OZARKS TRANSPORTATION ORGANIZATION

A METROPOLITAN PLANNING ORGANIZATION

Technical Planning Committee

MEETING AGENDA

MARCH 15, 2017

1:30 - 3:00 PM

OTO CONFERENCE ROOM, SUITE 101

2208 W. CHESTERFIELD BLVD., SPRINGFIELD

OZARKS TRANSPORTATION ORGANIZATION

Technical Planning Committee Meeting Agenda
Wednesday, March 15, 2017 1:30 p.m.
OTO Offices
Chesterfield Village
2208 W Chesterfield Boulevard, Suite 101
Springfield, MO

Call to Order ..... 1:30 PM

I. Administration

A. Introductions

B. Approval of the Technical Planning Committee Meeting Agenda
(1 minute/Coltrin)

TECHNICAL PLANNING COMMITTEE ACTION REQUESTED TO APPROVE THE AGENDA

C. Approval of the January 18, 2017 Meeting Minutes .....Tab 1
(1 minute/Coltrin)

TECHNICAL PLANNING COMMITTEE ACTION REQUESTED TO APPROVE THE JANUARY 18, 2017 MEETING MINUTES

D. Public Comment Period for All Agenda Items
(5 minutes/Coltrin**)**
Individuals requesting to speak are asked to state their name and organization (if any) they represent before making comments. Individuals and organizations have up to five minutes to address the Technical Planning Committee.

E. Staff Report
(5 minutes/Fields)
Sara Fields will provide a review of Ozarks Transportation Organization (OTO) staff activities since the last Technical Planning Committee meeting.

F. MoDOT Update
(5 minutes/Miller)
An update on any important information from MoDOT will be given.

G. Legislative Reports
(5 minutes/Legislative staff)
Representatives from the OTO area congressional delegation will have an opportunity to give updates on current items of interest.

II. New Business

A. Congestion Management Process .....Tab 2
(10 minutes/Thomason)
The Congestion Management Subcommittee has developed a draft document which monitors congestion in the OTO area for review and approval. The Technical Committee discussed this at the last meeting and asked for additional time to review.

TECHNICAL PLANNING COMMITTEE ACTION REQUESTED TO RECOMMEND APPROVAL OF DRAFT CONGESTION MANAGEMENT PROCESS TO THE BOARD OF DIRECTORS

B. US 60 East Major Thoroughfare Plan Amendment Request.....Tab 3
(5 minutes/Fields)
The Major Thoroughfare Plan Subcommittee met to review a proposed amendment to the Major Thoroughfare Plan to include an interchange on US 60 at the Highland Springs entrance and has recommended a delay in decision.

TECHNICAL COMMITTEE ACTION REQUESTED TO RECOMMEND DEFERRAL OF ACTION TO THE BOARD OF DIRECTORS

C. Amendment Number Three to the Long Range Transportation Plan .....Tab 4
(5 minutes/Longpine)
After further review of the newly adopted design standards, inconsistencies were noted that require correction.

TECHNICAL PLANNING COMMITTEE ACTION REQUESTED TO RECOMMEND APPROVAL OF AMENDMENT NUMBER THREE TO THE LONG RANGE TRANSPORTATION PLAN

D. Amendment Number Four to the Long Range Transportation Plan .....Tab 5
(5 minutes/Longpine)
The City of Ozark has requested the addition of the Riverside Bridge Replacement to the constrained project list in the Long Range Transportation Plan.

TECHNICAL PLANNING COMMITTEE ACTION REQUESTED TO RECOMMEND APPROVAL OF AMENDMENT NUMBER FOUR TO THE LONG RANGE TRANSPORTATION PLAN TO THE BOARD OF DIRECTORS

E. Amendment Numbers Four and Five to the FY 2017-2020 TIP.....Tab 6
(5 minutes/Longpine)
There is one change included with Amendment Number Four and there are nine changes included with Amendment Number Five to the FY 2017-2020 Transportation Improvement Program which is included for member review.

TECHNICAL PLANNING COMMITTEE ACTION REQUESTED TO RECOMMEND APPROVAL OF FY 2017-2020 TIP AMENDMENT NUMBERS FOUR AND FIVE TO THE BOARD OF DIRECTORS

F. FY 2018 Unified Planning Work Program .....Tab 7
(10 minutes/Parks)
The Draft Unified Planning Work Program is the document that outlines the work that will be completed by OTO during the next fiscal year.

TECHNICAL COMMITTEE ACTION REQUESTED TO RECOMMEND APPROVAL OF THE UPWP TO THE BOARD OF DIRECTORS

G. OTO Growth Trends Report .....Tab 8
(10 minutes/Faucett)
Staff will present highlights of the OTO Growth Trends Report.

NO ACTION REQUIRED – INFORMATIONAL ONLY

H. LRTP Executive Summary.....Tab 9
(5 minutes/Longpine)
Staff will review the Executive Summary for the Long Range Transportation Plan. The document will be distributed at the meeting.

NO ACTION REQUIRED – INFORMATIONAL ONLY

I. Regional Trail Investment Study Update .....Tab 10
(5 minutes/Longpine)
Staff will provide an update on the Regional Trail Investment Study.

NO ACTION REQUIRED – INFORMATIONAL ONLY

J. Funding Opportunity Subcommittee
(5 minutes/Longpine)
Staff is asking for volunteers to serve on a committee to prepare project ideas for future funding opportunities. This is a recommendation from the LRTP.

TECHNICAL COMMITTEE ACTION REQUESTED TO APPOINT A FUNDING OPPORTUNITY SUBCOMMITTEE

K. TIP Subcommittee
(5 minutes/Longpine)
Staff is asking for volunteers to serve on a Committee to develop the 2018-2021 TIP.

TECHNICAL COMMITTEE ACTION REQUESTED TO APPOINT A TIP SUBCOMMITTEE

III. Other Business

A. Technical Planning Committee Member Announcements
(5 minutes/Technical Planning Committee Members)
Members are encouraged to announce transportation events being scheduled that may be of interest to OTO Technical Planning Committee members.

B. Transportation Issues for Technical Planning Committee Member Review
(5 minutes/Technical Planning Committee Members)
Members are encouraged to raise transportation issues or concerns they have for future agenda items or later in-depth discussion by the OTO Technical Planning Committee.

C. Articles for Technical Planning Committee Member Information .....Tab 11

IV. Adjournment

Targeted for 3:00 P.M. The next Technical Planning Committee meeting is scheduled for Wednesday, May 17, 2017 at 1:30 P.M. at the OTO Offices, 2208 W. Chesterfield Blvd, Suite 101.

Attachments and Enclosure:

Pc: Ray Weter, Presiding Commissioner Christian County
Bob Stephens, City of Springfield Mayor
Senator McCaskill's Office
Senator Blunt's Office
Jeremy Pruett, Congressman Long's Office
Area News Media

Si usted necesita la ayuda de un traductor del idioma español, por favor comuníquese con la Andy Thomason al teléfono (417) 865-3042, cuando menos 48 horas antes de la junta.

Persons who require special accommodations under the Americans with Disabilities Act or persons who require interpreter services (free of charge) should contact Andy Thomason at (417) 865-3042 at least 24 hours ahead of the meeting.

If you need relay services please call the following numbers: 711 - Nationwide relay service; 1-800-735-2966 - Missouri TTY service; 1-800-735-0135 - Missouri voice carry-over service.

OTO fully complies with Title VI of the Civil Rights Act of 1964 and related statutes and regulations in all programs and activities. For more information or to obtain a Title VI Complaint Form, see www.ozarkstransportation.org or call (417) 865-3042.

TAB 1

TECHNICAL PLANNING COMMITTEE AGENDA 3/15/2017; ITEM I.C.

January 18, 2017 Meeting Minutes

Ozarks Transportation Organization
(Springfield, MO Area MPO)

AGENDA DESCRIPTION:

Attached for Technical Committee member review are the minutes from the January 18, 2017 Technical Planning Committee meeting. Please review these minutes prior to the meeting and note any corrections that need to be made. The Chair will ask during the meeting if any Technical Committee member has any amendments to the attached minutes.

TECHNICAL PLANNING COMMITTEE ACTION REQUESTED:

"Move to approve the January 18, 2017 Technical Planning Committee Minutes."

OR

"Move to approve the January 18, 2017 Technical Planning Committee Minutes with the following corrections …"

OZARKS TRANSPORTATION ORGANIZATION
TECHNICAL PLANNING COMMITTEE MEETING MINUTES
January 18, 2017

The Technical Planning Committee of the Ozarks Transportation Organization met at its scheduled time of 1:30 p.m. in the OTO Conference Room.

The following members were present:

Mr. Rick Artman, Greene County
Mr. David Brock, City of Republic
Mr. Randall Brown, City of Willard
Ms. Paula Brookshire, City of Springfield (a)
Mr. Travis Cossey, City of Nixa
Ms. Dawn Gardner, City of Springfield (a)
Mr. Adam Humphrey, Greene County
Mr. Tom Johnson, Missouri State University
Mr. Kirk Juranas, City of Springfield (Co-Chair)
Mr. Joel Keller, Greene County (a)
Mr. Frank Miller, MoDOT
Mr. Jason Ray, SMCOG
Mr. Frank Schoneboom, City of Battlefield
Mr. Andrew Seiler, MoDOT
Mr. Kelly Turner, City Utilities Transit
Mr. Todd Wiesehan, Christian County

(a) Denotes alternate given voting privileges as a substitute when voting member not present

The following members were not present:

Mr. Mokhtee Ahmad, FTA Representative
Ms. Kristy Bork, Springfield/Branson Airport (a)
Mr. King Coltrin, City of Strafford
Mr. Justin Coyan, Springfield Chamber of Commerce
Mr. Rick Emling, R-12 School District (a)
Mr. Martin Gugel, City of Springfield (Co-Chair)
Mr. Nicholas Konen, BNSF
Mr. Bradley McMahon, FHWA
Mr. Kent Morris, Greene County Planning
Mr. Jeremy Parsons, City of Ozark (a)
Mr. Mark Schenkelberg, FAA Representative
Mr. Jeremiah Shuler, FTA Representative (a)
Ms. Mary Lilly Smith, City of Springfield
Ms. Janette Vomund, MoDOT
Ms. Eva Voss, MoDOT
Mr. Terry Whaley, Ozark Greenways

Others present were: Mr. Keith Ray Mackie, Senator Bob Dixon's Office; Mr. Bill Killian, Killian Construction Co.; Mr. Dwayne Holden, Custom Metalcraft; Mr. Jay Wynn and Mr. Dane Seiler, CJW; Mr. Larry Childress; Mr. Dave Faucett, Mr. Andy Thomason, Ms. Natasha Lonepine, Ms. Debbie Parks, Ms. Sara Fields, and Ms. Brenda Cirtin, Ozarks Transportation Organization.

Mr. Kirk Juranas, Technical Planning Committee Chairman, called the meeting to order at approximately 1:35 pm.

I. Administration

A. Introductions

B. Approval of the Technical Planning Committee Meeting Agenda

Mr. Wiesehan moved to approve the January 18, 2017 meeting agenda. Mr. Humphrey seconded the motion and it was unanimously approved.

C. Approval of the November 16, 2016 Meeting Minutes

Mr. Humphrey moved to approve the November 16, 2016 meeting minutes. Mr. Brock seconded the motion and it was unanimously approved.

D. Public Comment Period for All Agenda Items

Ms. Fields stated there were no public comments received since the last meeting. There were no speakers present to address the Committee.

E. Staff Report

Ms. Sara Fields stated the RFQ for the trail plan was distributed and eight firms had submitted proposals. The Bicycle and Pedestrian Advisory Committee met and narrowed the field to three. They will be interviewing the three candidates on Friday, January 27 and intend to make a selection at that time. She reminded the Committee that there was $150,000 budgeted for this project, as it is important to make sure the alignments are correct, to make sure there are cost estimates for various sections, and a prioritized list for the various sections.

Ms. Fields stated MoDOT has some preliminary funding estimates and that staff has sent them the list of priority projects and are still waiting to hear if any of them could be funded in the 2018-2022 State Transportation Improvement Plan (STIP).

Ms. Fields stated the staff has been working on several plans and is anxious to receive the Committee's feedback.

F. MoDOT Update

Mr. Frank Miller stated that since the last Committee meeting, a new District Engineer had been named – Travis Koestner. He stated Mr. Koestner had worked with Mr. Juranas in Jefferson City, and is very familiar with this area.

He stated that the District has changed their area engineer assignments, realigning their areas along planning partner boundaries. Andy Mueller is the OTO Area Engineer; Non-OTO Greene and Christian Counties and the entire SMCOG area is Beth Schaller.

Mr. Miller said MoDOT is working on updating the STIP and have some updated funding numbers. He said the funding projections rose again as they are seeing a healthy growth rate for motor vehicle sales tax, the leveling of the gas tax, and steady federal funds. He added they are projecting about $900 million state-wide in the third and fourth years of the STIP.

Mr. Miller stated the cost-share program will be returning and will be ramping up to about $25 million in 2022, which is what the amount has been in the past. He said he does not know when MoDOT will begin taking applications for cost-share projects.

Mr. Juranas asked Mr. Miller to speak to the work that MoDOT has been doing on the agreements. Mr. Miller said MoDOT began researching the "rule" that MoDOT does not share in cost overruns on cost-share projects, but were unable to locate a rule or policy that stated this. He said the new agreements will provide for the cost-sharing of overruns.

G. Legislative Reports

Mr. Keith Ray Mackie, Senator Bob Dixon's office, stated he did not have anything significant to report, but that the main area of concern in Jefferson City is the budget and revenue. He said the Governor, the House, and the Senate all have a consensus that the revenue estimates are lower than they have been and the budget is going to be challenging.

II. New Business

A. Amendment Number Three to the FY 2017-2020 TIP

Ms. Longpine stated there are three changes requested by MoDOT and are all for scoping. She briefly reviewed the details of the proposed projects for the Committee. Mr. Miller added clarification on the two sidewalk projects in Christian County, the roadway improvements to Route MM, and the Route MM railroad crossing, both in Republic.

With no questions or comments from the Board, Mr. Wiesehan moved to recommend FY 2017-2020 Transportation Improvement Program Amendment Number Three to the Board of Directors. Mr. Seiler seconded the motion and it was unanimously approved.

B. Administrative Modification Number One to the FY 2017-2020 TIP

Ms. Longpine stated this item was for information purposes only and did not require any action from the Committee. She said staff is allowed to make changes to the Transportation Improvement Program (TIP) for minor adjustments. She briefly reviewed the changes staff has made to the two projects – Mt. Vernon Street Bridge over Jordan Creek and Miller Road Widening.

With no questions or comments from the Committee, the discussion on this item was closed.

C. Reasonable Progress Extension

Ms. Longpine stated the City of Ozark was asking for this extension for two of the three Transportation Alternatives Program (TAP) projects – the Finley River Park Sidewalk Improvements and the McGuffey Park Sidewalk Improvements. She said there were some right-of-way issues and staff changes that have put these projects about eight months behind schedule. She added this proposed schedule does allow the maintaining of the funding in our area through the end of this fiscal year.

Mr. Cossey moved to recommend approval of the Reasonable Progress Extension. Ms. Gardner seconded the motion.

Mr. Miller asked if the right-of-way plans had been completed by December 1 as was stated in the letters from the City of Ozark. Ms. Longpine said she believed they were, but she would check on that before forwarding this item to the Board of Directors for action.

Following some discussion, Mr. Cossey moved to amend the motion to add the requirement that this be approved as long as it can be completed in this fiscal year. Ms. Gardner seconded the amendment and it was unanimously approved. With no further questions or comments, the motion, as amended was unanimously approved.

D. Amendment Number Three to the UPWP

Ms. Parks said the City of Republic received a Traffic Engineering Assistance Program (TEAP) funding award in the amount of $8,000. She added that the total project cost was $8,000 and that the City of Republic would be providing a local match in the amount of $1,600. She said that it was determined a few years ago, that these types of changes must be reflected in the Unified Planning Work Program (UPWP) budget. She reviewed for the Committee Task 9 which had been added to the UPWP to reflect this TEAP funding.

Mr. Brock clarified the TEAP agreement for the City of Republic was in the amount $8,000, with Republic providing a $2,000 local match, for a total of $10,000. Mr. Brown moved to recommend approval of UPWP Amendment Three in the amount of $10,000 to the Board of Directors. Mr. Artman seconded the motion and it was unanimously approved.

E. Major Thoroughfare Plan Amendment

Ms. Longpine stated the City of Ozark has requested to amend the Major Thoroughfare Plan for 19th/17th Street Corridor. It begins as 19th Street at Hwy J and CC and becomes 17th Street. She said it is currently designated as a Secondary Arterial and Ozark believes that a Collector designation will be sufficient.

Mr. Wiesehan moved to recommend approval of the proposed Major Thoroughfare Plan Amendment to the Board of Directors. Mr. Miller seconded the motion and it was unanimously approved.

F. Critical Urban Freight Corridors

Mr. Thomason stated he had been working on this new project and wanted to provide additional background for the Committee. He said the passage of the FAST Act placed a new emphasis on freight and established the National Highway Freight Network (NHFN). He outlined the four types of road that make up the NHFN. He noted that today staff is asking the Committee for some input on the Critical Urban Freight Corridors. He said while the boundaries for the CUFC is within the OTO service area, it is also within the census-defined urban area, so communities such as Willard and Republic are outside this area. The FAST Act allows Missouri to designate 102.33 miles of CUFC state-wide. MoDOT is having a Planning Partner's meeting in March and at this meeting, they will be determining the CUFC designations. Mr. Thomason outlined for the Committee the factors staff used in determining potential CUFC routes in the Springfield Urban Area. He said they have identified 17.6 miles of potential CUFCs, which will be used for negotiating the designation of CUFC at the March meeting. He stated he was asking the Committee for some input as to what routes they believed were critical and which ones were less so.

The Committee discussed other potential areas that they believed should be considered, however, some of the areas mentioned were out of the Urban designation. Ms. Longpine noted that the OTO would also be competing against the other MPOs in Missouri for the CUFC designation. Mr. Brock asked if 17.6 miles was enough, or if additional miles should be added. Mr. Thomason stated when he first began calculating these routes, he arrived at 10 miles, however, believed this was too low a number and began recalculating. He said he is not opposed to adding routes, he just needs to know the tier they should be added to.

Ms. Fields stated she believed Hwy 60 East and Hwy 13 North should be added. Following some additional discussion on potential routes, Ms. Fields suggested that Hwy 60 and Hwy

13 be added, and then OTO staff would work with the City of Springfield to see if there are other areas to be designated, as they would be in Springfield. There was no objection from the Committee to follow this process.

Mr. Artman moved to approved the map as designated by staff, with the understanding that the OTO and the Traffic Division of the City of Springfield will work together to determine any additional corridors that might be added. Mr. Brock seconded the motion and it was unanimously approved.

G. Congestion Management Process

Mr. Thomason stated that the OTO is a Traffic Management Area and therefore required to have a Congestion Management Process (CMP). He said we are required to monitor and address congestion. The CMP is a multi-phased program that examines ways in which congestion can be relieved without expanding the roadway capacity. He added this process evaluates congestion based on (1) volume-to-capacity ratio, (2) average travel delay, (3) accident frequency, and (4) intersection level of service measures. Normally, where three or more measures show unsatisfactory performance, congestion exists. Mr. Thomason stated the roads that were listed in the packet are the ones that are being monitored for congestion. Mr. Thomason referred the Committee to the maps included in the packet and stated they indicate if a road was "ok", "iffy", or "unacceptable." He stated the CMP subcommittee that studied these roadways was not surprised by the findings; however, they did see more areas of congestion than in 2012, partly due to more vehicle miles travelled.

Mr. Thomason said the subcommittee was also asked to evaluate if the strategies for reducing congestion were effective. He indicated they had not been asked to do this in the past, but with the hiring of David Faucett as the GIS Specialist, there was a great deal of information that could be utilized to evaluate these strategies. He stated at the end of the study, staff was not able to find a relationship between the construction and operations projects and changes in congestion. Mr. Thomason said the system functions relatively well.

Mr. Juranas asked if this information would be used to prioritize projects in the future for the State Transportation Improvement Plan. Ms. Fields replied in the affirmative, stating staff would be reexamining the prioritization process and see how this information could be utilized for future projects.

Due to the volume of information, it was determined the Committee wanted additional time to review the CMP. Mr. Cossey moved to postpone action on the CMP until the meeting of March 15, 2017. Mr. Brown seconded the motion and it was unanimously approved.

H. Traffic Incident Management Plan

Mr. Thomason said the OTO is the host for a regional Traffic Incident Management (TIM) subcommittee. This Subcommittee includes membership from law enforcement, EMS, fire, emergency management, towing, MoDOT, trucking, and local news media. He said the goal of the subcommittee is to 1) decrease the time it takes to detect, respond to, and clear traffic incidents, and 2) ensure responder safety. At their November 7, 2016 meeting, the TIM Subcommittee adopted a strategic plan that outlines 13 action steps, and will be working with this plan for the next twenty-four months.

Mr. Thomason reviewed for the Committee the simulated exercise held at the Highway Patrol CDL testing facility and sponsored by the TIM Subcommittee, where a semi-truck was laid on its side and the various entities worked to clear the area. He said in this exercise, it took approximately 1.5 hours to clear the scene. He said the subcommittee will be looking at holding similar exercises on a regular basis.

Mr. Juranas stated this sounds like a great opportunity to test the plan and practice the plan to see how well it works.

This item was for informational purposes only; no action by the Committee was required.

I. Transit Asset Management Performance Measures

Ms. Longpine stated the performance measures for Transit Asset Management come from the FAST Act. She said the process generally is that the State will adopt their measures and targets first and then the OTO will have six months to develop local targets or adopt the State's. She said this is the first set of targets for the OTO to set for the region in relation to the national goals. The first set of targets was due January 1, 2017. She stated that City Utilities has elected to participate in the State's plan as opposed to adopting their own. Ms. Longpine reviewed the information contained in the packet that was distributed to the Committee with the agenda.

Mr. Turner noted that City Utilities would have six facilities that would be involved in this State's plan. He also added it has not been made clear as to what these targets are designed to ultimately accomplish. He added there was no guidance given in setting the targets and that they could be changed on an annual basis. Mr. Turner said he understood that the State's targets are comprehensive of the State; and each agency does not have to develop their own targets. Ms. Fields said the law states that the agencies and the State are working in conjunction to meet the targets. Mr. Turner reviewed how City Utilities arrived at the decision to accept MoDOT's plan.

With no further discussion, Mr. Miller moved to recommend approval of the proposed transit asset management performance measures. Mr. Humphrey seconded the motion and it was unanimously approved.

J. FY 2018 UPWP Subcommittee and Project Proposals

Ms. Fields stated the Unified Planning Work Program (UPWP) is the appendix to the OTO's contract with MoDOT. She stated MoDOT passes the federal funds to the OTO and contracts with them to perform certain tasks. She said the Subcommittee would be looking at any other projects the Committee might like to see added to the UPWP. She asks for three to five volunteers to be a part of the Subcommittee.

Mr. Wiesehan moved to appoint the following to the UPWP Subcommittee: A representative from MoDOT, Kirk Juranas from the City of Springfield, David Brock from the City of Republic, and Kelly Turner from City Utilities. Mr. Cossey seconded the motion and it was unanimously approved.

K. Major Thoroughfare Plan Subcommittee

Ms. Fields stated the OTO Board of Directors received a request from the Highland Springs Subdivision to discuss a possible interchange on Hwy 60 East of Springfield. She said the

Major Thoroughfare Plan does not show an interchange at this location. She said the Board also wanted to review the entire loop system, with a possible tie-in to a possible interchange at Gasconade between Battlefield Road and Hwy 60 on US 65. The Board believes these two interchanges may need to be connected and also provide an emergency by-pass route. The Board asked the Major Thoroughfare Plan Subcommittee be reconvened and these plans reviewed. Ms. Fields said she was asking for three to five volunteers.

Mr. Turner moved to appoint the following to the Major Thoroughfare Plan Subcommittee: Frank Miller from MoDOT, Dawn Gardner from the City of Springfield, Adam Humphrey from Greene County, and Jeremy Parsons from the City of Ozark. Mr. Wiesehan seconded the motion and it was unanimously approved.

III. Other Business

A. Technical Planning Committee Member Announcements

Ms. Gardner said she is hosting a training for Right-Of-Way disability guidelines, and has a few openings for January 24 and 25, 2017. If any member of the Committee would like to attend, please contact her.

Mr. Turner noted that on Monday, January 23, 2017, City Utilities would be recognizing Eric Jones as the 2016 Driver of the Year.

Ms. Fields stated she had been informed of a meeting for Hwy 13 North regarding a proposed J-turn. She said the public meeting will be January 24, 2017, from 4:30 to 6:30 pm at Noble Hill Baptist Church.

Mr. Juranas said the City of Springfield had been getting several questions regarding the "flashing yellow light", which he said is a state-wide policy.

B. Transportation Issues for Technical Planning Committee Member Review

No issues were discussed.

C. Articles for Technical Planning Committee Member Information

Ms. Fields highlighted a few of the articles that had been included in the agenda and encouraged the Committee to review them.

Adjournment

With no additional business to come before the Committee, Mr. Turner moved the meeting be adjourned at approximately 2:35 p.m. Mr. Cossey seconded the motion and it was unanimously approved.

TAB 2

TECHNICAL COMMITTEE AGENDA 3/15/2017; ITEM II.A.

Congestion Management Process: Congestion Monitoring and Strategy Evaluation

Ozarks Transportation Organization
(Springfield, MO Area MPO)

AGENDA DESCRIPTION:

All MPOs that serve a metropolitan area with a population greater than 200,000 are required by federal law to develop a Congestion Management Process (CMP). The CMP is a multi-phased program that examines ways in which MPOs can provide congestion relief without necessarily expanding roadway capacity.

The OTO began its Congestion Management Process in 2005. The CMP Subcommittee and staff have completed expansions and updates to the process in 2008, 2012, and now in 2017. The process evaluates congestion based on (1) volume-to-capacity ratio, (2) average travel delay, (3) accident frequency, and (4) intersection level of service measures. Where three or more measures show unsatisfactory performance, congestion exists. The process also tracks capacity and operational improvements completed in the OTO area. Completed projects can be compared to changes in congestion to measure the success of the completed projects.

Below are road segments and intersections that are considered congested using the CMP methodology.

Battlefield Road	
Campbell to Battlefield Mall	At Kansas Expressway
Chestnut Expressway	
Sherman Ave. to Boonville Ave.	
Glenstone Avenue	
I-44 to Division St.	Chestnut Expressway to Seminole
At EB I-44 Ramps	At Chestnut Expressway
At Sunshine	
Kansas Expressway	
Grand to Sunshine	Battlefield to Republic Rd.
National Avenue	
Battlefield to Republic Rd.	
US 160	
Route AA to Route CC	At Route CC
US 60	
At Route M/Route MM	
Route 14	
At US 160	At US 65

The CMP subcommittee generally felt the results of the study matched what drivers experienced on area roads. Congestion was only measured on area arterials; James River Freeway, US 65, and I-44 did not have 3 measures showing unsatisfactory performance.

Efforts to measure the effectiveness of completed projects was inconclusive. The analysis used GIS to statistically compare changes in congestion to the location of recent capacity or operations projects. Moving forward, the subcommittee believes the most effective method for measuring the success of capacity or operational improvements will be to measure traffic flow before and after the project is implemented.

SUBCOMMITTEE RECOMMENDATION:

The CMP subcommittee recommended Technical Committee endorsement of the *Congestion Management Process: Congestion Monitoring and Strategy Evaluation* and adoption by the Board of Directors.

PREVIOUS TECHINCAL PLANNING COMMITTEE ACTION:

After a short discussion during the January Technical Planning Committee meeting, further discussion was postponed until this meeting to give members additional time to review the updated Congestion Management Process.

TECHNICAL PLANNING COMMITTEE ACTION REQUESTED:

That a member of the Technical Planning Committee makes the following motion:

"Move to recommend that the Board of Directors approve the *Congestion Management Process: Congestion Monitoring and Strategy Evaluation,* dated February 2017."

Or

"Move to recommend that the Board of Directors approve the *Congestion Management Process: Congestion Monitoring and Strategy Evaluation*, dated February 2017 with the following revisions..."

OZARKS TRANSPORTATION ORGANIZATION

A METROPOLITAN PLANNING ORGANIZATION

Congestion Management Process

Congestion Monitoring and Strategy Evaluation

Board of Directors Adoption: _____

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Maps

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Report Highlights

This reports offers an updated looked at congestion in the OTO area. Data on current congestion was collected and recent system improvements, either capacity or operations related, were added to a list of completed projects. Changes in congestion and implemented projects were compared to determine if regional investments were having a positive impact on congestion.

The following are highlights found during the Congestion Monitoring Process.

Volume-to-Capacity Ratio

- 102 out of 180 road segments maintained acceptable Volume-to-Capacity ratios.
- The number of segments with acceptable Volume-to-Capacity ratios is 20 lower than in 2012.
- No noticeable improvements in historically problem areas, such as US 160, between Springfield and Nixa, and National, north of James River Freeway.

Accident Frequency

- 176 of the 218 signalized intersections have an acceptable frequency of accidents
- 10% of CMP mileage have accidents frequencies above the MPO average for a given road type
- The percentage of roads and intersections with above-average accident frequencies is similar to 2012.

Average Travel Speeds

- The average delay increased from 8.77 to 10.6 mph below posted speed limits since 2012.
- Eastbound travel has experienced growing delay. For the first time, two of the three slowest commutes are eastbound travel.
- The method used to calculate delay in 2016 represents a significant change from previous years

Intersection Level-of-Service

- 94% of intersections are providing acceptable Levels of Service in 2016
- More intersections experienced declines in service than experienced improvements
- Five of the eight intersections declining to LOS F are associated with the US 160 corridor between Springfield and Nixa

The following are considered Congested Facilities

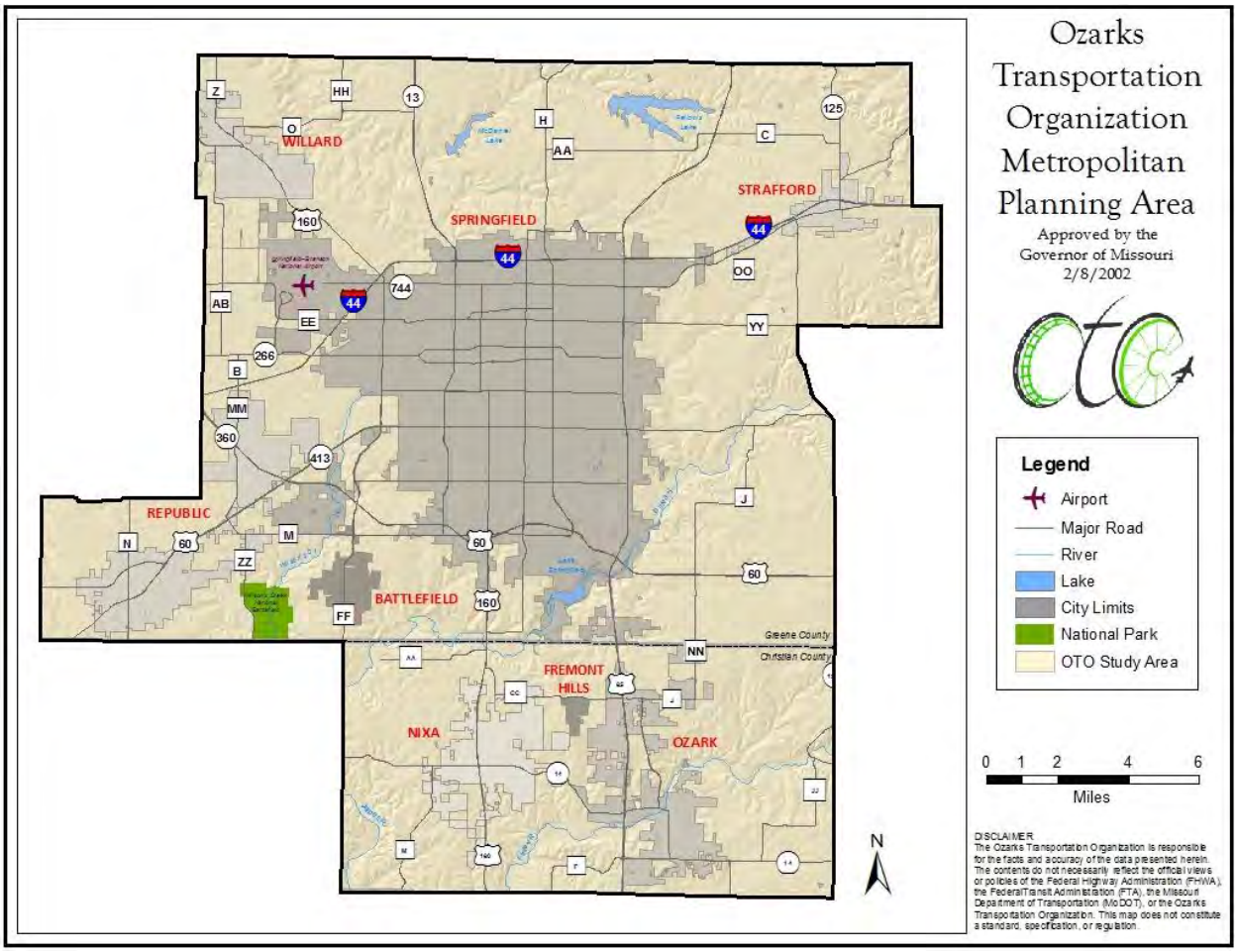
Battlefield Road	
Campbell to Battlefield Mall	At Kansas Expressway
Chestnut Expressway	
Sherman Avenue to Boonville Avenue	
Glenstone Avenue	
I-44 to Division Street	Chestnut Expressway to Seminole
At EB I-44 Ramps	At Chestnut Expressway
At Sunshine	

Continued following page

Kansas Expressway	
Grand to Sunshine	Battlefield to Republic Road
National Avenue	
Battlefield to Republic Road	
US 160	
Route AA to Route CC	At Route CC
US 60	
At Route M/Route MM	
Route 14	
At US 160	At US 65

Introduction

The Congestion Management Process (CMP) is a systematic approach to addressing congestion within the Ozarks Transportation Organization's (OTO) planning area, shown in Map 1. 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 and future transportation system through the implementation of Transportation System Management (TSM), which includes Intelligent Transportation Systems (ITS) and Travel Demand Management (TDM) techniques.



Map 1: Ozarks Transportation Organization Metropolitan Planning Area Map

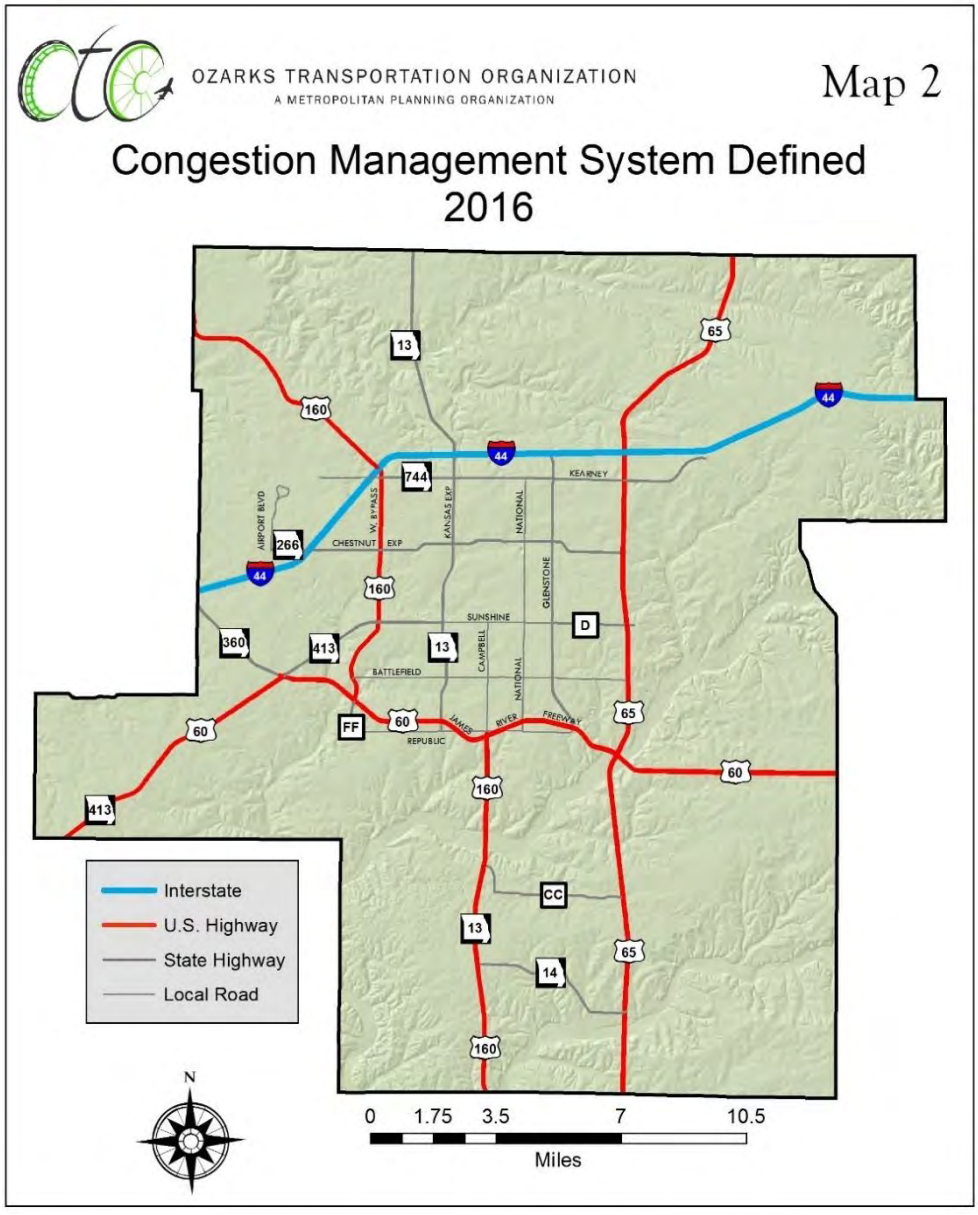
Overview of Previous Phases

The CMP consists of three main phases. Phase I, completed in 2005, is a methodology to identify congestion and designate specific strategies to address congestion. Phase II, completed in 2008, is the identification of where congestion is occurring or is expected to occur during the 20-year plan horizon and the implementation of identified strategies. Phase III, first completed in 2012, is the development of a monitoring program to determine if selected strategies are effective in dealing with congestion at

identified locations, and if not, identify other strategies to alleviate congestion. This 2016 Congestion Monitoring report is an update to Phase III and should be updated every three to five years.

Network Redefined

Phase I and II of the CMP identified the CMP network as OTO-area roadways that are part of the National Highway System (NHS). With passage of MAP-21, the CMP network was expanded in Phase III to include the Enhance-NHS, the traditional NHS plus principal arterials. In addition, committee members chose to include segments of some principal arterials not included in the Enhanced-NHS, such as National north of Chestnut Expressway or Kearney west of I-44. These additional segments provide useful local information. No major changes were made in response to the passage of the FAST Act. The CMP network in 2016 can be seen in Map 2 below.



Congestion Monitoring

The following four measures are the indicators the OTO has elected to monitor to determine where congestion is occurring. These measures are *(1)* Volume-to-Capacity Ratio, *(2)* Accident Frequency, *(3)* Average Travel Speed, and *(4)* Intersection Level of Service. These measures are defined in this congestion monitoring report.

1. Volume-to-Capacity Ratio

The first measure OTO utilizes to monitor congestion is peak hour volume-to-capacity ratio. This ratio is used to determine which roads have peak volumes that exceed the road's capacity and which roads are approaching capacity. Peak hour traffic volumes that are used in the ratios can be found on **Map 3.1**. These traffic volumes are calculated from intersection turning movement studies conducted over the last few years. Data is not available for all road segments. Roadway capacities are a function of the number of traffic lanes. Capacities have been calculated for each type of road in the OTO area, including the section of 4+1 lane expressway National Avenue, south of Walnut Lawn, and the 5+1 lane section of Campbell, south of Primrose. An important indicator of traffic volumes is Vehicle Miles Traveled (VMT). The indicator represents the total number of miles driven by the OTO population each day. If VMT is rising, it is likely associated with increased traffic volumes. Recent trends show a rebound in VMT for the area.

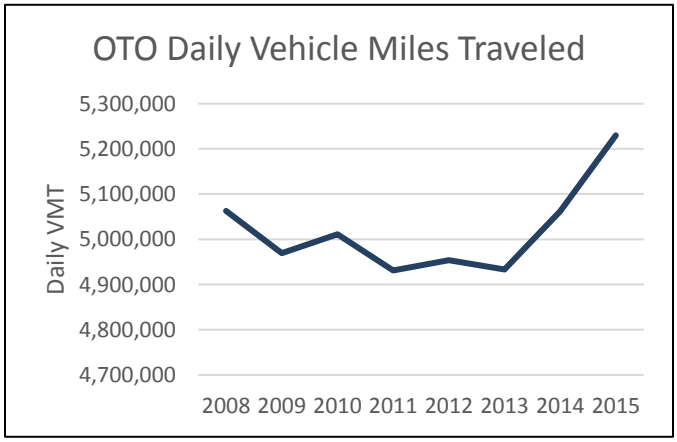
Daily Vehicle Miles Traveled (VMT)

Table 1 shows the VMT for the OTO area is reversing its downward trend of the 2008 to 2013 period. The recent increase is associated with a stronger national economy and lower energy costs. Data shows the VMT increase of 166,916 miles traveled or 3.30 percent of VMT from 2008 to 2016, a record high for the region. This table also shows a decline of VMT per capita of 0.91 miles during this time frame, or 5.37 percent, despite population growth of about 9.2 percent in the 7-year period. From 2013 to 2015, the network mileage sampled for VMT calculation declined 0.5%. The increase seen in VMT during this period is likely due to increases in traffic, not increases in lane mileage.

Table 1: OTO Daily Vehicle Miles Traveled

Year	VMT	OTO Population	VMT per Capita
2015	5,229,938	*326,321	16.03
2014	5,061,794	*323,031	15.67
2013	4,933,188	*320,259	15.40
2012	4,954,024	*316,298	15.66
2011	4,931,037	*312,126	15.80
2010	5,010,884	310,283	16.14
2009	4,969,336	*303,720	16.36
2008	5,063,022	*298,910	16.94

*Census Estimate



Volume-to-Capacity Ratio

Map 3.2 includes volume-to-capacity ratios broken into three categories: *below capacity*, *nearing capacity*, and *at or above capacity*. Segments with a volume-to-capacity ratio of 0 to 0.77 are I and offer an LOS of A, B, or C. Segments with a ratio of .78 to .86 are *nearing capacity* and offer a LOS of D. Ratios of 0.86 or above offer LOS E or F and are *at or above capacity*. For purposes of this study, LOS A, B, C, or D are acceptable. The volume-to-capacity ratio of 106 of the 203 segments surveyed in 2016 have stayed or improved to an acceptable level of service (LOS A, B, C, D). Data was missing or invalid for 32 segments. Changes can be seen in **Table 2** below

Table 2: Changes in Volume-to-Capacity Ratio, 2012-2016

Intersection	Segment North of:	Segment South of:	Segment East of:	Segment West of:
Battlefield and US 65 SBR*	*N/A*	*N/A*		
Battlefield and US65 NBR*	*N/A*	*N/A*		
Campbell and Battlefield				
Campbell and Plainview*			*N/A*	*N/A*
Campbell and Republic*			*N/A*	*N/A*
Campbell and Sunshine	*N/A*			
Campbell and Walnut Lawn			*N/A*	N/A
Chestnut and Grant	*N/A*	*N/A*		
Chestnut and I44	*N/A*	*N/A*		No Data
Chestnut and US65 NBR	*N/A*	*N/A*		
Chestnut and US65 SBR	*N/A*	*N/A*		
Glenstone and Battlefield*				
Glenstone and Chestnut				
Glenstone and Division			*N/A*	*N/A*
Glenstone and Grand			*N/A*	*N/A*
Glenstone and I44 EBR			*N/A*	*N/A*
Glenstone and I44 WBR			*N/A*	*N/A*
Glenstone and Kearney				
Glenstone and Sunshine				
Glenstone and US60 WB*			*N/A*	*N/A*
I44 and US65				
Kansas Expressway and Battlefield				
Kansas Expressway and Chestnut				
Kansas Expressway and Division			*N/A*	*N/A*
Kansas Expressway and Grand			*N/A*	*N/A*
Kansas Expressway and I44	*N/A*	*N/A*		

Key
Stayed LOS A,B,C,D
Improved to LOS A,B,C,D
Declined to LOS E,F
Stayed LOS E,F

Table 2: Changes in Volume-to-Capacity Ratio, 2012-2016				
Intersection	**Segment North of:**	**Segment South of:**	**Segment East of:**	**Segment West of:**
Kansas Expressway and US60 EBR	No Data	No Data	No Data	No Data
Kansas Expressway and US60 WBR			*N/A*	*N/A*
Kansas Expressway and Kearney				
Kansas Expressway and Norton Rd			*N/A*	*N/A*
Kansas Expressway and Republic Rd	No Data	No Data	No Data	No Data
Kansas Expressway and Sunshine				
Kansas Expressway and US44 EBR			*N/A*	*N/A*
Kansas Expressway and US44 WBR			*N/A*	*N/A*
Kearney and Barnes				
Kearney and US 65 NB	*N/A*	*N/A*		
Kearney and US 65 SB	*N/A*	*N/A*		
Kearney and US65			*N/A*	*N/A*
MO 13 and O	No Data	No Data	*N/A*	*N/A*
MO266 and Airport Blvd	No Data	No Data	No Data	No Data
MO266 and US44 WBR	*N/A*	*N/A*		
National and Battlefield*				
National and Chestnut				
National and Division			*N/A*	*N/A*
National and Grand			*N/A*	*N/A*
National and Republic*		*N/A*		
National and Sunshine				
Sunshine and US65	*N/A*	*N/A*		
US 160 and Hughs			*N/A*	*N/A*
US 160 and Hunt			*N/A*	*N/A*
US 160 and JRF EBR			*N/A*	*N/A*
US 160 and JRF WBR	No Data	No Data	*N/A*	*N/A*
US 160 and Plainview			*N/A*	*N/A*
US 160 and MO 14			*N/A*	*N/A*
US 160 and Northview			*N/A*	*N/A*
US 160 and RT CC				*N/A*
US 160 and South			*N/A*	*N/A*
US 160 and Tracker			*N/A*	*N/A*

Key
Stayed LOS A,B,C,D
Improved to LOS A,B,C,D
Declined to LOS E,F
Stayed LOS E,F

Table 2: Changes in Volume-to-Capacity Ratio, 2012-2016				
Intersection	**Segment North of:**	**Segment South of:**	**Segment East of:**	**Segment West of:**
US 160 and AA			*N/A*	*N/A*
US 60 and MO 125	*N/A*	*N/A*	No Data	No Data
US60 and RT M/ RT MM	*N/A*	*N/A*		
US60 and RT P/ RT N	*N/A*	*N/A*		
US65 SBR and MO14	*N/A*	*N/A*		
West Bypass and Republic Rd	No Data	No Data	No Data	No Data
West Bypass (US 160) and Battlefield				*N/A*
West Bypass (US 160) and Chestnut				
West Bypass (US 160) and Grand			*N/A*	*N/A*
West Bypass (US 160) and Kearney				
West Bypass (US 160) and Sunshine				
West Bypass and Division			*N/A*	*N/A*
MO-14 and Ridgecrest	*N/A*	*N/A*		
MO-14 and Cheyenne *	*N/A*	*N/A*		
MO-14 and Fremont	*N/A*	*N/A*		
James River Freeway and MO 413	*N/A*	*N/A*		No Data
James River Freeway at Campbell	*N/A*	*N/A*		
James River Freeway at Glenstone	*N/A*	*N/A*		No Data
US 65at MO 744		No Data	*N/A*	*N/A*
US 65 at MO 14			*N/A*	*N/A*
US 65 at US 60	No Data		*N/A*	*N/A*
US 65 at Battlefield	No Data		*N/A*	*N/A*
I 44 at Rt B	*N/A*	*N/A*	No Data	
I 44 at MO 266	*N/A*	*N/A*		No Data
I 44 at MO 13	*N/A*	*N/A*		No Data
I 44 at US 65	*N/A*	*N/A*	No Data	
Key				
Stayed LOS A,B,C,D				
Improved to LOS A,B,C,D				
Declined to LOS E,F				
Stayed LOS E,F				
**Recently improved.*				

One hundred and two of 180 segment with valid measurements have stayed acceptable from 2012 to 2016. Overall, the number of segments with acceptable Volume-to-Capacity Ratios has declined.

Volume-to-Capacity Level of Service Summary

Over the last 4 years, there has been a minor decline in utilization of traffic capacity in the OTO area. More segments have acceptable levels of service than unacceptable LOS in 2016, thought the number of acceptable segments is 20 lower than in 2012. The reduction in acceptable segments corresponds to the increase seen in VMT and VMT per capita since 2012. Also, we saw no noticeable improvements in historically problem areas, such as US 160, between Springfield and Nixa, and National, north of James River Freeway.

2. Accident Frequency

Accident frequency is important to consider because it affects the reliability of the transportation system. A fender bender may only cause traffic to back up for a few minutes, but for every 1 minute a lane is blocked, it takes four minutes for traffic to return to normal flows. This slow recovery helps contribute to congestion. Accident data used in this analysis is provided by the Missouri Highway Patrol and the Missouri Department of Transportation. In 2016, a new method was used to map and analyze accident rates. Previously, accident rates for intersections and along roadways were combined and compared to MPO average accident rates for arterials and freeways in 2005. In 2016, changes were made to the way accidents are combined and reported. First, accident frequencies for intersections and along roadways were separated. Intersection accident frequencies were compared to same year average accident frequencies for large intersections (*greater than 30,000 entering volume*) and small intersections (*less than 30,000 entering volume*) in the MPO. Range, or roadway, accident frequencies are compared to same year MPO accident frequencies for each type of road; such as freeway, expressway, 5-lane, or 3-lane. Similarly, accident frequencies, rather than accident rates, are used. The accident frequency is adjusted for segment length, but not traffic volumes. This change is shown in the maps made for 2012 and in 2016. This new method allows policy makers to better understand where accidents occur and where improvements are most needed. Data used for these new maps include data from 2009-2011 and 2012-2014.

Map 4.1 and **4.2** contains accident frequency information for both intersections and segments, for the OTO area and the City of Springfield respectively.

Range Accident Frequency

The roadway segment accident frequency is calculated by using the formula below. The 3-year accident frequency for each segment is then compared to the MPO average accident frequency for that period for that type of segment, i.e. freeway or 5-lane.

Formula for Accident Frequency (Range): Segment Crash Frequency = $\frac{\text{Number of Crashes (3yr)}}{\text{Length of Segment}}$

Below Average: A road segment is considered to have a low accident frequency if the frequency for that segment is 50.0 percent or less of the MPO average accident frequency for that type of road during the same period.

Average: A road segment is considered to have an average accident frequency if the frequency for that segment is between 50.1 percent and 150.0 percent of the MPO average accident frequency for that type of road during the same period.

Above Average: A segment of road is considered to have an above average accident frequency if the frequency for that segment exceeds 150.0 percent of the MPO average accident frequency for that type of road during the same period.

Tables 3, 4, 5, 6, and **7** show the change in accident frequencies along CMP road segments. Nine segments along five roads experienced decreased accident frequencies, and seven segments along six roads experienced increases.

Table 3: Range Accident Frequency INCREASED from Average (brown) to Above Average (red)	
Glenstone	
Chestnut to Bennett	
US 65	
Route CC/NN to Greene County Line	

Table 4: Range Accident Frequency INCREASED from Below Average (green) to Average (brown)	
Glenstone	
Seminole to Sunset	
Massey (US 160)	
Guin (RT AA) to Mt. Vernon	
I-44	
US 65 to Mulroy	
MO 413 (US 60)	
Route M/MM to Oakwood	
US 160	
Jackson to I-44	

Table 5: Range Accident Frequency DECREASED from Above Average (red) to Average (brown)	
Kansas Expressway (MO 13)	
Kearney to Division	
US 60	
US 65 to Farm Road 189	

Table 6: Range Accident Frequency DECREASED from Average (brown) to Below Average (green)	
Campbell (US 160)	
Farm Road 157 to Greene County Line	
Kansas Expressway (MO 13)	
Sunshine to Battlefield	
MO 413	
US60 (Oakwood) to Hines	
US 65	
Route CC/NN to Jackson (MO 14)	

Table 7: Range Accidents Frequency DECREASED from Above Average (red) to Below Average (green)	
Kansas Expressway (MO 13)	
Battlefield to Republic	Nichols to Walnut
Radio Lane to Norton	

Overall, 10% of CMP segment length have accidents frequencies above the MPO average. This amount is essentially unchanged from 2012, with 11% of segment length above average.

Intersection Accident Frequency

The intersection accident rate is calculated by using the formula below. The 3-year accident frequency for each intersection is then compared to MPO average intersection accident frequencies for that period. Two values are calculated for MPO intersection accident averages, intersections at or above 30,000 entering volumes and intersections below 30,000 entering volumes.

Formula for Accident Frequency (Intersection):

Intersection Crash Frequency = Number of Crashes (3yr)

Below Average: An intersection is considered to have a below average accident rate if the three-year accident frequency is 50.0 percent or less of the MPO average accident frequency for signalized intersections during the same period.

Average: Intersection is considered to have an average accident rate if the three-year average accident frequency for that segment is between 50.1 percent and 150.0 percent of the MPO's average accident frequency for signalized intersections during the same period.

Above Average: An intersection of road is considered to have an above average accident rate if the three-year accident frequency for that segment exceeds 150.0 percent of the MPO's average accident frequency for signalized intersections during the same period**.**

Tables 8, 9, 10, 11, and **12** show the change in accident frequencies at CMP intersections. Fifteen intersections experienced increases in accidents, compared to MPO averages. Fourteen intersections experienced decreases in accidents. Overall, 176 of the 218 signalized intersections have an acceptable frequency of accidents.

Table 8: Intersection Accident Frequency INCREASED from Average (brown) to Above Average (red)	
Glenstone and Division	Glenstone and Cherry
Kansas Expressway and Walnut Lawn	Glenstone and Erie
Route 60 and MM/M	Sunshine and West Bypass

Table 9: Intersection Accident Frequency INCREASED from Below Average (green) to Average (brown)	
Chestnut and I 44 EBR	Kearney and US 65 NBR
Glenstone and St. Louis	Sunshine and Venture
US 160 and Jackson	Kansas Express (13) and I 44 EBR
Mt. Vernon and Ridgecrest	Kearney and LeCompte
Sunshine and Enterprise	

Table 10: Intersection Accident Frequency DECREASED from Above Average (red) **to Average** (brown)	
Glenstone and Barataria (Mall)	Massey (US160) and Kathryn
MO 413 and MO 174	Sunshine and Marion

Table 11: Intersection Accident Frequency DECREASED from Average (brown) **to Below Average** (green)	
Glenstone and Cherokee	Jackson (MO 14) and 18th St
Kansas Expressway and Walnut	Kearney (MO744) and Neergard
Republic and Kansas Expressway*	South (BU 65) and 3rd/Selmore
Sunshine and Bedford	Sunshine and Blackman

Table 12: Intersection Accidents Frequency DECREAESD from Above Average (red) **to Below Average** (green)	
Campbell (US 160) and Plainview*	US 160 and Guin (Route AA)

*Recently Improved

Overall, 19% of intersections have above average accident frequency. This is the same percentage as in 2012.

Accident Frequency Summary

Within the OTO area, increasing numbers of intersection accidents is concerning. Fifteen intersections saw an increase in accidents, compared to only five road segments with increased accident frequencies. However, only 42 of the 218 (19%) signalized intersections on the CMP network are above average accident frequencies. The increasing number of accidents could be the result of increased VMT per capita from 2012 to 2016. These accidents are also negatively impacting the experienced level of service at the affected intersections.

3. Average Travel Speed

Historical data collected through real-time traffic monitoring programs Acyclica© and HERE© was used to calculate travel speeds along the CMP network in 2016. Data from the morning rush, 7:00am to 8:59am, and evening rush, 4:00pm to 5:59pm, was collected for four work weeks in April 2016. Samples ranged from several hundred travel times to several thousand, depending on the corridor and time of day. To better represent the range in delay experienced, 25th percentile speeds were used in delay calculations.

For previous years, travel time runs were conducted on all roadways comprising of the CMP network utilizing Global Positioning System (GPS) units. These units collected data to determine the average time it takes to travel a corridor. This data was used to determine segments in which the average speed was at least 20 mph below the posted speed limit. These segments are identified in red as AM peak time and PM peak time on **Maps 5.1, 5.2, 5.3, 5.4, 5.5, 5.6, 5.7** and **5.8.**

Average Travel Speed Scale:

(Green) Above the speed limit to 4.9 mph
(Yellow) 5.0 to 9.9 mph below the speed limit
(Orange) 10.0 to 19.9 mph below the speed limit
(Red) 20.0 + mph below the speed limit

It should be noted, the method used to calculate delay is 2016 represents a significant change from previous years. Delay for 2016 is calculated from major intersection to major intersection. Delay for previous years was calculated based on a series of small segments, often just a few blocks long. The previous analyzes were more detailed. For example, the 2012 analysis of National from Chestnut Expy. to Grand revealed delay 'mid-block', along the university, but little delay near Grand or Chestnut. From this analysis, traffic engineers could meaningfully target improvements along the corridor. The 2016 analysis, only reveals 'orange' delay along the entire corridor. Traffic engineers cannot say if this delay is caused by a few problem areas or if delay is evenly experienced along the corridor.

Table 13 identifies the average peak hour travel time delays in miles per hour by direction of travel. It is important to note that the CMP was expanded in 2008 to include additional arterials and would have an effect on the 2008 data. In 2008, the average mph below the posted speed limits was 9.09. This number decreased to 8.77 in 2012. In 2008 and 2012, the greatest delay was in the PM Northbound and Southbound directions. PM Southbound continues to be an issue in 2016, though PM Eastbound traffic has surpassed PM Northbound as the most delayed time and direction. In fact, Eastbound traffic is the most delayed and third most delayed direction in 2016, PM and AM respectively.

Table 13: Average Delay-MPH Below the Posted Speed Limit

Peak Hour / Direction	2005	2008	2012	2016
	Average Delay	Average Delay	Average Delay	Average Delay
AM Eastbound	5.69	5.03	7.86	11.7
AM Westbound	5.73	8.23	7.26	8.7
AM Northbound	6.51	9.93	7.06	9.3
AM Southbound	7.58	8.62	7.68	8.8
PM Eastbound	6.31	8.43	8.76	12.7
PM Westbound	6.57	8.87	8.53	10.9
PM Northbound	9.11	12.42	11.89	10.2
PM Southbound	9.95	11.21	11.14	12.2
Average	7.19	9.09	8.77	10.6

Source: Data from OTO Travel Time Runs, Acyclica and HERE Data Analysis

Travel Speed Summary

The change in traffic time calculations make it difficult to draw conclusions related to changes in travel speed over the CMP period. Data for 2016 does indicate eastbound travel, considering both AM and PM peak periods, experiences more delay than any direction. PM southbound speeds are also a problem. As

future monitor reports are completed, a larger set of Acyclica© and HERE© data will be assembled. Trends can then be identified from new set of data.

4. Intersection Level of Service (LOS)

Intersection level of service is a function of delay. Accordingly, an intersection with LOS A would have a shorter delay than an intersection with LOS F. The longer traffic is delayed at an intersection, the lower/worse the level of service for that intersection. **Maps 6.1, 6.2, 6.3** and **6.4** show an improved LOS at many intersections. Intersection upgrades have been made throughout the CMP system showing an overall improvement to the system.

Level OF Service Scale:
LOS A, B, C (Green)
LOS D (Yellow)
LOS E (Orange)
LOS F (Red)

Table 14 and **Table 15** contains key changes to intersection LOS across the CMP network from 2012-2016. The table does not contain the LOS of every intersection. It simply contains those intersections where improvements or declines occurred. The largest category change occurred as 28 intersections declined to LOS D. During this time, 21 intersections improved to LOS A, B, C.

Overall, 94% of intersections are providing acceptable Levels of Service in 2016. This is down from 96% in 2012.

Intersection LOS Summary

Overall, OTO's intersections are providing acceptable service. On the margin, more intersections experienced declines in service than experienced improvements. These declines could be due to increased VMT per capita from 2012 to 2016. Five of the eight intersections declining to LOS F are associated with the US 160 corridor between Springfield and Nixa. This corridor continues to be a problem area.

Table 14: Acceptable Intersection LOS: Key Changes Across CMP Study Area	
LOS A, B, C in 2016	
Improved to LOS A, B, C	
During **AM** Peak	During **PM** Peak
↑ Chestnut Expressway & Grand	↑ Campbell & James River Frwy EBR*
↑ Kansas Expressway & Walnut Lawn	↑ Chestnut Expressway & Barnes
↑ MO 413 & Scenic	↑ Chestnut Expressway & College
↑ National & Republic*	↑ Chestnut Expressway & Haseltine
↑ West Bypass & Chestnut Expressway	↑ MO-413 & Scenic
↑ Route J & Route NN	↑ National & Cherry
↑ Route J & 17th St.	↑ National & Republic*
↑ West Bypass & Mt. Vernon	↑ Sunshine & Fremont
	↑ West Bypass & Battlefield
	↑ National & Montclair
	↑ Route J & 17th St.
	↑ Route J & Route NN
	↑ West Bypass & Chestnut Expressway
LOS D in 2016	
Improved to LOS D	
During **AM** Peak	During **PM** Peak
	↑ Glenstone & Seminole
	↑ Campbell & Walnut Lawn
Declined to LOS D	
During **AM** Peak	During **PM** Peak
↓ Glenstone & Independence	↓ Battlefield & Kansas Expressway
↓ US 65 & Battlefield SB Ramp	↓ US 65 & Division NB Ramp
↓ Chestnut Expressway & Jefferson	↓ Battlefield & Jefferson
↓ Battlefield & Ingram Mill	↓ Chestnut Expressway & Belcrest
↓ Chestnut Expressway & College	↓ Glenstone & Barataria
↓ Glenstone & Cherry	↓ Glenstone & I-44 WB Ramp
↓ Glenstone & Chestnut Expressway	↓ Glenstone & Independence
↓ Glenstone & Kearney	↓ Kearney & Grant
↓ Kansas Expressway & Chestnut Expressway	↓ National & Division
↓ National & Division	↓ West Bypass & Mount Vernon
↓ Sunshine & Deeswood	↓ US 160 & Route AA
↓ West Bypass & Kearney	↓ US 160 & Tracker
↓ US 160 & Route AA	↓ US 160 & Wasson
↓ Chestnut Expressway & Benton	
↓ West Bypass & Sunshine	

*Recently Improved

Table 15: Congested Intersection LOS: Key Changes Across CMP Study Area	
LOS E in 2016	
Declined to LOS E	
During **AM** Peak	During **PM** Peak
↓ US 65 & Division SB Ramp	↓ Chestnut Expy & Benton
↓ US 65 & Chestnut Expressway NB Ramp	↓ Glenstone & Chestnut Expy
↓ US 65 & Chestnut Expressway SB Ramp	↓ Glenstone & Sunshine
↓ Battlefield & Kansas Expressway	↓ West Bypass & Sunshine
LOS F in 2016	
Declined to LOS F	
During **AM** Peak	During **PM** Peak
↓ US 65 & Division NB Ramp	↓ Sunshine & Deeswood
↓ Campbell & Plainview	↓ US 160 & Route CC
↓ Glenstone & I-44 EB Ramp	↓ US 160 & Aldersgate/Kathryn
↓ US 160 & Aldersgate/Kathryn	
↓ US 160 & Tracker	

Congested Facilities

Maps 7.1 and 7.2 identify facilities in which three congestion indicators were met. These facilities are considered to be "congested" and are identified in the **Map 7.1** and **Map 7.2**.

Map 7.1 evaluates the congested facilities specific to "Accident Rate Higher than 150% of the MPO Average", along with *V/C Ratio* and *Average Travel Speed*.

Congested facilities include:

Table 16: Congested Facilities with Method 1	
Battlefield Road	
Campbell to Battlefield Mall	
Chestnut Expressway	
Sherman Avenue to Boonville Avenue	
Glenstone Avenue	
I-44 to Division Street	Chestnut Expressway to Seminole
Kansas Expressway	
Grand to Sunshine	Battlefield to Republic Road
National Avenue	
Battlefield to Republic Road	
US 160	
Route AA to Route CC	
US 60	
At Route M/Route MM	
Route 14	
At US 160	At US 65

There are more facilities identified as congested in 2016 than in 2012 using this method. Several north/south routes south of Battlefield are now congested, along with portions of Battlefield. Additional congestion has developed along Sunshine/MO-413.

