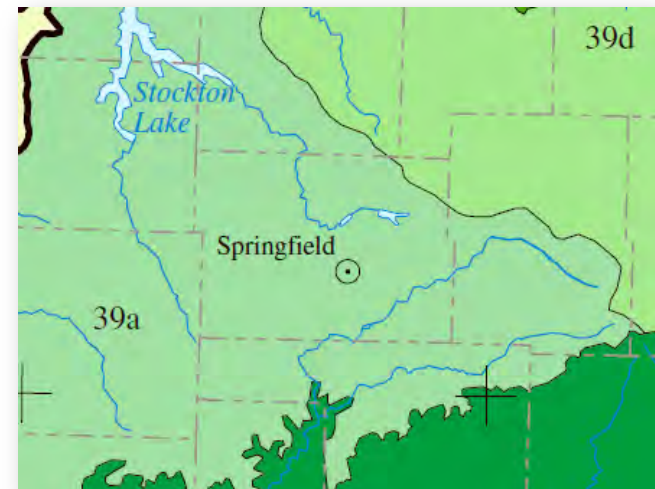
Ecoregions

Source: Chapman, S.S., Omernik, J.M., Griffith, G.E., Schroeder, W.A., Nigh, T.A., and Wilton, T.F., 2002, Ecoregions of Iowa and Missouri ftp://ftp.epa.gov/wed/ecoregions/mo/moia_front.pdf

The Ozarks Transportation Organization planning area can be divided into two ecoregions. The majority of the region is covered by the Springfield Plateau, while a portion of the OTO in Christian County is covered by the White River Hills. Ecoregions denote areas of general similarity in ecosystems and in the type, quality, and quantity of environmental resources. They are designed to serve as a spatial framework for the research, assessment, management, and monitoring of ecosystems and ecosystem components. The Springfield Plateau and White River Hills are part of the Ozark Highlands. The Ozark Highlands is characterized by an irregular physiography, forested areas, and limestone bedrock. The Springfield Plateau has moderate topography with karst features and rocky soils. Land cover is a mix of woodland and areas of pastureland in the cleared prairies. Bicyclists throughout the region benefit from the relatively flat nature of the Springfield Plateau. The White River Hills has more extreme topography and is characterized by cliffs, sinkholes, and caves. Much of the land is wooded and is in public lands.

Figure 79 - OTO Ecoregions

Source: Environmental Protection Agency



Endangered Species

The Missouri Department of Conservation has identified sixteen terrestrial and aquatic species, as well as eight plant species, as endangered within the State of Missouri. Christian and Greene County both have several of these species, as well as some species unique to each county.

Christian County

Black-tailed Jackrabbit

- State Status – Endangered
- No Federal Status

Gray Bat

- State Status – Endangered
- Federal Status – Endangered

Missouri Bladder-pod

- State Status – Endangered
- Federal Status – Threatened

Plains Spotted Skunk

- State Status – Endangered
- No Federal Status

Greene County

Black-tailed Jackrabbit

- State Status – Endangered
- No Federal Status

Geocarpion

- State Status – Endangered
- Federal Status – Threatened

Gray Bat

- State Status – Endangered
- Federal Status – Endangered

Figure 80 - Endangered Species in the Ozarks

Source: Environmental Protection Agency

ftp://ftp.epa.gov/wed/ecoregions/mo/moja_front.pdf



The endangered gray bat, *Myotis grisescens*, was once a common inhabitant of the caves in Ecoregion 39. Habitat loss and human disturbance have significantly reduced their numbers.

Photo: Merlin D. Tuttle, Bat Conservation International



The threatened Ozark cavefish, *Amblyopsis rosae*, is closely linked to the endangered gray bat. The largest Ozark cavefish populations occur in caves used by the gray bat, where the bat guano forms the caves' primary energy source.

Photo: Jim Rathert, MDC

Missouri Bladder-pod

- State Status – Endangered
- Federal Status – Threatened

Niangua Darter

- State Status – Endangered
- Federal Status – Threatened

Ozark Cavefish

- State Status – Endangered
- Federal Status – Threatened

Cultural and Historical Resources

Items of cultural significance in the region include religious facilities, cemeteries, historical facilities, airports, public and private schools, universities, and local markets. Besides those items on the National Register Listings, Route 66 has a strong presence through the OTO region. Route 66 received its name at the former Historic Colonial Hotel in downtown Springfield. Route 66 travels from Strafford at the east OTO boundary, through Springfield, and out west from there.

Christian County National Register Listings

Ozark Courthouse Square Historic District

- Portions of 2nd Ave, Church, Elm, and 2nd Streets, on the Courthouse Square in Ozark
- The Courthouse is a Classic Revival designed by H. H. Hohenschild.
- The buildings on the square were constructed between 1880 and 1945.

Southwest Missouri Prehistoric Rock Shelter and Cave Sites Discontiguous Archeological District

- Address restricted
- Cave sites with prehistoric human occupations, circa 12,000 – 250 B.P.

Wilson's Creek National Battlefield

Figure 81 - Missouri Bladder-Pod

Source: Environmental Protection Agency

ftp://ftp.epa.gov/wed/ecoregions/mo/moia_front.pdf



The endangered Missouri bladder-pod, *Leaquerella filiformis*, grows in open limestone glades with shallow soils and around rock outcrops.

Photo: Jim Rathert, MDC

- Southwest of Springfield on MO 174
- The Battlefield includes virtually the entire scene of action of the Battle of Wilson's Creek in 1861.

Greene County National Register Listings

Greene County has many facilities listed on the National Register. Additional details can be found on the State Historic Preservation Office website through the Missouri Department of Natural Resources - <http://www.dnr.mo.gov/shpo/Greene.htm>.

Table 32 - Greene County National Register Listings

Source: Missouri Department of Natural Resources, State Historic Preservation Office

Abou Ben Adhem Shrine Mosque	Hotel Sansone	Schneider, Henry, Building
Ambassador Apartments	Jefferson Street Footbridge	South Avenue Commercial Historic District
Anderson, Elijah Teague, House	Keet-McElhany House	Springfield Furniture Co.
Bentley House	King, J.E., Manufacturing Co.	Springfield Grocer Co. Warehouse
Benton Avenue AME Church	Kite, Robert B. and Vitae A., Apartment Building	Springfield National Cemetery
Berry Cemetery	Landers Theater	Springfield Public Square Historic District
Boegel and Hine Flour Mill-Wommack Mill	Lincoln School	Springfield Seed Co. Office and Wholesale Building
Boone, Nathan, House	Marquette Hotel	Springfield Warehouse and Industrial Historic District
Camp Manor Apartments	Marx-Hulbert Building	Stone Chapel
Campbell Avenue Historic District	Mid-Town Historic District	U.S. Customhouse and Post Office
Christ Episcopal Church	Netter-Ullman Building	Walnut Street Historic Commercial District
College Apartments	Oberman, D.M., Manufacturing Co. Building	Walnut Street Historic District
Commercial Street Historic District	Old Calaboose	Washington Avenue Baptist Church
Day House	Palace Hotel	West Walnut Street Commercial Historic District
Finkbiner Building	Pearl Apartments and Windsor Apartments	Wilhoit, E.M., Building
Franklin Springfield Motor Co. Building	Pearson Creek Archeological District	Wilhoit, Edward M. and Della C., House
Gillioz Theater	Producers Produce Co. Plant	Wilshire Apartments
Gilmore Barn	Pythian Home of Missouri	Wilson's Creek National Battlefielied
Gottfried Furniture Co. Building	Rail Haven Motel	Wise Feed Co. Building
Greene County Courthouse	Rock Fountain Court Historic District	Woods-Evertz Stove Co. Historic District
Heer's Department Store	St. John's Mercy Hospital Building	
Holland Building	St. Paul Block	

- *OTO, member jurisdictions, and MoDOT should be aware of environmentally sensitive areas when planning and constructing transportation projects.*
-

Environmental Justice

Environmental justice is a fundamental ideal that ensures federally funded plans and projects do not create a disproportionately adverse effect on minorities, low-income, disabled, elderly and/or under age 18 populations. This ideal is built on the framework of Title VI of the Civil Rights Act of 1964, which states, “No person in the United States shall, on the ground of race, color, or national origin, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving Federal financial assistance.” In 1994, President Clinton issued an Executive Order directed to all Federal agencies to consider and address the effects of all program, policies, and activities on “minority and low-income populations.” This has been further expanded to include the elderly, disabled, and the under 18-years of age populations. President Bush signed an Executive Order in 2000, expanding protection against national origin discrimination, by ensuring programs are accessible by people with limited English proficiency.

Federally funded recipients are to ensure that there are no disproportionate adverse impacts in these communities, or those considered transportation dependent due to age or physical limitations, when allocating or spending federal funds. These recipients are also required to review the benefits and burdens of projects and programs (in this case, transportation improvements) are balanced between the population at large and those traditionally underserved in the planning and programming process.

While it is difficult to make any significant change to the transportation system without negatively affecting someone, the focus of environmental justice is on these impacts and alternative solutions. Any major transportation system change should first consider whether society will be better off with the change, and second, determine the distributional impacts. The first consideration addresses the economic efficiency of a project; that is benefit-cost analysis. The second addresses the equity of who will receive more of the benefits and who will pay more of the costs. This question of equity is the concern of environmental justice. If it is determined that a project negatively impacts a population, the project can be rejected or the population impacted can be compensated. Should a project still move forward, attempts should be made to minimize the negative impacts.

Adverse Impacts

- Adverse impacts, as defined by the U.S. Department of Transportation, include, but are not limited to:

- Bodily impairment, infirmity, illness, or death
- Air, noise, and water pollution, and soil contamination
- Destruction, or disruption of man-made or natural resources
- Destruction or diminution of aesthetic values
- Destruction or disruption of community cohesion or a community's economic vitality
- Destruction or disruption of public and private facilities and services
- Vibration
- Adverse employment impacts
- Displacement of persons, businesses, farms, or non-profit organizations
- Increased traffic congestion
- Isolation, exclusion, or separation of minority or low-income individuals within a given community or from the broader community.
- The denial of, or reduction or significant delay in the receipt of DOT programs, policies, and/or activities

Positive Benefits

The following list represents a list of positive impacts from transportation projects that can be used to offset negative impacts:

- Improved air quality
- Reduced traffic congestion
- Improved access to public transportation
- Improved access to jobs
- Natural hazard mitigation
- Improved access to disadvantaged business enterprises
- Improvement of aesthetic values
- Improved connectivity of minority/low-income neighborhoods to the broader community
- Reduced noise and vibration
- Reduction in possibility of impairment or death due to transportation infrastructure

Mitigating Disproportionate Impacts

The focus of environmental justice is to determine if adverse impacts are the burden of, or occur at a greater severity, for minority, low-income, elderly, disabled, under 18-years of age, or limited English proficiency populations compared to the general population. If a disproportionately adverse impact is shown to be affecting these populations, the activity should not be carried out using federal funds unless:

- Alternative approaches or further mitigation measures that would avoid or reduce the disproportionate impacts are not practicable, and
- A substantial need exists for the program, policy, or activity, based on the overall public interest and alternative approaches that would have less adverse impacts on protected populations would either –
 - Have other adverse social, economic, environmental, or human health impacts that would be more severe, or
 - Involve increased costs of extraordinary magnitude.

Actions to Identify Information Concerning Human Health and Environmental Impacts

The public must have access to complete information concerning human health and environmental impacts. Four actions early in the development of major programs, policies, or activities can help agencies develop this information.

- Identifying and evaluating environmental, public health, and interrelated social and economic effects
- Proposing measures to avoid, minimize, and/or mitigate disproportionately high and adverse environmental and public health effects and interrelated social and economic effects, offsetting benefits on opportunities should be provided to enhance communities, neighborhoods, and individuals whenever permitted by federal law and policy
- Considering alternatives when they would enable disproportionately high and adverse impacts to be avoided and/or minimized
- Elicit public involvement opportunities, including soliciting input from affected minority and low-income populations in considering alternatives.

Analysis

OTO has identified minority and Hispanic, low-income, disabled, elderly and youth, and limited English proficiency populations within the OTO region. The location of these populations has then been compared to the location of the constrained projects included in the Long Range Transportation Plan.

Figure 82 - 2010 Elderly by Block Group

Source: US Census Bureau – 2010 SF1, Table P12

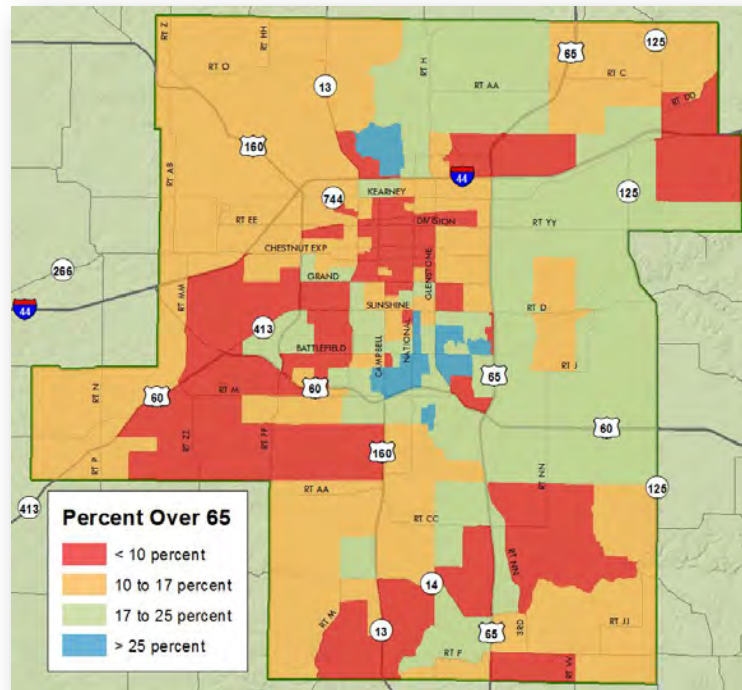
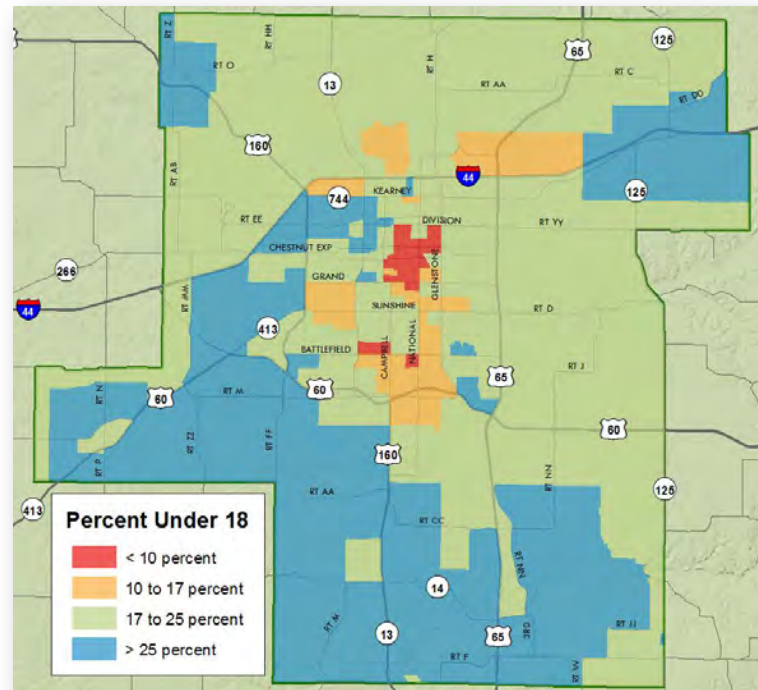


Figure 83 - 2010 Youth (under age 18) by Block Group

Source: US Census Bureau – 2010 SF1, Table P12



Persons over the Age of 65

Specific transportation projects that may need further examination to ensure no undue hardship is placed on persons over the age of 65 would include:

- Battlefield Road and Fremont Avenue Intersection Improvements, Fremont Avenue Improvements – Intersection improvements at Fremont Avenue, improvements on Fremont Avenue from Sunset Street to Battlefield Road
- Business 65 (Glenstone Avenue) Access Improvements – Intersection improvements at Independence Street/Luster Avenue Connection and Republic Road
- Campbell Avenue and Republic Road Intersection Improvements – Intersection improvements at Republic Road
- Republic Road Bridges over James River Freeway (Route 60) – Bridge improvements for Republic Road bridges over Route 60 (James River Freeway)
- Route 13 (Kansas Expressway) Access Management – Improved access management from I-44 to Route 744 (Kearney Street)

- Route 13 (Kansas Expressway) and Route 60 (James River Freeway) Interchange Improvements – Interchange improvements at Route 60 (James River Freeway)
- Route 65 and Battlefield Road Interchange Improvements – Interchange improvements at Battlefield Road

Persons under the Age of 18

The youth population is fairly significant throughout the OTO region. Nearly all projects may need further examination to ensure no undue hardship is placed on persons under the age of 18.

Figure 84 - 2010 Minority Population by Block Group

Source: US Census Bureau – 2010 SF1, Table P2

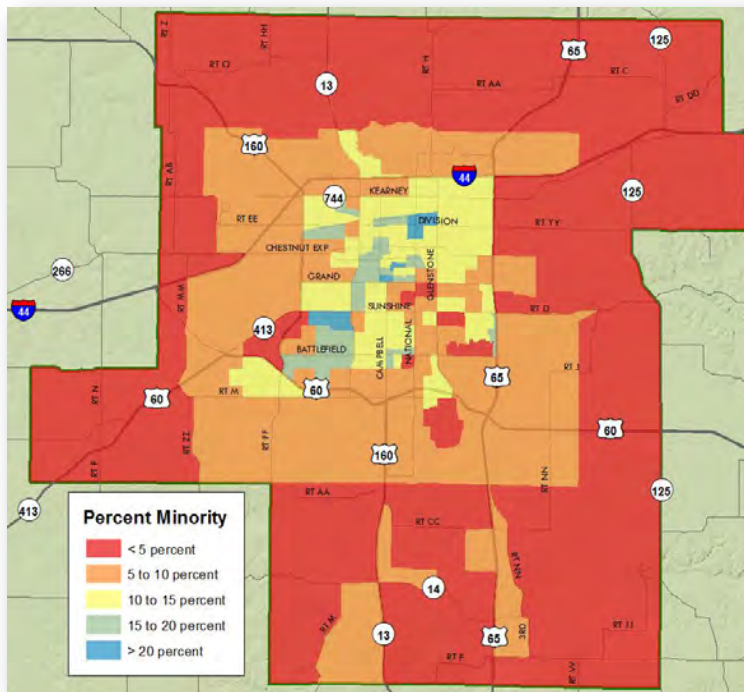
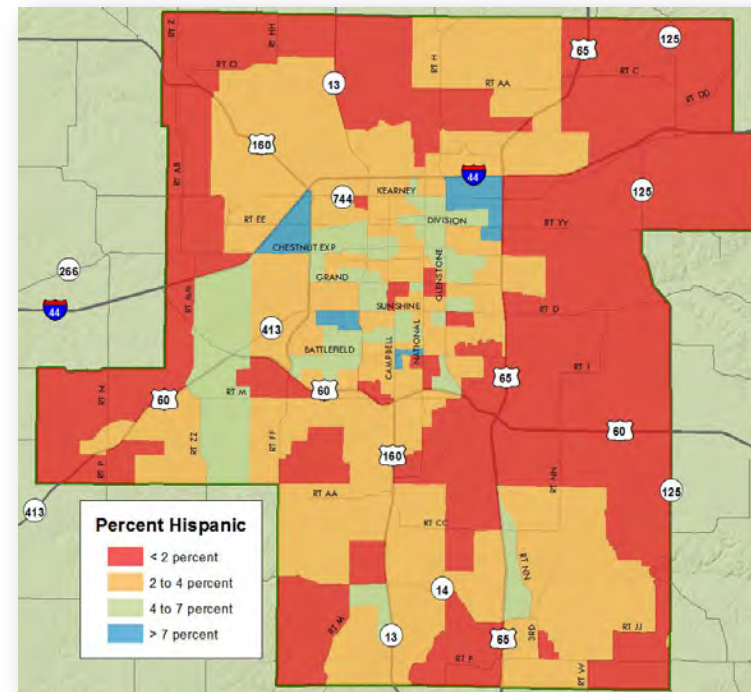


Figure 85 - 2010 Hispanic Population by Block Group

Source: US Census Bureau – 2010 SF1, Table P2



Minority and Hispanic Populations

Specific transportation projects that may need further examination to ensure no undue hardship is placed on minority and Hispanic populations would include:

- Battlefield Road and Fremont Avenue Intersection Improvements, Fremont Avenue Improvements – Intersection improvements at Fremont Avenue, improvements on Fremont Avenue from Sunset Street to Battlefield Road
- Route 13 (Kansas Expressway) and Route 60 (James River Freeway) Interchange Improvements – Interchange improvements at Route 60 (James River Freeway)
- Route 13 (Kansas Expressway) and Sunset Street Intersection Improvements – Intersection improvements at Sunset Street
- Route 13 (Kansas Expressway) Safety and System Improvements – Safety and system improvements from College Street to Route 60 (James River Freeway), Access Management
- Route 160 (West Bypass) and Route 60 (James River Freeway) Interchange Improvements – Interchange improvements at Route 60 (James River Freeway)
- Route 160 (West Bypass) and Route 744 (Kearney Street) Intersection Improvements – Intersection improvements at Route 744 (Kearney Street)
- Route 60 (James River Freeway) Operational Improvements – Operational improvements on James River Freeway from Route 413 (West Sunshine) to Route 65
- Route 65 and Route YY (Division Street) Interchange Improvements – Interchange improvements at Route YY (Division Street)
- Route 744 (Kearney Street) and Packer Road Intersection Improvements – Intersection improvements at Packer Road

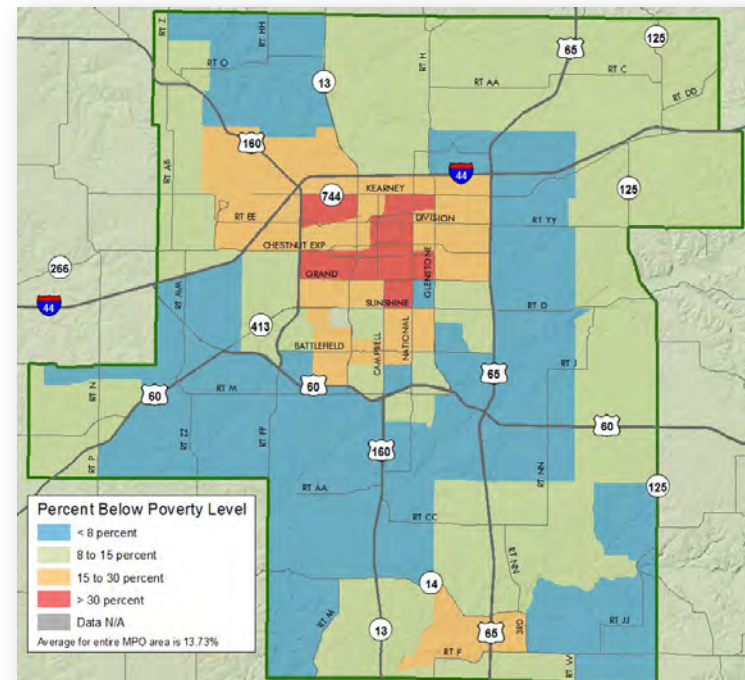
Low-Income Population

Specific transportation projects that may need further examination to ensure no undue hardship is placed on low-income populations would include:

- Route 13 (Kansas Expressway) Access Management – Improved access management from I-44 to Route 744 (Kearney Street)

Figure 86 - 2005-2009 Low-Income Population

Source: US Census Bureau – American Community Survey, Table B17001



- Route 13 (Kansas Expressway) and Sunset Street Intersection Improvements – Intersection improvements at Sunset Street
- Route 13 (Kansas Expressway) Safety and System Improvements – Safety and system improvements from College Street to Route 60 (James River Freeway), Access Management
- Route 160 (West Bypass) and Route 744 (Kearney Street) Intersection Improvements – Intersection improvements at Route 744 (Kearney Street)

Limited English Proficiency Population

The limited English proficiency population is well represented geographically in the OTO region. Most projects in the region may need further examination to ensure no undue hardship is placed on limited English proficiency populations.

Figure 88 - 2000 Disabled Population

Source: US Census Bureau – 2000 SF3, Table P42

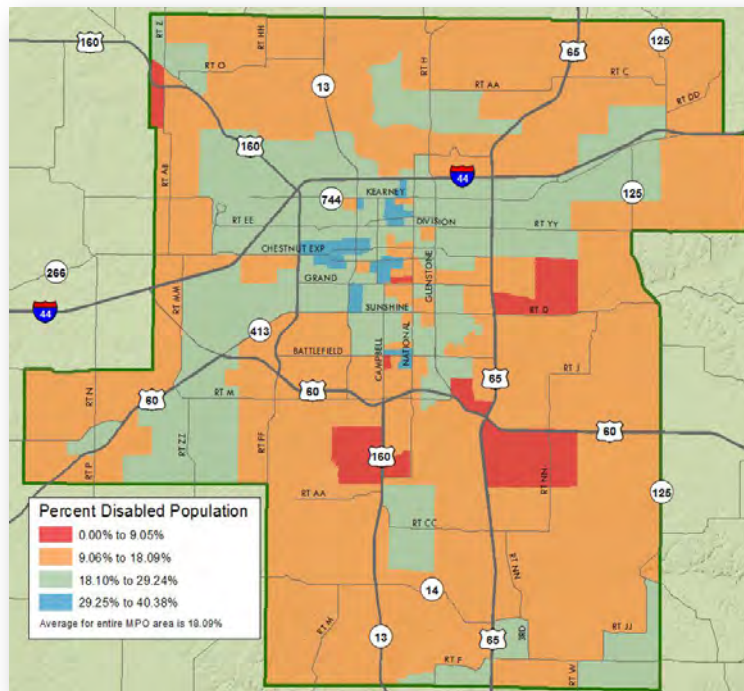
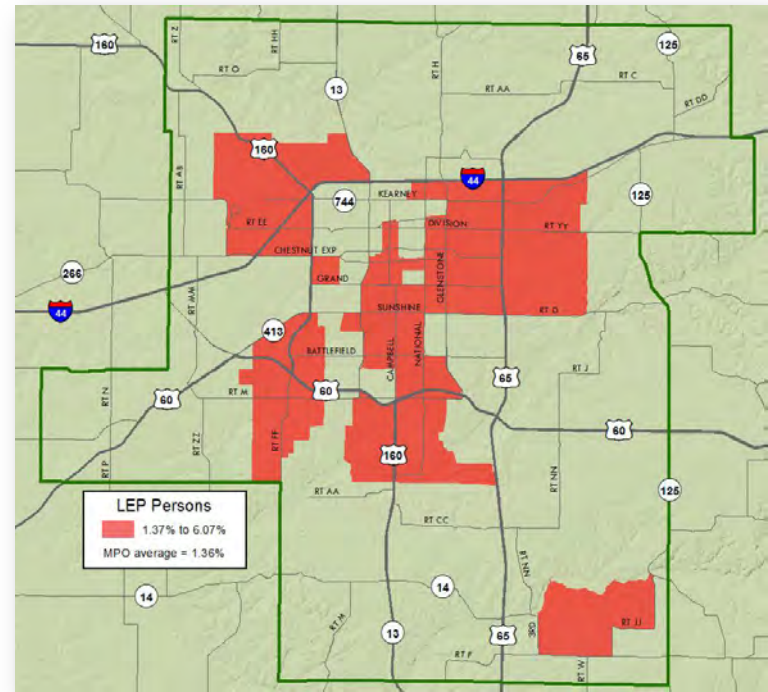


Figure 87 - 2005-2009 Limited English Proficiency Population

Source: US Census Bureau – American Community Survey, Table B16001



Disabled Population

The most recent mapped data available for the disabled population in the OTO region is from the 2000 Census. Specific transportation projects that may need further examination to ensure no undue hardship is placed on low-income populations would include:

- Route 13 (Kansas Expressway) Access Management – Improved access management from I-44 to Route 744 (Kearney Street)
- Route 13 (Kansas Expressway) and Route 60 (James River Freeway) Interchange Improvements – Interchange improvements at Route 60 (James River Freeway)

- Route 13 (Kansas Expressway) Safety and System Improvements – Safety and system improvements from College Street to Route 60 (James River Freeway), Access Management

Air Quality

Air quality throughout the nation is regulated through the Clean Air Act, which was last amended in 1990. The Clean Air Act and its Amendments requires the Environmental Protection Agency (EPA) to set National Ambient Air Quality Standards (40 CFR part 50) for pollutants considered harmful to public health and the environment. When areas exceed the levels set by these standards, they are considered non-attainment.

7 Regulated Pollutants

- Carbon Monoxide
- Lead
- Nitrogen Dioxide
- Particulate Matter (PM₁₀)
- Particulate Matter (PM_{2.5})
- Ozone
- Sulfur Dioxide

One portion of Greene County is considered non-attainment for sulfur dioxide. This is due to the James River Power Plant. Since transportation is not a contributing source for sulfur dioxide, this designation does not affect the OTO.

Ozone

Ozarks Clean Air Alliance Clean Air Action Plan

<http://www.showmecleanair.com/downloads/CAAPJuly2010.pdf>

For the OTO region, ozone is of the greatest concern. Ozone is a gas composed of three atoms of oxygen – O₃. Ozone occurs both in the Earth's upper atmosphere and at ground level. The ozone in the upper atmosphere protects the earth from the sun's ultraviolet rays. Ozone at ground level can cause adverse health and environmental effects.

Ozone is created by a chemical reaction between volatile organic compounds (VOCs) and nitrogen oxides (NO_x) in the presence of heat and sunlight. Since ozone requires sunlight and heat to form, it is of most concern from April through October. According to the EPA, health impacts

include chest pain, coughing, throat irritation, and congestion. Ozone can worsen bronchitis, emphysema, and asthma. Repeated exposure may permanently scar lung tissue. Ozone can also damage vegetation and ecosystems. The EPA website states that in the United States, ozone is responsible for an estimated \$500 million in reduced crop production each year.

Emissions Sources for NO_x and VOCs

Electric Generating Units (EGU)

- Power Plants

Non-Electric Generating Units (Non-EGU)

- Factories
- Industrial and commercial boilers
- Chemical processing
- Large petroleum storage facilities

Area

- Small businesses (dry cleaners, autobody shops, printers, painting operations, gas stations, etc.)
- Homes (wood combustion, furnaces, paint and solvent use, etc.)
- Office buildings (heating sources, etc.)
- Wildfires
- Waste disposal (landfills)
- Agricultural sources (open burning, pesticide application, tilling, feedlots, etc.)

Mobile

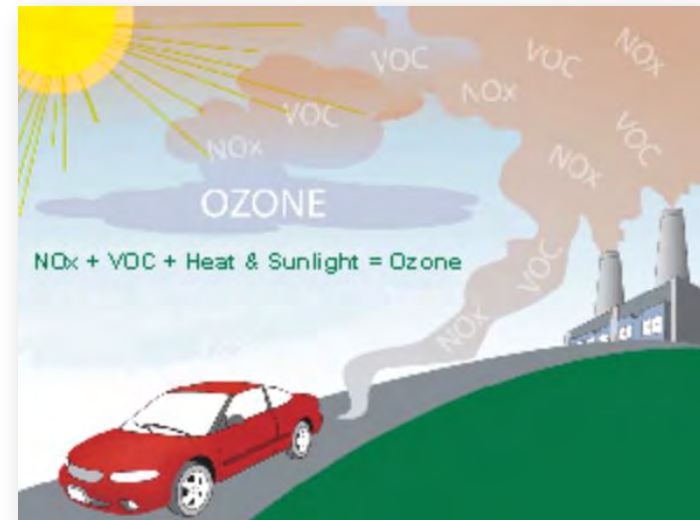
- Cars
- Motorcycles
- Trucks
- Heavy-duty trucks (semi-tractor trailers, dump trucks, etc.)

Non-Road

- Construction equipment (excavators, bull dozers, skid steers, etc.)

Figure 89 - How Ozone is Made

Source: Environmental Protection Agency



- Lawn and garden equipment (lawn mowers, gas powered weedeaters, chainsaws, leaf blowers, chippers, etc.)
- Off-road motorcycles and ATV's
- Golf carts
- Snowmobiles
- Boats
- Farm equipment (tractors, sprayers, balers, etc.)
- Aircraft

Natural

- Plants and trees emit VOCs (biogenic sources)
- Biologic decay emits NOx

Table 33 - OTO Ozone Design Values

Source: Missouri Department of Natural Resources

Years	Value
2002-2004	70
2003-2005	71
2004-2006	71
2005-2007	77
2006-2008	73
2007-2009	69
2008-2010	67

Current Levels

In 2008, the EPA reduced the standard from 80 parts per billion to 75 parts per billion. The new standard has also been under review, but it has been decided not to consider an even lower standard at this time. The standard is calculated on a three-year average of the fourth highest 8-hour ozone value. This is called a design value. Ozone values are measured using the highest of two monitors in Greene County. One is located at Hillcrest High School and the other is at Fellow's Lake. A peak year for the OTO area was 2007, using values from 2005-2007. Since then, however, the values have declined to a low of 67, placing OTO and the region well under the current standard. Should this standard be reduced in the future, though, OTO could face non-attainment.

Ozone and Transportation Conformity

The 1990 Clean Air Act Amendments placed greater emphasis on transportation sources and connections between air quality planning and transportation planning. Transportation conformity is a way to ensure that federal funding and approval goes to those transportation activities that are consistent with air quality goals. It applies to transportation plans, transportation improvement programs (TIPs), and projects funded or approved by FHWA or FTA in areas that are considered non-attainment or maintenance.

Since the OTO region is currently in attainment, transportation conformity is not yet a concern. If the region were to go non-attainment, however, OTO would have many responsibilities complying with transportation conformity. These responsibilities would also extend to the entire non-attainment area, not just the portion within the OTO boundaries.

Conformity is established by a regional emissions analysis, which determines if projected emissions for the Plan and TIP exceed emissions limits established by a State Implementation Plan (SIP). A SIP contains region specific information and goals on appropriate emissions levels that will keep a region in attainment. The regional emissions analysis must be conducted following a process established by EPA. This includes providing data produced by the OTO travel demand model. Currently, the OTO model is not sufficient for this analysis. When finalized, the conformity determination shows that the total emissions projected for the long range transportation plan or TIP are within the on-road mobile source emissions limits established by the SIP. Transportation conformity is a public process that must include interagency consultation.

Strategy to Implement Plan Goals

- ***When OTO updates its travel demand model, it should ensure that the model complies with needs for a regional emissions analysis to demonstrate transportation conformity.***
-

The actual conformity determination is made by FHWA and FTA. The OTO Board of Directors would make the initial conformity determination and that would be approved by FHWA and FTA.

When to Determine Conformity

- On a long range transportation plan or TIP
 - At least every four years
 - 24-months after SIP motor vehicle emissions budgets are found adequate or are approved
 - Within 12-months after new non-attainment designations become effective.
- Prior to acceptance of a new or updated long range transportation plan, TIP, and certain plan or TIP amendments
- Prior to the first time a non-exempt federal project is adopted, accepted, approved, or funded (project-level conformity)
 - Applies 12 months after the effective date of non-attainment designation

Strategy to Implement Plan Goals

- ***The requirement that conformity must be determined within 12-months after a new non-attainment designation means that OTO should start preparing for the possibility of becoming non-attainment before it becomes a reality.***
-

Chapter 12 – Financial Capacity and Fiscal Constraint

The fiscal portion of the Plan addresses the existing and potential funding resources currently available and projected to be available for implementation of the Long Range Transportation Plan. Financing techniques and available funding resources are described and discussed. Projected funding available for implementing the LRTP is critical for creating a fiscally constrained project list. Reviewing the financial capacity of the region ensures that the Plan can be implemented over the next 24 years.

Revenue

MoDOT

Funding for the Missouri Department of Transportation consists of both federal and state revenue as well as proceeds received from the sale of bonds. MoDOT combines Federal Transit Administration and Federal Highway Administration funding estimates with state transportation revenue projections to project funding for transportation improvements and includes them in the Statewide Transportation Improvement Program. Ozarks Transportation Organization uses these projections in determining financial constraint.

The largest source of transportation revenue for MoDOT is from the federal government that includes the 18.4-cents per gallon tax on gasoline and 24.4-cents per gallon tax on diesel fuel. Other sources include various taxes on tires, truck and trailer sales, and heavy vehicle use. These highway user fees are deposited in the federal Highway Trust Fund and distributed to the states based on formulas prescribed by federal law through transportation funding acts. This revenue source also includes multimodal and highway safety grants. Approximately 37 percent of MoDOT's transportation revenue comes from the federal government.

The next largest source of MoDOT's transportation revenue is from the state fuel tax. Fuel taxes represent the state share of revenue received from the state's 17-cent per gallon tax on gasoline and diesel fuels which must be spent on highways and bridges. This revenue source also includes a 9-cent per gallon tax on aviation fuel which must be spent on airport projects. These tax revenues provide approximately 30 percent of transportation revenues. The state motor fuel tax is not indexed to keep pace with inflation, and no rate increase has occurred since 1996.

MoDOT receives a portion of the state sales and use taxes paid upon the purchase or lease of motor vehicles. This revenue source also includes the sales tax paid on aviation fuel which is dedicated to airport projects. These tax revenues provide approximately 13 percent of transportation revenues. Motor vehicle sales tax is the one state revenue that has recently provided additional resources to transportation. In November

2004, voters passed Constitutional Amendment 3, which set in motion a four-year phase in, redirecting motor vehicle sales taxes previously deposited in the state's general revenue fund to a newly created State Road Bond Fund. In state fiscal year 2009, the process of redirecting motor vehicle sales taxes to transportation was fully phased in, and the rate of growth in this revenue source slows dramatically. Future projected growth in this category is less than the rate of increase in construction and maintenance costs, therefore not keeping pace with inflation.

Vehicle and driver licensing fees include the state share of revenue received from licensing motor vehicles and drivers. This revenue source also includes fees for railroad regulation which are dedicated to multimodal programs. These fees provide approximately 13 percent of transportation revenues. Similar to motor fuel tax, the motor vehicle and driver licensing fees are not indexed to keep pace with inflation, and there have been no annual registration fee increases since 1984.

The interest earned on invested funds and other miscellaneous collections provides approximately 6 percent of transportation revenues. During the Amendment 3 bonding program, cash balances in state transportation funds have been higher than historic levels. The cash balance in state transportation funds at the beginning of fiscal year 2010 is expected to be approximately \$473 million. Bond proceeds are received in large increments and are paid out over time as project costs are incurred. When the Amendment 3 projects are completed, the balance of state transportation funds will be substantially less, and interest income will also decline. Other miscellaneous collections include construction cost reimbursements from local governments and other states, proceeds from the sale of surplus property and fees associated with the Missouri logo-signing program.

The state General Revenue Fund provides approximately 1 percent of transportation revenue. It is appropriated by the Missouri General Assembly for multimodal programs.

While not a true revenue, bonding is a method of financing used by the Missouri Highways and Transportation Commission (MHTC) to receive the best value for every dollar spent. Statutory authority was established in May 2000 for the MHTC to begin selling bonds, now called senior lien bonds. The senior lien bonds were limited to a total issuance of not more than \$2.25 billion. The lien was closed after \$907 million was issued from 2000 to 2003. The MHTC will issue no additional bonds under this lien.

In November 2004, Constitutional Amendment 3 was approved by the voters of Missouri. Amendment 3 redirects motor vehicle sales taxes to transportation. In accordance with this constitutional change, MoDOT began selling bonds and dedicated the funds to the Smoother, Safer, Sooner program. The Amendment 3 revenues are used for principal and interest payments on Amendment 3 debt. MoDOT has completed all Amendment 3 bond sales.

In fiscal year 2009, MoDOT sold \$142 million of bonds for a portion of the new Interstate 64, a design-build project in the St. Louis region. For the first time, MoDOT secured bonds primarily with federal funds, rather than state funds. These bonds are called Grant Anticipation Revenue Vehicle (GARVEE) bonds. In fiscal year 2010, MoDOT sold \$100 million additional GARVEE bonds for the new Mississippi River Bridge project and \$685 million for the Safe and Sound Bridge Improvement Program. The GARVEE principal and interest is scheduled to be repaid through state fiscal year 2033. MoDOT has completed all planned GARVEE bond sales.

Along with federal and state revenue, existing cash balances are used each year to remain fiscally constrained. The existing cash balances are made up of federal revenue and state revenue that have been deposited into MoDOT funds such as the State Road Fund, State Highways and Transportation Department Fund, and the State Road Bond Fund. Cash balances in state transportation funds have been higher than historic levels due to MoDOT's bonding program. These funds are considered available for funding highway and bridge construction projects.

Local

Most of the transportation revenue for local agencies is received through sales tax. Many communities have a sales tax dedicated to transportation. Most of the communities within the OTO boundary are experiencing a decline or no increase in sales tax revenue. While local jurisdictions in the OTO region will be able to continue to have locally funded transportation projects, there will not be the same level of revenue available as in past years when sales tax revenue was increasing.

Transportation Sales Tax

- The Cities of Nixa, Republic, and Springfield all have voter approved transportation sales taxes. Nixa has a ½-cent tax, Republic has two ¼-cent taxes, and Springfield has a 1/8-cent tax. Other jurisdictions do not have a transportation sales tax in place, but could elect to enact one.

Development Agreements

- A city or county may enter into agreements with developers to fund capital improvements with tax revenues generated by the new development. Typically the developer builds the improvement and is reimbursed by utilizing up to 50 percent of the sales tax generated by the business activity. Projects are usually funded up to a set amount plus interest and paid back over three to five years.

Missouri Transportation Finance Corporation

- The Missouri Transportation Finance Corporation (MTFC) is financed by federal highway funds and transit funds, as well as state and local matching funds. The Corporation may loan money to finance projects or provide collateral to gain favorable financing elsewhere. A local corporation is usually established to participate in the funding. The funds available under the MTFC are available throughout the State of Missouri and are applied for competitively. The funds are paid back to the Corporation following the construction of projects.

These funds will rollover and subsequent projects will not have the federal requirements associated with the project. Currently, most of the funds available under the Corporation are programmed for projects.

Neighborhood Improvement District (or Community Improvement Districts)

- State law authorizes cities and counties to establish Neighborhood Improvement Districts (NIDs) and Community Improvement Districts (CIDs) for the purpose of improving public infrastructure. Once established, the jurisdiction may issue temporary notes and long-term general obligation (GO) bonds (up to 20 years) to pay for improvements. Bonds are repaid through a special assessment on the properties within the district. NIDs and CIDs require the support of a majority of the property owners within the district and City Council or County Commission approval.

County Funding Sources

- Counties use property tax and sales tax revenue to fund capital improvements such as street widening improvements.

Strategy to Implement Plan Goals

- ***OTO jurisdictions, who do not already have one, should explore the creation of a transportation sales tax to provide additional opportunities for matching federal funds and cost sharing on MoDOT projects.***
-

Development Participation

A primary transportation objective is to ensure that major thoroughfare improvements are implemented in a timely manner and that the costs of these improvements are shared equitably between the public and private sectors. The OTO has determined the appropriate responsibility for funding projects based on the street classification, and whether or not the project is a new facility.

Local and Collector Streets

- For new streets, the proposed development is responsible for all costs.
- For improvement to existing streets, the jurisdiction ordinarily pays all costs unless a development on the abutting property is solely responsible for creating the needed improvement. In the latter case, the developer should be required to make the needed improvements.

Primary and Secondary Arterials

- For new streets, the developer of the abutting land should be required to pay for the cost of upgrading a street to collector standards, and the jurisdiction finances the additional pavement needed for an arterial street.
- For existing streets, the jurisdiction primarily pays for the improvements unless a development on the abutting property is primarily responsible for creating the needed improvement. In this case, the developer should be required to pay for upgrading the street to collector standards and the jurisdiction finances the additional pavement needed for an arterial street.

Expressways

- The jurisdiction, in conjunction with MoDOT normally bears the cost of constructing and upgrading expressways. A developer does not participate in the financing of expressways because the city, county, or state ordinarily acquires the access rights to abutting properties when it acquires the right-of-way.

Many new roadway improvements in the area are financed through shared expenditures from the private sector and from public means.

Strategy to Implement Plan Goals

- ***Cities, counties, and MoDOT should continue to work together on inter-governmental methods of financing transportation improvements and should continue to work with the private sector to ensure that the costs of new roadway improvements are equitably shared between all benefiting parties.***
-

Programmed Projects, 2012-2015 TIP

The OTO has already programmed projects through Fiscal Year 2015. These can be seen in Appendix J.

Funding Projections

The funding projections begin with the conclusion of the TIP in 2015 and carry through the end of the Plan timeframe of 2035. The OTO, as a singular organization, plans, programs, and authorizes improvement, expansion, or maintenance revenues, and receives an annual sub-allocation of Surface Transportation Program funds for capital planning or engineering improvements.

Federal and State Revenue Estimated Projections

Table 34 - OTO Funding Projections, 2015-2035

Source: Ozarks Transportation Organization, Missouri Department of Transportation

Funding Source	2015	2016	2017	2018	2019	2020	2021
Safety	\$3,300,000	\$4,210,000	\$950,750	\$965,228	\$979,927	\$994,850	\$1,010,000
Flexible	\$15,150,000	\$19,050,000	\$2,682,809	\$2,723,664	\$2,765,141	\$2,807,250	\$2,850,000
Major Projects	\$10,510,000	\$16,620,000	\$3,878,307	\$3,937,367	\$3,997,327	\$4,058,200	\$4,120,000
STP-Urban	\$31,580,450	\$4,345,215	\$4,432,120	\$4,520,762	\$4,611,177	\$4,703,401	\$4,797,469
Fed Discretionary	\$500,000	\$510,000	\$520,200	\$530,604	\$541,216	\$552,040	\$563,081
Cost Share	<u>\$19,298,609</u>	\$2,550,000	\$2,601,000	\$2,653,020	\$2,706,080	\$2,760,202	\$2,815,406
Small Urban	\$0	\$0	\$0	\$0	\$0	\$0	\$0
TOTAL	<u>\$80,339,059</u>	<u>\$47,285,215</u>	<u>\$15,065,186</u>	<u>\$15,330,645</u>	<u>\$15,600,868</u>	<u>\$15,875,943</u>	<u>\$16,155,956</u>

Funding Source	2022	2023	2024	2025	2026	2027	2028
Safety	\$1,040,000	\$1,070,000	\$1,100,000	\$1,140,000	\$1,170,000	\$1,210,000	\$1,240,000
Flexible	\$4,850,000	\$6,680,000	\$7,450,000	\$7,230,000	\$6,960,000	\$8,760,000	\$8,760,000
Major Projects	\$1,850,000	\$3,680,000	\$4,450,000	\$4,230,000	\$3,960,000	\$5,760,000	\$5,760,000
STP-Urban	\$4,893,418	\$4,991,287	\$5,091,112	\$5,192,935	\$5,296,793	\$5,402,729	\$5,510,784
Fed Discretionary	\$574,343	\$585,830	\$597,546	\$609,497	\$621,687	\$634,121	\$646,803
Cost Share	\$2,871,714	\$2,929,148	\$2,987,731	\$3,047,486	\$3,108,436	\$3,170,604	\$3,234,017
Small Urban	\$0	\$0	\$0	\$0	\$0	\$0	\$0
TOTAL	<u>\$16,079,475</u>	<u>\$19,936,265</u>	<u>\$21,676,389</u>	<u>\$21,449,918</u>	<u>\$21,116,916</u>	<u>\$24,937,454</u>	<u>\$25,151,604</u>

Funding Source	2029	2030	2031	2032	2033	2034	2035
Safety	\$1,280,000	\$1,320,000	\$1,360,000	\$1,400,000	\$1,440,000	\$1,480,000	\$1,530,000
Flexible	\$8,510,000	\$7,640,000	\$7,340,000	\$7,060,000	\$6,790,000	\$6,490,000	\$6,170,000
Major Projects	\$5,510,000	\$4,640,000	\$4,340,000	\$4,060,000	\$3,790,000	\$3,490,000	\$3,170,000
STP-Urban	\$5,620,999	\$5,733,419	\$5,848,088	\$5,965,049	\$6,084,350	\$6,206,037	\$6,330,158
Fed Discretionary	\$659,739	\$672,934	\$686,393	\$700,121	\$714,123	\$728,406	\$742,974
Cost Share	\$3,298,697	\$3,364,671	\$3,431,964	\$3,500,604	\$3,570,616	\$3,642,028	\$3,714,868
Small Urban	\$0	\$0	\$0	\$0	\$0	\$0	\$0
TOTAL	<u>\$24,879,435</u>	<u>\$23,371,024</u>	<u>\$23,006,445</u>	<u>\$22,685,774</u>	<u>\$22,389,089</u>	<u>\$22,036,471</u>	<u>\$21,658,000</u>

Funding Source	TOTAL (2015-2035)
Safety	<u>\$30,190,755</u>
Flexible	<u>\$148,718,864</u>
Major Projects	<u>\$105,811,201</u>
STP-Urban	<u>\$137,157,752</u>
Fed Discretionary	<u>\$12,891,658</u>
Cost Share	<u>\$81,256,901</u>
Small Urban	<u>\$0</u>
TOTAL	<u>\$516,027,131</u>

Local Revenue

The growth rate applied to the local sales and property taxes varies between 1 percent and 1.5 percent.

Table 35 - OTO Local Revenue, 2015-2035

Source: Ozarks Transportation Organization and Member Jurisdictions

Local Sales Tax/ Property Tax	Amount Generated Annually	Amount Generated 2015-2035	Amount Allocated to LRTP Projects
City of Springfield 1/8 cent	\$4,287,240	\$104,714,236	\$51,309,975
City of Nixa 1/2 cent	\$937,500	\$22,898,087	\$11,449,044
City of Republic 1/2 and 1/4 cent	\$1,243,500	\$27,229,620	\$10,891,848
Greene County Sales Tax	\$3,670,952	\$96,772,553	\$0
Christian County Property Tax	\$176,667	\$4,657,234	\$2,328,617
TOTAL	\$10,315,859	\$256,271,730	\$75,979,484

Each jurisdiction receives a distribution from motor fuel taxes as well as vehicle sales and use taxes. The projections shown here do not assume any inflation or revenue increases.

Table 36 - OTO Local Revenue, 2015-2035

Source: Ozarks Transportation Organization and Member Jurisdictions

Jurisdiction	2010 Distribution	2015-2035 Total Distribution	Amount Allocated to LRTP Projects
Battlefield	\$89,433	\$1,788,660	\$894,330
Christian County	\$1,276,411	\$25,528,220	\$2,000,000
Greene County	\$3,254,899	\$65,097,980	\$46,900,000
Nixa	\$454,625	\$9,092,500	\$4,546,250
Ozark	\$362,418	\$7,248,360	\$1,500,000
Republic	\$328,632	\$6,572,640	\$0
Springfield	\$5,683,942	\$113,678,840	\$0
Strafford	\$69,184	\$1,383,680	\$691,840
Willard	\$122,162	\$2,443,240	\$1,221,620
TOTAL	\$11,641,706	\$232,834,120	\$57,754,040

Greene County allocates a portion of its Road and Bridge fund to local jurisdictions within the County.

Table 37 - Greene County Allocation to Local Jurisdictions, Forecasted through 2035

Source: Greene County

Jurisdiction	Amount Generated Annually	Amount Generated 2015-2035	Amount Allocated to LRTP Projects
City of Republic	\$95,000	\$950,000	\$356,617
City of Battlefield			
City of Strafford			
City of Willard			
TOTAL	\$95,000	\$950,000	\$356,617

Total Revenue from All Sources

Table 38 - Total Revenue from All Sources

Source: Ozarks Transportation Organization and Member Jurisdictions, Missouri Department of Transportation

State and Federal	<u>\$516,027,131</u>
Local Sales	<u>\$75,979,484</u>
Motor Fuel and Vehicle	\$57,754,040
Greene County Road and Bridge	\$356,617
TOTAL REVENUE	<u>\$650,117,272</u>

This total available revenue will be used to constrain the list of project needs.

Transit Revenue

The funding projections for Fixed Route Operating Assistance to the region assume no growth in funding from the Federal Transit Administration or MoDOT. The Local funding assumes a 5 percent per year increase.

Table 39 - Transit Revenue, 2015-2035

Source: City Utilities Transit

Funding Source	2015-2025	2026-2035	Total
FTA 5307 – Fixed Route Operating Assistance	\$9,619,115	\$8,744,650	\$18,363,765
MoDOT	\$396,000	\$360,000	\$756,000
Local	\$106,001,655	\$160,511,791	\$266,513,447
TOTAL	\$116,016,770	\$169,616,441	\$285,633,212

Chapter 13 – Project Prioritization Process and Selection

Funding over the next 24 years will be limited. For this reason, the OTO has reviewed potential projects over that same time frame so there is a realistic understanding of what can be accomplished. OTO solicits needs and projects from the member jurisdictions. These projects are then subjected to a prioritization process. This list of prioritized projects is compared to the available funding amounts through 2035 and a limited (constrained) list of priority projects is selected.

Project Submissions

Projects needs were collected through several methods. Jurisdictions were asked to submit a list of project needs through the Plan horizon of 2035. MoDOT was also asked to submit a list of project needs based on the state highway system. Projects included in the prior plan that had not yet been programmed were included as well. Submitted projects were then assigned a cost estimate and a projected year of completion. The cost estimates were then inflated by 3 percent, based on average increases in the Construction Price Index, to the project year of completion.

Project Prioritization Process

To prioritize the projects, OTO and the LRTP Subcommittee developed a set of prioritization criteria based on the Goals which had been set within the Plan. Under each goal, a set of measurable criteria were selected. Each overall goal was given a weight, while each criterion was assigned points. Projects were scored based on all of these criteria and weights. A glossary defining each criterion is included in the Appendix K.

Table 40 - Project Prioritization Points and Weights

Economic Development	
<i>Weight</i>	20%
Promotion of Economic Development	25
Strategic Economic Corridor	75
Total	100 pts

Multi-Modal, Interconnected System	
<i>Weight</i>	10%
Removes Bicycle and Pedestrian Barriers	30
Freight Bottlenecks	20
Addresses Multiple Modes	30
Enhances Public Transit	20
Total	100 pts

Quality of Life and Livability	
<i>Weight</i>	10%
Complies with OTO Major Thoroughfare Plan	40
Improves Access to or from Environmental Justice Block Groups	20
Complies with Ozone Flex Plan (Clean Air Action Plan)	40
	100 pts

Operations and Maintenance	
<i>Weight</i>	35%
Level of Service	20
Daily Usage	25
Functional Classification	25
Truck Volume	10
Identified as a Currently Congested Corridor in CMP	10
Increases Availability of Real-Time Information to Transportation System Operators and Travelers	10
Total	100 pts

Safety and Security	
<i>Weight</i>	25%
Safety Index	80
Safety Concern	10
Safety and Security Enhancements	10
Total	100 pts

Once projects were prioritized, the potential list was compared against the available amount of funding, \$605,641,614. The results of this prioritization can be seen in the constrained project list. The remaining projects have been compiled into an unconstrained list.

Constrained Project List

The constrained project list is sorted by the name of the roadway where the project is located. Project costs are shown based on the estimated year of completion. Inflation has been applied at a rate of 3 percent which corresponds to the estimated year of completion. The projects costs within the constrained project list total \$599,713,898. This leaves almost \$6 million available if another project needed to be added to the Long Range Transportation Plan Constrained Project List. Projects in the Transportation Improvement Program (TIP) must be derived from this priority list of projects. The TIP may include projects from the unconstrained list if financing is identified and proper justification is provided as to why the OTO should implement this project prior to one already on the Constrained list.

Table 41 - Constrained Project List, Sorted by Roadway

ID	PROJECT NAME	ROADWAY	LOCATION	DESCRIPTION	2015-2019	2020-2025	2026-2035	TOTAL	CONSTRAINT
R10	BAILEY AVENUE EXTENSION	BAILEY AVENUE from WADE STREET to ROUTE 60	REPUBLIC, GREENE COUNTY	NEW ROADWAY		\$1,877,569		\$1,877,569	\$1,877,569
R11	BAILEY AVENUE IMPROVEMENTS	BAILEY AVENUE from FARM ROAD 186 to WADE STREET	REPUBLIC, GREENE COUNTY	LANE ADDITION, SIDEWALKS, UPGRADE TO MEET DESIGN STANDARDS		\$1,945,417		\$1,945,417	\$3,822,986
SP28	BATTLEFIELD ROAD AND FREMONT AVENUE INTERSECTION IMPROVEMENTS, FREMONT AVENUE IMPROVEMENTS	BATTLEFIELD ROAD from BATTLEFIELD ROAD to FREMONT AVENUE	SPRINGFIELD	INTERSECTION IMPROVEMENTS AT FREMONT AVENUE, IMPROVEMENTS ON FREMONT AVENUE FROM SUNSET STREET TO BATTLEFIELD ROAD	\$7,164,314			\$7,164,314	\$10,987,300
M56	BUSINESS 65 (CHESTNUT EXPRESSWAY) RAILROAD OVERPASS	BUSINESS 65 from INGRAM MILL to BELCREST (EAST OF)	SPRINGFIELD	RAILROAD OVERPASS OVER BNSF RAILWAY WEST OF ROUTE 65	\$9,671,000			\$9,671,000	\$20,658,300

ID	PROJECT NAME	ROADWAY	LOCATION	DESCRIPTION	2015-2019	2020-2025	2026-2035	TOTAL	CONSTRAINT
M95	BUSINESS 65 (GLENSTONE AVENUE) ACCESS IMPROVEMENTS	BUSINESS 65 from PEELE STREET to REPUBLIC COURT	SPRINGFIELD	INTERSECTION IMPROVEMENTS AT INDEPENDENCE STREET/LUSTER AVENUE CONNECTION AND REPUBLIC COURT	\$2,388,105			\$2,388,105	--
SP24	CAMPBELL AVENUE AND REPUBLIC ROAD INTERSECTION IMPROVEMENTS	CAMPBELL AVENUE from CAMPBELL AVENUE to REPUBLIC ROAD	SPRINGFIELD	INTERSECTION IMPROVEMENTS AT REPUBLIC ROAD	\$19,104,837			\$19,104,837	\$39,763,137
M88	CAMPBELL AVENUE, ROUTE 160 SAFETY AND SYSTEM IMPROVEMENTS	CAMPBELL AVENUE, ROUTE 160 from BATTLEFIELD ROAD to FARM ROAD 192	SPRINGFIELD, GREENE COUNTY	SAFETY AND SYSTEM IMPROVEMENTS FROM BATTLEFIELD ROAD TO FARM ROAD 192 (STEINERT ROAD)	\$7,140,608			\$7,140,608	\$46,903,745
G11	EAST/WEST ARTERIAL - KANSAS EXPRESSWAY TO CAMPBELL AVENUE	EAST/WEST ARTERIAL from KANSAS EXPRESSWAY to CAMPBELL AVENUE	GREENE COUNTY	NEW ROADWAY		\$6,000,000		\$6,000,000	\$52,903,745
G13	EAST/WEST ARTERIAL - CAMPBELL AVENUE TO NATIONAL AVENUE	EAST/WEST ARTERIAL from CAMPBELL AVENUE to NATIONAL AVENUE	GREENE COUNTY	NEW ROADWAY	\$21,492,941			\$21,492,941	\$74,396,686
R16	EAST ELM STREET, FARM ROAD 182 TRANSPORTATION IMPROVEMENTS	ELM STREET, FARM ROAD 182 from ROUTE 60 to ROUTE ZZ	REPUBLIC, GREENE COUNTY	LANE ADDITION, SIDEWALKS, UPGRADE TO MEET DESIGN STANDARDS		\$4,275,742		\$4,275,742	\$78,672,428
R12	EAST HINES STREET TRANSPORTATION IMPROVEMENTS	HINES STREET from OAKWOOD AVENUE to ROUTE ZZ	REPUBLIC	LANE ADDITION, SIDEWALKS, UPGRADE TO MEET DESIGN STANDARDS	\$2,388,330			\$2,388,330	\$81,060,758
R6	HINES STREET AND LYNN AVENUE INTERSECTION IMPROVEMENTS	HINES STREET from HINES STREET to LYNN AVENUE	REPUBLIC	INTERSECTION IMPROVEMENTS AT LYNN AVENUE		\$254,431		\$254,431	\$81,315,189

ID	PROJECT NAME	ROADWAY	LOCATION	DESCRIPTION	2015-2019	2020-2025	2026-2035	TOTAL	CONSTRAINT
R9	HINES STREET AND OAKWOOD AVENUE INTERSECTION IMPROVEMENTS	HINES STREET from HINES STREET to OAKWOOD AVENUE	REPUBLIC	INTERSECTION IMPROVEMENTS AT OAKWOOD AVENUE	\$84,413			\$84,413	\$81,399,602
M35	I-44 AND ROUTE 744 (MULROY ROAD) INTERCHANGE IMPROVEMENTS	I-44 from I-44 to ROUTE 744	SPRINGFIELD	INTERCHANGE IMPROVEMENTS AT ROUTE 744			\$33,051,836	\$33,051,836	\$114,451,438
G6	KANSAS EXPRESSWAY EXTENSION - REPUBLIC ROAD TO WEAVER ROAD	KANSAS EXPRESSWAY from REPUBLIC ROAD to WEAVER ROAD	SPRINGFIELD, GREENE COUNTY	NEW ROADWAY	\$14,806,248			\$14,806,248	\$129,257,686
G7	KANSAS EXPRESSWAY EXTENSION - WEAVER ROAD TO PLAINVIEW ROAD	KANSAS EXPRESSWAY from WEAVER ROAD to PLAINVIEW ROAD	GREENE COUNTY	NEW ROADWAY		\$7,128,804		\$7,128,804	\$136,386,490
G8	KANSAS EXPRESSWAY EXTENSION - PLAINVIEW ROAD TO EAST/WEST ARTERIAL	KANSAS EXPRESSWAY from PLAINVIEW ROAD to EAST/WEST ARTERIAL (FARM ROAD 190)	GREENE COUNTY	NEW ROADWAY		\$7,841,685		\$7,841,685	\$144,228,175
R17	SOUTH LYNN AVENUE IMPROVEMENTS	LYNN AVENUE from ELM STREET to SHUYLER LANE	REPUBLIC	LANE ADDITION, SIDEWALKS, UPGRADE TO MEET DESIGN STANDARDS		\$1,097,836		\$1,097,836	\$145,326,011
R5	MAIN STREET IMPROVEMENTS	MAIN STREET from REPUBLIC CITY LIMITS to ROUTE 60	REPUBLIC	LANE ADDITIONS, ACCESS MANAGEMENT, UPGRADE TO MEET DESIGN STANDARDS			\$3,124,748	\$3,124,748	\$148,450,759
W5	MILLER ROAD WIDENING PROJECT	MILLER ROAD from ROUTE 160 to JACKSON STREET	WILLARD	LANE ADDITION INCLUDING BICYCLE LANE	\$477,621			\$477,621	\$148,928,380

ID	PROJECT NAME	ROADWAY	LOCATION	DESCRIPTION	2015-2019	2020-2025	2026-2035	TOTAL	CONSTRAINT
R18	EAST MILLER ROAD (FARM ROAD 186) TRANSPORTATION IMPROVEMENTS	MILLER ROAD, FARM ROAD 186 from LYNN AVENUE to ROUTE ZZ	REPUBLIC, GREENE COUNTY	LANE ADDITION, SIDEWALKS, UPGRADE TO MEET DESIGN STANDARDS			\$5,191,756	\$5,191,756	\$154,120,136
SP30	TRAFFIC MANAGEMENT CENTER OPERATIONS	N/A	SPRINGFIELD	FUNDING OF ONGOING OPERATIONS	\$5,309,136	\$7,498,660	\$15,868,690	\$28,676,486	\$182,796,622
M175	ITS	N/A	SPRINGFIELD	ATMS PHASE 2B	\$1,598,836			\$1,598,836	\$184,395,458
M176	ITS	N/A	SPRINGFIELD, NIXA	ATMS PHASE 3	\$2,152,279			\$2,152,279	\$186,547,737
M177	ITS	N/A	SPRINGFIELD, NIXA, REPUBLIC	ATMS PHASE 4		\$1,430,038		\$1,430,038	\$187,977,775
M179	EIS FOR NORTH-SOUTH CONNECTIVITY ENHANCEMENT AND REGIONAL SYSTEM CAPACITY EXPANSION	N/A	GREENE COUNTY, CHRISTIAN COUNTY	NORTH-SOUTH CONNECTIVITY ENHANCEMENT, REGIONAL SYSTEM CAPACITY EXPANSION	\$1,074,647			\$1,074,647	\$189,052,422
R8	OAKWOOD AVENUE IMPROVEMENTS	OAKWOOD AVENUE from ROUTE 60 to ELM STREET	REPUBLIC	LANE ADDITION, SIDEWALKS, UPGRADE TO MEET DESIGN STANDARDS	\$1,913,365			\$1,913,365	\$190,965,787
SP23	REPUBLIC ROAD BRIDGES OVER JAMES RIVER FREEWAY (ROUTE 60)	REPUBLIC ROAD from REPUBLIC ROAD to ROUTE 60	SPRINGFIELD	BRIDGE IMPROVEMENTS FOR REPUBLIC ROAD BRIDGES OVER ROUTE 60 (JAMES RIVER FREEWAY)	\$2,388,105			\$2,388,105	\$193,353,892
M17	ROUTE 13 (KANSAS EXPRESSWAY) ACCESS MANAGEMENT	ROUTE 13 from I-44 to ROUTE 744	SPRINGFIELD	IMPROVED ACCESS MANAGEMENT FROM I-44 TO ROUTE 744 (KEARNEY STREET)	\$1,934,365			\$1,934,365	\$195,288,257

ID	PROJECT NAME	ROADWAY	LOCATION	DESCRIPTION	2015-2019	2020-2025	2026-2035	TOTAL	CONSTRAINT
M66	ROUTE 13 (KANSAS EXPRESSWAY) SAFETY AND SYSTEM IMPROVEMENTS	ROUTE 13 from COLLEGE STREET to ROUTE 60	SPRINGFIELD	SAFETY AND SYSTEM IMPROVEMENTS FROM COLLEGE STREET TO ROUTE 60 (JAMES RIVER FREEWAY) - ACCESS MANAGEMENT		\$5,489,179		\$5,489,179	\$200,777,436
M85	ROUTE 13 (KANSAS EXPRESSWAY) AND SUNSET STREET INTERSECTION IMPROVEMENTS	ROUTE 13 from ROUTE 13 to SUNSET STREET	SPRINGFIELD	INTERSECTION IMPROVEMENTS AT SUNSET STREET	\$417,918			\$417,918	\$201,195,354
M86	ROUTE 13 (KANSAS EXPRESSWAY) AND ROUTE 60 (JAMES RIVER FREEWAY) INTERCHANGE IMPROVEMENTS	ROUTE 13 from ROUTE 60 to ROUTE 13	SPRINGFIELD	INTERCHANGE IMPROVEMENTS AT ROUTE 60 (JAMES RIVER FREEWAY)	\$5,373,235			\$5,373,235	\$206,568,589
M145	ROUTE 14 (MT. VERNON STREET) IMPROVEMENTS	ROUTE 14 from MAYNARD ROAD to ROUTE M	NIXA, CHRISTIAN COUNTY	CAPACITY IMPROVEMENTS FROM MAYNARD ROAD TO ROUTE M			\$1,390,706	\$1,390,706	\$207,959,295
M146	ROUTE M (NICHOLAS ROAD) AND ROUTE 14 (MT. VERNON STREET) INTERSECTION IMPROVEMENTS	ROUTE 14 from ROUTE 14 to ROUTE M	NIXA, CHRISTIAN COUNTY	INTERSECTION IMPROVEMENTS AT ROUTE M (NICHOLAS ROAD) AND ROUTE 14 (MT. VERNON STREET)		\$1,425,761		\$1,425,761	\$209,385,056
M147	ROUTE 14 (MT. VERNON STREET) IMPROVEMENTS	ROUTE 14 from ROUTE M to GREGG ROAD	NIXA, CHRISTIAN COUNTY	CAPACITY IMPROVEMENTS FROM ROUTE M (NICHOLAS ROAD) TO GREGG ROAD		\$2,440,903		\$2,440,903	\$211,825,959
M150	ROUTE 14 (MT. VERNON STREET) IMPROVEMENTS	ROUTE 14 from GREGG ROAD to TRUMAN BOULEVARD	NIXA	CAPACITY IMPROVEMENTS FROM GREGG ROAD TO TRUMAN BOULEVARD		\$1,903,391		\$1,903,391	\$213,729,350