Map 7.2 evaluates the congested facilities specific to "Intersections Level of Service (LOS) E of F" along with *V/C Ratio* and *Average Speed*.

Congested facilities include:

Table 17: Congested Facilities using Method 2	
Glenstone and EB I-44 Ramps	Glenstone and Chestnut Expressway
Glenstone and Sunshine	Battlefield and Kansas
US 160 and Route CC	

The same number of intersections are considered congested in 2016 as in 2012. However, there is no overlap between the 2012 and 2016 intersections.

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Strategies for Recurring Congestion Mitigation

Phase I of the adopted Congestion Management Process outlined 5 main strategies on which to focus the OTO Congestion Management Process. Strategies which have been implemented between 2008 and 2016 are listed below along with system improvements, policy changes and encouragements to reduce demand at peak travel times.

Strategy #1: Improve Roadway Operations

- **Intersection Geometric Improvements:** The following interchange and intersection improvements were made to improve overall efficiency and operation.

Interchange Improvements

- Chestnut Expressway at US 65 new diverging diamond interchange
- Glenstone Avenue at James River Freeway (US 60) relocated eastbound ramp signal to Harvard Street
- Kansas Expressway at I-44 new diverging diamond interchange
- MO 125 at I-44 north outer road in Strafford signal improvements and turn lanes
- MO 14 at US 65 relocated signal and improved interchange capacity
- National Avenue at James River Freeway (US 60) converted to diverging diamond interchange
- US 60 at US 65 eliminated at-grade R/R crossing and added directional flyover and flyover ramp
- JRF ramp improvements between Kansas and Campbell, and Campbell and National
- US and Battlefield Rd new diverging diamond interchange
- Kansas and James River Freeway
- James River Freeway and US 65

Intersection Improvements

- Campbell Avenue at El Camino Alto Drive/Cardinal Street intersection widening to 6-lanes
- Campbell Avenue at Lakewood Avenue intersection widening to 6-lanes
- Campbell Avenue and Plainview Road intersection improvements
- Campbell Avenue and Primrose intersection improvements
- Chestnut Expressway and Sherman intersection improvements
- Glenstone Avenue at Battlefield Road added turn lane storage
- Glenstone Avenue at Republic Court widened to 3 lanes northbound and southbound
- Glenstone Avenue at Valley Water Mill added turn lane
- Kansas Expressway at Division Street replaced R/R overpass w/ minor intersection improvements
- Kansas Expressway at Norton Road diverging diamond interchange improvements
- Kansas Expressway at Sunset Street left turn lane extension
- Kansas Expressway at Walmart/Golden Plaza

- Kearney and Mulroy intersection improvements
- MO 14 at 20th Street intersection widening
- MO 14 at Route NN new turn lane added
- MO 14 at US 65 ramp intersection widening
- National Avenue and East Trafficway intersection improvements
- National Avenue and Grand Street intersection improvements
- National Avenue and Seminole Street intersection improvements
- National Avenue and Republic Road intersection improvements
- Sunshine Street and Fort Avenue intersection improvements
- Sunshine Street and Fremont Avenue intersection improvements
- Sunshine Street at Eastgate Street intersection realignment / turn lane improvements
- US 160 at Division Street upgraded to offset left turn lane
- West Bypass and Mount Vernon Street intersection improvements
- Mount Vernon and Orchard Crest intersection improvements (Off-CMP)
- Primrose and Kings intersection improvements (Off-CMP)
- Oak Grove and Catalpa intersection improvements (Off-CMP)
- Walnut Lawn and Maryland constructed Roundabout (Off-CMP)
- Kimbrough Avenue and Walnut Street intersection improvements (Off-CMP)
- US 60 and Oakwood
- US 160 and MO 14

Turn Lanes

- Battlefield at Glenstone added westbound right turn lane
- Battlefield at Campbell improved eastbound right turn lane
- Campbell Avenue at Sunset Street added northbound right turn lane
- Eastgate Avenue at Sunshine Street added eastbound right turn lane
- Glenstone Avenue at Battlefield Road added eastbound turn lane storage
- Glenstone Avenue at McClernon Street turn lane improvement
- Glenstone Avenue at Peele Street added right turn lane
- Glenstone Avenue at Valley Water Mill added turn lane
- Grand at Campbell added eastbound right turn lane (Off-CMP)
- Grant at Chestnut Expressway added southbound right turn lane
- Jefferson at Sunshine added northbound drop off lane
- Kansas Avenue and Battlefield Road northbound left turn lane
- Kansas Expressway and Norton Road westbound dual left turn lanes
- Kansas Expressway and Republic Road eastbound dual left turn lanes
- Kansas Expressway and Republic Road added dual southbound right turn lanes
- Kansas Expressway at Sunset Street left turn lane extension
- Kimbrough and Grand added northbound right and left turn lanes (Off-CMP)
- MO 14 at Route NN new turn lane added
- Mount Vernon Street and West Bypass southbound right turn lane and northbound left turn lane extension, eastbound separate right turn lane, extended the left turn lane.
- National Avenue and Primrose Street dual left turn lanes plus channelized right turns all directions

- National Avenue and Monroe Street eastbound dual left turn lanes, eastbound channelized right turn lane
- National Avenue and Walnut Lawn Street added eastbound right turn lane
- Sunshine Street and Fort Avenue added westbound right turn lane, northbound separate left and right turn lanes, and southbound separate left turn lane
- US 160 at Gregg Road added turn lane improvement
- US 160 at Mt Vernon Street added turn lane improvement
- Walnut Lawn Street at National Avenue added eastbound right turn lane

Acceleration Lanes

- On SB Kansas Expressway at Broadmoor

- **Intersection Signalization Improvements:** Improving signal operations through re-timing signal phases, adding signal actuation, etc.

Signal Improvements

- Route P and US 60 in Republic
- Elm and US 60 in Republic
- Hines and US in Republic
- MO 174 and US 60
- Adaptive Signal System along US 60 in Republic (Oakwood, Hamilton, MO 174/Independence, Hines, Elm, Route P/Main)

New Signals (Off CMP Network)

- Route EE at Alliance Avenue
- Route M at Route ZZ

New Signals (On CMP Network)

- Glenstone Avenue at Commercial Street added pedestrian signal
- Glenstone Avenue at I-44
- Glenstone Avenue at I-44
- Glenstone Avenue at Valley Water Mill signal improvement
- Kansas Expressway at Atlantic Avenue upgraded signal detection equipment
- Kansas Expressway at Bennett Street changed signal to protected left turn phasing
- Kansas Expressway at Elfindale Street
- Kansas Expressway at Evergreen
- Kansas Expressway at Grand Street changed signal to protected left turn phasing
- MO 14 at 18th Street
- MO 14 at 25th Street
- MO 14 at 3rd Street
- US 160 at Jackson Street in City of Willard
- US 60 at Oakwood Avenue

Signal Phasing/Actuation Changes

City of Springfield network phasing changes, removed protected permissive from:

- Chestnut Expressway at Airport Boulevard change left turn phasing
- Chestnut Expressway at Cedarbrook Avenue change left turn phasing
- Chestnut Expressway at I-44 change left turn phasing
- Chestnut Expressway at Patterson Avenue change left turn phasing
- College Street westbound
- Grand Street and Holland Avenue removed the split phasing
- Grant Avenue westbound
- Kansas Expressway and Republic Road installed protected dual left turn lanes
- Kimbrough Avenue northbound and southbound
- National Avenue at Kearney Street changed left turn signal phasing
- Trafficway Street northbound and southbound
- US 160 At M/FF changed left turn signal phasing
- US 160 at Mt Vernon Street signal improvement
- US 160 at Northview Road change signal phasing- remove split phasing
- US 160 at Tracker Road Change signal phasing – remove split phasing
- US 60 at Hamilton Street changed signal phasing

Time Plans – Off CMP Network

All timing plans including: AM Peak, AM Off, Noon, and PM Peak and Off Peak Early & Late, the following have been retimed for Springfield:

- Central Street
- Division Street
- Grand Street
- Grant Avenue
- Kimbrough Avenue
- Republic Road

Weekend and holiday timing plans were implemented in the Battlefield Retail Area. These timing plans encompass the entire weekend and holiday plans were in place on the weekends from Black Friday through Christmas Day. This plan includes:

- Fremont Avenue
- Primrose Street
- Primrose Street and Delaware Traffic Signal Installation

Timing Plans – On CMP Network

Implemented new AM off, noon, school dismissal timing, the AM off period occurs between 8:30 AM and 11:00 PM. The noon timing plan begins at 11:00 AM and ends at 2:00 PM, the school dismissal timing plan is in place from 2:00 PM until 3:45 p.m.:

- Battlefield Road
- Campbell Avenue
- Chestnut Expressway
- Glenstone Avenue
- Kansas Expressway

- Kearney Street
- National Avenue
- Sunshine Street

Weekend and holiday timing plans were implemented in the Battlefield Retail Area. These timing plans encompass the entire weekend and holiday plans were in place on the weekends from Black Friday through Christmas Day for Springfield. This plan includes:

- Battlefield Road
- Campbell Avenue
- Glenstone Avenue
- National Avenue

- **Coordinated Intersection Signals:** Improve traffic signal progression along identified corridors. The following signalized corridors were improved by installing new fiber optic connections between signal controllers to obtain better progression along the arterial system.

Signal Retiming

- Battlefield Road and Kansas Avenue signalization
- Division Street and Packer Road signalization
- MO 14 at 25th Street to route NN-new time of day plans
- MO 14 at from Gregg Road-new timing plan
- National Avenue and Cherry Street signal improvements
- National Avenue and Monroe Street signal installation
- Re-timed nighttime signal flashing operations city-wide
- US 160 from route AA (Guin Rd) to South Street-new time of day plans

Signal Removed

- Chestnut Expressway at Fremont Avenue eliminated median mounted signal pole
- Jefferson Avenue and Saint Agnes Cathedral pedestrian crossings
- Kimbrough Avenue and McDaniel Street
- Sunshine Street and Delaware Avenue

Fiber Optic Connections

- Installed conduit and fiber from the Busch Municipal Building to the new Greene County Public Safety Center (PSC) to provide network connection between the Transportation Management Center of the Ozarks (TMC) and the Public Safety Center (PSC).
- Installed interconnect conduit and fiber on Campbell Avenue from a point north of Battlefield Road to the Cherokee Street intersection and brought onto the Ozarks Traffic Network.
- Installed interconnect fiber on Battlefield Road from Stewart Avenue to Moulder Avenue, through the existing CenturyTel Conduit and Fiber Sharing Agreement, and brought onto the Ozarks Traffic Network.

- **Incident Management - Detection, Response & Clearance**: Utilize traveler radio, travel alert notification (via e-mail, fax, text, etc.), and public outreach to enhance incident-related information dissemination. MoDOT has provided the list below of their incident management activities:
  - Assist in opening roadways for traffic flow with as few delays as possible.

- Assist with snow removal operations.
- Help in traffic control operations during emergency situations and keep traffic flowing as smoothly as possible during periods of non-emergency.
- Help with emergency situations such as flooding, tornadoes, and other emergencies where the Incident Coordinator needs our assistance.
- Inspect end terminal guardrail heads for damage, visibility and post attachment, notify the proper inspector for replacement if necessary
- Keep the roadways clear of any objects that may interfere with traffic flow
- Monitor all routes every day for any situations that could interfere with a smooth motoring experience
- Monitor traffic flows, volumes, and tendencies to assure a safe driving experience
- Aid the motoring public with vehicle breakdowns
- Repair and replace delineators along the I-44 corridor and various routes in the Springfield Metropolitan area
- Repair and replace mile marker signs along the I-44 corridor
- Repair and replace signs on the I-44 corridor at emergency turnaround points
- Repair guard cable hits along the I-44 corridor and outer roads
- Respond to all incidents and emergencies on the I-44 corridor and other routes as instructed by the Incident Coordinator for MoDOT's Southwest District
- Trim grass and weeds around both permanent and movable message boards so good visibility is maintained for the motoring public
- Utilize our equipment to repair guardrail hits where there is only minor damage, thereby avoiding the need for complete guardrail replacement

- **Bus Turnout Construction:** Currently there are 36 bus turnouts on the CU transit system. The CU Transit services utilize these turnouts 55 times on scheduled routes. All turnouts were constructed prior to 2009 except for 1 new location at Orchard Crest Avenue and Chestnut Expressway location (Northbound constructed Feb 10, 2010). The City Utilities has discontinued the construction of future turnouts due to transit service delays caused by reentry of buses into traffic flow.

Strategy #2: Reduce Vehicle Miles Traveled (VMT) At Peak Travel Times

- **Land Use Policies/Regulations:** The following land use policies and regulations are in place to encourage more efficient patterns of commercial and residential development and to decrease both the total number of trips and overall trip lengths, as well as making transit use, bicycling, and walking more viable:
  - All OTO jurisdictions have implemented future land use plans to encourage more efficient growth patterns.
  - All OTO jurisdictions have implemented regulations that require the construction of sidewalks in new subdivisions.
  - Greene County has adopted a new zoning district that allows for lots as small as 6,000 square feet. Previously the smallest lot size was 10,000 square feet.
  - OTO jurisdictions utilize developer incentives to encourage infill development.
  - The City of Nixa has decreased the minimum lot size for residential development.
  - The City of Ozark has decreased the minimum lot size for residential development.

- The City of Springfield has developed regulations that allow for and encourage higher density infill developments including Planned Unit Development Ordinances and Zoning Overlay Districts.
- The Republic School District has built a new high school in a location that discourages traffic within the City of Republic.

- **Employer Flextime Benefits/Compressed Work Week:** Encouraging employers to consider allowing employees to maintain a flexible schedule - thus allowing the employee the option to commute during non-peak hours.
  - MoDOT allows flextime
  - OTO allows flextime
  - Greene County allows for a compressed work week
  - City of Springfield allows for a compressed work week
  - City Utilities allows flextime
  - Area school districts offset starting times to utilize the same buses for different schools
  - Hospital shifts area set as off-peak times

Strategy #3: Shift Trips from Automobile to Other Modes

This strategy includes improvements beyond those made adjacent to roadways that are included in the Congestion Management Process network. Improvements made anywhere in the OTO study area that encourage people to use alternative modes may lessen the impacts of traffic system area wide.

- **Fleet Expansion/Bus Service Expansion:**
  - Bus service expansions and modifications include the following:

October 4, 2010: Line 8 was extended on west Kearney Street to serve Expedia. Line 6 inline transfer point was changes to Grand Street and Scenic Avenue and Saturday service to Catalpa Street was discontinued.

January 3, 2011: Line 1 was extended one time per hour north to the Fulbright Springs development, this was discontented on May 3, 2011

January 18, 2011: Line 14 was extended one time per hour south to Calhoun Street near Drury University, this was discontinued on May 23, 2011

May 2011: Line 12 was changed to travel north on Jefferson Avenue between Powell Street and Battlefield Road, instead of Campbell Avenue

July 2011: Line 10 and 15 morning peak service was reduced from 30-minute service to 60-minute service making these routes 60-minute service all day

October 8, 2012: Line 1 was extended north to Fulbright Springs development on a trial basis at 7:12 AM, 7:42 AM, 3:42 PM and 4:12 PM

October 31, 2012: Line 5 inbound to Transfer Station, at Kimbrough Avenue continue west on St. Louis Street left on Jefferson Avenue, and right on McDaniel Street

October 31, 2012: Line 5 at Harvard Avenue and Independence Street turn left to Glenstone Avenue and continue north on Glenstone Avenue on regular route

November 23, 2012: Line 1 extension to Fulbright Springs Development was discontinued due to lack of ridership

January 7, 2013: Line 16 was put into service and Line 1 was reconfigured into lines 14 and line 2.

April 7, 2013: Line 11 will begin at 8:56 AM and end at 5:25 PM; Line 9 will have an extra hour of 30-minute service in the afternoon until 6:00 PM; lines 4 and 13 will have 30-minute service from 2:35 until 5:05 PM; line 16 will be in service an extra hour on weekdays until 6:45 PM at the Battlefield Mall

June 2013: Line 3 E. Division was added to see how the route would perform, however the official start date will be July 7, 2013 for Line 3.

July 2014: The Line 3 was discontinued before July 2014.

July 2014 – May 2016: There were no substantial changes made between July 2014 and May 2016.

May 8, 2016: All lines were adjusted around downtown for entry and departure to the new Transit Center located west of the square at 211 N. Main.

- Line 2 was left relatively unchanged.
- Line 3 was added to the system as a combination of Lines 4 & 10. It runs hourly on weekdays.
- Line 5 was redesigned with Line 12 and runs south on Glenstone to Peele, Harvard and Independence. Line 5 now heads west on Independence, north on Weller, east on Bradford Parkway, north on Delaware, east on Primrose and north on National. Its inbound pattern is Elm to Campbell to College to Main.
- Line 6 was extended northbound on Scenic to Mt. Vernon west, bypassing the Madison to Golden route. When Line 6 approaches West Bypass, it goes south to Sunshine, making a stop in the Wal-Mart parking lot and then continuing north on West Bypass and picks up the regular route westbound on Mt. Vernon. Travelling westbound on Chestnut Expressway, Line 6 continues to College east to Scenic south, bypassing the Golden to Walnut path.
- Line 7 was left relatively unchanged.
- Line 9 was extended east on Battlefield to Jefferson, south to Walnut Lawn westbound to regular route. Line 9 runs hourly on weekdays.
- Line 12 was redesigned with Line 5 and runs regular route to southbound on Fremont continuing south to Battlefield, west to National, south to Primrose, east to Fremont, south to Independence, east to Glenstone, north to St. Louis, west into the Transit Center.
- Line 14 was left relatively unchanged.
- Line 22 was left relatively unchanged. Line 22 runs hourly on nights and Sundays and runs twice an hour all day on Saturdays.
- Line 25 was left relatively unchanged. Line 25 runs hourly on nights and Sundays and runs twice an hour all day on Saturdays.

- Line 26 was left relatively unchanged. Line 26 runs hourly on nights and Sundays and runs twice an hour all day on Saturdays.
- Line 27 was essentially designed to run in an opposite direction. It was extended south on Campbell to the Library Center following the path of the Line 7. It was extended west on Bennett to Scenic, bypassing the Kansas Expressway to Catalpa path. Line 27 runs hourly on nights and Sundays and runs twice an hour all day on Saturdays.
- Line 31 was created as a partial combination of Lines 11 and 16. Line 31 starts on Sunshine at Mercy Hospital heading eastbound to Neighborhood Market's parking lot, north on Blackman, west on Sunshine, south on Ingram Mill, west on Battlefield, north on Luster, west on Barataria, south on Glenstone, west on Republic Rd, north on Fremont, west on Primrose, north on South, east on Powell, north on Jefferson, east on Battlefield, north on Fremont, west on Seminole, north on National to Sunshine. Line 31 runs hourly on weekdays and nights through 10 p.m. and hourly on Saturdays from 8 a.m. – 5 p.m.
- Line 36 was created as a partial combination of Lines 11 and 16. Line 36 starts on Sunshine at Mercy Hospital heading eastbound to Fremont, south to Seminole, west to National, south to Republic Rd. west to Golden, north to Battlefield, east to Scenic, north to Sunshine, west to Sunshine and West Bypass stopping in the Wal-Mart parking lot. Line 36 then continues east on Sunshine returning to Mercy Hospital. Line 36 runs hourly on weekdays and nights through 10 p.m. and hourly on Saturdays from 8 a.m. – 5 p.m.
- Line 38 was created as a partial combination of Lines 8 and 13. Line 38 starts at Wal-Mart at Kearney and Glenstone, heading west on Kearney, north on Glenstone, west on McClernon, west on Norton, south on Grant, west on Kearney, north on Kansas, turning around behind Casey's, continuing south on Kansas, west on Nichols, north on Hutchinson, east on Calhoun, north on Glenn, east on Division, north on Campbell, east on Court, south on Boonville, east on Division, north on National, east on Evergreen, south on Fremont, east on North, south on Delaware, east on Kearney to Wal-Mart. Line 38 runs hourly on weekdays and nights through 10 p.m. and hourly on Saturdays from 8 a.m. – 5 p.m.
- Line 35 was created as a combination of the Line 15 and the west end of the Line 8. Line 35 starts at Wal-Mart at Kansas and Kearney, heads west on Kearney, south on Kansas, east on Turner, east on Kearney, north on Partnership Blvd, east on Mustard Way, West on Kearney, south on Alliance, east on Division, north on Golden, east on Kearney to Wal-Mart. Line 35 is an express route with limited stops serving both Partnership Industrial Centers hourly between 6:30-9:30 a.m. and 3:30-6:30 p.m. on weekdays
- Lines 4, 8, 10, 11, 13, 15 and 16 were discontinued and absorbed by other routes.

June 14, 2016: Line 27 heading west on El Camino Alto turns north on Campbell, bypassing the Cardinal path.

June 24, 2016: Line 12 was extended south on National past Primrose, using Cox South Hospital's drive to the west, outer road to the south, under the bridge to the east, picking up Bradford Parkway east to Fremont where it continued regular route to the south.

June 30, 2016: Line 2 was moved from Mill street onto Olive street on both its inbound and outbound paths.

July 14, 2016: Line 31 was extended westbound on Primrose to Campbell, north to Battlefield, west to continue regular route. Line 9 was adjusted outbound from the Transit Center south on Main, west on College, south on Grant to continue regular route. It was also adjusted inbound north on South, west on Walnut, north on Campbell, west on College, north on Main to the Transit Center. Line 27 was adjusted westbound on Bennett to go north on Kansas Expressway, west on Catalpa and continue regular route on northbound Scenic.

August 22, 2016: Line 3 and 22 share an inbound pattern that was adjust as part of the street improvement project at OTC. When each route is westbound on Pythian, they continue west to the roundabout and then continue west on Central. This pattern bypasses Fremont to Central. Line 3 eastbound on Central was adjusted to take eastbound Pythian out of the roundabout to National northbound. Line 6 was rerouted around Preferred Employment. Traveling eastbound on College continuing to Olive, westbound to southbound on Scenic.

September 12, 2016: Line 9 eastbound on Battlefield was adjusted to turn south on Campbell and pick up regular route on westbound Walnut Lawn.

November 14, 2016: Line 12 eastbound on Bradford turns north on Kickapoo, east on Primrose, north on Glenstone to regular route.

November 28, 2016: Line 6 & 36 changed path on westbound Sunshine, north on Zimmer Rd, west on Springfield Plaza Dr, north on McCurry, east on Sunshine to respective regular routes. Line 31 will not extend to Neighborhood Market between 3-6 p.m. on weekdays and 3-5 p.m. on Saturdays, instead the eastbound pattern on Sunshine will turn south on Ingram Mill during these times.

- **Improved/Expanded Bicycle Network:**
  - The following improvements have been made to the bicycle network:
    - Miles of street marked with bicycle facilities

	Goal	2011	2012	2013	2014	2015
Newly Marked This Year						
Bike Lanes		2.6	6.8	1.4	0.3	3.1
Shared lanes		1.1	7.8	1.3	1.6	13.7
Total Marked	10	3.7	14.6	2.7	1.9	16.8
Cumulative						
Bike Lanes		5.7	12.5	13.9	14.2	17.3
Shared lanes		1.5	9.3	10.6	12.2	25.5
Total Marked		7.2	21.8	24.5	26.4	42.8

- The City of Springfield has signed more than 60 miles of designated bike routes and is enhancing the system with additional pavement markings and signs.

- 46.5 miles of street were restriped with bike lanes including:

- Benton Avenue from Commercial Street to Central Street
- Boonville Avenue from Division Street to Chestnut Expressway
- Division Street from Lyon Avenue to Benton Avenue was restriped to include bike shared-lane symbols in the outside lane
- Division Street from Broadway Avenue to Lyon Avenue
- Austin Avenue from Sunset Street to Battlefield Road
- Bennett Street from Barnes Avenue to Glenstone Avenue
- Cherry Street from Dysart Avenue to west of Barnes Avenue
- Fort Avenue from Broadmoor Street to Battlefield Road
- Fremont Avenue from Chestnut Expressway to Saint Louis Street
- Grant Avenue from Walnut Street to Grand Street
- Ingram Mill Avenue from Battlefield Road to Greeley Street
- Jefferson Avenue from Woodland Street to Montclair Street
- National Avenue from Talmage Street to Evergreen Street
- Stewart Avenue and St. Louis Street from East Trafficway to Dysart Avenue
- Sunset Street from Austin Avenue to west of Fort Avenue

- John Q. Hammons Parkway from East Trafficway to Harrison Street (0.55 mile) was signed and marked for the Link including signs and markings for bike shared lanes

- Streets with bike lanes were resurfaced and markings restored including:
  - Bennett St from Weller Av to Glenstone Av
  - Sunset St from Austin Av to Kansas Expwy
  - Austin Av from Sunset St to Battlefield Rd

- Streets with bicycle shared lane markings were resurfaced and markings restored including:
  - 0.78 miles on Grant Av from Grand St from Portland St
  - 0.16 mile of Broadmoor St from Fort Av to Weaver Av
  - 0.09 mile on Fort Av from south of Sunshine St to Washita St

- Street were marked with bicycle shared-lane decals including:
  - A route on and near Fort Avenue from Weaver Avenue at Seminole Street to Deerfield Street at Kansas Avenue
  - Broadway Avenue from Nichols Street to Grant Avenue
  - Grant Avenue from Grand Street to Fassnight Trail
  - Main Avenue from Grand Street to Fassnight Trail
  - Normal Street from Grand Street to Fassnight Trail
  - Sunset Street from Grant Avenue to west of Fort Avenue
  - Talmage Avenue from Summit Avenue to National Avenue
  - Tampa Street from Nichols Street to Grant Avenue
  - The Link from Summit Avenue at Kearney Street to Sherman Avenue at Central Street
  - High St, Albertha Av, and Atlantic St from Clifton Av to Kansas Expwy
  - West Av from Division St to Nichols St
  - Fort Av from Portland St to Washita St
  - Grant Av from Normal St to Portland St
  - Kimbrough Av from East Trafficway to Walnut St
  - South Av from McDaniel St to Madison St

- Madison St and Holland Av from Grant Av to Briggs Transitway at Holland Av
- Bob Barker, Clay Av, and Chestnut St from Sherman Av to Jordan Creek Trail
- Normal St, Dollison Av, Catalpa St, Clay Av, Bennett St, Holland Av, and University St from Missouri State University path to Kimbrough Av at University St
- Kimbrough Av, Cherokee St, and Holland Av from Sunshine St to South Creek Trail
- Kimbrough Av from Sunset St to Battlefield Rd
- Nichols St from Kansas Expwy to Grant Av
- Walnut St from Grant Av to Weller Av
- Commercial St and Nias Av from Washington Av to Blaine St at Nias Av
- Talmage St from Grant Av to Robberson Av
- Edgewood St and Grant Av from Fort Av to South Creek Trail at Grant Av
- Washita St, Kansas Av, Wayland St, Westwood Av, and Broadmoor St from Fort Av at Washita St to Fort Av at Broadmoor St
- Fremont Av from Commercial St to Division St
- Intersection signal detector markings at 26 intersections
- Other streets on the signed bike route system

- Completion of gaps on The LINK with installation of HAWK signalized crosswalk on Sunset Street with 0.13 mile new trail on The LINK connecting South Creek to Kimbrough Avenue and passage under Chestnut Expressway as part of 0.18 mile new trail on North Jordan Creek Trail from existing trail north of Chestnut Street to Sherman Avenue south of Chestnut Expressway

- **Bicycle Storage Systems:** The following improvements have been made regarding bicycle storage systems, 30 bike racks 66 bicycle parking spaces were installed including:
  - 6 in bike corral on South Avenue south of Walnut Street (12 bike parking and five motorcycle / motor scooter parking spaces)
  - 17 additional bike racks on Park Central Square, Park Central East and Park Central West
  - 4 racks and 6 lockers at Busch Municipal Building
  - 3 new racks at 233 Commercial Street (at Drury University design facility)
  - 3 bike racks and 6 bicycle parking spaces were installed, one new racks at 233 Commercial Street (at Drury University design facility)
  - 2 new bike racks on southeast corner of Walnut Street and Jefferson Avenue

- **Improved/Expanded Pedestrian Network:** The following sidewalk and greenway trail improvements have been made:

<u>Greenway Trails</u>

Other sustainable transportation programs include the completion of 105 miles of greenways, 15 streetscape projects in the Center City that provide improved pedestrian and bicycle linkages, a road diet program that reduced the number of automobile lanes to provide for bicycle lanes

- Fassnight Creek Trail between Grant Avenue and Campbell Avenue including grade-separated crossings at Grant Avenue and Campbell Avenue constructed as part of storm drainage project
- Wilson's Creek south of Hattiesburg Hills consists of one mile of Wilson's Creek Trail from Farm Road 150 to Farm Road 156

- South Dry Sac Trailhead consists of a parking lot in David Murray Park and 0.41 miles of trail from David Murray Park to Ritter Springs Park
- Wilson's Creek Trail from Farm Road 156 to South Creek at Kauffman Avenue includes 1.52 mile new trail connecting two shorter segments to create a six-mile trail segment from Rutledge-Wilson Farm Park to Republic Road and a trailhead on Kauffman Av
- Wilson's Creek Trail from Farm Road 156 to South Creek at Kauffman Avenue includes 1.52 mile new trail connecting two shorter segments to create a six-mile trail segment from Rutledge-Wilson Farm Park to Republic Road and a trailhead on Kauffman Av
-

Sidewalks

The City of Springfield has constructed more than 40 miles of sidewalks to elementary schools based on priorities submitted by each school and has identified a goal of having a sidewalk on at least one side of every street within a half-mile of elementary schools

- Bennett Street from Kimbrough Avenue to Jefferson Avenue
- Boonville Avenue from Court Street to Division Street
- Campbell Avenue from Cherokee Street to Battlefield Road
- Campbell Avenue from Olive Street to Mill Street
- Commercial Street from Campbell Avenue to Lyon Avenue
- Holland Avenue from Portland Street to Sunshine Street
- Near Delaware Avenue and High Street
- Near Turner Street and Prospect Avenue
- Portland Street from National Avenue to Kimbrough Avenue
- Summit Avenue west side of Washington Park
- Walnut Street from Kimbrough Avenue to John Q. Hammons Parkway
- Walnut Street from Market Avenue to Campbell Avenue
- (2.5 miles) was signed and marked for the Link including signs and markings for bike shared lanes and sidewalk construction. Summit Avenue, Dale Street, Washington Avenue, Calhoun Street, and Sherman Avenue from Kearney Street to East Trafficway

- New sidewalk included in the Republic Road widening project between Chase Card Services driveway and Fremont Avenue
- Republic Road from Quail Creek Av to Kansas Av (north) is under construction for five motor traffic lanes, bike lanes, and sidewalks
- Campbell Av from South Av to north of Primrose St and Primrose St from west of Campbell Av to South Av is under construction for 7 traffic lanes and sidewalk on Campbell Av and 5 traffic lanes, bike lanes, and sidewalk on Primrose St

MoDOT and the City of Springfield collaborated to:

- Kearney Street: address sidewalk gaps from Kansas Expressway to Glenstone
- Glenstone Ave: address sidewalk gaps from Evergreen to Sunset
- Sunshine St: address sidewalk gaps on south side of street from Glenstone

Sidewalk Construction and Reconstruction

- New and reconstructed sidewalk under sidewalk maintenance contract including
  - 4406 S Reed Rd

- Both sides Central St from National Av to Prospect Av
- North side 1501 E. Walnut St
- Both sides Weller Av from Walnut St to Cairo St
- Both sides College St from Lexington Av to Park Av
- Both sides Johnston Av from Turner St to High St
- Both sides Johnston Av from Kearney St to Turner St
- East side Fort Av from Kearney St to Turner St

Miles of new sidewalk:

	Goal	2009	2010	2011	2012	2013	2014	2015
This Year	5				8.8	10.1	4.8	2.6
Cumulative				642.4	651.2	661.3	666.1	668.7

Miles of off-street path in Springfield

	Goal	2009	2010	2011	2012	2013	2014	2015
This Year	0.5	0.0	0.0	0.57	0.0	0.43	1.08	0.51
Cumulative		17.36	17.36	17.93	17.93	18.36	19.44	19.95

Miles of off-street path in Springfield vicinity

	Goal	2009	2010	2011	2012	2013	2014	2015
This Year	1.0	0.0	0.50	1.65	0.40	0.43	1.91	0.51
Cumulative		44.91	45.41	47.06	47.46	47.89	49.80	50.31

- Removal of accessibility barriers including ramp construction/reconstruction and sidewalk repair on MoDOT routes Kearney Street from Glenstone Av to LeCompte Av, Chestnut Expressway from Glenstone Av to Belcrest Av, various sections of Kansas Expwy and West Kearney St and intersection of Sunshine St with Scenic Av

<u>Safety</u>

- Boonville Avenue near Webster Street and near Nichols Street ramps and crosswalk improvement
- Fremont Avenue and Battlefield Mall Entrance ADA pedestrian improvements
- National Avenue and Woodland Street ADA pedestrian improvements
- Ramps and crosswalk on Boonville Avenue near Webster Street and near Nichols Street
- Replaced regulatory and warning signs to meet new federal requirements for retro reflectivity
- Sherwood Elementary – Beacons on Scenic Avenue adjacent to the school
- Sunshine Elementary – Beacons on Jefferson Avenue adjacent to the school
- Installation of HAWK signalized crosswalk on Sunset Street for The Link

Grade separated crossings on off-street path

	Goal	2009	2010	2011	2012	2013	2014	2015
This Year	1	0	2	3	1	0	3	4
Cumulative		19	21	24	25	25	28	32

Strategy #4: Shift Trips from SOV to HOV Automobile/Van

- **Rideshare Matching Services:** On April 17, 2009, the Ozarks Transportation Organization implemented a web-based rideshare matching program (www.ozarkscommute.com) where commuters can register and search for commuting partners. The Ozarks Transportation Organization manages the web portal and phone line. Since the development of this program there have been a total of 578 registered users. The City of Springfield has accepted responsible for public awareness through promotional material distributed at local events. At these events registered users have reported that once a carpool is established the carpooling service is rarely accessed until an open seat becomes available.

- **Vanpool/Employer Shuttle Programs:** Several area employers and multifamily housing complexes have implemented vanpool or shuttle programs. Examples include: St. Johns Medical Center, TLC Properties, Missouri State University, and Prime Trucking.

- **Improved/Increased Park-and-Ride Facilities & Capital Improvement**s: There two known parking areas within the OTO area. A private truck parking facility and a MoDOT park-and-ride lot which is currently underutilized. Accordingly, expansion is not planned at this time.
  - 17 space overnight truck parking facility at East Evergreen Street in the City of Strafford
  - 50 space commuter parking at US 65 and Evans Road

Strategy #5: Add Capacity

- **Capacity Expansion:** The following capacity improvements have been completed:

<u>On CMP Network Capacity Improvements</u>

Campbell Avenue/US 160 from South Avenue to Plainview Road
- Added third northbound lane
- Added third southbound lane south of Melbourne

Glenstone Avenue from US 60 to Battlefield
- Added 3rd northbound and southbound lane along corridor
- Peele Street added right turn lane

James River Freeway
- Added auxiliary lane (6 lane freeway) from Campbell Avenue to National Avenue
- Added auxiliary lane (6 lane freeway from Kansas Expwy to Campbell Avenue

US 65
- Improved to 6 lane freeway from the I-44 and US 65 interchange to the US 60 and US 65 interchange

Republic Road
- Five lane expansion from National Avenue to James River Bridge

National Avenue

- Additional southbound lane south of Walnut Lawn to Primrose

Route 14

- Widened to 5-lane between Jackson and Church.

Off CMP Network Capacity Improvements

- Fremont Avenue widening from Sunshine Street to Cherokee Street
- Packer Road added three lane expansion from railroad tracks to Division
- Constructed three-lane section from West Bypass to Suburban
- LeCompte- Three lane expansion from RR crossing to Kearney

Effectiveness Analysis, 2008-2016

The objective of this analysis aimed to determine congestion management strategies that are most effective in reducing congestion in the OTO region. The period of 2008 to 2016 was chosen because VMT and VMT per capita was abnormally low in 2012 due to the national recession. The longer time period makes the analysis more difficult but the data is better representative of the OTO region. Several GIS-based methods were explored to identify a connection between capacity improvement strategies and reductions in congestion using hypothesis testing with inferential statistics. Various methods were explored to capture a distance attribute from areas of changes in congestion to congestion management improvement projects and compare for statistically significant differences between areas of change in congestion from 2008 to 2016 and types of congestion management strategies.

Data

Spatial data for the exploration of methodologies was derived from the identification of congested facilities in Maps 7.1 and 7.2, the congestion measures found in Maps 3.1 through 6.4, and the data contained in Implementation Strategies starting in page 15. Congested facilities were categorized into three groups:

- Areas where congestion had improved from 2008 to 2016,
- areas with no change in congestion from 2008 and 2016, and
- areas with new or emerging congestion in 2016.

In addition to the listings in the Implementation Strategies section, completed improvement projects from TIP years FY2006 through FY2015 were mapped. To simplify analysis, all projects were classified by CMP strategy category, i.e. operations or capacity. Also, year of completion was included for each project.

Methods

The analysis primarily relied on two methods for exploring the data: (1) drive time service areas and (2) hex bins. These methods allowed the relationship between congestion and implemented projects to be measured. The *drive time service areas* allowed for the inclusion of the road network into the analysis, while the *hex bins* allowed for more sophisticated analysis.

Drive Time Service Areas

One method was to create drive time service area polygons using the Network Analyst extension in ArcGIS for Desktop. A network dataset for the OTO region was used to model drive time in minutes along the road network from areas of congestion change. The number of capacity and operations improvements within one-, two-, three-, four- and five-minute drive times to improved, no change, and emerging congestion areas were counted, as shown in **Map 8.1** and **Map 8.2**. The proportion of capacity to operations improvements in proximate drive times from the three congestion areas were compared

to the total proportion of capacity and improvement projects for the entire OTO area from TIP years FY2006 through FY2015. A one-sample t-test for proportions was used as the test statistic.

Hex Bins

An alternate method was used to explore correlations between changes in congestion measures and distance to nearest capacity and operations improvement projects from areas of congestion change. A matrix of hexagonal polygons 1,320 feet in width was constructed covering the entire OTO area. Changes in volume to capacity, accident rate, am travel delay, and pm travel delay from CMP years 2008 and 2016 were spatially joined to coincident hexes that intersected with the CMP network. This method captured changes in these measures along the entire network regardless of whether it met the congested threshold. The near tool in ArcGIS for Desktop was used to capture the distance to the nearest capacity project and the nearest operations project for each hex in the OTO area. These distance measures were then used in conjunction with changes in congestion measures using the Pearson's correlation coefficient as the test statistic. This method of analysis is included in Map 8.3, Map 8.4

Results

Preliminary results utilizing these methodologies were mixed. Though statistically significant relationships were found, they do not lead to any meaningful conclusions about the effectiveness of OTO's congestion mitigation strategies.

Drive Time Service Areas

There appears to be a larger number of capacity-adding projects near changes in congestion, as compared to operations related projects. A statistically significant higher proportion of capacity projects are within a one-minute drive time from areas of improvement in congestion. Additionally, a significantly higher proportion of capacity projects was detected within one-minute drive times from areas with no change in congestion. Although there was a significant proportion of capacity projects within one-minute drive times from both these areas, the Z-statistic was far greater in for areas of improving congestion than areas of no change in congestion.

Several statistical relationships were found with the middle drive time ranges, though they reveal few insights. A significantly higher proportion of operations projects were detected in all three areas of congestion change in the middle drive time ranges. Both emerging and improving areas had a higher proportion in the two-to-three-minute drive time polygon and the no change areas had a higher proportion in the three-to-four-minute drive time polygon than the total project population. These middle drive time relationships do not reveal anything truly insightful about the effectiveness of OTO's congestion mitigation strategies.

Hex Bins

Results from the hex bin correlation approach yielded moderate to weak relationships between changes in congestion measures and proximity to the nearest capacity or improvement project. Relationships

were found between capacity projects and the volume to capacity ratio, and between travel delay and operations related projects. The results can be seen in tables 5, 6, 7, and 8.

Summary of Pearson's Correlation Coefficient Hexes

Table 5: All Hexes with values along CMP Segments 2008 and 2016

	AM Travel	PM Travel	VC Ratio	Accident Rate
Capacity distance r	0.043	-0.024	0.011	-0.032
Operations Distance r	0.046	-0.030	-0.010	-0.044

Table 6: Improved Congestion Hexes

	AM Travel	PM Travel	VC Ratio	Accident Rate
Capacity Distance r	0.022	0.020	0.425	-0.111
Operations Distance r	0.136	0.099	-0.035	-0.174

Table 7: No Change Congestion Hexes

	AM Travel	PM Travel	VC Ratio	Accident Rate
Capacity Distance r	0.202	0.113	0.280	-0.312
Operations Distance r	0.234	0.150	-0.025	-0.247

Table 8: Emerging Congestion Hexes

	AM Travel	PM Travel	VC Ratio	Accident Rate
Capacity Distance r	0.126	0.202	0.046	-0.177
Operations Distance r	0.288	0.382	0.142	-0.330

The strongest relationship found was a positive one between distance to the nearest capacity project and change in volume to capacity ratio at 0.425, as shown in table 6. This value can be interpreted as further distances to capacity projects in improved congestion areas correspond with higher increases in volume to capacity ratios for these areas. This relationship decreases for areas of no change and emerging congestion at .280 and .046 respectively, table 7 and 8.

Two relationships were found between operations projects and travel times. Overall, the second strongest relationship is a positive one between the distance to the nearest operations project and change in PM travel delay at .382 for emerging areas of congestion, as seen in table 8. This suggest that in emerging areas of congestion further distances to operations projects corresponds with increases in PM travel delay. A similar but slightly weaker relationship was detected for AM travel delay in these same areas. A positive relationship between these variables was detected in areas of improved congestion although it is considerably weaker.

The preliminary results from this method may indicate that capacity projects are more effective at reducing the volume to capacity congestion measure and operations projects are more effective at reducing travel delays measured during peak traffic flows.

Possible Improvements

Although the results from both of spatial analyses of congestion management strategy have produced some interesting results, these approaches can both be improved.

- There was no accounting for the year of project completion over the eight-year timeframe for improvement projects.
- Some projects in the improvements database had not been completed
- Better data collection and classification of improvement types are needed
- Annual tracking of congestion measures could yield greater significance
- Network datasets can be improved to model completed improvements and travel times in the region
- An origin/destination matrix to calculate proximity to completed projects would be a better measure than the distance to the nearest project
- There was no accounting for projects of greater length as all projects in the analysis were represented as points with no weighting

These methods and data will continue to be evaluated and improved in future years. Other factors should be considered and included, such as signals and driveways per mile, changes in population and development, and changes in employment centers.

Project specific analysis might be more effective than a system-wide analysis. Since improvements in congestion and capacity/operations projects can only occur on the region's road network, the data exhibits a degree a dependency. This dependency makes typical statistical analysis less reliable. Focusing on a sample of different congestion mitigation project types may yield more meaningful results. The constant flow of data available through the Acyclica Sensors will make project specific analysis more feasible moving forward.

Action Plan

The OTO will continue to implement the five *Strategies for Recurring Congestion Mitigation* identified in Phase 1 of the CMP. These strategies represent the region's best opportunities for reducing congestion. Specific geometric and engineering solutions are included in the strategies, along with behavioral changes. Additionally, the OTO will evaluate the methods used to measure CMP congestion in light of MAP-21/FAST Act performance based planning requirements. The OTO wants to ensure efficiency and limit duplication in its data collection and analysis.

Strategies for Recurring Congestion Mitigation

The five strategies for recurring congestion mitigation identified in OTO's CMP continue to be appropriate for the region. Engineering and behavior modifications are activities likely to reduce congestion. Recent priorities are in line with these broad strategies.

It is important to note congestion within the City of Springfield, such as along Glenstone, Battlefield from Campbell to Glenstone, or National from Battlefield to James River Freeway, will be difficult to improve with engineering solutions. Existing development patterns limit the ability to add capacity or remove traffic signals to improve traffic flow. Additionally, accidents in these areas not the result of poor engineering, but rather the result of human error. Significant behavioral changes by regional residents will be needed to address these problem areas.

Strategy #1: Improve Roadway Operations

The OTO will continue to target ITS and corridor specific projects to address problem areas. For example, the OTO has prioritized specific ITS and corridor projects in preparation for the 2018-2021 Transportation Improvement Plan. The US 160 corridor between Springfield and Nixa is being evaluated for signalized and non-signalized intersection improvements. These improvements should result in improved intersection LOS along this corridor. Additionally, the OTO has prioritized the installation of fiber connections between Springfield and Republic, Nixa, and Ozark. These new connections allow for the synchronization of signals along the US 60, US 160 and US 65 corridors. The goal of these actions is to improve roadway operations in the OTO area.

Strategy #2: Reduce Vehicle Miles Traveled (VMT) At Peak Travel Times

The OTO will continue to encourage local business to offer flex time and move shift changes to non-peak travel times. The OTO will also work with area communities to encourage land use patterns that facilitate transit service and walking/biking. Behavioral strategies, such as this, rely on expanded cooperation between elected officials in OTO communities and business leaders to implement these local level decisions.

Strategy #3: Shift Trips from Automobile to Other Modes

The OTO will continue to pursue policies that encourage and facilitate alternative modes of transportation. For example, the OTO is working towards the completion of a Bike and Pedestrian Trail

Investment Study. This study will help the OTO complete an integrated network of trails connecting OTO communities. This trail network will provide a viable alternative to autos for regional intercity travel. The OTO has also prioritized sidewalk construction with all MoDOT sponsored projects. The OTO wants to see sidewalks built along side road projects. The OTO is also involved with *Let's Go Smart*, a community partnership designed to encourage residents to consider their transportation choices every day. The organization encourages walking, biking, riding the bus, and other forms of active transportation. Additionally, CU has updated its bus routes and implemented a 'Where's my Bus?' app to make bus travel more convenient and predictable. The City of Springfield's Sustainability Office helps coordinate city activities related to environmental sustainability, including the sustainability of transportation choices. This office is involved with many area transportation initiatives. These actions all make it easier for OTO residents to shift to other modes of travel.

Strategy #4: Shift Trips from SOV to HOV Automobile/Van

The OTO is working with the City of Springfield to deploy a new RideShare website for the OTO area. This new portal will offer expanded opportunities for area businesses to encourage carpooling and for residents to find rides on their own. Facilitating the creation of RideShare groups is an important way the OTO can encourage shifts in people's commuting behaviors.

Strategy #5: Add Capacity

The OTO recognizes that added roadway capacity is often not a long-term fix for a congestion problem. Induced demand and the continuation of existing development patterns often result in increased traffic volumes. However, additional capacity is often needed to serve growing traffic volumes. The OTO has prioritized additional travel lanes along US 60/James River Freeway, MO 14, US 160 towards Willard, and Business 65 in Ozark. For James River Freeway, MoDOT will study existing travel patterns to determine which segments should be expanded first. Over a longer time horizon, the OTO recognizes a need to add capacity to I-44. This added capacity will ensure efficient movement within and across the region.

Evaluation of Current Congestion Measurement

The performance-based planning required by MAP-21 and the FAST Act will likely result in the OTO reevaluating its methods for measuring congestion. Safety performance measures (PMs) for fatalities and serious injuries and system performance PMs for reliable travel will require annual data collection and analysis. The existing CMP processes may be replaced by these new performance management processes. The annual nature of performance management may result in the CMP being updated annually as well. The annual nature may also result in the simplification of the CMP process. The current CMP is too detailed to be completed on an annual basis. The OTO will not know how the CMP will be affected by the new performance management requirements until the new rules come into full effect. The OTO will ensure any changes made to the CMP will not lower the quality of the process.

Conclusion

This congestion monitoring report looks at the identified network and the efforts taken to address congestion. There have been extensive efforts undertaken in the past four years which are outlined in the implementation strategies section of the report. To summarize, there have been numerous geometric improvements including two diverging diamond interchanges and lane additions to roadways. Extensive work has been done to better time the traffic signal system. Incident management remains a priority. Great strides have been made in new sidewalk and trail construction. Many miles of bicycle lanes have been signed and striped.

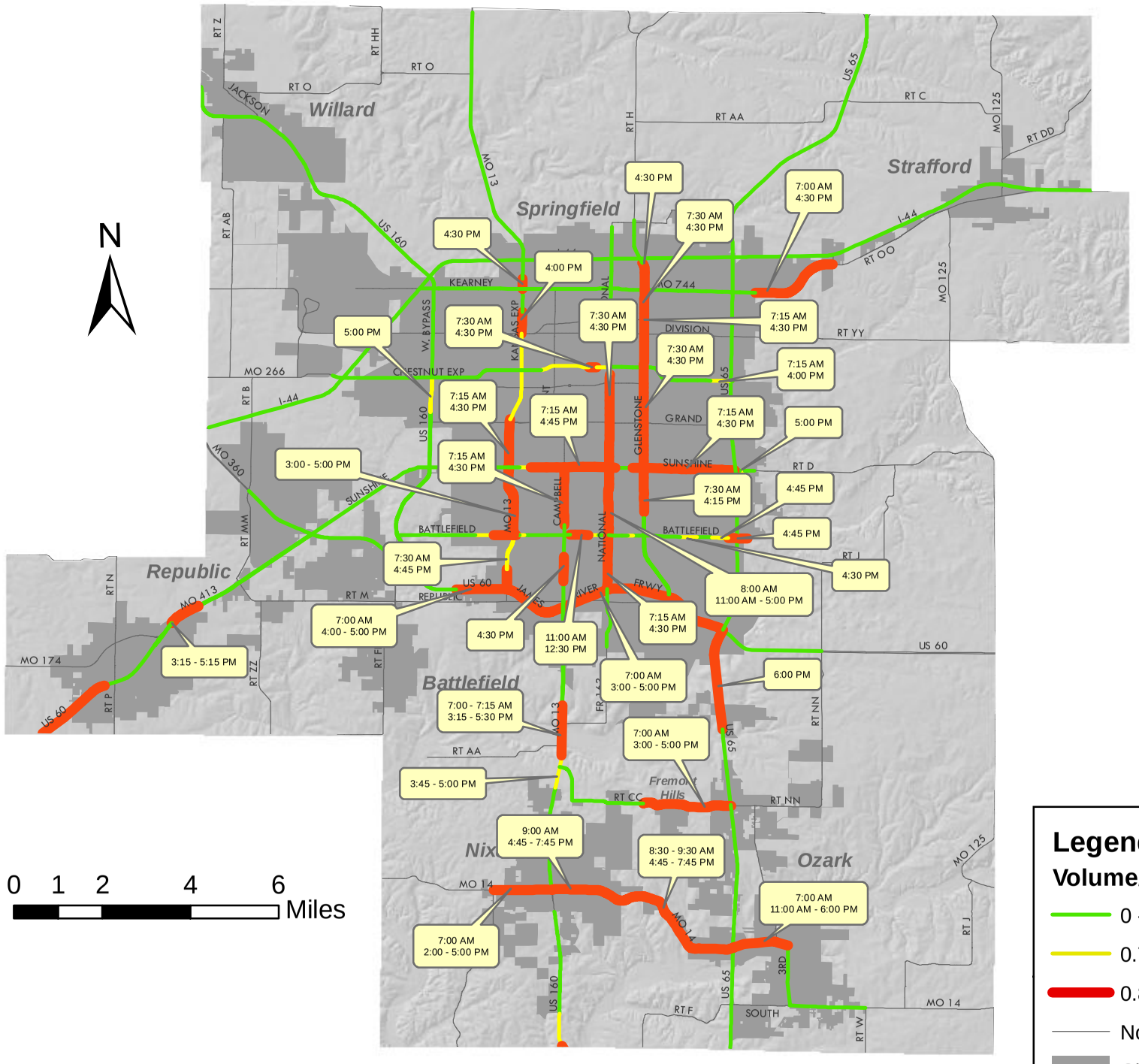
Four indicators of congestion were used to identify areas of significant congestion. The volume to capacity ratio indicated a moderate decline in the overall number of segments that exceeded capacity, though the overall system has adequate capacity. The accident frequencies showed little change in percentage terms from 2012. However, the increase in the size of the CMP network means an increase in absolute numbers of above average accident frequency intersections and segments. The growth of average delay per lane mile indicated an overall reduction in speeds. The intersection level of service ratings relatively unchanged. Ninety four percent of intersections offer acceptable levels of service. The number of LOS E and LOS F intersections did increase from 2012 to 2016.

An analysis of congestion mitigation measures and changes in congestion revealed only limited statistically significant relationships between implemented improvements and reductions in congestion. Some relationships were expected, for example between capacity projects and improvement in the volume/capacity ratio, while others didn't reveal anything insightful, for example the high number of operations projects in the middle drive time zones from all three congestion zones. A different approach to measuring the effectiveness of congestion mitigation projects will be used during the next update.

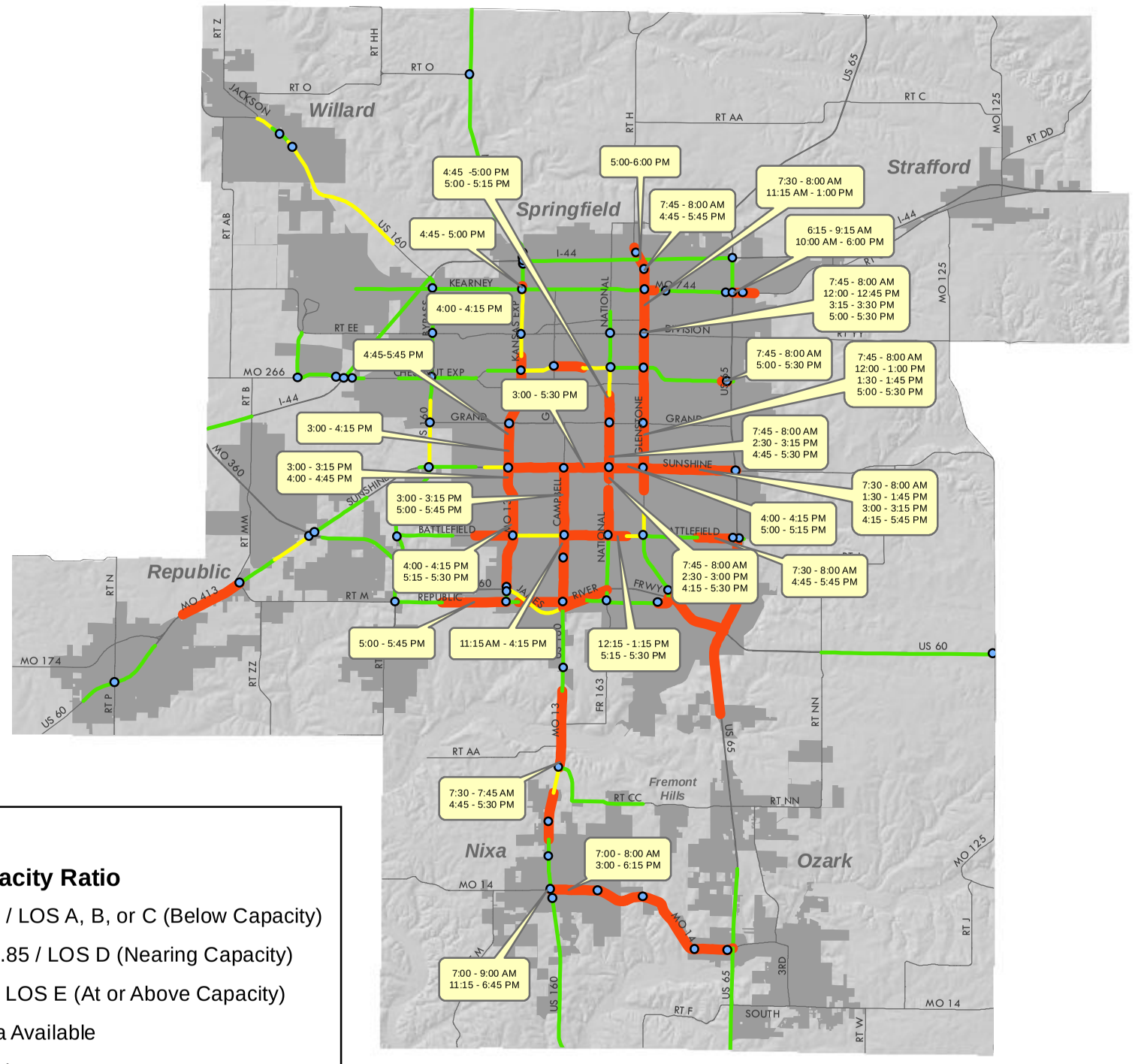
The OTO will continue to pursue the five strategies for recurring congestion mitigation. The strategies include important engineering and behavior solutions for congestion. Early priorities for the 2018-2021 TIP include several projects drawing from these strategies. As the OTO fully implements the new performance management requirements, it will reevaluate how it measures congestion. Calculating annual performance measurements may provide useful data that can be substituted into the CMP.

This update of the CMP has revealed congestion is not a widespread issue in the OTO area. Capacity, accidents, and intersection LOS are all adequate in most area of the region. This analysis did confirm congestion remains in certain problem areas, such as along US 160 between Springfield and Nixa and in the southeastern part of Springfield. Some physical improvements are possible along US 160, but changes in transportation behavior are required to improve traffic within the city.

Volume to Capacity Ratio



2012



2016

Legend

Volume/Capacity Ratio

- 0 - 0.77 / LOS A, B, or C (Below Capacity)
- 0.78 - 0.85 / LOS D (Nearing Capacity)
- 0.86 + / LOS E (At or Above Capacity)
- No Data Available
- City Limits
- MPO Area

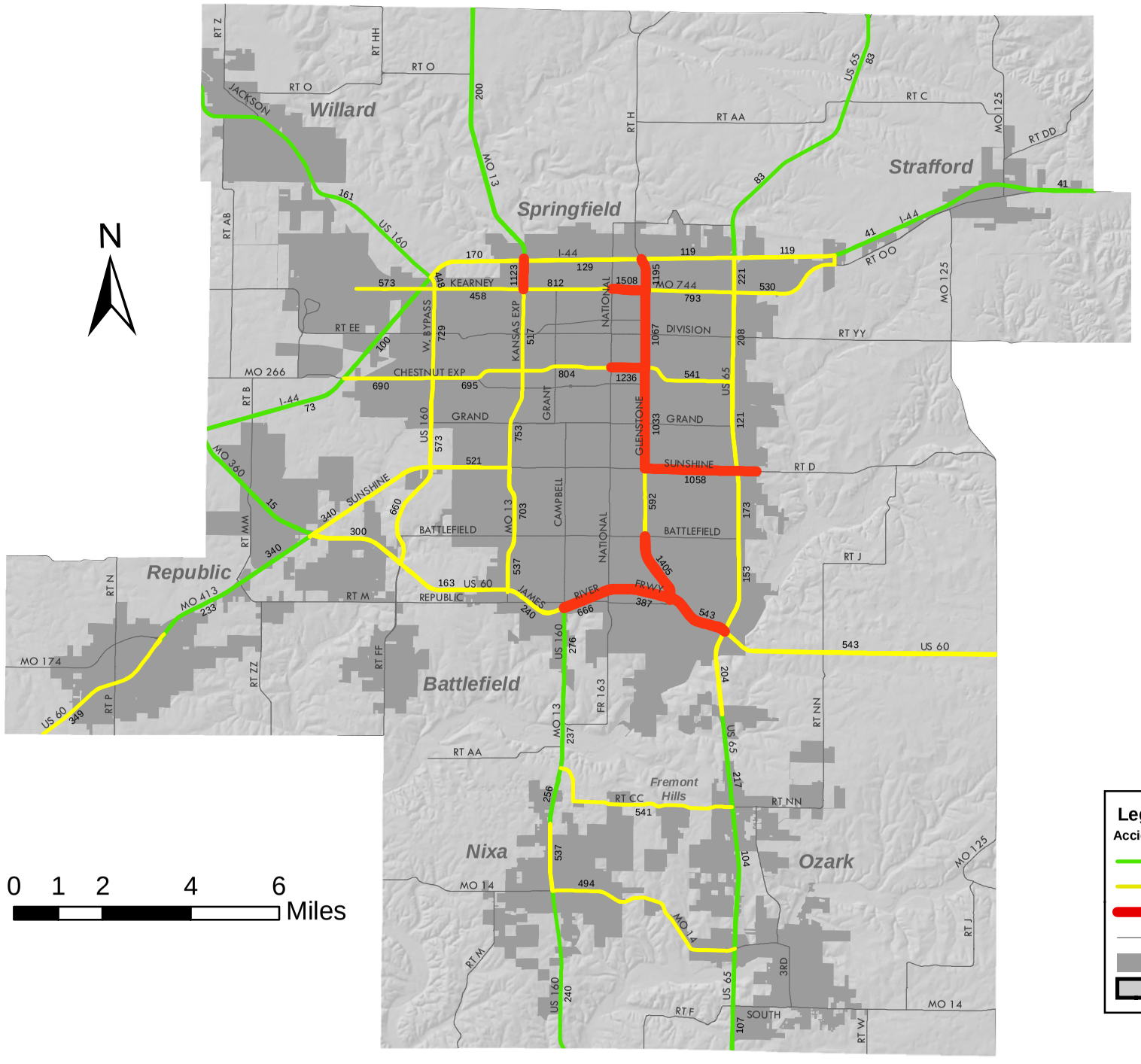
Source: City of Springfield
Missouri Dept. of Transportation

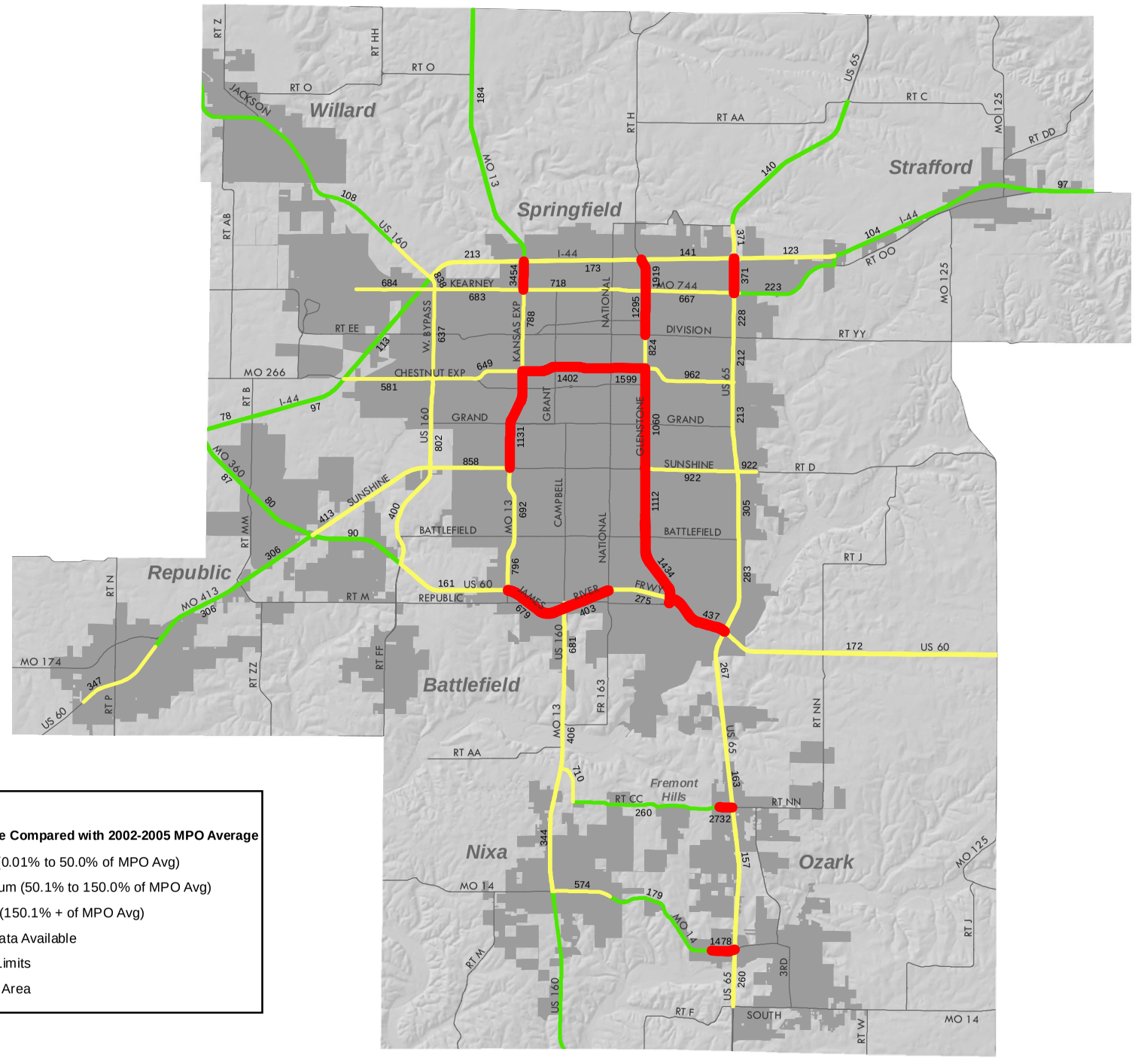
OZARKS TRANSPORTATION ORGANIZATION
A METROPOLITAN PLANNING ORGANIZATION

What facilities are congested during the peak hour?