ID	PROJECT NAME	ROADWAY	LOCATION	DESCRIPTION	2015-2019	2020-2025	2026-2035	TOTAL	CONSTRAINT
M151	ROUTE 14 (MT. VERNON STREET) IMPROVEMENTS	ROUTE 14 from TRUMAN BOULEVARD to ROUTE 160	NIXA	CAPACITY IMPROVEMENTS FROM TRUMAN BOULEVARD TO ROUTE 160 (MASSEY BOULEVARD)	\$1,717,047			\$1,717,047	\$215,446,397
M156	ROUTE 14 (MT. VERNON STREET) IMPROVEMENTS	ROUTE 14 from ROUTE 160 to WATER STREET	NIXA	CAPACITY IMPROVEMENTS FROM ROUTE 160 (MASSEY BOULEVARD) TO WATER STREET	\$2,125,413			\$2,125,413	\$217,571,810
M157	ROUTE 14 (MT. VERNON STREET) IMPROVEMENTS	ROUTE 14 from WATER STREET to CHEYENNE ROAD	NIXA	CAPACITY IMPROVEMENTS FROM WATER STREET TO CHEYENNE ROAD	\$7,314,764			\$7,314,764	\$224,886,574
M158	ROUTE 14 (JACKSON STREET) IMPROVEMENTS	ROUTE 14 from CHEYENNE ROAD to FREMONT ROAD	NIXA, OZARK, CHRISTIAN COUNTY	CAPACITY IMPROVEMENTS FROM CHEYENNE ROAD TO FREMONT ROAD	\$7,355,362			\$7,355,362	\$232,241,936
M159	ROUTE 14 (JACKSON STREET) IMPROVEMENTS	ROUTE 14 from FREMONT ROAD to 22ND STREET	OZARK	CAPACITY IMPROVEMENTS FROM FREMONT ROAD TO 22ND STREET	\$2,493,181			\$2,493,181	\$234,735,117
M167	ROUTE 14 (JACKSON STREET) IMPROVEMENTS	ROUTE 14 from 17TH STREET to ROUTE NN	OZARK	CAPACITY IMPROVEMENTS FROM 17TH STREET TO ROUTE NN (9TH STREET)	\$3,514,096			\$3,514,096	\$238,249,213
O13	ROUTE 14 (3RD STREET) AND CHURCH STREET INTERSECTION IMPROVEMENTS	ROUTE 14 from ROUTE 14 to CHURCH STREET	OZARK	WIDEN ROUTE 14 (3RD STREET) TO INCLUDE TWO THROUGH LANES IN EACH DIRECTION WITH A CONTINUOUS CENTER TURN LANE, ADD A CENTER TURN LANE FOR THE EASTBOUND AND	\$1,711,281			\$1,711,281	\$239,960,494

ID	PROJECT NAME	ROADWAY	LOCATION	DESCRIPTION	2015-2019	2020-2025	2026-2035	TOTAL	CONSTRAINT
				WESTBOUND APPROACHES OF CHURCH STREET, ADD SIGNAL					
O6	ROUTE 14 (JACKSON STREET) AND ROUTE NN (9TH STREET) INTERSECTION IMPROVEMENTS	ROUTE 14 from ROUTE 14 to 9TH STREET	OZARK	WIDEN JACKSON STREET TO INCLUDE TWO WESTBOUND LANES (EAST OF ROUTE NN), WIDEN ROUTE NN TO INCLUDE TO A SOUTHBOUND LEFT TURN LANE AND ADD SHOULDERS, REPLACE SIGNAL	\$1,434,722			\$1,434,722	\$241,395,216
O24	ROUTE 14 (SOUTH STREET) AND 14TH AVENUE INTERSECTION IMPROVEMENTS	ROUTE 14 from ROUTE 14 to 14TH AVENUE	OZARK	SIGNALIZE INTERSECTION AND WIDEN ROADWAYS TO INCLUDE LEFT TURN LANES AT ALL APPROACHES	\$1,297,307			\$1,297,307	\$242,692,523
O25	ROUTE 14 (SOUTH STREET) AND ROUTE W INTERSECTION IMPROVEMENTS	ROUTE 14 from ROUTE 14 to ROUTE W	OZARK	SIGNALIZE INTERSECTION AND WIDEN ROADWAYS TO INCLUDE LEFT TURN LANES AT ALL APPROACHES		\$1,424,943		\$1,424,943	\$244,117,466
M173	ROUTE 14 (SOUTH STREET) IMPROVEMENTS	ROUTE 14 from 3RD STREET/SELMORE ROAD to ROUTE W	OZARK	CAPACITY IMPROVEMENTS AND PEDESTRIAN ACCOMMODATIONS ON SOUTH STREET			\$10,630,771	\$10,630,771	\$254,748,237

ID	PROJECT NAME	ROADWAY	LOCATION	DESCRIPTION	2015-2019	2020-2025	2026-2035	TOTAL	CONSTRAINT
				FROM 3RD STREET/SELMORE ROAD TO ROUTE W					
M169	ROUTE 14 (JACKSON STREET) AND 10TH STREET INTERSECTION IMPROVEMENTS, 10TH STREET REALIGNMENT	ROUTE 14 from ROUTE 14 to 10TH STREET	OZARK	INTERSECTION IMPROVEMENTS AT 10TH STREET, REALIGNMENT OF 10TH STREET	\$801,209			\$801,209	\$255,549,446
M168	ROUTE 14 (JACKSON STREET) AND 12TH STREET INTERSECTION IMPROVEMENTS	ROUTE 14 from ROUTE 14 to 12TH STREET	OZARK	INTERSECTION IMPROVEMENTS AT 12TH STREET	\$801,209			\$801,209	\$256,350,655
M152	ROUTE 160 (MASSEY BOULEVARD) AND ROUTE 14 (MT. VERNON STREET) INTERSECTION IMPROVEMENTS	ROUTE 160 from ROUTE 160 to ROUTE 14	NIXA	INTERSECTION IMPROVEMENTS AT ROUTE 14 (MT. VERNON STREET) IN NIXA	\$2,603,449			\$2,603,449	\$258,954,104
M124	ROUTE 160 IMPROVEMENTS	ROUTE 160 from ROUTE 60 to ROUTE CC RELOCATION	SPRINGFIELD, NIXA, GREENE COUNTY, CHRISTIAN COUNTY	CAPACITY IMPROVEMENTS FROM ROUTE 60 (JAMES RIVER FREEWAY) TO RELOCATED ROUTE CC IN NIXA	\$14,414,337			\$14,414,337	\$273,368,441
M126	ROUTE 160 (CAMPBELL AVENUE) AND PLAINVIEW ROAD INTERSECTION IMPROVEMENTS	ROUTE 160 from ROUTE 160 to PLAINVIEW ROAD	SPRINGFIELD	INTERSECTION IMPROVEMENTS AT PLAINVIEW ROAD	\$12,537,549			\$12,537,549	\$285,905,990

ID	PROJECT NAME	ROADWAY	LOCATION	DESCRIPTION	2015-2019	2020-2025	2026-2035	TOTAL	CONSTRAINT
M13	ROUTE 160 (WEST BYPASS) AND ROUTE 744 (KEARNEY STREET) INTERSECTION IMPROVEMENTS	ROUTE 160 from ROUTE 160 to ROUTE 744	SPRINGFIELD	INTERSECTION IMPROVEMENTS AT ROUTE 744 (KEARNEY STREET)	\$2,985,131			\$2,985,131	\$288,891,121
M132	ROUTE 160 (MASSEY BOULEVARD) AND ROUTE CC INTERSECTION IMPROVEMENTS	ROUTE 160 from ROUTE 160 to ROUTE CC RELOCATION	NIXA	INTERSECTION IMPROVEMENTS AT RELOCATED ROUTE CC IN NIXA	\$2,930,204			\$2,930,204	\$291,821,325
M140	ROUTE 160 (MASSEY BOULEVARD) IMPROVEMENTS	ROUTE 160 from ROUTE CC RELOCATION to ROUTE 14	NIXA	CAPACITY IMPROVEMENTS FROM RELOCATED ROUTE CC TO ROUTE 14		\$15,311,246		\$15,311,246	\$307,132,571
M141	ROUTE 160 (MASSEY BOULEVARD) AND TRACKER ROAD INTERSECTION IMPROVEMENTS	ROUTE 160 from ROUTE 160 to TRACKER ROAD	NIXA	INTERSECTION IMPROVEMENTS AT TRACKER ROAD		\$2,418,090		\$2,418,090	\$309,550,661
M142	ROUTE 160 (MASSEY BOULEVARD) AND KATHRYN STREET/ALDERSGATE DRIVE INTERSECTION IMPROVEMENTS	ROUTE 160 from ROUTE 160 to KATHRYN STREET/ALDERSGATE DRIVE	NIXA	INTERSECTION IMPROVEMENTS AT KATHRYN STREET/ALDERSGATE DRIVE	\$2,025,113			\$2,025,113	\$311,575,774
M143	ROUTE 160 (MASSEY BOULEVARD) AND NORTHVIEW ROAD INTERSECTION IMPROVEMENTS	ROUTE 160 from ROUTE 160 to NORTHVIEW ROAD	NIXA	INTERSECTION IMPROVEMENTS AT NORTHVIEW ROAD		\$2,418,090		\$2,418,090	\$313,993,864
M144	ROUTE 160 (MASSEY BOULEVARD) AND WASSON DRIVE INTERSECTION	ROUTE 160 from ROUTE 160 to WASSON DRIVE	NIXA	INTERSECTION IMPROVEMENTS AT WASSON DRIVE		\$2,418,090		\$2,418,090	\$316,411,954

ID	PROJECT NAME	ROADWAY	LOCATION	DESCRIPTION	2015-2019	2020-2025	2026-2035	TOTAL	CONSTRAINT
IMPROVEMENTS									
M153	ROUTE 160 (MASSEY BOULEVARD) AND SOUTH STREET INTERSECTION IMPROVEMENTS	ROUTE 160 from ROUTE 160 to SOUTH STREET (NIXA)	NIXA	INTERSECTION IMPROVEMENTS AT SOUTH STREET IN NIXA		\$2,418,090		\$2,418,090	\$318,830,044
M3	ROUTE 160 AND HUGHES ROAD INTERSECTION IMPROVEMENTS	ROUTE 160 from ROUTE 160 to HUGHES ROAD	WILLARD	INTERSECTION IMPROVEMENTS, QUARRY ACCESS IMPROVEMENTS AT HUGHES ROAD	\$656,729			\$656,729	\$319,486,773
M84	ROUTE 160 (WEST BYPASS) AND ROUTE 60 (JAMES RIVER FREEWAY) INTERCHANGE IMPROVEMENTS	ROUTE 160 from ROUTE 60 to ROUTE 160	GREENE COUNTY	INTERCHANGE IMPROVEMENTS AT ROUTE 60 (JAMES RIVER FREEWAY)	\$5,612,046			\$5,612,046	\$325,098,819
W1	ROUTE 160 EXPANSION TO FOUR LANES	ROUTE 160 from ROUTE 123 to I-44	WILLARD, GREENE COUNTY	WIDEN ROUTE 160 FROM TWO LANES TO FOUR LANES FROM ROUTE 123 TO I-44		\$13,544,728		\$13,544,728	\$338,643,547
M127	ROUTE 160 AND FARM ROAD 192 (STEINERT ROAD) INTERSECTION IMPROVEMENTS	ROUTE 160 from ROUTE 160 to FARM ROAD 192 (STEINERT ROAD)	GREENE COUNTY	INTERSECTION IMPROVEMENTS AT FARM ROAD 192 (STEINERT ROAD)	\$509,860			\$509,860	\$339,153,407
M154	ROUTE 160 (MASSEY BOULEVARD) IMPROVEMENTS	ROUTE 160 from ROUTE 14 to RIVERDALE DRIVE	NIXA, CHRISTIAN COUNTY	CAPACITY IMPROVEMENTS (PASSING LANES, PARTIAL FIVE-LANE) FROM ROUTE 14 (MT. VERNON STREET) TO RIVERDALE DRIVE			\$9,050,423	\$9,050,423	\$348,203,830

ID	PROJECT NAME	ROADWAY	LOCATION	DESCRIPTION	2015-2019	2020-2025	2026-2035	TOTAL	CONSTRAINT
M109	ROUTE 174 AND MAIN STREET INTERSECTION IMPROVEMENTS	ROUTE 174 from ROUTE 174 to MAIN STREET (REPUBLIC)	REPUBLIC	INTERSECTION IMPROVEMENTS AT MAIN STREET IN REPUBLIC	\$1,296,741			\$1,296,741	\$349,500,571
R1	ROUTE 266 IMPROVEMENTS	ROUTE 266 from ROUTE B to AIRPORT BOULEVARD	GREENE COUNTY	LANE ADDITIONS, ACCESS MANAGEMENT	\$1,808,275			\$1,808,275	\$351,308,846
M113	ROUTE 60 AND ROUTE 174 (INDEPENDENCE STREET) INTERSECTION IMPROVEMENTS	ROUTE 60 from ROUTE 60 to ROUTE 174	REPUBLIC	INTERSECTION IMPROVEMENTS AT ROUTE 174 IN REPUBLIC TO ELIMINATE SIGNAL SPLIT-PHASE	\$852,553			\$852,553	\$352,161,399
M83	ROUTE 60 (JAMES RIVER FREEWAY) OPERATIONAL IMPROVEMENTS	ROUTE 60 from ROUTE 413 to ROUTE 65	SPRINGFIELD, GREENE COUNTY	OPERATIONAL IMPROVEMENTS ON JAMES RIVER FREEWAY FROM ROUTE 413 (WEST SUNSHINE) TO ROUTE 65	\$7,209,688			\$7,209,688	\$359,371,087
R14	ROUTE 60 AND FARM ROAD 103 INTERSECTION IMPROVEMENTS	ROUTE 60 from ROUTE 60 to FARM ROAD 103	REPUBLIC	INTERSECTION IMPROVEMENTS AT FARM ROAD 103		\$1,630,966		\$1,630,966	\$361,002,053
R15	ROUTE 60 AND FARM ROAD 107 INTERSECTION IMPROVEMENTS	ROUTE 60 from ROUTE 60 to FARM ROAD 107	REPUBLIC	INTERSECTION IMPROVEMENTS AT FARM ROAD 107		\$1,630,966		\$1,630,966	\$362,633,019
M87	ROUTE 60 (JAMES RIVER FREEWAY) CAPACITY IMPROVEMENTS	ROUTE 60 from ROUTE 13 to ROUTE 65	SPRINGFIELD	CAPACITY IMPROVEMENTS FROM ROUTE 13 (KANSAS EXPRESSWAY) TO ROUTE 65	\$66,986,334			\$66,986,334	\$429,619,353
M137	ROUTE 65 AND ROUTE CC/J INTERCHANGE IMPROVEMENTS	ROUTE 65 from ROUTE 65 to ROUTE CC/ROUTE J	OZARK	INTERCHANGE IMPROVEMENTS AT ROUTE CC/J	\$9,000,000			\$9,000,000	\$438,619,353

ID	PROJECT NAME	ROADWAY	LOCATION	DESCRIPTION	2015-2019	2020-2025	2026-2035	TOTAL	CONSTRAINT
M99	ROUTE 65 AND BATTLEFIELD ROAD INTERCHANGE IMPROVEMENTS	ROUTE 65 from ROUTE 65 to BATTLEFIELD ROAD	SPRINGFIELD	INTERCHANGE IMPROVEMENTS AT BATTLEFIELD ROAD	\$16,310,000			\$16,310,000	\$454,929,353
M129	ROUTE 65 AND EVANS ROAD INTERCHANGE	ROUTE 65 from ROUTE 65 to EVANS ROAD	SPRINGFIELD	INTERCHANGE IMPROVEMENTS AT EVANS ROAD	\$9,552,418			\$9,552,418	\$464,481,771
M128	ROUTE 65 CAPACITY IMPROVEMENTS	ROUTE 65 from ROUTE 60 to ROUTE CC	SPRINGFIELD, OZARK	CAPACITY IMPROVEMENTS FROM ROUTE 60 (JAMES RIVER FREEWAY) TO ROUTE CC	\$27,427,381			\$27,427,381	\$491,909,152
M44	ROUTE 65 AND ROUTE YY (DIVISION STREET) INTERCHANGE IMPROVEMENTS	ROUTE 65 from ROUTE 65 to ROUTE YY	SPRINGFIELD	INTERCHANGE IMPROVEMENTS AT ROUTE YY (DIVISION STREET)	\$14,567,438			\$14,567,438	\$506,476,590
M160	ROUTE 65 IMPROVEMENTS	ROUTE 65 from ROUTE CC to BUSINESS 65	OZARK	CAPACITY IMPROVEMENTS FROM ROUTE CC TO BUSINESS 65 (SOUTH STREET)	\$28,248,889			\$28,248,889	\$534,725,479
SP2	ROUTE 744 (KEARNEY STREET) AND PACKER ROAD INTERSECTION IMPROVEMENTS	ROUTE 744 from ROUTE 744 to PACKER ROAD	SPRINGFIELD	INTERSECTION IMPROVEMENTS AT PACKER ROAD	\$2,985,131			\$2,985,131	\$537,710,610
M34	ROUTE 744 (KEARNEY STREET), ROUTE OO (OLD ROUTE 66) SAFETY AND SYSTEM IMPROVEMENTS	ROUTE 744, ROUTE OO from LE COMPTE ROAD to ROUTE 125	SPRINGFIELD, STRAFFORD, GREENE COUNTY	SAFETY AND SYSTEM IMPROVEMENTS FROM LE COMPTE ROAD TO ROUTE 125	\$3,020,952			\$3,020,952	\$540,731,562
W4	ROUTE AB AND ROUTE 160 INTERSECTION IMPROVEMENT	ROUTE AB from ROUTE AB to ROUTE 160	WILLARD	TURN LANE AND SIGNALIZATION IMPROVEMENT	\$417,918			\$417,918	\$541,149,480

ID	PROJECT NAME	ROADWAY	LOCATION	DESCRIPTION	2015-2019	2020-2025	2026-2035	TOTAL	CONSTRAINT
R2	ROUTE B IMPROVEMENTS	ROUTE B from ROUTE 266 to I-44	GREENE COUNTY	LANE ADDITIONS, ACCESS MANAGEMENT	\$1,631,072			\$1,631,072	\$542,780,552
M133	ROUTE CC RELOCATION TO ROUTE 160 (MASSEY BOULEVARD)	ROUTE CC from ROUTE 160 to MAIN STREET (NIXA)	NIXA, CHRISTIAN COUNTY	CAPACITY IMPROVEMENTS FROM ROUTE 160 TO MAIN STREET	\$2,930,204			\$2,930,204	\$545,710,756
M134	ROUTE CC AND MAIN STREET (NIXA) INTERSECTION IMPROVEMENTS	ROUTE CC from ROUTE CC to MAIN STREET (NIXA)	NIXA	INTERSECTION IMPROVEMENTS AT MAIN STREET (NIXA)	\$801,209			\$801,209	\$546,511,965
M122	ROUTE FF AND WEAVER ROAD INTERSECTION IMPROVEMENTS	ROUTE FF from ROUTE FF to WEAVER ROAD	BATTLEFIELD	INTERSECTION IMPROVEMENTS AND PEDESTRIAN CROSSING AT WEAVER ROAD	\$316,424			\$316,424	\$546,828,389
M138	ROUTE J IMPROVEMENTS	ROUTE J from 17TH STREET to ROUTE NN	OZARK	CAPACITY IMPROVEMENTS FROM 17TH STREET TO ROUTE NN		\$1,589,723		\$1,589,723	\$548,418,112
M82	ROUTE M (REPUBLIC ROAD) IMPROVEMENTS	ROUTE M from ROUTE 60 to ROUTE FF	BATTLEFIELD, SPRINGFIELD, GREENE COUNTY, REPUBLIC	CAPACITY IMPROVEMENTS AND PEDESTRIAN ACCOMMODATIONS FROM ROUTE 60 TO ROUTE FF	\$15,880,896			\$15,880,896	\$564,299,008
M59	ROUTE MM (BROOKLINE BOULEVARD) CAPACITY IMPROVEMENTS	ROUTE MM from I-44 to ROUTE 360	REPUBLIC, GREENE COUNTY	CAPACITY IMPROVEMENTS FROM I-44 TO ROUTE 360 (JAMES RIVER FREEWAY)	\$2,489,599			\$2,489,599	\$566,788,607
O5	ROUTE NN (9TH STREET) AND MCCracken ROAD INTERSECTION IMPROVEMENTS	ROUTE NN from ROUTE NN to MCCracken ROAD	OZARK	WIDEN ROUTE NN TO INCLUDE A SOUTHBOUND LEFT TURN LANE, ADD 6' WIDE SHOULDERS		\$561,840		\$561,840	\$567,350,447

ID	PROJECT NAME	ROADWAY	LOCATION	DESCRIPTION	2015-2019	2020-2025	2026-2035	TOTAL	CONSTRAINT
M115	ROUTE P (SOUTH MAIN STREET) IMPROVEMENTS	ROUTE P from ROUTE 60 to FARM ROAD 194	SPRINGFIELD, GREENE COUNTY	CAPACITY IMPROVEMENTS AND PEDESTRIAN ACCOMMODATIONS FROM ROUTE 60 TO FARM ROAD 194		\$4,081,953		\$4,081,953	\$571,432,400
M119	ROUTE ZZ (WILSON'S CREEK BOULEVARD) AND HINES STREET/FARM ROAD 178 INTERSECTION IMPROVEMENTS	ROUTE ZZ from ROUTE ZZ to HINES STREET/FARM ROAD 178	REPUBLIC	INTERSECTION IMPROVEMENTS AT HINES STREET/FARM ROAD 178 IN REPUBLIC		\$1,055,063		\$1,055,063	\$572,487,463
M80	ROUTE ZZ (WILSON'S CREEK BOULEVARD) EXTENSION AND RAILROAD CROSSING	ROUTE ZZ from ROUTE M to ROUTE MM	REPUBLIC, GREENE COUNTY	EXTEND ROUTE ZZ (WILSON'S CREEK BOULEVARD) TO ROUTE MM; GRADE-SEPARATED RAILROAD CROSSING	\$22,996,253			\$22,996,253	\$595,483,716
R13	ROUTE ZZ (WILSON'S CREEK BOULEVARD) AND FARM ROAD 174 INTERSECTION IMPROVEMENTS	ROUTE ZZ from ROUTE ZZ to FARM ROAD 174	REPUBLIC	INTERSECTION IMPROVEMENTS AT FARM ROAD 174		\$605,036		\$605,036	\$596,088,752
N/A	VARIOUS LOCATIONS ADAPTIVE SIGNALS	VARIOUS	SPRINGFIELD	ADAPTIVE SIGNAL TECHNOLOGY	\$1,237,038			\$1,237,038	\$597,325,790
<u>A1</u>	<u>S. GLENSTONE CAPACITY IMPROVEMENTS</u>	<u>GLENSTONE from BATTLEFIELD to US60</u>	<u>SPRINGFIELD</u>	<u>CAPACITY AND INTERSECTION IMPROVEMENTS ALONG S. GLENSTONE FROM BATTLEFIELD TO US60</u>	<u>\$13,120,503</u>			<u>\$13,120,503</u>	<u>\$610,446,293</u>
TOTAL					<u>\$430,419,123</u>	<u>\$101,718,240</u>	<u>\$78,308,930</u>	<u>\$610,446,293</u>	

Transit through 2035

Table 42 - Fixed Route Transit Operations through 2035

	2015-2025	2026-2035	Total
Fixed Route Operations	\$116,016,770	\$169,616,441	\$285,633,212

Unconstrained Project List

The unconstrained project list contains the remaining projects that were submitted, but not prioritized for funding. This list is also sorted by the roadway name.

Table 43 - Unconstrained Project List, Sorted by Roadway

PROJECT NAME	ROADWAY	LOCATION	DESCRIPTION	INFLATED COST
17TH STREET IMPROVEMENTS	17TH STREET from SOUTH STREET to CHURCH STREET	OZARK, CHRISTIAN COUNTY	WIDEN STREET, ADD A CONTINUOUS CENTER TURN LANE, ADD SIDEWALKS TO BOTH SIDES OF STREET	\$7,858,764
MAJOR CORRIDOR TO SOUTH	17TH STREET from ROUTE 14 AND NORTH 10TH STREET to BUSINESS 65 AND SOUTH 17TH STREET	OZARK, CHRISTIAN COUNTY	IMPROVE EXISTING 17TH STREET ROADWAY AND ADD NEW RIVER CROSSING	\$11,739,723
FRONTAGE ROAD	18TH STREET from WEST CLAY STREET to MOUNTAIN DUCK STADIUM	OZARK, CHRISTIAN COUNTY	NEW ROADWAY	\$6,321,389
BUSINESS 65 (GLENSTONE AVENUE) CAPACITY IMPROVEMENTS	BUSINESS 65 from SUNSET STREET to PEELE STREET BATTLEFIELD ROAD	SPRINGFIELD	CAPACITY IMPROVEMENTS FROM SUNSET STREET TO PEELE STREET BATTLEFIELD ROAD	\$10,316,612
BUSINESS 65 (GLENSTONE AVENUE) AND BENNETT STREET INTERSECTION IMPROVEMENTS	BUSINESS 65 from BUSINESS 65 to BENNETT STREET	SPRINGFIELD	INTERSECTION IMPROVEMENTS AT BENNETT STREET	\$2,388,105
BUSINESS 65 (GLENSTONE AVENUE) SAFETY AND SYSTEM IMPROVEMENTS	BUSINESS 65 from SUNSET STREET to ROUTE 60	SPRINGFIELD	SAFETY AND SYSTEM IMPROVEMENTS FROM SUNSET STREET TO ROUTE 60 (JAMES RIVER FREEWAY) - ACCESS MANAGEMENT	\$5,448,222
BUSINESS 65 (GLENSTONE AVENUE) CAPACITY IMPROVEMENTS	BUSINESS 65 from BENNETT STREET to ROUTE D/SUNSHINE STREET	SPRINGFIELD	CAPACITY IMPROVEMENTS FROM BENNETT STREET TO ROUTE D/SUNSHINE STREET - ACCESS MANAGEMENT	\$2,566,370

PROJECT NAME	ROADWAY	LOCATION	DESCRIPTION	INFLATED COST
BUSINESS 65 (GLENSTONE AVENUE) AND CHEROKEE STREET INTERSECTION IMPROVEMENTS	BUSINESS 65 from BUSINESS 65 to CHEROKEE STREET	SPRINGFIELD	INTERSECTION IMPROVEMENTS AT CHEROKEE STREET	\$3,612,222
BUSINESS 65 (GLENSTONE AVENUE) AND GRAND STREET INTERSECTION IMPROVEMENTS	BUSINESS 65 from BUSINESS 65 to GRAND STREET	SPRINGFIELD	INTERSECTION IMPROVEMENTS AT GRAND STREET	\$3,612,222
BUSINESS 65 (GLENSTONE AVENUE) AND SEMINOLE STREET INTERSECTION IMPROVEMENTS	BUSINESS 65 from BUSINESS 65 to SEMINOLE STREET	SPRINGFIELD	INTERSECTION IMPROVEMENTS AT SEMINOLE STREET	\$3,612,222
BUSINESS 65 (GLENSTONE AVENUE) AND SUNSET STREET INTERSECTION IMPROVEMENTS	BUSINESS 65 from BUSINESS 65 to SUNSET STREET	SPRINGFIELD	INTERSECTION IMPROVEMENTS AT SUNSET STREET	\$3,612,222
BUSINESS 65 (GLENSTONE AVENUE) AND BENNETT STREET INTERSECTION IMPROVEMENTS	BUSINESS 65 from BUSINESS 65 to BENNETT STREET	SPRINGFIELD	INTERSECTION IMPROVEMENTS AT BENNETT STREET	\$4,515,278
BUSINESS 65 (GLENSTONE AVENUE) AND CHERRY STREET INTERSECTION IMPROVEMENTS	BUSINESS 65 from BUSINESS 65 to CHERRY STREET	SPRINGFIELD	INTERSECTION IMPROVEMENTS AT CHERRY STREET	\$3,612,222
BUSINESS 65 (GLENSTONE AVENUE) AND ST. LOUIS STREET INTERSECTION IMPROVEMENTS	BUSINESS 65 from BUSINESS 65 to ST. LOUIS STREET	SPRINGFIELD	INTERSECTION IMPROVEMENTS AT ST. LOUIS STREET	\$3,612,222
BUSINESS 65 (SOUTH STREET) IMPROVEMENTS	BUSINESS 65 from ROUTE 65 to ROUTE 14	OZARK	CAPACITY IMPROVEMENTS AND PEDESTRIAN ACCOMMODATIONS ON BUSINESS 65 (SOUTH STREET) IN OZARK FROM ROUTE 65 TO ROUTE 14	\$6,490,064
BUSINESS 65 (CHESTNUT EXPRESSWAY) IMPROVEMENTS	BUSINESS 65 from PATTERSON AVENUE to ROUTE 65	SPRINGFIELD	UPGRADE BUSINESS 65 (CHESTNUT EXPRESSWAY) TO EXPRESSWAY STANDARDS FROM PATTERSON AVENUE TO ROUTE 65	\$3,792,524
BUSINESS 65 (GLENSTONE AVENUE) CAPACITY IMPROVEMENTS	BUSINESS 65 from LOOP 44 to CHERRY STREET	SPRINGFIELD	CAPACITY IMPROVEMENTS FROM LOOP 44 (CHESTNUT EXPRESSWAY) TO CHERRY STREET - ACCESS MANAGEMENT	\$1,985,914
BUSINESS 65, LOOP 44 (GLENSTONE AVENUE) CAPACITY IMPROVEMENTS	BUSINESS 65/LOOP 44 from DALE STREET to ROUTE D/SUNSHINE STREET	SPRINGFIELD	CAPACITY IMPROVEMENTS FROM DALE STREET TO ROUTE D/SUNSHINE STREET - ACCESS MANAGEMENT	\$7,750,955

PROJECT NAME	ROADWAY	LOCATION	DESCRIPTION	INFLATED COST
REPUBLIC ROAD RELOCATION	CAMPBELL AVENUE from SOUTH AVENUE (SPRINGFIELD) to ROUTE 60	SPRINGFIELD	ADDRESS INTERSECTION SPACING OF REPUBLIC ROAD AND ROUTE 60 (JAMES RIVER FREEWAY) AT CAMPBELL AVENUE	\$24,924,335
CATALPA STREET AND EASTGATE AVENUE INTERSECTION IMPROVEMENTS	CATALPA STREET from CATALPA STREET to EASTGATE AVENUE	SPRINGFIELD	INTERSECTION IMPROVEMENTS AT EASTGATE AVENUE (ROUTE 65 EAST OUTER ROAD)	\$903,056
CHEYENNE ROAD - ROUTE CC TO NORTH STREET	CHEYENNE ROAD from ROUTE CC to NORTH STREET	NIXA, CHRISTIAN COUNTY	ROAD WIDENING	\$7,224,445
CHEYENNE ROAD - NORTH STREET TO ROUTE 14 (MT. VERNON STREET)	CHEYENNE ROAD from NORTH STREET to ROUTE 14	NIXA, CHRISTIAN COUNTY	ROAD WIDENING	\$3,612,222
EAST/WEST ARTERIAL - NATIONAL AVENUE TO KISSICK AVENUE (FARM ROAD 169)	EAST/WEST ARTERIAL from NATIONAL AVENUE to KISSICK AVENUE (FARM ROAD 169)	SPRINGFIELD, GREENE COUNTY	NEW ROADWAY	\$72,244,449
EAST/WEST ARTERIAL - ROUTE FF TO KANSAS EXPRESSWAY	EAST/WEST ARTERIAL from ROUTE FF to KANSAS EXPRESSWAY	GREENE COUNTY	NEW ROADWAY	\$0
EVERGREEN STREET IMPROVEMENTS	EVERGREEN STREET from ROUTE 125 to CAMPING WORLD (373 E EVERGREEN)	STRAFFORD, GREENE COUNTY	IMPROVEMENTS ON EVERGREEN STREET FROM ROUTE 125 TO CAMPING WORLD (373 E EVERGREEN)	\$0
FARM ROAD 81 IMPROVEMENTS	FARM ROAD 81 from ROUTE TT to REPUBLIC CITY LIMITS	GREENE COUNTY	LANE ADDITIONS, ACCESS MANAGEMENT, UPGRADE TO MEET DESIGN STANDARDS	\$1,863,977
GRAND STREET CAPACITY IMPROVEMENTS	GRAND STREET from KIMBROUGH AVENUE to NATIONAL AVENUE	SPRINGFIELD	CAPACITY IMPROVEMENTS FROM KIMBROUGH AVENUE TO NATIONAL AVENUE	\$2,257,639
GREGG ROAD - ROSEDALE ROAD TO RIVERDALE ROAD	GREGG ROAD from ROSEDALE ROAD to RIVERDALE ROAD	CHRISTIAN COUNTY	ROAD WIDENING	\$4,515,278
GREGG ROAD - TRACKER ROAD TO NORTHVIEW ROAD	GREGG ROAD from TRACKER ROAD to NORTHVIEW ROAD	NIXA, CHRISTIAN COUNTY	ROAD WIDENING	\$3,612,222
GREGG ROAD - BUTTERFIELD DRIVE TO ROSEDALE ROAD	GREGG ROAD from BUTTERFIELD DRIVE to ROSEDALE ROAD	NIXA, CHRISTIAN COUNTY	ROAD WIDENING	\$4,515,278
I-44 AND ROUTE 125 INTERCHANGE IMPROVEMENTS	I-44 from I-44 to ROUTE 125	STRAFFORD	INTERCHANGE IMPROVEMENTS AT ROUTE 125	\$2,082,446

PROJECT NAME	ROADWAY	LOCATION	DESCRIPTION	INFLATED COST
I-44 CAPACITY IMPROVEMENTS	I-44 from ROUTE 160 to ROUTE 65	SPRINGFIELD, GREENE COUNTY	CAPACITY IMPROVEMENTS FROM ROUTE 160 TO ROUTE 65	\$54,656,544
I-44 CAPACITY IMPROVEMENTS	I-44 from ROUTE 65 to ROUTE 125	SPRINGFIELD, STRAFFORD, GREENE COUNTY	CAPACITY IMPROVEMENTS FROM ROUTE 65 TO ROUTE 125	\$67,349,888
I-44 AND ROUTE B/MM INTERCHANGE IMPROVEMENTS	I-44 from I-44 to ROUTE B/MM	GREENE COUNTY	INTERCHANGE IMPROVEMENTS AT ROUTE B/MM	\$3,616,784
I-44 CAPACITY IMPROVEMENTS	I-44 from ROUTE 266 to ROUTE 160	SPRINGFIELD, GREENE COUNTY	CAPACITY IMPROVEMENTS FROM ROUTE 266 TO ROUTE 160	\$29,800,835
I-44 CAPACITY IMPROVEMENTS	I-44 from ROUTE 360 to ROUTE 266	GREENE COUNTY	CAPACITY IMPROVEMENTS FROM ROUTE 360 (JAMES RIVER FREEWAY) TO ROUTE 266	\$35,860,339
DOWNTOWN REVITALIZATION	JACKSON STREET from JEFFERSON STREET to SOUTH STREET	WILLARD	LANE ADDITIONS, SIDEWALKS	\$417,918
KANSAS EXPRESSWAY EXTENSION - ROUTE 14 TO ROSEDALE ROAD	KANSAS EXPRESSWAY from ROUTE 14 to ROSEDALE ROAD	CHRISTIAN COUNTY	NEW CONSTRUCTION	\$4,515,278
KANSAS EXPRESSWAY EXTENSION - EAST/WEST ARTERIAL TO ROUTE 14	KANSAS EXPRESSWAY from EAST/WEST ARTERIAL (FARM ROAD 190) to ROUTE 14	GREENE COUNTY, CHRISTIAN COUNTY	NEW ROADWAY	\$72,244,449
KATHRYN ROAD EXTENSION - GREGG ROAD TO NICHOLAS ROAD	KATHRYN ROAD from GREGG ROAD to NICHOLAS ROAD	CHRISTIAN COUNTY	NEW CONSTRUCTION	\$2,709,167
LOOP 44 (GLENSTONE AVENUE) AND COMMERCIAL STREET INTERSECTION IMPROVEMENTS	LOOP 44 from LOOP 44 to COMMERCIAL STREET	SPRINGFIELD	INTERSECTION IMPROVEMENTS AT COMMERCIAL STREET	\$3,612,222
LOOP 44 (GLENSTONE AVENUE) AND EVERGREEN STREET INTERSECTION IMPROVEMENTS	LOOP 44 from LOOP 44 to EVERGREEN STREET	SPRINGFIELD	INTERSECTION IMPROVEMENTS AT EVERGREEN STREET	\$509,860
LOOP 44 (GLENSTONE AVENUE) CAPACITY IMPROVEMENTS - ACCESS MANAGEMENT	LOOP 44 from ROUTE 744 to DALE STREET	SPRINGFIELD	CAPACITY IMPROVEMENTS FROM ROUTE 744 (KEARNEY STREET) TO DALE STREET	\$807,391

PROJECT NAME	ROADWAY	LOCATION	DESCRIPTION	INFLATED COST
LOOP 44 (GLENSTONE AVENUE) CAPACITY IMPROVEMENTS - ACCESS MANAGEMENT	LOOP 44 from EVERGREEN STREET to ROUTE 744	SPRINGFIELD	CAPACITY IMPROVEMENTS FROM EVERGREEN STREET TO ROUTE 744 (KEARNEY STREET)	\$1,258,805
LOOP 44 (GLENSTONE AVENUE) AND DALE STREET INTERSECTION IMPROVEMENTS	LOOP 44 from LOOP 44 to DALE STREET	SPRINGFIELD	INTERSECTION IMPROVEMENTS AT DALE STREET	\$771,209
LOOP 44 (CHESTNUT EXPRESSWAY) CAPACITY IMPROVEMENTS	LOOP 44 from ROUTE 160 to BUSINESS 65	SPRINGFIELD	CAPACITY IMPROVEMENTS FROM ROUTE 160 (WEST BYPASS) TO BUSINESS 65 (GLENSTONE AVENUE)	\$0
LOOP 44 (CHESTNUT EXPRESSWAY) SAFETY AND SYSTEM IMPROVEMENTS	LOOP 44 from ROUTE 13 to BUSINESS 65	SPRINGFIELD	SAFETY AND SYSTEM IMPROVEMENTS FROM ROUTE 13 (KANSAS EXPRESSWAY) TO BUSINESS 65 (GLENSTONE AVENUE) - ACCESS MANAGEMENT	\$9,084,740
LOOP 44 (CHESTNUT EXPRESSWAY) CAPACITY IMPROVEMENTS	LOOP 44 from PARK AVENUE to ROUTE 13	SPRINGFIELD	CAPACITY IMPROVEMENTS FROM PARK AVENUE TO ROUTE 13 (KANSAS EXPRESSWAY)	\$1,609,245
LOOP 44 (CHESTNUT EXPRESSWAY) CAPACITY IMPROVEMENTS	LOOP 44 from I-44 to BROADVIEW AVENUE	GREENE COUNTY	CAPACITY IMPROVEMENTS FROM I-44 TO BROADVIEW AVENUE	\$0
MAIN STREET - ROUTE 14 (MT. VERNON STREET) TO ROSEDALE ROAD	MAIN STREET from ROUTE 14 to ROSEDALE ROAD	NIXA, CHRISTIAN COUNTY	ROAD WIDENING	\$10,836,667
NATIONAL AVENUE AND MONROE STREET INTERSECTION IMPROVEMENTS	NATIONAL AVENUE from NATIONAL AVENUE to MONROE STREET	SPRINGFIELD	SIGNALIZE INTERSECTION AND WIDEN MONROE STREET FOR 300 FEET WEST OF NATIONAL AVENUE	\$358,216
NICHOLAS ROAD - TRACKER ROAD TO ROUTE 14 (MT. VERNON STREET)	NICHOLAS ROAD from TRACKER ROAD to ROUTE 14	CHRISTIAN COUNTY	ROAD WIDENING	\$10,836,667
NORTHVIEW ROAD EXTENSION - GREGG ROAD TO NICHOLAS ROAD	NORTHVIEW ROAD from GREGG ROAD to NICHOLAS ROAD	CHRISTIAN COUNTY	NEW CONSTRUCTION	\$2,709,167
NORTON ROAD - ROSEDALE ROAD TO TRUMAN BOULEVARD	NORTON ROAD from ROSEDALE ROAD to TRUMAN BOULEVARD	NIXA, CHRISTIAN COUNTY	ROAD WIDENING, NEW CONSTRUCTION	\$3,612,222

PROJECT NAME	ROADWAY	LOCATION	DESCRIPTION	INFLATED COST
REPUBLIC ROAD BRIDGE OVER ROUTE 60 (JAMES RIVER FREEWAY) EAST OF BUSINESS 65 (GLENSTONE AVENUE)	REPUBLIC ROAD from REPUBLIC ROAD to ROUTE 60	SPRINGFIELD	CONSTRUCT BRIDGE EAST OF BUSINESS 65 (GLENSTONE AVENUE) TO CARRY REPUBLIC ROAD OVER ROUTE 60 (JAMES RIVER FREEWAY)	\$4,179,183
ROSEDALE ROAD - KANSAS EXPRESSWAY EXTENSION TO MAIN STREET	ROSEDALE ROAD from KANSAS EXPRESSWAY to MAIN STREET	NIXA, CHRISTIAN COUNTY	ROAD WIDENING, NEW CONSTRUCTION	\$27,091,669
ROUTE 125 RAILROAD GRADE SEPARATION - STRAFFORD	ROUTE 125 from ROUTE 125 to ROUTE OO	STRAFFORD	NEW GRADE-SEPARATED RAILROAD CROSSING ON ROUTE 125 SOUTH OF ROUTE OO	\$21,536,070
ROUTE 125 AND ROUTE D INTERSECTION IMPROVEMENTS	ROUTE 125 from ROUTE 125 to ROUTE D	GREENE COUNTY	INTERSECTION IMPROVEMENTS AT ROUTE D	\$427,728
ROUTE 174 CAPACITY EXPANSION	ROUTE 174 from KANSAS AVENUE to ROUTE 60	REPUBLIC	CAPACITY IMPROVEMENTS (INCLUDING CENTER TURN LANE) FROM KANSAS AVENUE TO ROUTE 60	\$3,878,070
ROUTE 174 AND COLLEGE AVENUE INTERSECTION IMPROVEMENTS	ROUTE 174 from ROUTE 174 to COLLEGE AVENUE	REPUBLIC	ELIMINATE OR CORRECT ACUTE-ANGLED INTERSECTION AT COLLEGE AVENUE	\$440,691
ROUTE 174 AND HINES STREET INTERSECTION IMPROVEMENTS	ROUTE 174 from ROUTE 174 to HINES STREET	REPUBLIC	ELIMINATE OR CORRECT ACUTE-ANGLED INTERSECTION AT HINES STREET	\$440,691
LEFT-TURN LANE ON ROUTE 174 AT LYON ELEMENTARY SCHOOL	ROUTE 174 from ROUTE 174 to LYON SCHOOL ENTRANCE	REPUBLIC	ADDITION OF LEFT-TURN LANE AT LYON ELEMENTARY SCHOOL	\$498,487
LEFT-TURN LANE ON ROUTE 174 AT LINDSEY AVENUE	ROUTE 174 from ROUTE 174 to LINDSEY AVENUE	REPUBLIC	ADDITION OF LEFT-TURN LANE AT LINDSEY AVENUE	\$399,151
ROUTE 174 BNSF RAILROAD BRIDGE EXPANSION	ROUTE 174 from ROUTE 174 to BNSF RR	REPUBLIC	WIDEN BURLINGTON NORTHERN-SANTA FE RAILROAD BRIDGE OVER ROUTE 174 TO ACCOMMODATE ADDITIONAL ROAD LANES UNDER THE BRIDGE	\$14,925,654
ROUTE 266 AND ROUTE B AIRPORT CONNECTION	ROUTE 266, ROUTE B from I-44 to AIRPORT BOULEVARD	GREENE COUNTY	IMPROVED CONNECTIVITY FROM AIRPORT BOULEVARD TO I-44	\$106,932,067
ROUTE 413 (SUNSHINE STREET) CAPACITY IMPROVEMENTS	ROUTE 413 from SCENIC AVENUE to ROUTE 13	SPRINGFIELD	CAPACITY IMPROVEMENTS FROM SCENIC AVENUE TO ROUTE 13 (KANSAS EXPRESSWAY)	\$7,405,056

PROJECT NAME	ROADWAY	LOCATION	DESCRIPTION	INFLATED COST
ROUTE 413 (WEST SUNSHINE) CAPACITY IMPROVEMENTS	ROUTE 413 from ROUTE 60 to ROUTE 160	SPRINGFIELD, GREENE COUNTY	CAPACITY IMPROVEMENTS FROM ROUTE 60 (JAMES RIVER FREEWAY) TO ROUTE 160 (WEST BYPASS)	\$30,342,669
ROUTE 60 AND FARM ROAD 223 INTERSECTION IMPROVEMENTS	ROUTE 60 from ROUTE 60 to FARM ROAD 223	ROGERSVILLE	INTERSECTION IMPROVEMENTS AT FARM ROAD 223	\$417,918
ROUTE 413/ROUTE 60 (WEST SUNSHINE) TURN LANE IMPROVEMENTS	ROUTE 60, ROUTE 413 from ROUTE M/MM to ROUTE 160	REPUBLIC, SPRINGFIELD, GREENE COUNTY	ADDITIONAL TURN LANES, LENGTHEN TURN LANES FROM ROUTE M/MM TO ROUTE 160 (WEST BYPASS)	\$5,970,261
ROUTE 65 - LONGVIEW ROAD NEW INTERCHANGE	ROUTE 65 from ROUTE 65 to LONGVIEW ROAD	OZARK	NEW INTERCHANGE AT LONGVIEW ROAD	\$27,091,669
ROUTE 744 (KEARNEY STREET) AND GRANT AVENUE INTERSECTION IMPROVEMENTS	ROUTE 744 from ROUTE 744 to GRANT AVENUE	SPRINGFIELD	INTERSECTION IMPROVEMENTS AT GRANT AVENUE	\$2,388,105
ROUTE 744 (KEARNEY STREET) AND NATIONAL AVENUE INTERSECTION IMPROVEMENTS	ROUTE 744 from ROUTE 744 to NATIONAL AVENUE	SPRINGFIELD	INTERSECTION IMPROVEMENTS AT NATIONAL AVENUE	\$1,194,052
ROUTE 744 (KEARNEY STREET) AND EASTGATE AVENUE INTERSECTION IMPROVEMENTS	ROUTE 744 from ROUTE 744 to EASTGATE AVENUE	SPRINGFIELD	INTERSECTION IMPROVEMENTS AT EASTGATE AVENUE	\$509,860
ROUTE 744 (KEARNEY STREET) AND MELVILLE ROAD INTERSECTION IMPROVEMENTS	ROUTE 744 from ROUTE 744 to MELVILLE ROAD	SPRINGFIELD	INTERSECTION IMPROVEMENTS AT MELVILLE ROAD	\$499,016
ROUTE 744 (KEARNEY STREET), ROUTE OO (OLD ROUTE 66) IMPROVEMENTS	ROUTE 744, ROUTE OO from LE COMPTE ROAD to ROUTE 125	SPRINGFIELD, STRAFFORD, GREENE COUNTY	WIDEN ROUTE 744 (KEARNEY STREET) AND ROUTE OO (OLD ROUTE 66) TO FIVE LANES FROM LE COMPTE ROAD TO ROUTE 125	\$19,104,837
ROUTE CC IMPROVEMENTS	ROUTE CC from MAIN STREET (NIXA) to ROUTE 65	NIXA, OZARK, CHRISTIAN COUNTY	CAPACITY AND SAFETY IMPROVEMENTS FROM MAIN STREET (NIXA) TO ROUTE 65	\$23,282,675
ROUTE CC WESTWARD EXTENSION	ROUTE CC from KANSAS EXPRESSWAY (PROPOSED EXTENSION) to ROUTE 160	NIXA, CHRISTIAN COUNTY	EXTENSION OF ROUTE CC WEST TO KANSAS EXPRESSWAY PROPOSED EXTENSION	\$25,116,686
ROUTE D (SUNSHINE STREET) OPERATIONAL IMPROVEMENTS	ROUTE D from BUSINESS 65 to ROUTE 65	SPRINGFIELD	VARIOUS OPERATIONAL IMPROVEMENTS, INTERSECTION MODIFICATIONS, ADAPTIVE SIGNALS ON ROUTE D (SUNSHINE STREET)	\$7,592,177

PROJECT NAME	ROADWAY	LOCATION	DESCRIPTION	INFLATED COST
ROUTE D (SUNSHINE STREET) CAPACITY IMPROVEMENTS	ROUTE D from BUSINESS 65 to ROUTE 65	SPRINGFIELD	CAPACITY IMPROVEMENTS FROM BUSINESS 65 (GLENSTONE AVENUE) TO ROUTE 65 - ACCESS MANAGEMENT	\$2,810,973
ROUTE EE (DIVISION STREET) IMPROVEMENTS	ROUTE EE from AIRPORT BOULEVARD to ROUTE 160	SPRINGFIELD, GREENE COUNTY	PEDESTRIAN ACCOMMODATIONS AND CAPACITY IMPROVEMENTS FROM AIRPORT BOULEVARD TO ROUTE 160 (WEST BYPASS)	\$12,895,634
WEST BYPASS EXTENSION	ROUTE FF from ROUTE 60 to ROUTE 14	BATTLEFIELD, GREENE COUNTY, CHRISTIAN COUNTY	CAPACITY IMPROVEMENTS FROM ROUTE 60 (JAMES RIVER FREEWAY) TO ROUTE 14	\$72,286,077
ROUTE FF EXPRESSWAY IMPROVEMENTS	ROUTE FF from WEAVER ROAD to FARM ROAD 194	BATTLEFIELD, GREENE COUNTY	CAPACITY IMPROVEMENTS (FOUR-LANE, ACCESS CONTROLLED) FROM WEAVER ROAD TO FARM ROAD 194	\$53,189,976
ROUTE H CAPACITY IMPROVEMENTS	ROUTE H from FARM ROAD 86 to FARM ROAD 94	GREENE COUNTY	CAPACITY IMPROVEMENTS FROM FARM ROAD 86 TO FARM ROAD 94	\$2,817,534
ROUTE H (GLENSTONE AVENUE) CAPACITY EXPANSION	ROUTE H from FARM ROAD 100 to MCCLERNON STREET	SPRINGFIELD, GREENE COUNTY	CAPACITY IMPROVEMENTS FROM FARM ROAD 100 TO MCCLERNON STREET	\$3,774,772
ROUTE H CAPACITY IMPROVEMENTS	ROUTE H from ROUTE KK to FARM ROAD 68	GREENE COUNTY	CAPACITY IMPROVEMENTS FROM ROUTE KK TO FARM ROAD 68	\$3,612,222
ROUTE N AND FARM ROAD 168 INTERSECTION IMPROVEMENTS	ROUTE N from ROUTE N to FARM ROAD 168	GREENE COUNTY	INTERSECTION IMPROVEMENTS AT FARM ROAD 168	\$608,800
ROUTE NN IMPROVEMENTS	ROUTE NN from ROUTE J to ROUTE 14	CHRISTIAN COUNTY	VARIOUS INTERSECTION, TURN LANE AND PEDESTRIAN IMPROVEMENTS FROM ROUTE J TO ROUTE 14 (JACKSON STREET)	\$13,527,773
ROUTE NN IMPROVEMENTS	ROUTE NN from ROUTE J to PHEASANT DRIVE	OZARK	CAPACITY IMPROVEMENTS FROM ROUTE J TO PHEASANT DRIVE	\$10,678,949
ROUTE OO (OLD ROUTE 66) IMPROVEMENTS	ROUTE OO from ROUTE 125 to WEBSTER COUNTY	STRAFFORD, GREENE COUNTY	VARIOUS INTERSECTION AND TURN LANE IMPROVEMENTS FROM ROUTE 125 TO WEBSTER COUNTY	\$1,552,268
ROUTE OO/125 (OLD ROUTE 66) AND WASHINGTON STREET INTERSECTION IMPROVEMENTS	ROUTE OO/125 from ROUTE OO/125 to WASHINGTON STREET	STRAFFORD	INTERSECTION IMPROVEMENT AT WASHINGTON STREET	\$597,026

PROJECT NAME	ROADWAY	LOCATION	DESCRIPTION	INFLATED COST
ROUTE YY (DIVISION STREET) CAPACITY IMPROVEMENTS	ROUTE YY from ROUTE 65 to LE COMPTE ROAD	SPRINGFIELD	CAPACITY IMPROVEMENTS FROM ROUTE 65 TO LE COMPTE ROAD	\$22,576,390
ROUTE YY (DIVISION STREET) AND EASTGATE AVENUE INTERSECTION IMPROVEMENTS	ROUTE YY from ROUTE YY to EASTGATE AVENUE	SPRINGFIELD	INTERSECTION IMPROVEMENTS AT EASTGATE AVENUE (ROUTE 65 EAST OUTER ROAD)	\$1,730,874
ROUTE YY (DIVISION STREET) AND LE COMPTE ROAD INTERSECTION IMPROVEMENTS	ROUTE YY from ROUTE YY to LE COMPTE ROAD	SPRINGFIELD	INTERSECTION IMPROVEMENTS AT LE COMPTE ROAD	\$1,449,579
ROUTE ZZ (WILSON'S CREEK BOULEVARD) PARKWAY IMPROVEMENTS	ROUTE ZZ from ROUTE M to FARM ROAD 194	REPUBLIC, GREENE COUNTY	PARKWAY FROM ROUTE M TO FARM ROAD 194/CHRISTIAN COUNTY BORDER WITH CONTEXT-SENSITIVE DESIGN FOR BATTLEFIELD	\$23,857,165
ROUTE ZZ (WILSON'S CREEK BOULEVARD) AND FARM ROAD 182 (ELM STREET) INTERSECTION IMPROVEMENTS	ROUTE ZZ from ROUTE ZZ to FARM ROAD 182	GREENE COUNTY	ADDITION OF TURN LANES AT ROUTE ZZ AND FARM ROAD 182 (ELM STREET)	\$499,016
ROUTE ZZ AND FARM ROAD 186 (MILLER ROAD) INTERSECTION IMPROVEMENTS	ROUTE ZZ from ROUTE ZZ to FARM ROAD 186	GREENE COUNTY	ADDITION OF TURN LANES AT ROUTE ZZ AND FARM ROAD 186 (MILLER ROAD)	\$632,139
TRACKER ROAD - NICHOLAS ROAD TO KANSAS EXPRESSWAY EXTENSION	TRACKER ROAD from NICHOLAS ROAD to KANSAS EXPRESSWAY	CHRISTIAN COUNTY	ROAD WIDENING	\$8,554,565
TOTAL				\$1,107,096,386

Journey 2035: Long Range Transportation Plan

Fig. 90 - Constrained Projects

Legend

Existing Roads

Freeway

Expressway

Primary Arterial

Secondary Arterial

Collector

Local Street

Railroad

Proposed Roads

Future Freeway

Future Expressway

Future Primary Arterial

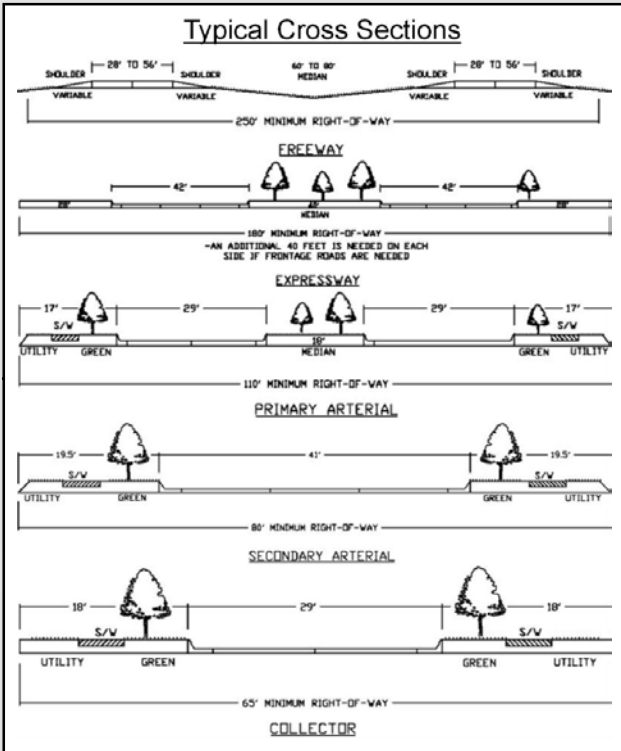
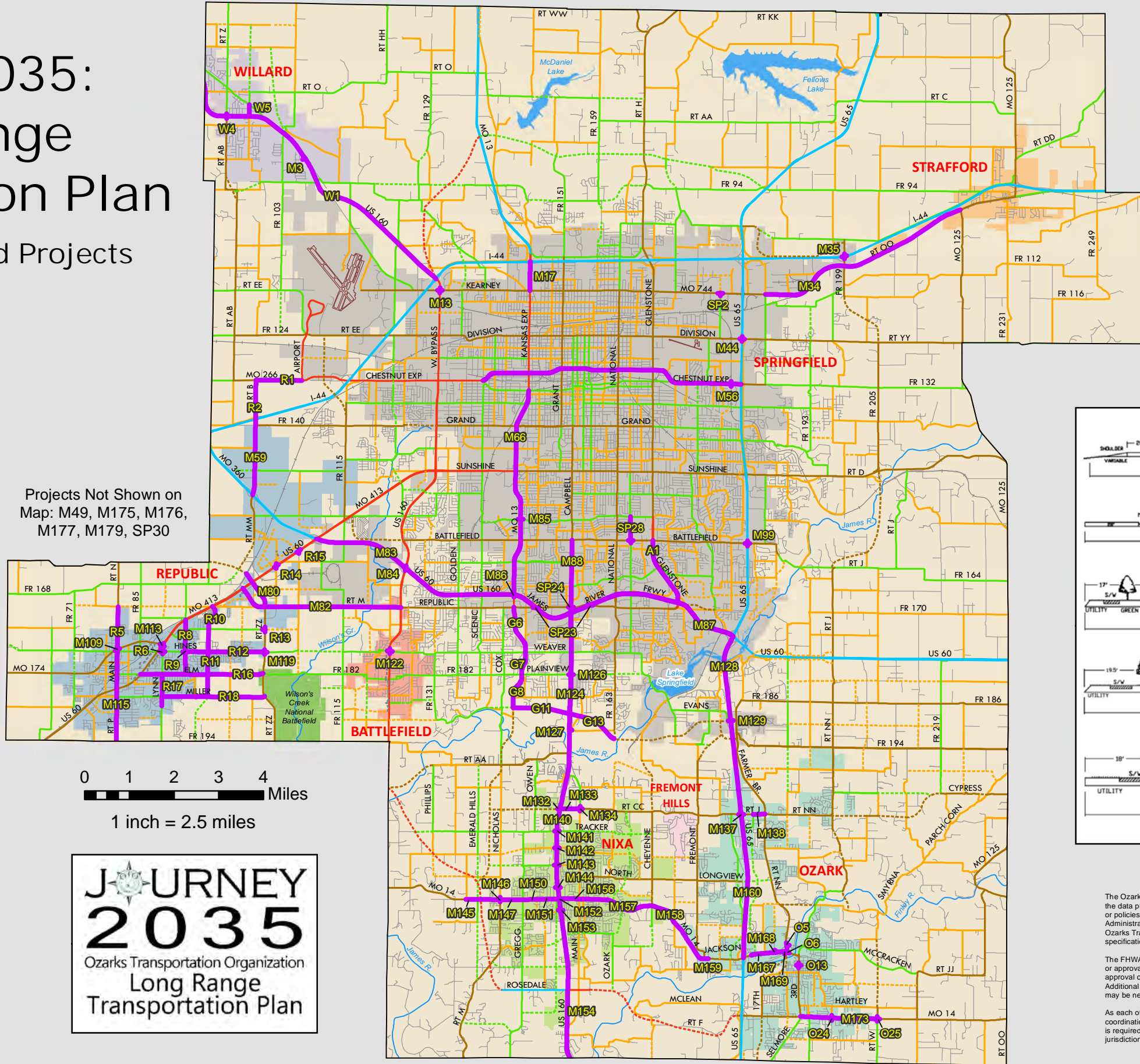
Future Secondary Arterial

Future Collector

Future Local Street

OTO LRTP

Constrained Project



DISCLAIMER

The Ozarks Transportation Organization is responsible for the facts and accuracy of the data presented herein. The contents do not necessarily reflect the official views or policies of the Federal Highway Administration (FHWA), the Federal Transit Administration (FTA), the Missouri Department of Transportation (MoDOT), or the Ozarks Transportation Organization. This map does not constitute a standard, specification, or regulation.

The FHWA, FTA, OR MoDOT acceptance of this map does not constitute endorsement or approval of the need for any recommended improvements nor does it constitute approval of their location and design or a commitment to fund any such improvements. Additional project level environmental impact assessments and/or studies of alternatives may be necessary.

As each of the projects in the Major Thoroughfare Plan (MTP) is implemented, coordination, agreement, and independent approval of the participating local jurisdiction is required. No part of this MTP is to be interpreted as to diminish the authority of local jurisdictions in the area of land use and transportation.

Chapter 14 – Summary of Recommendations

Major Thoroughfare Plan

- OTO should work with the Federal Highway Administration and the Missouri Department of Transportation to regularly update the Functional Classification Map to align with the recommendations of the Major Thoroughfare Plan, within the confines of the federal requirements.
- The classifications of street types contained in Zoning Ordinances, Subdivision Regulations, and Design Standards of the various jurisdictions within the OTO Study Area should agree with those discussed here.
- OTO jurisdictions should design roadways for all users, when appropriate. The adoption of a complete streets ordinance or guidelines can aid staff as they retrofit and construct new and existing roadways.
- The Major Thoroughfare Plan should ensure the continuity of the arterial, collector, and local street systems, while preventing unnecessary traffic through neighborhoods.
- When practicable, land uses should be developed that are compatible with the classification of adjoining streets.
- OTO jurisdictions should regularly update the adopted Major Thoroughfare Plan, subdivision ordinance, zoning controls, and criteria for the installation of traffic controls to ensure land use compatibility and the preservation of the neighborhood unit.
- OTO jurisdictions should, at a minimum, require a simplified traffic analysis with every rezoning request.
- OTO jurisdictions should utilize the guidelines contained in this plan for off-site and on-site improvements related to development proposals.
- OTO should support the implementation and expansion of advanced traffic management systems within the OTO region.
- OTO should continue to promote travel demand strategies throughout the OTO region.
- OTO should continue to support the OzarksCommute.com website and seek new technologies for ridesharing as they become available.
- OTO should continue to participate in the Blueprint for Roadway Safety.
- Projects that improve safety should receive priority for funding.

Public Transit

- OTO and its jurisdictions should continue to review the possibility and funding options for offering regional, commuter transit service.
- OTO should identify recommended transit routes and encourage future transit along those routes.

- OTO jurisdictions should develop land use and growth management policies that encourage transit efficiency along recommended routes.
- Both City Utilities and Missouri State University should use marketing techniques to inform the public that they offer quality service.
- City Utilities and Missouri State University should take advantage of available technologies that improve transit service, when not cost prohibitive.
- When bus stops are moved or when new ones are placed, consideration should be made for pedestrian accessibility.
- Sharrows, shown to the right, rather than bicycle lanes, should be used along transit routes, especially those with frequent stops.
- Transit should be considered when designing and implementing new roadways, as well as when completing retrofit or maintenance projects.
- The Transit Coordination Plan update should further address the need for central dispatching and a single-call service such as 511 for scheduling rides.

Inter-City Passenger Surface Transportation

- Pursue options to connect fixed-route transit service to the Springfield-Branson National Airport, providing a better connection to inter-city bus service such as Greyhound.
- OTO should stay involved with discussions that would bring passenger rail to Springfield.
- The Missouri General Assembly is encouraged to find a stable funding source for passenger rail in Missouri.

Bicycle/Pedestrian

- OTO should maintain a comprehensive list of bicycle and pedestrian needs that is reviewed annually.
- OTO should work with member jurisdictions to expand data availability for bicycling and pedestrian activities. This includes, but is not limited to, bicycle and pedestrian crashes, current and projected use of facilities, system condition, and level of service calculations.
- Bicycle and Pedestrian project selection and funding priorities should support the priorities included in this plan.
- OTO, in partnership with member jurisdictions and Ozark Greenways, should develop an implementation plan which identifies strengths, challenges, necessary easements, and cost for future trail development.
- Promote adherence to the bicycle and pedestrian design standards as set forth in this plan and encourage the continued implementation of additional best practices.

Aviation

- The City of Springfield and Greene County should continue the existing zoning patterns in effect around the Springfield-Branson National Airport. No rezoning of agricultural land use to noise-sensitive uses should be allowed within the noise contours unless a noise analysis is conducted and noise control features are included in the building design.

Goods Movement

- Continue to pursue funding for implementing the Rail Reconfiguration Plan.
- Through subdivision review, OTO jurisdictions should ensure that all new developments have adequate access to the major thoroughfare system without crossing railroad tracks at grade.
- As plans are developed for new thoroughfares, the type of necessary crossing should be considered. At-grade crossings of main line tracks should be avoided to provide for maximum safety and minimal disruption for the motoring public, including additional idling time resulting in additional pollution concerns.
- Adequate warning devices should be provided at railroad crossings when a grade separation is not feasible.
- OTO jurisdictions should consider grade crossing elimination projects or “quiet zone” designations in areas where noise and congestion at grade crossings have adverse community impacts. A quiet zone is a grade crossing at which trains are prohibited from sounding their horns, thereby decreasing the noise level for nearby residential communities. Quiet zones typically require additional engineering solutions which are paid for at the requesting community’s expense.
- When evaluating rezoning requests near a rail line, OTO jurisdictions should consider the suitability of the proposed use. If manufacturing or industrial uses are not feasible and the site characteristics permit, the use of tools like a Planned Development District, can provide for buffer requirements along the rail lines.
- As tracks are no longer needed by the railroad, organizations like Ozark Greenways should be the first contact for rail preservation and trail projects.
- OTO should work to enhance the integration and connectivity of the transportation system, across and between modes, preserving freight mobility as the region continues to develop.
- OTO jurisdictions should encourage truck-generating facilities to locate along major streets, or on collector streets connecting directly to major streets in order to encourage trucks to confine their travels to arterials and expressways.
- Streets with existing or potential truck traffic problems should be identified. OTO jurisdictions should consider recommending truck routes and/or restricting truck use on inappropriate streets.

- Major activity centers requiring extensive goods and service movements should be located near major highway interchanges and along major arterial streets.
- Local standards and regulations should provide adequate off-street loading spaces for businesses which receive or distribute goods by truck. When off-site accommodations cannot be made, there should be an adequate number of on-street loading zones.
- OTO jurisdictions should incorporate delivery and access needs into the site design and review process.
- OTO jurisdictions should prevent zoning that would result in truck traffic through a residential area.
- Developers should be encouraged to design subdivisions that channel truck traffic to the arterial system without passing through residential areas.
- OTO jurisdictions should enact regulations which direct how hazardous materials are transported, including the designation of truck routes for hazardous materials.
- Local jurisdictions, MoDOT, and Emergency Management Departments, as well as other pertinent parties, should coordinate the planning efforts necessary to respond to hazardous material incidents.

Environmental Considerations

- OTO, member jurisdictions, and MoDOT should be aware of environmentally sensitive areas when planning and constructing transportation projects.
- When OTO updates its travel demand model, it should ensure that the model complies with needs for a regional emissions analysis to demonstrate transportation conformity.
- The requirement that conformity must be determined within 12-months after a new non-attainment designation means that OTO should start preparing for the possibility of becoming non-attainment before it becomes a reality.

Financial Capacity and Fiscal Constraint

- OTO jurisdictions, who do not already have one, should explore the creation of a transportation sales tax to provide additional opportunities for matching federal funds and cost sharing on MoDOT projects.
- Cities, counties, and MoDOT should continue to work together on inter-governmental methods of financing transportation improvements and should continue to work with the private sector to ensure that the costs of new roadway improvements are equitably shared between all benefiting parties.

Appendix A – Public Officials Workshop Results

A “digital” comment board was kept during the Public Officials Workshop. As breakout groups reported the results of their visioning exercises, each comment was captured on the computer and displayed for all to see. This demonstrated that each comment was received and also allowed everyone to see that they were captured correctly. The Answers included here are as they were recorded on the “digital” comment board.

First Visioning Session

How can the transportation system help create the community you, your children, and your grandchildren would want to live in?