Map 3.2
Traffic Volumes and Roadway Capacities

Accident Rates





Legend

Accident Rate Compared with 2002-2005 MPO Average

- Low (0.01% to 50.0% of MPO Avg)
- Medium (50.1% to 150.0% of MPO Avg)
- High (150.1% + of MPO Avg)
- No Data Available
- City Limits
- MPO Area

2005

2008

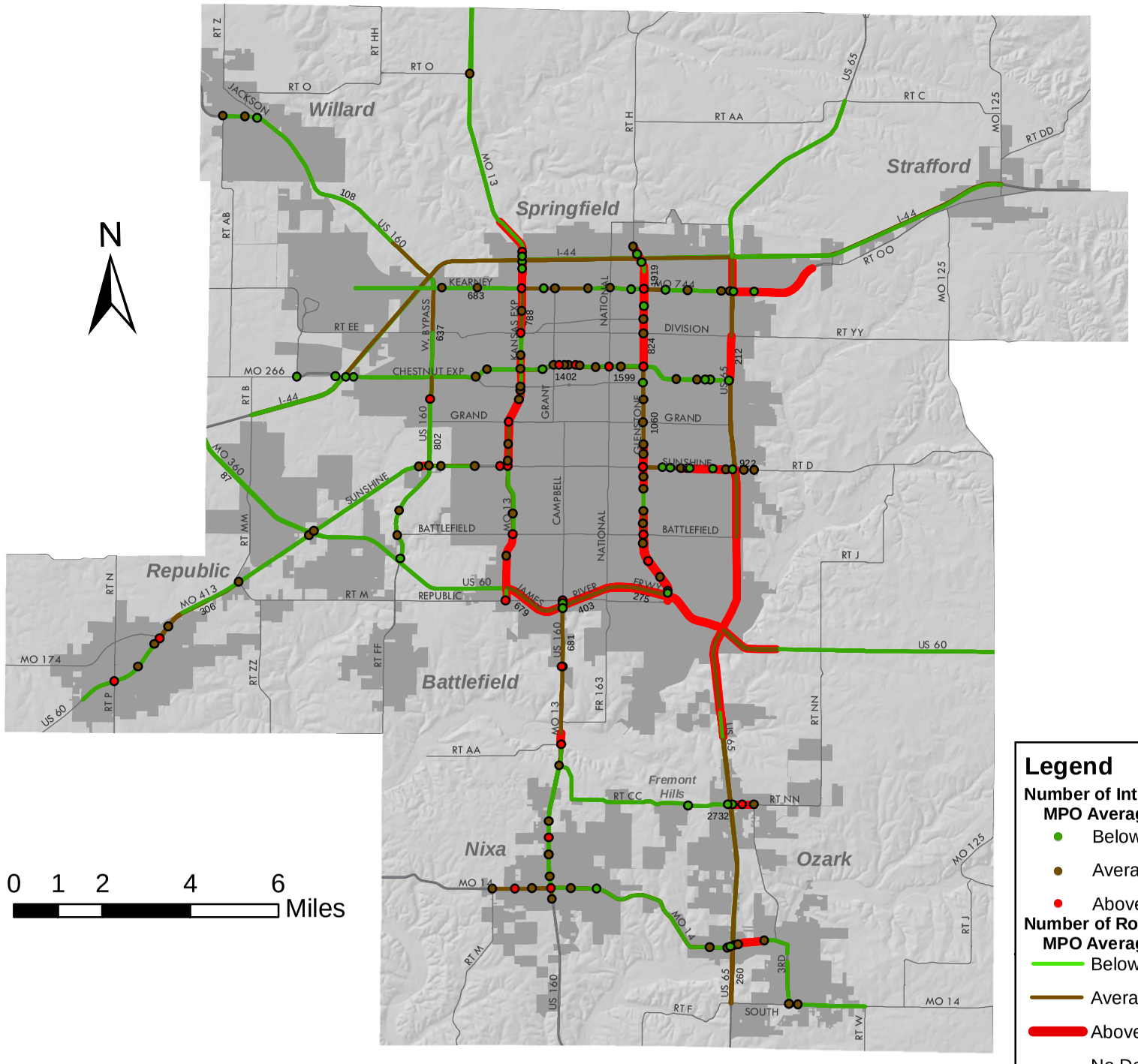
Source: Missouri Dept. of Transportation

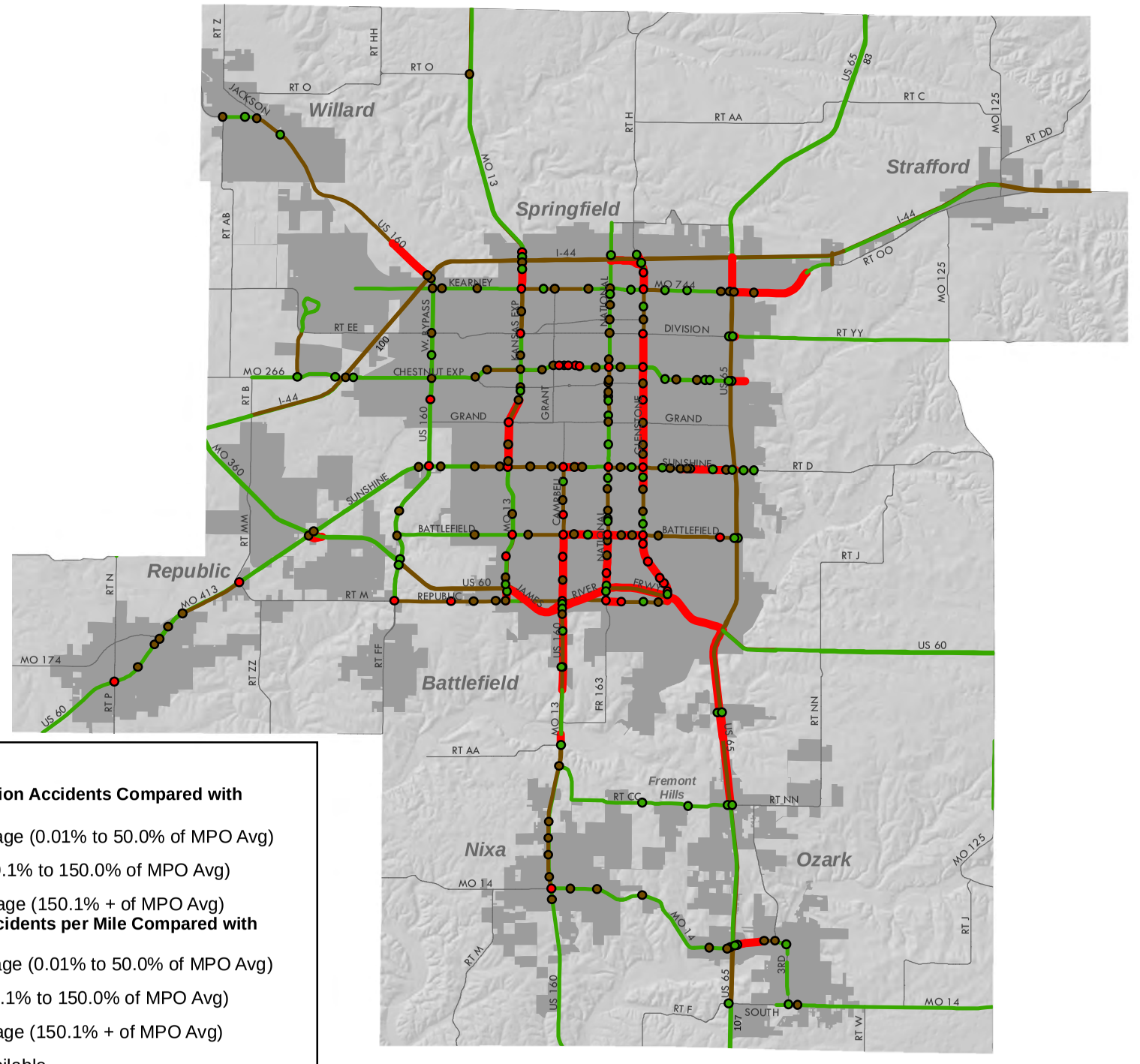
OZARKS TRANSPORTATION ORGANIZATION
A METROPOLITAN PLANNING ORGANIZATION

What is the impact of accidents on congestion?

Map 4.1
Accident Rates

Accident Frequency





Legend

Number of Intersection Accidents Compared with MPO Average

- Below Average (0.01% to 50.0% of MPO Avg)
- Average (50.1% to 150.0% of MPO Avg)
- Above Average (150.1% + of MPO Avg)

Number of Road Accidents per Mile Compared with MPO Average

- Below Average (0.01% to 50.0% of MPO Avg)
- Average (50.1% to 150.0% of MPO Avg)
- Above Average (150.1% + of MPO Avg)
- No Data Available
- City Limits
- MPO Area

2012

2016

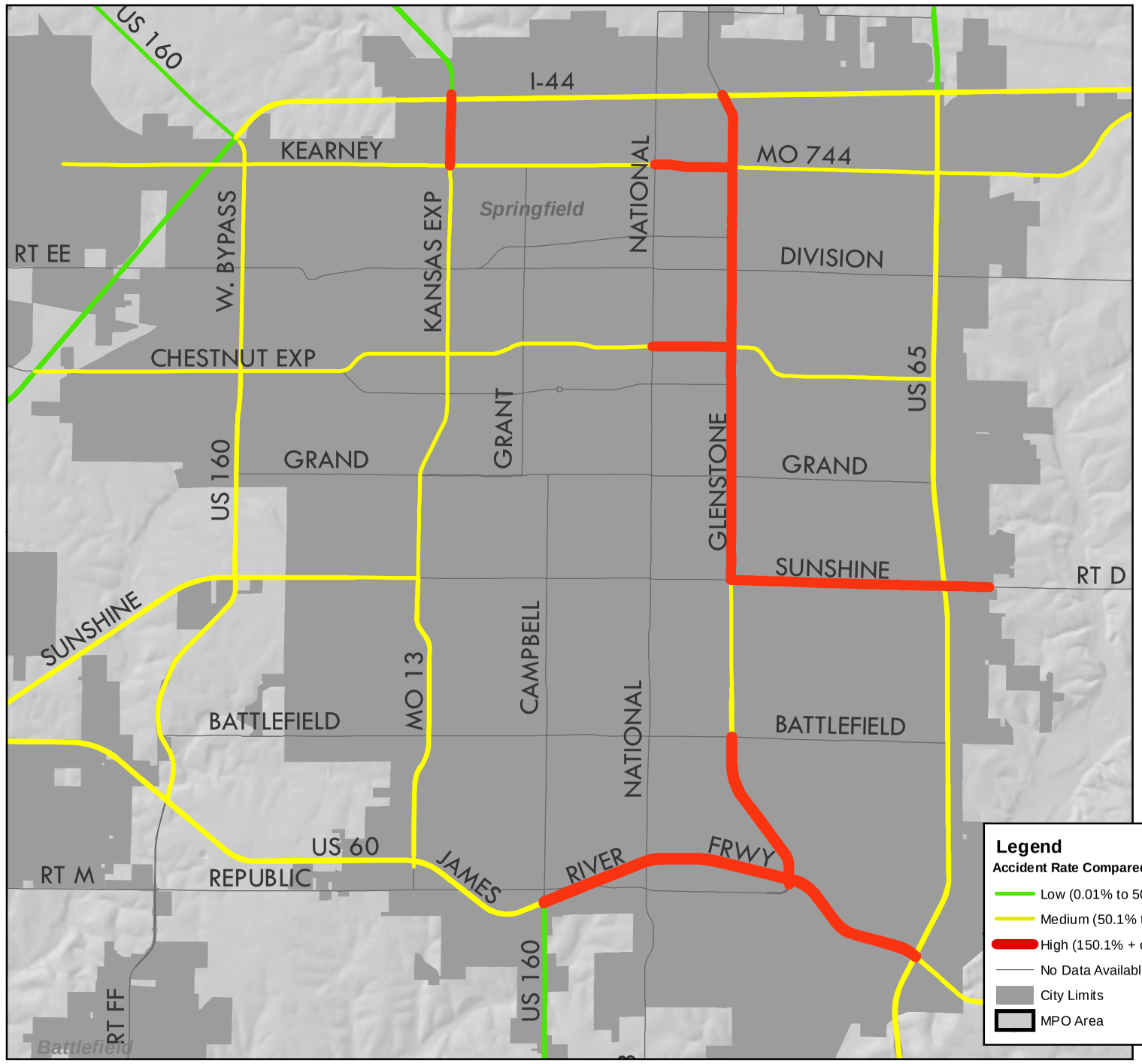
Source: City of Springfield
Missouri Dept. of Transportation

OZARKS TRANSPORTATION ORGANIZATION
A METROPOLITAN PLANNING ORGANIZATION

What is the impact of accidents on congestion?

Map 4.1
Accident Rates

Accident Rates



Legend

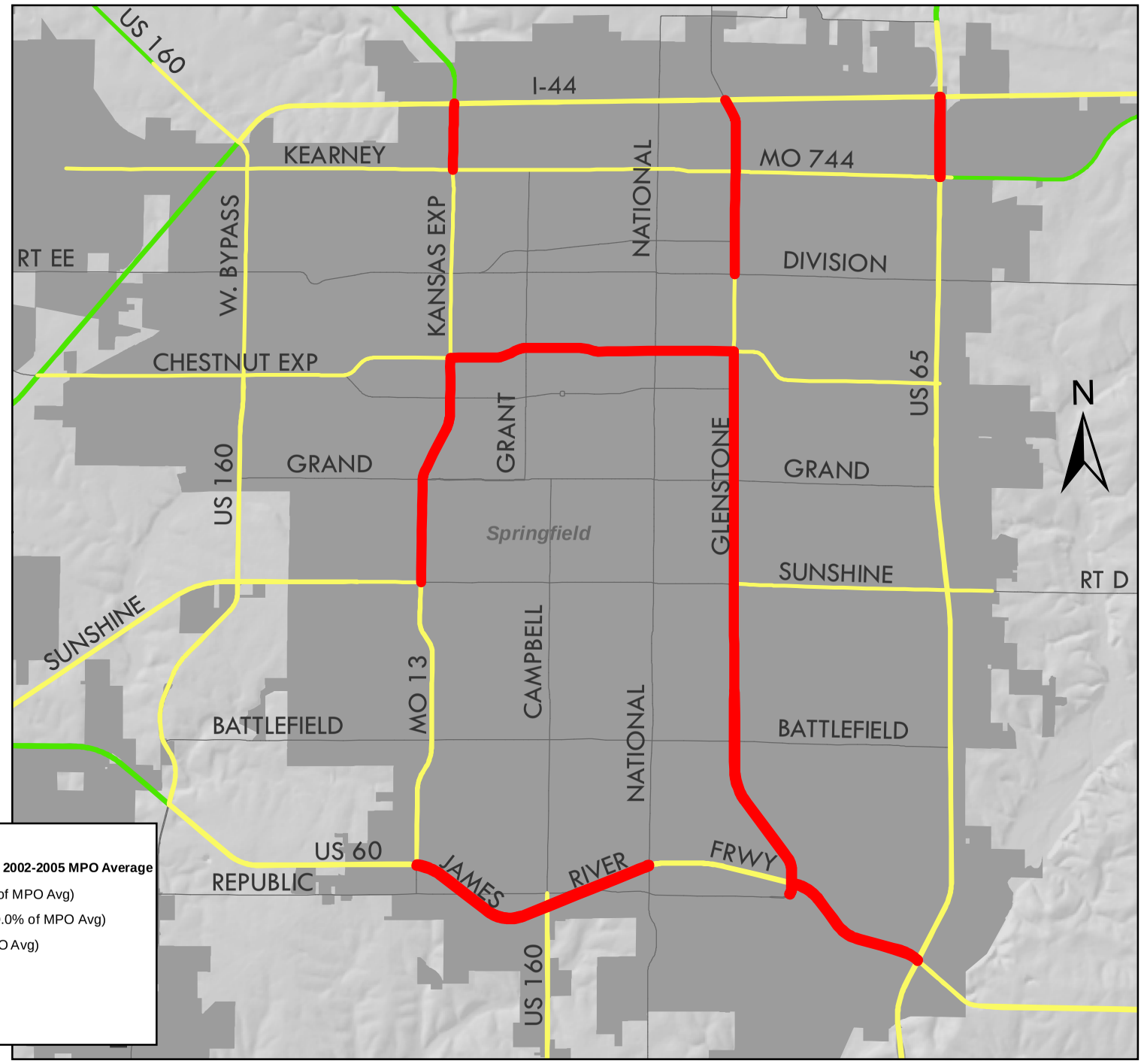
Accident Rate Compared with 2002-2005 MPO Average

- Low (0.01% to 50.0% of MPO Avg)
- Medium (50.1% to 150.0% of MPO Avg)
- High (150.1% + of MPO Avg)
- No Data Available
- City Limits
- MPO Area

2005

0 0.5 1 2 3

Miles



2008

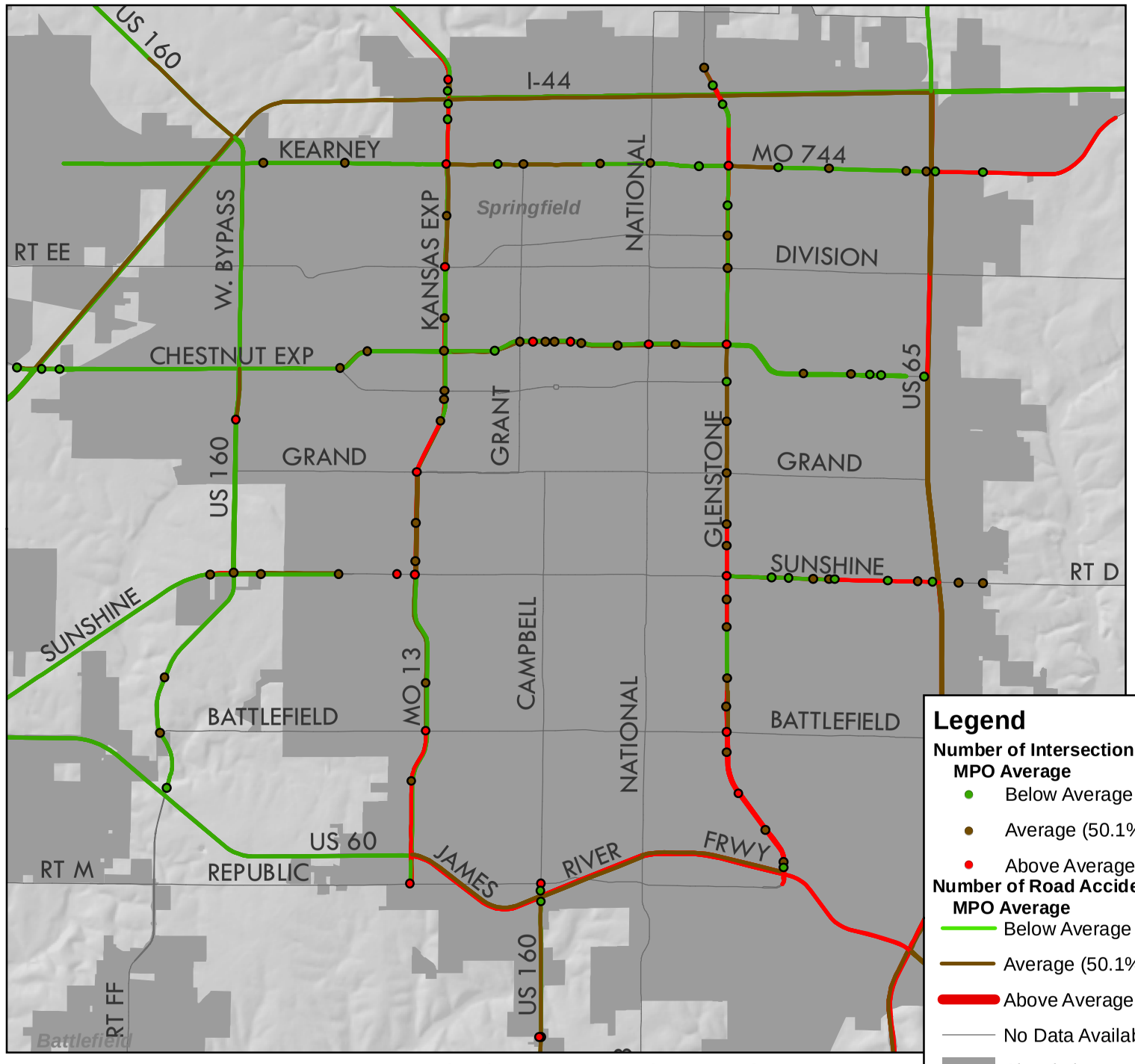
Source: City of Springfield
Missouri Dept. of Transportation

OZARKS TRANSPORTATION ORGANIZATION
A METROPOLITAN PLANNING ORGANIZATION

What is the impact of accidents on congestion?

Map 4.2
Accident Rates

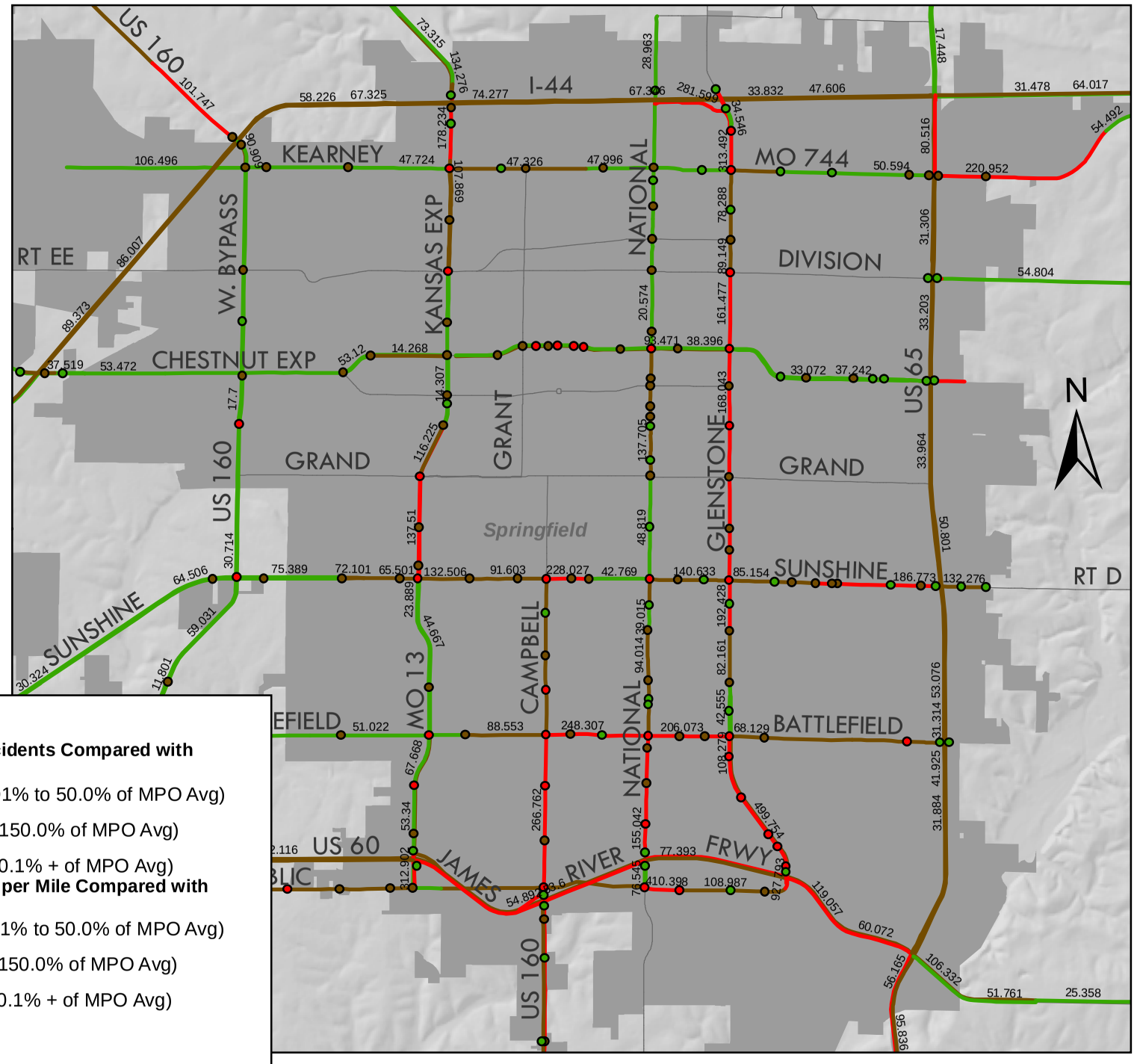
Accident Frequency



2012

0 0.5 1 2 3

Miles



2016

N

Legend

Number of Intersection Accidents Compared with MPO Average

- Below Average (0.01% to 50.0% of MPO Avg)
- Average (50.1% to 150.0% of MPO Avg)
- Above Average (150.1% + of MPO Avg)

Number of Road Accidents per Mile Compared with MPO Average

- Below Average (0.01% to 50.0% of MPO Avg)
- Average (50.1% to 150.0% of MPO Avg)
- Above Average (150.1% + of MPO Avg)
- No Data Available
- City Limits
- MPO Area

Source: City of Springfield
Missouri Dept. of Transportation

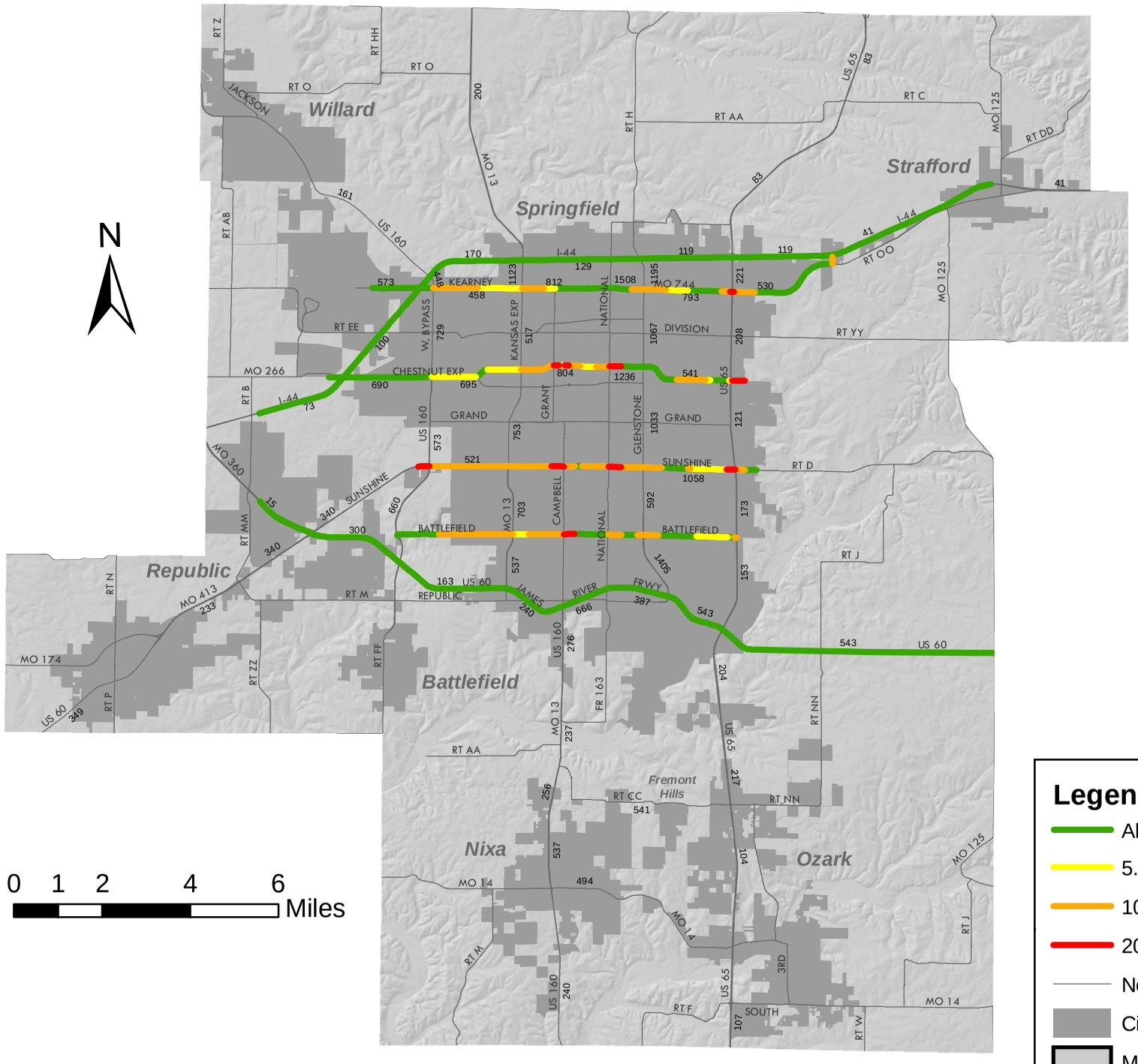
OZARKS TRANSPORTATION ORGANIZATION
A METROPOLITAN PLANNING ORGANIZATION

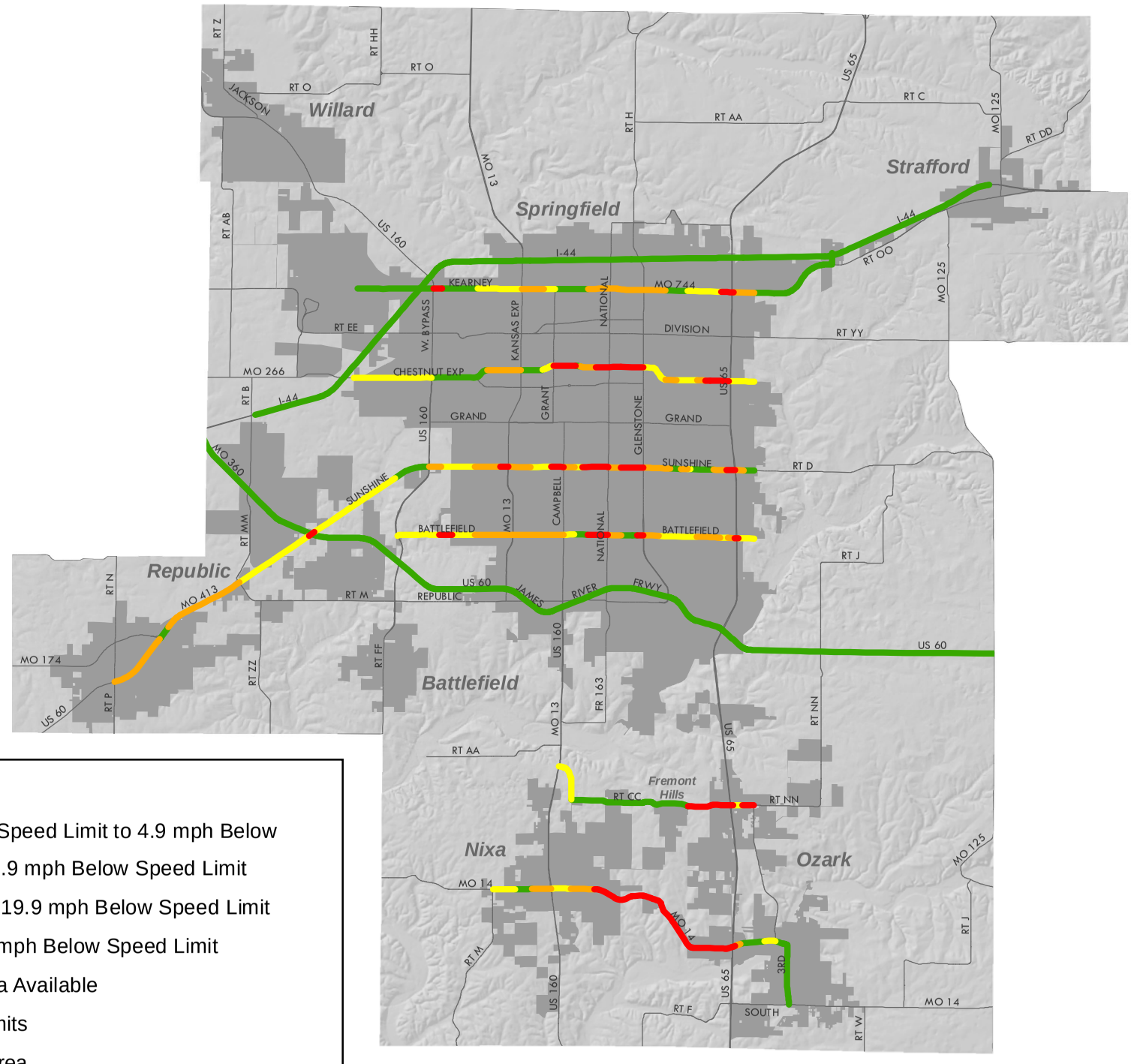
What is the impact of accidents on congestion?

Map 4.2

Accident Rates

Average Travel Speeds
AM Peak Hour - Eastbound Lanes





Legend

- Above Speed Limit to 4.9 mph Below
- 5.0 to 9.9 mph Below Speed Limit
- 10.0 to 19.9 mph Below Speed Limit
- 20.0 + mph Below Speed Limit
- No Data Available
- City Limits
- MPO Area

2005

2008

Source: CJW Transportation Consultants LLC

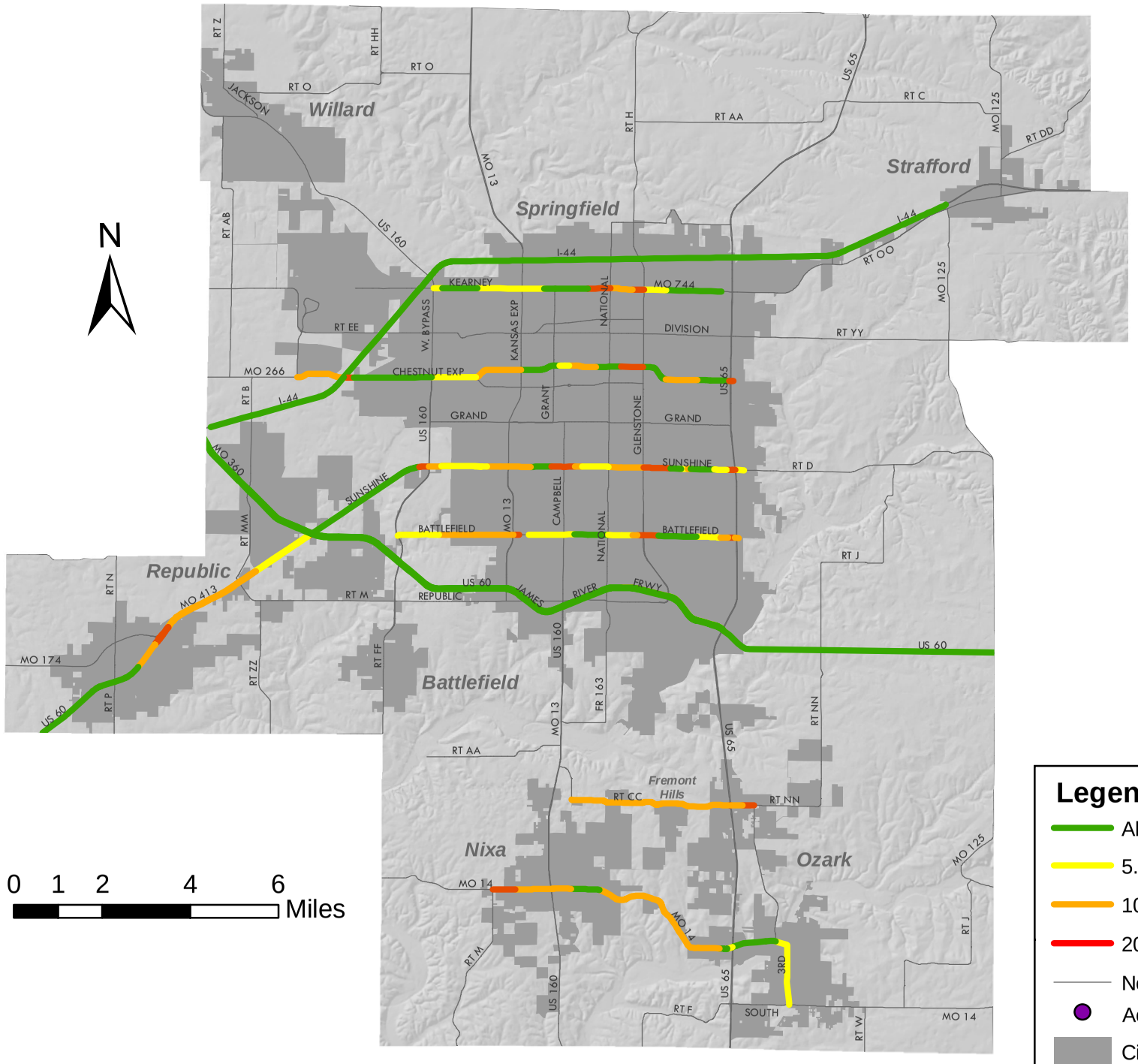
OZARKS TRANSPORTATION ORGANIZATION
A METROPOLITAN PLANNING ORGANIZATION

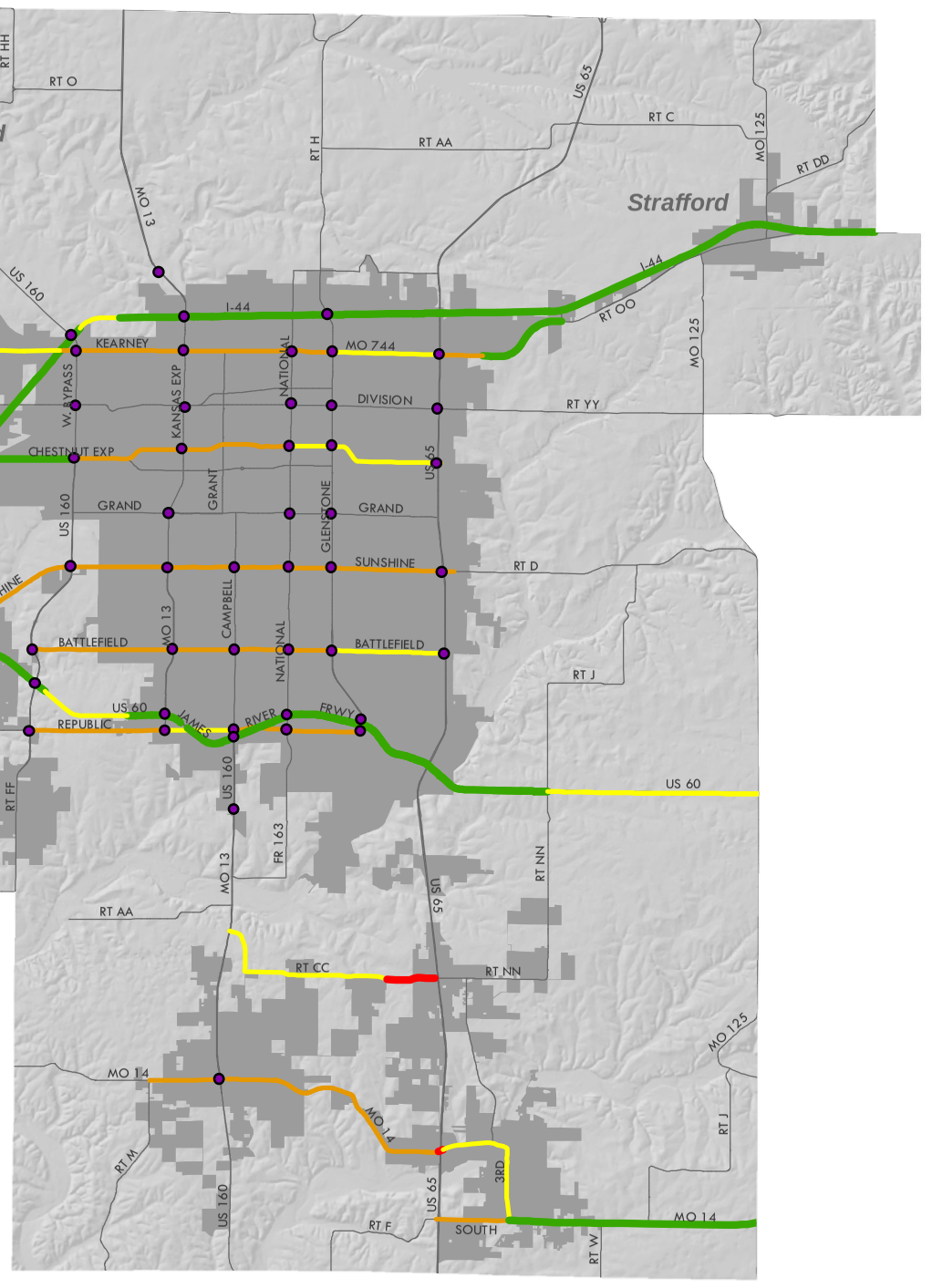
How badly are travelers delayed?

Map 5.1

Average Travel Speeds
AM Peak Hour - Eastbound Lanes

Average Travel Speeds
AM Peak Hour - Eastbound Lanes





Legend

- Above Speed Limit to 4.9 mph Below
- 5.0 to 9.9 mph Below Speed Limit
- 10.0 to 19.9 mph Below Speed Limit
- 20.0 + mph Below Speed Limit
- No Data Available
- Acyclica Sensor
- City Limits
- MPO Area

2012

2016

Source: CJW Transportation Consultants LLC

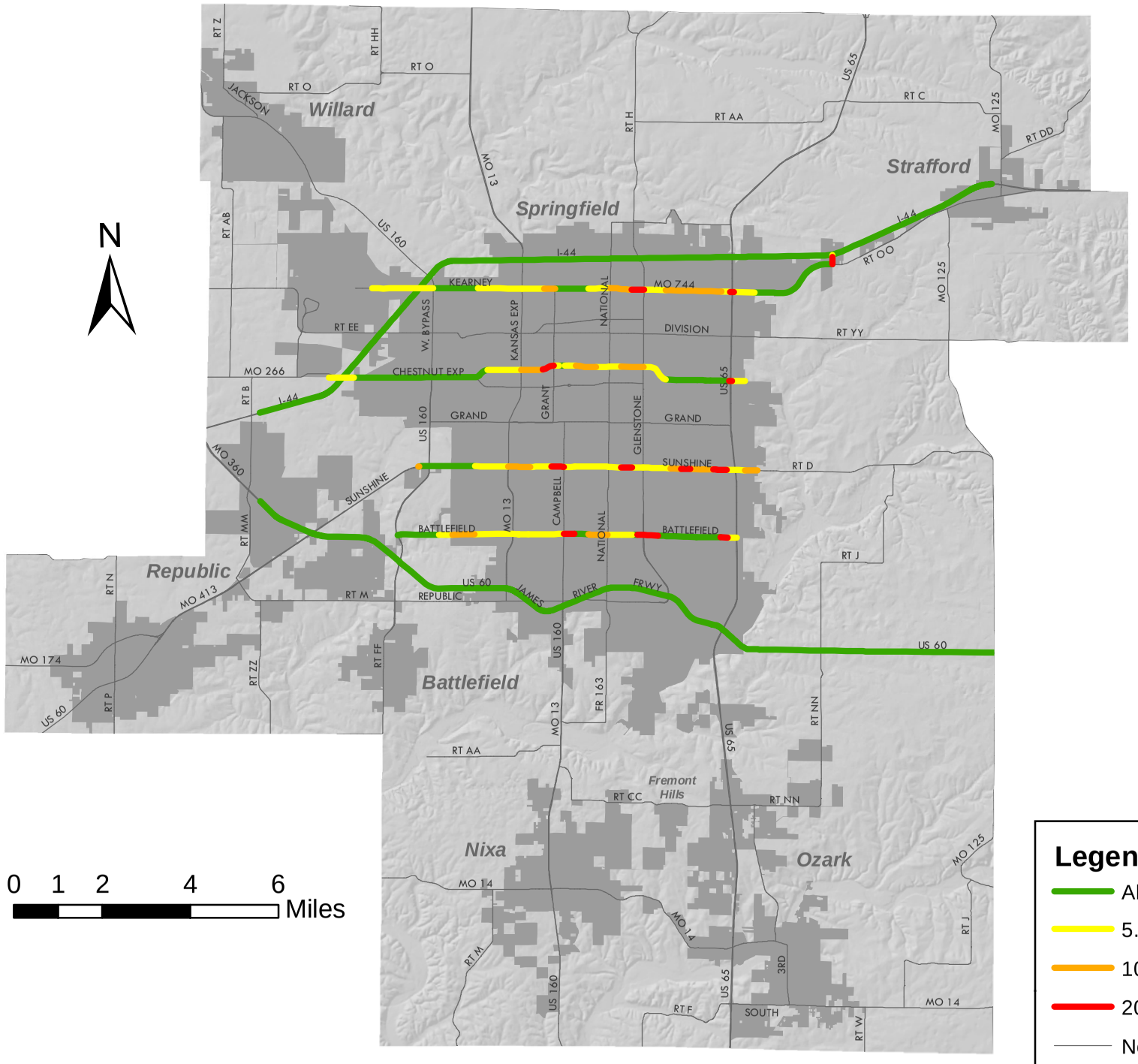
OZARKS TRANSPORTATION ORGANIZATION
A METROPOLITAN PLANNING ORGANIZATION

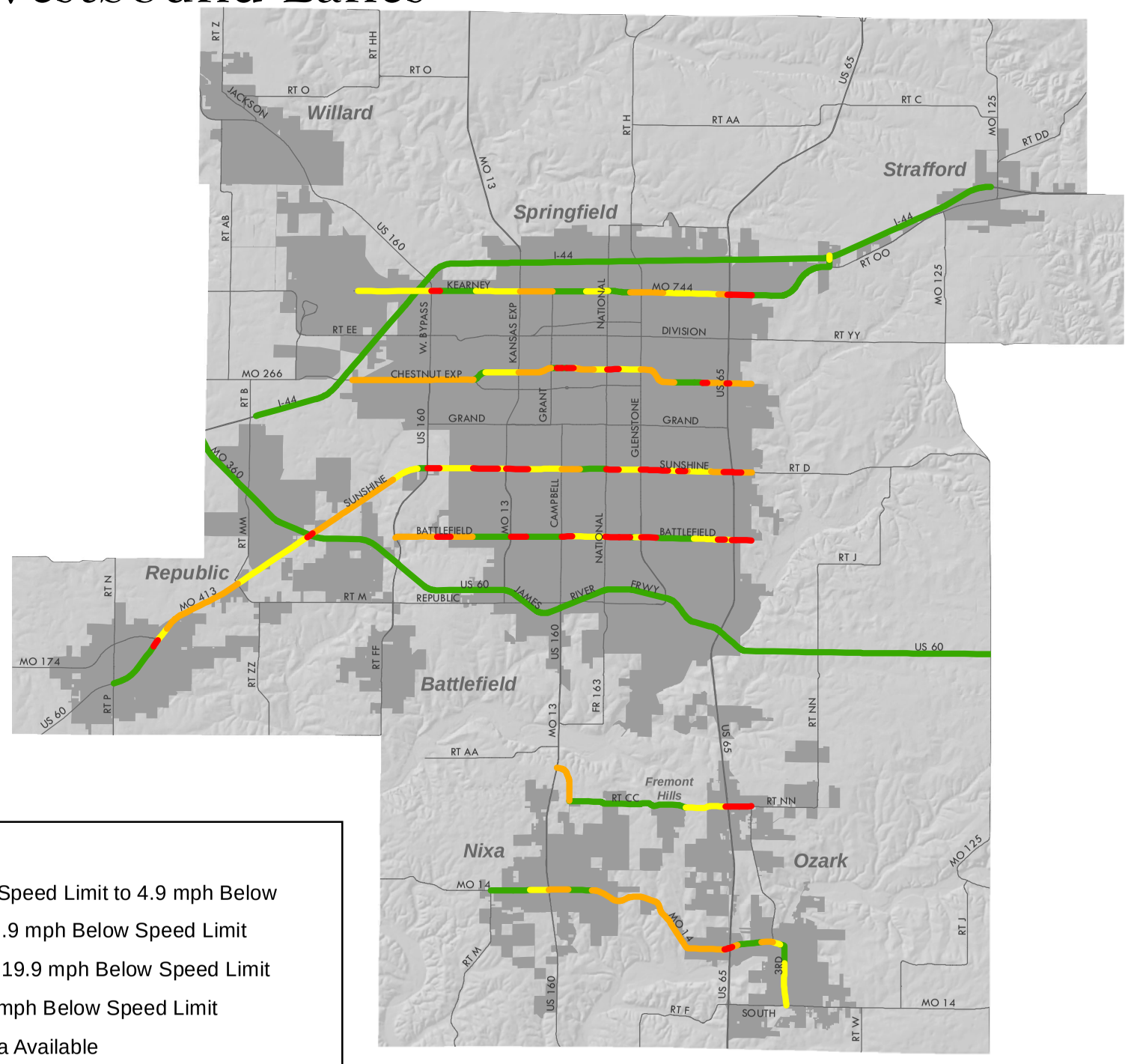
How badly are travelers delayed?

Map 5.1

Average Travel Speeds
AM Peak Hour - Eastbound Lanes

Average Travel Speeds
AM Peak Hour - Westbound Lanes





Legend

- Above Speed Limit to 4.9 mph Below
- 5.0 to 9.9 mph Below Speed Limit
- 10.0 to 19.9 mph Below Speed Limit
- 20.0 + mph Below Speed Limit
- No Data Available
- City Limits
- MPO Area

2005

2008

Source: CJW Transportation Consultants LLC

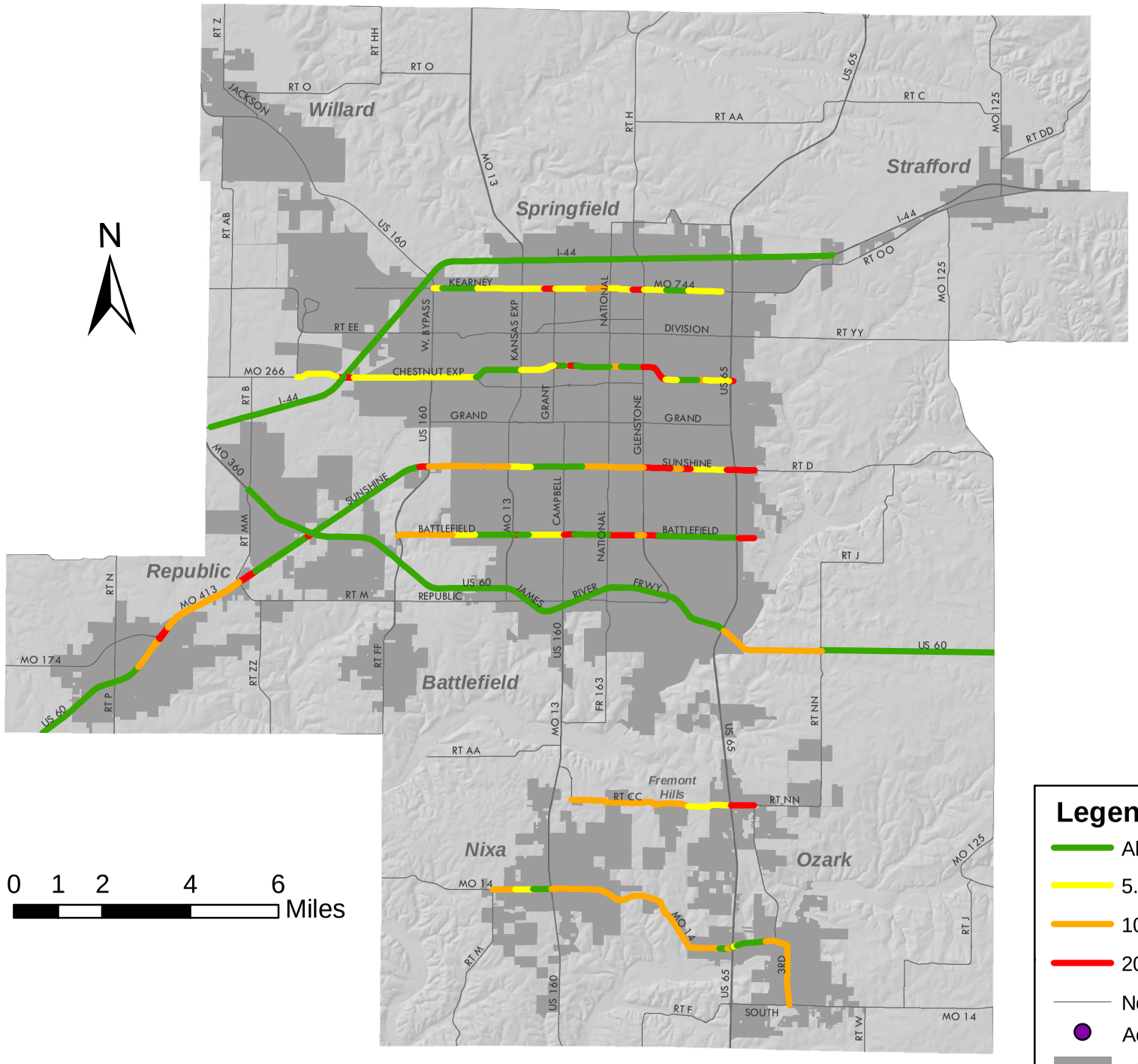
OZARKS TRANSPORTATION ORGANIZATION
A METROPOLITAN PLANNING ORGANIZATION

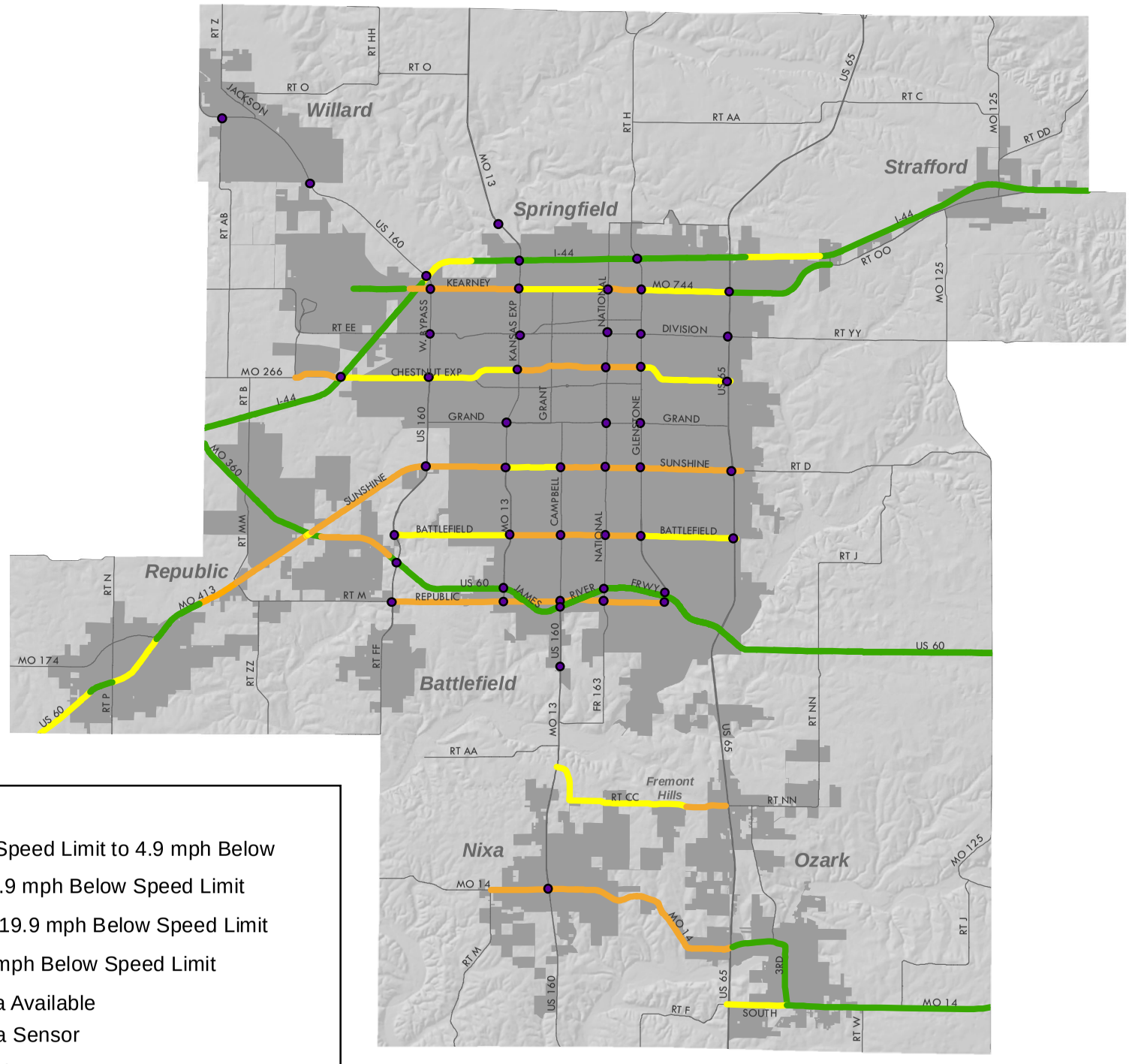
How badly are travelers delayed?

Map 5.2

Average Travel Speeds
AM Peak Hour - Westbound Lanes

Average Travel Speeds
AM Peak Hour - Westbound Lanes





Legend

- Above Speed Limit to 4.9 mph Below
- 5.0 to 9.9 mph Below Speed Limit
- 10.0 to 19.9 mph Below Speed Limit
- 20.0 + mph Below Speed Limit
- No Data Available
- Acyclica Sensor
- City Limits
- MPO Area

2012

2016

Source: City of Springfield
Missouri Dept. of Transportation
CJW Transportation Consultants LLC

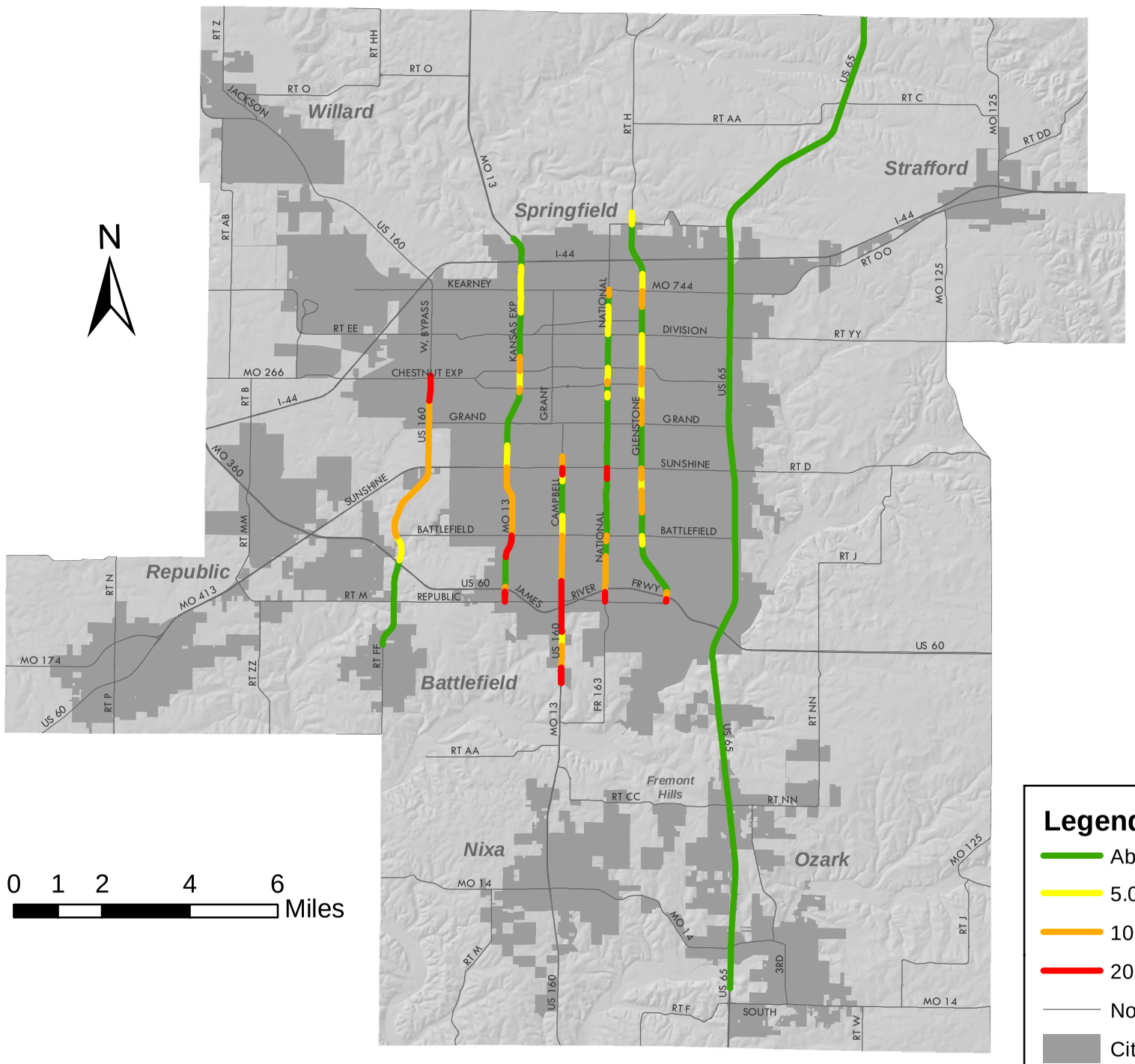
OZARKS TRANSPORTATION ORGANIZATION
A METROPOLITAN PLANNING ORGANIZATION

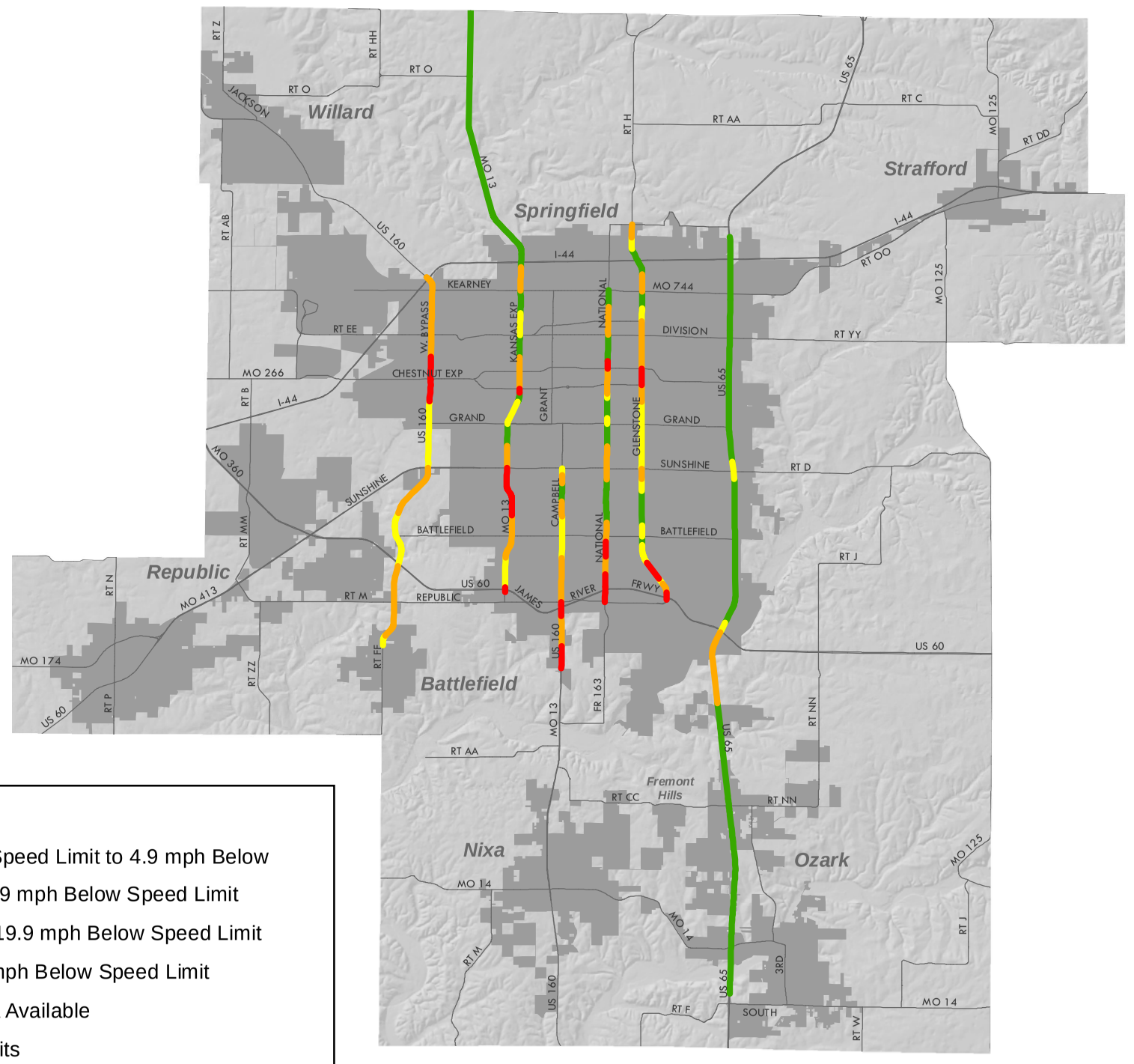
How badly are travelers delayed?