- Rail service
- What can be accomplished – look at current bus system – regional
 - Helps with workforce development
- Technology
 - Changing workforce
- Tremendous investment in road system
 - Where does this go?
- Minneapolis
 - Have located parks where people catch the bus – a report that is now available
- Light Rail with hubs in the park systems – integrate parks system – so it’s not just for working hours, but during off hours – be able to use all assets – but be smart about what we can accomplish
- Future – Springfield and surrounding communities will be tied together
- Amenities need to be closer
- What will the improvements be – capacity, be smart, develop for all users
- Intersection improvements are spot capacity
- Need to look at connecting capacity
- How to get from point A to B so that developers aren’t getting pushed between communities, but instead bringing everything together
- Springfield doesn’t have density for certain types of improvements

- Don't have the 7 units per acre
- Utilize the planning process to develop density requirements
- What other communities can be used as a model
- Grow smarter
- The airport has completed a lot of improvements – protect that investment especially during the coming high fuel costs
- Develop a multimodal facility that encourages air, rail, transit, all in one facility that is regional
- A lot of travel to and from Christian county
- Extend West Bypass, National/Cheyenne
- Move people safer along all corridors
- There will be a move to higher density development – people will move closer to their services and where they work
- Develop to at least sustain current level of congestion
- Density of area will be unknown
- Centralized hub system – light rail, bus, whatever that transit is – so that outlying communities can come in and go back out
- Then drill down to local level – sidewalk investment/improvement
- Changes in how people view communities – right now subdivisions of houses – go back to neighborhood stores, ½ mile trips, telecommuting – fewer people on streets
- Continue to see a transportation system that supports an economically stable community
- Regional system
- Offer incentives for populations to become more dense
- Regardless of roadmap – regional connectivity to reduce traffic gridlock
- At some level vehicular traffic will continue – catalyst for in-fill
- Infrastructure investments will need more focus because of costs
- More bike/pedestrian
- Commuter/metro rail service
- Concentrated activity/work centers in outlying areas – Billings, for example
- Promote density in each community
- Enhance the multi-modal network
- Underdevelopment – encourage higher densities and mixed use
- Evenly distribute development

- Pilot project to create a neighborhood school on the north side for biking and walking
- Develop new schools where sidewalks can be provided
- Ensure highway 60 from Rogersville to Springfield is limited access
- Regional mobility
- Consider modes of transportation
- Bikes, trails, mass transit
- Establish park and ride areas
- Car/vanpooling
- Rising fuel costs, types of vehicles
- Grandchildren will probably be driving something small, efficient and affordable
- How will we get there and fund this in the future – technology will come into play
- Assumptions – the area will continue to grow with more, albeit different, vehicles
- Would like to see an increase in density in the core – not a simple process, existing infrastructure is old
- The next generation will have a different perspective
- More multi-modal – impacted by the cost of fuel
- Requires a lot of lead time
- Regional organizational planning is important
- Growth areas need to continue working together
- A system that will give people choices

Second Visioning Session

What is the vision for Transit/Rail/Air that can create the community we want in 2035?

- Bus service is limited now to City of Springfield boundaries
- Need connectivity with all municipalities
- Locate drop-off hubs at the end of greenways trails
- The Chicago Loop
- Bus rapid transit to outlying areas without stops
- Springfield service with more stops

- Employers creating shuttle services to pick-up points
- Highway 60 to Rogersville and beyond, a major link to Memphis
- Passenger Rail
 - BNSF is privately owned – can't perhaps direct location of depots
 - Station would likely be on the outside of Springfield rather than in downtown
- More feasible to get passenger rail to Springfield than light rail
- Improving infrastructure in downtown – replace, find new systems?
- Springfield is only airport with increased passengers – a positive thing
- Need a regional transit authority
- Don't think growth to the south will be endless, that growth will not mean/need a 10-lane road to Nixa
- More growth going to Republic and Rogersville
- Look at connectivity of hub and spokes
- Look at right-of-way and space for future improvements
- Dedicated transit partnerships between smaller communities and CU
- Park and ride lots
- Regional planning – essential component
 - For setting policies for future development
 - Dedicated corridors for future development
 - Funding streams in the future – takes time
- Air travel – in great shape currently, want to continue to plan and reserve for future growth, prevent encroachment
- Rail – partnerships and ways to utilize facilities
- Regional transit system, CU is limited by Springfield corporate limits
- PPP – OTC, MSU, St. John's and Cox – Public Private Partnership
 - Relieves congestion
 - More efficient, economies of scale
- Glad to see progress in aviation
- Reduce fares even more – recognize this requires more partnership
- Flying to St. Louis, for example – cost, early check-in, renting a car – competitiveness
- Springfield is regional center for health care and higher learning

- Businesses could move to people in outlying area
- Expand transit to reduce commutes/congestion
- Regional Transit authority
- National connectivity – air – would still be a 50/50mix business/leisure, jetpack availability
- Airport is designed for expansion, can have up to 60 gates
- Mass transit – move toward a modified/full grid system – ease of use
- Rail – regional passenger rail – use existing rail
- Overcome cultural barriers about getting out of car
- Discussed book - \$20/Gallon
 - Air may become a luxury
 - Focus on bus, commuter rail, Compressed Natural Gas
 - Electric vehicle infrastructure needs to be developed
- Fluidity
- St. Louis – Amtrak connects to metro, bus, etc
- Emulate through a regional transportation center spearheaded by OTO
- Can be a model in Southwest Missouri and is doable
- Mileage assessment for driving
- Need for regional transit
 - Ability to fund
- Density – available in the core of Springfield
 - Use that region to test different vehicles, models to try
- Would like to see better transit and rail
 - But low density
 - No central business or retail district
 - Development is scattered throughout
 - Homogeneity works against us
- Need to change development patterns
 - Empty industrial areas on chestnut could be used for high density residential
 - Abandoned rail for trails

- Jordan creek
- Transit to and from airport
- Intercity rail transportation
- Multi-modal hub to connect transit, rail, air, and regional transit
- Airport – in 25 years a coordinated expansion of airport as smaller regional airports may constrict
- Airport maintains good buffers around airport for development
- Infrastructure and capacity can be addressed along the way
- Passenger rail and light rail out of multi-modal facility at airport
 - St. Louis, Memphis, Nevada to KC
- Employees – how to get to workplace
 - Focus on southern portion of corridor
 - St. John's Cox, Bass Pro
- Culture change needs to take place – a rural mentality
 - Need to go from 3-4 houses per acre to 7
- Different vehicle types
- Need to decide as a region how growth will occur – probably won't see difference unless economics dictates otherwise
- Amenities – Jordan valley, high end development, jobs

Third Visioning Session

What is the vision for Bicycle/Pedestrian that can create the community we want in 2035?

- Trails seemed to be positioned for recreation as opposed to commuting
- Outlying cities are doing things for trails, within own cities
- Strafford looking at BNSF/Route 66
- Look at connecting trails
- Focus on higher density areas
- Integrate with streets – partnership between pedestrian/bike/streets
- People who ride bikes will also ride transit

- Interconnection of various modes
- Amtrak stop in Strafford or airport or wherever – make connections
- Many streets still don't have sidewalks, especially on state routes, policies are changing
- Looking at bicycle friendly communities
- Need CIP tax
- Will be renumbering bike routes like a highway system
- Sharrows and chevrons on roads
- Complete streets programs
 - When building new or fixing old roads – keeping all users in mind
 - Then encourage people to bike, walk, drive – use all modes
- Glenstone, for example could use complete streets
- People who ride bikes may be afraid to ride bikes on streets
 - Width can make it uncomfortable
- County has sidewalks in new subdivisions
- New county roads get sidewalks
- Coordinate with local bicycle plan, will try to widen identified streets, signage
- Develop in a way that promotes walkability, in shopping areas – walking from Wal-Mart to Best Buy
- How putting bikes on the road will affect capacity – down for cars
- Long term planning for 2035 – revisit every 5 years to accommodate the changing reality
- Incremental improvements
 - Pick bite-sized pieces
 - Prioritize
- Continuity – connect greenway system with itself, pedestrian systems
- Bicycle facilities will work better than transit – can get you where you want to go
- Change mindset that trails are for recreation
 - Often empty on weekdays
- Connections between trails

- Expand
 - Connect ends of trails with on-street bike facilities
- Bike lanes can enable safety, respect
- Grade separations of freeways
- Sidewalks on all streets
- People in Springfield like to drive fast
- Speed limit reductions set tone
- Need facilities on-site for bicyclists – parking, showers
- Schools
- Connect arterial streets with sidewalks, bus service
- Safety for bike/walk to and from school
 - Site schools accordingly
- Should communities have a dedicated sidewalk fund, including for maintenance
- As usage grows on trails/sidewalks, is there a need for security?
- Amenities for trails attract people to community and keep people here
- Difference between commuter and recreational biking
- Requires connectivity of sidewalks
- Neighborhood schools – need sidewalks around
- Safety policies may increase childhood obesity – busing across barrier streets
- Funding
 - Springfield can add 1-mile of sidewalk a year
- Better connectivity between retail establishments
- Utility companies will hopefully have moved all fire hydrants and electric poles from middle of sidewalks
- Will have clear and connected bike routes and trails
- Need a north/south greenway trail through Springfield
- Obstacles in the middle of sidewalks are a barrier for disabled – wheelchairs and visually impaired
- Safer ways for kids to get to school

- Parents don't let kids walk
- Expand walking school bus program
- More people on sidewalks make them safer
- Need more sidewalks
- Need wider sidewalks
- People aren't walking to work – use it for leisure/school
- Google is doing a national bike route map – connect to a local website
- Current bike plan is good
- Regional transportation authority
- Connectivity
- Incentives – bicycle parking and showers and tax benefits
- Incentives for employers to provide extra facilities
- City has a good start on a bicycle map
- Use greenway trails as collectors
- Any future roadways should have consideration of bicycle facilities

Fourth Visioning Session

What is the vision for Streets/Highways/Freight that can create the community we want in 2035?

- Adding truck lanes to I-44
- Potential that everyone is going to do more shopping on internet – picking up goods in freight centers
- HOV lanes
- Capacity on city streets
- Downtown arterial network
- Future will be difficult – set aside corridors
- Right to eminent domain
- Extend Kansas Expressway and West Bypass corridor to 14 to relieve Campbell and 65

- Plan for new roads
 - Not just lines on paper
 - Preserve corridor
 - Preliminary design
- More connectivity
- Better access control between surrounding communities
- Evaluate each street for placement of bike/pedestrian facilities – some streets may not be appropriate, but be sure that a parallel street provides bike/pedestrian facility
- Extend FF Highway into Christian county
- Connect roads to existing
- Upgrade W. Sunshine
- Hwy 65 to north – with wide lanes there will be more growth
- Widen 160 into Willard
- Be aware of karst environmental concerns
- Hwy 60 east to Rogersville – area is exploding, lots of development
- Make James River Freeway a toll road to pay for improvements
- As gas prices go up, rail shipping will increase, but maybe less or level truck traffic – trucks may be more local
- Funding –
 - toll roads
 - How to move beyond gas tax
- Major north-south corridor through middle of Springfield
- Maintain grid system
- Use technology to better manage existing system – may not need as much expansion
- Future growth will go toward airport
- Different vehicle types
- More expensive fuel
- Population growth
- Growth may reverse and come back in
- Redevelopment in urban areas

- Don't have to drive as far, small yards to mow
- Street configurations to allow for more capacity in higher density
- Demand in outlying communities
 - More people use commuter lot when gas is expensive
 - Additional bus routes
 - Vanpools
- Congress is talking about heavier trucks, harder tires – destroying pavement
- Maybe don't need more lanes, but stronger lanes
- Growth in shipping, will mean more local freight
- Connectivity between regions
- We do a good job of planning and collaborating
- Lines on map are the ones that need to be there
- Non-attainment may be an issue and could affect transportation improvements
- Freight – State's plan for I-70/44 – dedicated truck lanes
- How to use advantages of community to attract distribution
- Changing trucking industry
 - Trucks want heavier weights, but passenger cars want separation, so reduce truck speeds, put in different lanes
- Maintain good grid system
- Continuity in roadway naming
- Maintain arterial spacing and continuity
- Efficient road systems move materials and goods – good economic development, air quality
- Maintain good corridors – to surrounding communities
- New freeway to connect surrounding communities
- Key corridors Kansas Expressway to Nixa, 60 to Rogersville
- Pave everything in concrete
- Highway system is good
- Appreciate work on 13 to Kansas City, 60 east of town, widening on 65, interchange improvements
- Focus on 160 Springfield to Nixa and interchange
- North-South routes in Greene and Christian county

- Loop – Battlefield, Nixa, Ozark
- Improve Campbell north of James River Freeway
- 60 should be freeway, would help keep high speed
- Chestnut and Springfield Center City streets need to be addressed for density
- Rail service
- All modes
- Underground utilities

Appendix B – Public Input Meeting Comments

At the Public Input Meetings, attendees had the opportunity to fill-out comment cards, as well as take comment cards home that could be mailed-in at a later date.

Comments Received

- Instead of changing rail/street crossings along the west side of 65, construct new line along 125.
- Burlington Rail – use as bike path to connect to Springfield trails.
- Providing safe routes for alternate forms of travel – biking – small engine travel and scooters, etc will be important in years to come.
- Move traffic through intersection of Jackson and NN (westbound).
- Add turn lane on CC eastbound to 65 southbound.
- I saw a news story last week on KSPR 33 where a group was proposed [OPPOSED??] to affordable housing in Nixa even though housing was beautiful and 60 percent of the Nixa residents qualify.
- Kansas Expressway to Nicholas in Nixa Freeway is very important to southwest Springfield and Nixa growth.
- 14 and 160 interchange improvements vital to growth of Nixa.
- 14 and 160 relieve congestion.
- Straighten and complete CC from US 65 to future West Bypass.
- Please: Bike routes to and around Republic's jr. high/high school. There are students riding on Wilson's Creek Boulevard with 55 mph traffic as well as on the artery farm roads out of Republic which are narrow – and fast.
- Bike routes to and around Republic's library. There isn't a designated lane on Hwy 174 and at times it is harrowing at best, to ride to this facility.
- Passenger Rail Service, Please.
- Trails! Trail! Trails! Connect Parks, Schools, Cities. Light Rail!!!!
- Please extend Kansas Expressway to Nixa.
- Extend limited access on US 60 to Rogersville.
- New East-West Road south of James River Expressway.
- Long-term better access to downtown – limited access Chestnut or Sunshine.

- The West Meadows Green Area would be a great extension for the downtown community, which is increasing as more and more lofts are filled downtown.
- Our family loves to take walks in our town, Ozarks, there are minimal sidewalks. That would be a wonderful addition.
- Republic Road does not need to be 5-lanes. We need road diets, not wider roads.
- Bus from Springfield to Nixa.
- Provide a bike/pedestrian from Washington St. along old Route 66 East to the softball complex (Phase I). Phase II will continue from Washington Street to Springfield.
- RR crossing at Washington St. and Hwy 125 south must be upgraded.
- Development of a bike route from Strafford softball complex to west of Strafford on OO.
- Need widening of OO at Washington RR crossing to make a turning lane.
- New overpass over I-44.
- I think bus service in Strafford would be nice.
- Update Route 66.
- This trail would be incredible beneficial. It would bring a number of young people into the Strafford Area. We need to get this started ASAP!
- 2-lane of 160 Highway must be a priority. Conco Quarry trucks and airport freight trucks – added hazard. Main arterial for a 5A school.
- Bike access across 160 at Hunt Road to connect the trail.
- Bus service from West Kearney to East Kearney without having to change buses.
- Farm Road 170 – Preserve roadway corridors for future development to SE Springfield
- 160 and Hunt – New Signal with Bike and Ped Improvements
- Improve E/W Corridor of Route CC
- Preserve and construct E/W Arterial in southern Greene County from US 65 to Future Kansas Expressway Connection.
- Kansas Expressway needs extended into Christian County.
- I live in Strafford, MO. On 6/1/10, a train was stopped from 4:50 to 5:20. It's usually a minor inconvenience to wait on a train, but the above example is a prime example of how the minor inconvenience can turn into a major issue. The other option is to drive around 2-miles down the road to travel back 2-miles just to get to my destination. Any help would be appreciated!
- I think something ought to be done when a train can stop on a crossing for 45 minutes and no one shows up. What if there had been a fire or an ambulance need to go there? I find this ridiculous. I think some changes ought to be made. The train had its engines off for 45 minutes.

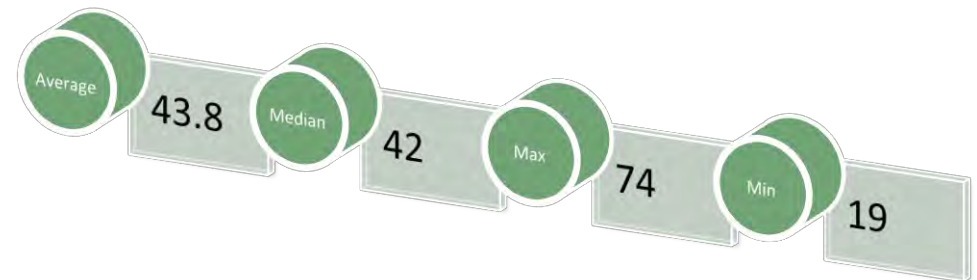
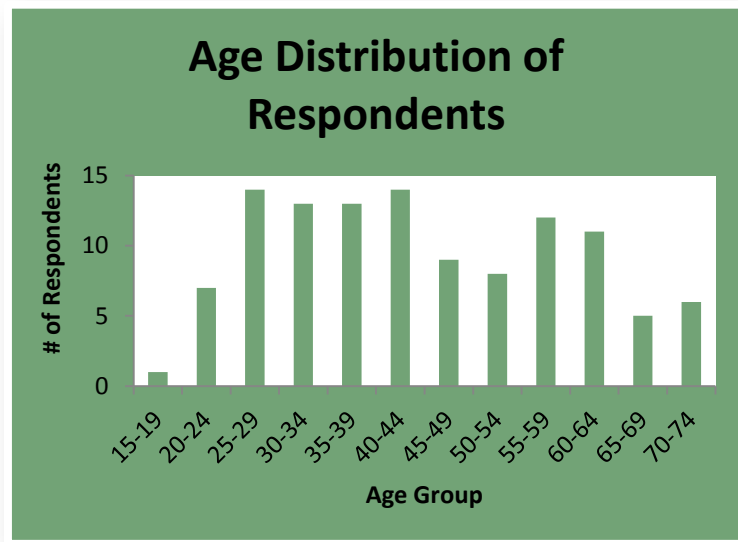
Appendix C – Public Input Survey Results

To collect public input during the planning process, OTO developed a survey that was available both online and in a paper format. This survey was made available at each of the OTO public input meetings, when OTO had exhibits at community events, and online, which any visitor to the OTO website could find. In total, 111 responses were received.

Respondent Information

To ensure the survey reached a broad range of community members, respondents were asked to provide some demographic information.

Age of Respondents



Location of Respondents

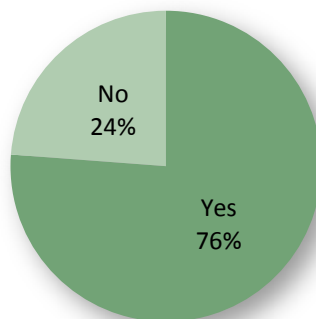
Respondents were asked to list the zip code of where they lived. The following is a summary of those zip codes.

Ash Grove	1
Battlefield	1
Nixa	46
Ozark	7
Republic	4
Rogersville	2
Strafford	4
Willard	3
Springfield	40
Berryville, AR	1

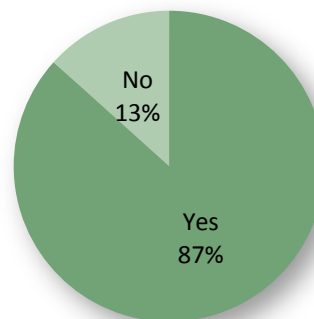
Questions

Do you think traffic congestion is a problem in our community?

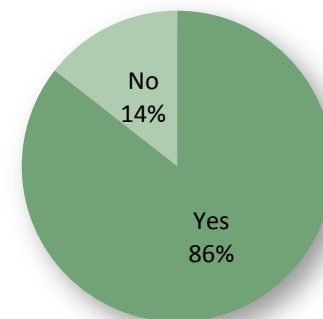
Now



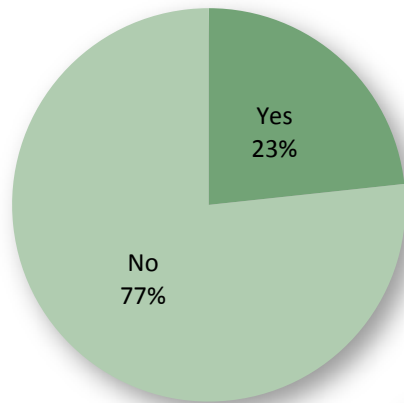
In 10 Years



In 20 Years



Considering the diversity that exists in the community (lifestyles, income, age, etc.) do you think the existing transportation system meets the needs of all of our citizens?

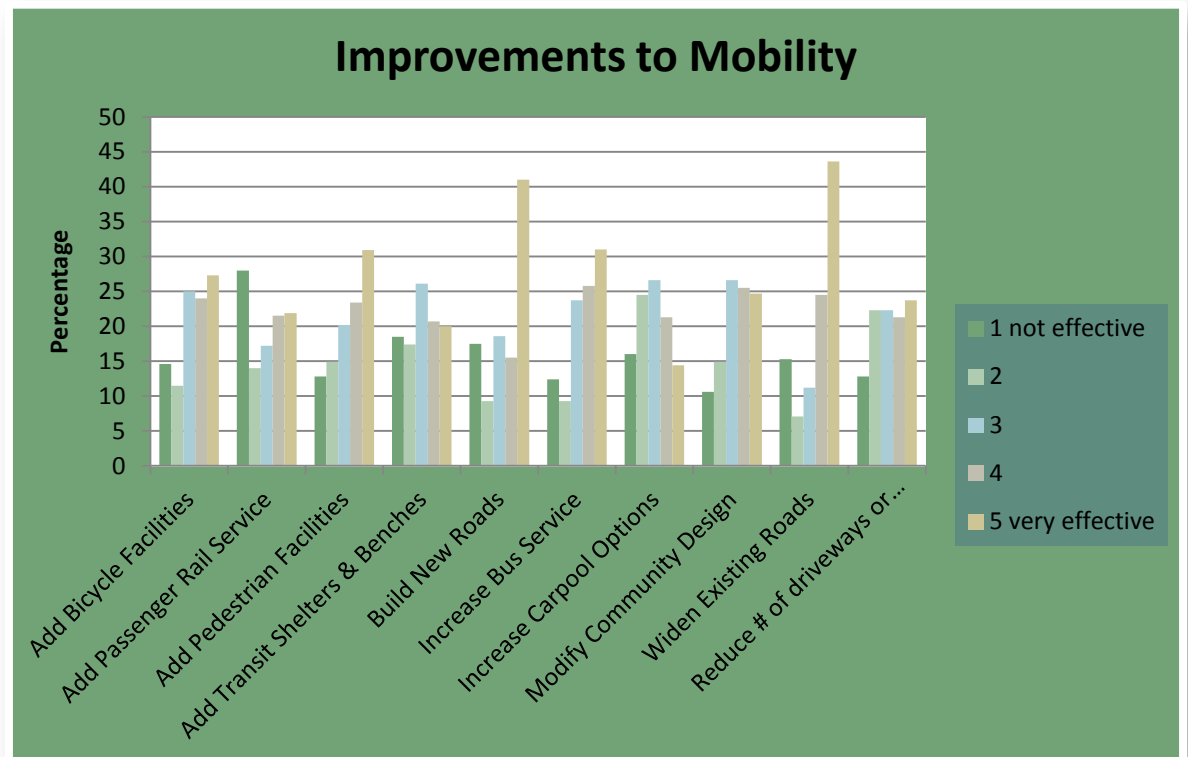


In your opinion, how effective would the following measures be in improving mobility for the region?

Respondents were asked to identify how effective different measures would be in improving mobility in the region by rating effectiveness of each measure on a 1 to 5 scale, 1 representing “not effective” and 5 representing “very effective.”

Analysis: Respondents identified the following as the most effective measures to improving regional mobility:

- Widen existing roads
- Build new roads
- Increase Bus Service
- Add Pedestrian Facilities



From the following list, check the top 3 factors that government officials should consider making transportation decisions:

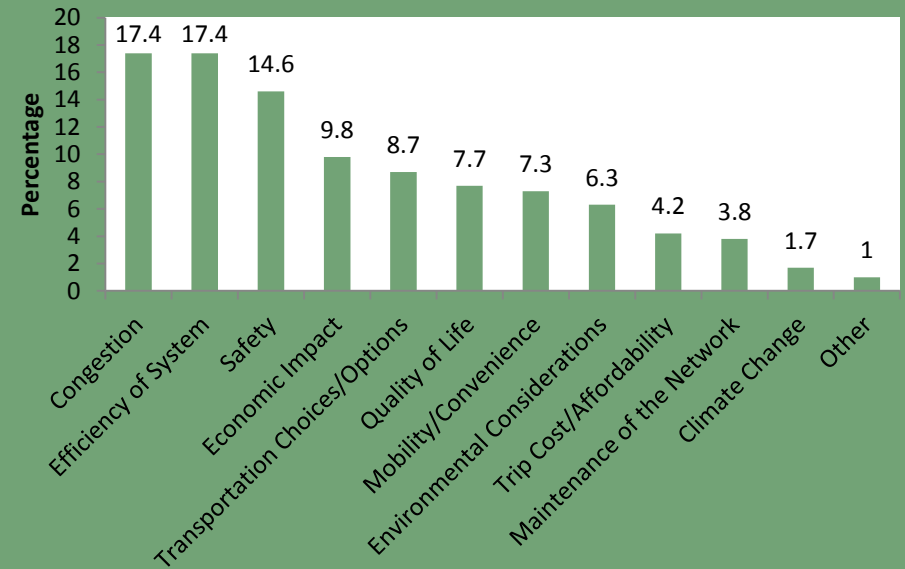
Respondents were asked to identify the top 3 factors that government officials should consider when making transportation decisions. The purpose of having respondents choose only three factors is to help prioritize community identified transportation issues.

Analysis: Congestion and Efficiency of the System were tied as the top two factors government officials should consider. Safety was a close third, but the other factors do not rank nearly as high for consideration when making transportation decisions, though the distribution is fairly similar for Economic Impact, Transportation Choices, Quality of Life, Mobility, and Environmental Considerations. One respondent, under Other, stated that 3 choices were not enough, and that OTO should not ignore the remaining options.

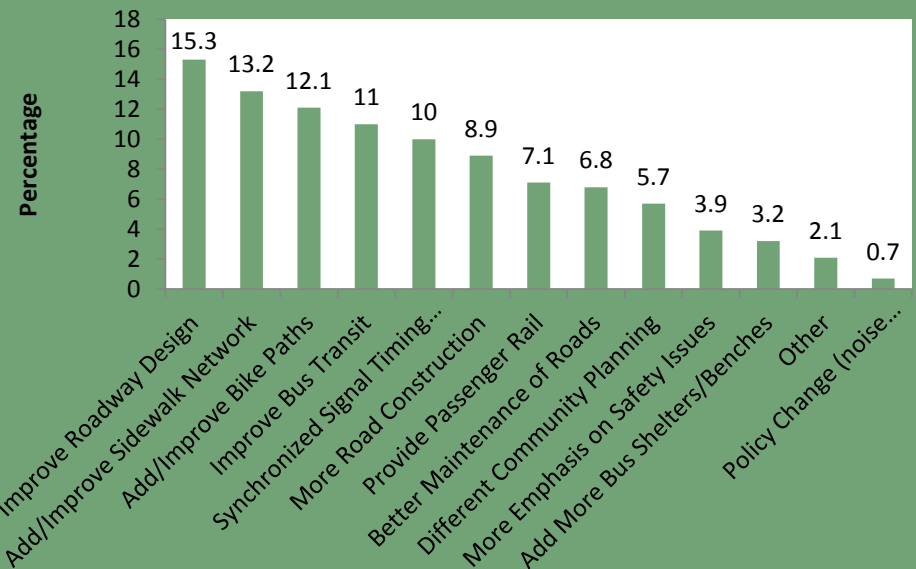
From the following list, check the top 3 things you would change about transportation in the region: Respondents were asked to identify the top 3 factors they would change about transportation for the region.

Analysis: There is a clear sliding scale of preference for the top 3 recommended changes to transportation in the region. The most preferred option is to Improve Roadway Design. Add to or Improve the Sidewalk Network and Add to or Improve Bike Paths were next. Improving Bus Transit and Synchronizing Signal Timing rounded out the top 5.

Transportation Decision Making



Changes to Transportation



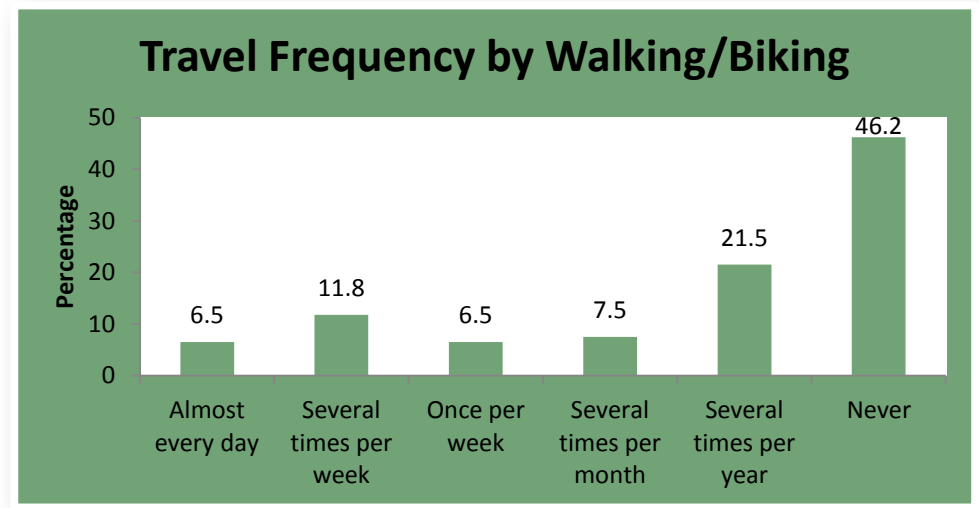
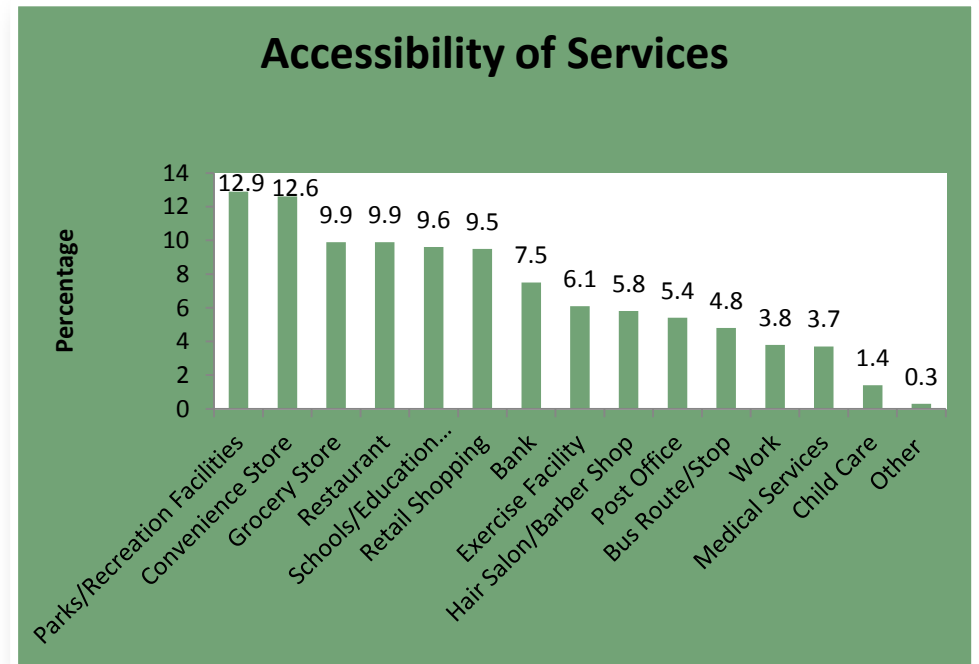
Check the box if you are able to conveniently walk or bike to and from home or work to any of the following destinations.

Analysis: Respondents indicated that they can walk to bike most easily to Recreation Facilities and Convenience Stores from their home or workplace. With almost equal response, the Grocery Store, Restaurants, Schools, and Retail Shopping are next most easily accessed. Additional services are not as easy to reach by walking or bike from home or work. Those include the Bank, Exercise Facility, Hair Salon, Post Office, Bus Stop, Work, Medical Services, and Child Care.

As a follow-up, respondents were asked –

How often do you walk or bike to any of these locations?

Analysis: Most respondents do not walk or bike to these locations. Almost 50 percent indicated they never do, while only about 25 percent said they do at least once a week.



Open-Ended Responses

The respondents were then asked a series of open-ended questions regarding their appreciation and concerns for the transportation system.

What two aspects of the existing transportation system do you appreciate the most?

Analysis: Respondents indicated they appreciate the highway/freeway system in the area and the direction or vision of the improvements being made. Aspects related to the ease of movement, pedestrian access, and greenways were another common theme contained in the respondents' comments. Satisfaction with signal synchronization, public transportation, road condition, and maintenance of the transportation system were also identified as appreciated aspects.

What two aspects of the existing transportation system concern you the most?

Analysis: Respondents were mostly concerned with congestion, particularly at intersections. Other concerns were related to the bus/transit system and bicycle and pedestrian safety. Overall safety was a consistent concern for respondents.

What two specific transportation improvements do you think should be the highest priority for the region in the next 25 years?

Analysis: Respondents recommended a wide variety of improvements. Most responses related to a single intersection or area. More general responses related to safety and improving congestion. Specific responses included:

- Widen Highway 14 from Ozark to Nixa; this should be more of a priority than CC, but both need to be improved with additional lanes and straightening of the dangerous curves
- Bus route for Nixa into Springfield
- Bike route from Springfield to Nixa, but would need to be level with minimal hills and enough room for bi-directional riders
- Fixed-route transit service in the suburbs, as well as greater frequency in Springfield
- Lakes traffic should bypass Nixa
- Nixa should consider foot and bike traffic, as well as walking school buses
- With an aging population, there should be less focus on walking and biking and more focus on traffic congestion
- Increase the public transportation to be more convenient/frequent
- Improve road network connectivity at the micro and macro levels
- Continue to work to bring Amtrak service to the Springfield area

- Consider aesthetics with new and refurbished road construction – more roads should look like Battlefield between Lone Pine and Luster, and fewer roads like the aseptically offensive nightmare that is Campbell between Sunshine and Republic Road
- Work with local city and county planning departments to allow/encourage denser, mixed-use development, decreasing auto dependence
- Community planning must change to encourage neighborhood business
- Another expressway like James River and Kansas
- Three lane highways
- More diamond interchanges
- Widening of Intersections
- Suburbs need more attention, especially along 14, 160 and CC
- There should be bike paths on all major streets and county roads
- Regulate the lights
- Get a rail system in town
- Keep up the existing road network
- Rail service that would be quicker between regions, like being able to get to St. Louis in an hour; though would rather see area roads get better between cities
- Widen Campbell, I-44, Sunshine, National
- I love living here and it is a great place to be!
- Westside corridor from I-44 to James River Expressway would help divert traffic from the northside of Springfield. A corridor from Highway 360 to the airport could be made from B and MM Highways going north from I-44 to the airport. There is already a need for a much improved highway due to an increase in businesses further south on B and MM.
- Commuter bus transportation to cities outside of Springfield and the funding to do it
- Expand the area covered by OTO to include all of Christian County, the eastern part of Lawrence County, and the western half of Webster County. These areas are major players in the expanding Springfield metro.

**Ozarks Transportation Organization
Metropolitan Planning Organization (MPO)**

Journey 2035 Long Range Transportation Plan Survey

The Ozarks Transportation Organization MPO will spend the next nine months developing a Long Range Transportation Plan that will determine the direction of transportation for the Springfield Metropolitan Area, including Greene and Christian Counties, and the Cities of Battlefield, Nixa, Ozark, Republic, Springfield, Strafford, and Willard. We are currently seeking input from all members of our community to help create a plan that considers the diverse needs of our residents.

To help ensure we reach a broad range of community members please provide your: Age: _____ Zip Code: _____

1. Do you think that traffic congestion is a problem in our community? Yes ___ No ___
2. Do you think traffic congestion will be a problem in:
10 years? Yes ___ No ___
20 years? Yes ___ No ___
3. Considering the diversity that exists in the community (lifestyles, income, age, etc.) do you think the existing transportation system meets the needs of all of our citizens? Yes ___ No ___
If "No," please explain why not _____

4. In your opinion, how effective would the following measures be in improving mobility for the region?

	<u>Not Effective (1)</u>		<u>Very Effective (5)</u>		
Add Bicycle Facilities	1	2	3	4	5
Add Passenger Rail Service	1	2	3	4	5
Add Pedestrian Facilities	1	2	3	4	5
Add Transit Shelters & Benches	1	2	3	4	5
Build New Roads	1	2	3	4	5
Increase Bus Service	1	2	3	4	5
Increase Carpool Options	1	2	3	4	5
Modify Community Design	1	2	3	4	5
Widen Existing Roads	1	2	3	4	5
Reduce # of driveways or intersections	1	2	3	4	5

5. From the following list, **check the top 3** factors that government officials should consider when making transportation decisions:

- | | |
|--|---|
| <input type="checkbox"/> Climate Change | <input type="checkbox"/> Transportation Choices/Options |
| <input type="checkbox"/> Congestion | <input type="checkbox"/> Quality of Life |
| <input type="checkbox"/> Economic Impact | <input type="checkbox"/> Environmental Considerations |
| <input type="checkbox"/> Safety | <input type="checkbox"/> Efficiency of System |
| <input type="checkbox"/> Mobility/Convenience | <input type="checkbox"/> Maintenance of the Network |
| <input type="checkbox"/> Trip Cost/Affordability | <u>Other (please specify)</u> _____ |

6. From the following list, check the **top 3 things** you would change about transportation for the region:

- | | |
|--|---|
| <input type="checkbox"/> More Road Construction | <input type="checkbox"/> Add More Bus Shelters/Benches |
| <input type="checkbox"/> Improve Bus Transit | <input type="checkbox"/> Improve Roadway Design |
| <input type="checkbox"/> Provide Passenger Rail | <input type="checkbox"/> More Emphasis on Safety Issues |
| <input type="checkbox"/> Add/Improve Bike Paths | <input type="checkbox"/> Better Maintenance of Roads |
| <input type="checkbox"/> Policy Changes
<i>(noise abatement, carpool lanes)</i> | <input type="checkbox"/> Synchronized Signal Timing
<i>(Operations Management)</i> |
| <input type="checkbox"/> Add/Improve Sidewalk Network | <input type="checkbox"/> Different Community Planning |

Other please specify) _____

7. Check the box if you are able to conveniently walk or bike to and from home or work to any of following destinations:

- | | |
|---|---|
| <input type="checkbox"/> Bank | <input type="checkbox"/> Parks/Recreation Facilities |
| <input type="checkbox"/> Bus Route/Stop | <input type="checkbox"/> Post Office |
| <input type="checkbox"/> Child Care | <input type="checkbox"/> Restaurant |
| <input type="checkbox"/> Convenience Store | <input type="checkbox"/> Retail Shopping |
| <input type="checkbox"/> Exercise Facility | <input type="checkbox"/> Schools/Education Facilities |
| <input type="checkbox"/> Grocery Store | <input type="checkbox"/> Work |
| <input type="checkbox"/> Hair Salon/Barber Shop | <u>Other (please specify)</u> _____ |
| <input type="checkbox"/> Medical Services | _____ |

How often do you walk or bike to any of these locations?

- | | |
|---|--|
| <input type="checkbox"/> Almost every day | <input type="checkbox"/> Several times per month |
| <input type="checkbox"/> Several times per week | <input type="checkbox"/> Several times per year |
| <input type="checkbox"/> Once per week | <input type="checkbox"/> Never |

8. What two aspects of the existing transportation system do you **appreciate** the most?

1. _____

2. _____

9. What two aspects of the existing transportation system **concern you** the most?

1. _____

2. _____

10. What two specific transportation improvements do you think should be the highest priority for the region in the next 25 years?

Examples: Adding a turn lane at the intersection of X Avenue and Y Street to reduce congestion; OR increasing the frequency of bus service in city ABC.

1. _____

2. _____

Comments

Please provide any additional comments or considerations you think might be necessary in our efforts to develop a Long Range Transportation Plan. (e.g., preparing for an aging population, etc...)

Comments *(continued)*

Thank you for your input!



To learn more about Journey 2035 and the Ozarks Transportation Organization, visit our plan website at:
www.OzarksTransportation.org/Journey2035

Please return to our organization at:

**Ozarks Transportation Organization
117 Park Central Square, Suite 107
Springfield, MO 65806**

Appendix D – Public Hearing Comments

Written

- I strongly recommend OTO concentrating on the improvement of Highway 14 between Nixa and Ozark. Improving Highway 14 between Nixa and Ozark will provide opportunity for economic (retail and commercial) development in Christian County.
- To me it seems Highway 14 between Ozark and Nixa makes better economical progress available than CC. Since it goes all the way across the county – good businesses on 14 could draw from Bruner – east and Billings – west.
- 20 years, ran transportation, including tour and charter. Focus on transportation to Branson. Through existing carriers, approach the Department of Economic Development, people in Springfield need jobs, venues in Branson need workers, and PSU and DOT coordination.
- We need train service and an adequate bus service. Maybe we could build another new airport instead of things we need.

Verbal

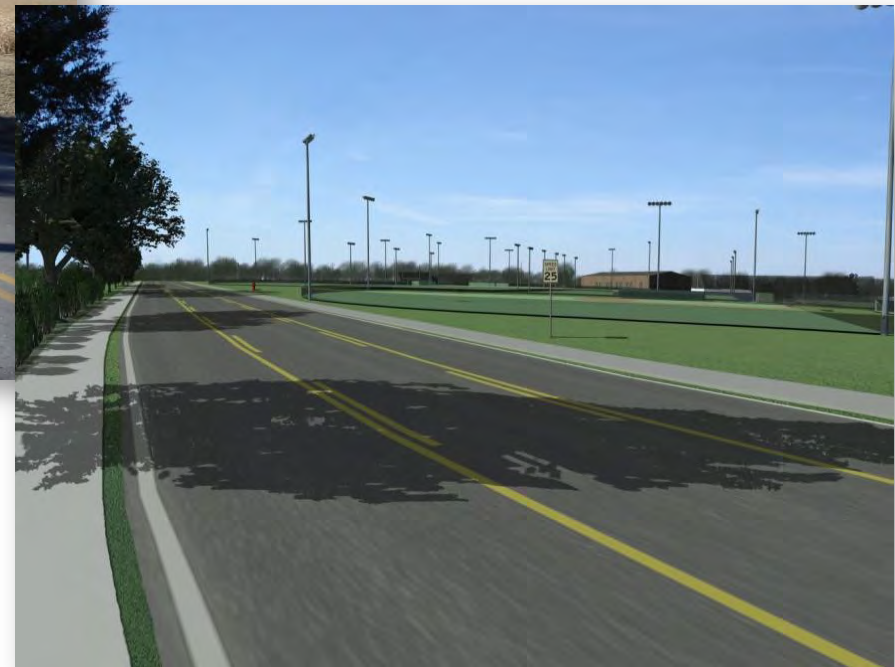
- Appreciate the bicycle and pedestrian recommendations.
- Keep trails away from farms. People litter and that harms horses.
- There should be an outer road north of I-44 between Glenstone and US 65 – continuation of Norton Road, south of the Greens apartments. This would help prevent cut-throughs.
- Nothing should happen along Farm Road 170.
- Need a bike lane on EE out to airport. There is a gap in travel for people needing to work at airport that bike.
- Farm Road 190 is a bad place for East-West arterial. Heard this both at the Battlefield end, and where Kansas Expressway extension would intersect. There should not be a stop light at new intersection of Campbell and the East-West Arterial. Trucks have difficulty with the terrain and if stopped on a hill, would dramatically impact traffic.
- Highway 14 should be addressed before CC.
- The bike racks on the buses are hard on bicycles with fenders.

Appendix E – Visualizations

Battlefield – Weaver Road, from FF to Wilson's Creek Middle School



The *Before* picture shows Weaver Road as it is today, with an empty field to the north. The *After* picture shows the continuation of roadway improvements that are planned for Weaver up to this point, with the addition of a new municipal building and sports complex to the north.



Nixa – CC Extension from Main to US 160



This visualization does not have a *Before* picture, as it demonstrates the new alignment of CC from Main to US 160. The top picture shows the intersection of CC and Main, while the bottom picture shows the intersection of CC and US 160, looking south along US 160. New land uses in the area are thought to be several large retail anchors with smaller retail/office mixed throughout.



Ozark – 3rd Street, from Church to Jackson

These images in Ozark are on 3rd Street, looking north toward Jackson from Church. The changes include removing the overhead lines, the communications tower, making roadway improvements, signaling Church Street, signaling Jackson, planting trees, and providing some new land uses.



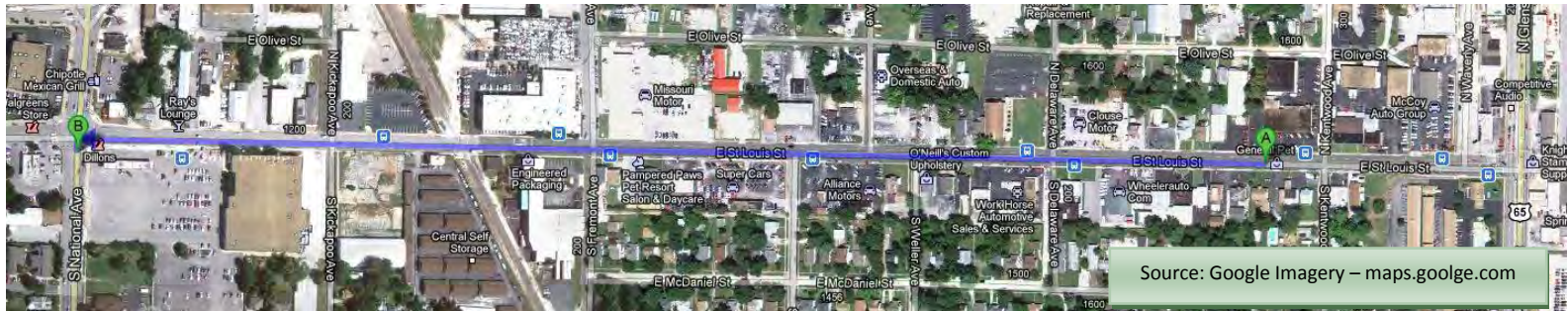
Republic – Intersection of Brookline and Sawyer, looking West along Sawyer



Future plans for land use around this intersection include the expansion of an industrial Park and new commercial development. McLane Company can be seen in the background of both *Before* and *After* pictures. Sawyer, also known as Farm Road 156, will be widened to three lanes with added sidewalks. Brookline Boulevard, known as MM Highway, will also be improved, including a new bike lane. The intersection will be signalized with pedestrian signals.



Springfield – St. Louis Street, from Glenstone looking West to Downtown



The improvements to St. Louis Street include restriping to three lanes from four, which provides room for bicycle lanes on both sides of the street. New bus stops have been added in the spirit of Link Stations. Additional density has been shown through new 3- to 5-story buildings in the forefront and new 12- to 14-story buildings along the Downtown skyline. The powerlines have also been removed and trees planted.

Strafford – State Highway 00 (Route 66) from Washington looking East

The main transportation improvement shown here is the addition of a trail paralleling Route 66 along the south. This trail is intended to connect Springfield, through Strafford, to the ball fields at Farm Road 249 on the east end of Strafford. The additional land use changes are inspired by the Route 66 Corridor Management Plan, as well as Strafford's DREAM Plan for their downtown.





Journey 2035 – OTO Long Range Transportation Plan

Appendix F – Roadway Capacity and Volume

The following pages show capacity and volume numbers for 2000, the 2035 no-build scenario, and the 2035 build scenario.

CMS Streets: Volume and Service Level Comparison 2000-2035

Segments (Listed in order by intersection)	NO BUILD						BUILD			
	Volume	Service Level	Forecasted Volume	Service Level	Service Level	Volume %Change	Forecasted Volume	Service Level	Service Level	Volume %Change
	2000	2000	2035	2035	2035	2000-2035	2035	2035	2035	2000-2035
US 160 (West Bypass)										
Willey to Hunt	9,274	LOS A,B,C	14,265	1.09	LOS E	53.82%	29,900	0.86	LOS E	222.41%
Hunt to Farm Road 94	8,178	LOS A,B,C	11,695	0.87	LOS E	43.01%	26,856	0.79	LOS D	228.39%
Farm Road 94 to I-44	13,014	LOS E	12,915	1.31	LOS E	-0.76%	33,810	1.25	LOS E	159.80%
I-44 to Division	7,737	LOS E	24,576	0.76	LOS A,B,C	217.64%	29,950	1.05	LOS E	287.10%
Division to Chestnut	6,392	LOS E	31,902	0.96	LOS E	399.09%	28,856	0.92	LOS E	351.44%
Chestnut to Mount Vernon	31,342	LOS D	43,150	1.23	LOS E	37.67%	39,194	1.13	LOS E	25.05%
Mount Vernon to Grand	34,314	LOS E	45,841	1.31	LOS E	33.59%	40,811	1.18	LOS E	18.93%
Grand to Sunshine	35,299	LOS E	50,684	1.51	LOS E	43.58%	42,939	1.27	LOS E	21.64%
Sunshine to Farm Road 123	15,127	LOS A,B,C	35,478	1.1	LOS E	134.53%	33,171	1.01	LOS E	119.28%
Farm Road 123 to Battlefield	16,556	LOS A,B,C	44,081	1.33	LOS E	166.25%	40,688	1.22	LOS E	145.76%
Battlefield to James River Freeway	17,819	LOS A,B,C	47,471	1.49	LOS E	166.41%	45,503	1.39	LOS E	155.36%
MO 13 (Kansas Expressway)										
SH WW to HWY O	12,128	LOS A,B,C	12,055	0.48	LOS A,B,C	-0.60%	11,986	0.44	LOS A,B,C	-1.17%
HWY O to Farm Road 94	15,652	LOS A,B,C	19,430	0.78	LOS D	24.14%	15,343	0.61	LOS A,B,C	-1.97%
Farm Road 94 to I-44	19,327	LOS A,B,C	32,839	0.96	LOS E	69.91%	28,437	0.8	LOS D	47.14%
I-44 to Kearney	22,273	LOS A,B,C	26,062	0.91	LOS E	17.01%	26,987	0.95	LOS E	21.16%
Kearney to Division	34,793	LOS E	35,572	1.11	LOS E	2.24%	34,725	1.09	LOS E	-0.20%
Division to Chestnut	36,455	LOS E	35,372	1.13	LOS E	-2.97%	34,794	1.08	LOS E	-4.56%
Chestnut to College	37,877	LOS E	42,132	1.71	LOS E	11.23%	41,049	1.65	LOS E	8.37%
College to Mount Vernon	34,060	LOS E	39,392	1.26	LOS E	15.65%	37,932	1.21	LOS E	11.37%
Mount Vernon to Grand	29,734	LOS E	32,503	1.04	LOS E	9.31%	31,342	1.01	LOS E	5.41%
Grand to Bennett	38,922	LOS E	41,069	1.32	LOS E	5.52%	40,290	1.28	LOS E	3.51%
Bennett to Sunshine	36,901	LOS E	36,557	1.21	LOS E	-0.93%	35,818	1.15	LOS E	-2.93%
Sunshine to Battlefield	36,994	LOS E	45,972	1.54	LOS E	24.27%	44,868	1.5	LOS E	21.28%
Battlefield to Walnut Lawn	25,894	LOS D	36,110	1.3	LOS E	39.45%	35,256	1.28	LOS E	36.16%
Walnut Lawn to James River Freeway	21,594	LOS A,B,C	34,711	1.3	LOS E	60.74%	33,172	1.25	LOS E	53.62%
Campbell										
Sunshine to Sunset	28,809	LOS E	39,977	1.43	LOS E	38.77%	38,763	1.39	LOS E	34.55%

Sunset to Battlefield	32,289	LOS E	38,677	1.37	LOS E	19.78%	37,938	1.35	LOS E	17.50%
Battlefield to Walnut Lawn	29,268	LOS E	38,951	1.33	LOS E	33.08%	37,759	1.29	LOS E	29.01%
Walnut Lawn to Primrose	28,034	LOS E	42,290	1.38	LOS E	50.85%	40,349	1.31	LOS E	43.93%
Primrose to James River Freeway	37,859	LOS E	56,594	1.96	LOS E	49.49%	56,151	1.96	LOS E	48.32%
James River Freeway to Farm Road 178	46,694	LOS E	86,082	2.04	LOS E	84.35%	83,202	1.97	LOS E	78.19%

US 160

Farm Road 178 to SH CC	52,821	LOS E	89,237	3.66	LOS E	68.94%	94,940	2.99	LOS E	79.74%
SH CC to Tracker	48,800	LOS E	35,954	1.43	LOS E	-26.32%	45,580	1.37	LOS E	-6.60%
Tracker to SH 14	26,746	LOS A,B,C	34,780	1.11	LOS E	30.04%	40,653	0.93	LOS E	52.00%
SH 14 to MPO Boundary	11,147	LOS E	17,062	1.37	LOS E	53.06%	28,925	0.91	LOS E	159.49%

National

I-44 to Kearney	10,238	LOS E	10,031	1.07	LOS E	-2.02%	9,717	1.05	LOS E	-5.09%
Kearney to Commercial	24,405	LOS D	35,521	1.19	LOS E	45.55%	34,785	1.16	LOS E	42.53%
Commercial to Division	23,126	LOS A,B,C	26,072	0.87	LOS E	12.74%	25,780	0.85	LOS D	11.48%
Division to Chestnut	31,081	LOS E	35,467	1.17	LOS E	14.11%	34,514	1.15	LOS E	11.05%
Chestnut to Walnut	25,517	LOS E	33,231	1.36	LOS E	30.23%	31,628	1.3	LOS E	23.95%
Walnut to Grand	23,093	LOS E	31,652	1.41	LOS E	37.06%	30,719	1.37	LOS E	33.02%
Grand to Sunshine	28,893	LOS E	31,689	1.04	LOS E	9.68%	32,058	1.05	LOS E	10.95%
Sunshine to Seminole	26,300	LOS E	36,408	1.29	LOS E	38.43%	35,342	1.26	LOS E	34.38%
Seminole to Sunset	23,636	LOS E	31,330	1.53	LOS E	32.55%	30,252	1.48	LOS E	27.99%
Sunset to Battlefield	28,670	LOS E	41,544	1.33	LOS E	44.90%	41,009	1.32	LOS E	43.04%
Battlefield to Primrose	30,309	LOS E	56,631	1.26	LOS E	86.85%	56,128	1.26	LOS E	85.19%
Primrose to James River Freeway	40,794	LOS E	84,408	1.99	LOS E	106.91%	85,408	2.03	LOS E	109.36%

Glenstone

I-44 to Kearney	29,032	LOS E	42,257	1.57	LOS E	45.55%	43,952	1.61	LOS E	51.39%
Kearney to Commercial	30,781	LOS E	36,737	1.22	LOS E	19.35%	36,102	1.19	LOS E	17.29%
Commercial to Division	31,838	LOS E	32,099	1.09	LOS E	0.82%	31,178	1.06	LOS E	-2.07%
Division to Chestnut	31,711	LOS E	33,962	1.18	LOS E	7.10%	32,716	1.13	LOS E	3.17%
Chestnut to St. Louis	31,142	LOS E	32,611	1.15	LOS E	4.72%	32,187	1.13	LOS E	3.36%
St. Louis to Cherry	33,901	LOS E	38,346	1.37	LOS E	13.11%	37,536	1.34	LOS E	10.72%
Cherry to Grand	38,305	LOS E	37,779	1.31	LOS E	-1.37%	37,164	1.28	LOS E	-2.98%
Grand to Sunshine	37,759	LOS E	34,169	1.2	LOS E	-9.51%	33,608	1.17	LOS E	-10.99%
Sunshine to Seminole	36,317	LOS E	33,551	1.15	LOS E	-7.62%	33,700	1.14	LOS E	-7.21%
Seminole to Sunset	47,668	LOS E	43,730	1.46	LOS E	-8.26%	43,536	1.44	LOS E	-8.67%
Sunset to Battlefield	37,140	LOS E	40,490	1.34	LOS E	9.02%	39,680	1.28	LOS E	6.84%

Battlefield to Primrose	39,234	LOS E	43,945	1.49	LOS E	12.01%	43,056	1.44	LOS E	9.74%
Primrose to James River Freeway	26,313	LOS E	66,302	1.61	LOS E	151.97%	65,734	1.57	LOS E	149.82%

US 65

SH KK to SH C	11,545	LOS E	11,464	0.33	LOS A,B,C	-0.70%	11,501	0.33	LOS A,B,C	-0.38%
SH C to Farm Road 94	9,715	LOS E	12,153	0.35	LOS A,B,C	25.10%	12,277	0.36	LOS A,B,C	26.37%
Farm Road 94 to I-44	12,227	LOS E	16,522	0.49	LOS A,B,C	35.13%	16,646	0.49	LOS A,B,C	36.14%
I-44 to Kearney	20,048	LOS A,B,C	32,223	0.64	LOS A,B,C	60.73%	31,561	0.62	LOS A,B,C	57.43%
Kearney to Division	27,596	LOS E	49,106	0.97	LOS E	77.95%	47,073	0.93	LOS E	70.58%
Division to Chestnut	33,121	LOS E	55,073	1.09	LOS E	66.28%	53,355	1.05	LOS E	61.09%
Chestnut to Sunshine	36,777	LOS A,B,C	64,562	1.28	LOS E	75.55%	62,860	1.24	LOS E	70.92%
Sunshine to Battlefield	33,475	LOS E	66,918	1.32	LOS E	99.90%	66,450	1.31	LOS E	98.51%
Battlefield to James River Freeway	27,866	LOS D	69,045	1.36	LOS E	147.78%	69,026	1.36	LOS E	147.71%
James River Freeway to SH CC	31,934	LOS A,B,C	68,803	2.04	LOS E	115.45%	79,693	1.57	LOS E	149.56%
SH CC to SH 14	19,799	LOS A,B,C	48,966	1.45	LOS E	147.32%	56,685	1.12	LOS E	186.30%
SH 14 to MPO boundary (Riverdale)	14,624	LOS A,B,C	35,995	1.07	LOS E	146.14%	40,919	1.21	LOS E	179.81%

I-44

Farm Road 249 to SH 125	4,054	LOS A,B,C	17,243	0.51	LOS A,B,C	325.33%	17,243	0.51	LOS A,B,C	325.33%
SH 125 to Mulroy	19,509	LOS A,B,C	21,421	0.63	LOS A,B,C	9.80%	21,268	0.63	LOS A,B,C	9.02%
Mulroy to US 65	22,415	LOS A,B,C	24,245	0.72	LOS A,B,C	8.16%	23,769	0.7	LOS A,B,C	6.04%
US 65 to Glenstone	19,228	LOS A,B,C	29,706	0.88	LOS E	54.49%	28,594	0.85	LOS D	48.71%
Glenstone to Kansas Expressway	18,112	LOS D	32,549	0.96	LOS E	79.71%	32,620	0.97	LOS E	80.10%
Kansas Expressway to West Bypass	13,307	LOS A,B,C	25,036	0.74	LOS A,B,C	88.14%	28,222	0.84	LOS D	112.08%
West Bypass to Chestnut and SH EE	10,789	LOS A,B,C	18,895	0.56	LOS A,B,C	75.13%	23,543	0.7	LOS A,B,C	118.21%
Chestnut to James River Freeway	14,419	LOS A,B,C	15,236	0.56	LOS A,B,C	5.67%	21,024	0.78	LOS D	45.81%

James River Freeway

I-44 to Sunshine	6,481	LOS A,B,C	10,393	0.31	LOS A,B,C	60.36%	12,509	0.37	LOS A,B,C	93.01%
Sunshine to West Bypass	13,164	LOS A,B,C	23,605	0.7	LOS A,B,C	79.31%	20,212	0.6	LOS A,B,C	53.54%
West Bypass to Kansas Expressway	15,829	LOS A,B,C	31,068	0.92	LOS E	96.27%	32,845	0.97	LOS E	107.50%
Kansas Expressway to Campbell	21,507	LOS A,B,C	36,829	1.09	LOS E	71.24%	40,197	0.79	LOS D	86.90%
Campbell to National	24,392	LOS A,B,C	42,906	1.06	LOS E	75.90%	46,628	0.92	LOS E	91.16%
National to Glenstone	19,022	LOS A,B,C	39,001	1.16	LOS E	105.03%	47,050	0.93	LOS E	147.35%
Glenstone to US 65	30,447	LOS A,B,C	52,086	1.29	LOS E	71.07%	57,428	1.13	LOS E	88.62%

James River Freeway (US 60 - East)

US 65 to SH J	29,848	LOS E	51,157	2.14	LOS E	71.39%	43,941	1.9	LOS E	47.22%
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SH J to SH 125	24,446	LOS E	33,380	1.35	LOS E	36.55%	30,243	1.18	LOS E	23.71%
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US 60 (West)

Farm Road 194 to Miller	12,974	LOS A,B,C	24,922	1.06	LOS E	92.09%	16,723	1.06	LOS E	28.90%
Miller to Main	13,243	LOS A,B,C	22,800	0.79	LOS D	72.17%	14,766	0.56	LOS A,B,C	11.50%
Main to Hines	25,268	LOS D	38,456	1.31	LOS E	52.19%	37,623	1.35	LOS E	48.90%
Hines to SH M	33,780	LOS E	53,617	1.68	LOS E	58.72%	55,722	1.74	LOS E	64.96%
SH M to James River Freeway	35,518	LOS E	65,200	1.96	LOS E	83.57%	67,569	1.64	LOS E	90.24%

Battlefield

Blackman to US 65	19,422	LOS A,B,C	28,024	0.98	LOS E	44.29%	27,409	0.96	LOS E	41.12%
US 65 to Glenstone	29,663	LOS E	45,113	1.51	LOS E	52.09%	44,166	1.47	LOS E	48.89%
Glenstone to National	32,246	LOS E	30,730	1.38	LOS E	-4.70%	28,965	1.36	LOS E	-10.17%
National to Campbell	28,040	LOS E	32,846	1.14	LOS E	17.14%	31,807	1.09	LOS E	13.43%
Campbell to Kansas Expressway	24,492	LOS D	34,810	1.24	LOS E	42.13%	33,127	1.21	LOS E	35.26%
Kansas Expressway to Scenic	15,846	LOS A,B,C	40,216	1.49	LOS E	153.79%	40,241	1.5	LOS E	153.95%
Scenic to West Bypass	8,958	LOS A,B,C	19,889	0.73	LOS A,B,C	122.03%	23,002	0.81	LOS D	156.78%

Sunshine

James River Freeway to US 160	27,470	LOS A,B,C	52,229	1.56	LOS E	90.13%	43,879	1.36	LOS E	59.73%
US 160 to Kansas Expressway	36,319	LOS E	42,184	1.5	LOS E	16.15%	39,253	1.39	LOS E	8.08%
Kansas Expressway to Campbell	24,993	LOS D	27,212	0.92	LOS E	8.88%	26,768	0.94	LOS E	7.10%
Campbell to National	30,585	LOS E	29,554	1.06	LOS E	-3.37%	28,697	1.03	LOS E	-6.17%
National to Glenstone	28,624	LOS E	36,045	1.27	LOS E	25.93%	35,278	1.25	LOS E	23.25%
Glenstone to US 65	26,520	LOS E	38,909	1.72	LOS E	46.72%	38,730	1.68	LOS E	46.04%
US 65 to Blackman	19,422	LOS A,B,C	30,327	1.04	LOS E	56.15%	29,920	1.03	LOS E	54.05%

Chestnut Expressway

Farm Road 185 to US 65	3,135	LOS A,B,C	5,826	0.65	LOS A,B,C	85.84%	5,630	0.63	LOS A,B,C	79.59%
US 65 to Glenstone	27,205	LOS D	41,473	1.52	LOS E	52.45%	41,406	1.51	LOS E	52.20%
Glenstone to National	36,019	LOS E	33,575	1.04	LOS E	-6.79%	33,395	1.04	LOS E	-7.29%
National to Campbell	28,846	LOS E	28,654	1.13	LOS E	-0.67%	28,524	1.13	LOS E	-1.12%
Campbell to Kansas Expressway	33,432	LOS E	33,686	1.13	LOS E	0.76%	33,272	1.14	LOS E	-0.48%
Kansas Expressway to West Bypass	37,574	LOS E	32,674	1.09	LOS E	-13.04%	32,514	1.09	LOS E	-13.47%
West Bypass to I-44	21,276	LOS E	25,856	2.24	LOS E	21.53%	22,830	1.68	LOS E	7.30%

Kearney

General Aviation to West Bypass	5,025	LOS A,B,C	15,573	0.83	LOS D	209.91%	7,749	0.82	LOS D	54.21%
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West Bypass to Kansas Expressway	11,963	LOS A,B,C	26,528	0.89	LOS E	121.75%	24,403	0.84	LOS D	103.99%
Kansas Expressway to Grant	17,270	LOS A,B,C	25,013	0.84	LOS D	44.83%	23,964	0.83	LOS D	38.76%
Grant to National	22,315	LOS A,B,C	27,421	0.95	LOS E	22.88%	27,150	0.95	LOS E	21.67%
National to Glenstone	25,356	LOS D	30,904	1.12	LOS E	21.88%	29,563	1.08	LOS E	16.59%
Glenstone to US 65	23,543	LOS A,B,C	45,203	1.66	LOS E	92.00%	45,231	1.68	LOS E	92.12%
US 65 to Farm Road 199	4,397	LOS A,B,C	25,974	1.4	LOS E	490.72%	25,977	1.37	LOS E	490.79%
Farm Road 199 to I-44	5,006	LOS A,B,C	11,745	1.21	LOS E	134.62%	11,059	1.14	LOS E	120.91%

State Highway 14

East MPO boundary to SH JJ	6,320	LOS E	4,104	0.62	LOS A,B,C	-35.06%	4,330	0.63	LOS A,B,C	-31.49%
SH JJ to US 65	15,193	LOS E	41,880	3.14	LOS E	175.65%	72,194	2.08	LOS E	375.18%
US 65 to US 160 (Campbell)	9,933	LOS A,B,C	37,855	2.75	LOS E	281.10%	51,000	3.2	LOS E	413.44%
US 160 to Nicholas	1,977	LOS A,B,C	8,865	0.7	LOS A,B,C	348.41%	11,205	0.32	LOS A,B,C	466.77%
Nicholas to West MPO boundary	3,990	LOS A,B,C	7,776	1.37	LOS E	94.89%	12,074	1.36	LOS E	202.61%

State Highway CC

SH NN to US 65	11,052	LOS D	19,358	1.72	LOS E	75.15%	17,059	1.4	LOS E	54.35%
US 65 to Fremont	14,325	LOS E	33,470	3.51	LOS E	133.65%	30,587	3.19	LOS E	113.52%
Fremont to US 160	11,016	LOS E	15,348	2.21	LOS E	39.32%	12,655	1.87	LOS E	14.88%

Appendix G – Major Thoroughfare Plan Changes

The following changes have been made to the Major Thoroughfare Plan and will be considered adopted with the adoption of this Plan in December 2011.

City of Battlefield

- B1. Add a Future Collector between Farm Road 115 and the 90-degree curve in Farm Road 190 located approximately 0.75 miles west of Route FF; this Future Collector represents a westward extension of the portion of Farm Road 190 that runs west from and perpendicular to Route FF.
- B2. Reclassify the Future Secondary Arterial between the intersection of Route FF and Farm Road 190 and Farm Road 131 as a Future Collector; this Future Collector represents an eastward extension of Farm Road 190.

Citizen Request

- C1. Reclassify Battlefield Road between Blackman Road and Farm Road 187: Primary Arterial to Secondary Arterial.
- C2. Reclassify Farm Road 187 between Battlefield Road and Farm Road 164: Primary Arterial to Secondary Arterial.
- C3. Reclassify Farm Road 164 between Farm Road 187 and White Oak Drive: Primary Arterial to Secondary Arterial.

MoDOT

- M1. Reclassify the Future Freeway between the intersection of Route FF and Blue Springs Road and a point on Rosedale Drive approximately 0.45 miles west of Gregg Road as a Future Expressway; this Future Expressway represents a southward extension of Route FF.
- M2. Reclassify Rosedale Road between the southern terminus of the Future Expressway referenced in #1 (a point approximately 0.45 miles west of Gregg Road) and Route 160: Freeway to Expressway.

City of Ozark

- O1. Reclassify Southernview between Bluesky and Melton/Willow: Local Street to Collector.
- O2. Reclassify Bluestem between Future Secondary Arterial and Route NN: Collector to Secondary Arterial.
- O3. Reclassify Garton between Future Secondary Arterial and Route NN: Local Street to Secondary Arterial.
- O4. Reclassify North/Longview between Cheyenne and 20th Street: Primary Arterial to Secondary Arterial.
- O5. Reclassify Future Primary Arterial between 20th Street and Route NN: Future Collector to Future Secondary Arterial. This Future Primary Arterial represents an eastward extension of Longview.
- O6. Extend Future Collector south of Route NN to Sunset; this Future Collector would intersect Route NN between 2nd Street and 9th Avenue and Sunset between 3rd Street and Sunrise Court.
- O7. Reclassify Sunset between 3rd Street and Future Collector proposed in #6: Local Street to Collector.
- O8. Remove Future Collector running west from the 90-degree curve in Pheasant located approximately ½ mile south of the intersection of Pheasant and Route NN.
- O9. Reclassify 12th Street between Parkview and Jackson/MO 14: Local Street to Collector.
- O10. Add Future Collector between Future Collector running west from Route NN (near the intersection of Route NN and Stonehill) and the intersection of 12th Street and Parkview; this Future Collector represents a northward extension of 12th Street.
- O11. Reclassify Bluff Street between Future Collector proposed in #10 and Route NN: Local Street to Collector.
- O12. Reclassify Greenbridge between Riverside and Hawkins/Smyrna: Collector to Primary Arterial.
- O13. Add Future Primary Arterial between Route NN and Riverside; this Future Primary Arterial represents a westward extension of Greenbridge.
- O14. Remove Future Collector running south from Greenbridge between 10th Street and Nottingham Drive.
- O15. Remove Future Primary Arterial between Greenbridge and McCracken.