Map 5.2

Average Travel Speeds
Am Peak Hour - Westbound Lanes

Average Travel Speeds
AM Peak Hour - Northbound Lanes





Legend

- Above Speed Limit to 4.9 mph Below
- 5.0 to 9.9 mph Below Speed Limit
- 10.0 to 19.9 mph Below Speed Limit
- 20.0 + mph Below Speed Limit
- No Data Available
- City Limits
- MPO Area

2005

2008

Source: CJW Transportation Consultants LLC

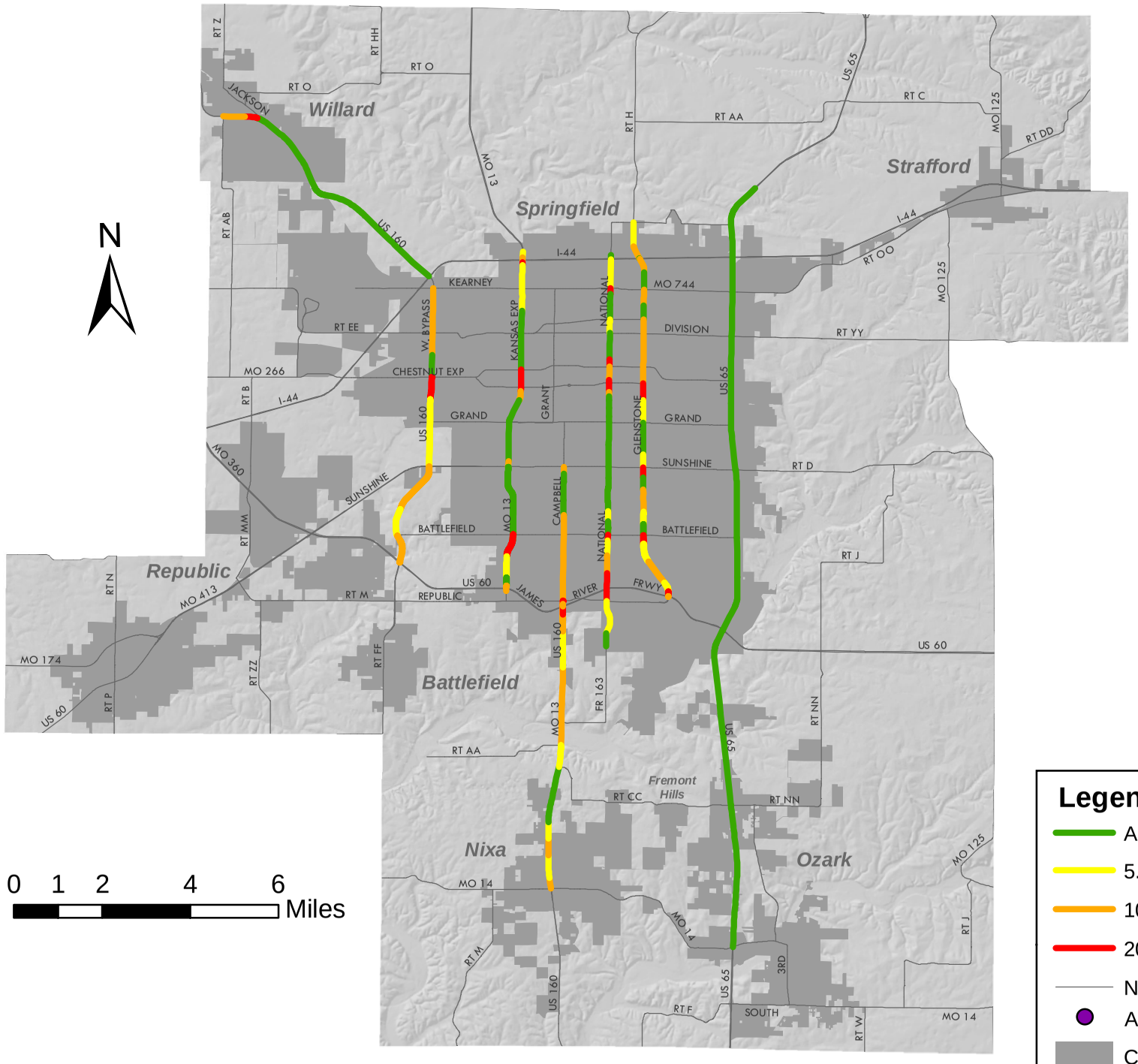
OZARKS TRANSPORTATION ORGANIZATION
A METROPOLITAN PLANNING ORGANIZATION

How badly are travelers delayed?

Map 5.3

Average Travel Speeds
AM Peak Hour - Northbound Lanes

Average Travel Speeds
AM Peak Hour - Northbound Lanes



Legend

- Above Speed Limit to 4.9 mph Below
- 5.0 to 9.9 mph Below Speed Limit
- 10.0 to 19.9 mph Below Speed Limit
- 20.0 + mph Below Speed Limit
- No Data Available
- Acyclica Sensor
- City Limits
- MPO Area

2012

2016

Source: City of Springfield
Missouri Dept. of Transportation
CJW Transportation Consultants LLC

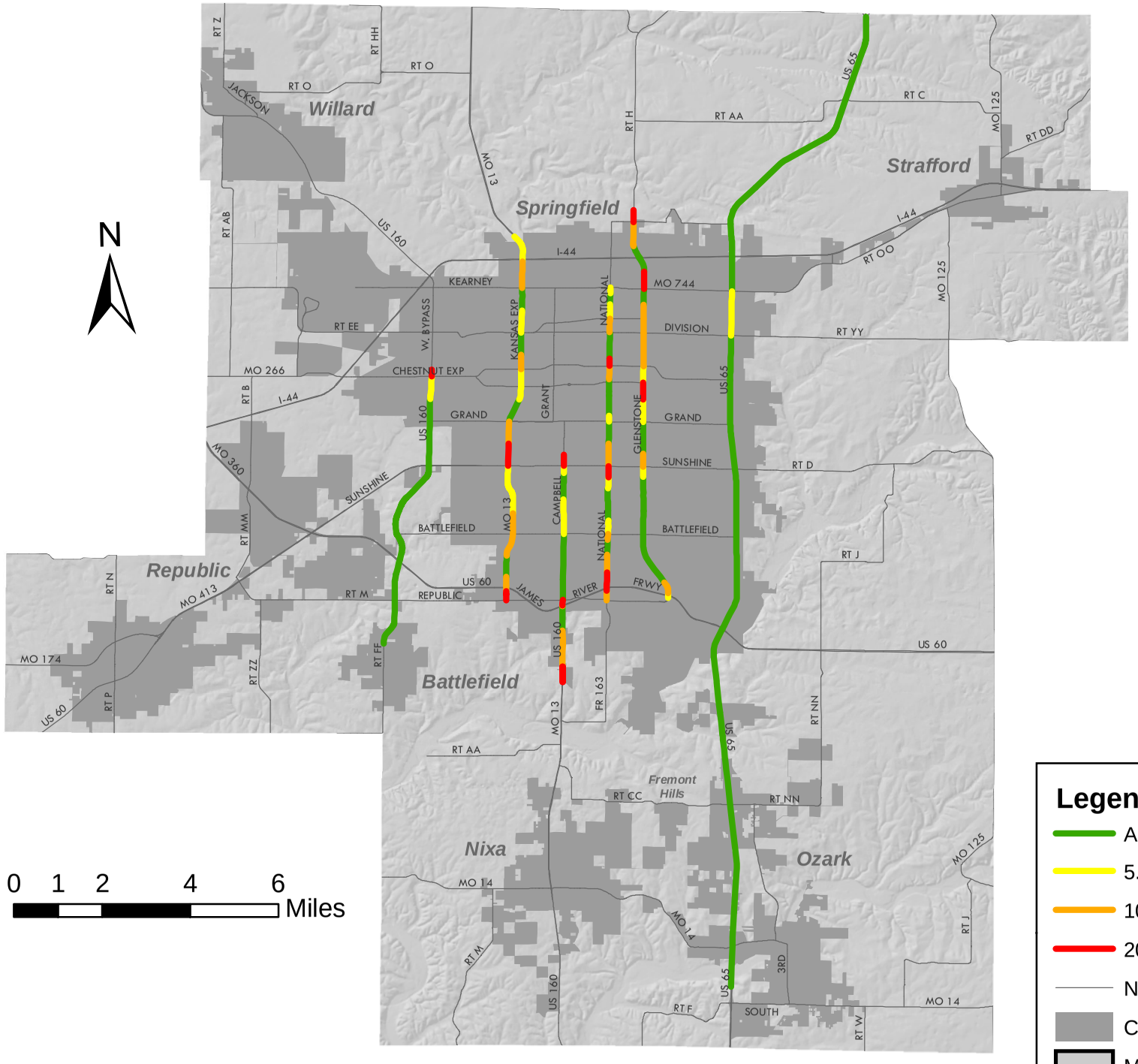
OZARKS TRANSPORTATION ORGANIZATION
A METROPOLITAN PLANNING ORGANIZATION

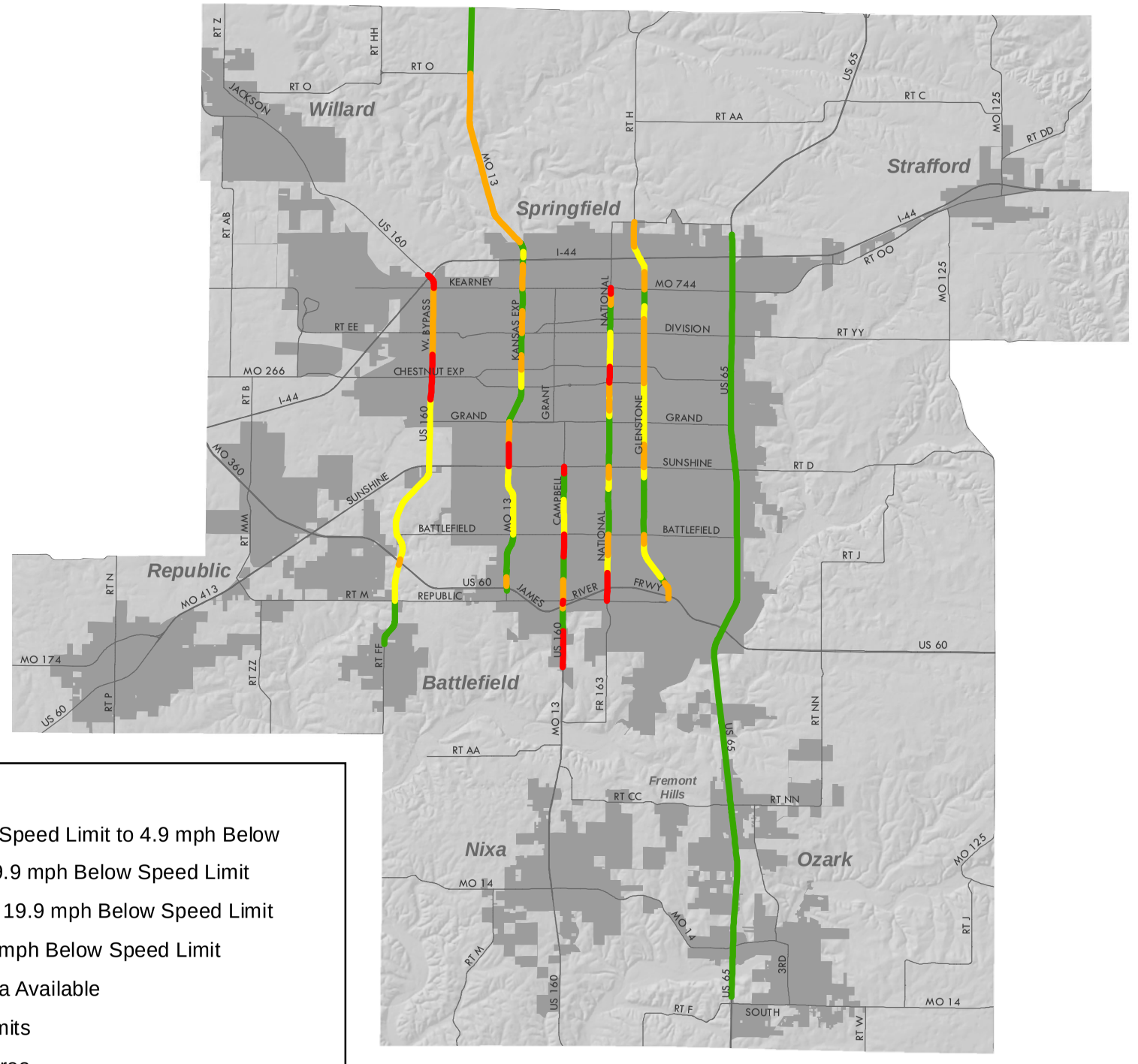
How badly are travelers delayed?

Map 5.3

Average Travel Speeds
AM Peak Hour - Northbound Lanes

Average Travel Speeds
AM Peak Hour - Southbound Lanes





Legend

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- 5.0 to 9.9 mph Below Speed Limit
- 10.0 to 19.9 mph Below Speed Limit
- 20.0 + mph Below Speed Limit
- No Data Available
- City Limits
- MPO Area

2005

2008

Source: CJW Transportation Consultants LLC

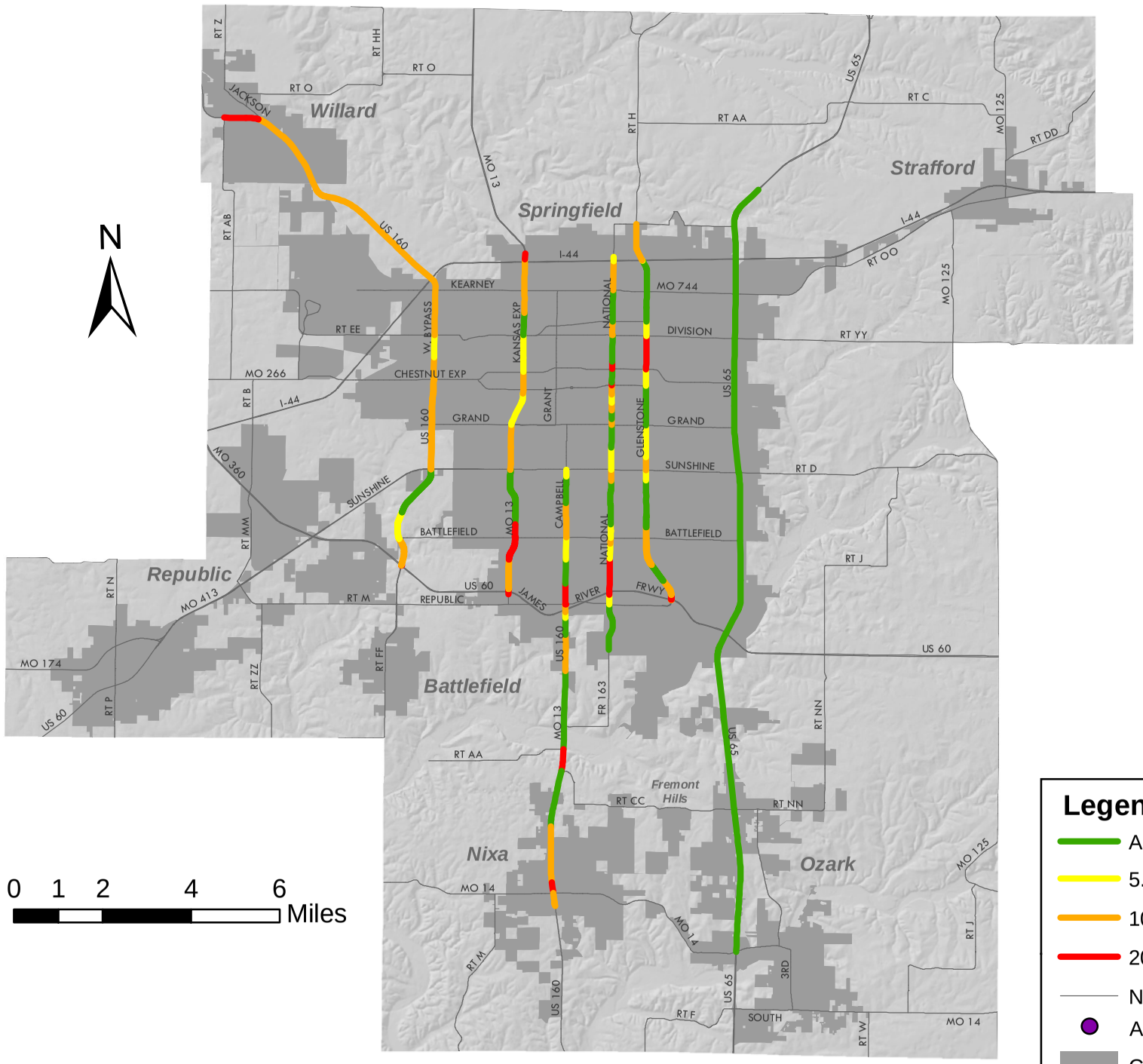
OZARKS TRANSPORTATION ORGANIZATION
A METROPOLITAN PLANNING ORGANIZATION

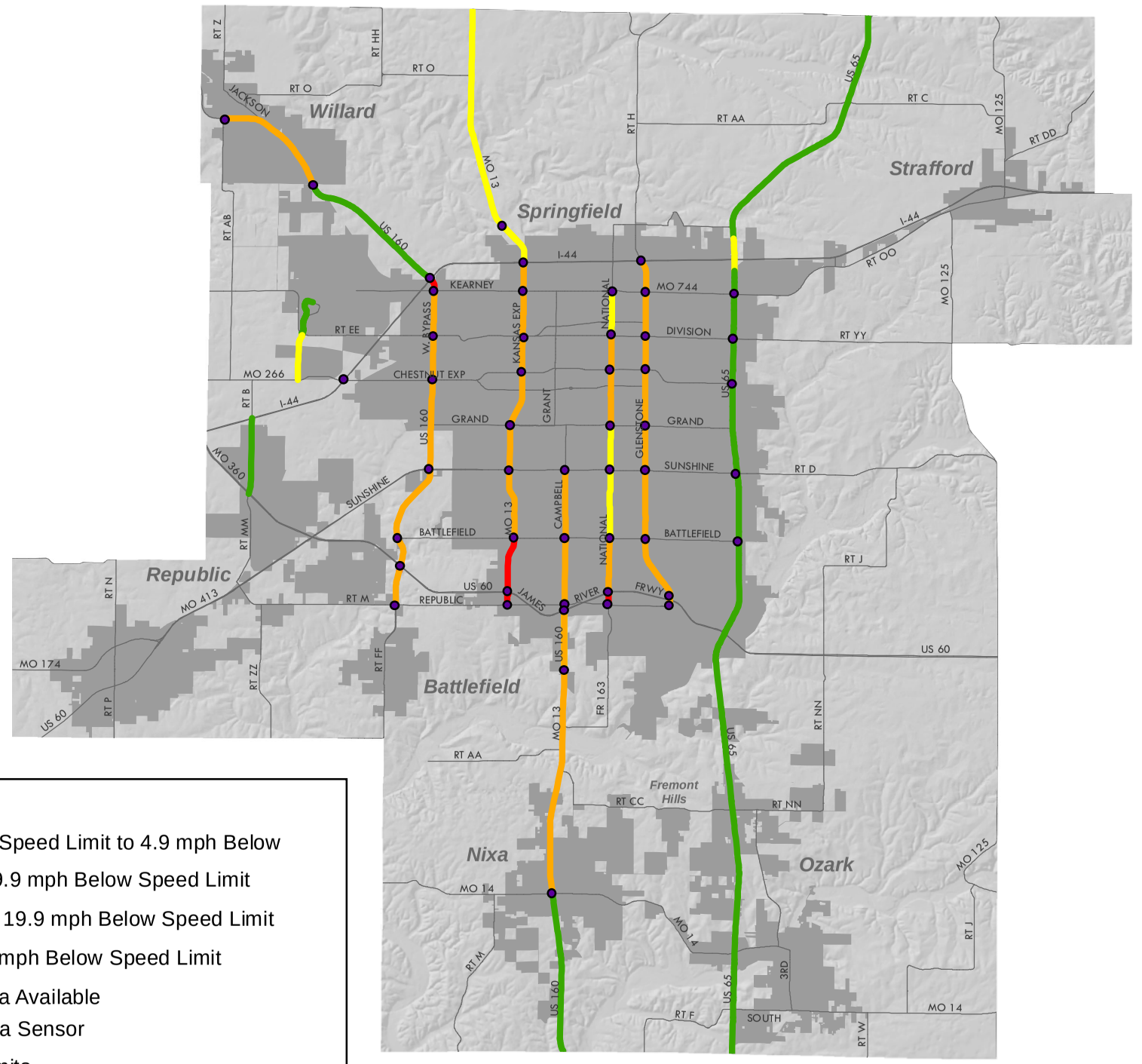
How badly are travelers delayed?

Map 5.4

Average Travel Speeds
AM Peak Hour - Southbound Lanes

Average Travel Speeds
AM Peak Hour - Southbound Lanes





Legend

- Above Speed Limit to 4.9 mph Below
- 5.0 to 9.9 mph Below Speed Limit
- 10.0 to 19.9 mph Below Speed Limit
- 20.0 + mph Below Speed Limit
- No Data Available
- Acyclica Sensor
- City Limits
- MPO Area

2012

2016

Source: City of Springfield
Missouri Dept. of Transportation
CJW Transportation Consultants LLC

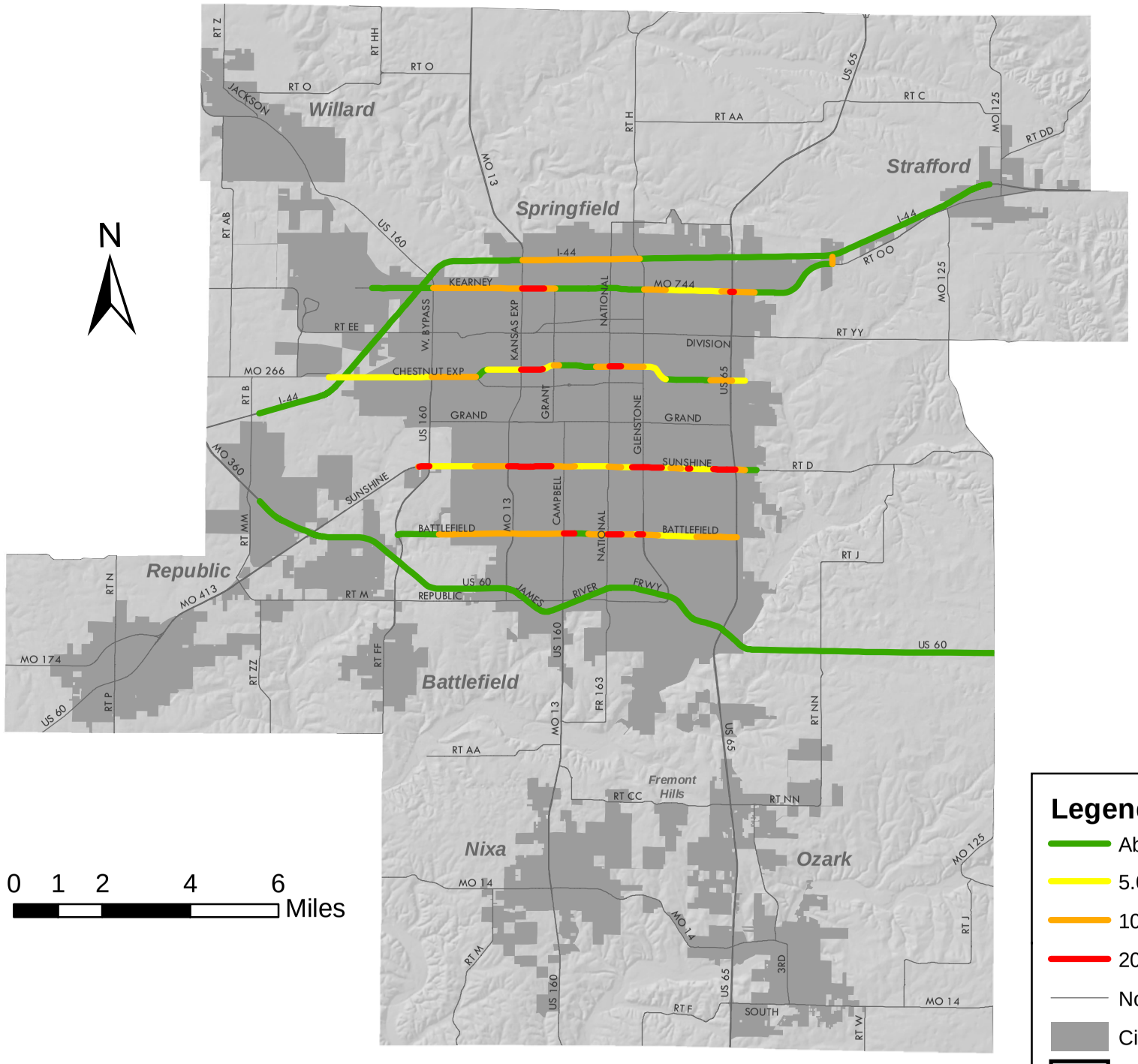
OZARKS TRANSPORTATION ORGANIZATION
A METROPOLITAN PLANNING ORGANIZATION

How badly are travelers delayed?

Map 5.4

Average Travel Speeds
AM Peak Hour - Southbound Lanes

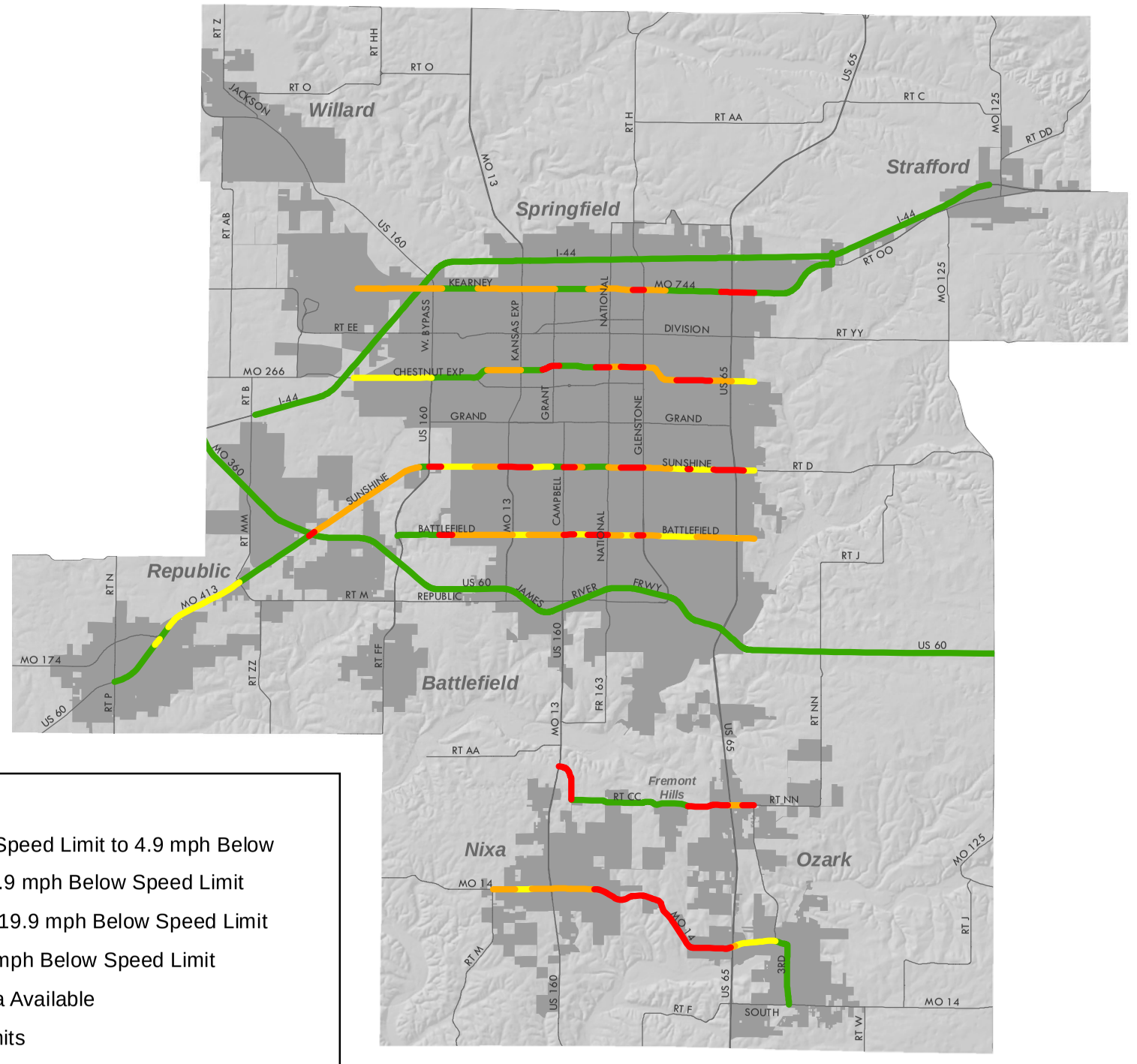
Average Travel Speeds
PM Peak Hour - Eastbound Lanes



Legend

- Above Speed Limit to 4.9 mph Below
- 5.0 to 9.9 mph Below Speed Limit
- 10.0 to 19.9 mph Below Speed Limit
- 20.0 + mph Below Speed Limit
- No Data Available
- City Limits
- MPO Area

2005



2008

Source: CJW Transportation Consultants LLC

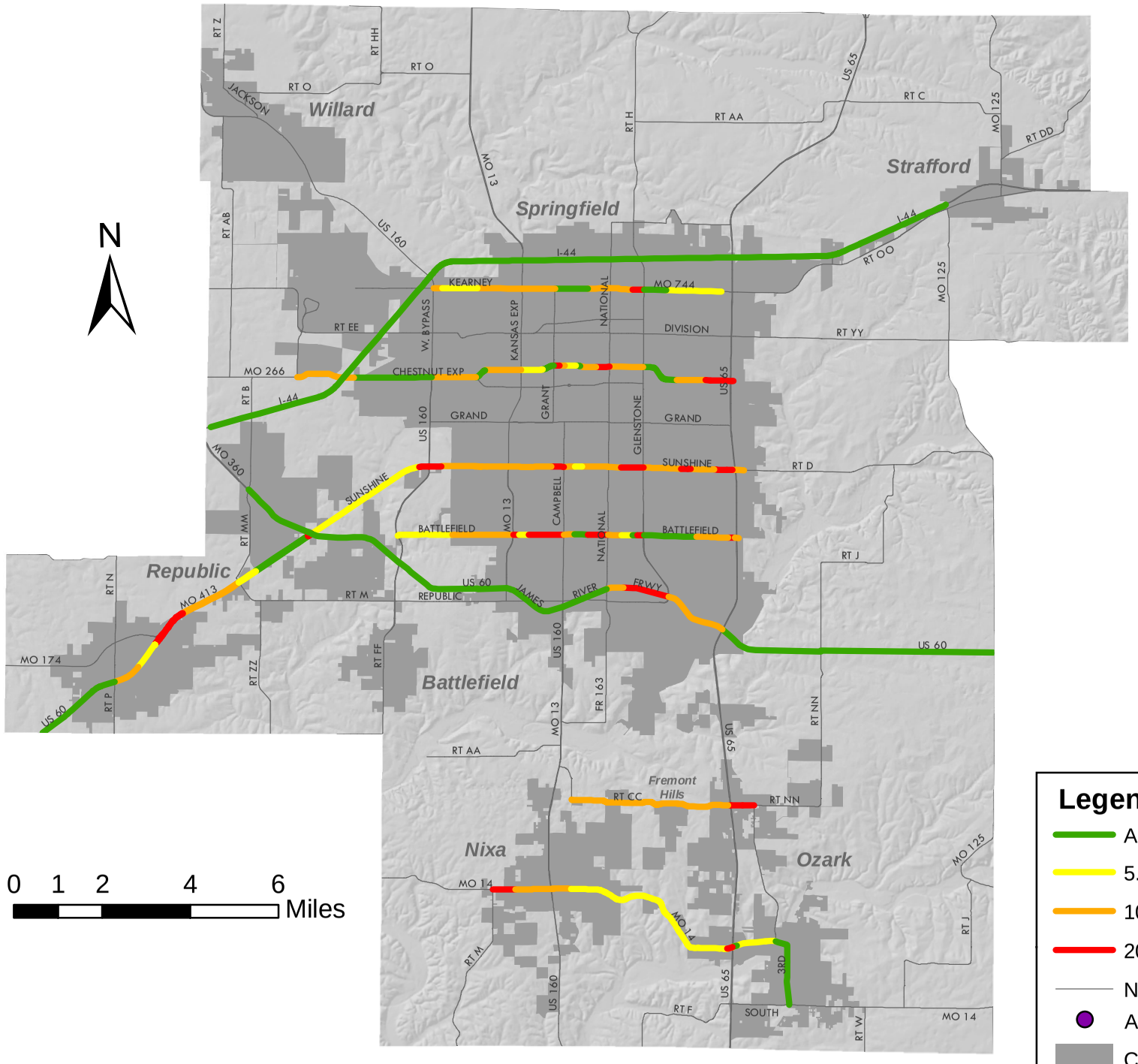
OZARKS TRANSPORTATION ORGANIZATION
A METROPOLITAN PLANNING ORGANIZATION

How badly are travelers delayed?

Map 5.5

Average Travel Speeds
PM Peak Hour - Eastbound Lanes

Average Travel Speeds
PM Peak Hour - Eastbound Lanes



Legend

- Above Speed Limit to 4.9 mph Below
- 5.0 to 9.9 mph Below Speed Limit
- 10.0 to 19.9 mph Below Speed Limit
- 20.0 + mph Below Speed Limit
- No Data Available
- Acyclica Sensor
- City Limits
- MPO Area

2012

2016

Source: City of Springfield
Missouri Dept. of Transportation
CJW Transportation Consultants LLC

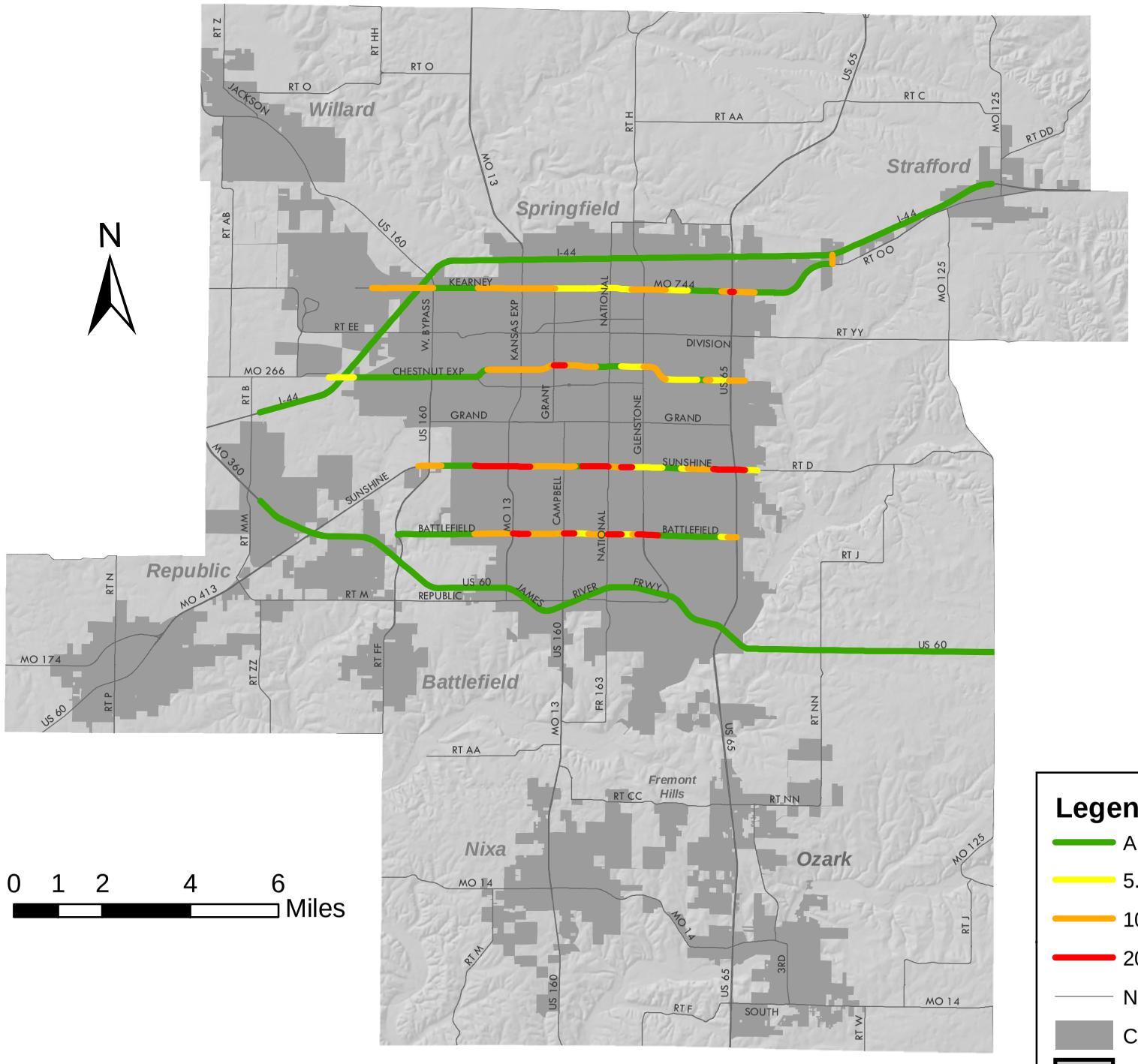
OZARKS TRANSPORTATION ORGANIZATION
A METROPOLITAN PLANNING ORGANIZATION

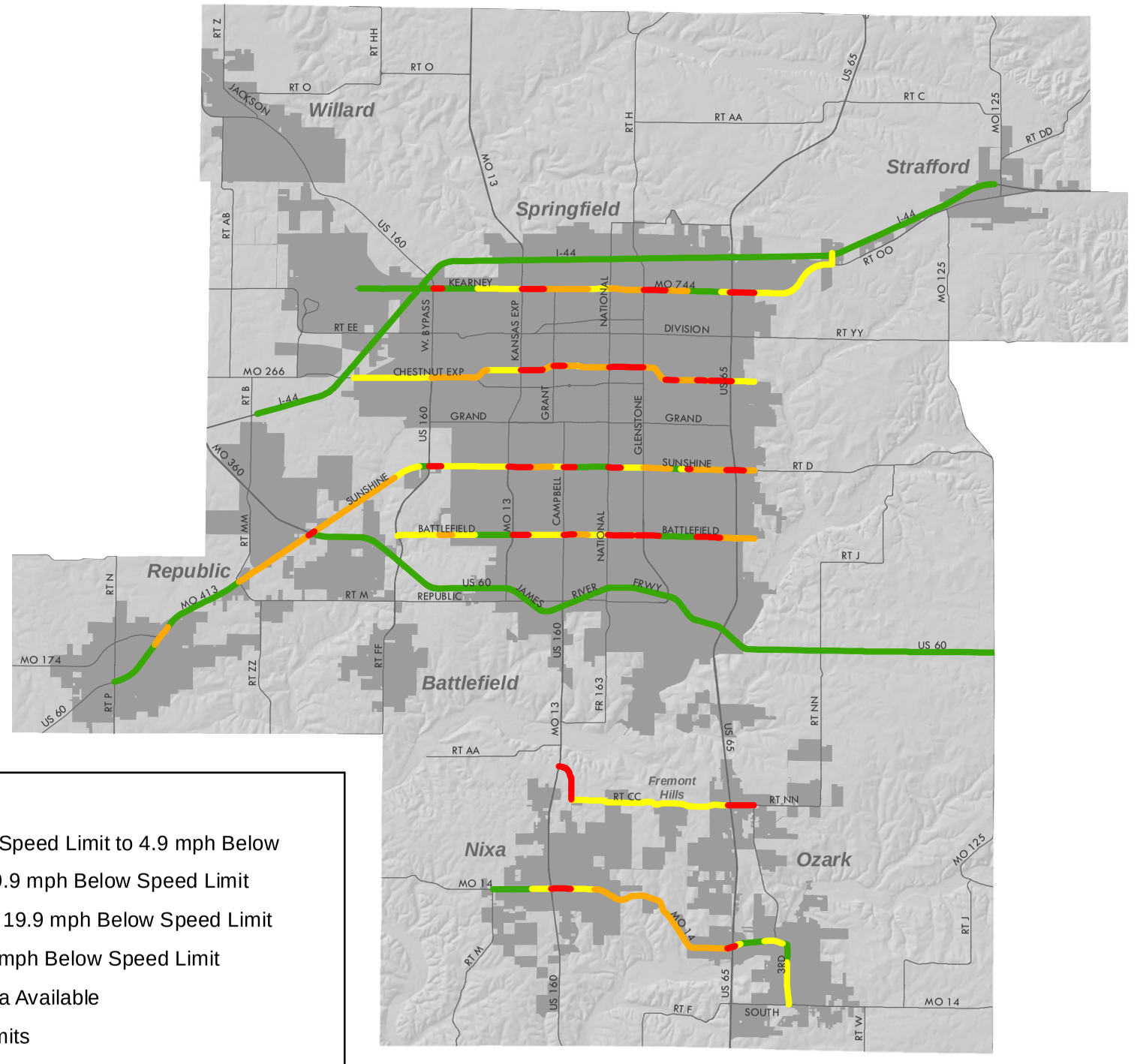
How badly are travelers delayed?

Map 5.5

Average Travel Speeds
PM Peak Hour - Eastbound Lanes

Average Travel Speeds
PM Peak Hour - Westbound Lanes





Legend

- Above Speed Limit to 4.9 mph Below
- 5.0 to 9.9 mph Below Speed Limit
- 10.0 to 19.9 mph Below Speed Limit
- 20.0 + mph Below Speed Limit
- No Data Available
- City Limits
- MPO Area

2005

2008

Source: CJW Transportation Consultants LLC

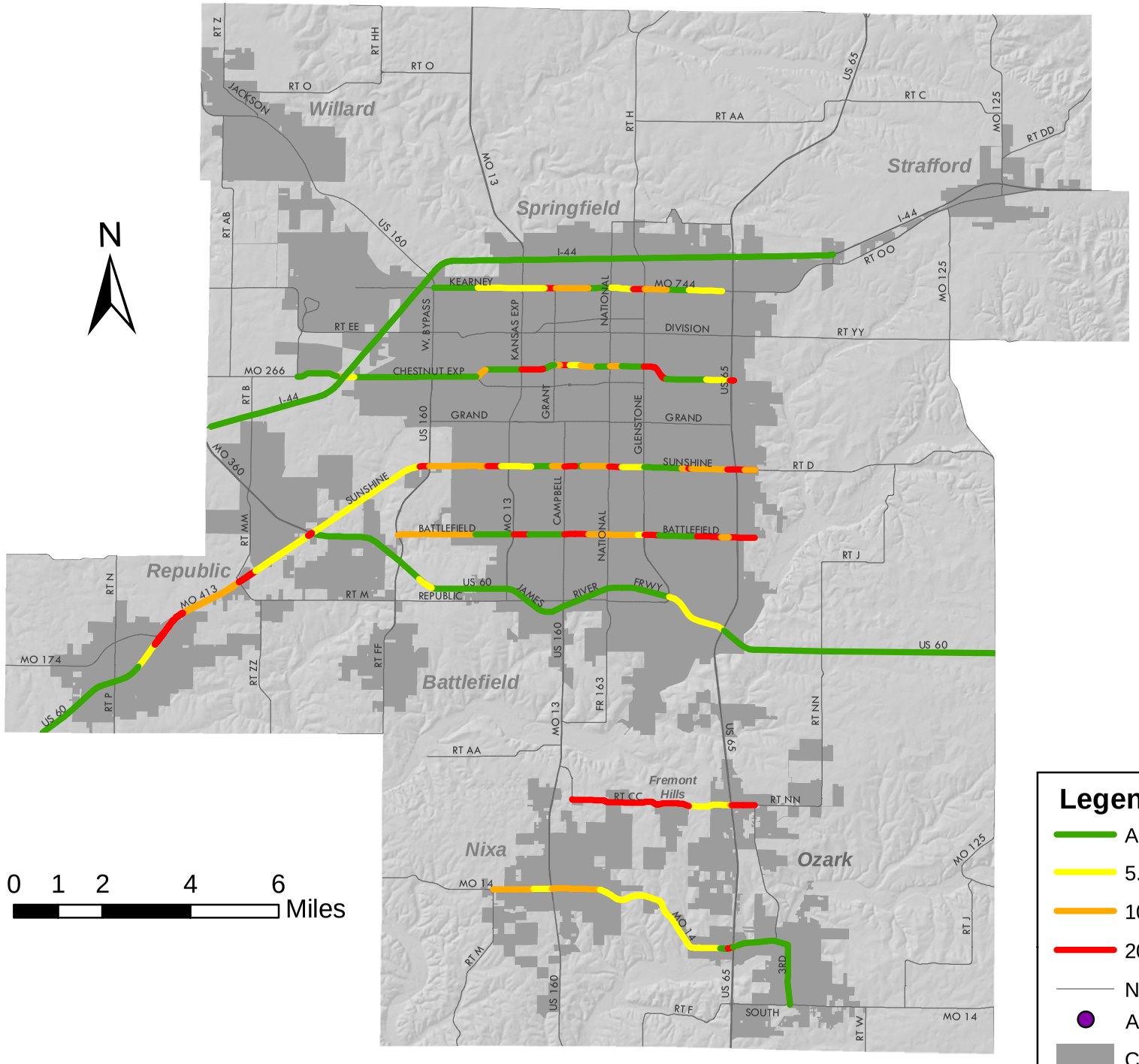
OZARKS TRANSPORTATION ORGANIZATION
A METROPOLITAN PLANNING ORGANIZATION

How badly are travelers delayed?

Map 5.6

Average Travel Speeds
PM Peak Hour - Westbound Lanes

Average Travel Speeds
PM Peak Hour - Westbound Lanes



0 1 2 4 6 Miles

Legend

- Above Speed Limit to 4.9 mph Below
- 5.0 to 9.9 mph Below Speed Limit
- 10.0 to 19.9 mph Below Speed Limit
- 20.0 + mph Below Speed Limit
- No Data Available
- Acyclica Sensor
- City Limits
- MPO Area

2012

2016

Source: City of Springfield
Missouri Dept. of Transportation
CJW Transportation Consultants LLC

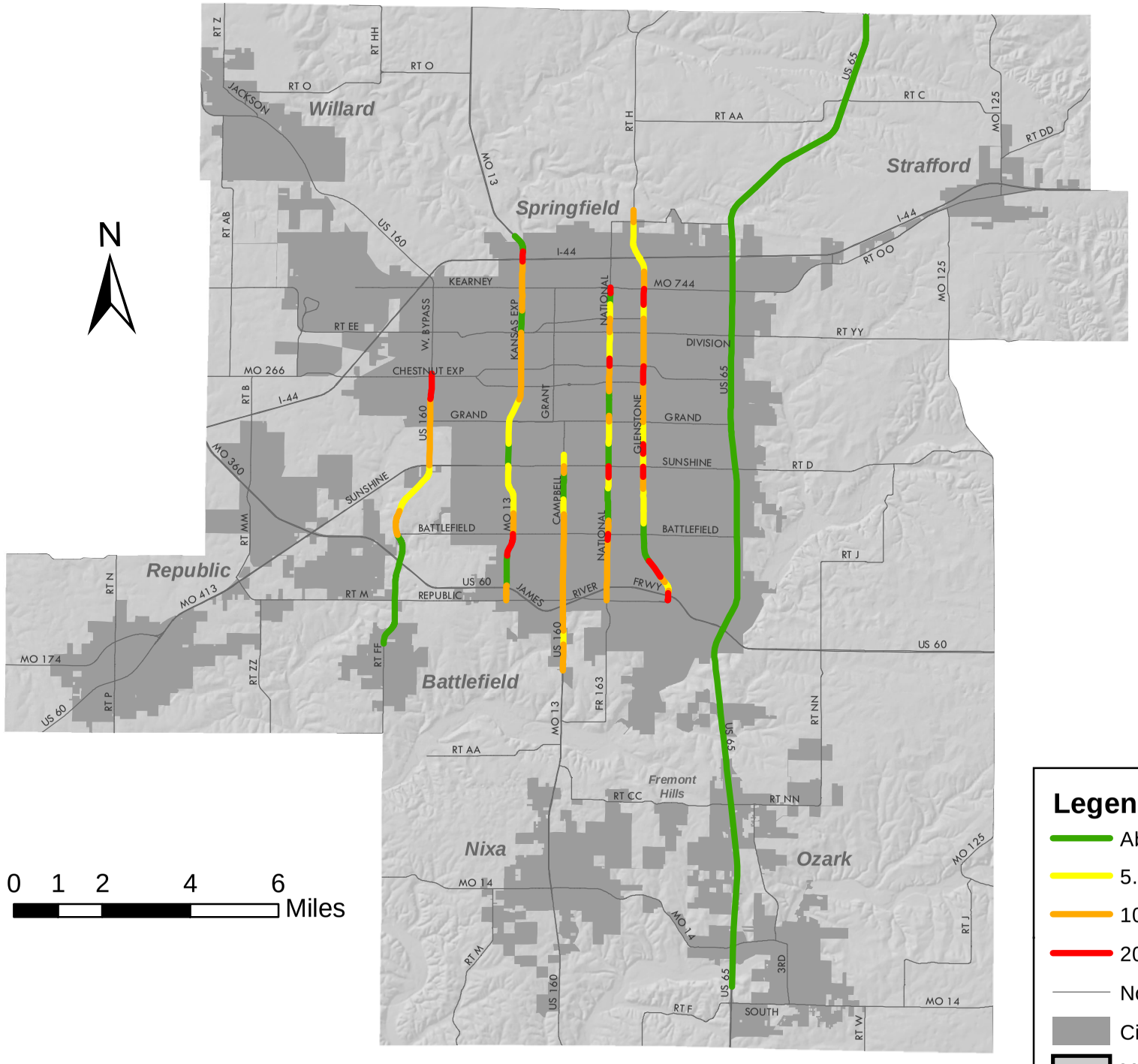
OZARKS TRANSPORTATION ORGANIZATION
A METROPOLITAN PLANNING ORGANIZATION

How badly are travelers delayed?

Map 5.6

Average Travel Speeds
PM Peak Hour - Westbound Lanes

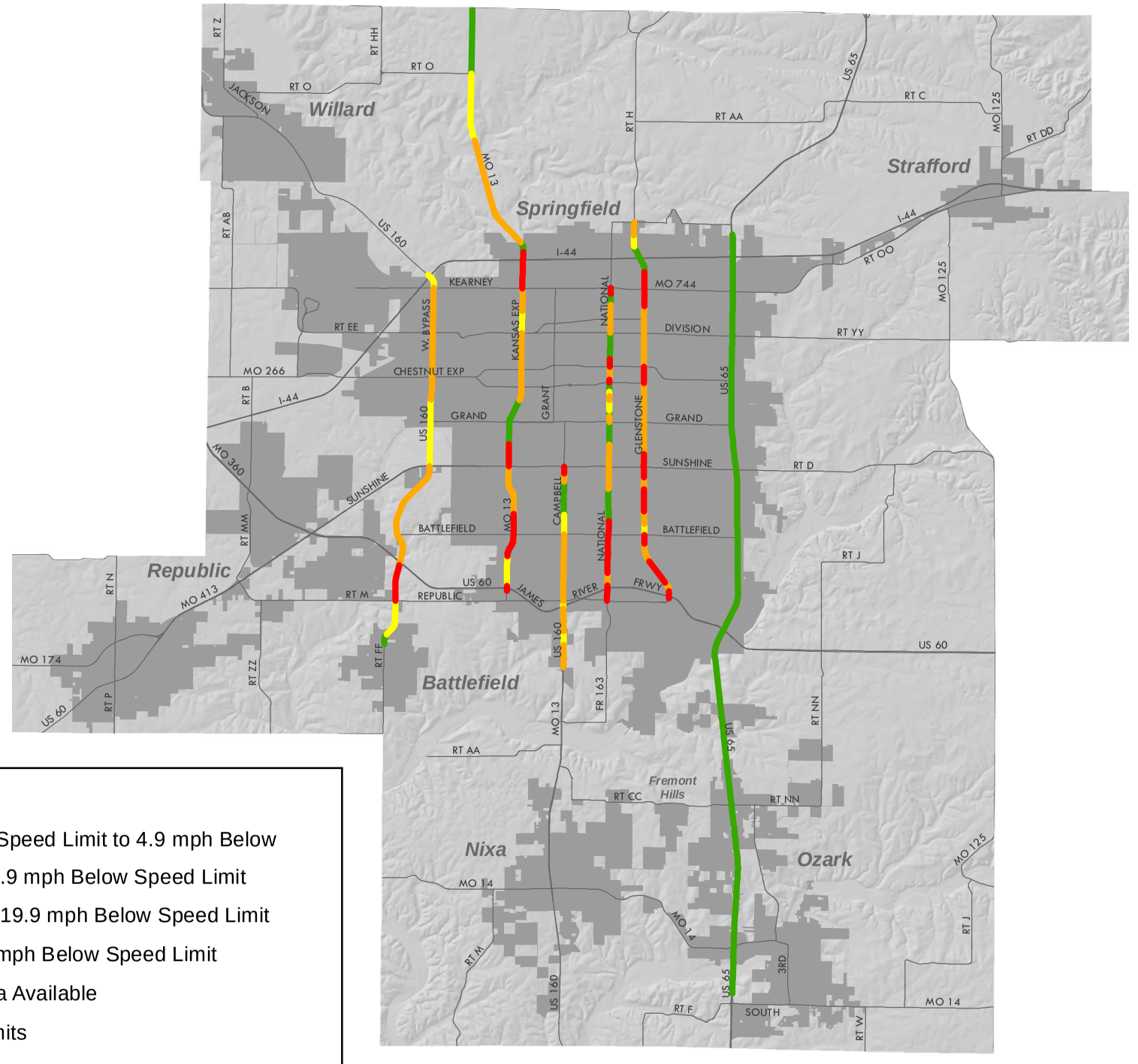
Average Travel Speeds
PM Peak Hour - Northbound Lanes



2005

Legend

- Above Speed Limit to 4.9 mph Below
- 5.0 to 9.9 mph Below Speed Limit
- 10.0 to 19.9 mph Below Speed Limit
- 20.0 + mph Below Speed Limit
- No Data Available
- City Limits
- MPO Area



2008

Source: CJW Transportation Consultants LLC

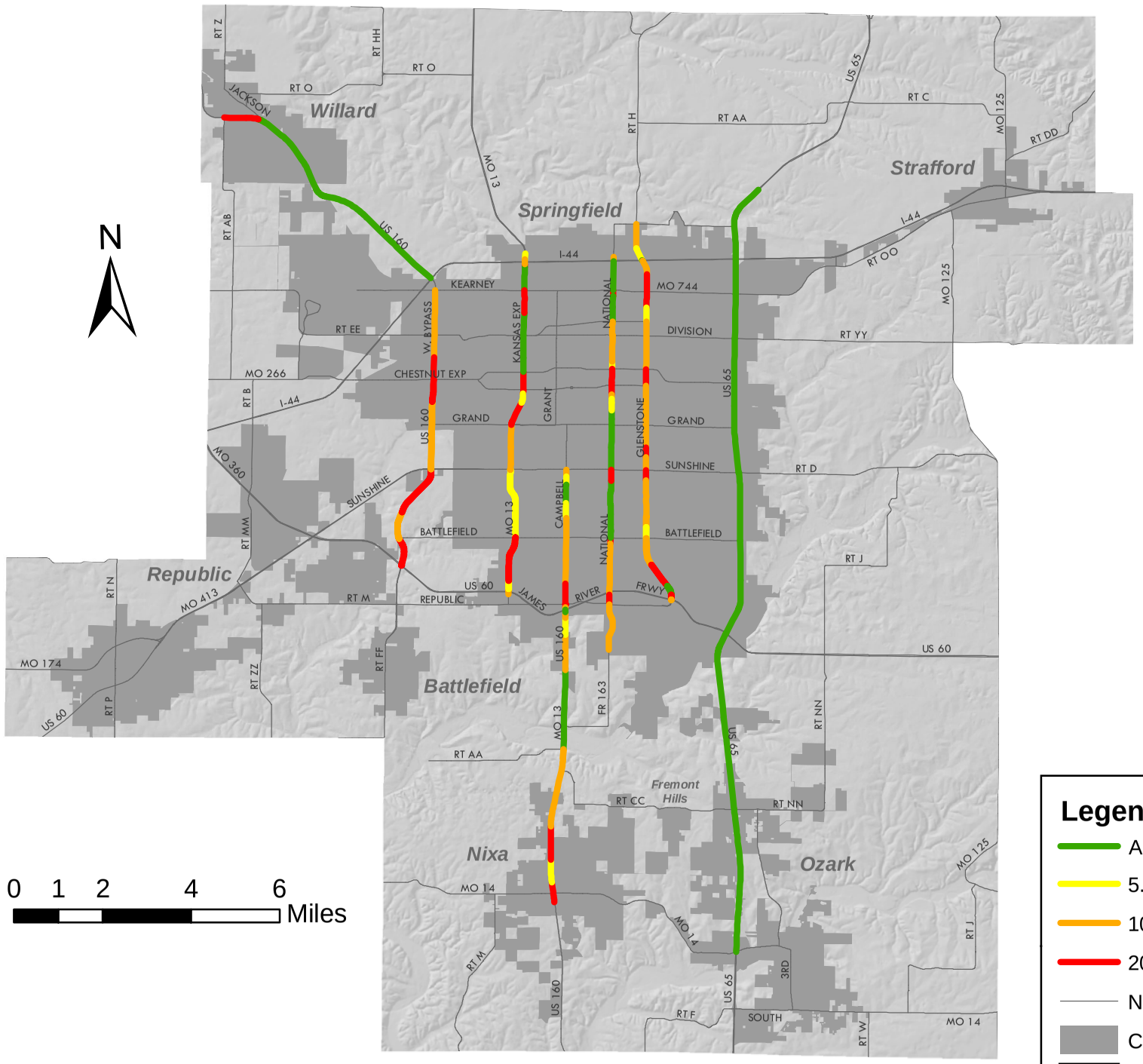
OZARKS TRANSPORTATION ORGANIZATION
A METROPOLITAN PLANNING ORGANIZATION

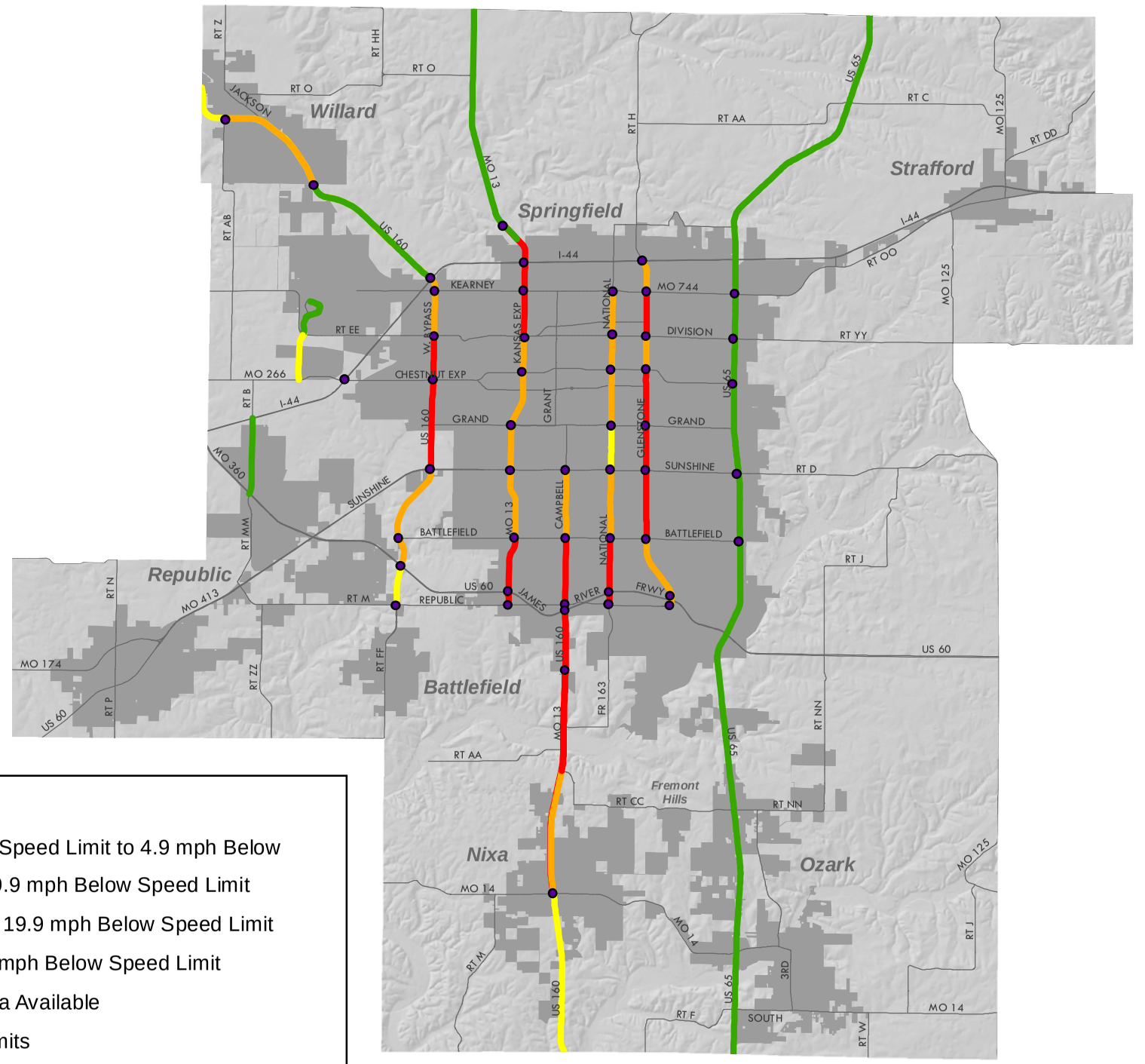
How badly are travelers delayed?