- O16. Reclassify Hawkins from Collector to Primary Arterial between Greenbridge/Smyrna and the 90-degree curve in Hawkins located approximately 0.62 miles south of Greenbridge/Smyrna.
- O17. Add Future Primary Arterial between Hawkins and McCracken; this Future Primary Arterial represents a southward extension of Hawkins from the 90-degree curve in Hawkins located approximately 0.62 miles south of Greenbridge/Smyrna.
- O18. Remove Future Collector between McCracken and Hartley; this Future Collector would have intersected McCracken between Ridge Park and Brighton and Hartley between Salers and Route JJ.
- O19. Reclassify Route JJ between MO 125 and MO 14: Primary Arterial to Secondary Arterial.
- O20. Reclassify Sandstone between MO 14 and Summit/MPO Southern Boundary: Collector to Secondary Arterial.
- O21. Reclassify Route W between MO 14 and MPO Southern Boundary: Secondary Arterial to Primary Arterial.
- O22. Reclassify 22nd Avenue south of South Street/MO 14: Local Street to Collector.
- O23. Reclassify 22nd Avenue north of Warren: Local Street to Collector.
- O24. Add Future Collector between the segments of 22nd Avenue referenced in #22 and #23; this Future Collector would complete 22nd Avenue between South Street/MO 14 and Warren.
- O25. Reclassify 14th Avenue between South Street/MO 14 and Warren: Local Street to Collector.
- O26. Reclassify Church Street between 9th Street and 3rd Street: Local Street to Collector.
- O27. Add Future Primary Arterial between already approved Future Primary Arterial running south from the intersection of Jackson/MO 14 and 9th Street to the intersection of Oak Street and 11th Street; this Future Primary Arterial would run south to the intersection of Church Street and 9th Street and then southwest to the intersection of Oak Street and 11th Street.
- O28. Reclassify Selmore Road between South Street/MO 14 and Minnesota/MPO Southern Boundary: Secondary Arterial to Primary Arterial.
- O29. Reclassify the north/south segment of Camelot Drive: Local Street to Collector.
- O30. Add Future Collector between the intersection of South Street and 9th Street and the north/south segment of Camelot Drive.

- O31. Reclassify the Future Collector between the intersection of South Street and 17th Street and the MPO Southern Boundary as a Future Primary Arterial.
- O32. Modify alignment of the Future Primary Arterial referenced in #31.
- O33. Reclassify 19th Street south of South Street from Local Street to Collector.
- O34. Add Future Collector between the southern terminus of 19th Street and the MPO Southern Boundary.
- O35. Reclassify Riverdale between Route F and Cave Hollow: Collector to Secondary Arterial.

City of Republic

- R1. Add a Future Secondary Arterial between the western terminus of Carnahan Street (approximately 0.50 miles west of Route MM) and the intersection of Route MM and Farm Road 148; this Future Secondary Arterial represents a westward extension of Farm Road 148.
- R2. Add a Future Collector between a point on Route MM approximately 788 feet south of Carnahan Street and a point approximately 0.50 miles east of Route MM.
- R3. Reclassify Farm Road 156 between Farm Road 97 and Route MM: Collector to Secondary Arterial.
- R4. Reclassify York Avenue between Sawyer Road and Benton Street: Local Street to Collector.
- R5. Add a Future Collector between the intersection of Pacific Avenue and Orr Street and the intersection of Route MM and Farm Road 160. This Future Collector represents a westward extension of Orr Street and would cross the BNSF Railway at a point approximately 220 feet south of Haile Street, intersect the Future Collector referenced in #7 at a point approximately 910 feet east of Route MM, and intersect the Future Local Street referenced in #6 at a point approximately 510 feet east of Route MM.
- R6. Add a Future Local Street between the southern terminus of Atlantic Avenue (approximately 285 feet south of Benton Street) and the Future Collector referenced in #5. This Future Local Street represents a southward extension of Atlantic Avenue.
- R7. Add a Future Collector between the intersection of York Avenue and Benton Street and the Future Collector referenced in #5. This Future Collector represents a southward extension of York Avenue.

- R8. Add a Future Collector between a point approximately 1335 feet north of Orr Street and the northwestern terminus of the Future Collector referenced in #16; this Future Collector would run parallel to the BNSF Railroad and would intersect Orr Street at a point approximately 400 feet east of Pacific Avenue.
- R9. Reclassify Orr Street east of Commercial Avenue: Local Street to Collector.
- R10. Add a Future Collector between the eastern terminus of Orr Street and a point on Farm Road 107 approximately 485 feet south of Route 413/Route 60; this Future Collector would intersect the Future Collector referenced in #15 at a point approximately 580 feet north of Route 413/Route 60, and Route 413/Route 60 at a point approximately 250 feet west of Farm Road 107.
- R11. Add a Future Collector between the intersection of Farm Road 156 and Farm Road 107 and a point on Maple Leaf Lane approximately 697 feet north of Route 413. This Future Collector would extend Farm Road 107 to the south by approximately 0.25 miles before turning east for approximately 0.60 miles to Maple Leaf Lane.
- R12. Realign the Future Primary Arterial that would connect the eastern terminus of Farm Road 164 (approximately 0.38 miles east of Farm Road 89) and the northern terminus of Route ZZ; this Future Primary Arterial represents an eastward extension of Farm Road 164 and a northward extension of Route ZZ.
- R13. Add a Future Collector between the Future Collector referenced in #21 and Farm Road 103; this Future Collector would intersect the Future Collector referenced in #8 at a point approximately 0.25 northeast of its southwestern terminus, the Future Collector referenced in #15 at a point approximately 0.22 miles northeast of its southwestern terminus, Route 413/Route 60 at a point approximately 398 feet west of Farm Road 103, and Farm Road 103 at a point approximately 730 feet south of Route 413/Route 60.
- R14. Add a Future Local Street between Commercial Avenue and the Future Collector referenced in #15. This Future Local Street would intersect Commercial Avenue at a point approximately 0.25 miles north of Farm Road 164 and the Future Collector referenced in #15 at a point approximately 467 feet east of Commercial Avenue.
- R15. Add a Future Collector between a point approximately 1175 feet northeast of the Future Collector referenced in #10 and the southeastern terminus of the Future Collector referenced in #16; this Future Collector would run parallel to Route 60/Route 413.
- R16. Add a Future Collector between the southwestern terminus of the Future Collector referenced in #8 and the southwestern terminus of the Future Collector referenced in #15.

- R17. Remove the Future Collector between a point on Route 60/Route 413 approximately 0.26 miles west of Farm Road 107 and the intersection of Farm Road 164 and Farm Road 107.
- R18. Reclassify Farm Road 107 between Route 60 and Farm Road 164: Local Street to Collector.
- R19. Reclassify Farm Road 89 between Farm Road 164 and Farm Road 168: Local Street to Collector.
- R20. Add a Future Collector between the intersection of Rhine Circle and Lake Drive and a point on Farm Road 103 approximately 0.47 miles north of Route M. This Future Collector would intersect Farm Road 170 at a point approximately 585 feet east of Route 60, the Future Local Street referenced in #21 at a point approximately 0.20 miles west of Route M, Route M at a point approximately 0.27 miles east of Route 60, Farm Road 101 at a point approximately 0.17 miles north of Route M, and the Future Primary Arterial referenced in #12 at a point approximately 0.20 miles east of Farm Road 101.
- R21. Add a Future Local Street between the intersection of Route M and Old Stone Avenue and the Future Collector referenced in #20. This Future Local Street would intersect the Future Collector referenced in #20 a point approximately 0.21 miles west of Route M and would make a 90-degree north-to-east or west-to-south turn at a point approximately 635 feet west of the intersection of Route M and Old Stone Avenue.
- R22. Remove the Future Collector between the intersection of Farm Road 170 and Farm Road 75 and the western terminus (at Farm Road 81) of the Future Collector referenced in #24; this Future Collector would extend Farm Road 75 south by approximately 0.26 miles before turning east for approximately 0.50 miles to the western terminus (at Farm Road 81) of the Future Collector referenced in #24.
- R23. Remove the Future Collector between the Future Collector referenced in #22 and the intersection of Municipal Drive and West Avenue; this Future Collector represents a northward extension of West Avenue.
- R24. Remove the Future Collector between the eastern terminus (at Farm Road 81) of the Future Collector referenced in #22 and the intersection of Farm Road 172 and Farm Road 85; this Future Collector represents a westward extension of Farm Road 172.
- R25. Reclassify Republic Commons Drive between Hamilton Street and Republic Commons Drive's northeastern terminus (approximately 0.19 miles northeast of Hamilton Street): Local Street to Collector.
- R26. Add a Future Collector between the northeastern terminus of Republic Commons Drive and the intersection of Oakwood Avenue and Farm Road 174.

- R27. Reclassify Hamilton Street between Route 60/Route 413 and Oakwood Avenue: Secondary Arterial to Collector.
- R28. Remove the Future Secondary Arterial between the intersection of Hamilton Street and Denver Avenue and the intersection of Oakwood Avenue and Farm Road 174.
- R29. Reclassify Hamilton Street between Oakwood Avenue and Madison Avenue: Local Street to Collector.
- R30. Reclassify Madison Avenue between Hamilton Street and Timber Oak Street: Local Street to Collector.
- R31. Reclassify Timber Oak Street between Madison Avenue and the eastern terminus of Timber Oak Street (approximately 173 feet east of Parkwood Avenue): Local Street to Collector.
- R32. Reclassify West Avenue between Municipal Drive and Hines Street: Collector to Local Street.
- R33. Add a Future Local Street between a point on Route 174 approximately 893 feet west of Route 60 and a point on Hillside Avenue approximately 310 feet north of Hines Street.
- R34. Reclassify Lynn Avenue between Freedom Street and Hines Street: Local Street to Secondary Arterial.
- R35. Reclassify Oakwood Avenue between Hines Street and Kentwood Street: Local Street to Secondary Arterial.
- R36. Add a Future Local Street between the intersection of Hines Street and Hillside Avenue and a point on Harrison Street approximately 631 feet west of Route 60/Route 413.
- R37. Add a Future Local Street between a point on Alexander Avenue approximately 105 feet south of Hines Street and the intersection of Elm Street and Peach Tree Lane. This Future Local Street would intersect Logan Street at a point approximately 362 feet east of Route 60/Route 413, Lee Street at a point approximately 352 feet east of Route 60/Route 413, and Harrison Street at a point approximately 330 feet east of Route 60/Route 413.
- R38. Remove the Future Collector between a point on Farm Road 174 approximately 0.50 miles west of Farm Road 67 and a point on Farm Road 194 approximately 0.25 miles west of Farm Road 67. This Future Collector would also intersect Farm Road 178 at a point approximately 0.50 miles west of Farm Road 67, Route 174 at a point approximately 0.50 miles west of Farm Road 67, and Farm Road 188 at a point approximately 0.50 miles west of Farm Road 67.

- R39. Reclassify Forest Lane between Ventura Avenue and Eagan Street: Local Street to Collector.
- R40. Reclassify Eagan Street between Forest Lane and West Avenue: Local Street to Collector.
- R41. Add a Future Local Street between a point on Elm Street approximately 412 feet west of Route 60/Route 413 and the intersection of Fountain Avenue and Mill Street.
- R42. Add a Future Collector between the intersection of Rosewood Street and Linwood Avenue and the intersection of Route 60/Route 413 and Morningside Avenue. This Future Collector would allow motorists to bypass the intersection of Rosewood Street and Morningside Avenue.
- R43. Reclassify Morningside Avenue between Route 60/Route 413 and Rosewood Street: Collector to Local Street.
- R44. Reclassify Rosewood Street between Morningside Avenue and Linwood Avenue: Collector to Local Street.
- R45. Reclassify Pinewood Avenue between Rosewood Street (west) and Rosewood Street (east): Collector to Local Street.
- R46. Reclassify Rosewood Street between Pinewood Avenue and Basswood Avenue: Collector to Local Street.
- R47. Reclassify Basswood Avenue between Elm Street and Miller Road/Farm Road 186: Collector to Local Street.
- R48. Reclassify Colorado Avenue between Route 60/Route 413 and Frisco Boulevard: Local Street to Collector.
- R49. Realign the Future Collector between a point on Miller Road approximately 468 feet west of West Avenue and the intersection of Colorado Avenue and Frisco Boulevard.
- R50. Reclassify Frisco Boulevard between Illinois Avenue and Frisco Boulevard's southwestern terminus (approximately 685 feet southwest of Illinois Avenue): Local Street to Collector.
- R51. Remove the Future Secondary Arterial between the intersection of Kansas Avenue and Farm Road 188 and a point on Farm Road 194 approximately 300 feet east of Lenape Road. This Future Secondary Arterial would also intersect Route 60/Route 413 at a point approximately 1,000 feet west of Illinois Avenue, the Future Collector referenced in #88 at a point approximately 400 feet west of the western terminus of Frisco Boulevard, the western terminus of Melody Lane, and the western terminus of Christine Lane.
- R52. Reclassify Farm Road 194 between Lenape Road and Farm Road 75/Beal Road (possible scribing error): Local Street to Primary Arterial.








- R53. Reclassify Grace Street between Main Street/Route P and Grace Street's eastern terminus (approximately 840 feet east of Fountain Avenue): Local Street to Collector.
- R54. Remove the Future Collector between Route P and Farm Road 89; this Future Collector would intersect Route P between Halsey Street and Grace Street and would intersect Farm Road 89 at a point approximately 289 feet south of Grace Street.
- R55. Add a Future Collector between the eastern terminus of Grace Street east of Fountain Avenue (approximately 850 feet east of Fountain Avenue) and the western terminus of Grace Street west of Joshua Lane (approximately 570 feet west of Joshua Lane); this Future Collector would complete Grace Street between Route P and Farm Road 89.
- R56. Reclassify Grace Street between Lynn Avenue/Farm Road 89 and Grace Street's western terminus (approximately 570 feet west of Joshua Lane): Local Street to Collector.
- R57. Remove the Future Collector between the intersection of Miller Road and Conroy Avenue, and a point on Farm Road 194 approximately 0.50 miles east of Route P.
- R58. Remove the Future Collector between Farm Road 89 and the Future Secondary Arterial referenced in #60; this Future Collector would intersect Farm Road 89 at a point approximately 289 feet south of Grace Street and the Future Secondary Arterial referenced in #60 at a point approximately 0.50 miles north of Farm Road 194.
- R59. Remove the Future Collector between a point on Miller Road approximately 0.23 miles west of Basswood Avenue and a point on Farm Road 194 approximately 0.50 miles east of Farm Road 89.
- R60. Realign the Future Secondary Arterial between the intersection of Farm Road 186/Miller Road and Farm Road 97 and the intersection of Farm Road 194 and Gardenia Lane; this Future Secondary Arterial, which represents a southward extension of Farm Road 97, would intersect the Future Collector referenced in #105 at a point approximately 0.47 miles north of Farm Road 194.

City of Springfield







- S1. Reclassify the future street between the intersection of Southwood Road and Evans Road/Farm Road 188 and the future East-West Arterial in far southern Greene County: Future Secondary Arterial to Future Collector. This Future Collector represents a southward extension of Southwood Road.

Legend

Existing Roads

-  Freeway
-  Expressway
-  Primary Arterial
-  Secondary Arterial
-  Collector
-  Local Street
-  Railroad

Proposed Roads

-  Future Freeway
-  Future Expressway
-  Future Primary Arterial
-  Future Secondary Arterial
-  Future Collector
-  Future Local Street

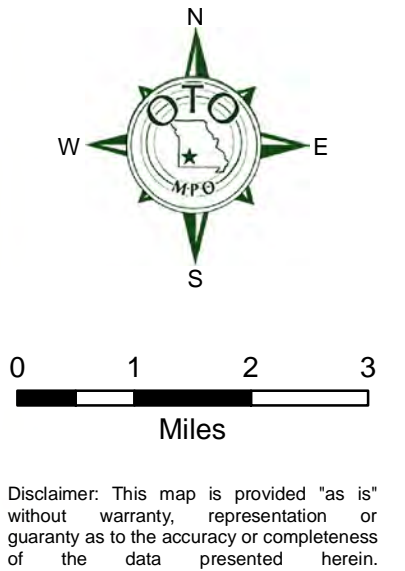
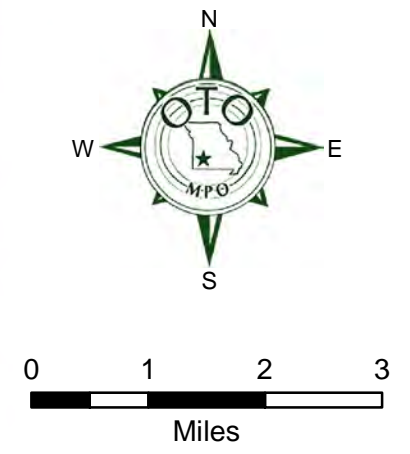
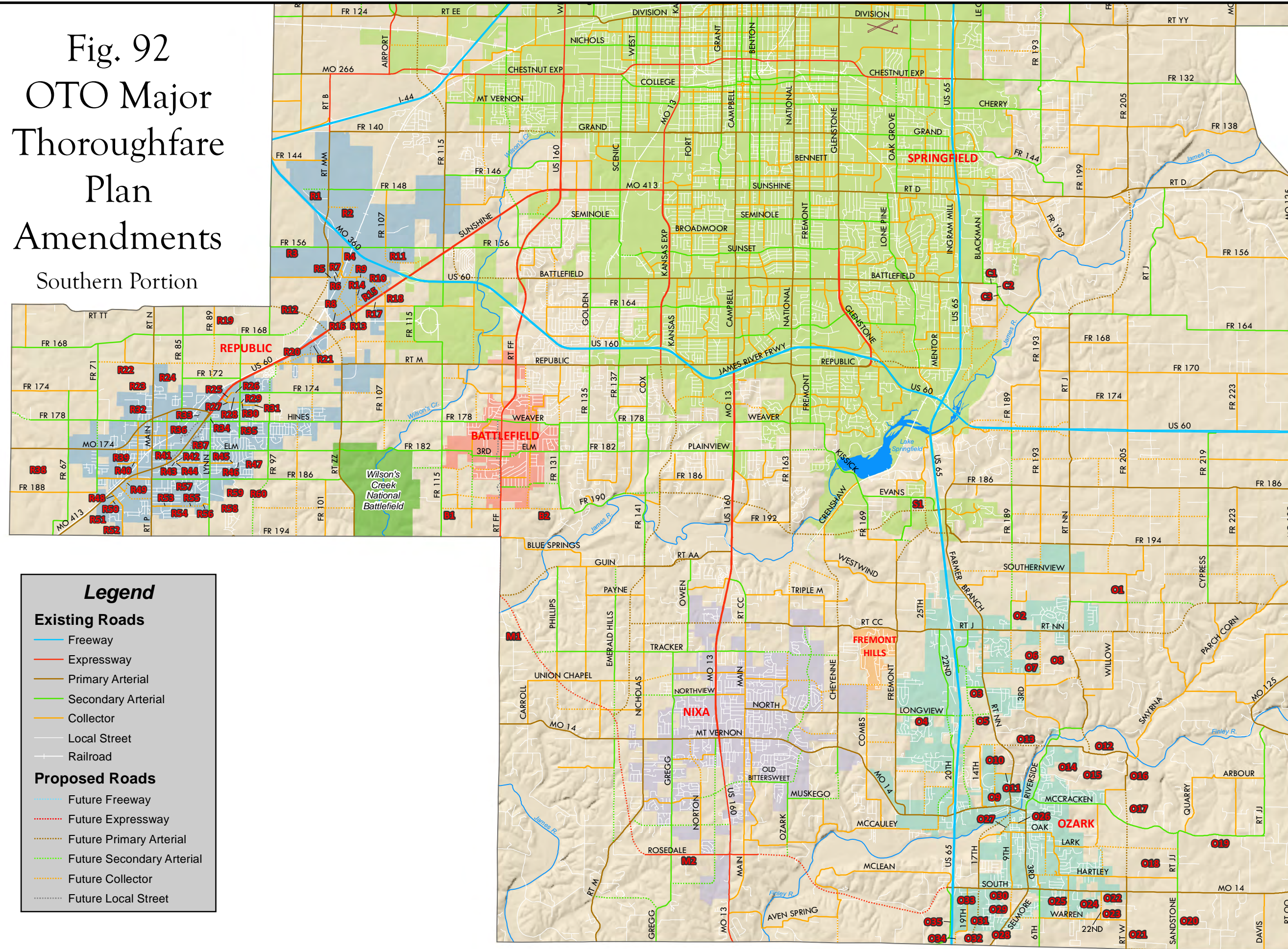


Fig. 92
OTO Major
Thoroughfare
Plan
Amendments
Southern Portion



Disclaimer: This map is provided "as is" without warranty, representation or guaranty as to the accuracy or completeness of the data presented herein.

Appendix H – Transit Development Plan Recommendations

The recommendations were developed through TDP committee meetings and City Utility meetings.

To Be Completed within the Next Year

1. City Utilities Transit, in partnership with the Ozarks Transportation Organization, should prepare a strategic plan for the creation of a stand-alone regional transit authority. The issue of whether a stand-alone organization should be created must be approved by voter referendum. The earliest such a vote could take place would be in August 2008. The August 2008 referendum in Greene County is intended to solicit public approval for a variety of transportation projects and including the transit authority question on this referendum is the preferred timing of such a request, though the strategic plan should consider other dates as well. The strategic plan should include service expansion plans into outlying jurisdictions, modifications to routes in the existing service area, as well as a program for soliciting public support at the ballot box.
2. City Utilities Transit should begin a fare increase process in line with its fiscal year calendar. The target for farebox recovery ratio should be 20 percent and would necessitate that one-way fares be increased to \$1.00 in FY2008 and \$1.25 in FY2009 just to maintain existing service. Any service increase would likely require a one-way fare increase to \$1.50.
3. City Utilities Transit, with the Ozarks Transportation Organization, should review current service standards and develop a comprehensive set of service standards. Included in this review should be consideration of how trips are defined, how timeliness is reported, and how data collection techniques can be improved. In FY2008, the Federal Transit Administration will require that all transit agencies conduct a full year data collection effort to capture data specific to the National Transit Database. These efforts will facilitate this data collection as well.
4. Based on passenger input, riders are in need of additional service during evening hours and on weekends. City Utilities Transit, in association with its own Fixed Route Advisory Committee and the Ozarks Transportation Organization, should prioritize whether evening service or weekend service is the higher priority and make plans to increase service in the priority area selected. City Utilities Transit and

the Ozarks Transportation Organization should then determine what fare increase would be necessary to maintain the targeted farebox recovery ratio.

5. City Utilities Transit should rework and simplify its fare structure as it currently offers regular fare, daily fare with unlimited rides, 7-day pass with unlimited rides, 30-ride passes, 60-ride passes, 31-day passes with unlimited rides and an annual pass with unlimited rides. The fare charged is dependent on whether the person is considered an adult, youth, elderly, disabled, is on a field trip, or a child under five. There is also a special semester pass for full-time college students.
6. City Utilities Transit should complete a comprehensive review of its bus stop locations and determine if stops could be consolidated, what stops could be relocated, and what stops could be removed. If grid system service is implemented, the existing bus turn-out stop locations could be augmented with a flag stop policy. Data collected during the FTA mandated collection effort in FY2008 could be expanded to include data for each bus stop.
7. City Utilities Transit should aggressively pursue the continuation of its bus turn-out program with the City of Springfield. As part of this program, all existing and future turn-outs should have striped pavement markings and be appropriately signed.

To Be Completed within the Next Three Years

1. City Utilities Transit and the Fixed-Route Advisory Committee should determine ways in which the second priority for service expansion (either night or weekend service) could be enhanced and develop a program for instituting this expansion. As the service is expanded, City Utilities Transit and the Ozarks Transportation Organization should then determine what fare increase would be necessary to maintain the targeted farebox recovery ratio.
2. City Utilities Transit should consider a change in the basic route structure it currently uses within the City of Springfield. Because of the effective grid roadway network completed within the City, the transit system should take advantage of such a network and implement a grid based system. This would also relieve some of the pressure on the transfer facility as transfers could occur at key intersection within the grid.
3. City Utilities Transit should approach Missouri State University, Drury University, Ozarks Technical College, Evangel University, Baptist Bible College, and Central Bible College to discuss including a surcharge in each student's student activity fee that would then be distributed to City Utilities Transit in exchange for unlimited free rides on the CU Transit network. Such a charge ranges from \$10.00 to \$25.00 per semester. According to national research, only about 20 percent of the student population become regular users of the

system with another 25-30 percent using it occasionally. Because only 20-50 percent of the students would use the system, the remaining student activity fees collected would subsidize those students who do use the system.

4. In response to issues raised in the on-board survey, City Utilities Transit should invest in an automated voice annunciation system that would be used to announce all stop locations during a transit trip. This technology would remove the responsibility of announcing current and next stop information from the bus drivers and allow for recorded voice announcements that are clearly audible and configured to coincide with each stop.
5. The existing transfer facility has become outdated. City Utilities, in cooperation with the City of Springfield, should determine if the relocation of the transfer facility from McDaniel Street to Water Street is a joint development project or a stand-alone City Utilities project. The new transfer facility should include customer amenities such as climate-controlled waiting areas with benches, restroom facilities, and a fare media purchase office. The facility should also be designed so that future expansion and new transit technologies can be accommodated.

To Be Completed within the Next Five Years

1. To assist in on-time performance and to provide customers with real-time travel information, City Utilities Transit should invest in Automated Vehicle Locater (AVL) Technology so that the exact location of busses is known at all times. This information could then be linked to variable message signs and/or monitors at the transfer facility so that customers were aware of their projected wait time. The technology would also be useful for CU dispatchers in tracking service levels and for planning purposes in run cutting and routing.
2. As the regional vanpool program being developed by the Ozarks Transportation Organization grows, City Utilities Transit should take over management and operations of the program. Under Federal law, vanpool mileage can be counted as part of a transit agency's National Transit Database operating statistics if the program is managed and operated by the transit agency. There are over 50 transit agencies nationwide that take advantage of this opportunity. The vanpool operation is financially self-sustaining (in fact it creates an operating surplus) and any additional funds that accrue as a result of the program can be used on fixed-route, paratransit or vanpool operations. Working with Transportation Demand Management experts at the Ozarks Transportation Organization, a plan for a vanpool program managed and operated by City Utilities is the first step in CU taking over the vanpool operations.
3. While the Springfield Metropolitan area does not have a sufficient population size or density to support any type of fixed-rail service, City Utilities Transit should explore opportunities for Bus Rapid Transit (BRT) to and from the Central Business District. Bus Rapid Transit can be as minimal as specially designed buses operating with limited stops along existing corridors with signal preemption technology to

the development of a network of transit only roadways that connect outlying communities to the center city. The current Ozarks Transportation Organization Long-Range Transportation Plan and Congestion Management System program specify BRT as one option that must be considered prior to roadway expansion.

4. There are numerous new technologies that may have applications for City Utilities Transit as it grows over the next five years. These technologies include but are not limited to:

- Automated bus stop fare collection devices
- Signal preemption devices
- Swipe card technology
- Specialized fare media

City Utilities Transit staff should continue to monitor advances in transit technology and determine if investment in such technologies is warranted.

Appendix I – Human Service Agencies and Transportation Providers

<p>Adult Tendercare Center 3729 N. Glenstone Springfield, MO 65803 Phone: 417-866-1559 Fax: 417-866-3846 www.adulttendercarecenter.com</p>	<p>Burrell Center - Transitions 323 E. Grand Springfield, MO 65803 Phone: 417-761-5600 www.burrellcenter.com</p>
<p>Alternative Opportunities Inc. 1111 S. Glenstone, Suite 2-100 Springfield, MO 65802 Phone: 417-869-8911 Fax: 417-865-4267 www.aoinc.org</p>	<p>City Utilities Transit Services 1505 Boonville Ave. Springfield, MO 65803 Phone: 417-831-8368 Fax: 417-831-8803 www.cityutilities.net/transit/transit.htm</p>
<p>American Diabetes Association 2833 E. Battlefield, Suite 100 Springfield, MO 65804 Phone: 417-890-8900 Fax: 890-8484 www.diabetes.org</p>	<p>Community Partnership of the Ozarks 330 N. Jefferson Springfield, MO 65806 Phone: 417-888-2020 Fax: 417-888-2322 www.commpartnership.org/</p>
<p>Arc Employment Service Arc of the Ozarks 1501 E. Pythian Springfield, MO 65802 Phone: 417-864-7400 www.thearcoftheozarks.org</p>	<p>Council of Churches of the Ozarks P.O. Box 3947 Springfield, MO 65808 Phone: 417-862-3586 Fax: 417-862-2129 www.ccozarks.org</p>

<p>Cox Senior Advantage 1000 E. Walnut Lawn Springfield, MO 65807 Phone: 417-269-3616 www.coxhealth.com/body.cfm?id=1481</p>	<p>Greene Valley State School 1601 E. Pythian Springfield, MO 65802 Phone: 417-895-6848</p>
<p>Daybreak Adult Daycare and Eldercare Transit 1461 E. Seminole Springfield, MO 65804 Phone: 417-881-0133 www.ccozarks.org</p>	<p>J. Howard Fisk Limousines LTD Drawer 10405 Springfield, MO 65808 Phone: 417-862-2900 Fax: 417-866-1542 www.fisklimo.com</p>
<p>Developmental Center of the Ozarks 1545 E. Pythian Springfield, MO 65802 Phone: 417-831-1545 Fax: 417-831-7539 www.dcoonline.com</p>	<p>Lakeland Regional Medical Center 440 S. Market Springfield, MO 65806 Phone: 417-865-5581 lrmc.com/</p>
<p>Greene County Board for Developmentally Disabled 1370 E. Primrose, Suite A Springfield, MO 65804 Phone: 417-831-0007 Fax: 417-864-4421</p>	<p>Lakes Country Rehabilitation Center 2626 W. College Road Springfield, MO 65802 Phone: 417-862-1753</p>

<p>Maranatha Village, Inc. 233 E. Norton Springfield, MO 65801 Phone: 417-833-0016 maranathavillage.ag.org</p>	<p>Muscular Dystrophy Association 425 S. Union Ave Springfield, MO 65802 Phone: 417-866-5117 www.mda.org</p>
<p>Missouri Council of the Blind 5453 Chippewa St. Louis, MO 63109 Phone: 314-832-7172 Fax: 314-832-7796 moblind.org</p>	<p>National Alliance on Mental Illness 1701 S. Campbell Springfield, MO 65807 Phone: 417-864-7119 Fax: 417-864-5011 www.namiswmo.com</p>
<p>Missouri State University Speech Language and Hearing Center 901 South National Springfield, MO 65897 Phone: 417-836-5275 www.missouristate.edu/csd/clinic/</p>	<p>National Federation for the Blind 2215 N. Travis Springfield, MO 65803 Phone: 417-864-4039 www.nfb.org</p>
<p>MoDOT Southwest District 3025 E. Kearney Street P.O. Box 868 Springfield, MO 65801 Phone: 417-895-7600 Fax: 417-895-7652 modot.mo.gov/</p>	<p>North View Senior Center 301 N. Talmage Springfield, MO 65803 Phone: 417-837-5908 Fax: 417-837-5905 www.parkboard.org/info/facilities/northview/index.html</p>

<p>Nova Center of the Ozarks 524 S. Union Ave Springfield, MO 65802 Phone: 417-889-3121 Fax: 417-881-2214 www.novacenteroftheozarks.org</p>	<p>Rehabilitation Services for the Blind 149 Park Central Square, Room 640 Springfield, MO 65806 Phone: 417-895-7726 Fax: 417-895-6392 www.dss.mo.gov/fsd/rsb/</p>
<p>OATS Transportation Services P.O. Box 4606 3259 E. Sunshine, Suite L Springfield, MO 65808 Phone: 417-887-9272 Fax: 417-887-8784 www.oatstransit.org/</p>	<p>Retired Senior Volunteer Program P.O. Box 3947 627 N. Glenstone Springfield, MO 65808 Phone: 417-862-3595 Fax: 417-862-2129 www.seniorcorps.gov/</p>
<p>Ozarks Chapter of Multiple Sclerosis 1675-J E. Seminole Springfield, MO 65804 Phone: 417-882-5213 www.nationalmssociety.org</p>	<p>Southwest Center for Independent Living 2864 S. Nettleton Springfield, MO 65807 Phone: 417-886-1188 Fax: 417-886-3619 www.swcil.org/</p>
<p>Ozarks Dialysis Services 3525 S. National Springfield, MO 65803 Phone: 417-269-3005</p>	<p>Southwest Missouri Office on Aging 1735 S. Fort Springfield, MO 65807 Phone: 417-862-0762 Fax: 417-865-2683 www.swmoa.com</p>

Springfield Association for the Blind 1600 Washington Springfield, MO 65803 Phone: 417-869-1572	Vocational Rehabilitation 613 E. Kearney Springfield, MO 65803 Phone: 417-895-5858
Springfield Workshop 2835 W. Bennett Springfield, MO 65802 Phone: 417-866-2339 Fax: 417-866-6485 www.springfieldworkshop.com	

Appendix J – Programmed Projects 2012-2015

The following tables show the projects programmed in the OTO Transportation Improvement Program, dated 2012-2015.

Enhancements						
TIP Number	Jurisdiction	Project Name	Description	Project Type	Funding Year(s)	Programmed Amount
EN0707	Springfield/ Greene County Parks	South Dry Sac Greenway	Provide walking/biking trail for pedestrians and bicyclists along South Dry Sac River from State Highway 13 to Fulbright Landfill	Enhancement	2012	\$ 293,500
EN1002	Greene County	Springfield/Greene County Bicycle Destination Plan Phase I	Plan to develop improvements to facilitate the movement of cyclists and pedestrians from the existing trail and on street network to popular destinations within Greene County	Enhancement	2012	\$ 62,500
EN1101	Springfield	RTE. 744 (Kearney Street) Pedestrian Improvements	Provide continuous sidewalk on Kearney Street from Rte. 13 (Kearney Expressway to Loop 44 (Glenstone Avenue).	Scoping	2012, 2013	\$ 1,021,410
EN1102	Springfield	Pedestrian Connections to Transit Stops	Payment for pedestrian connections to transit stops on state highways in Springfield	Enhancement	2012, 2015	\$ 502,000
EN1104	Battlefield	Cloverdale Sidewalk Gap Completion	Construct a sidewalk to connect the two existing sections of sidewalk along Cloverdale Lane	Enhancement	2012	\$ 10,000
EN1105	Battlefield	Bike/Ped Trail M Highway	Conduct engineering study with plans of a proposed bike/ped trail from Wilson Creek Marketplace along Highway M to connect with Wilson's Creek bike/ped trail	Engineering	2012	\$ 2,400
EN1108	Republic	West Elm Street Sidewalks	Construction of 3200 linear feet of sidewalk along West Elm from Main Street to Sherman Street	Enhancement	2012	\$ 184,040
EN1109	Springfield	Boonville Avenue North Phase II	Construction of 680 feet of streetscape improvements along Boonville Avenue from Court Street to Division Street	Enhancement	2012	\$ 441,744
EN1110	Springfield	Commercial Street Phase IV	Construction of 375 feet of streetscape improvements to both sides of Commercial Street from Lyon Avenue to Campbell Avenue	Enhancement	2012	\$ 320,000
EN1111	Springfield	North Campbell Phase I Streetscape	Construction of 600 feet of streetscape improvements on both sides of Campbell from Olive Street to Mill Street	Enhancement	2012	\$ 250,000
EN1112	Springfield	South Campbell Avenue Sidewalks	Construction of intermittent sidewalk improvements to meet ADA standards along South Campbell between Cherokee Street and Sunset Street	Enhancement	2012	\$ 350,000
EN1113	Springfield	Ward Branch Trail	Construction of 1600 linear feet of trail along the Ward Branch Stream from east of Clay Avenue to west of the detention basin at 909 E. Republic Road. Project includes three trail connections and a crossing under US60	Enhancement	2012	\$ 270,000
EN1114	Strafford	Chestnut, Washington and Bumgarner Sidewalks	Construction 3272 linear feet of 5-foot wide sidewalk along Chestnut Street, Washington Avenue, and Bumgarner Boulevard	Enhancement	2012	\$ 249,959
Total Programmed						\$ 3,957,553

Roadways						
TIP Number	Jurisdiction	Project Name	Description	Project Type	Funding Year(s)	Programmed Amount
MO1007	MPO Area- Wide	Annual Asphalt Repair Program	On-call pavement improvements on major routes in OTO area	Maintenance	2012, 2013, 2014, 2015	\$ 897,000

TIP Number	Jurisdiction	Project Name	Description	Project Type	Funding Year(s)	Programmed Amount
MO1105, MO1205, MO1305, MO1405	MPO Area-Wide	Payback for Safe and Sound Program in OTO Area	Payback for the OTO area's share of bridge improvements constructed through MoDOT's Safe and Sound Bridge Program	Payment	2012, 2013, 2014, 2015	\$ 1,136,000
MO1106	MPO Area-Wide	3M Tape Warranty	Payment for 3M tape warranty. OTO area share. Funding from operations funds.	Payment	2012, 2013	\$ 34,000
MO1150	MPO Area-Wide	Annual Guardrail Repair Program	Job order contracting for guardrail repair in OTO area	Maintenance	2012, 2013, 2014, 2015	\$ 798,000
MO1203, MO1303, MO1403, MO1503	MPO Area-Wide	Operations and Management of OzarksTraffic	Operations and management of the OzarksTraffic Intelligent Transportation System (ITS) in the OTO area	ITS	2012, 2013, 2014, 2015	\$ 4,226,500
MO1204, MO1304, MO1401, MO1504	MPO Area-Wide	On-Call Work Zone Enforcement	Annual on-call work zone enforcement program at various locations in the OTO area	Safety	2012, 2013, 2014, 2015	\$ 127,000
MO1206	MPO Area-Wide	Resurfacing on various minor routes	Pavement improvements on various minor routes in OTO area	Maintenance	2012, 2013, 2014	\$ 2,265,000
MO1208	MPO Area-Wide	Obstruction Removal on Various Routes	Removal of obstructions at various locations in OTO Area.	Maintenance	2012, 2013	\$ 554,000
MO1209	MPO Area-Wide	Resurfacing on various minor routes	Pavement improvements on various routes in OTO area	Maintenance	2012, 2013	\$ 1,203,000
MO1210	MPO Area-Wide	Annual Bridge Inspection Program	Annual bridge inspection program for consultant and local agency inspections	Maintenance	2012, 2013, 2014, 2015	\$ 95,000
MO1306	MPO Area-Wide	Resurfacing on various major routes	Pavement improvements on various major routes in OTO area	Maintenance	2013, 2014	\$ 3,418,000
MO1307	MPO Area-Wide	Resurfacing on various minor routes	Pavement improvements on various minor routes in urban District 8/OTO area	Maintenance	2012, 2013	\$ 15,000
MO1400	MPO Area-Wide	Resurfacing on various major routes	Pavement improvements on various major routes in urban District 8/OTO Area	Maintenance	2014, 2015	\$ 2,362,000
CC1110	Christian County	Route 65 and Route CC interchange	Route 65 and routes CC/J interchange improvement in Ozark. Cost Share between Christian County and MoDOT	Interchange	2012, 2014, 2015	\$ 8,357,689
CC1201	Christian County	Route CC improvements at Fremont Hills	Roadway realignment from Cheyenne Road to Rolling Hills Road in Fremont Hills	Safety	2012, 2013, 2014	\$ 2,632,000
CC1202	Christian County	Route 125 safety improvements	Route 14 safety improvements between Smyrna Road and Rte. JJ	Safety	2012, 2014	\$ 317,000
CC1203	Christian County	Route 14 and Cheyenne	Route 14 intersection improvements at Cheyenne Road between Nixa and Ozark	Intersection	2012, 2013, 2014	\$ 1,013,000
CC1204	Christian County	Signal replacement program - Christian Co	Signal improvements at various locations in Christian County	Safety	2012, 2015	\$ 1,152,000
CC1205	Christian County	Route 160 turn lanes south of Nixa	Route 160 turn lane improvements at various locations between South Main Street and the Finley River south of Nixa		2012, 2013	\$ 798,000
CC1301	Christian County	Route 14 pavement improvements west of Nixa	Route 14 pavement improvements from the Ozarks Transportation Organization Boundary to Rte. M in Nixa	Maintenance	2013, 2014	\$ 177,000
CC1302	Christian County	Route CC and Cheyenne Road intersection	Route CC intersection improvements at Cheyenne Road near Nixa.	Intersection	2013, 2014	\$ 1,660,000

TIP Number	Jurisdiction	Project Name	Description	Project Type	Funding Year(s)	Programmed Amount
CC1401	Christian County	Route 14 safety improvements west of nixa	Route 14 safety improvements on various curves 0.8 mile west of Nixa	Safety	2014	\$ 475,000
GR0909	Greene County	US 60/NN/J future interchange	Right of Way acquisition for future interchange		2012	\$ 400,000
GR1010	Greene County	Scoping for Route 60 and Routes NN/J interchange improvements	Scoping for improvements for Rtes. 60/J/NN interchange with corresponding outer roads from west of Highland Springs Road to east of Farm Road 213.	Scoping	2012	\$ 200,000
GR1101	Greene County	I-44 resurfacing	Pavement improvements from the OTO boundary near Rte. 360 to west of Chestnut Expressway in Springfield.	Maintenance	2012, 2015	\$ 1,323,000
GR1104	Greene County	Various Railway Crossings in Greene County	Safety improvements at various railway crossings in Greene County	Safety	2013, 2014, 2015	\$ 200,000
GR1201	Greene County	Route 13 Concrete Repairs	Route 13 pavement improvements between I-44 and Route WW.	Maintenance	2012, 2015	\$ 1,615,000
GR1202	Greene County	I-44 and US 160 ramp and signal improvements	Route 160 ramp and signal improvements at Interstate 44.		2012	\$ 1,256,000
GR1203	Greene County	I-44 pavement repairs	Job order contracting for pavement repair on Interstate 44 in Greene County.	Maintenance	2012	\$ 214,000
GR1204	Greene County	Route 60 concrete repairs	Pavement repairs at various locations from Rte. 65 to Rte. 125	Maintenance	2012, 2015	\$ 63,000
GR1205	Greene County	Route 65 shoulder improvements	Shoulder improvements from I-44 to 0.1 mile north of Rte. KK		2012, 2015	\$ 816,000
GR1206	Greene County	Route B bridge over I-44	Bridge improvements over I-44 west of Springfield. Involves bridge A0231.		2012, 2013	\$ 1,234,000
GR1207	Greene County	Route DD resurfacing	Pavement improvements from Rte. 125 to end of route.		2012, 2015	\$ 159,000
GR1208	Greene County	I-44 interchange ramps	Pavement improvements on various interchanges on I-44 in Greene County.		2012, 2015	\$ 551,000
GR1209	Greene County	Route J resurfacing	Pavement improvements from Rte. D to end of route.		2012, 2015	\$ 376,000
GR1210	Greene County	Route NN resurfacing	Pavement improvements from Rte. 60 in Greene County to Route J in Christian County.		2012, 2015	\$ 290,000
GR1212	Greene County	Farm Road 186 bridge #'s 1860096 and 1860098	Remove existing bridges and realign roadway	Safety	2012	\$ 1,007,000

TIP Number	Jurisdiction	Project Name	Description	Project Type	Funding Year(s)	Programmed Amount
GR1213	Greene County	Farm Road 141 bridges #'s 1410151 and 1410155	Rehabilitate existing bridges	Safety	2012	\$ 200,000
NX0601	Nixa	Main Street - Aldersgate to Tracker	Acquire ROW and complete designed improvements to Main street from Aldersgate to Tracker, includes Tracker intersection improvements and signalization.	Intersection		\$ 2,052,469
NX0701	Nixa	North Street and Cheyenne Road	Acquire ROW and complete engineering design of North Street from Century Elementary School to Cheyenne Road including North Street/Cheyenne Road intersection.	Design	2012, 2015	\$ 4,629,516
NX0801	Nixa	Main Street and Route 14 Intersection	Design widening improvements from Route 14 north to North Street.	Design		\$ 1,650,000
NX0803	Nixa	Main Street - Tracker to Route CC	Acquire ROW and complete designed improvements to Main street from Tracker to Route CC. Does not include ROUTE CC intersection.	Design	2013	\$ 1,240,765
NX0906	Nixa	Route 14 and Route 160 Intersection	Complete Designed intersection improvements. 50/50 Cost Share between the City of Nixa and MoDOT Southwest District.	Design	2012, 2015	\$ 1,756,941
NX1201	Nixa	Gregg Road West Extension	PE Scoping for extension of Northview Road from the existing intersection with Gregg Rd. to Nicholas Rd.	Scoping	2012	\$ 24,000
NX1301	Nixa	Payback for Route 14 and Gregg Road intersection	Payback to Nixa for MoDOT's share of intersection improvements at Route 14 and Gregg Road.	Payment	2013	\$ 189,000
NX1402	Nixa	Gregg Road design	Complete PE for widening to Gregg Road from SH14 to Northview Road.	Design	2014	\$ 185,000
NX1501	Nixa	Truman BLVD Design	Complete PE to connect Truman Blvd. between Heather Glenn and Norton Road including stormwater and sidewalks.	Design	2015	\$ 150,000
NX1502	Nixa	Gregg Road improvements	Acquire ROW and complete designed improvements between Mt. Vernon and Northview.		2015	\$ 1,500,000
OK1004	Ozark	Route 65 Farmer Branch Bridge	Route 65 bridge improvement for northbound bridge over Farmer's Branch, 1.5 mi. north of Route J.	Bridge	2012, 2013	\$ 3,352,000
OK1006	Ozark	Third Street in downtown Ozark	Roadway capacity and safety improvements on Route 14 (Third Street) from the Finley River to north of Church Street in downtown Ozark.	Design/ROW/S coping	2012, 2015	\$ 1,864,000
OK1101	Ozark	Route 65 Finley River bridge	Route 65 northbound bridge improvement over Finley River in Ozark.	Scoping	2012, 2013	\$ 2,459,000
RP1104	Republic	Route 60 and Oakwood improvements	Route 60 intersection improvements at Oakwood/Farm Road 93 in Republic		2012, 2015	\$ 940,100
RP1201	Republic	Adaptive signal technology in Republic	Signal improvements from Rte. P to Farm Road 93 (Oakwood Avenue) in Republic.		2012, 2013	\$ 240,000
RG0901	Rogersville	Scoping for Route 60/Route 125 interchange	Scoping for improvements for interchange at Rte. 60 and Rte. 125 and outer roads from Farm Road 213 to Farm Road 247.	Scoping	2012	\$ 200,000
RG1201	Rogersville	Signal replacement program - Route 60 and Route 125	Signal improvements at US 60 and Route 125.		2012, 2013	\$ 400,000

TIP Number	Jurisdiction	Project Name	Description	Project Type	Funding Year(s)	Programmed Amount
SP1016	Springfield	Chestnut Expressway and Route 65 Interchange Improvements	Cost share project with Springfield and Greene County for interchange improvements at Rte. 65/Bus. 65 (Chestnut Expressway).	Interchange	2012, 2015	\$ 4,635,000
SP1018	Springfield	Route 65 northbound Lake Springfield bridge	Northbound bridge improvement over Lake Springfield, 0.6 mile south of Rte. 60. Project involves bridge A0649.	Bridge	2012, 2013	\$ 7,408,000
SP1021	Springfield	Chestnut Expressway and Sherman Avenue Intersection	Intersection improvements at Chestnut Expressway and Sherman Avenue in Springfield.	Intersection	2012, 2013	\$ 1,049,000
SP1105	Springfield	Route 160 bridge over I-44	Route 160 bridge improvements over I-44.	Bridge	2012, 2015	\$ 3,588,000
SP1106	Springfield	Eastgate Avenue Relocation	Relocate Eastgate Avenue (Route 65 outer road) east of Rte. 65.	Intersection	2012, 2015	\$ 893,000
SP1107	Springfield	Payback for National and James River Freeway interchange	Payment to the City of Springfield from the Cost Share Program for interchange improvements at James River Freeway and National Avenue in Springfield.	Payment	2012, 2013	\$ 5,135,000
SP1108	Springfield	Route 65 and Battlefield Road interchange	Design for bridge and interchange improvements at the Battlefield Road interchange in Springfield.	Scoping	2012	\$ 1,081,000
SP1109	Springfield	Design for East Chestnut Railroad overpass	Design for a railroad crossing grade separation at Chestnut Expressway and BNSF railway 0.2 mile west of Route 65.	Design	2012	\$ 140,000
SP1110	Springfield	Kearney Street Resurfacing	Pavement improvements on Kearney Street (Route 744) from Kansas Expressway (Route 13) to Glenstone Avenue	Maintenance	2012	\$ 1,571,000
SP1112	Springfield	Route 65 SB Bridge Over I-44	Rehabilitate southbound bridge over I-44 in Springfield. Project involves bridge A2071.	Scoping	2012, 2014	\$ 2,233,000
SP1113	Springfield	Chestnut Expressway Railway Crossing	Upgrade active warning devices.	Safety	2012	\$ 50,000
SP1114	Springfield	Division Street Railway Crossing	Upgrade active warning devices.	Safety	2014	\$ 100,000
SP1115	Springfield	National Avenue Railway Crossing	Upgrade active warning devices.	Safety	2014	\$ 100,000
SP1116	Springfield	Calhoun Street Railway Crossing	Install active warning devices.	Safety	2014	\$ 200,000
SP1117	Springfield	Locust Street Railway Crossing	Install active warning devices.	Safety	2014	\$ 200,000
SP1118	Springfield	Fort Avenue Railway Crossing	Install active warning devices.	Safety	2014	\$ 200,000
SP1119	Springfield	Webster Street Railway Crossing	Install active warning devices.	Safety	2014	\$ 200,000
SP1120	Springfield	Kissick Road Railway Crossing	Install permanent yield signs.	Safety	2012	\$ 3,000
SP1202	Springfield	North Glenstone Pavement	Pavement improvements on Glenstone Avenue (Business Loop 44/Business 65) from Evergreen Street to the railroad bridge south of Chestnut Expressway in Springfield.			
SP1203	Springfield	Ramp Operational Improvements on James River Freeway	Ramp improvements at various locations on James River Freeway (Route 60) in Springfield.		2012, 2013	\$ 1,901,000
SP1204	Springfield	Evans Road bridge rehabilitation over Route 65	Bridge improvements over Rte. 65 on Evans Road. Project involves bridge A3107.		2013, 2014	\$ 443,436
SP1205	Springfield	Glenstone and Peele turn lane improvements	Southbound turn-lane improvements at Glenstone Avenue (Business Rte. 65) and Peele Street in Springfield.		2012, 2013	\$ 624,000
SP1206	Springfield	East Kearney safety improvements	Safety improvements on Kearney Street at Mustard Way and Mulroy Road in Springfield.		2012, 2013	\$ 730,000
SP1207	Springfield	Bridge deck sealing contract	Bridge deck sealing contract on various bridges in and around Springfield.		2012, 2015	\$ 222,000
SP1208	Springfield	US 65 and Evans road interchange			2012	\$ 1,000,000
SP1209	Springfield	Shuttle transit-way Phase I	Construct a transit-way along JQH Parkway from Monroe to Grand, as an extension to the existing transit-way. These improvements would provide for a dedicated corridor for transit, pedestrians and bicyclists.		2012	\$ 624,894

TIP Number	Jurisdiction	Project Name	Description	Project Type	Funding Year(s)	Programmed Amount
SP1210	Springfield	Kansas Expressway bridge over Jordan Creek	Bridge improvements over Jordan Creek on Kansas Expressway (Route 13) in Springfield.		2012, 2015	\$ 661,000
SP1211	Springfield	RTE. 744/Kearney in Springfield - BNSF	Upgrade active warning devices.		2012	\$ 200,000
SP1212	Springfield	Grand St. in Springfield - BNSF	Upgrade active warning devices.		2012	\$ 200,000
SP1301	Springfield	Kansas Expressway turn lanes at James River Freeway	Turn lane improvements on Kansas Expressway (Route 13) at James River Freeway interchange in Springfield.		2013, 2014	\$ 1,064,000
SP1401	Springfield	Signal Replacement program - Kansas Expressway	Signal improvements on Kansas Expressway (Route 13) at Sunset Street and Walnut Lawn Street in Springfield.		2014, 2015	\$ 1,163,000
SP1402	Springfield	National Avenue Railway Crossing	Upgrade active warning devices.		2014	\$ 100,000
ST1101	Strafford	Route OO Resurfacing	Pavement improvements on Route OO from Rte. 744 (Mulroy Road) to the Webster County line	Maintenance	2012, 2013	\$ 1,186,000
ST1201	Strafford	Route 125 turn lane at Washington Avenue	Route 125 turn-lane improvements at Washington Avenue in Strafford.		2012, 2013	\$ 468,000
ST1202	Strafford	RTE. 125 and RTE OO improvements	Turn lane and rail crossing improvements on Routes 125 and OO to support economic development in Strafford.	Design	2012	\$ 784,829
ST1203	Strafford	Washington Avenue in Strafford - BNSF	Upgrade active warning devices.	Safety	2012	\$ 250,000
ST1204	Strafford	Route 125 in Strafford - BNSF	Upgrade active warning devices.	Safety	2012	\$ 450,000
WI1201	Willard	Route 160 and Hunt Road intersection	Intersection improvements at Hunt Road in Willard		2012, 2013	\$ 633,000
WI1301	Willard	Signal replacement program - Willard	Signal improvements at Rte. AB and Miller Road in Willard.		2013, 2014	\$ 883,000
Total Programmed						\$ 108,823,139

Transit						
TIP Number	Jurisdiction	Project Name	Description	Project Type	Funding Year(s)	Programmed Amount
BU1200		Vehicle Request - FTA 5309	Request is for the replacement of one 15-passenger van to primarily service Greene County and City of Springfield door-to-door service.	Vehicle	2012	\$ 25,000
CU0611, CU0718	City Utilities	Bus Transfer Station	Design and construction of a new Bus Transfer Station in downtown Springfield with Section 5309 earmarked funding.	Study	2012	\$ 5,125,017
CU0909, CU1009	City Utilities	Purchase Thirteen Fixed Route Buses - FTA 5309	Purchase fixed route buses and spare parts to operate on fixed bus routes.	Vehicle	2012, 2013	\$ 10,270,033
CU0911, CU1211	City Utilities	Transit/Fleet Maintenance Campus Extension - ARRA \$ 5309	Construct and renovate the Transit/Fleet Maintenance Campus with FY2009 ARRA and Section 5309 funding. 2009 funding is for campus design, demolition of existing structures, and relocation of off-street parking. Section 5309 funding for FY 2013 and 2014 is for construction of the bus storage and service buildings.	Maintenance	2012	\$ 10,536,906
CU1106, CU1206, CU1306, CU1406, CU1506		Bus Turnouts/Buse Shelters/Bus Benches - FTA 5309	Construct bus turnouts, install bus shelters, and maintenance of bus shelters and benches at various bus stop locations for FY 2012 - 2015.		2012, 2013, 2014, 2015	\$ 170,500
CU1114, CU1214	City Utilities	New Freedom Grant	New services or capital projects beyond the Americans with Disabilities Act (ADA) for CU's Paratransit bus service	ADA	2012	\$ 189,690

TIP Number	Jurisdiction	Project Name	Description	Project Type	Funding Year(s)	Programmed Amount
CU1200, CU1300, CU1400, CU1500	City Utilities	Operating Assistance - Fixed Route	Operating assistance to operate public transit service FY 2012 - FY 2015 (10-1-2011 to 9-30-2015).	Operating	2011, 2012, 2013, 2014	\$ 31,133,181
CU1201, CU1301, CU1401, CU1501	City Utilities	Preventative Maintenance - FTA 5307	Subsidy-existing public transit service FY 2012 - FY 2015 (10-1-2011 to 9-30-2015)	Maintenance	2011, 2012, 2013, 2014	\$ 5,264,771
CU1202, CU1302, CU1402, CU1502	City Utilities	Maintenance of Existing Operations - Paratransit - 10%	Subsidy-existing public transit service FY 2012 - FY 2015 (10-1-2011 to 9-30-2015)	Maintenance	2011, 2012, 2013, 2014	\$ 1,154,271
CU1203, CU1303, CU1403, CU1503	City Utilities	Transit Enhancement - FTA 5307	The transit enhancement projects are for ADA accessibility enhancement and other transit amenities to enhance our bus stops and facilities. Enhancement Projects: ADA Accessibility and Transit Amenities for FY 2012 - 2015.	Enhancement	2011, 2012, 2013, 2014	\$ 516,657
CU1204, CU1304, CU1404, CU1504	City Utilities	Transit Planning - FTA 5307	This project is listed in the UPWP each year for short range Transit planning activities. Short Range Planning for Transit for FY 2012 - FY 2015.	Planning	2011, 2012, 2013, 2014	\$ 480,797
CU1205, CU1305, CU1405, CU1505	City Utilities	Transit Security - FTA 5307	This project is for the purchase of solar security lighting for bus shelters that do not have them installed currently. Security Project: 1% Requirement for FY 2012 - 2015. Capital Security Projects.	Security	2011, 2012, 2013, 2014	\$ 115,426
CU1213, CU1313, CU1413, CU1513	City Utilities	Job Access and Reverse Commute Grant	Continuation of Fixed Routes 8, 10, 11, and 15 to get passengers to and from work, school, daycare, and training	Operating	2012, 2013, 2014, 2015	\$ 6,298,606
CU1206, CU1306, CU1406, CU1506	City Utilities	Bus Turnouts/Buse Shelters/Bus Benches - FTA 5309	Construct bus turnouts/bus shelters/bus benches at various bus stop locations for FY2013 and 2014	Enhancement	2013, 2014	\$ 170,500
MS1103	Missouri State University	Shuttle Transit-Way Phase II	Construct a transit-way along JQH Parkway from Monroe to Grand, as an extension to the existing transit-way. These improvements would provide for a dedicated corridor for transit, pedestrians and bicyclists.	Enhancement	2013	\$ 816,231
MS1104	Missouri State University	Security Lighting	Purchase additional security lighting along shuttle routes in areas of reduced illumination	Security	2013	\$ 223,692
MS1107	Missouri State University	IDEA Commons Streetscaping	Provide sidewalk and transit stop improvements along Jefferson, Boonville and Phelps to connect the JVIC activity center to the Downtown activity center and to the public transportation system. Project would include sidewalks, landscaping, and transit stop improvements.	Enhancement	2012	\$ 1,300,000

TIP Number	Jurisdiction	Project Name	Description	Project Type	Funding Year(s)	Programmed Amount
MS1210, MS1310, MS1410, MS1510	Missouri State University	Transit Facility Maintenance	Offset annual maintenance costs and utilities for Bear Park North, transit-ways, security lighting/surveillance systems and associated amenities on shuttle routes and along bikeways	Maintenance	2012, 2013, 2014, 2015	\$ 760,562
OA1100	OATS	OATS Operation Facility	Acquire land and building for a Southwest Region operations facility. Originally in 2010 TIP# OA1002. Feasibility study soon to be completed. The length of the entire project is expected to be 3-5 years.	Facility	2012	\$ 3,390,000
OA1102	OATS	Vehicle Request - FTA 5309	Request is to replace two min-vans with ramps and wheelchair tie-downs. Amend request to include 1 additional vehicle not replaced in 2010. Originally in 2010 TIP# OA1001.	Vehicle	2012	\$ 102,000
OA1202	OATS	Vehicle Request - FTA 5309	Request is to replace one mini-van with a ramp and wheelchair tie-downs	Vehicle	2012	\$ 34,000
OA1301	OATS	Vehicle Request - FTA 5309	Request is to replace one 12 passenger van with a lift and wheelchair tie-downs	Vehicle	2013	\$ 44,000
OA1302	OATS	Vehicle Request - FTA 5309	Request is to replace one-minivan with a ramp and wheelchair tie-downs	Vehicle	2013	\$ 34,000
OA1401	OATS	Vehicle Request - FTA 5309	Request is to replace one mini-van with a ramp and wheelchair tie-downs	Vehicle	2014	\$ 34,000
OA1402	OATS	Vehicle Request - FTA 5309	Request is to replace three mini-vans with a ramp and wheelchair tie-downs	Vehicle	2014	\$ 120,000
OA1403	OATS	Vehicle Request - FTA 5309	Request is to replace two 12 passenger vans with a lift and wheelchair tie-downs	Vehicle	2014	\$ 91,200
OA1500	OATS	Vehicle Request - FTA 5309	Request is to replace one 17-passenger van with a lift and wheelchair tie-downs.	Vehicle	2015	\$ 46,000
OA1501	OATS	Vehicle Request - FTA 5309	Request is to replace one mini-van with ramp and wheelchair tie-downs.	Vehicle	2015	\$ 34,000
SW1200		Vehicle Request - FTA 5310	Request is to add one 15-passenger straight van to primarily service Greene County and City of Springfield.	Vehicle	2012	\$ 25,000
Total Programmed						\$ 78,506,040
All Programmed Projects in FY2011-2014 TIP						\$ 191,286,732

Appendix K – Prioritization Glossary

Prioritization Criteria

Economic Development	
<i>Weight</i>	20%
Promotion of Economic Development	25
Strategic Economic Corridor	75
Total	100 pts

Multi-Modal, Interconnected System	
<i>Weight</i>	10%
Removes Bicycle and Pedestrian Barriers	30
Freight Bottlenecks	20
Addresses Multiple Modes	30
Enhances Public Transit	20
Total	100 pts

Quality of Life and Livability	
<i>Weight</i>	10%
Complies with OTO Major Thoroughfare Plan	40
Improves Access to or from Environmental Justice Block Groups	20
Complies with Ozone Flex Plan (Clean Air Action Plan)	40
	100 pts

Operations and Maintenance	
<i>Weight</i>	35%
Level of Service	20
Daily Usage	25
Functional Classification	25
Truck Volume	10
Identified as a Currently Congested Corridor in CMP	10
Increases Availability of Real-Time Information to Transportation System Operators and Travelers	10
Total	100 pts

Safety and Security	
<i>Weight</i>	25%
Safety Index	80
Safety Concern	10
Safety and Security Enhancements	10
Total	100 pts

Prioritization Glossary

Economic Development

Promotion of Economic Development

If a project falls within the boundary of a community designated economic development area, then the project will receive full points. This is a Yes or No question. OTO staff will track these areas by mapping all of them together.

Strategic Economic Corridor

OTO's Strategic Economic Corridors are based upon the Congestion Management Process. This identifies roadways that are both part of the National Highway System, as well as several key arterials. The CMP network consists of roadways that are important to the connectivity of the region and within the region. Studies have shown that by decreasing travel times, a location's economic potential increases, due to the

increased size of the labor market as a result of the improved travel time. The roads shown on the map below are considered strategic economic corridors.

If a project is within a quarter-mile of a strategic economic corridor, it will receive the total point value.



Multi-Modal, Interconnected System

Removes Bicycle and Pedestrian Barriers

The elimination of bike and pedestrian barriers is necessary to promote an integrated walking and biking system. This prioritization factor focuses on areas where there is likely to be a bike and/or pedestrian need.

Barriers come in many forms, including (but not all inclusive): narrow lanes that create conflicts between cyclists and motor vehicles, roads with high motor vehicle traffic levels that intimidate novice riders, sidewalks that abruptly end, utilities in the sidewalk path, or driveway cuts that do not meet ADA sidewalk standards.

Scoring (as a percentage of total point value) –

Items 3 and 4 should only be used when items 1 and 2 do not apply.

1. Project improves a BIKE connection between complimentary land uses (e.g. between commercial, institutional and residential uses) or between complimentary land uses and transit stops.	50%
2. Project improves a PEDESTRIAN connection between complimentary land uses (e.g. between commercial, institutional and residential uses) or between complimentary land uses and transit stops.	50%
OR	
3. Project brings an <i>existing</i> pedestrian connection into compliance with the Americans with Disabilities Act (ADA).	20%
4. Project provides bike and/or pedestrian accommodations not applicable to any of the above situations.	20%
Maximum Possible Total Points	100%

Freight Bottlenecks

Examples of freight bottlenecks include load posted bridges, inadequate vertical or horizontal clearances, or gaps in the freight movement system.

If it is determined that a project eliminates a freight bottleneck, then it will receive the total point value.

Addresses Multiple Modes

If the project supports or enhances multiple modes (including transit, bicycling, and walking), it will receive the total point value.

Enhances Public Transit

If the project enhances the public transit system, then it will receive the total point value.

Quality of Life and Livability

Complies with OTO Major Thoroughfare Plan

If the project complies with or supports the final recommendation of the OTO Major Thoroughfare Plan, then it will receive the total point value.

Improves Access to or from Environmental Justice Block Groups

This Plan will identify those areas which are classified as environmental justice block groups. These include those that contain a higher than MPO average of low-income, disabled, minority, or elderly populations. A project will score 5 points for each type of block group with which it crosses. If a project intersects or is within a block group(s) that meets all four environmental justice populations, it will receive the total point value of 20 points.

Complies with Ozone Flex Plan

The Ozone Flex Plan for the region, known as the Ozarks Clean Air Action Plan, identifies project types that will contribute to fewer Ozone-causing emissions. If a project complies with the projects identified in the Clean Air Action Plan, then it will receive the total point value.

Operations and Maintenance

Level of Service

Level of Service (LOS) is current year LOS and is a measure describing operational conditions within a traffic stream. Six LOS are defined for each type of facility. Letters designate each level, from A to F, with LOS A representing best operating conditions and Level of Service F, the worst. For each process, the project is assigned a number of points based on the level of service currently experienced in the corridor. The worse the level of service is, the higher the score is.

Scoring (as a percentage of total point value) –

LOS	Score
A	0%
B	20%
C	40%
D	60%
E	80%
F	100%

Daily Usage

Daily Usage is defined as the total volume of traffic passing a point or segment of highway for one year divided by the number of days in the year and the number of through lanes.

Data:

NL = Number of through (driving) lanes

AADT = Annual Average Daily Traffic

DU = Daily Usage

TPV = Total Point Value

Formula:

DU = AADT/NL

Total Points = $(DU \div 17,500)^2 \times TPV$

Functional Classification

The Functional Classification (FC) system groups streets and highways according to the character of service they are intended to provide. For purposes of this process, the principal arterial functional classification is further divided into design types: interstates, freeways, expressways, and other principal arterials.

Scoring (as a percentage of total point value) –

	Functional Class	%TPV
Principal Arterials	Interstate	100%
	Freeway	100%
	Other	100%
	Expressway	100%
	Major Collector	50%
	Minor Arterial	40%
	Minor Collector	40%
	Collector	20%
	Local	20%
	Other	0%

Truck Volume

Truck volume is used to indicate movement of freight on the state roadway system.

Data:

TV = Total Commercial Volume

TPV = Total Point Value

Formula:

Total Points = $(2.5 \times TV)^{1/2} \div 100 \times TPV$

Identified as a Currently Congested Corridor in CMP

The OTO Congestion Mitigation Process is a systematic approach to addressing congestion within the OTO planning area. OTO uses four factors to determine where congestion is occurring: Volume-to-Capacity Ratio, Accident Rates, Average Travel Speed, and Intersection Level of Service. Congested facilities are those which meet 3 of the 4 congestion factors. If a corridor or facility is listed in the most recent CMP as congested, then it will receive the total point value.

Increases Availability of Real-Time Information to Transportation System Operators and Travelers

This factor is meant to reward those projects that utilize intelligent transportation systems. If a project involves ITS then it will receive the total point value.

Safety and Security

Safety Index

The safety index is made up of the following components:

1. Accident Index (10%) – compares the total accident rate to the statewide rate
2. Severity Index (60%) - compares the rate of injury and fatal crashes to statewide rates
3. High Accident Index (15%) - assigns a value based on locations that show up on the annual high accident listing
4. Wet/Dry Index (15%) – assigns a value based on locations that show up on the annual wet/dry listing

Data:

SI = Safety Index

TPV = Total Point Value

Formula:

$$\text{Total Points} = (5 - S) \times \frac{1}{4} \times \text{TPV}$$

Safety Concern

Safety concerns should be identified through documented trends in MoDOT Customer Service reports, public input from the planning process, and input from local and regional planning partners. If the project addresses a reported safety concern, then it should receive the total point value.

Safety and Security Enhancements

This factor awards points to those projects which enhance the operation of the transportation system in the event of an emergency. To identify those projects which would provide the most benefit, this score has been based on the identified assets listed in the Christian and Greene County Hazard Mitigation Plans. A project receives the total point value if it improves ITS, coincided with a railroad, improved highway access to/from the airport, or was on one of the following roadways:

- Interstate 44
- State Highway 13
- U.S. Highway 60
- U.S. Highway 65
- U.S. Highway 160 (both North and South)
- Korean War Veterans Freeway
- MO Highway 14
- MO Highway 125