Map 5.7

Average Travel Speeds
PM Peak Hour - Northbound Lanes

Average Travel Speeds
PM Peak Hour - Northbound Lanes





Legend

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- 5.0 to 9.9 mph Below Speed Limit
- 10.0 to 19.9 mph Below Speed Limit
- 20.0 + mph Below Speed Limit
- No Data Available
- City Limits
- MPO Area

2012

2016

Source: City of Springfield
Missouri Dept. of Transportation
CJW Transportation Consultants LLC

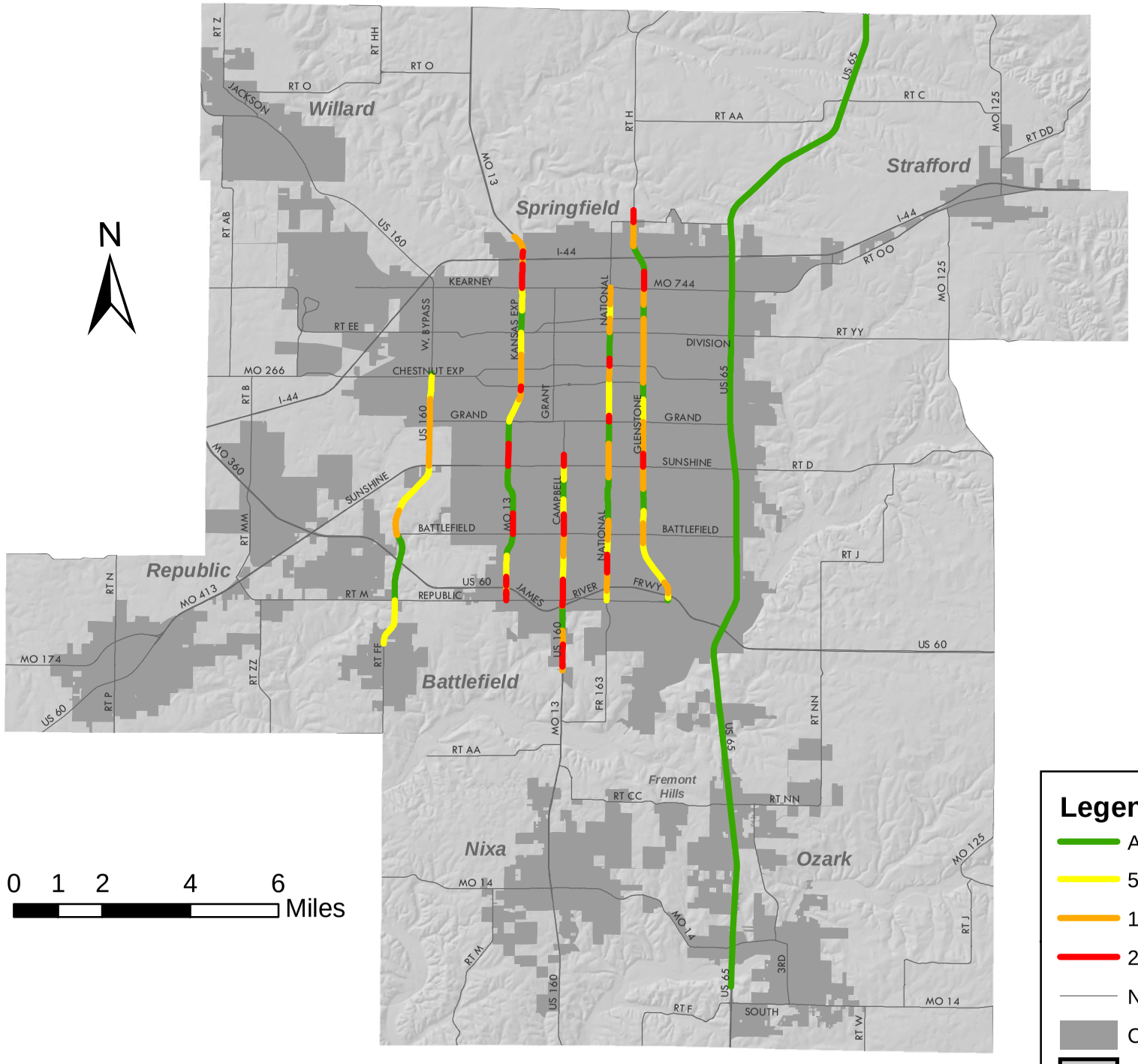
OZARKS TRANSPORTATION ORGANIZATION
A METROPOLITAN PLANNING ORGANIZATION

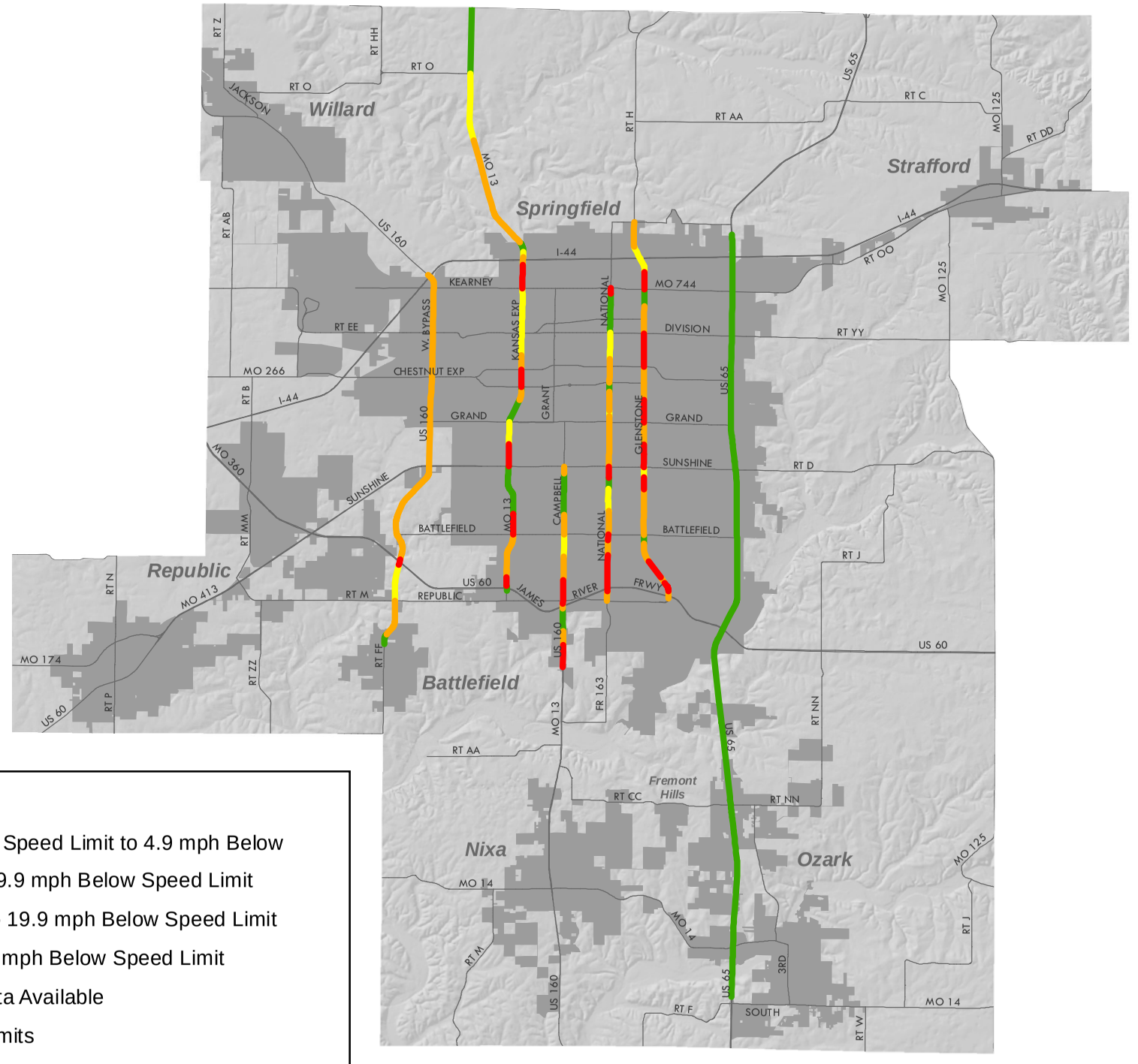
How badly are travelers delayed?

Map 5.7

Average Travel Speeds
PM Peak Hour - Northbound Lanes

Average Travel Speeds
PM Peak Hour - Southbound Lanes





Legend

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- 5.0 to 9.9 mph Below Speed Limit
- 10.0 to 19.9 mph Below Speed Limit
- 20.0 + mph Below Speed Limit
- No Data Available
- City Limits
- MPO Area

2005

2008

Source: CJW Transportation Consultants LLC

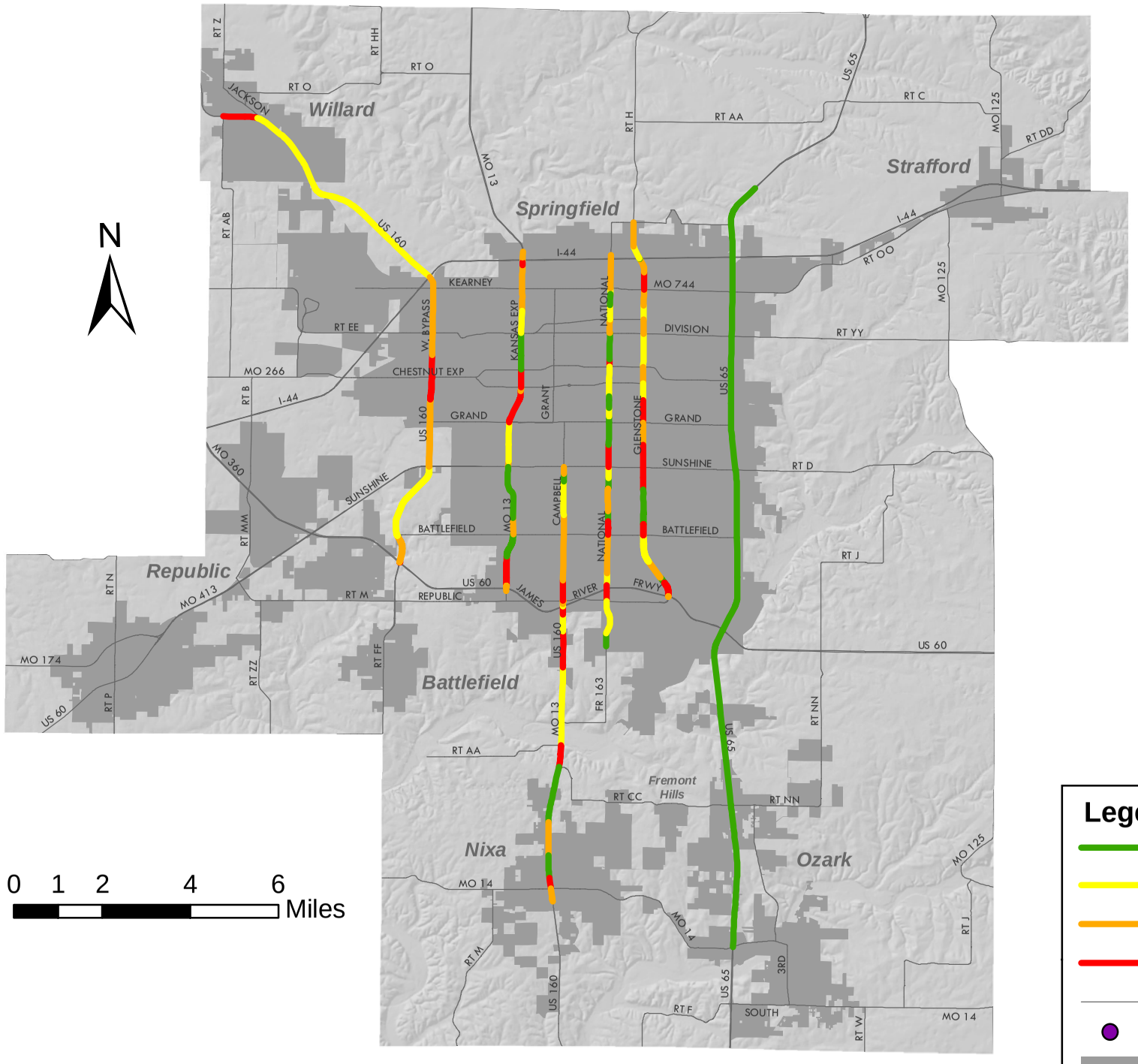
OZARKS TRANSPORTATION ORGANIZATION
A METROPOLITAN PLANNING ORGANIZATION

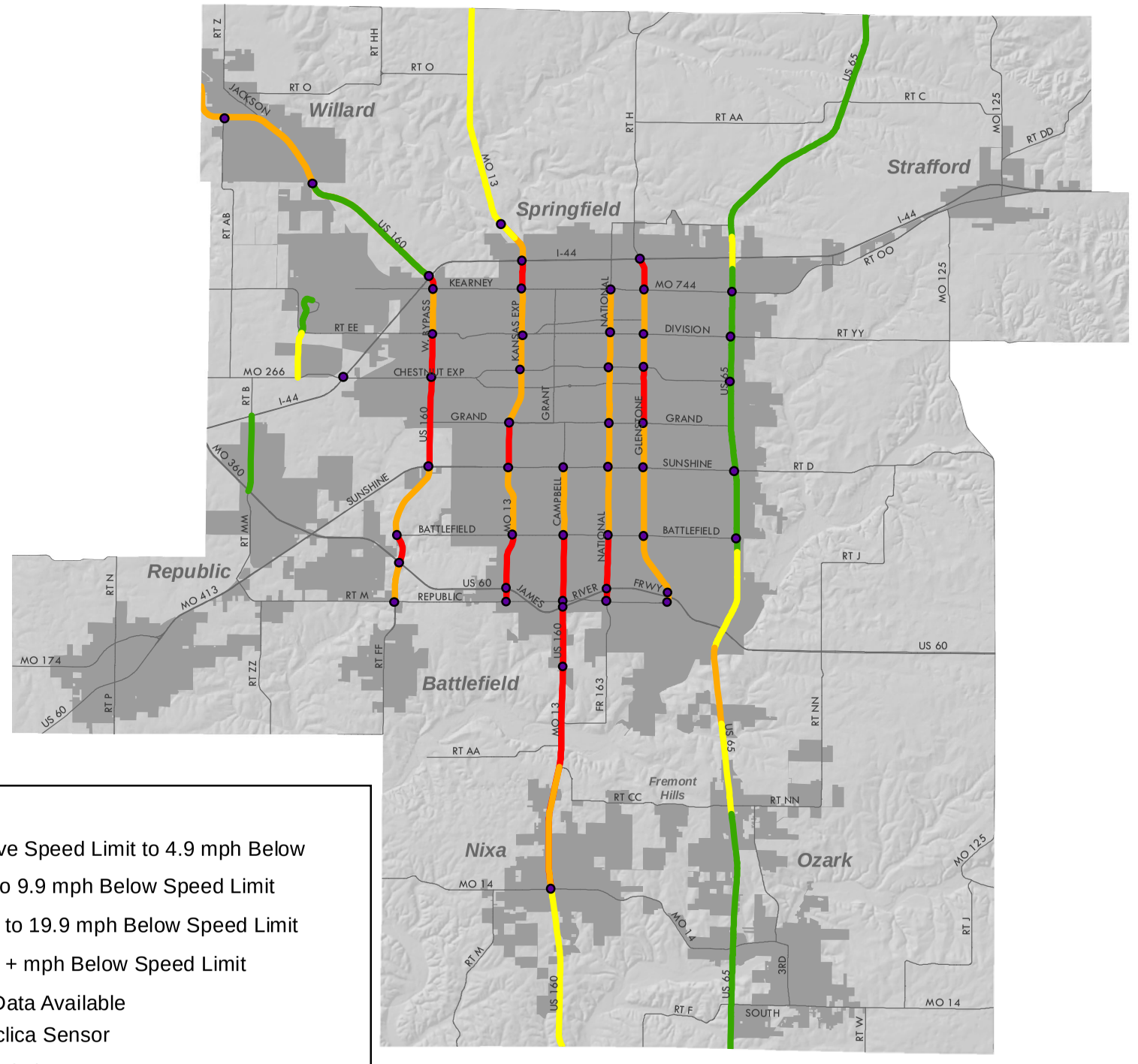
How badly are travelers delayed?

Map 5.8

Average Travel Speeds
PM Peak Hour - Southbound Lanes

Average Travel Speeds
PM Peak Hour - Southbound Lanes





Legend

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- 5.0 to 9.9 mph Below Speed Limit
- 10.0 to 19.9 mph Below Speed Limit
- 20.0 + mph Below Speed Limit
- No Data Available
- Acyclica Sensor
- City Limits
- MPO Area

2012

2016

Source: City of Springfield
Missouri Dept. of Transportation
CJW Transportation Consultants LLC

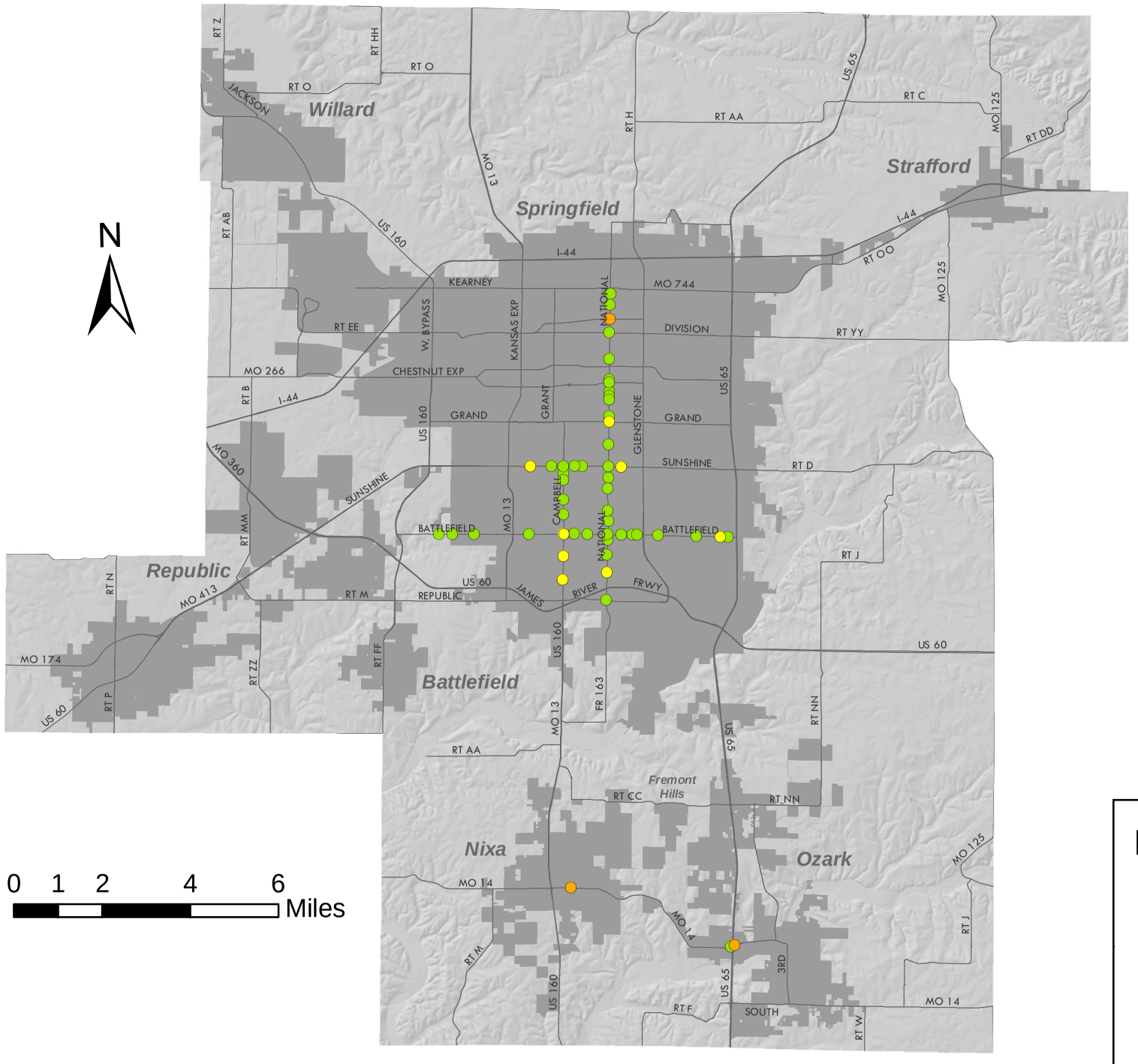
OZARKS TRANSPORTATION ORGANIZATION
A METROPOLITAN PLANNING ORGANIZATION

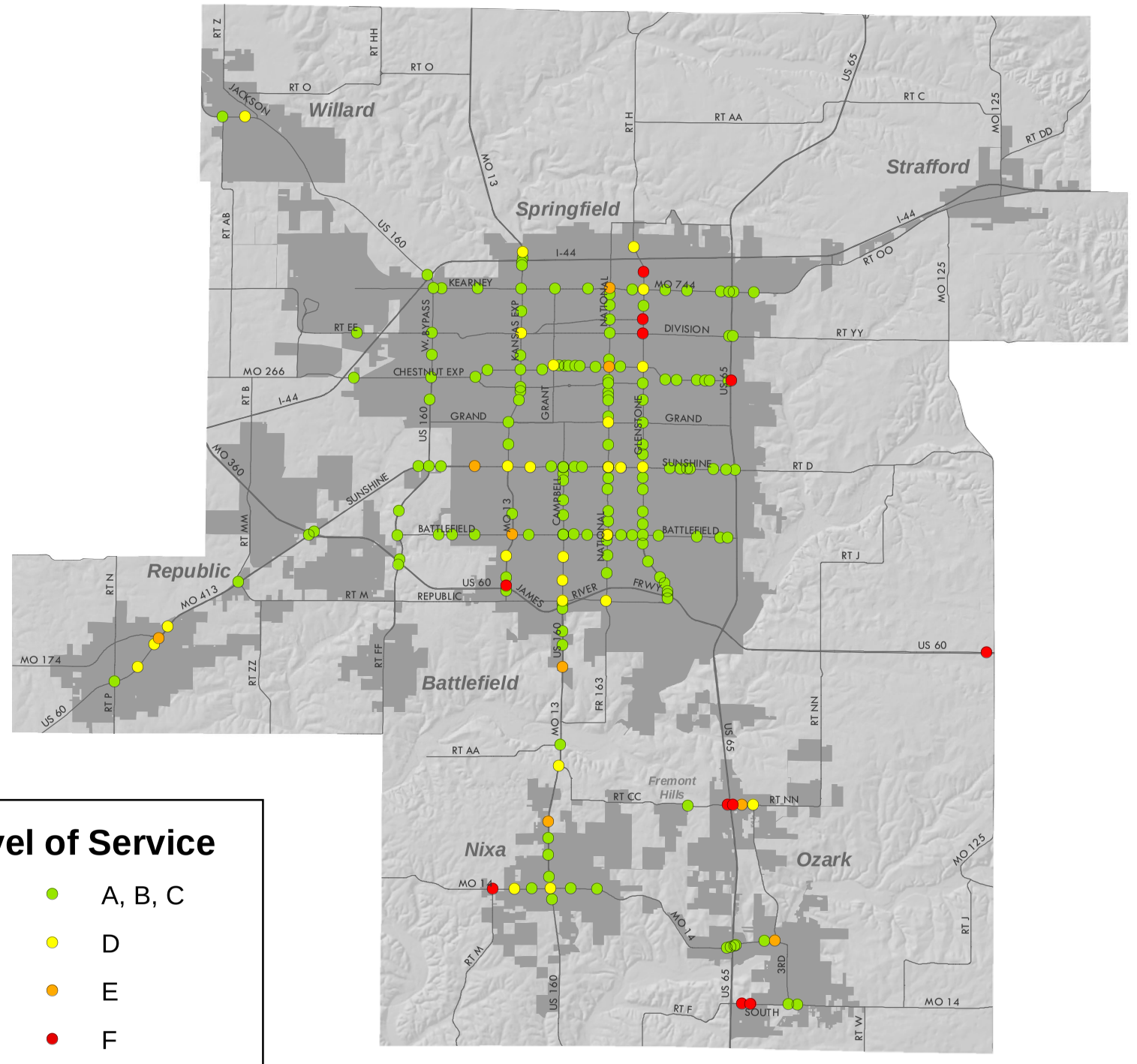
How badly are travelers delayed?

Map 5.8

Average Travel Speeds
PM Peak Hour - Southbound Lanes

Intersection Level of Service
AM Peak





Level of Service

- A, B, C
- D
- E
- F

2005

2008

Source: City of Springfield
Missouri Dept. of Transportation

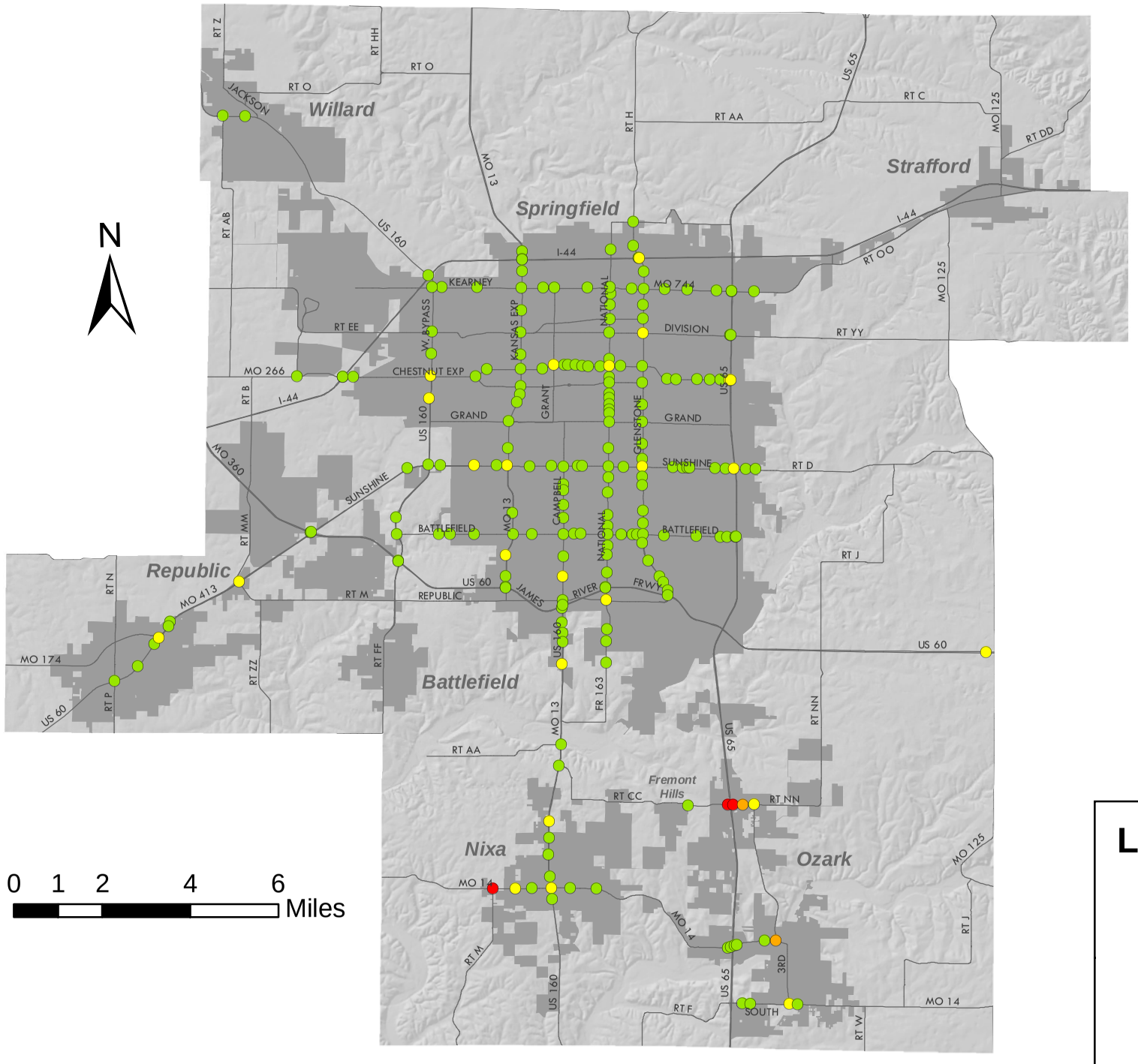
OZARKS TRANSPORTATION ORGANIZATION
A METROPOLITAN PLANNING ORGANIZATION

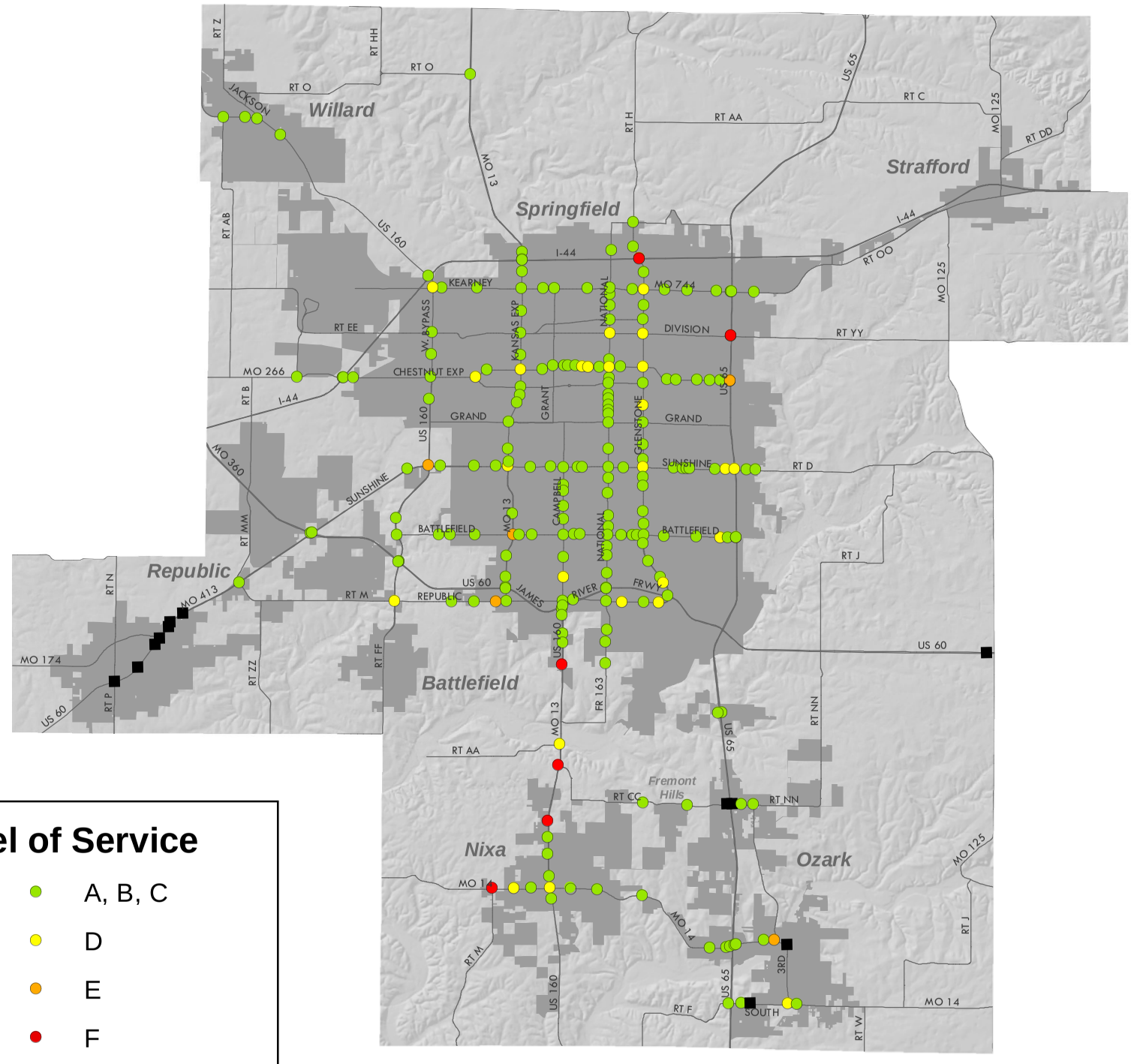
What impact does intersection/interchange level-of-service play in determining regional congestion problems?

Map 6.1

Intersection Level of Service
AM Peak

Intersection Level of Service
AM Peak





Level of Service

- A, B, C
- D
- E
- F
- No Data

2012

2016

Source: City of Springfield
Missouri Dept. of Transportation

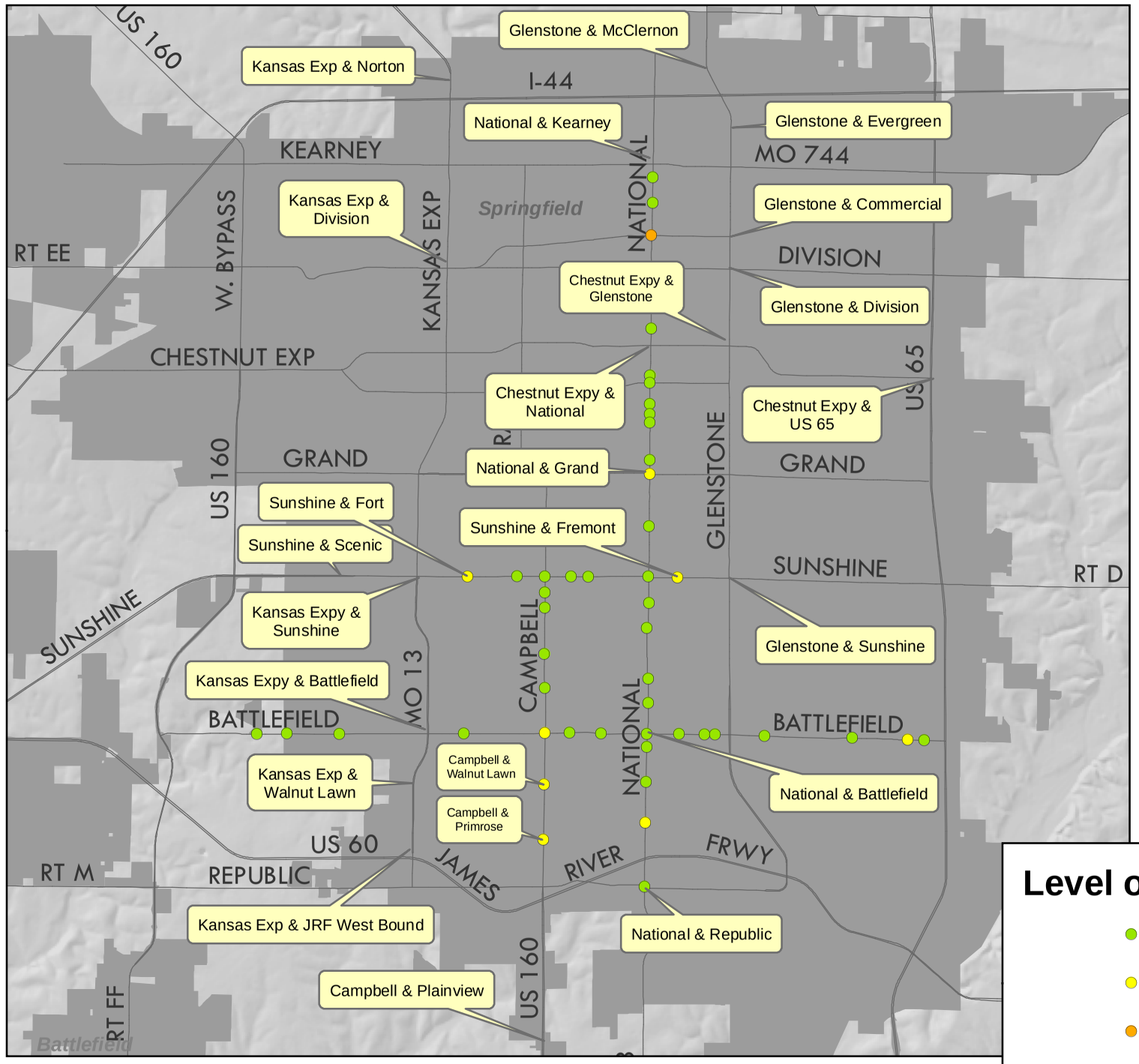
OZARKS TRANSPORTATION ORGANIZATION
A METROPOLITAN PLANNING ORGANIZATION

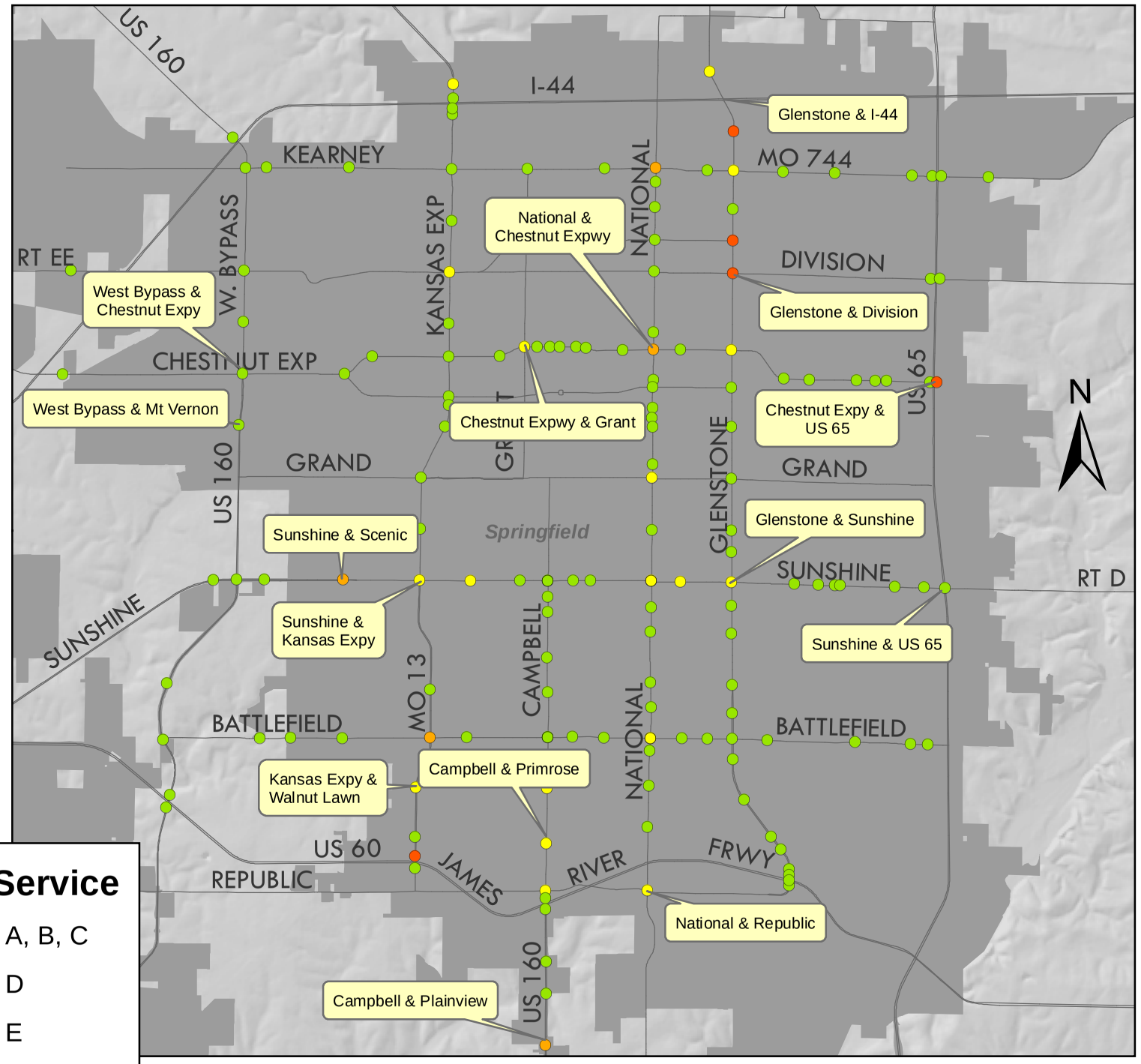
What impact does intersection/interchange level-of-service play in determining regional congestion problems?

Map 6.1

Intersection Level of Service
AM Peak

Intersection Level of Service
AM Peak





Level of Service

- A, B, C
- D
- E
- F

0 0.5 1 2 3
Miles

2005

2008

Source: City of Springfield
Missouri Dept. of Transportation

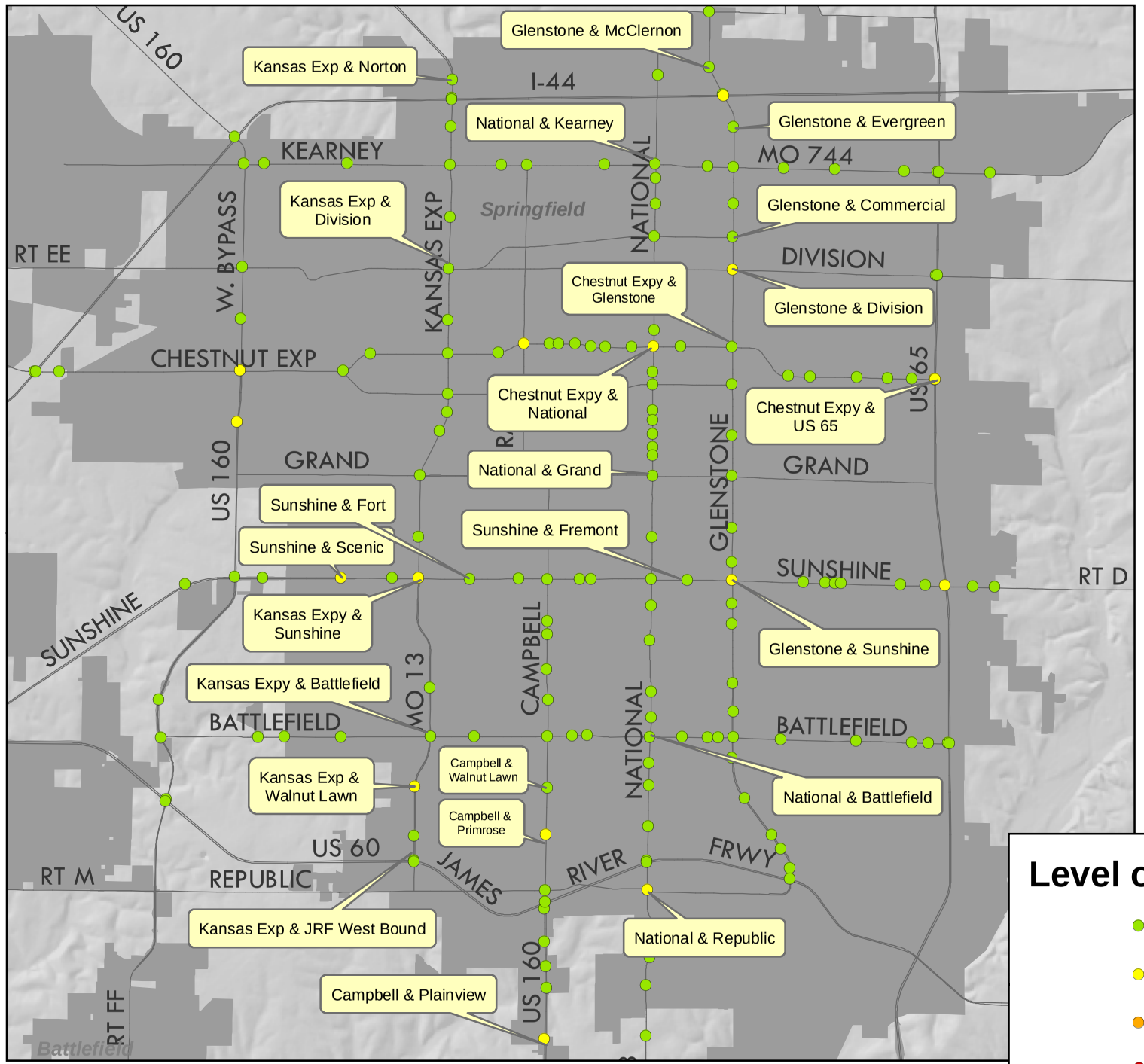
OZARKS TRANSPORTATION ORGANIZATION
A METROPOLITAN PLANNING ORGANIZATION

What impact does intersection/interchange level-of-service play in determining regional congestion problems?

Map 6.2

Intersection Level of Service
AM Peak

Intersection Level of Service
AM Peak



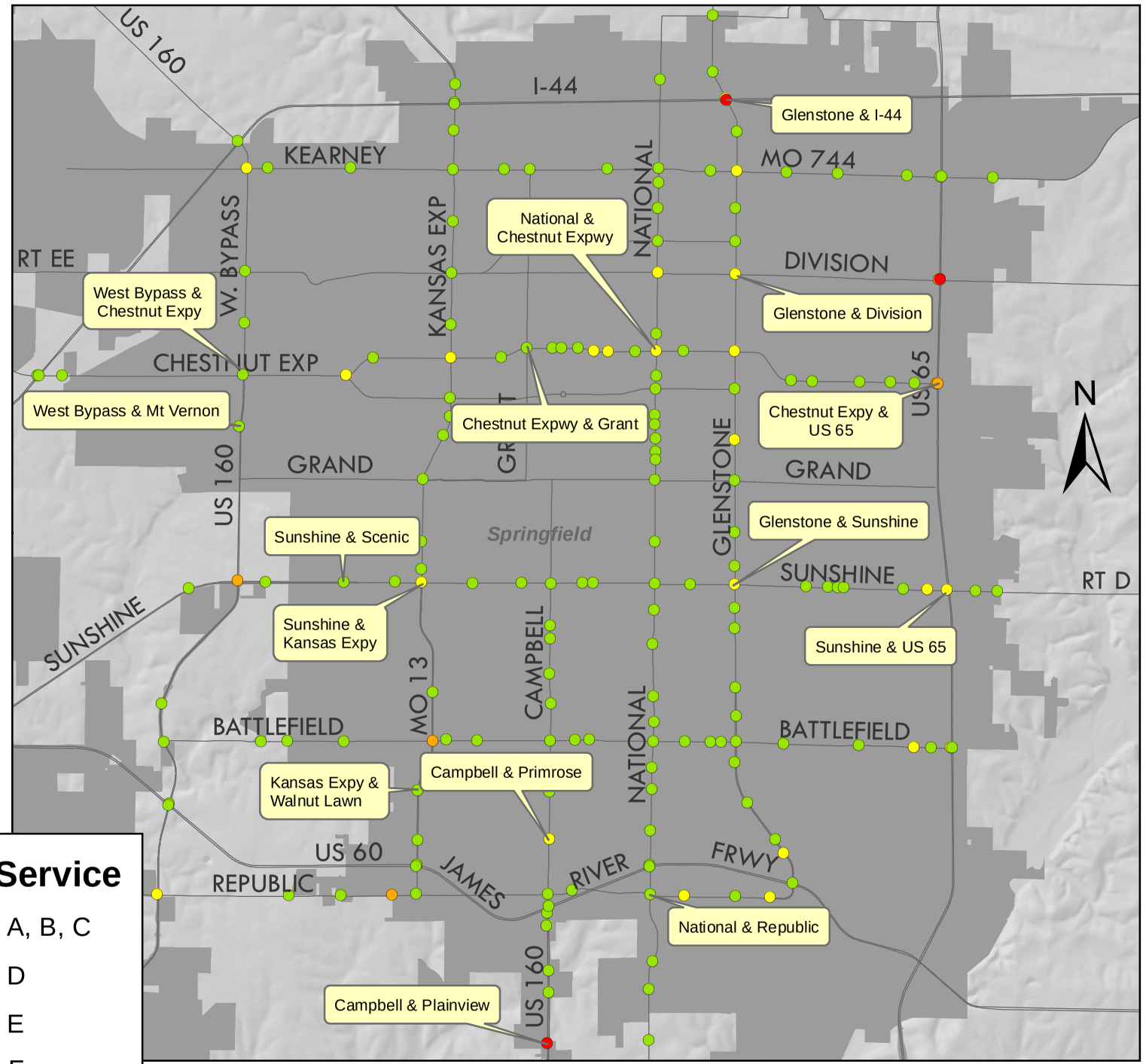
2012

0 0.5 1 2 3

Miles

Level of Service

- A, B, C
- D
- E
- F
- No Data



2016

N

Source: City of Springfield
Missouri Dept. of Transportation

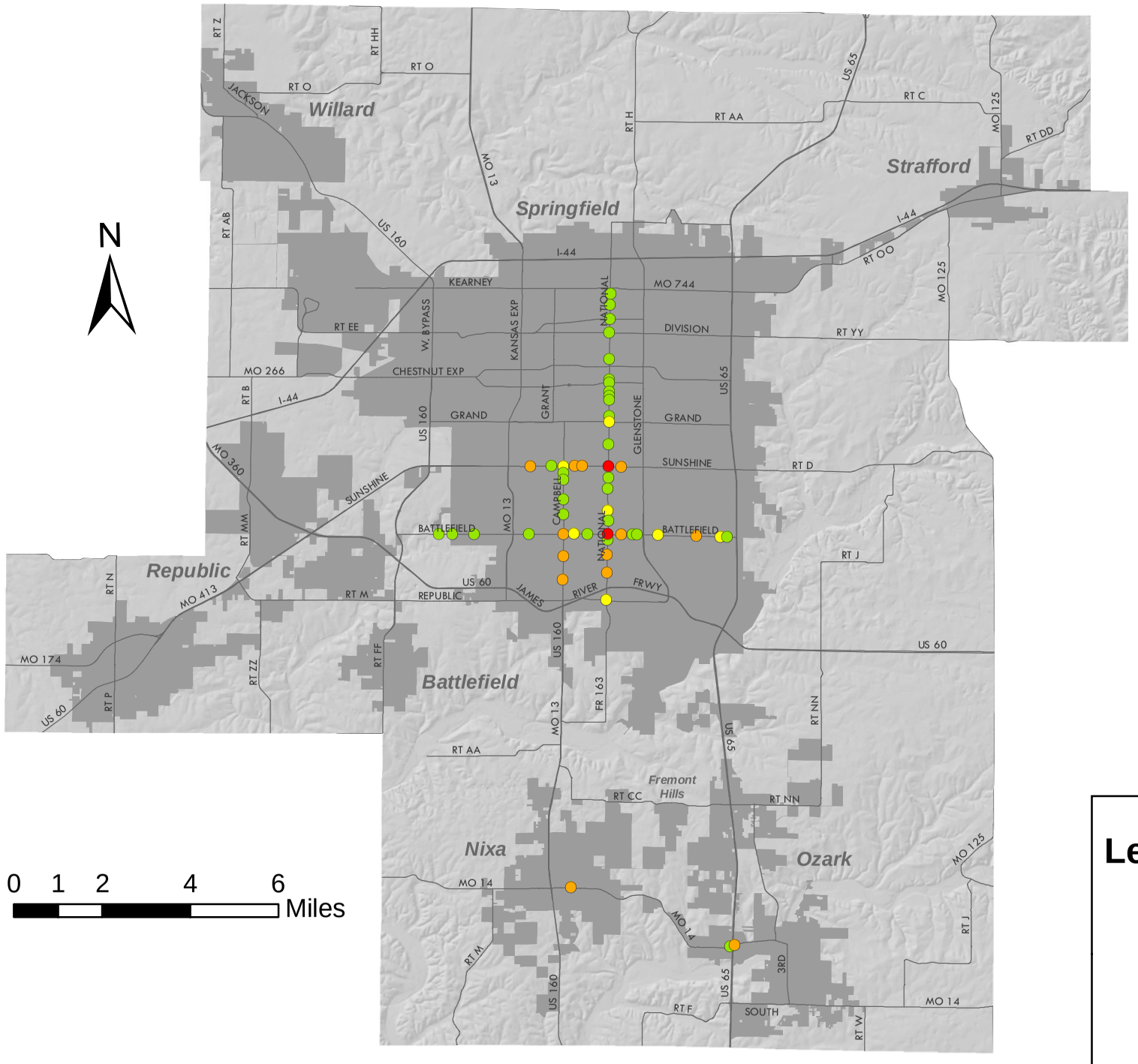
OZARKS TRANSPORTATION ORGANIZATION
A METROPOLITAN PLANNING ORGANIZATION

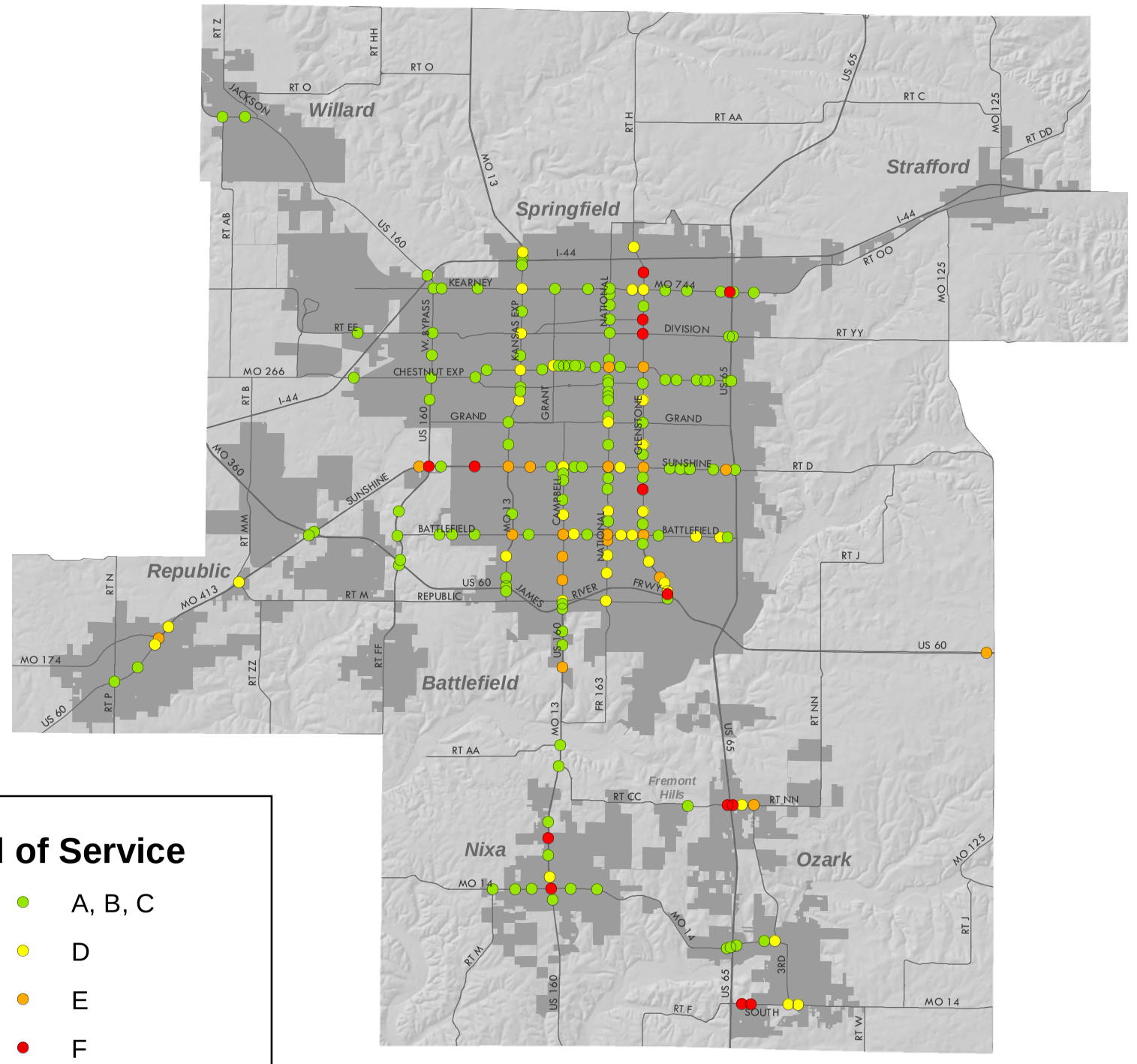
What impact does intersection/interchange level-of-service play in determining regional congestion problems?

Map 6.2

Intersection Level of Service
AM Peak

Intersection Level of Service
PM Peak





Level of Service

- A, B, C
- D
- E
- F

2005

2008

Source: City of Springfield
Missouri Dept. of Transportation

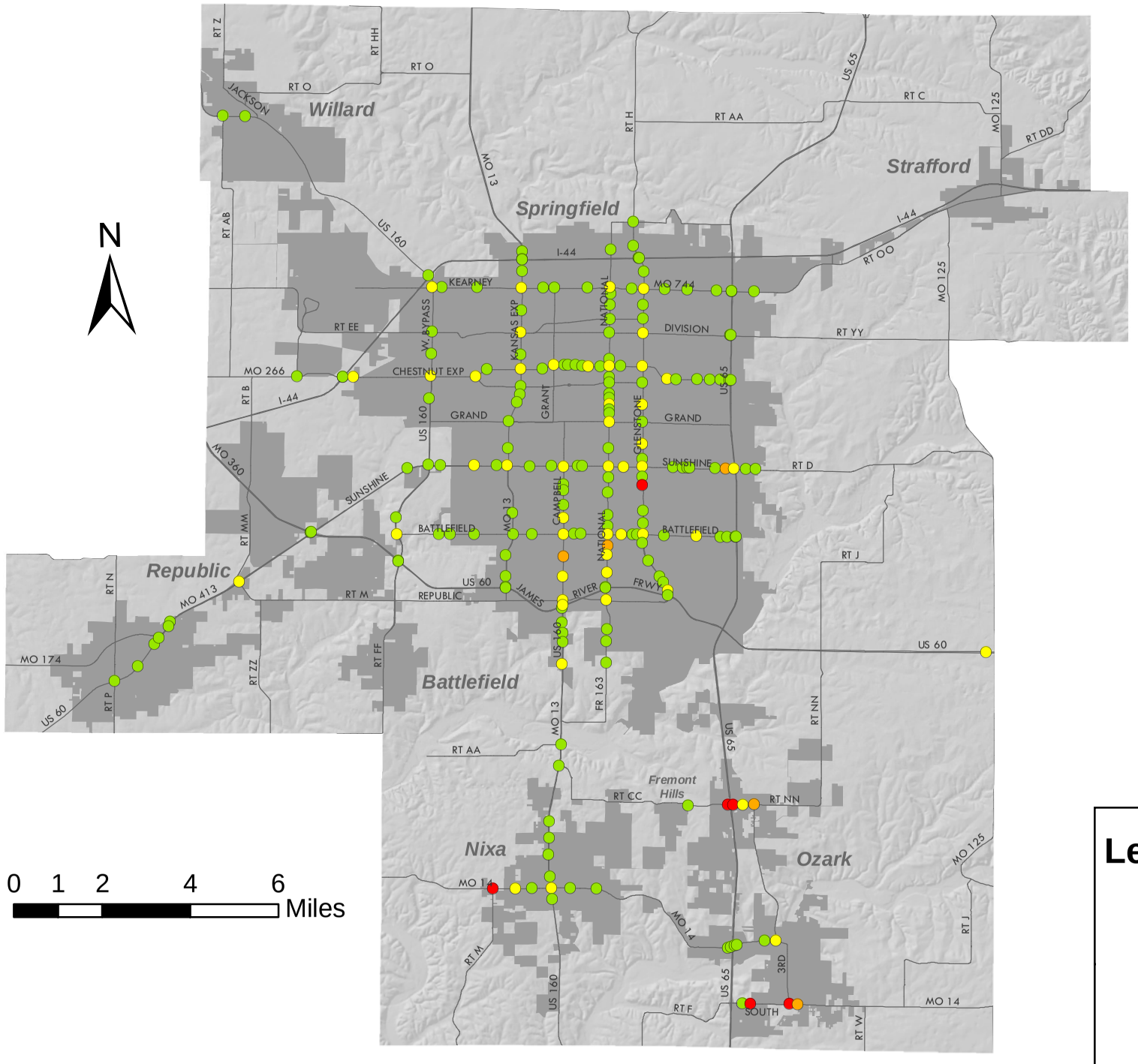
OZARKS TRANSPORTATION ORGANIZATION
A METROPOLITAN PLANNING ORGANIZATION

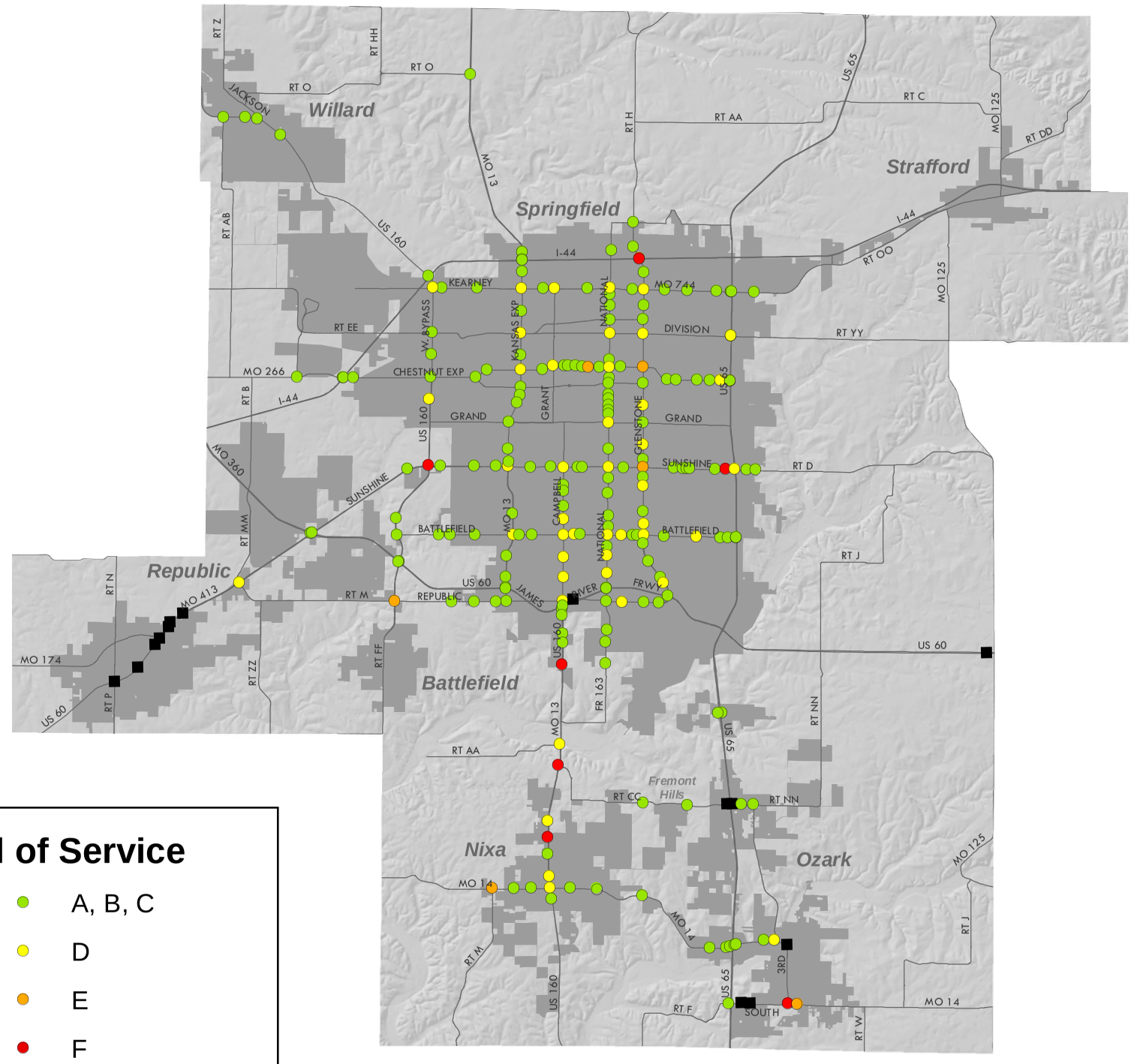
What impact does intersection/interchange level-of-service play in determining regional congestion problems?

Map 6.3

Intersection Level of Service
PM Peak

Intersection Level of Service
PM Peak





Level of Service

- A, B, C
- D
- E
- F
- No Data

2012

2016

Source: City of Springfield
Missouri Dept. of Transportation

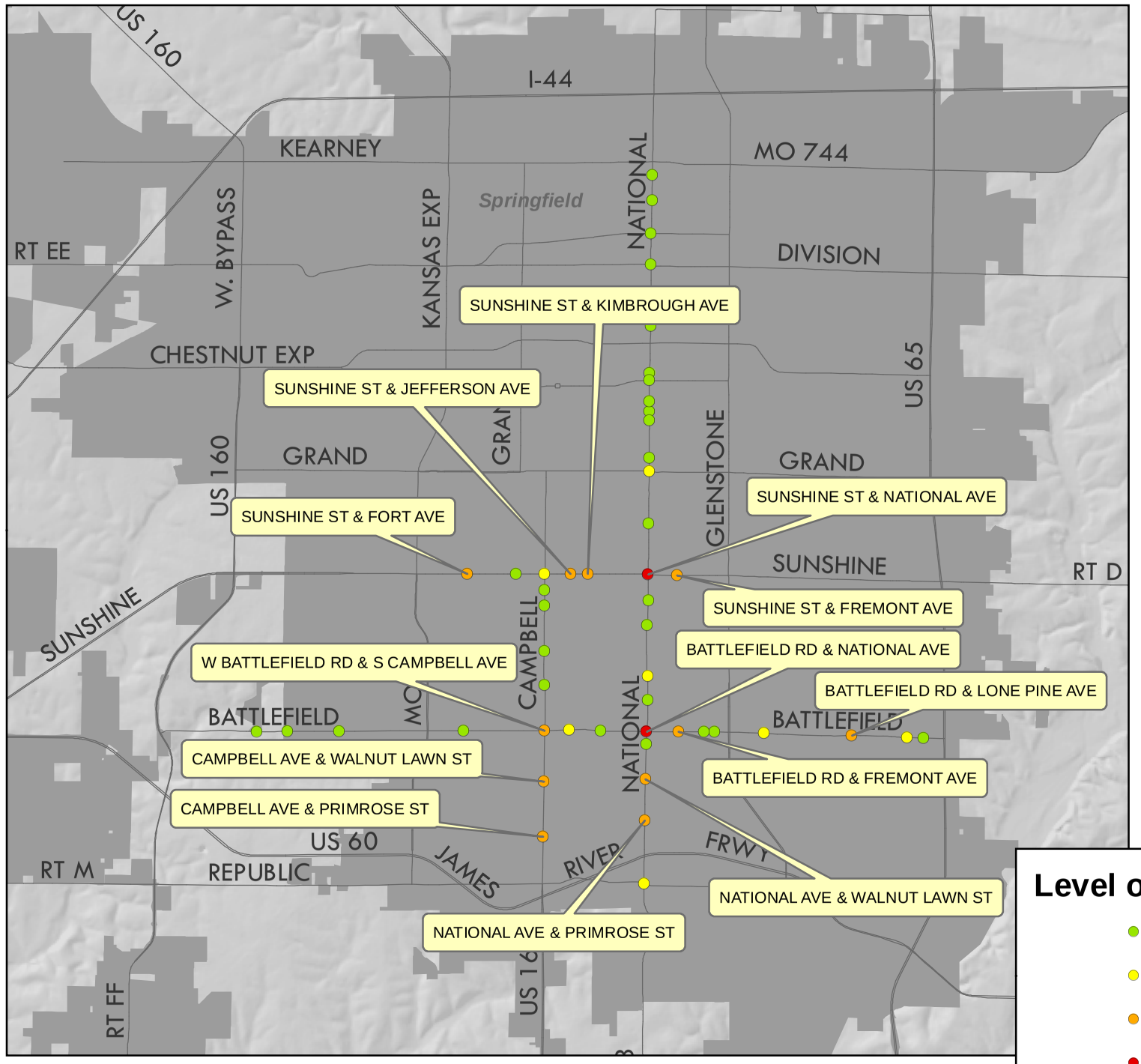
OZARKS TRANSPORTATION ORGANIZATION
A METROPOLITAN PLANNING ORGANIZATION

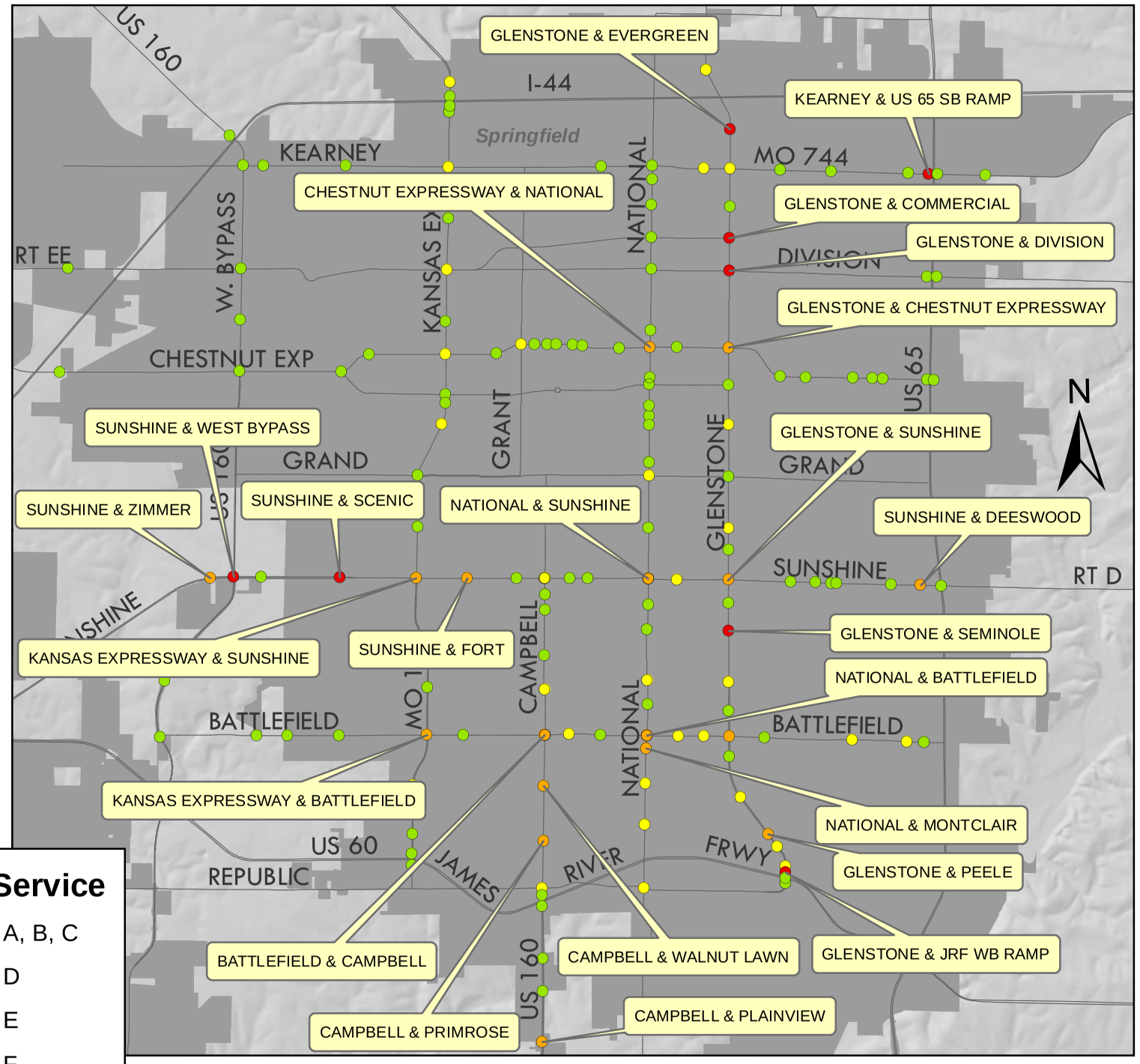
What impact does intersection/interchange level-of-service play in determining regional congestion problems?

Map 6.3

Intersection Level of Service
PM Peak

Intersection Level of Service
PM Peak





Level of Service

- A, B, C
- D
- E
- F

2005

0 0.5 1 2 3

Miles

2008

Source: City of Springfield
Missouri Dept. of Transportation

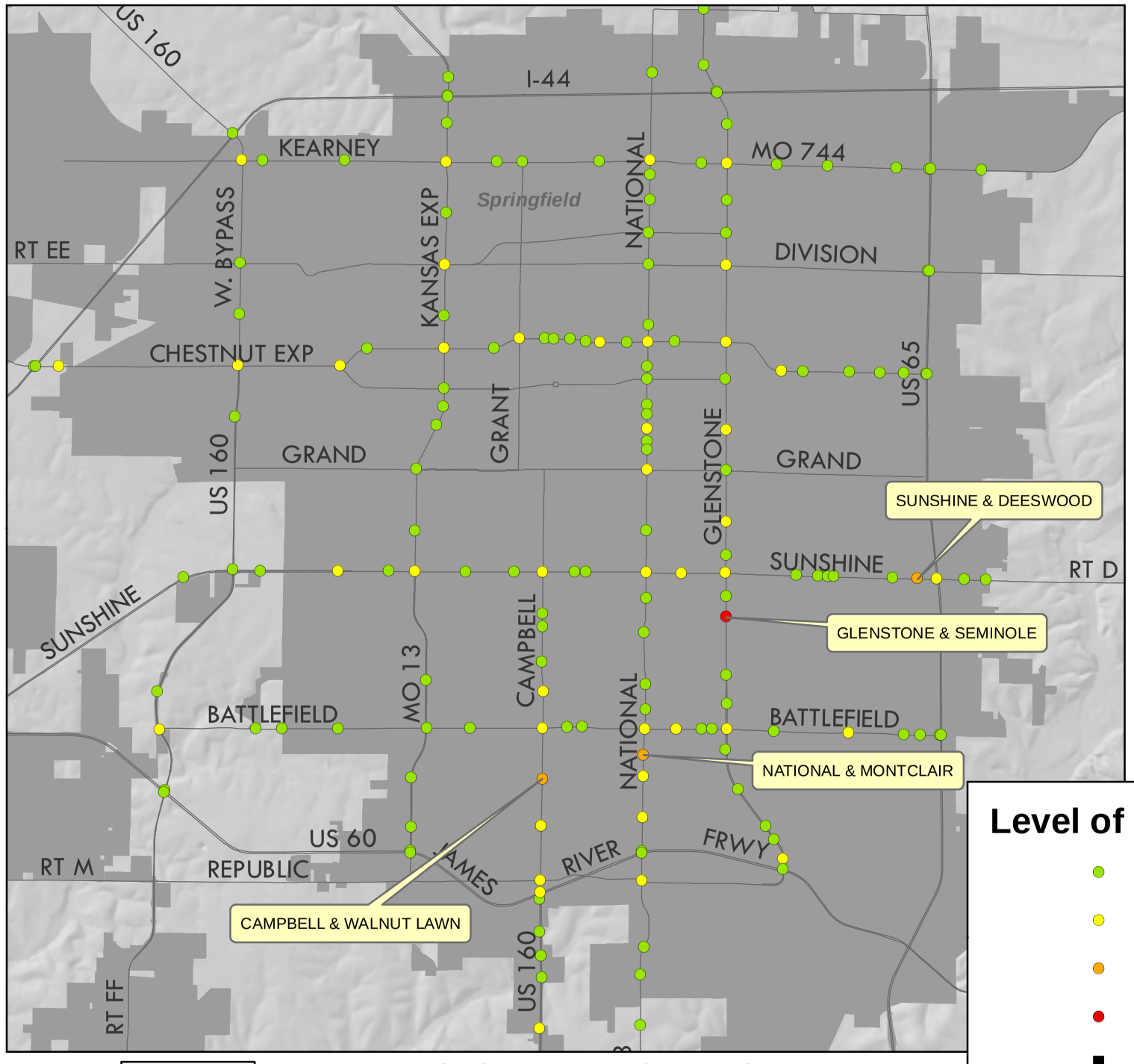
OZARKS TRANSPORTATION ORGANIZATION
A METROPOLITAN PLANNING ORGANIZATION

What impact does intersection/interchange level-of-service play in determining regional congestion problems?

Map 6.4

Intersection Level of Service
PM Peak

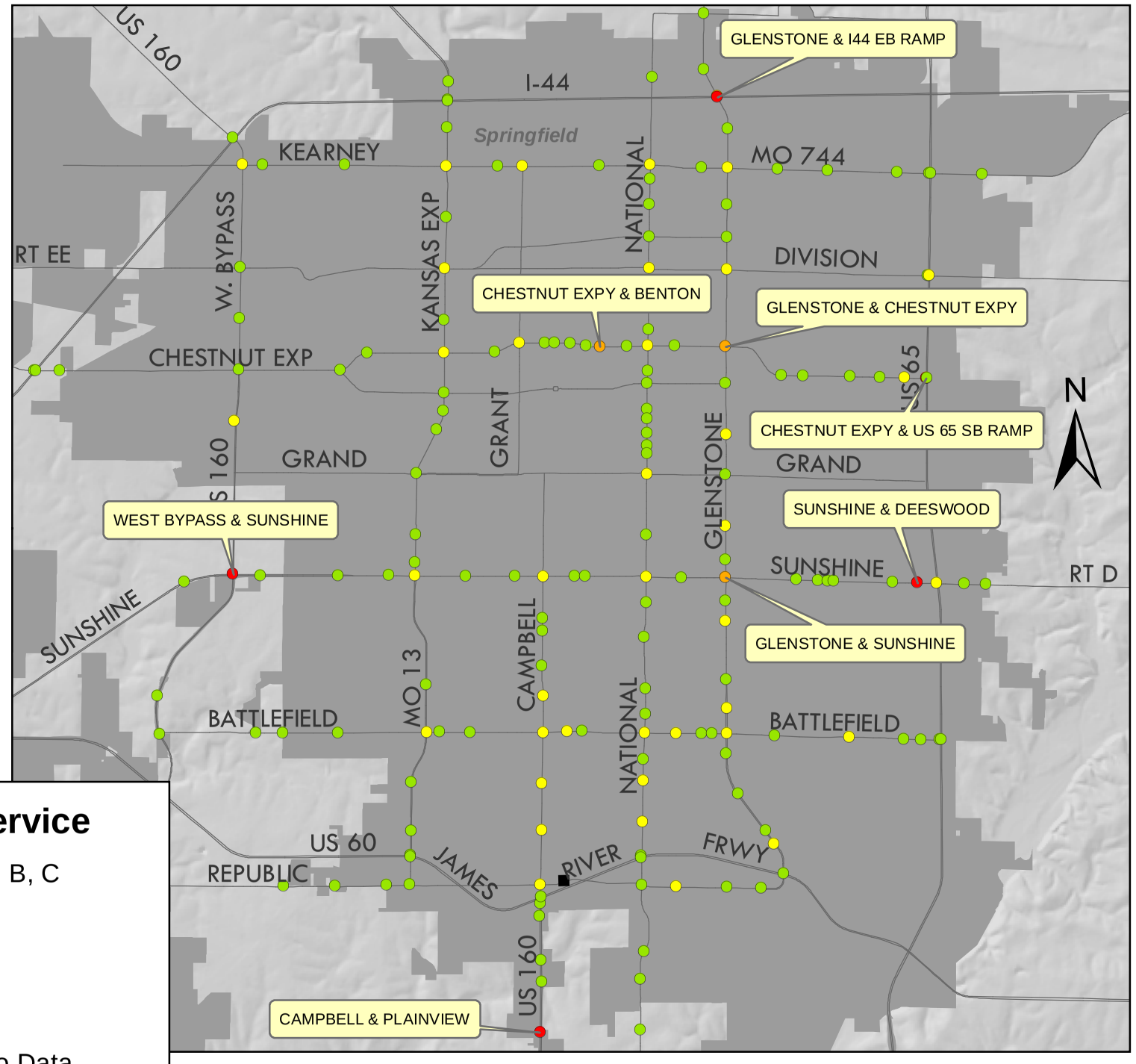
Intersection Level of Service
PM Peak



2012

0 0.5 1 2 3

Miles



2016

Level of Service

- A, B, C
- D
- E
- F
- No Data

Source: City of Springfield
Missouri Dept. of Transportation

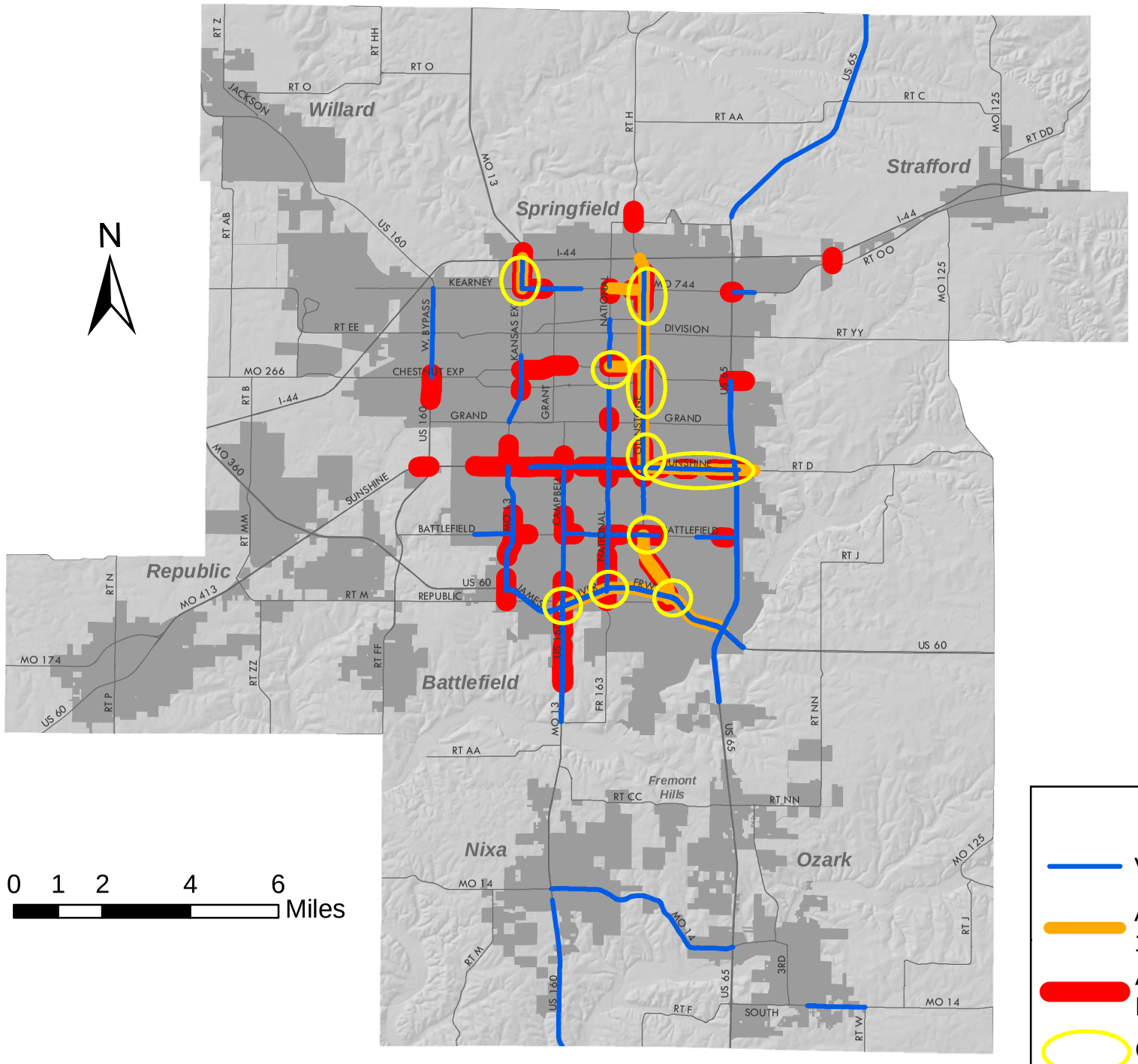
OZARKS TRANSPORTATION ORGANIZATION
A METROPOLITAN PLANNING ORGANIZATION

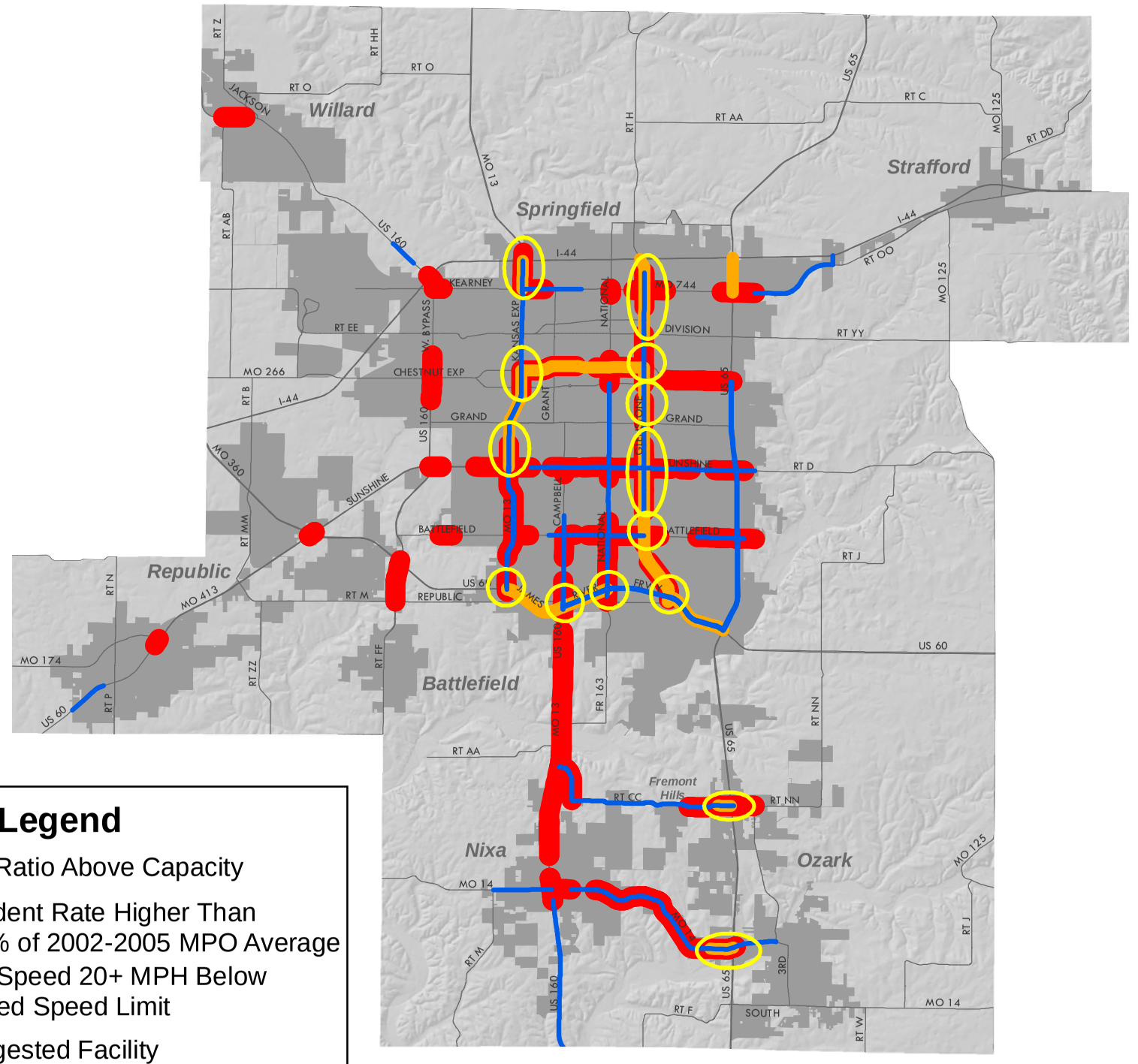
What impact does intersection/interchange level-of-service play in determining regional congestion problems?

Map 6.4

Intersection Level of Service
PM Peak

Congested Facilities I





0 1 2 4 6 Miles

Legend

- V/C Ratio Above Capacity
- Accident Rate Higher Than 150% of 2002-2005 MPO Average
- Avg Speed 20+ MPH Below Posted Speed Limit
- Congested Facility

2005

2008

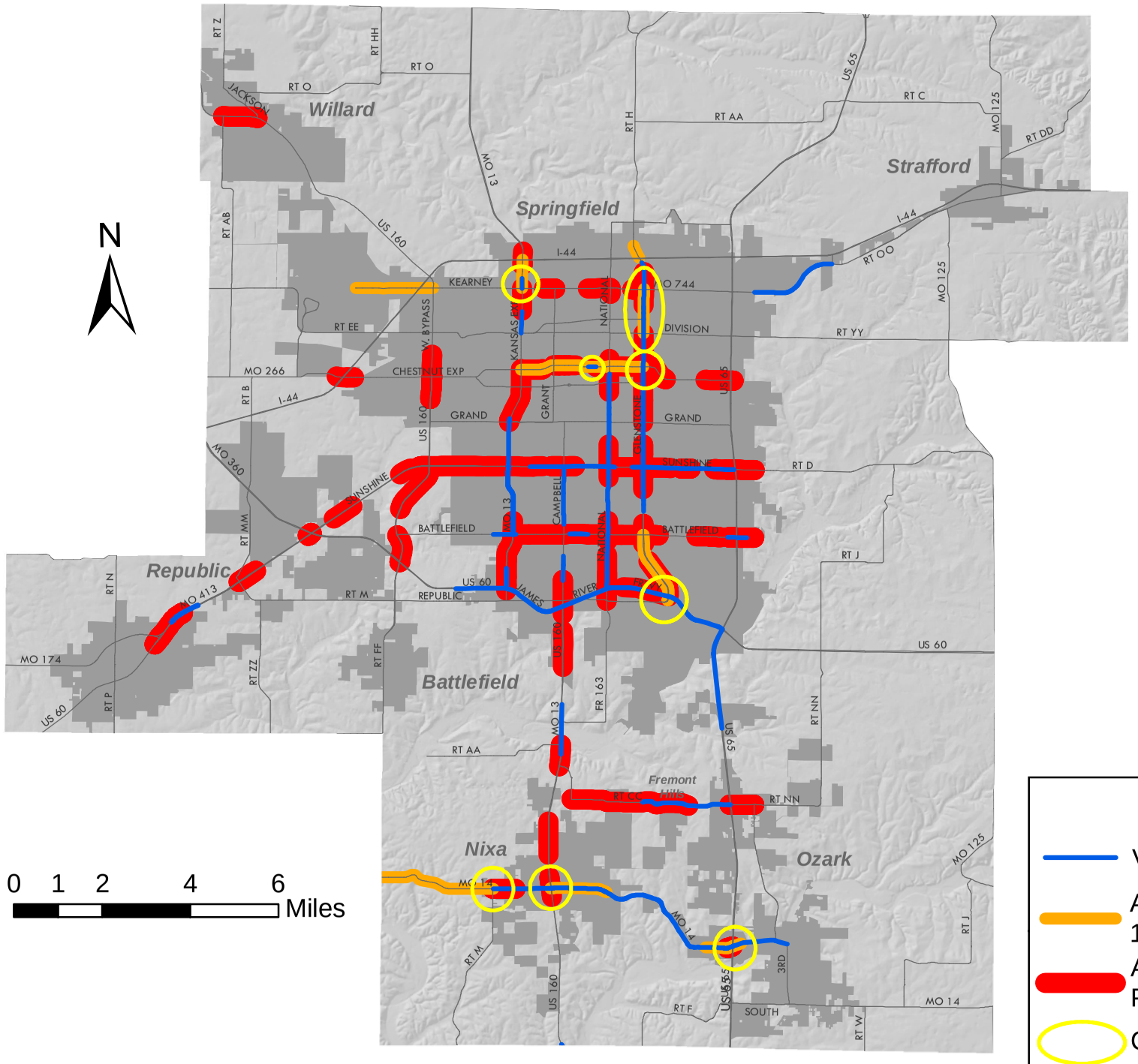
Source: City of Springfield
Missouri Dept. of Transportation
CJW Transportation Consultants LLC

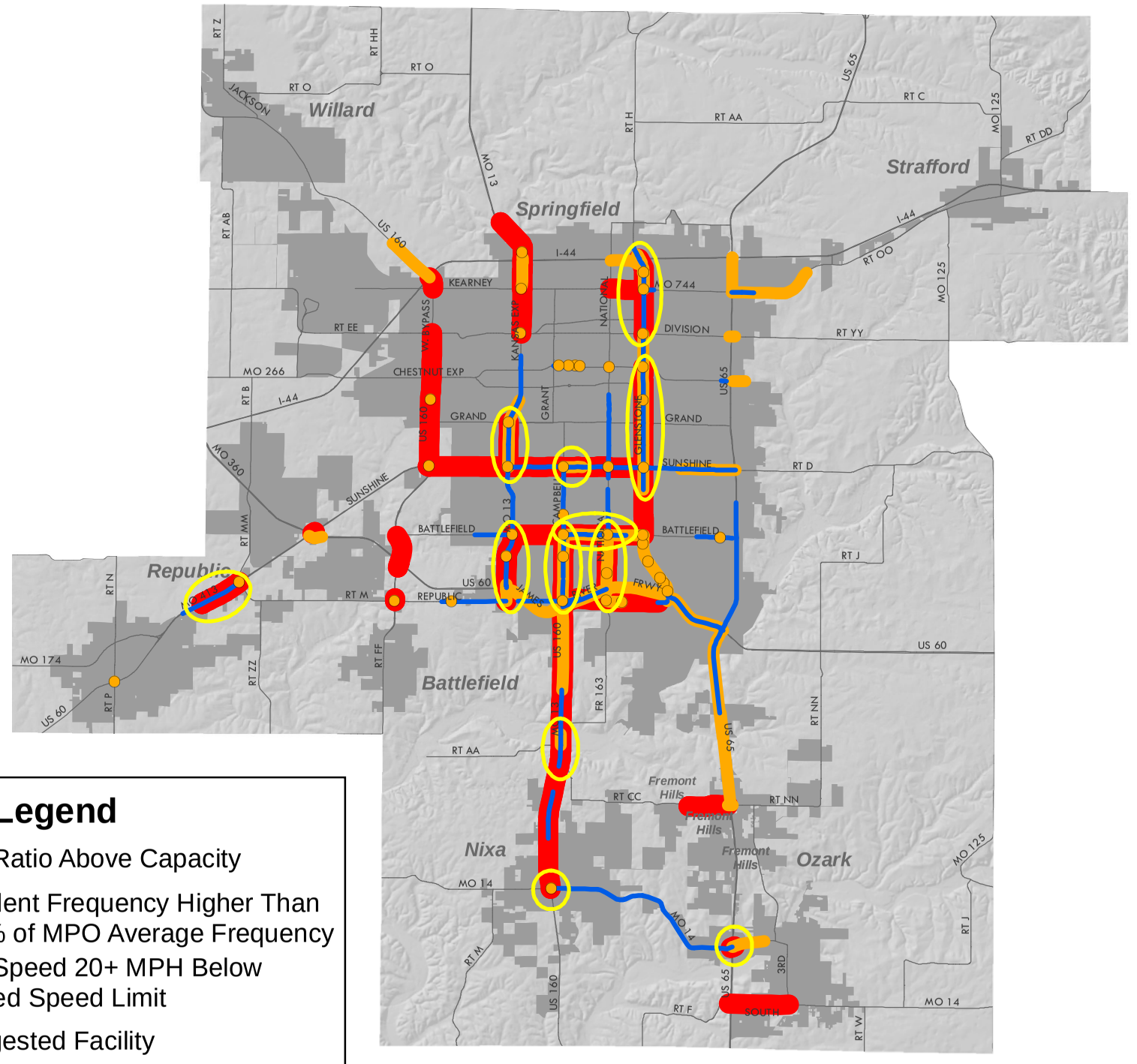
OZARKS TRANSPORTATION ORGANIZATION
A METROPOLITAN PLANNING ORGANIZATION

Roadways which have a significant travel delay, level of service E+ and high accident rate

Map 7.1
Congested Facilities I

Congested Facilities I





Legend

- V/C Ratio Above Capacity
- Accident Frequency Higher Than 150% of MPO Average Frequency
- Avg Speed 20+ MPH Below Posted Speed Limit
- Congested Facility

2012

2016

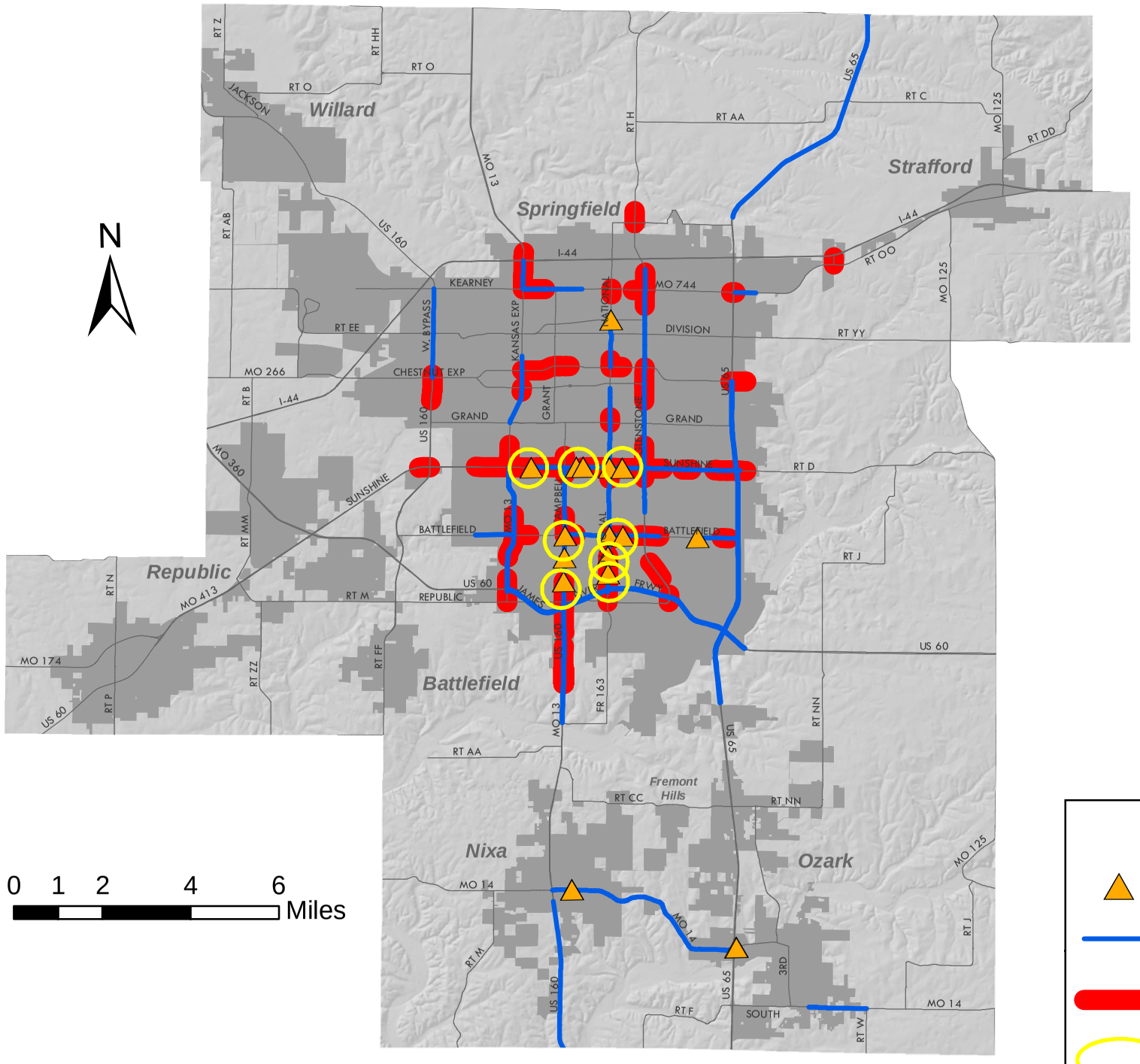
Source: City of Springfield
Missouri Dept. of Transportation
CJW Transportation Consultants LLC

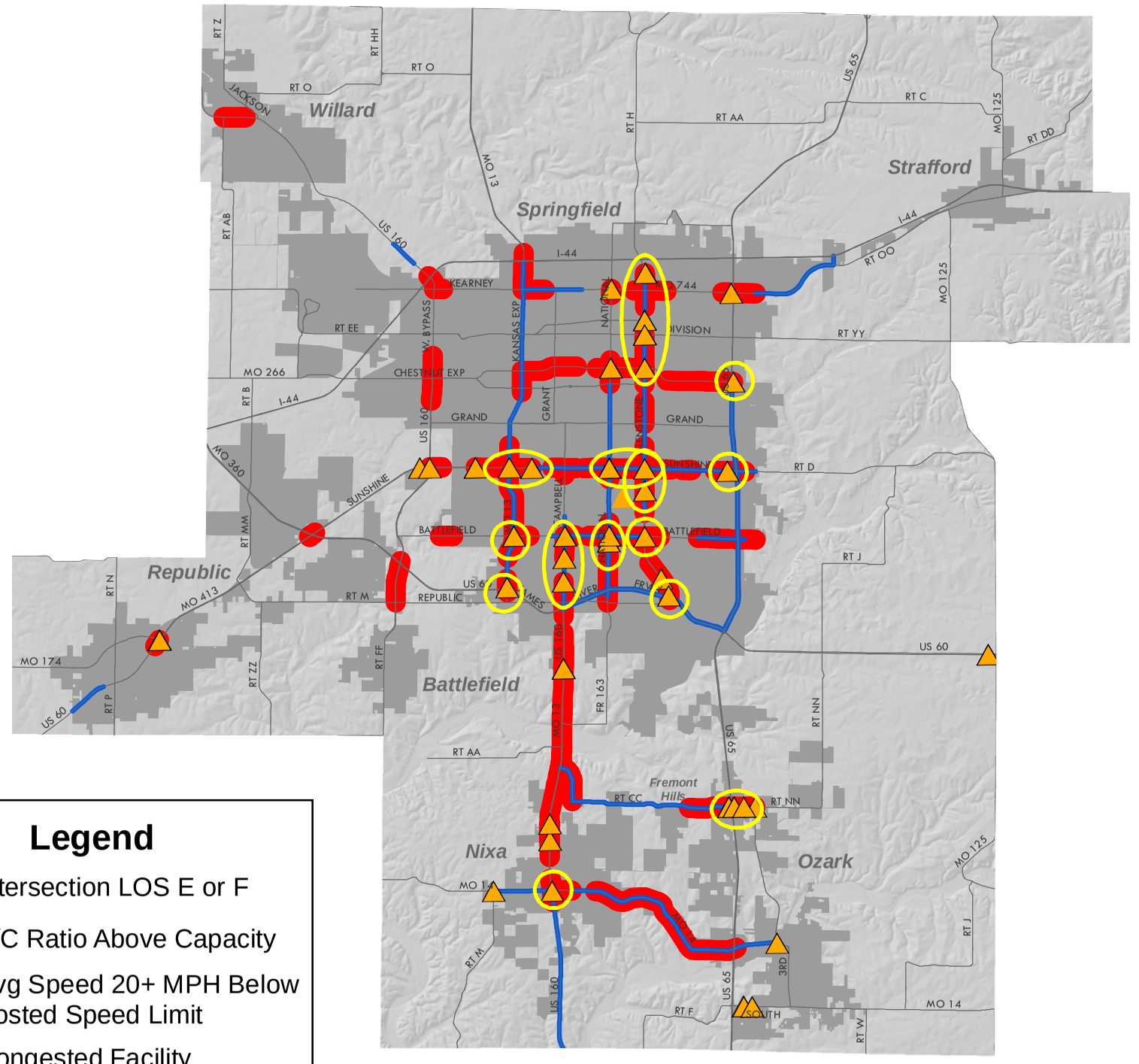
OZARKS TRANSPORTATION ORGANIZATION
A METROPOLITAN PLANNING ORGANIZATION

Roadways which have a significant travel delay, level of service E+ and high accident rate

Map 7.1
Congested Facilities I

Congested Facilities II





Legend

- Intersection LOS E or F
- V/C Ratio Above Capacity
- Avg Speed 20+ MPH Below Posted Speed Limit
- Congested Facility

2005

2008

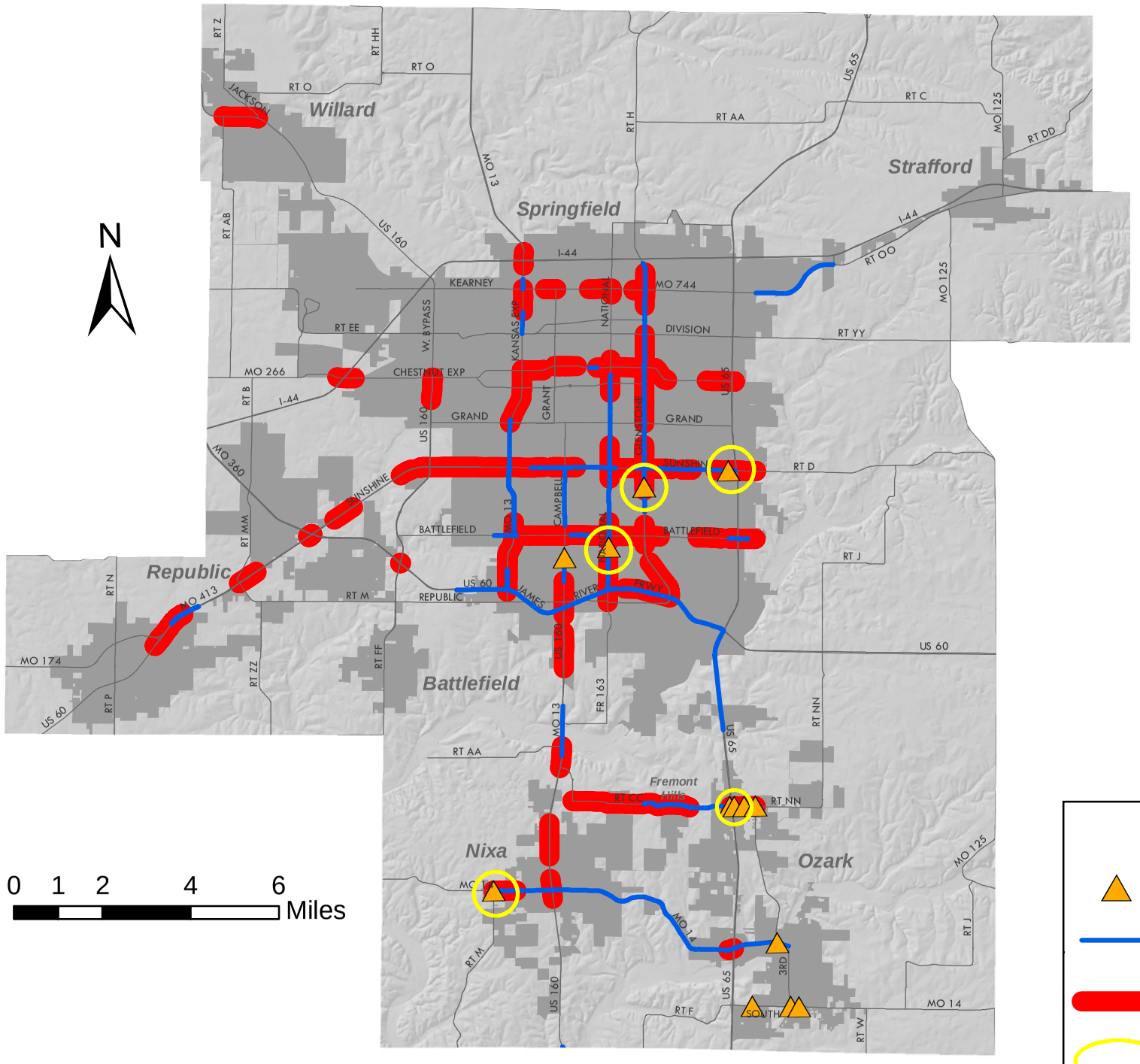
Source: City of Springfield
Missouri Dept. of Transportation
CJW Transportation Consultants LLC

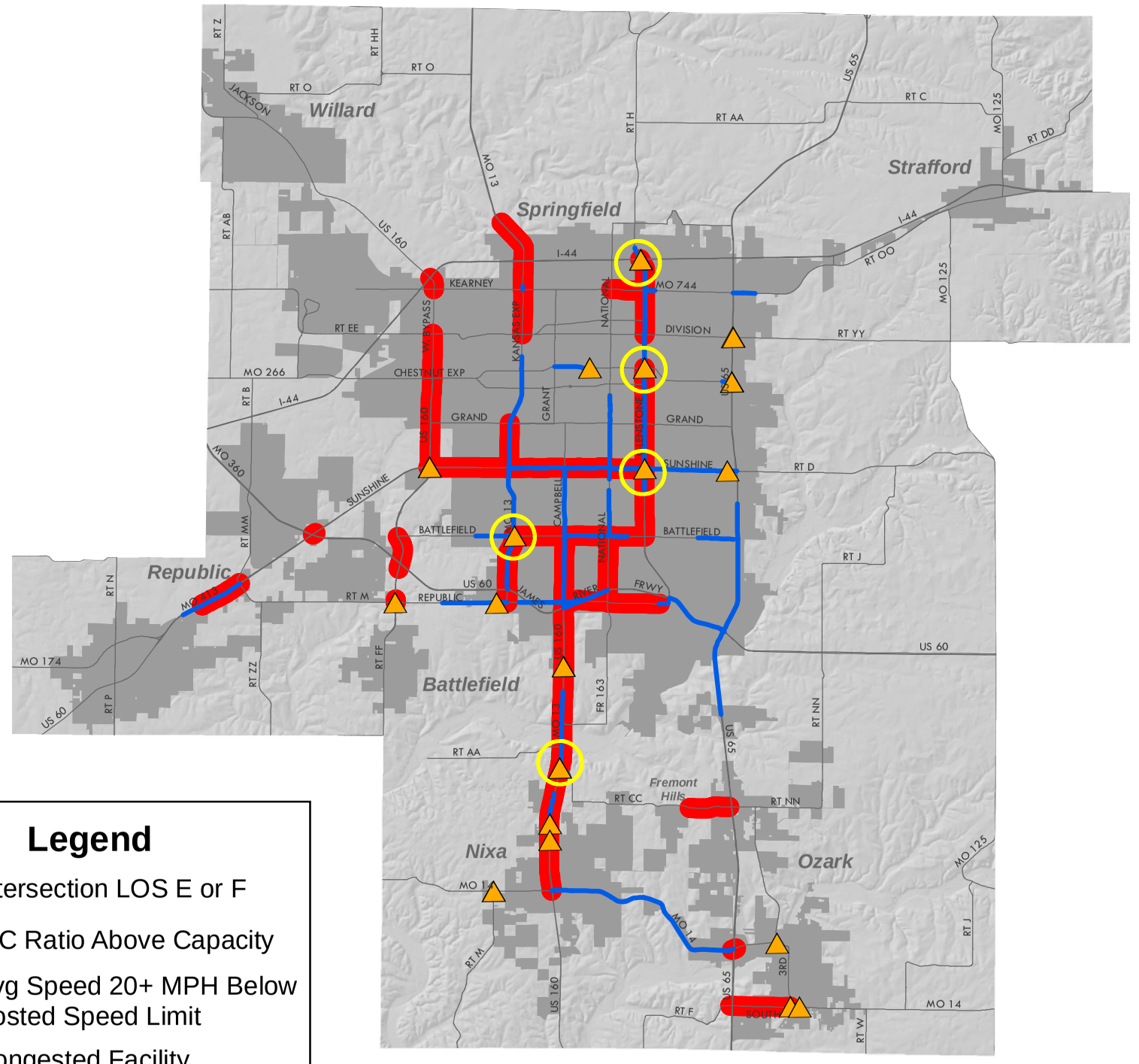
OZARKS TRANSPORTATION ORGANIZATION
A METROPOLITAN PLANNING ORGANIZATION

Roadways which have a significant travel delay, level of service E+ and intersection level of service E+

Map 7.2
Congested Facilities II

Congested Facilities II





Legend

- Intersection LOS E or F
- V/C Ratio Above Capacity
- Avg Speed 20+ MPH Below Posted Speed Limit
- Congested Facility

2012

2016

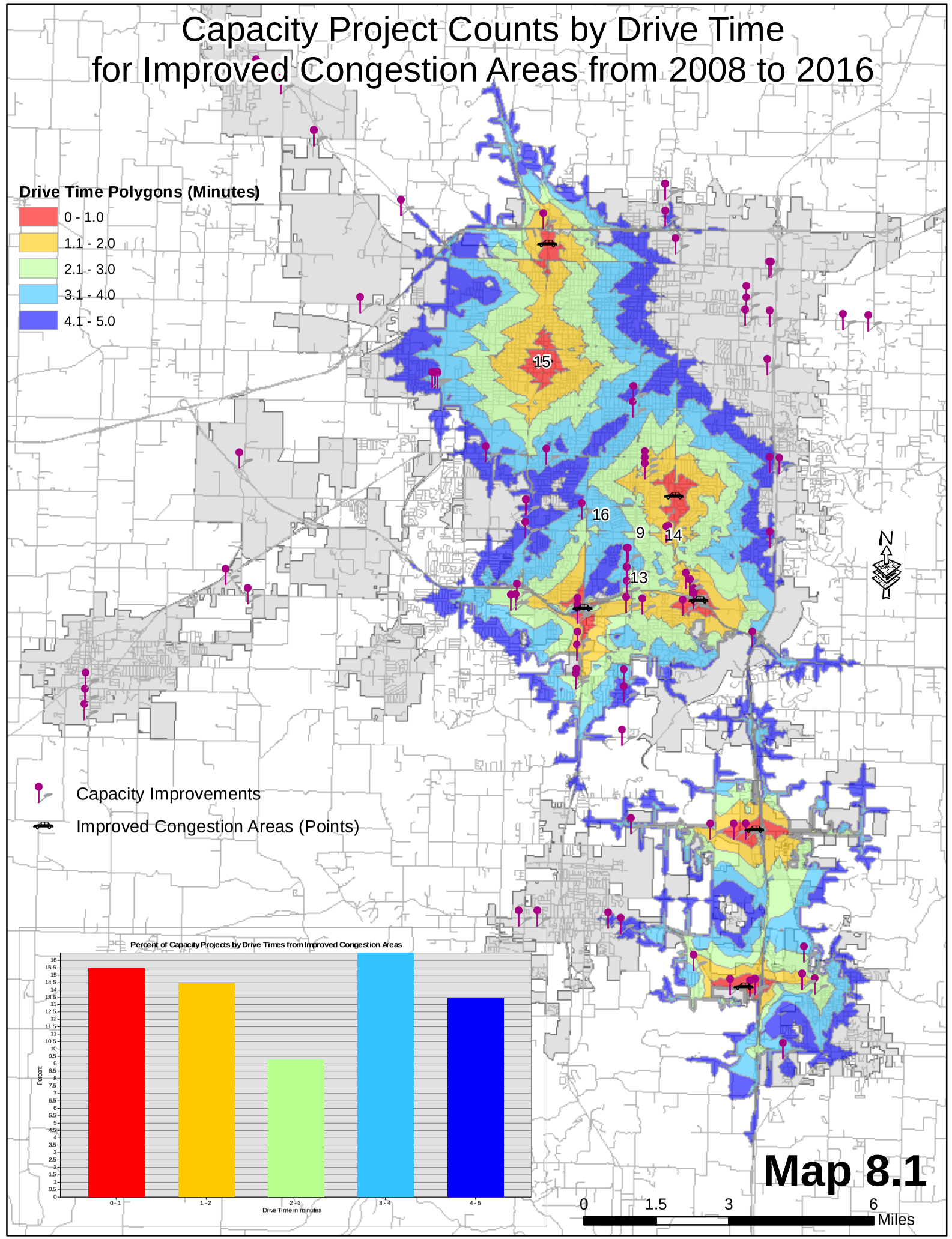
Source: City of Springfield
Missouri Dept. of Transportation
CJW Transportation Consultants LLC

OZARKS TRANSPORTATION ORGANIZATION
A METROPOLITAN PLANNING ORGANIZATION

Roadways which have a significant travel delay, level of service E+ and intersection level of service E+

Map 7.2
Congested Facilities II

Capacity Project Counts by Drive Time for Improved Congestion Areas from 2008 to 2016



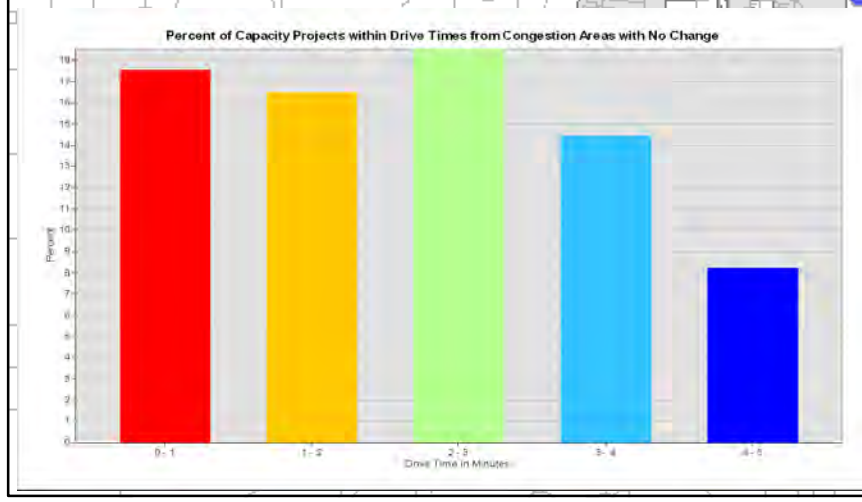
Capacity Project Counts by Drive Time for No Change Congestion Areas from 2008 to 2016

Drive Time Polygons (Minutes)
- 0 - 1.0
- 1.1 - 2.0
- 2.1 - 3.0
- 3.1 - 4.0
- 4.1 - 5.0

17
14
18
16
8

Capacity Improvements

No Change in Congestion Areas (Points)



0 1.5 3 6 Miles

Capacity Project Counts by Drive Time for Emerging Congestion Areas in 2016

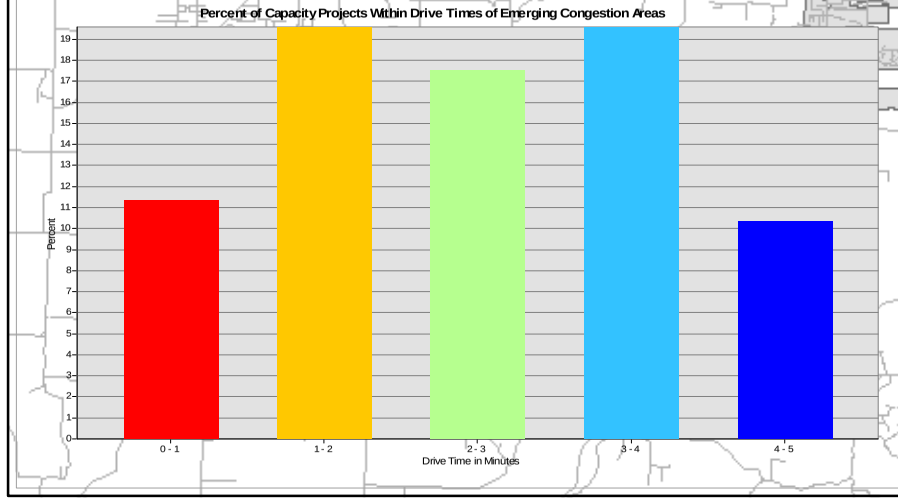
Drive Time Polygons (Minutes)
- 0 - 1.0
- 1.1 - 2.0
- 2.1 - 3.0
- 3.1 - 4.0
- 4.1 - 5.0

10
19
11
17

N

Capacity Improvements

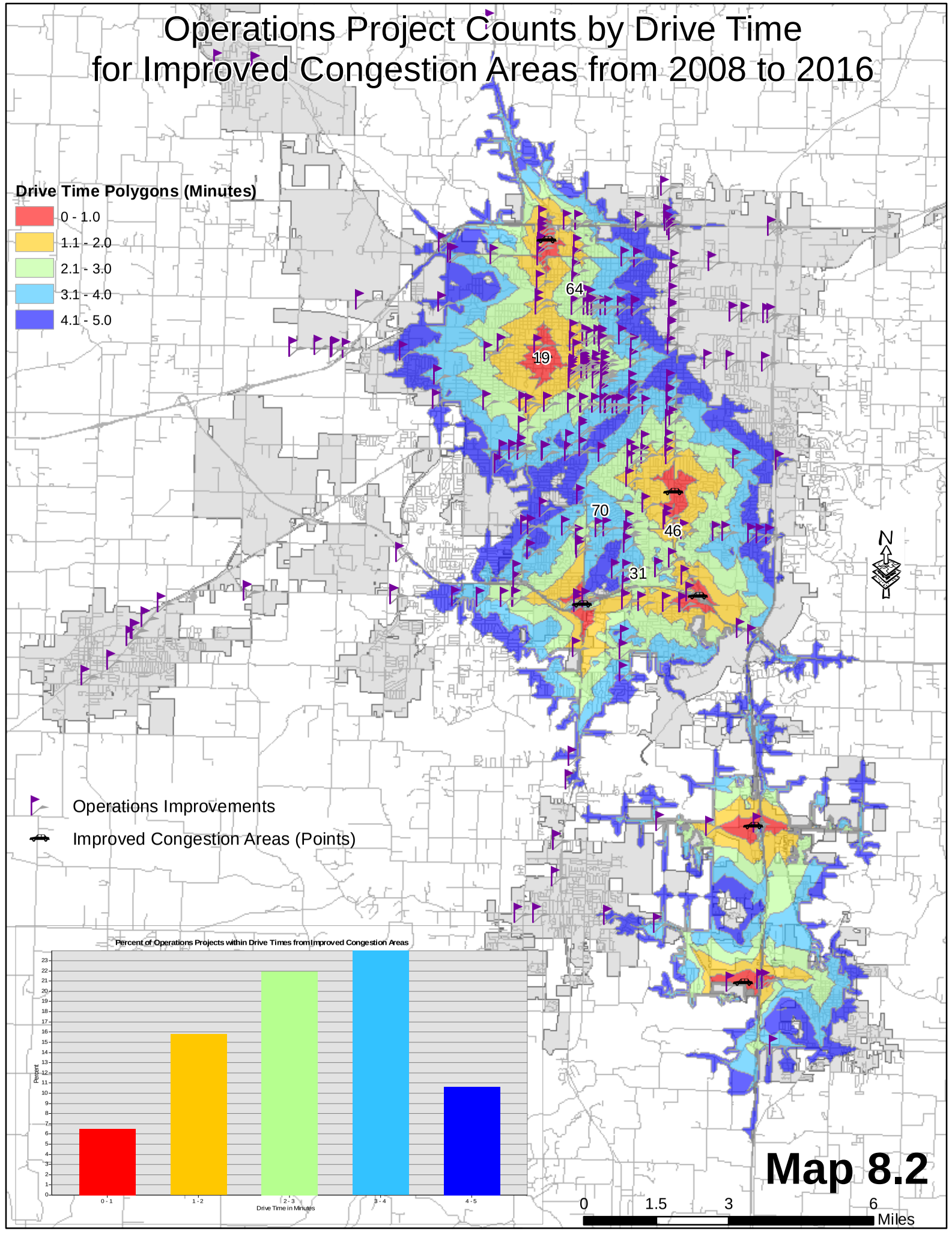
Emerging Congestion Areas (Points)



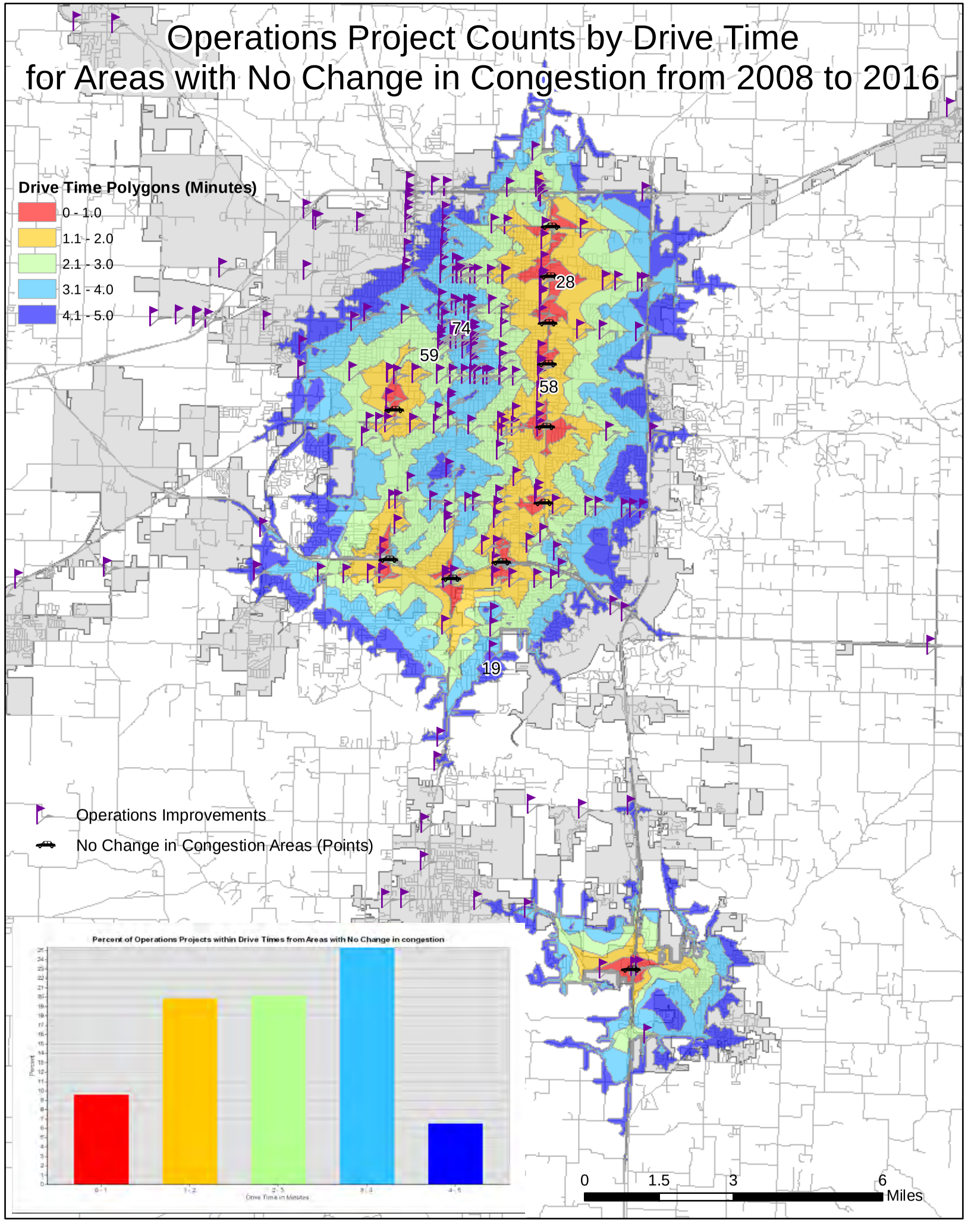
Map 8.1

0 1.5 3 6 Miles

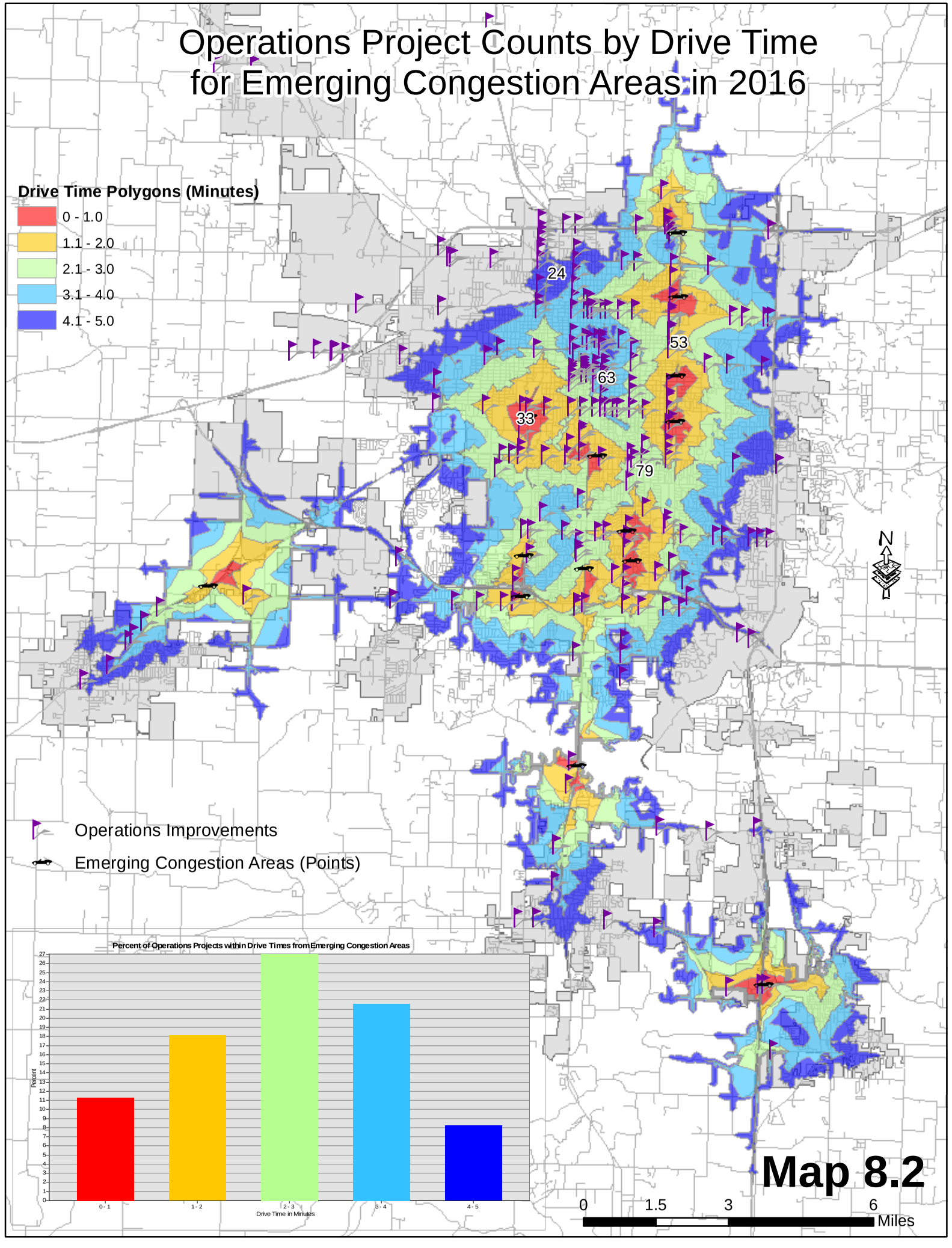
Operations Project Counts by Drive Time for Improved Congestion Areas from 2008 to 2016



Operations Project Counts by Drive Time for Areas with No Change in Congestion from 2008 to 2016



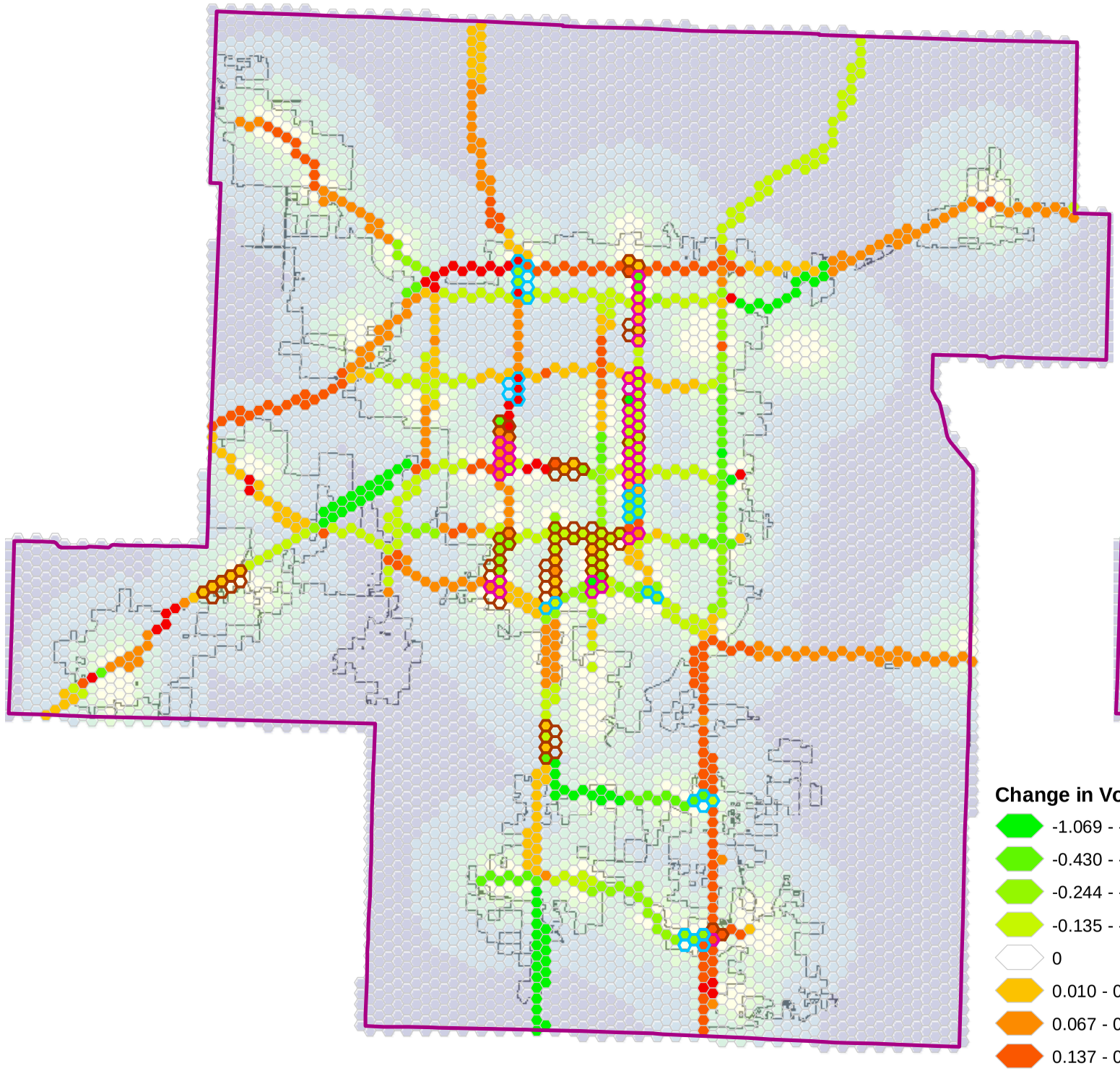
Operations Project Counts by Drive Time for Emerging Congestion Areas in 2016

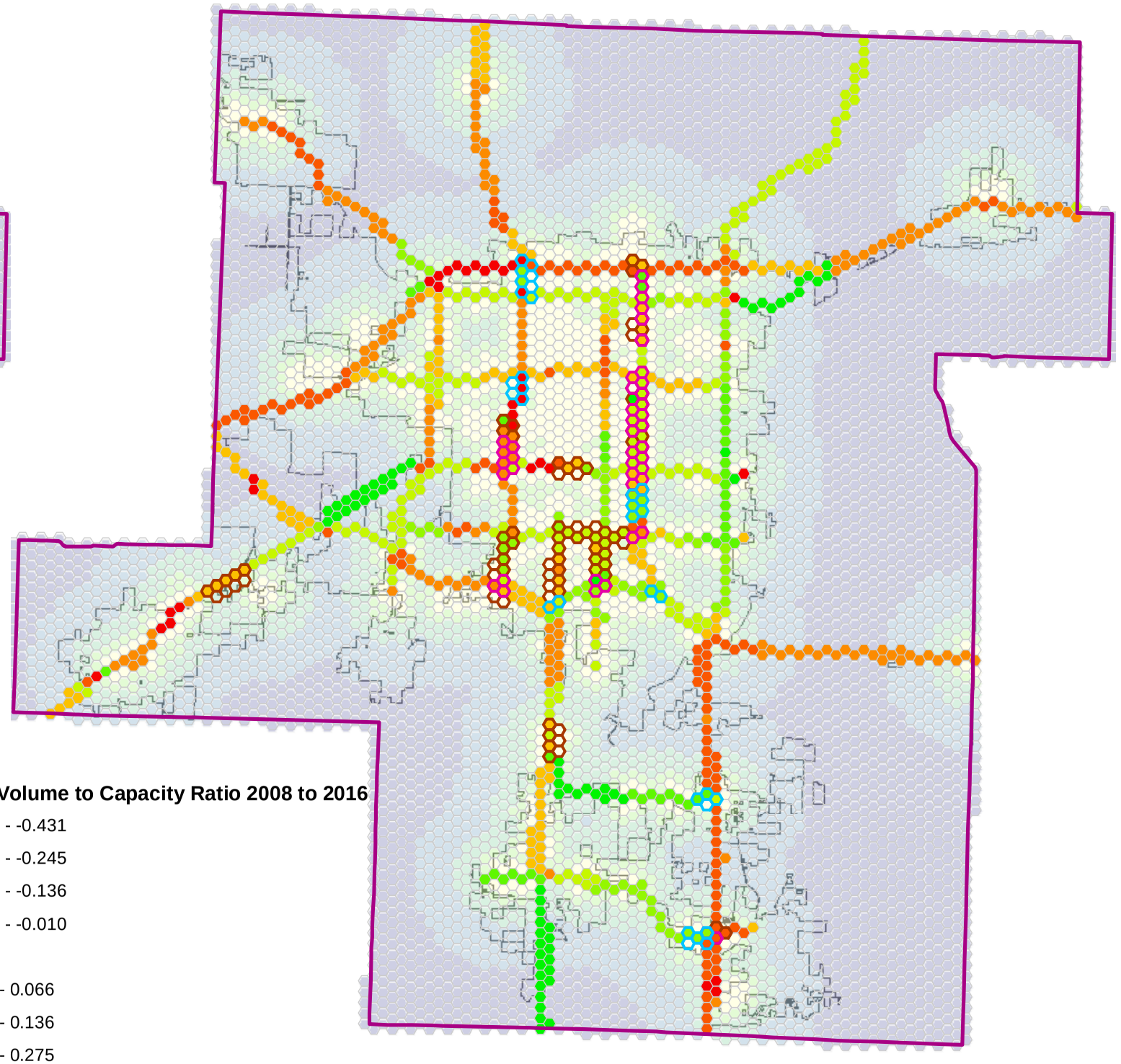


Map 8.2

Change in Volume to Capacity Ratio from 2008 to 2016 and Proximity to Nearest Capacity Improvement

Change in Volume to Capacity Ratio from 2008 to 2016 and Proximity to Nearest Operations Improvement





Change in Volume to Capacity Ratio 2008 to 2016

- -1.069 - -0.431
- -0.430 - -0.245
- -0.244 - -0.136
- -0.135 - -0.010
- 0
- 0.010 - 0.066
- 0.067 - 0.136
- 0.137 - 0.275
- 0.276 - 1.143

Nearest Capacity Project Distance (ft)

- 0 - 1,320
- 1,321 - 2,640
- 2,641 - 5,280
- 5,281 - 10,560
- 10,561 - 30,866

N

- Inproved Congestion Hex
- No Change Congestion Hex
- Emerging Congestion Hex

- OTO Boundary
- City Limits

0 1.25 2.5 5 Miles

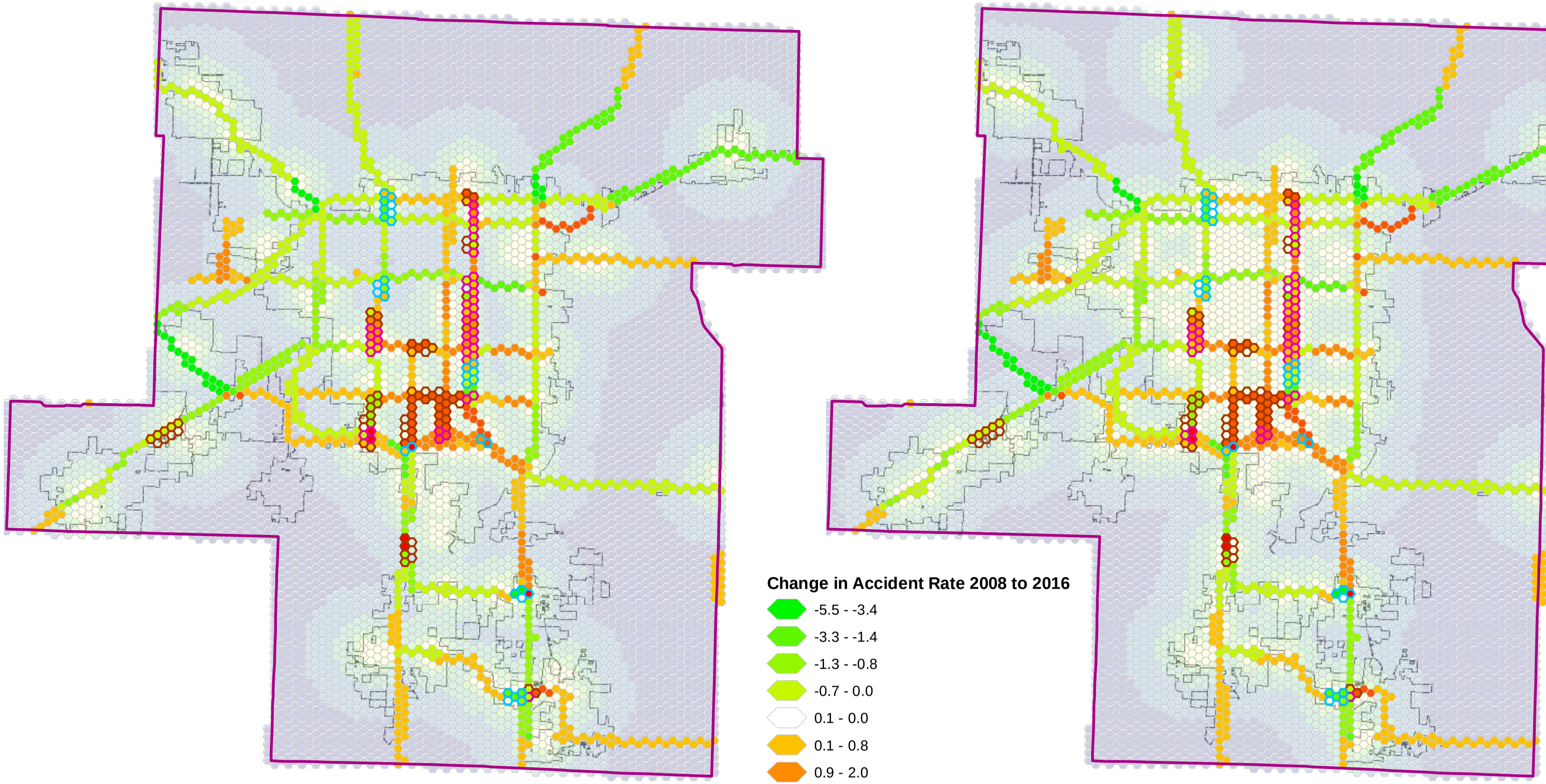
Nearest Operations Project Distance (ft)

- 0 - 1,320
- 1,321 - 2,640
- 2,641 - 5,280
- 5,281 - 10,560
- 10,561 - 29,636

Map 8.3

Change in Accident Rate from 2008 to 2016 and Proximity to Nearest Capacity Improvement

Change in Accident Rate from 2008 to 2016 and Proximity to Nearest Operations Improvement



Change in Accident Rate 2008 to 2016

- -5.5 - -3.4
- -3.3 - -1.4
- -1.3 - -0.8
- -0.7 - 0.0
- 0.1 - 0.0
- 0.1 - 0.8
- 0.9 - 2.0
- 2.1 - 5.1
- 5.2 - 18.5

Nearest Capacity Project Distance (ft)

- 0 - 1,320
- 1,321 - 2,640
- 2,641 - 5,280
- 5,281 - 10,560
- 10,561 - 30,866

N

- Inproved Congestion Hex
- No Change Congestion Hex
- Emerging Congestion Hex

- OTO Boundary
- City Limits

0 1.25 2.5 5 Miles

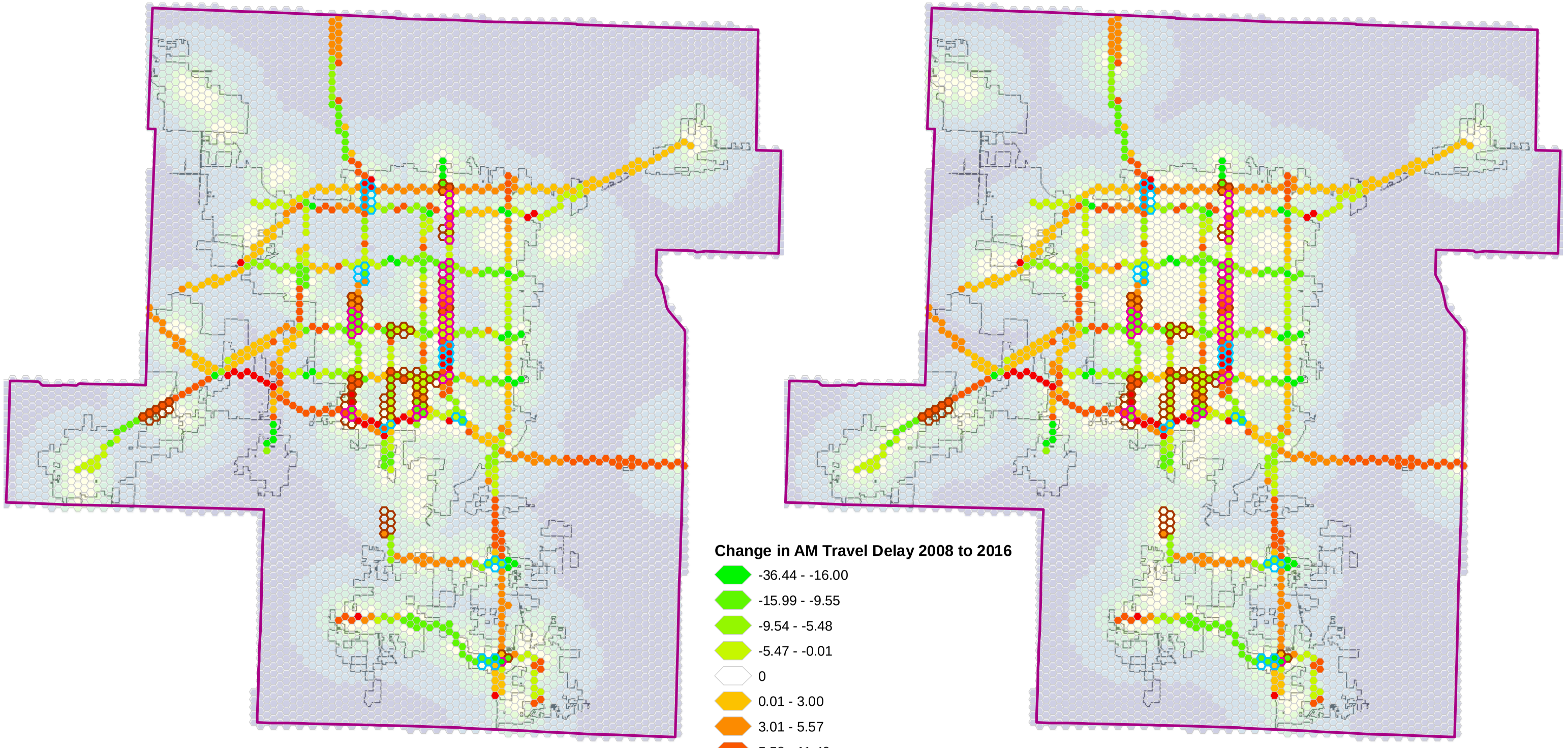
Nearest Operations Project Distance (ft)

- 0 - 1,320
- 1,321 - 2,640
- 2,641 - 5,280
- 5,281 - 10,560
- 10,561 - 29,636

Map 8.4

Change in AM Travel Delay from 2008 to 2016 and Proximity to Nearest Capacity Improvement

Change in AM Travel Delay from 2008 to 2016 and Proximity to Nearest Operations Improvement



Change in AM Travel Delay 2008 to 2016

- -36.44 - -16.00
- -15.99 - -9.55
- -9.54 - -5.48
- -5.47 - -0.01
- 0
- 0.01 - 3.00
- 3.01 - 5.57
- 5.58 - 11.40
- 11.41 - 32.50

Nearest Capacity Project Distance (ft)

- 0 - 1,320
- 1,321 - 2,640
- 2,641 - 5,280
- 5,281 - 10,560
- 10,561 - 30,866

N

- Inproved Congestion Hex
- No Change Congestion Hex
- Emerging Congestion Hex

- OTO Boundary
- City Limits

0 1.25 2.5 5 Miles

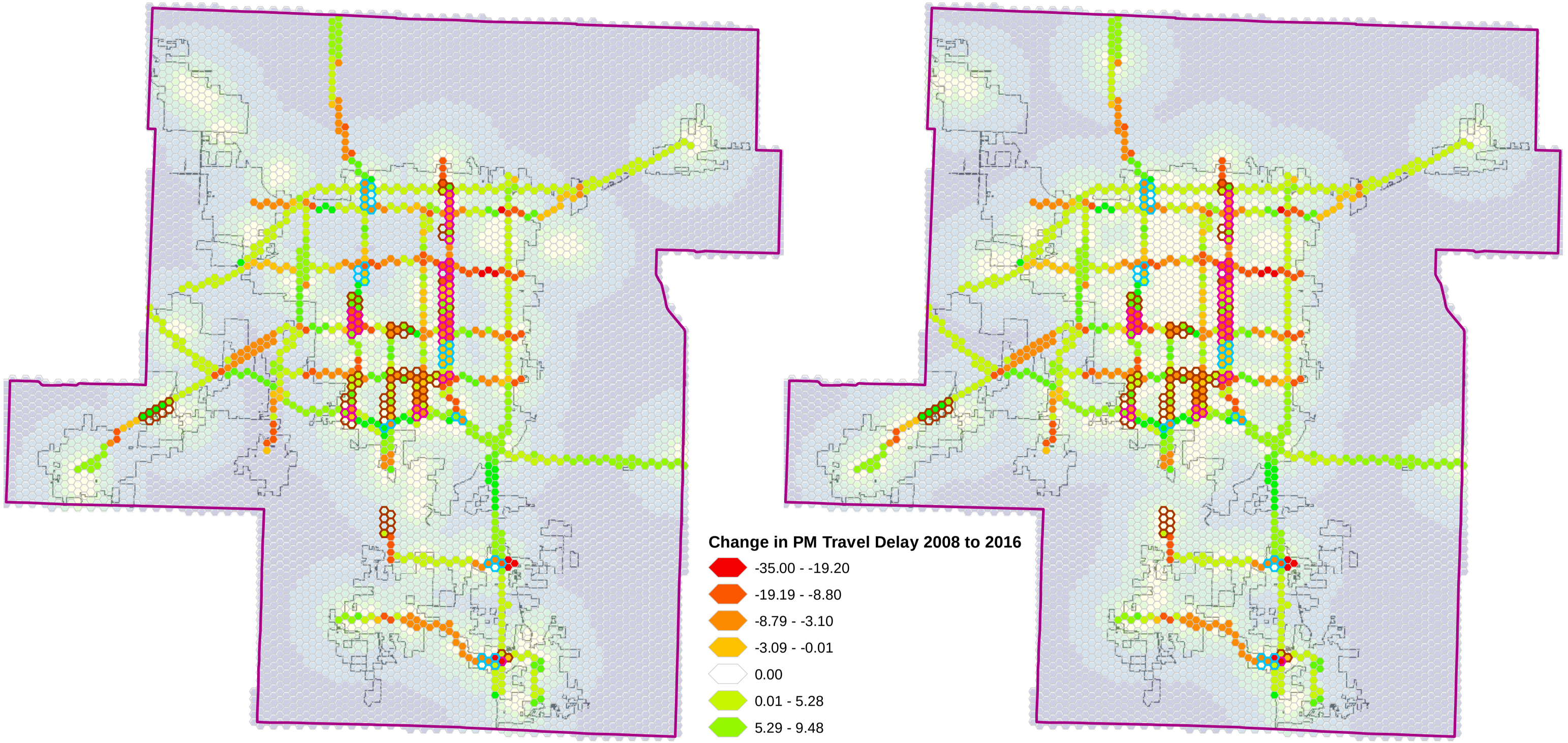
Nearest Operations Project Distance (ft)

- 0 - 1,320
- 1,321 - 2,640
- 2,641 - 5,280
- 5,281 - 10,560
- 10,561 - 29,636

Map 8.5

Change in PM Travel Delay from 2008 to 2016 and Proximity to Nearest Capacity Improvement

Change in PM Travel Delay from 2008 to 2016 and Proximity to Nearest Operations Improvement



Change in PM Travel Delay 2008 to 2016

- -35.00 - -19.20
- -19.19 - -8.80
- -8.79 - -3.10
- -3.09 - -0.01
- 0.00
- 0.01 - 5.28
- 5.29 - 9.48
- 9.49 - 16.20
- 16.21 - 35.80

Nearest Capacity Project Distance (ft)

- 0 - 1,320
- 1,321 - 2,640
- 2,641 - 5,280
- 5,281 - 10,560
- 10,561 - 30,866

N

- Inproved Congestion Hex
- No Change Congestion Hex
- Emerging Congestion Hex

- OTO Boundary
- City Limits

0 1.25 2.5 5 Miles

Nearest Operations Project Distance (ft)

- 0 - 1,320
- 1,321 - 2,640
- 2,641 - 5,280
- 5,281 - 10,560
- 10,561 - 29,636

Map 8.6

TAB 3

TECHNICAL PLANNING COMMITTEE AGENDA 3/15/2017; ITEM II.B.

US 60 East Major Thoroughfare Plan Amendment Request

Ozarks Transportation Organization
(Springfield, MO Area MPO)

AGENDA DESCRIPTION:

The Board of Directors was asked to consider a major thoroughfare plan amendment to include a new interchange at the entrance to Highland Springs on US60 East of Springfield. The committee met on February 10th to look at background information. After reviewing previous studies and hearing the request, it was determined that the current land use plan does not reflect the type of development that the petitioners envision.

Therefore, the subcommittee voted to defer any recommendation until after the Springfield Growth Management and Land Use Plan is updated and public hearings are held to determine the best land use for the area. Once the land use is planned, traffic generation numbers could be generated and a transportation network could be planned accordingly.

TECHNICAL PLANNING COMMITTEE ACTION REQUESTED:

That a member of the Technical Planning Committee make one of the following motions:

"Move to recommend to the OTO Board of Directors that this issue be deferred until the Springfield Growth Management and Land Use Study is updated."

OR

"Move to recommend that the Board of Directors …"

TAB 4

TECHNICAL PLANNING COMMITTEE AGENDA 3/15/2017; ITEM II.C.

Amendment Number Three to the Long Range Transportation Plan

Ozarks Transportation Organization
(Springfield, MO Area MPO)

AGENDA DESCRIPTION:

The adoption of the Long Range Transportation Plan, *Transportation Plan 2040*, included revisions to the OTO Design Standards, which accompany the Major Thoroughfare Plan. The version of the design standards included with the document at the time of adoption, contained inconsistencies with the prior adopted standards. These inconsistencies are not changes that were discussed during plan development. Besides adjusting wording for uniformity throughout the document, the following key changes were made:

- Secondary Arterial Full Access Intersection Spacing > from 600' to 660'
  This even 600' in *Journey 2030*, however, each other classification used 660' and so this was adjusted to minimize confusion between standards.
- Removal of Term "Non-Signalized Intersection" that accompanied "Commercial Driveway Spacing." This wording was not in the original design standards and conflicts with other spacing requirements described with each classification.
- Added back notes that accompany each cross-section relating to Medians, Greenspace, and Utilities.

OTO staff requests that the Technical Planning Committee recommend that the Board of Directors adopt these corrected Design Standards into the Plan, maintaining consistency with the standards OTO adopted in *Journey 2030* and *Journey 2035*. These corrected standards continue to include the new Rural Collector designation adopted with *Transportation Plan 2040*.

Amendment 1 to the LRTP was for sidewalk connections between Ozark and Nixa.
Amendment 2 to the LRTP was for the MTP change along 17th/19th Streets in Ozark.

TECHNICAL PLANNING COMMITTEE ACTION REQUESTED:

That a member of the Technical Planning Committee make one of the following motions:

"Move to recommend *Transportation Plan 2040* Amendment Three to the Board of Directors."

OR

"Move to recommend *Transportation Plan 2040* Amendment Three to the Board of Directors with the following changes..."

Ozarks Transportation Organization's

DESIGN Standards

2016

Adopted Standards

The adopted OTO Design Standards and Major Thoroughfare Plan are contained herein. The Board of Directors adopted these Design Standards and Major Thoroughfare Plan on August 18, 2016.

Learn More

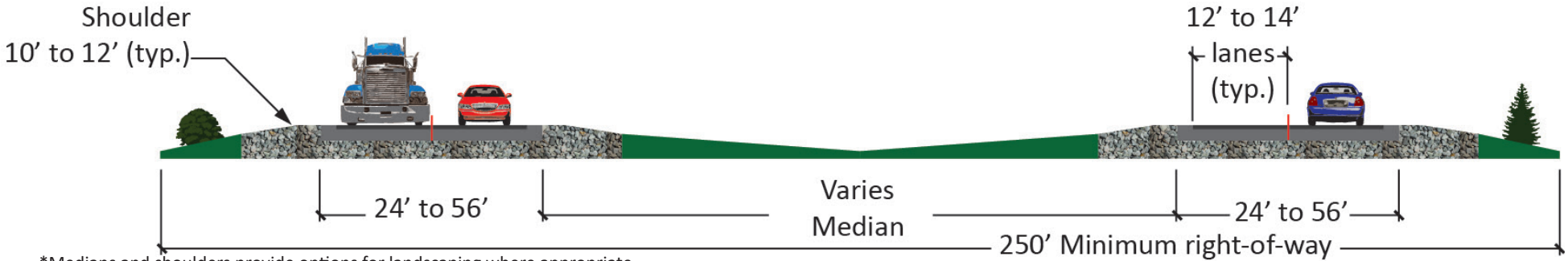
The Ozarks Transportation Organization's Major Thoroughfare Plan (MTP) provides guidelines for designing a roadway network for the efficient movement of people and goods throughout the metropolitan area. The MTP classifies roadways based on their intended function and shows both existing and future roadways. 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.

The OTO adopted design standards are desired minimums based on the recommendations of the MTP. 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 a variance from a special subcommittee of the OTO Technical Planning Committee.

About the OTO

The Ozarks Transportation Organization is the Springfield-regional Metropolitan Planning Organization, or MPO. The MPO is a body of elected and appointed members who work together with local, state, and federal elected officials and policy-makers, serving to make funding and planning decisions for transportation within the Springfield, MO region.

Freeway



*Medians and shoulders provide options for landscaping where appropriate.

Description

Design Service Volume	20,000 - 100,000
Design Speed	55 - 70 mph
Traffic Flow/Access Priority	99/1
Facility Spacing	4 - 8 miles
Trip Length	Between cities and across metropolitan area (2+ miles)

Basics

Minimum Right-of-Way	250’ minimum
Number of Lanes	4 - 8
Lane Width	12’ to 14’ per lane
Drainage/Shoulders	Variable. Minimum 10’ - 12’ shoulder

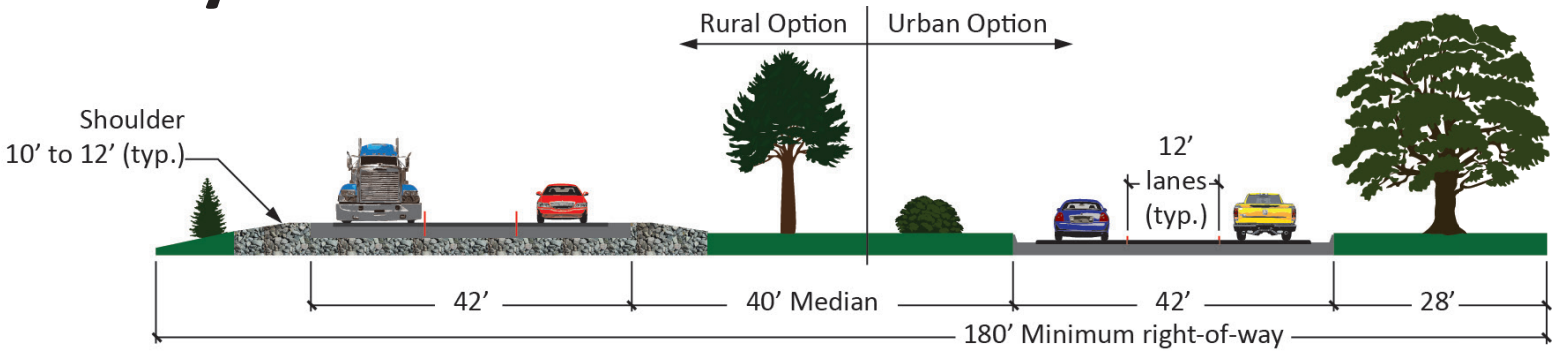
Access

Median	Varies
Full Median Break Spacing	Not permitted
Directional Median Break Spacing	Not permitted
Interchange Spacing	1 - 3 miles
Full Access Intersection Spacing	Not permitted
Residential Driveway Spacing	Not permitted
Commercial Driveway Spacing	Not permitted

Multi-Modal

On-Street Parking	Not permitted
Pedestrian Provisions	Pedestrians prohibited (no sidewalks required)
Bicycle Provisions	Bicycles not recommended
Transit Provisions	No stops, express routes only

Expressway



*Medians and shoulders provide options for landscaping where appropriate.

Description

Design Service Volume	20,000 - 50,000
Design Speed	40 - 55 mph
Traffic Flow/Access Priority	90/10
Facility Spacing	3 - 5 miles
Trip Length	Across metropolitan area and between major activity centers (2+ miles)

Basics

Minimum Right-of-Way	180’ + 40’ each side if frontage roads are needed
Number of Lanes	4 - 6
Turning Lanes	At intersections only
Lane Width	12’ (plus shoulders in rural areas only)
Drainage/Shoulders	Curb and gutter or shoulders (rural areas)

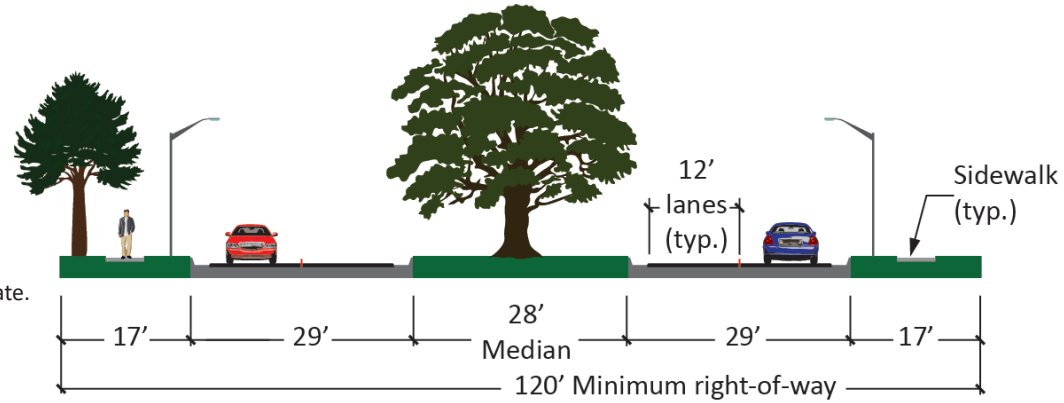
Access

Median	40’ landscaped
Median Breaks	Allowed at signalized intersections only
Full Access Intersection Spacing	1/2 mile
Intersection	Left and right turn lanes desired
Residential Driveway Spacing	No residential drives permitted
Commercial Driveway Spacing	660’ (right-in/right-out only)

Multi-Modal

On-Street Parking	Not permitted
Pedestrian Provisions	Sidewalks required on frontage roads
Bicycle Provisions	Bicycle lane provided on frontage roads
Transit Provisions	Turnouts at major generators

Boulevard



*Medians and shoulders provide options for landscaping where appropriate.
*Utility and greenspace areas may switch locations if needed.
*Utilities may be placed under sidewalks.

Description

Design Service Volume	10,000 - 40,000
Design Speed	35 - 45 mph
Traffic Flow/Access Priority	70/30
Facility Spacing	3 - 5 miles
Trip Length	Across metropolitan area and between major activity centers (2+ miles)

Basics

Minimum Right-of-Way	120’ plus intersection triangles
Number of Lanes	4
Turning Lanes	At intersections only; left and right turn lanes desired
Lane Width	12’ per lane
Minimum Area Behind Curb	17’ used for sidewalks, utilities, and landscaping (where appropriate)
Drainage/Shoulders	Curb and gutter; 6’ -10’ for shoulders (if used)

Access

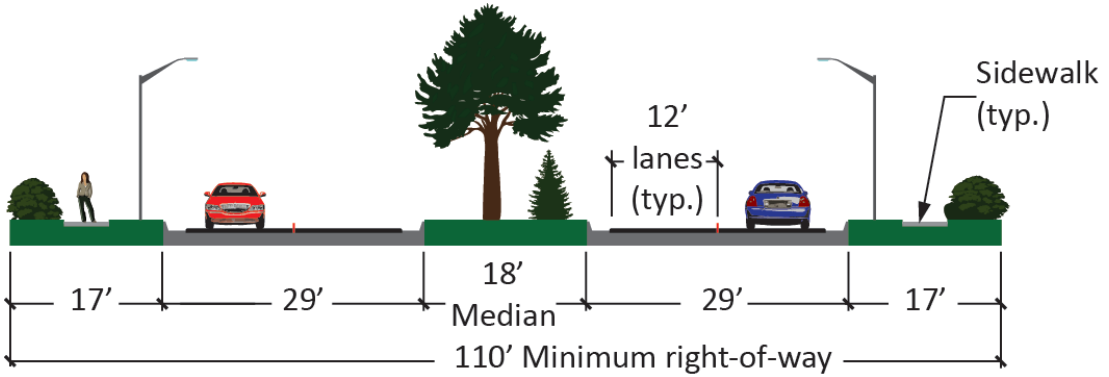
Median	28’ (landscaping desired)
Median Breaks	Allowed at signalized intersections only
Directional Median Break Spacing	660’
Full Access Intersection Spacing	1/4 mile
Intersection	Left and right turn lanes desired
Residential Driveway Spacing	No residential drives permitted
Commercial Driveway Spacing	330’ center-to-center (right-in/right-out only). Allowed only if internal circulation, cross access, and minimum driveway radii and grade are provided.

Multi-Modal

On-Street Parking	Not permitted
Pedestrian Provisions	4’ - 6’ (minimum) sidewalks on both sides
Bicycle Provisions	Bicycle facilities provided according to adopted bicycle plan
Transit Provisions	Turnouts at major generators

Primary Arterial

*Medians and shoulders provide options for landscaping where appropriate.
*Utility and greenspace areas may switch locations if needed.
*Utilities may be placed under sidewalks.



Description

Design Service Volume	10,000 - 30,000
Design Speed	35 - 45 mph
Traffic Flow/Access Priority	70/30
Facility Spacing	1 - 2 miles
Trip Length	Between and through major activity centers (2 - 8 miles)

Basics

Minimum Right-of-Way	110’ plus intersection triangles
Number of Lanes	4 - 6
Turning Lanes	At intersections only
Lane Width	12’ per lane
Minimum Area Behind Curb	17’ used for sidewalks, utilities, and landscaping (where appropriate)
Drainage/Shoulders	Curb and gutter; shoulders permitted in rural areas (6’ - 10’)

Access

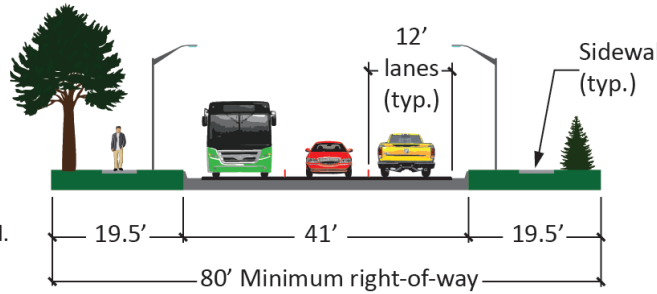
Median	18’
Median Breaks	Allowed at signalized intersections only
Directional Median Break Spacing	660’
Full Access Intersection Spacing	1/4 mile
Intersection	Left and right turn lanes desired
Residential Driveway Spacing	No residential drives permitted
Commercial Driveway Spacing	330’ center-to-center (right-in/right-out only). Allowed only if internal circulation, cross access, and minimum driveway radii and grade are provided.

Multi-Modal

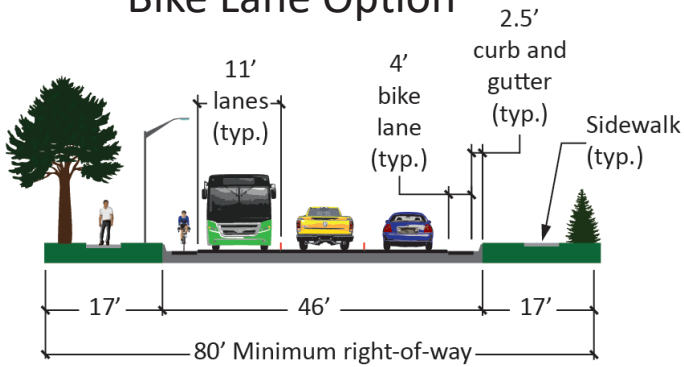
On-Street Parking	Not permitted
Pedestrian Provisions	4’ - 5’ (minimum) sidewalks on both sides
Bicycle Provisions	Bicycle facilities provided according to adopted bicycle plan
Transit Provisions	Scheduled stops every 1/4 mile (where transit service is provided)

Secondary Arterial

*Medians and greenspace provide options for landscaping where appropriate.
*Utility and greenspace areas may switch locations if needed.
*Utilities may be placed under sidewalks.



Bike Lane Option



Description

Design Service Volume	6,000 - 20,000
Design Speed	30 - 35 mph
Traffic Flow/Access Priority	60/40
Facility Spacing	1/2 - 1 mile
Trip Length	Between and within activity centers (1 - 4 miles)

Basics

Minimum Right-of-Way	80’ plus intersection triangles
Number of Lanes	2 - 3
Turning Lanes	Left turn lane
Lane Width	12’ (bicycle routes: 11’ vehicle and 4’ bicycle lanes)
Minimum Area Behind Curb	19.5’ (17’ when bicycle lanes are provided) used for sidewalks, utilities, and landscaping (where appropriate)
Drainage/Shoulders	Curb and gutter; shoulders permitted in rural areas (6’ - 10’)

Access

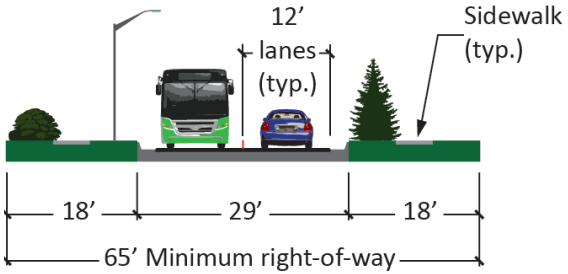
Median	Not required
Full Access Intersection Spacing	660’
Intersection	4 lanes
Residential Driveway Spacing	No residential drives permitted
Commercial Driveway Spacing	210’ center to center. Allowed only if internal circulation, cross access, and minimum driveway radii and grade are provided.

Multi-Modal

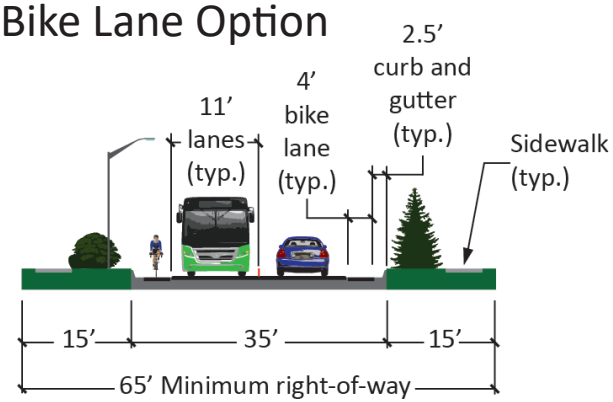
On-Street Parking	Not permitted
Pedestrian Provisions	4’ - 5’ (minimum) sidewalks on both sides
Bicycle Provisions	Bicycle facilities provided according to adopted bicycle plan
Transit Provisions	Scheduled stops every 1/4 mile (where transit service is provided)

Collector

*Medians and greenspace provide options for landscaping where appropriate.
*Utility and greenspace areas may switch locations if needed.
*Utilities may be placed under sidewalks.



Bike Lane Option



Description

Design Service Volume	1,500 - 8,000
Design Speed	30 mph
Traffic Flow/Access Priority	30/70
Facility Spacing	1/4 - 1/2 mile
Trip Length	Local street to arterial street (1/2 to 2 miles)

Access

Median	Not required
Full Access Intersection Spacing	660’
Intersection	Up to 4 lanes
Residential Driveway Spacing	No residential drives permitted
Commercial Driveway Spacing	160’ center to center

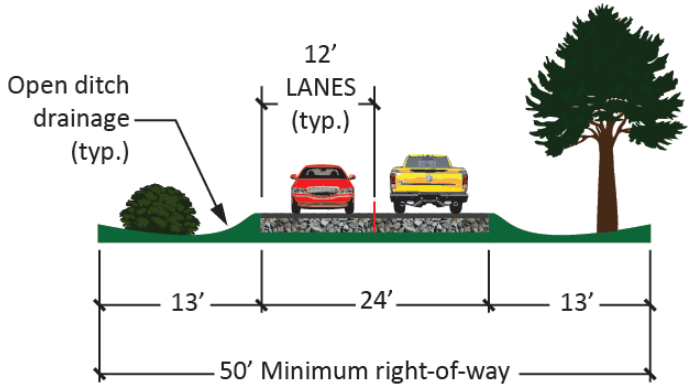
Basics

Minimum Right-of-Way	65’ plus intersection triangles
Number of Lanes	2
Turning Lanes	Left turn lane when needed
Lane Width	12’ (bicycle routes: 11’ vehicle and 4’ bicycle lanes)
Minimum Area Behind Curb	18’ (15’ when bicycle lanes are provided) used for sidewalks, utilities, and landscaping (where appropriate)
Drainage/Shoulders	Curb and gutter; shoulders permitted in rural areas (6’ - 10’)

Multi-Modal

On-Street Parking	Not permitted
Pedestrian Provisions	4’ - 5’ (minimum) sidewalks on both sides
Bicycle Provisions	Bicycle facilities provided according to adopted bicycle plan
Transit Provisions	Scheduled regular and paratransit service

Rural Collector



Description

Design Service Volume	1,500 - 8,000
Design Speed	30 mph
Traffic Flow/Access Priority	30/70
Facility Spacing	1/4 - 1/2 mile
Trip Length	Local street to arterial street (1/2 to 2 miles)

Basics

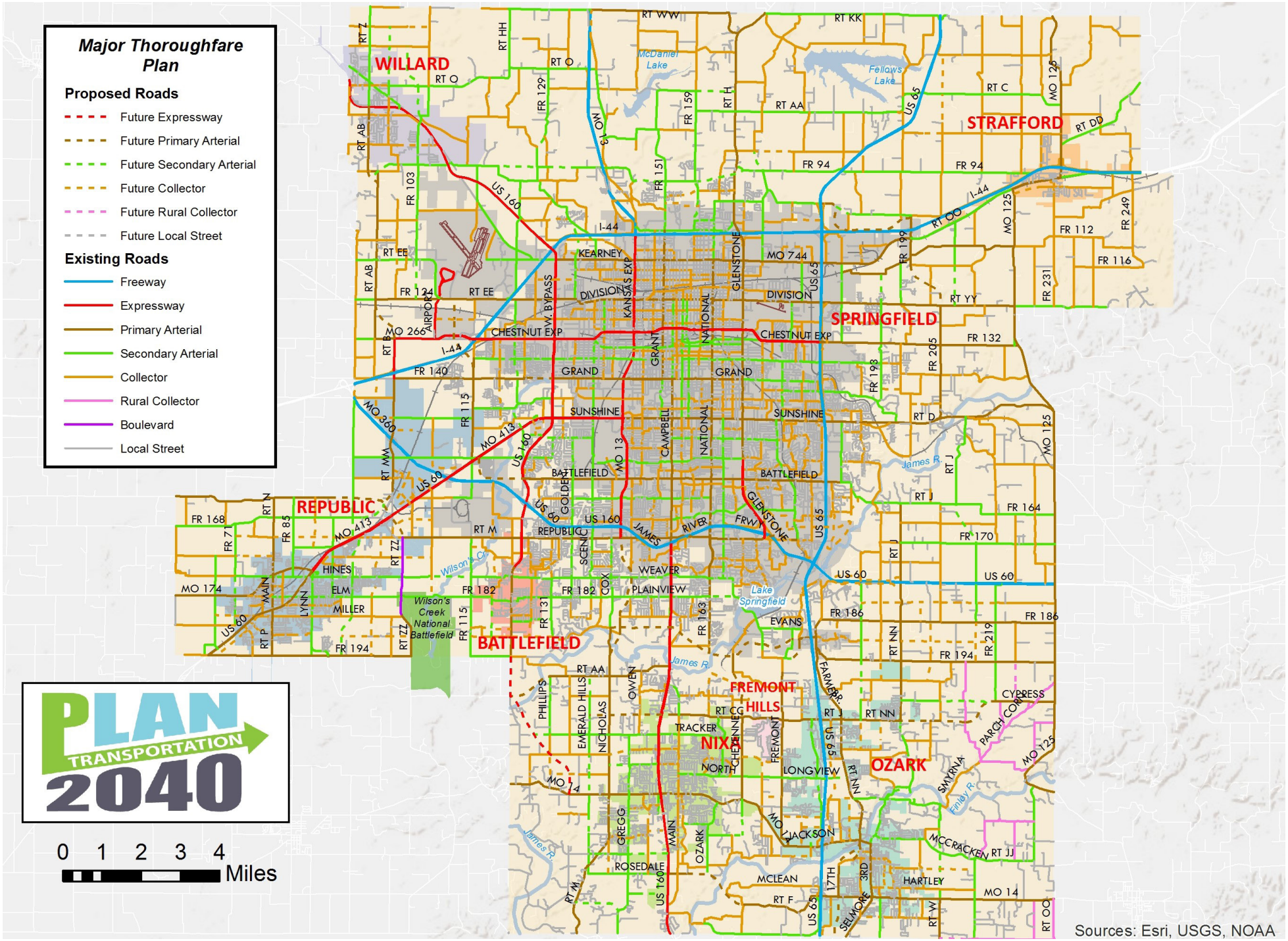
Minimum Right-of-Way	50’
Number of Lanes	2
Turning Lanes	Left turn lane when needed
Lane Width	12’
Minimum Area Behind Curb	13’ used for utilities and open ditch (where appropriate)
Drainage/Shoulders	Open ditch

Access

Median	Not required
Full Access Intersection Spacing	660’
Intersection	up to 4 lanes
Residential Driveway Spacing	No residential drives permitted
Commercial Driveway Spacing	160’ center to center

Multi-Modal

On-Street Parking	Not permitted
Pedestrian Provisions	No sidewalks required
Bicycle Provisions	Bicycle facilities provided according to adopted bicycle plan


Major Thoroughfare Plan
Proposed Roads
Future Expressway
Future Primary Arterial
Future Secondary Arterial
Future Collector
Future Rural Collector
Future Local Street
Existing Roads
Freeway
Expressway
Primary Arterial
Secondary Arterial
Collector
Rural Collector
Boulevard
Local Street
PLAN TRANSPORTATION 2040
0 1 2 3 4 Miles
WILLARD
SPRINGFIELD
STRAFFORD
REPUBLIC
BATTLEFIELD
FREMONT HILLS
NIXA
OZARK
Sources: Esri, USGS, NOAA

OZARKS TRANSPORTATION ORGANIZATION

A METROPOLITAN PLANNING ORGANIZATION

2208 W. Chesterfield Blvd., Suite 101
417-865-3042

This report was prepared in cooperation with the USDOT, including FHWA and FTA, as well as the Missouri Department of Transportation. The opinions, findings, and conclusions expressed in this publication are those of the authors and not necessarily those of the Missouri Highways and Transportation Commission, the Federal Highway Administration or the Federal Transit Administration.

TAB 5

TECHNICAL PLANNING COMMITTEE AGENDA 3/15/2017; ITEM II.D.

Amendment Number Four to the Long Range Transportation Plan

Ozarks Transportation Organization
(Springfield, MO Area MPO)

AGENDA DESCRIPTION:

Christian County, the City of Ozark, and the Ozark Special Road District are partnering to replace the Riverside Bridge on Riverside Road, which is an important connection for north Ozark. This project was originally to be completed with local funds, however, the scale of the project, as well as bicycle and pedestrian accommodations, has necessitated use of federal funds, requiring the addition of this project to the Long Range Transportation Plan, which would allow it to be programmed in the Transportation Improvement Program. The project is estimated to cost $3 million and will include bicycle and pedestrian accommodations.

This addition is fiscally constrained, as there was funding remaining in the 2018 to 2022 time band, when this project will occur. This brings the constrained project list total (accounting for inflation) to $714,650,870. Just over $3 million remains for funding through 2040.

Amendment 1 to the LRTP was for sidewalk connections between Ozark and Nixa.
Amendment 2 to the LRTP was for the MTP change along 17th/19th Streets in Ozark.
Amendment 3 to the LRTP is pending approval of the revised design standards.

TECHNICAL PLANNING COMMITTEE ACTION REQUESTED:

That a member of the Technical Planning Committee make one of the following motions:

"Move to recommend *Transportation Plan* 2040 Amendment Four the Board of Directors."

OR

"Move to recommend *Transportation Plan 2040* Amendment Four to the Board of Directors with the following changes..."

Roadways

Projected revenue through 2040 is $1,224,814,371. The project needs submitted for prioritization and the programmatic needs before inflation add up to $1,753,938,275. Several factors impact the ability of transportation funding to keep pace. The fuel tax in Missouri is not related to inflation. The fuel tax is based on the number of gallons sold, regardless of the price of fuel. Vehicles are becoming more efficient, which means drivers are purchasing less fuel than before. As the number of drivers on the road increase and the transportation system continues to develop, there is a larger system to maintain and more needs to address.

Transit

Transit revenue is projected to be about $348,221,517 through 2040 with estimated needs of $949,601,734. To achieve state of good repair, today, City Utilities would need to replace 11 fixed-route buses and 4 paratransit buses which is $10,303,200. The useful life of a bus is shorter than the length of this plan, however, and CU would need to see their fleet turnover at least two more times before 2040. This doesn't account for the need to replace benches, shelters, equipment at the maintenance and transfer facilities, and such. City Utilities is continually searching for additional funding, which includes applying for grants and refurbishing vehicles before replacing them.

State of Good Repair is an issue for the human service agencies, as well. Replacing a vehicle is a points category in the scoring on Section 5310, Enhanced Mobility of Seniors and Individuals with Disabilities Program, funding applications.

Constrained Project Lists

There are two Constrained Project lists. The Roadways list is sorted by the name of the roadway where the project is located. The Transit list follows the Roadways list. Project costs are shown based on the estimated year of completion, with an annual inflation factor of 3 percent based on the estimated year of completion. Projects in the Transportation Improvement Program 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 the project prior to one already on the Constrained list.

Table 7-2: Funding Summary

Projected Revenue	$1,224,814,372
Maintenance	($401,000,000)
Safety	($18,000,000)
Bike/Ped	($10,000,000)
Rail	($4,000,000)
Scoping	($500,000)
Operations & Maintenance	($73,574,000)
Funding for New Projects	**$717,740,372**

Available Funding (through 2040)	$1,224,814,372
Constrained Costs (Uninflated)	($571,530,275)
Unconstrained Costs (Uninflated)	($678,334,000)
Operations and Maintenance	($73,574,000)
Programmatic Projects	($433,500,000)
Funding Shortfall	**($532,123,903)**

Table 7-3: Roadways Constrained List

ID	Name	Roadway	Location	Description	2018-2022	2023-2030	2031-2040	TOTAL	CONSTRAINT
ST401	REALIGNMENT OF WASHINGTON AND MADISON	WASHINGTON, MADISON FROM ROUTE OO TO BUMGARNER	STRAFFORD	REALIGN WASHINGTON AND MADISON	$ -	$1,967,798	$ -	$1,967,798	$711,104,506
G405	WEST BYPASS AND FARM ROAD 146 INTERSECTION IMPROVEMENTS	WEST BYPASS FROM WEST BYPASS TO FARM ROAD 146	GREENE	INTERSECTION IMPROVEMENTS	$546,364	$ -	$ -	$546,364	$711,650,870
O14	RIVERSIDE BRIDGE	RIVERSIDE ROAD	CHRISTIAN COUNTY	RIVERSIDE BRIDGE REPLACEMENT, INCLUDING BICYCLE/PEDESTRIAN ACCOMMODATION	$3,000,000	$ -	$ -	$3,000,000	$714,650,870

Roadways

Projected revenue through 2040 is $1,224,814,371. The project needs submitted for prioritization and the programmatic needs before inflation add up to $1,753,938,275. Several factors impact the ability of transportation funding to keep pace. The fuel tax in Missouri is not related to inflation. The fuel tax is based on the number of gallons sold, regardless of the price of fuel. Vehicles are becoming more efficient, which means drivers are purchasing less fuel than before. As the number of drivers on the road increase and the transportation system continues to develop, there is a larger system to maintain and more needs to address.

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State of Good Repair is an issue for the human service agencies, as well. Replacing a vehicle is a points category in the scoring on Section 5310, Enhanced Mobility of Seniors and Individuals with Disabilities Program, funding applications.

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Bike/Ped	($10,000,000)
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Scoping	($500,000)
Operations & Maintenance	($73,574,000)
Funding for New Projects	**$717,740,372**

Available Funding (through 2040)	$1,224,814,372
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ST401	REALIGNMENT OF WASHINGTON AND MADISON	WASHINGTON, MADISON FROM ROUTE OO TO BUMGARNER	STRAFFORD	REALIGN WASHINGTON AND MADISON	$ -	$1,967,798	$ -	$1,967,798	$711,104,506
G405	WEST BYPASS AND FARM ROAD 146 INTERSECTION IMPROVEMENTS	WEST BYPASS FROM WEST BYPASS TO FARM ROAD 146	GREENE	INTERSECTION IMPROVEMENTS	$546,364	$ -	$ -	$546,364	$711,650,870

TAB 6

TECHNICAL PLANNING COMMITTEE AGENDA 3/15/2017; ITEM II.E.

Amendment Numbers Four and Five to the FY 2017-2020 Transportation Improvement Program

Ozarks Transportation Organization
(Springfield, MO Area MPO)

AGENDA DESCRIPTION:

One change is proposed for Amendment Number 4 to the FY 2017-2020 Transportation Improvement Program.

1. *Revised* Annual Guardrail and Guard Cable Repair Program (MO1505-17A4)
   MoDOT is renewing their contract for on-call guardrail and guard cable repair a year early, so the current project is being accelerated with additional funding added, for a total programmed amount of $958,000.

Nine changes are proposed for Amendment Number 5 to the FY 2017-2020 Transportation Improvement Program.

1. *New* Riverside Bridge Replacement (OK1802-17A5)
   The City of Ozark has requested to program the replacement of the Riverside Bridge as a partnership with Christian County and the Ozark Special Road District for a total programmed amount of $3,023,418.

2. *New* Transit Bus Stop ADA Improvements (CU1808-17A5)
   City Utilities and Springfield are partnering to improve accessibility to stops along Division for a total programmed amount of $406,918, with $325,535 FTA Section 5310 funding.

3. *Revised* FTA 5310 Human Agency Capital Purchases (MO1506-17A5)
   This funding had been programmed as a lump sum with projects listed in a separate publication. Reserve funding from this lump sum has been programmed as projects now included in the TIP, so this number has been revised to $463,180 total programmed. The entire listing of projects programmed with FTA 5310 funding between FY 2013 and FY 2020 can now be found in Section G of the TIP document. This listing includes those programmed with this lump sum as well as those explicitly programmed in the TIP. Associated TIP numbers are provided for reference.

4. *New* 5310-Arc of the Ozarks II (MO1702-17A4)
   Arc of the Ozarks was recommended by the Local Coordinating Board for Transit to receive $86,980 in FTA Section 5310 funding to purchase two wide body cutaways, supporting their transportation services in the Springfield area. Match is provided by Arc of the Ozarks in the amount of $21,746.

5. *New* 5310-Ozark Senior Center (MO1703-17A5)
   The Ozark Senior Center was recommended by the Local Coordinating Board for Transit to receive $29,786 in FTA Section 5310 funding to purchase one lowered floor van, supporting their transportation services. Match is provided by the Ozark Senior Center in the amount of $7,447.

6. *New* 5310-OATS II (MO1704-17A5)
   OATS, Inc. was recommended by the Local Coordinating Board for Transit to receive $142,608 in FTA Section 5310 funding to purchase one high roof long conversion vehicle and two wide body cutaways, supporting their transportation services for the SB40 Board in Christian County. Match is provided by OATS, Inc. in the amount of $35,653.

7. *Revised* 5310-Traditional Projects Reserve (MO1729-17A5)
   FTA Section 5310 funding requires that 55 percent of the annual allocation be spent on traditional elderly and disabled transportation projects. The entirety of this balance has not been awarded to a specific project and the remaining amount is included here. Currently, $324,727 in federal funding remains and when awarded will require the equivalent of $81,182 in local match from the relevant human service agencies.

8. *New* MoDOT 5310 Administration 2018 (MO1802-17A5)
   MoDOT administers the traditional FTA 5310 funding for the OTO region, receiving 10 percent of the funding for those projects as administration. For FY 2018, this amount is $16,695. This funding does not require a match.

9. *New* 5310-MoDOT Admin (MO1901-17A5)
   The remaining administration funding for FY 2019 and FY 2020 that MoDOT would use to administer projects to be awarded later for those years is $34,459.

TECHNICAL PLANNING COMMITTEE ACTION REQUESTED:

Amendment Number 4 will go to a special e-meeting of the Board of Directors, while Amendment 5 will appear on the agenda for the regularly scheduled Board of Directors meeting in April.

That a member of the Technical Planning Committee make one of the following motions:

"Move to recommend FY 2017-2020 Transportation Improvement Program Amendment Numbers Four and Five to the Board of Directors."

OR

"Move to recommend FY 2017-2020 Transportation Improvement Program Amendment Numbers Four and Five to the Board of Directors with the following changes..."

J) Pending Amendment Section

TIP # MO1505-17A4 ANNUAL GUARDRAIL AND GUARD CABLE REPAIR PROGRAM

Route Various
From Various
To Various
Location/Agency Area Wide
Federal Agency FHWA
Responsible Agency MoDOT
Federal Funding Category STBG
MoDOT Funding Category Taking Care of the System
AC Year of Conv.
STIP # 8P2243

Project Description
Job order contracting for guardrail and guard cable repair in OTO area.

Fund Code	Source	Phase	FY2017	FY2018	FY2019	FY2020	Total
FHWA (STBG)	Federal	ENG	$154,400	$0	$0	$0	$154,400
MoDOT	State	ENG	$38,600	$0	$0	$0	$38,600
FHWA (STBG)	Federal	CON	$612,000	$0	$0	$0	$612,000
MoDOT	State	CON	$153,000	$0	$0	$0	$153,000
Totals			**$958,000**	**$0**	**$0**	**$0**	**$958,000**

Notes
Non-Federal Funding Source: State Transportation Revenues

FYI: Split from MO1150.

Prior Cost	$5,000
Future Cost	$0
Total Cost	$963,000

E) Roadways Section

TIP # MO1505 ANNUAL GUARDRAIL AND GUARD CABLE REPAIR PROGRAM (2018)

Route Various
From Various
To Various
Location/Agency Area Wide
Federal Agency FHWA
Responsible Agency MoDOT
Federal Funding Category STP
MoDOT Funding Category Taking Care of the System
AC Year of Conv.
STIP # 8P2243

Project Description
Job order contracting for guardrail and guard cable repair in OTO area.

Fund Code	Source	Phase	FY2017	FY2018	FY2019	FY2020	Total
FHWA (STP)	Federal	ENG	$800	$116,500	$0	$0	$117,300
MoDOT	State	ENG	$200	$29,200	$0	$0	$29,400
FHWA (STP)	Federal	CON	$0	$500,800	$0	$0	$500,800
MoDOT	State	CON	$0	$125,200	$0	$0	$125,200
Totals			**$1,000**	**$771,700**	**$0**	**$0**	**$772,700**

Notes
Non-Federal Funding Source: State Transportation Revenues

FYI: Split from MO1150.

Prior Cost	$6,000
Future Cost	$0
Total Cost	$778,700

FINANCIAL SUMMARY

Roadways

YEARLY SUMMARY

	Federal										Local	Other	State			
PROJECT	**FHWA (STBG-U)**	**FHWA (SAFETY)**	**FHWA (STP/BG)**	**FHWA (I/M)**	**FHWA (130)**	**FHWA (NHS)**	**FHWA (BRM)**	**FHWA (BRO)**	**FHWA (NHPP)**	**FHWA (HPP)**	**LOCAL**	**OTHER**	**MoDOT**	**MoDOT-GCSA**	**MoDOT-AC**	**TOTAL**
2017																
CC0901	$0	$0	$1,600	$0	$0	$0	$0	$0	$0	$0	$0	$0	$400	$0	$0	**$2,000**
CC1102	$0	$0	$0	$0	$0	$0	$0	$0	$1,600	$0	$0	$0	$400	$0	$0	**$2,000**
CC1601	$0	$900	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$100	$0	$0	**$1,000**
CC1701	$0	$0	$1,600	$0	$0	$0	$0	$0	$0	$0	$0	$0	$400	$0	$0	**$2,000**
CC1702	$0	$0	$4,000	$0	$0	$0	$0	$0	$0	$0	$0	$0	$1,000	$0	$0	**$5,000**
CC1703	$0	$0	$4,000	$0	$0	$0	$0	$0	$0	$0	$0	$0	$1,000	$0	$0	**$5,000**
GR1403	$0	$0	$0	$0	$0	$0	$0	$0	$8,000	$0	$0	$0	$2,000	$0	$0	**$10,000**
GR1501	$1,679,927	$0	$0	$0	$0	$0	$0	$0	$0	$0	$419,982	$0	$0	$0	$0	**$2,099,909**
GR1601	$0	$0	$0	$0	$0	$0	$0	$320,000	$0	$0	$80,000	$0	$0	$0	$0	**$400,000**
GR1602	$0	$0	$0	$0	$0	$0	$0	$0	$342,900	$0	$0	$0	$38,100	$0	$0	**$381,000**
GR1603	$0	$51,300	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$5,700	$0	$0	**$57,000**
GR1701	$0	$0	$8,000	$0	$0	$0	$0	$0	$0	$0	$0	$0	$2,000	$0	$0	**$10,000**
GR1702	$0	$0	$4,000	$0	$0	$0	$0	$0	$0	$0	$0	$0	$91,000	$0	$0	**$95,000**
GR1703	$0	$0	$800	$0	$0	$0	$0	$0	$0	$0	$0	$0	$200	$0	$0	**$1,000**
GR1704	$0	$0	$1,600	$0	$0	$0	$0	$0	$0	$0	$0	$0	$400	$0	$0	**$2,000**
GR1705	$0	$0	$800	$0	$0	$0	$0	$0	$0	$0	$0	$0	$200	$0	$0	**$1,000**
GR1706	$0	$0	$1,800	$0	$0	$0	$0	$0	$0	$0	$0	$0	$200	$0	$0	**$2,000**
MO1105	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$284,000	$0	$0	**$284,000**
MO1505-17A4	$0	$0	$766,400	$0	$0	$0	$0	$0	$0	$0	$0	$0	$191,600	$0	$0	**$958,000**
MO1608	$0	$35,100	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$3,900	$0	$0	**$39,000**
MO1612	$0	$0	$0	$0	$0	$0	$0	$0	$1,460,800	$0	$0	$0	$365,200	$0	$0	**$1,826,000**
MO1613	$0	$0	$489,600	$0	$0	$0	$0	$0	$0	$0	$0	$0	$122,400	$0	$0	**$612,000**
MO1614	$0	$0	$896,000	$0	$0	$0	$0	$0	$0	$0	$0	$0	$224,000	$0	$0	**$1,120,000**
MO1615	$0	$0	$728,800	$0	$0	$0	$0	$0	$0	$0	$0	$0	$182,200	$0	$0	**$911,000**
MO1616	$0	$0	$0	$0	$0	$0	$0	$0	$201,600	$0	$0	$0	$50,400	$0	$0	**$252,000**
MO1617	$0	$3,082,500	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$342,500	$0	$0	**$3,425,000**
MO1618	$0	$1,792,800	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$199,200	$0	$0	**$1,992,000**
MO1619	$0	$0	$0	$0	$0	$0	$0	$0	$797,600	$0	$0	$0	$199,400	$0	$0	**$997,000**
MO1701	$315,000	$0	$234,400	$0	$0	$0	$0	$0	$0	$0	$78,750	$0	$58,600	$0	$0	**$686,750**
MO1705	$0	$0	$800	$0	$0	$0	$0	$0	$0	$0	$0	$0	$200	$0	$0	**$1,000**
MO1708	$0	$900	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$100	$0	$0	**$1,000**
MO1709	$0	$1,800	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$200	$0	$0	**$2,000**
MO1710-A2	$0	$0	$208,000	$0	$0	$0	$0	$0	$0	$0	$0	$0	$52,000	$0	$0	**$260,000**
MO1711	$0	$0	$8,000	$0	$0	$0	$0	$0	$0	$0	$0	$0	$2,000	$0	$0	**$10,000**
MO1712	$0	$0	$0	$0	$0	$0	$0	$0	$1,600	$0	$0	$0	$400	$0	$0	**$2,000**
MO1713	$0	$1,800	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$200	$0	$0	**$2,000**
MO1714	$0	$0	$0	$0	$0	$0	$0	$0	$1,600	$0	$0	$0	$400	$0	$0	**$2,000**
MO1715	$0	$1,822,700	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$202,300	$0	$0	**$2,025,000**
MO1716	$0	$0	$800	$0	$0	$0	$0	$0	$0	$0	$0	$0	$200	$0	$0	**$1,000**
MO1717	$0	$0	$800	$0	$0	$0	$0	$0	$0	$0	$0	$0	$200	$0	$0	**$1,000**
MO1718	$0	$0	$0	$0	$0	$0	$0	$0	$192,600	$0	$0	$0	$21,400	$0	$0	**$214,000**
MO1719	$0	$0	$0	$0	$0	$0	$0	$0	$38,400	$0	$0	$0	$9,600	$0	$0	**$48,000**
MO1720	$0	$0	$0	$0	$0	$0	$0	$0	$4,000	$0	$0	$0	$1,000	$0	$0	**$5,000**
MO1721	$0	$26,100	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$2,900	$0	$0	**$29,000**
MO1722	$0	$0	$0	$0	$0	$0	$0	$0	$16,800	$0	$0	$0	$4,200	$0	$0	**$21,000**
MO1723	$0	$0	$3,200	$0	$0	$0	$0	$0	$0	$0	$0	$0	$800	$0	$0	**$4,000**
NX1701	$0	$0	$0	$0	$0	$0	$0	$0	$40,000	$0	$0	$0	$10,000	$0	$0	**$50,000**
NX1702	$0	$0	$1,277,600	$0	$0	$0	$0	$0	$0	$0	$0	$0	$319,400	$0	$0	**$1,597,000**
NX1703	$0	$0	$1,600	$0	$0	$0	$0	$0	$0	$0	$0	$0	$400	$0	$0	**$2,000**
NX1704	$0	$0	$0	$0	$0	$0	$0	$0	$1,600	$0	$0	$0	$400	$0	$0	**$2,000**
NX1705	$0	$0	$0	$0	$0	$0	$0	$0	$1,600	$0	$0	$0	$400	$0	$0	**$2,000**
NX1801-17A2	$0	$0	$0	$0	$0	$0	$0	$0	$298,400	$0	$0	$0	$74,600	$0	$0	**$373,000**
OK1401-17A2	$280,000	$0	$149,648	$0	$0	$0	$0	$0	$0	$0	$70,000	$0	$37,412	$0	$0	**$537,060**
OK1701	$0	$0	$16,000	$0	$0	$0	$0	$0	$0	$0	$0	$0	$4,000	$0	$0	**$20,000**
OK1702	$0	$0	$360,000	$0	$0	$0	$0	$0	$0	$0	$0	$0	$90,000	$0	$0	**$450,000**
OK1703	$0	$0	$40,000	$0	$0	$0	$0	$0	$0	$0	$0	$0	$10,000	$0	$0	**$50,000**
OK1801-17A2	$0	$0	$663,480	$0	$0	$0	$0	$0	$0	$0	$0	$0	$165,870	$0	$0	**$829,350**
RG0901	$0	$0	$0	$0	$0	$0	$0	$0	$8,000	$0	$0	$0	$2,000	$0	$0	**$10,000**
RG1201	$0	$0	$0	$0	$0	$0	$0	$0	$800	$0	$0	$0	$200	$0	$0	**$1,000**
RP1502	$1,702,503	$0	$0	$0	$0	$0	$0	$0	$0	$0	$496,128	$0	$0	$0	$0	**$2,198,631**
RP1701	$0	$0	$0	$0	$0	$0	$0	$0	$8,000	$0	$0	$0	$2,000	$0	$0	**$10,000**
RP1702	$0	$0	$800	$0	$0	$0	$0	$0	$0	$0	$0	$0	$200	$0	$0	**$1,000**
RP1703-17A3	*$0*	*$0*	*$1,600*	*$0*	*$0*	*$0*	*$0*	*$0*	*$0*	*$0*	*$0*	*$0*	*$400*	*$0*	*$0*	***$2,000***
RP1704-17A3	*$0*	*$0*	*$1,600*	*$0*	*$0*	*$0*	*$0*	*$0*	*$0*	*$0*	*$0*	*$0*	*$400*	*$0*	*$0*	***$2,000***
RP1801-17A2	$0	$0	$274,160	$0	$0	$0	$0	$0	$0	$0	$0	$0	$68,540	$0	$0	**$342,700**
SP1106	$706,330	$0	$1,073,600	$0	$0	$0	$0	$0	$0	$0	$572,670	$0	$268,400	$0	$0	**$2,621,000**
SP1109	$391,612	$0	$0	$0	$2,250,000	$0	$0	$0	$3,017,698	$0	$0	$343,000	$754,424	$750,000	$0	**$7,506,734**
SP1112	$0	$0	$0	$0	$0	$0	$0	$0	$133,600	$0	$0	$0	$33,400	$0	$0	**$167,000**
SP1122	$0	$0	$115,000	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$115,000**
SP1204	$0	$0	$0	$0	$0	$0	$0	$0	$24,000	$0	$0	$0	$6,000	$0	$0	**$30,000**
SP1209	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$3,155	$0	$0	$0	$0	**$3,155**
SP1401	$0	$0	$0	$0	$0	$0	$0	$0	$1,600	$0	$0	$0	$400	$0	$0	**$2,000**
SP1405	$0	$0	$0	$0	$0	$0	$0	$0	$1,600	$0	$0	$0	$400	$0	$0	**$2,000**
SP1415	$1,089,292	$0	$0	$0	$0	$0	$0	$0	$1,304,708	$0	$271,823	$0	$326,177	$0	$0	**$2,992,000**
SP1419	$0	$0	$0	$9,000	$0	$0	$0	$0	$0	$0	$0	$0	$1,000	$0	$0	**$10,000**
SP1602	$0	$0	$0	$0	$0	$0	$0	$0	$5,294,400	$0	$0	$0	$1,323,600	$0	$0	**$6,618,000**
SP1604	$0	$57,600	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$6,400	$0	$0	**$64,000**
SP1605-17AM1	$0	$0	$0	$0	$0	$0	$1,001,069	$0	$0	$0	$250,267	$0	$0	$0	$0	**$1,251,336**
SP1701	$0	$0	$0	$0	$0	$0	$0	$0	$1,600	$0	$0	$0	$400	$0	$0	**$2,000**
SP1702	$0	$0	$0	$0	$0	$0	$0	$0	$408,800	$0	$0	$0	$102,200	$0	$0	**$511,000**
SP1703	$0	$0	$0	$0	$0	$0	$0	$0	$380,800	$0	$0	$0	$95,200	$0	$0	**$476,000**
SP1704	$0	$0	$0	$0	$0	$0	$0	$0	$1,600	$0	$0	$0	$400	$0	$0	**$2,000**

FY 2017 continued on next page

FINANCIAL SUMMARY

Roadways

YEARLY SUMMARY

	Federal										Local	Other	State			
PROJECT	**FHWA (STBG-U)**	**FHWA (SAFETY)**	**FHWA (STP/BG)**	**FHWA (I/M)**	**FHWA (130)**	**FHWA (NHS)**	**FHWA (BRM)**	**FHWA (BRO)**	**FHWA (NHPP)**	**FHWA (HPP)**	**LOCAL**	**OTHER**	**MoDOT**	**MoDOT-GCSA**	**MoDOT-AC**	**TOTAL**
2017 Continued																
SP1705	$0	$0	$0	$0	$0	$0	$0	$0	$8,000	$0	$0	$0	$2,000	$0	$0	**$10,000**
SP1706	$0	$0	$0	$3,585,600	$0	$0	$0	$0	$285,600	$0	$0	$0	$967,800	$0	$0	**$4,839,000**
SP1707	$0	$0	$800	$0	$0	$0	$0	$0	$0	$0	$0	$0	$200	$0	$0	**$1,000**
SP1708	$0	$0	$0	$0	$0	$0	$0	$0	$1,600	$0	$0	$0	$400	$0	$0	**$2,000**
SP1709	$0	$0	$0	$0	$0	$0	$0	$0	$16,000	$0	$0	$0	$4,000	$0	$0	**$20,000**
SP1710	$0	$0	$0	$0	$0	$0	$0	$0	$1,600	$0	$0	$0	$400	$0	$0	**$2,000**
SP1711	$0	$0	$0	$0	$0	$0	$0	$0	$423,200	$0	$0	$0	$105,800	$0	$0	**$529,000**
SP1712	$0	$0	$0	$0	$0	$1,339,200	$0	$0	$0	$0	$0	$0	$334,800	$0	$0	**$1,674,000**
SP1713	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$270,210	$0	$0	$0	$0	**$270,210**
SP1714-17A2	$1,600,000	$0	$0	$0	$0	$0	$0	$0	$0	$0	$400,000	$0	$0	$0	$0	**$2,000,000**
ST1801-17A2	$0	$0	$40,000	$0	$0	$0	$0	$0	$0	$0	$0	$0	$10,000	$0	$0	**$50,000**
WI1001-17A2	$0	$0	$4,000	$0	$0	$0	$0	$0	$0	$0	$0	$0	$1,000	$0	$0	**$5,000**
WI1301	$0	$0	$800	$0	$0	$0	$0	$0	$0	$0	$0	$0	$200	$0	$0	**$1,000**
WI1701-17AM1	$76,000	$0	$0	$0	$0	$0	$0	$0	$0	$0	$19,000	$0	$0	$0	$0	**$95,000**
SUBTOTAL	$7,840,664	$6,873,500	$7,385,688	$3,594,600	$2,250,000	$1,339,200	$1,001,069	$320,000	$14,732,306	$0	$2,931,985	$343,000	$7,795,823	$750,000	$0	$57,157,835
2018																
CC0901	$0	$0	$1,600	$0	$0	$0	$0	$0	$0	$0	$0	$0	$400	$0	$0	**$2,000**
CC1102	$0	$0	$0	$0	$0	$0	$0	$0	$1,600	$0	$0	$0	$400	$0	$0	**$2,000**
CC1601	$0	$900	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$100	$0	$0	**$1,000**
CC1701	$0	$0	$417,600	$0	$0	$0	$0	$0	$0	$0	$0	$0	$104,400	$0	$0	**$522,000**
CC1702	$0	$0	$660,000	$0	$0	$0	$0	$0	$0	$0	$0	$0	$165,000	$0	$0	**$825,000**
CC1703	$0	$0	$4,000	$0	$0	$0	$0	$0	$0	$0	$0	$0	$1,000	$0	$0	**$5,000**
GR1403	$0	$0	$0	$0	$0	$0	$0	$0	$8,000	$0	$0	$0	$2,000	$0	$0	**$10,000**
GR1701	$0	$0	$8,000	$0	$0	$0	$0	$0	$0	$0	$0	$0	$2,000	$0	$0	**$10,000**
GR1703	$0	$0	$1,600	$0	$0	$0	$0	$0	$0	$0	$0	$0	$400	$0	$0	**$2,000**
GR1704	$0	$0	$2,400	$0	$0	$0	$0	$0	$0	$0	$0	$0	$600	$0	$0	**$3,000**
GR1705	$0	$0	$800	$0	$0	$0	$0	$0	$0	$0	$0	$0	$200	$0	$0	**$1,000**
GR1706	$0	$0	$1,800	$0	$0	$0	$0	$0	$0	$0	$0	$0	$200	$0	$0	**$2,000**
MO1105	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$284,000	$0	$0	**$284,000**
MO1505-17A4	$0	$0	$617,300	$0	$0	$0	$0	$0	$0	$0	$0	$0	$154,400	$0	$0	**$771,700**
MO1616	$0	$0	$0	$0	$0	$0	$0	$0	$2,467,200	$0	$0	$0	$616,800	$0	$0	**$3,084,000**
MO1705	$0	$0	$800	$0	$0	$0	$0	$0	$0	$0	$0	$0	$200	$0	$0	**$1,000**
MO1708	$0	$35,100	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$3,900	$0	$0	**$39,000**
MO1709	$0	$1,800	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$200	$0	$0	**$2,000**
MO1710	$0	$0	$4,305,600	$0	$0	$0	$0	$0	$0	$0	$0	$0	$1,076,400	$0	$0	**$5,382,000**
MO1711	$0	$0	$8,000	$0	$0	$0	$0	$0	$0	$0	$0	$0	$2,000	$0	$0	**$10,000**
MO1712	$0	$0	$0	$0	$0	$0	$0	$0	$1,600	$0	$0	$0	$400	$0	$0	**$2,000**
MO1713	$0	$5,328,000	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$592,000	$0	$0	**$5,920,000**
MO1714	$0	$0	$0	$0	$0	$0	$0	$0	$1,600	$0	$0	$0	$400	$0	$0	**$2,000**
MO1716	$331,000	$0	$235,200	$0	$0	$0	$0	$0	$0	$0	$82,750	$0	$58,800	$0	$0	**$707,750**
MO1717	$0	$0	$800	$0	$0	$0	$0	$0	$0	$0	$0	$0	$200	$0	$0	**$1,000**
MO1719	$0	$0	$0	$0	$0	$0	$0	$0	$38,400	$0	$0	$0	$9,600	$0	$0	**$48,000**
MO1720	$0	$0	$0	$0	$0	$0	$0	$0	$4,000	$0	$0	$0	$1,000	$0	$0	**$5,000**
MO1721	$0	$27,000	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$3,000	$0	$0	**$30,000**
MO1722	$0	$0	$0	$0	$0	$0	$0	$0	$16,800	$0	$0	$0	$4,200	$0	$0	**$21,000**
MO1723	$0	$0	$3,200	$0	$0	$0	$0	$0	$0	$0	$0	$0	$800	$0	$0	**$4,000**
NX1701	$0	$0	$0	$0	$0	$0	$0	$0	$1,424,000	$0	$0	$0	$356,000	$0	$0	**$1,780,000**
NX1702	$0	$0	$4,727,200	$0	$0	$0	$0	$0	$0	$0	$0	$0	$1,181,800	$0	$0	**$5,909,000**
NX1703	$0	$0	$235,200	$0	$0	$0	$0	$0	$0	$0	$0	$0	$58,800	$0	$0	**$294,000**
NX1704	$0	$0	$0	$0	$0	$0	$0	$0	$1,600	$0	$0	$0	$400	$0	$0	**$2,000**
NX1705	$0	$0	$0	$0	$0	$0	$0	$0	$32,000	$0	$0	$0	$8,000	$0	$0	**$40,000**
NX1801-17A2	$902,886	$0	$0	$0	$0	$0	$0	$0	$652,314	$0	$225,721	$0	$163,079	$0	$0	**$1,944,000**
OK1401-17A2	$0	$0	$110,400	$0	$0	$0	$0	$0	$0	$0	$0	$0	$27,600	$0	$0	**$138,000**
OK1701	$0	$0	$201,600	$0	$0	$0	$0	$0	$0	$0	$0	$0	$50,400	$0	$0	**$252,000**
OK1702	$0	$0	$4,983,200	$0	$0	$0	$0	$0	$0	$0	$0	$0	$1,245,800	$0	$0	**$6,229,000**
OK1703	$0	$0	$340,800	$0	$0	$0	$0	$0	$0	$0	$0	$0	$85,200	$0	$0	**$426,000**
OK1801-17A2	$1,716,720	$0	$1,055,360	$0	$0	$0	$0	$0	$0	$0	$429,180	$0	$263,840	$0	$0	**$3,465,100**
RG0901	$0	$0	$0	$0	$0	$0	$0	$0	$8,000	$0	$0	$0	$2,000	$0	$0	**$10,000**
RG1201	$0	$0	$0	$0	$0	$0	$0	$0	$800	$0	$0	$0	$200	$0	$0	**$1,000**
RP1701	$0	$0	$0	$0	$0	$0	$0	$0	$8,000	$0	$0	$0	$2,000	$0	$0	**$10,000**
RP1702	$0	$0	$800	$0	$0	$0	$0	$0	$0	$0	$0	$0	$200	$0	$0	**$1,000**
RP1703-17A3	*$0*	*$0*	*$1,600*	*$0*	*$0*	*$0*	*$0*	*$0*	*$0*	*$0*	*$0*	*$0*	*$400*	*$0*	*$0*	***$2,000***
RP1704-17A3	*$0*	*$0*	*$1,600*	*$0*	*$0*	*$0*	*$0*	*$0*	*$0*	*$0*	*$0*	*$0*	*$400*	*$0*	*$0*	***$2,000***
RP1801-17A2	$772,160	$0	$135,200	$0	$0	$0	$0	$0	$0	$0	$0	$0	$324,600	$0	$0	**$1,231,960**
SP1112	$0	$0	$0	$0	$0	$0	$0	$0	$3,127,200	$166,134	$0	$0	$781,800	$0	$0	**$4,075,134**
SP1204	$0	$0	$0	$0	$0	$0	$0	$0	$745,600	$0	$0	$0	$186,400	$0	$0	**$932,000**
SP1401	$0	$0	$0	$0	$0	$0	$0	$0	$1,600	$0	$0	$0	$400	$0	$0	**$2,000**
SP1405	$0	$0	$0	$0	$0	$0	$0	$0	$1,600	$0	$0	$0	$400	$0	$0	**$2,000**
SP1419	$0	$0	$0	$9,000	$0	$0	$0	$0	$0	$0	$0	$0	$1,000	$0	$0	**$10,000**
SP1701	$0	$0	$0	$0	$0	$0	$0	$0	$315,200	$0	$0	$0	$78,800	$0	$0	**$394,000**
SP1702	$0	$0	$0	$0	$0	$0	$0	$0	$2,944,800	$0	$0	$0	$736,200	$0	$0	**$3,681,000**
SP1704	$0	$0	$0	$0	$0	$0	$0	$0	$23,200	$0	$0	$0	$5,800	$0	$0	**$29,000**
SP1705	$0	$0	$0	$0	$0	$0	$0	$0	$128,000	$0	$0	$0	$32,000	$0	$0	**$160,000**
SP1707	$0	$0	$800	$0	$0	$0	$0	$0	$0	$0	$0	$0	$200	$0	$0	**$1,000**
SP1708	$0	$0	$0	$0	$0	$0	$0	$0	$1,600	$0	$0	$0	$400	$0	$0	**$2,000**
SP1709	$0	$0	$0	$0	$0	$0	$0	$0	$16,000	$0	$0	$0	$4,000	$0	$0	**$20,000**
SP1710	$0	$0	$0	$0	$0	$0	$0	$0	$1,600	$0	$0	$0	$400	$0	$0	**$2,000**
ST1801-17A2	$158,800	$0	$118,800	$0	$0	$0	$0	$0	$0	$0	$39,700	$0	$29,700	$0	$0	**$347,000**
WI1001-17A2	$0	$0	$4,000	$0	$0	$0	$0	$0	$0	$0	$0	$0	$1,000	$0	$0	**$5,000**
WI1301	$0	$0	$800	$0	$0	$0	$0	$0	$0	$0	$0	$0	$200	$0	$0	**$1,000**
WI1701-17AM1	$873,896	$0	$0	$0	$0	$0	$0	$0	$0	$0	$327,354	$0	$0	$0	$0	**$1,201,250**
SUBTOTAL	$4,755,462	$5,392,800	$18,186,060	$9,000	$0	$0	$0	$0	$11,972,314	$166,134	$1,104,705	$0	$8,714,419	$0	$0	$50,300,894

FINANCIAL SUMMARY

Roadways

YEARLY SUMMARY

	Federal										Local	Other	State			
PROJECT	**FHWA (STBG-U)**	**FHWA (SAFETY)**	**FHWA (STP/BG)**	**FHWA (I/M)**	**FHWA (130)**	**FHWA (NHS)**	**FHWA (BRM)**	**FHWA (BRO)**	**FHWA (NHPP)**	**FHWA (HPP)**	**LOCAL**	**OTHER**	**MoDOT**	**MoDOT-GCSA**	**MoDOT-AC**	**TOTAL**
2019																
CC1601	$0	$58,600	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$7,400	$0	$0	**$66,000**
CC1703	$0	$0	$4,000	$0	$0	$0	$0	$0	$0	$0	$0	$0	$1,000	$0	$0	**$5,000**
GR1403	$0	$0	$0	$0	$0	$0	$0	$0	$8,000	$0	$0	$0	$2,000	$0	$0	**$10,000**
GR1701	$0	$0	$80,000	$0	$0	$0	$0	$0	$0	$0	$0	$0	$20,000	$0	$0	**$100,000**
GR1703	$0	$0	$171,200	$0	$0	$0	$0	$0	$0	$0	$0	$0	$42,800	$0	$0	**$214,000**
GR1704	$0	$0	$668,000	$0	$0	$0	$0	$0	$0	$0	$0	$0	$167,000	$0	$0	**$835,000**
GR1705	$0	$0	$275,200	$0	$0	$0	$0	$0	$0	$0	$0	$0	$68,800	$0	$0	**$344,000**
GR1706	$0	$0	$1,800	$0	$0	$0	$0	$0	$0	$0	$0	$0	$200	$0	$0	**$2,000**
MO1105	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$284,000	$0	$0	**$284,000**
MO1705	$0	$0	$1,600	$0	$0	$0	$0	$0	$0	$0	$0	$0	$400	$0	$0	**$2,000**
MO1709	$0	$36,000	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$4,000	$0	$0	**$40,000**
MO1711	$0	$0	$518,400	$0	$0	$0	$0	$0	$0	$0	$0	$0	$129,600	$0	$0	**$648,000**
MO1712	$0	$0	$0	$0	$0	$0	$0	$0	$59,200	$0	$0	$0	$14,800	$0	$0	**$74,000**
MO1714	$0	$0	$0	$0	$0	$0	$0	$0	$1,600	$0	$0	$0	$400	$0	$0	**$2,000**
MO1717	$0	$0	$235,200	$0	$0	$0	$0	$0	$0	$0	$0	$0	$58,800	$0	$0	**$294,000**
MO1719	$0	$0	$0	$0	$0	$0	$0	$0	$38,400	$0	$0	$0	$9,600	$0	$0	**$48,000**
MO1720	$0	$0	$0	$0	$0	$0	$0	$0	$4,000	$0	$0	$0	$1,000	$0	$0	**$5,000**
MO1721	$0	$27,000	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$3,000	$0	$0	**$30,000**
MO1722	$0	$0	$0	$0	$0	$0	$0	$0	$16,800	$0	$0	$0	$4,200	$0	$0	**$21,000**
MO1723	$0	$0	$4,000	$0	$0	$0	$0	$0	$0	$0	$0	$0	$1,000	$0	$0	**$5,000**
NX1701	$0	$0	$0	$0	$0	$0	$0	$0	$5,812,000	$0	$0	$0	$1,453,000	$0	$0	**$7,265,000**
NX1704	$0	$0	$0	$0	$0	$0	$0	$0	$1,600	$0	$0	$0	$400	$0	$0	**$2,000**
NX1705	$0	$0	$0	$0	$0	$0	$0	$0	$3,926,400	$0	$0	$0	$981,600	$0	$0	**$4,908,000**
OK1401-17A2	$1,101,726	$0	$1,110,998	$0	$0	$0	$0	$0	$0	$0	$275,431	$0	$277,749	$0	$0	**$2,765,904**
OK1701	$0	$0	$2,528,800	$0	$0	$0	$0	$0	$0	$0	$0	$0	$632,200	$0	$0	**$3,161,000**
OK1703	$0	$0	$6,104,800	$0	$0	$0	$0	$0	$0	$0	$0	$0	$1,526,200	$0	$0	**$7,631,000**
RG0901	$0	$0	$0	$0	$0	$0	$0	$0	$8,000	$0	$0	$0	$2,000	$0	$0	**$10,000**
RG1201	$0	$0	$0	$0	$0	$0	$0	$0	$800	$0	$0	$0	$200	$0	$0	**$1,000**
RP1701	$0	$0	$0	$0	$0	$0	$0	$0	$8,000	$0	$0	$0	$2,000	$0	$0	**$10,000**
RP1702	$0	$0	$162,400	$0	$0	$0	$0	$0	$0	$0	$0	$0	$40,600	$0	$0	**$203,000**
RP1703-17A3	*$0*	*$0*	*$1,600*	*$0*	*$0*	*$0*	*$0*	*$0*	*$0*	*$0*	*$0*	*$0*	*$400*	*$0*	*$0*	***$2,000***
RP1704-17A3	*$0*	*$0*	*$1,600*	*$0*	*$0*	*$0*	*$0*	*$0*	*$0*	*$0*	*$0*	*$0*	*$400*	*$0*	*$0*	***$2,000***
RP1801-17A2	$0	$0	$391,040	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$391,040**
SP1401	$0	$0	$0	$0	$0	$0	$0	$0	$1,600	$0	$0	$0	$400	$0	$0	**$2,000**
SP1419	$0	$0	$0	$9,000	$0	$0	$0	$0	$0	$0	$0	$0	$1,000	$0	$0	**$10,000**
SP1704	$0	$0	$0	$0	$0	$0	$0	$0	$434,400	$0	$0	$0	$108,600	$0	$0	**$543,000**
SP1705	$0	$0	$0	$0	$0	$0	$0	$0	$8,271,200	$0	$0	$0	$2,067,800	$0	$0	**$10,339,000**
SP1707	$0	$0	$247,200	$0	$0	$0	$0	$0	$0	$0	$0	$0	$61,800	$0	$0	**$309,000**
SP1708	$0	$0	$0	$0	$0	$0	$0	$0	$2,400	$0	$0	$0	$600	$0	$0	**$3,000**
SP1709	$0	$0	$0	$0	$0	$0	$0	$0	$16,000	$0	$0	$0	$4,000	$0	$0	**$20,000**
SP1710	$0	$0	$0	$0	$0	$0	$0	$0	$2,400	$0	$0	$0	$600	$0	$0	**$3,000**
WI1001-17A2	$0	$0	$4,000	$0	$0	$0	$0	$0	$0	$0	$0	$0	$1,000	$0	$0	**$5,000**
WI1301	$0	$0	$800	$0	$0	$0	$0	$0	$0	$0	$0	$0	$200	$0	$0	**$1,000**
SUBTOTAL	$1,101,726	$121,600	$12,512,638	$9,000	$0	$0	$0	$0	$18,612,800	$0	$275,431	$0	$7,982,749	$0	$0	$40,615,944
2020																
CC1703	$0	$0	$4,000	$0	$0	$0	$0	$0	$0	$0	$0	$0	$1,000	$0	$0	**$5,000**
GR1403	$0	$0	$0	$0	$0	$0	$0	$0	$8,000	$0	$0	$0	$2,000	$0	$0	**$10,000**
GR1502	$1,120,000	$0	$0	$0	$0	$0	$0	$0	$0	$0	$280,000	$0	$0	$0	$0	**$1,400,000**
GR1701	$0	$0	$373,600	$0	$0	$0	$0	$0	$0	$0	$0	$0	$93,400	$0	$0	**$467,000**
GR1706	$0	$0	$18,000	$0	$0	$0	$0	$0	$0	$0	$0	$0	$2,000	$0	$0	**$20,000**
MO1105	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$284,000	$0	$0	**$284,000**
MO1705	$0	$0	$163,200	$0	$0	$0	$0	$0	$0	$0	$0	$0	$40,800	$0	$0	**$204,000**
MO1711	$0	$0	$4,468,800	$0	$0	$0	$0	$0	$0	$0	$0	$0	$1,117,200	$0	$0	**$5,586,000**
MO1712	$0	$0	$0	$0	$0	$0	$0	$0	$7,479,200	$0	$0	$0	$1,869,800	$0	$0	**$9,349,000**
MO1714	$0	$0	$0	$0	$0	$0	$0	$0	$33,600	$0	$0	$0	$8,400	$0	$0	**$42,000**
MO1719	$0	$0	$0	$0	$0	$0	$0	$0	$38,400	$0	$0	$0	$9,600	$0	$0	**$48,000**
MO1720	$0	$0	$0	$0	$0	$0	$0	$0	$4,000	$0	$0	$0	$1,000	$0	$0	**$5,000**
MO1721	$0	$27,000	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$3,000	$0	$0	**$30,000**
MO1722	$0	$0	$0	$0	$0	$0	$0	$0	$18,400	$0	$0	$0	$4,600	$0	$0	**$23,000**
MO1723	$0	$0	$3,200	$0	$0	$0	$0	$0	$0	$0	$0	$0	$800	$0	$0	**$4,000**
NX1704	$0	$0	$0	$0	$0	$0	$0	$0	$1,600	$0	$0	$0	$400	$0	$0	**$2,000**
RG0901	$0	$0	$0	$0	$0	$0	$0	$0	$8,000	$0	$0	$0	$2,000	$0	$0	**$10,000**
RG1201	$0	$0	$0	$0	$0	$0	$0	$0	$282,400	$0	$0	$0	$70,600	$0	$0	**$353,000**
RP1701	$0	$0	$0	$0	$0	$0	$0	$0	$8,000	$0	$0	$0	$2,000	$0	$0	**$10,000**
RP1703-17A3	*$0*	*$0*	*$1,600*	*$0*	*$0*	*$0*	*$0*	*$0*	*$0*	*$0*	*$0*	*$0*	*$400*	*$0*	*$0*	***$2,000***
RP1704-17A3	*$0*	*$0*	*$1,600*	*$0*	*$0*	*$0*	*$0*	*$0*	*$0*	*$0*	*$0*	*$0*	*$400*	*$0*	*$0*	***$2,000***
SP1401	$0	$0	$0	$0	$0	$0	$0	$0	$7,000	$0	$0	$0	$0	$0	$0	**$7,000**
SP1419	$0	$0	$0	$9,000	$0	$0	$0	$0	$0	$0	$0	$0	$1,000	$0	$0	**$10,000**
SP1708	$0	$0	$0	$0	$0	$0	$0	$0	$838,400	$0	$0	$0	$209,600	$0	$0	**$1,048,000**
SP1709	$0	$0	$0	$0	$0	$0	$0	$0	$16,000	$0	$0	$0	$4,000	$0	$0	**$20,000**
SP1710	$0	$0	$0	$0	$0	$0	$0	$0	$628,800	$0	$0	$0	$157,200	$0	$0	**$786,000**
WI1001-17A2	$0	$0	$4,000	$0	$0	$0	$0	$0	$0	$0	$0	$0	$1,000	$0	$0	**$5,000**
WI1301	$0	$0	$800	$0	$0	$0	$0	$0	$0	$0	$0	$0	$200	$0	$0	**$1,000**
SUBTOTAL	$1,120,000	$27,000	$5,038,800	$9,000	$0	$0	$0	$0	$9,371,800	$0	$280,000	$0	$3,886,400	$0	$0	$19,733,000
GRAND TOTAL	$14,817,852	$12,414,900	$43,123,186	$3,621,600	$2,250,000	$1,339,200	$1,001,069	$320,000	$54,689,220	$166,134	$4,592,121	$343,000	$28,379,391	$750,000	$0	$167,807,673

FINANCIAL CONSTRAINT

Roadways

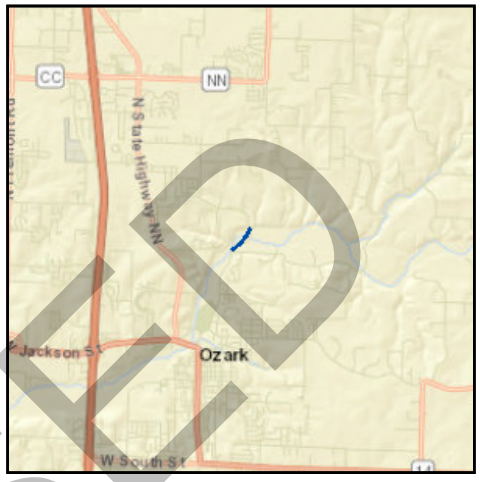
	Federal Funding Source															
	STBG-U	Safety	STP	I/M	130	NHS	BRM	BRO	NHPP	HPP	TOTAL Federal Funds	Local	MoDOT Programmed Funds	Other	State Operations and Maintenance	TOTAL
2017 Funds Programmed	$7,840,664	$6,873,500	$7,385,688	$3,594,600	$2,250,000	$1,339,200	$1,001,069	$320,000	$14,732,306	$0	$45,337,027	$2,931,985	$8,545,823	$343,000	$6,648,603	**$63,806,438**
2018 Funds Programmed	$4,755,462	$5,392,800	$18,186,060	$9,000	$0	$0	$0	$0	$11,972,314	$166,134	$40,481,770	$1,104,705	$8,714,419	$0	$6,715,089	**$57,015,983**
2019 Funds Programmed	$1,101,726	$121,600	$12,512,638	$9,000	$0	$0	$0	$0	$18,612,800	$0	$32,357,764	$275,431	$7,982,749	$0	$6,782,240	**$47,398,184**
2020 Funds Programmed	$1,120,000	$27,000	$5,038,800	$9,000	$0	$0	$0	$0	$9,371,800	$0	$15,566,600	$280,000	$3,886,400	$0	$6,850,063	**$26,583,063**
Total	**$14,817,852**	**$12,414,900**	**$43,123,186**	**$3,621,600**	**$2,250,000**	**$1,339,200**	**$1,001,069**	**$320,000**	**$54,689,220**	**$166,134**	**$133,743,161**	**$4,592,121**	**$29,129,391**	**$343,000**	**$26,995,995**	**$194,803,668**

	Prior Year	FY 2017	FY 2018	FY 2019	FY 2020	TOTAL
Available State and Federal Funding	$0	$34,680,775	$35,872,220	$37,063,664	$37,075,338	**$144,691,997**
Available Operations and Maintenance Funding	$0	$6,648,603	$6,715,089	$6,782,240	$6,850,063	**$26,995,995**
Available Suballocated Funding	$17,300,705	$5,192,459	$5,806,798	$5,922,934	$6,041,392	**$40,264,288**
TOTAL AVAILABLE FUNDING	$17,300,705	$46,521,837	$48,394,107	$49,768,838	$49,966,793	
Prior Year Funding		$17,300,705	$16,104	($8,605,772)	($6,235,118)	
Programmed State and Federal Funding		($63,806,438)	($57,015,983)	($47,398,184)	($26,583,063)	**($194,803,668)**
TOTAL REMAINING	**$17,300,705**	**$16,104**	**($8,605,772)**	**($6,235,118)**	**$17,148,612**	**$17,148,612**

J) Pending Amendment Section

TIP # OK1802-17A5 RIVERSIDE BRIDGE

Route Riverside
From Greenbridge
To Smallin
Location/Agency Christian County
Federal Agency FHWA
Responsible Agency City of Ozark
Federal Funding Category STBG-U
MoDOT Funding Category N/A
AC Year of Conv.
STIP #



Project Description
Construct new Riverside Bridge with new alignment from Greenbridge Road to Smallin Road as a two-lane with bike/ped accommodations.

Fund Code	Source	Phase	FY2017	FY2018	FY2019	FY2020	Total
FEMA	Federal	ENG	$36,339	$39,367	$9,085	$0	$84,791
FHWA (BRO)	Federal	ENG	$35,993	$38,992	$8,998	$0	$83,983
FHWA (STBG-U)	Federal	ENG	$39,232	$42,504	$9,808	$0	$91,544
LOCAL	Local	ENG	$30,651	$33,204	$7,663	$0	$71,518
SEMA	State	ENG	$6,057	$6,561	$1,514	$0	$14,132
FEMA	Federal	UTIL	$0	$3,676	$0	$0	$3,676
FHWA (BRO)	Federal	UTIL	$0	$3,641	$0	$0	$3,641
FHWA (STBG-U)	Federal	UTIL	$0	$3,970	$0	$0	$3,970
LOCAL	Local	UTIL	$0	$3,101	$0	$0	$3,101
SEMA	State	UTIL	$0	$612	$0	$0	$612
FEMA	Federal	ROW	$23,436	$23,436	$0	$0	$46,872
FHWA (BRO)	Federal	ROW	$23,213	$23,213	$0	$0	$46,426
FHWA (STBG-U)	Federal	ROW	$25,302	$25,302	$0	$0	$50,604
LOCAL	Local	ROW	$19,768	$19,768	$0	$0	$39,536
SEMA	State	ROW	$3,906	$3,906	$0	$0	$7,812
FEMA	Federal	CON	$0	$454,240	$151,413	$0	$605,653
FHWA (BRO)	Federal	CON	$0	$449,907	$149,969	$0	$599,876
FHWA (STBG-U)	Federal	CON	$0	$490,412	$163,470	$0	$653,882
LOCAL	Local	CON	$0	$383,134	$127,712	$0	$510,846
SEMA	State	CON	$0	$75,707	$25,236	$0	$100,943
Totals			**$243,897**	**$2,124,653**	**$654,868**	**$0**	**$3,023,418**

Notes
Source of Federal Funds: FEMA and FHWA; $400,000 each Ozark and Christian County STBG-U

Source of Local Funds: Ozark Special Road District and City of Ozark

Prior Cost	$0
Future Cost	$0
Total Cost	$3,023,418

FINANCIAL SUMMARY

Roadways

YEARLY SUMMARY

	Federal										Local	Other	State			
PROJECT	**FHWA (STBG-U)**	**FHWA (SAFETY)**	**FHWA (STP/BG)**	**FHWA (I/M)**	**FHWA (130)**	**FHWA (NHS)**	**FHWA (BRM)**	**FHWA (BRO)**	**FHWA (NHPP)**	**FHWA (HPP)**	**LOCAL**	**OTHER**	**MoDOT**	**MoDOT-GCSA**	**MoDOT-AC**	**TOTAL**
2017																
CC0901	$0	$0	$1,600	$0	$0	$0	$0	$0	$0	$0	$0	$0	$400	$0	$0	**$2,000**
CC1102	$0	$0	$0	$0	$0	$0	$0	$0	$1,600	$0	$0	$0	$400	$0	$0	**$2,000**
CC1601	$0	$900	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$100	$0	$0	**$1,000**
CC1701	$0	$0	$1,600	$0	$0	$0	$0	$0	$0	$0	$0	$0	$400	$0	$0	**$2,000**
CC1702	$0	$0	$4,000	$0	$0	$0	$0	$0	$0	$0	$0	$0	$1,000	$0	$0	**$5,000**
CC1703	$0	$0	$4,000	$0	$0	$0	$0	$0	$0	$0	$0	$0	$1,000	$0	$0	**$5,000**
GR1403	$0	$0	$0	$0	$0	$0	$0	$0	$8,000	$0	$0	$0	$2,000	$0	$0	**$10,000**
GR1501	$1,679,927	$0	$0	$0	$0	$0	$0	$0	$0	$0	$419,982	$0	$0	$0	$0	**$2,099,909**
GR1601	$0	$0	$0	$0	$0	$0	$0	$320,000	$0	$0	$80,000	$0	$0	$0	$0	**$400,000**
GR1602	$0	$0	$0	$0	$0	$0	$0	$0	$342,900	$0	$0	$0	$38,100	$0	$0	**$381,000**
GR1603	$0	$51,300	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$5,700	$0	$0	**$57,000**
GR1701	$0	$0	$8,000	$0	$0	$0	$0	$0	$0	$0	$0	$0	$2,000	$0	$0	**$10,000**
GR1702	$0	$0	$4,000	$0	$0	$0	$0	$0	$0	$0	$0	$0	$91,000	$0	$0	**$95,000**
GR1703	$0	$0	$800	$0	$0	$0	$0	$0	$0	$0	$0	$0	$200	$0	$0	**$1,000**
GR1704	$0	$0	$1,600	$0	$0	$0	$0	$0	$0	$0	$0	$0	$400	$0	$0	**$2,000**
GR1705	$0	$0	$800	$0	$0	$0	$0	$0	$0	$0	$0	$0	$200	$0	$0	**$1,000**
GR1706	$0	$0	$1,800	$0	$0	$0	$0	$0	$0	$0	$0	$0	$200	$0	$0	**$2,000**
MO1105	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$284,000	$0	$0	**$284,000**
MO1505-17A4	$0	$0	$766,400	$0	$0	$0	$0	$0	$0	$0	$0	$0	$191,600	$0	$0	$958,000
MO1608	$0	$35,100	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$3,900	$0	$0	**$39,000**
MO1612	$0	$0	$0	$0	$0	$0	$0	$0	$1,460,800	$0	$0	$0	$365,200	$0	$0	**$1,826,000**
MO1613	$0	$0	$489,600	$0	$0	$0	$0	$0	$0	$0	$0	$0	$122,400	$0	$0	**$612,000**
MO1614	$0	$0	$896,000	$0	$0	$0	$0	$0	$0	$0	$0	$0	$224,000	$0	$0	**$1,120,000**
MO1615	$0	$0	$728,800	$0	$0	$0	$0	$0	$0	$0	$0	$0	$182,200	$0	$0	**$911,000**
MO1616	$0	$0	$0	$0	$0	$0	$0	$0	$201,600	$0	$0	$0	$50,400	$0	$0	**$252,000**
MO1617	$0	$3,082,500	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$342,500	$0	$0	**$3,425,000**
MO1618	$0	$1,792,800	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$199,200	$0	$0	**$1,992,000**
MO1619	$0	$0	$0	$0	$0	$0	$0	$0	$797,600	$0	$0	$0	$199,400	$0	$0	**$997,000**
MO1701	$315,000	$0	$234,400	$0	$0	$0	$0	$0	$0	$0	$78,750	$0	$58,600	$0	$0	**$686,750**
MO1705	$0	$0	$800	$0	$0	$0	$0	$0	$0	$0	$0	$0	$200	$0	$0	**$1,000**
MO1708	$0	$900	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$100	$0	$0	**$1,000**
MO1709	$0	$1,800	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$200	$0	$0	**$2,000**
MO1710-A2	$0	$0	$208,000	$0	$0	$0	$0	$0	$0	$0	$0	$0	$52,000	$0	$0	**$260,000**
MO1711	$0	$0	$8,000	$0	$0	$0	$0	$0	$0	$0	$0	$0	$2,000	$0	$0	**$10,000**
MO1712	$0	$0	$0	$0	$0	$0	$0	$0	$1,600	$0	$0	$0	$400	$0	$0	**$2,000**
MO1713	$0	$1,800	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$200	$0	$0	**$2,000**
MO1714	$0	$0	$0	$0	$0	$0	$0	$0	$1,600	$0	$0	$0	$400	$0	$0	**$2,000**
MO1715	$0	$1,822,700	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$202,300	$0	$0	**$2,025,000**
MO1716	$0	$0	$800	$0	$0	$0	$0	$0	$0	$0	$0	$0	$200	$0	$0	**$1,000**
MO1717	$0	$0	$800	$0	$0	$0	$0	$0	$0	$0	$0	$0	$200	$0	$0	**$1,000**
MO1718	$0	$0	$0	$0	$0	$0	$0	$0	$192,600	$0	$0	$0	$21,400	$0	$0	**$214,000**
MO1719	$0	$0	$0	$0	$0	$0	$0	$0	$38,400	$0	$0	$0	$9,600	$0	$0	**$48,000**
MO1720	$0	$0	$0	$0	$0	$0	$0	$0	$4,000	$0	$0	$0	$1,000	$0	$0	**$5,000**
MO1721	$0	$26,100	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$2,900	$0	$0	**$29,000**
MO1722	$0	$0	$0	$0	$0	$0	$0	$0	$16,800	$0	$0	$0	$4,200	$0	$0	**$21,000**
MO1723	$0	$0	$3,200	$0	$0	$0	$0	$0	$0	$0	$0	$0	$800	$0	$0	**$4,000**
NX1701	$0	$0	$0	$0	$0	$0	$0	$0	$40,000	$0	$0	$0	$10,000	$0	$0	**$50,000**
NX1702	$0	$0	$1,277,600	$0	$0	$0	$0	$0	$0	$0	$0	$0	$319,400	$0	$0	**$1,597,000**
NX1703	$0	$0	$1,600	$0	$0	$0	$0	$0	$0	$0	$0	$0	$400	$0	$0	**$2,000**
NX1704	$0	$0	$0	$0	$0	$0	$0	$0	$1,600	$0	$0	$0	$400	$0	$0	**$2,000**
NX1705	$0	$0	$0	$0	$0	$0	$0	$0	$1,600	$0	$0	$0	$400	$0	$0	**$2,000**
NX1801-17A2	$0	$0	$0	$0	$0	$0	$0	$0	$298,400	$0	$0	$0	$74,600	$0	$0	**$373,000**
OK1401-17A2	$280,000	$0	$149,648	$0	$0	$0	$0	$0	$0	$0	$70,000	$0	$37,412	$0	$0	**$537,060**
OK1701	$0	$0	$16,000	$0	$0	$0	$0	$0	$0	$0	$0	$0	$4,000	$0	$0	**$20,000**
OK1702	$0	$0	$360,000	$0	$0	$0	$0	$0	$0	$0	$0	$0	$90,000	$0	$0	**$450,000**
OK1703	$0	$0	$40,000	$0	$0	$0	$0	$0	$0	$0	$0	$0	$10,000	$0	$0	**$50,000**
OK1801-17A2	$0	$0	$663,480	$0	$0	$0	$0	$0	$0	$0	$0	$0	$165,870	$0	$0	**$829,350**
OK1802-17A5	$64,534	$0	$0	$0	$0	$0	$0	$59,206	$0	$0	$50,419	$69,738	$0	$0	$0	$243,897
RG0901	$0	$0	$0	$0	$0	$0	$0	$0	$8,000	$0	$0	$0	$2,000	$0	$0	**$10,000**
RG1201	$0	$0	$0	$0	$0	$0	$0	$0	$800	$0	$0	$0	$200	$0	$0	**$1,000**
RP1502	$1,702,503	$0	$0	$0	$0	$0	$0	$0	$0	$0	$496,128	$0	$0	$0	$0	**$2,198,631**
RP1701	$0	$0	$0	$0	$0	$0	$0	$0	$8,000	$0	$0	$0	$2,000	$0	$0	**$10,000**
RP1702	$0	$0	$800	$0	$0	$0	$0	$0	$0	$0	$0	$0	$200	$0	$0	**$1,000**
RP1703-17A3	$0	$0	$1,600	$0	$0	$0	$0	$0	$0	$0	$0	$0	$400	$0	$0	**$2,000**
RP1704-17A3	$0	$0	$1,600	$0	$0	$0	$0	$0	$0	$0	$0	$0	$400	$0	$0	**$2,000**
RP1801-17A2	$0	$0	$274,160	$0	$0	$0	$0	$0	$0	$0	$0	$0	$68,540	$0	$0	**$342,700**
SP1106	$706,330	$0	$1,073,600	$0	$0	$0	$0	$0	$0	$0	$572,670	$0	$268,400	$0	$0	**$2,621,000**
SP1109	$391,612	$0	$0	$0	$2,250,000	$0	$0	$0	$3,017,698	$0	$0	$343,000	$754,424	$750,000	$0	**$7,506,734**
SP1112	$0	$0	$0	$0	$0	$0	$0	$0	$133,600	$0	$0	$0	$33,400	$0	$0	**$167,000**
SP1122	$0	$0	$115,000	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$115,000**
SP1204	$0	$0	$0	$0	$0	$0	$0	$0	$24,000	$0	$0	$0	$6,000	$0	$0	**$30,000**
SP1209	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$3,155	$0	$0	$0	$0	**$3,155**
SP1401	$0	$0	$0	$0	$0	$0	$0	$0	$1,600	$0	$0	$0	$400	$0	$0	**$2,000**
SP1405	$0	$0	$0	$0	$0	$0	$0	$0	$1,600	$0	$0	$0	$400	$0	$0	**$2,000**
SP1415	$1,089,292	$0	$0	$0	$0	$0	$0	$0	$1,304,708	$0	$271,823	$0	$326,177	$0	$0	**$2,992,000**
SP1419	$0	$0	$0	$9,000	$0	$0	$0	$0	$0	$0	$0	$0	$1,000	$0	$0	**$10,000**
SP1602	$0	$0	$0	$0	$0	$0	$0	$0	$5,294,400	$0	$0	$0	$1,323,600	$0	$0	**$6,618,000**
SP1604	$0	$57,600	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$6,400	$0	$0	**$64,000**
SP1605-17AM1	$0	$0	$0	$0	$0	$0	$1,001,069	$0	$0	$0	$250,267	$0	$0	$0	$0	**$1,251,336**
SP1701	$0	$0	$0	$0	$0	$0	$0	$0	$1,600	$0	$0	$0	$400	$0	$0	**$2,000**
SP1702	$0	$0	$0	$0	$0	$0	$0	$0	$408,800	$0	$0	$0	$102,200	$0	$0	**$511,000**
SP1703	$0	$0	$0	$0	$0	$0	$0	$0	$380,800	$0	$0	$0	$95,200	$0	$0	**$476,000**
SP1704	$0	$0	$0	$0	$0	$0	$0	$0	$1,600	$0	$0	$0	$400	$0	$0	**$2,000**

FY 2017 continued on next page

FINANCIAL SUMMARY

Roadways

YEARLY SUMMARY

	Federal										Local	Other	State			
PROJECT	**FHWA (STBG-U)**	**FHWA (SAFETY)**	**FHWA (STP/BG)**	**FHWA (I/M)**	**FHWA (130)**	**FHWA (NHS)**	**FHWA (BRM)**	**FHWA (BRO)**	**FHWA (NHPP)**	**FHWA (HPP)**	**LOCAL**	**OTHER**	**MoDOT**	**MoDOT-GCSA**	**MoDOT-AC**	**TOTAL**
2017 Continued																
SP1705	$0	$0	$0	$0	$0	$0	$0	$0	$8,000	$0	$0	$0	$2,000	$0	$0	**$10,000**
SP1706	$0	$0	$0	$3,585,600	$0	$0	$0	$0	$285,600	$0	$0	$0	$967,800	$0	$0	**$4,839,000**
SP1707	$0	$0	$800	$0	$0	$0	$0	$0	$0	$0	$0	$0	$200	$0	$0	**$1,000**
SP1708	$0	$0	$0	$0	$0	$0	$0	$0	$1,600	$0	$0	$0	$400	$0	$0	**$2,000**
SP1709	$0	$0	$0	$0	$0	$0	$0	$0	$16,000	$0	$0	$0	$4,000	$0	$0	**$20,000**
SP1710	$0	$0	$0	$0	$0	$0	$0	$0	$1,600	$0	$0	$0	$400	$0	$0	**$2,000**
SP1711	$0	$0	$0	$0	$0	$0	$0	$0	$423,200	$0	$0	$0	$105,800	$0	$0	**$529,000**
SP1712	$0	$0	$0	$0	$0	$1,339,200	$0	$0	$0	$0	$0	$0	$334,800	$0	$0	**$1,674,000**
SP1713	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$270,210	$0	$0	$0	$0	**$270,210**
SP1714-17A2	$1,600,000	$0	$0	$0	$0	$0	$0	$0	$0	$0	$400,000	$0	$0	$0	$0	**$2,000,000**
ST1801-17A2	$0	$0	$40,000	$0	$0	$0	$0	$0	$0	$0	$0	$0	$10,000	$0	$0	**$50,000**
WI1001-17A2	$0	$0	$4,000	$0	$0	$0	$0	$0	$0	$0	$0	$0	$1,000	$0	$0	**$5,000**
WI1301	$0	$0	$800	$0	$0	$0	$0	$0	$0	$0	$0	$0	$200	$0	$0	**$1,000**
WI1701-17AM1	$76,000	$0	$0	$0	$0	$0	$0	$0	$0	$0	$19,000	$0	$0	$0	$0	**$95,000**
SUBTOTAL	$7,905,198	$6,873,500	$7,385,688	$3,594,600	$2,250,000	$1,339,200	$1,001,069	$379,206	$14,732,306	$0	$2,982,404	$412,738	$7,795,823	$750,000	$0	$57,401,732
2018																
CC0901	$0	$0	$1,600	$0	$0	$0	$0	$0	$0	$0	$0	$0	$400	$0	$0	**$2,000**
CC1102	$0	$0	$0	$0	$0	$0	$0	$0	$1,600	$0	$0	$0	$400	$0	$0	**$2,000**
CC1601	$0	$900	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$100	$0	$0	**$1,000**
CC1701	$0	$0	$417,600	$0	$0	$0	$0	$0	$0	$0	$0	$0	$104,400	$0	$0	**$522,000**
CC1702	$0	$0	$660,000	$0	$0	$0	$0	$0	$0	$0	$0	$0	$165,000	$0	$0	**$825,000**
CC1703	$0	$0	$4,000	$0	$0	$0	$0	$0	$0	$0	$0	$0	$1,000	$0	$0	**$5,000**
GR1403	$0	$0	$0	$0	$0	$0	$0	$0	$8,000	$0	$0	$0	$2,000	$0	$0	**$10,000**
GR1701	$0	$0	$8,000	$0	$0	$0	$0	$0	$0	$0	$0	$0	$2,000	$0	$0	**$10,000**
GR1703	$0	$0	$1,600	$0	$0	$0	$0	$0	$0	$0	$0	$0	$400	$0	$0	**$2,000**
GR1704	$0	$0	$2,400	$0	$0	$0	$0	$0	$0	$0	$0	$0	$600	$0	$0	**$3,000**
GR1705	$0	$0	$800	$0	$0	$0	$0	$0	$0	$0	$0	$0	$200	$0	$0	**$1,000**
GR1706	$0	$0	$1,800	$0	$0	$0	$0	$0	$0	$0	$0	$0	$200	$0	$0	**$2,000**
MO1105	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$284,000	$0	$0	**$284,000**
MO1505-17A4	$0	$0	$617,300	$0	$0	$0	$0	$0	$0	$0	$0	$0	$154,400	$0	$0	$771,700
MO1616	$0	$0	$0	$0	$0	$0	$0	$0	$2,467,200	$0	$0	$0	$616,800	$0	$0	**$3,084,000**
MO1705	$0	$0	$800	$0	$0	$0	$0	$0	$0	$0	$0	$0	$200	$0	$0	**$1,000**
MO1708	$0	$35,100	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$3,900	$0	$0	**$39,000**
MO1709	$0	$1,800	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$200	$0	$0	**$2,000**
MO1710	$0	$0	$4,305,600	$0	$0	$0	$0	$0	$0	$0	$0	$0	$1,076,400	$0	$0	**$5,382,000**
MO1711	$0	$0	$8,000	$0	$0	$0	$0	$0	$0	$0	$0	$0	$2,000	$0	$0	**$10,000**
MO1712	$0	$0	$0	$0	$0	$0	$0	$0	$1,600	$0	$0	$0	$400	$0	$0	**$2,000**
MO1713	$0	$5,328,000	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$592,000	$0	$0	**$5,920,000**
MO1714	$0	$0	$0	$0	$0	$0	$0	$0	$1,600	$0	$0	$0	$400	$0	$0	**$2,000**
MO1716	$331,000	$0	$235,200	$0	$0	$0	$0	$0	$0	$0	$82,750	$0	$58,800	$0	$0	**$707,750**
MO1717	$0	$0	$800	$0	$0	$0	$0	$0	$0	$0	$0	$0	$200	$0	$0	**$1,000**
MO1719	$0	$0	$0	$0	$0	$0	$0	$0	$38,400	$0	$0	$0	$9,600	$0	$0	**$48,000**
MO1720	$0	$0	$0	$0	$0	$0	$0	$0	$4,000	$0	$0	$0	$1,000	$0	$0	**$5,000**
MO1721	$0	$27,000	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$3,000	$0	$0	**$30,000**
MO1722	$0	$0	$0	$0	$0	$0	$0	$0	$16,800	$0	$0	$0	$4,200	$0	$0	**$21,000**
MO1723	$0	$0	$3,200	$0	$0	$0	$0	$0	$0	$0	$0	$0	$800	$0	$0	**$4,000**
NX1701	$0	$0	$0	$0	$0	$0	$0	$0	$1,424,000	$0	$0	$0	$356,000	$0	$0	**$1,780,000**
NX1702	$0	$0	$4,727,200	$0	$0	$0	$0	$0	$0	$0	$0	$0	$1,181,800	$0	$0	**$5,909,000**
NX1703	$0	$0	$235,200	$0	$0	$0	$0	$0	$0	$0	$0	$0	$58,800	$0	$0	**$294,000**
NX1704	$0	$0	$0	$0	$0	$0	$0	$0	$1,600	$0	$0	$0	$400	$0	$0	**$2,000**
NX1705	$0	$0	$0	$0	$0	$0	$0	$0	$32,000	$0	$0	$0	$8,000	$0	$0	**$40,000**
NX1801-17A2	$902,886	$0	$0	$0	$0	$0	$0	$0	$652,314	$0	$225,721	$0	$163,079	$0	$0	**$1,944,000**
OK1401-17A2	$0	$0	$110,400	$0	$0	$0	$0	$0	$0	$0	$0	$0	$27,600	$0	$0	**$138,000**
OK1701	$0	$0	$201,600	$0	$0	$0	$0	$0	$0	$0	$0	$0	$50,400	$0	$0	**$252,000**
OK1702	$0	$0	$4,983,200	$0	$0	$0	$0	$0	$0	$0	$0	$0	$1,245,800	$0	$0	**$6,229,000**
OK1703	$0	$0	$340,800	$0	$0	$0	$0	$0	$0	$0	$0	$0	$85,200	$0	$0	**$426,000**
OK1801-17A2	$1,716,720	$0	$1,055,360	$0	$0	$0	$0	$0	$0	$0	$429,180	$0	$263,840	$0	$0	**$3,465,100**
OK1802-17A5	$562,188	$0	$0	$0	$0	$0	$0	$515,753	$0	$0	$439,207	$607,505	$0	$0	$0	$2,124,653
RG0901	$0	$0	$0	$0	$0	$0	$0	$0	$8,000	$0	$0	$0	$2,000	$0	$0	**$10,000**
RG1201	$0	$0	$0	$0	$0	$0	$0	$0	$800	$0	$0	$0	$200	$0	$0	**$1,000**
RP1701	$0	$0	$0	$0	$0	$0	$0	$0	$8,000	$0	$0	$0	$2,000	$0	$0	**$10,000**
RP1702	$0	$0	$800	$0	$0	$0	$0	$0	$0	$0	$0	$0	$200	$0	$0	**$1,000**
RP1703-17A3	$0	$0	$1,600	$0	$0	$0	$0	$0	$0	$0	$0	$0	$400	$0	$0	**$2,000**
RP1704-17A3	$0	$0	$1,600	$0	$0	$0	$0	$0	$0	$0	$0	$0	$400	$0	$0	**$2,000**
RP1801-17A2	$772,160	$0	$135,200	$0	$0	$0	$0	$0	$0	$0	$0	$0	$324,600	$0	$0	**$1,231,960**
SP1112	$0	$0	$0	$0	$0	$0	$0	$0	$3,127,200	$166,134	$0	$0	$781,800	$0	$0	**$4,075,134**
SP1204	$0	$0	$0	$0	$0	$0	$0	$0	$745,600	$0	$0	$0	$186,400	$0	$0	**$932,000**
SP1401	$0	$0	$0	$0	$0	$0	$0	$0	$1,600	$0	$0	$0	$400	$0	$0	**$2,000**
SP1405	$0	$0	$0	$0	$0	$0	$0	$0	$1,600	$0	$0	$0	$400	$0	$0	**$2,000**
SP1419	$0	$0	$0	$9,000	$0	$0	$0	$0	$0	$0	$0	$0	$1,000	$0	$0	**$10,000**
SP1701	$0	$0	$0	$0	$0	$0	$0	$0	$315,200	$0	$0	$0	$78,800	$0	$0	**$394,000**
SP1702	$0	$0	$0	$0	$0	$0	$0	$0	$2,944,800	$0	$0	$0	$736,200	$0	$0	**$3,681,000**
SP1704	$0	$0	$0	$0	$0	$0	$0	$0	$23,200	$0	$0	$0	$5,800	$0	$0	**$29,000**
SP1705	$0	$0	$0	$0	$0	$0	$0	$0	$128,000	$0	$0	$0	$32,000	$0	$0	**$160,000**
SP1707	$0	$0	$800	$0	$0	$0	$0	$0	$0	$0	$0	$0	$200	$0	$0	**$1,000**
SP1708	$0	$0	$0	$0	$0	$0	$0	$0	$1,600	$0	$0	$0	$400	$0	$0	**$2,000**
SP1709	$0	$0	$0	$0	$0	$0	$0	$0	$16,000	$0	$0	$0	$4,000	$0	$0	**$20,000**
SP1710	$0	$0	$0	$0	$0	$0	$0	$0	$1,600	$0	$0	$0	$400	$0	$0	**$2,000**
ST1801-17A2	$158,800	$0	$118,800	$0	$0	$0	$0	$0	$0	$0	$39,700	$0	$29,700	$0	$0	**$347,000**
WI1001-17A2	$0	$0	$4,000	$0	$0	$0	$0	$0	$0	$0	$0	$0	$1,000	$0	$0	**$5,000**
WI1301	$0	$0	$800	$0	$0	$0	$0	$0	$0	$0	$0	$0	$200	$0	$0	**$1,000**
WI1701-17AM1	$873,896	$0	$0	$0	$0	$0	$0	$0	$0	$0	$327,354	$0	$0	$0	$0	**$1,201,250**
SUBTOTAL	$5,317,650	$5,392,800	$18,186,060	$9,000	$0	$0	$0	$515,753	$11,972,314	$166,134	$1,543,912	$607,505	$8,714,419	$0	$0	$52,425,547

FINANCIAL SUMMARY

Roadways

YEARLY SUMMARY

	Federal										Local	Other	State			
PROJECT	**FHWA (STBG-U)**	**FHWA (SAFETY)**	**FHWA (STP/BG)**	**FHWA (I/M)**	**FHWA (130)**	**FHWA (NHS)**	**FHWA (BRM)**	**FHWA (BRO)**	**FHWA (NHPP)**	**FHWA (HPP)**	**LOCAL**	**OTHER**	**MoDOT**	**MoDOT-GCSA**	**MoDOT-AC**	**TOTAL**
2019																
CC1601	$0	$58,600	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$7,400	$0	$0	**$66,000**
CC1703	$0	$0	$4,000	$0	$0	$0	$0	$0	$0	$0	$0	$0	$1,000	$0	$0	**$5,000**
GR1403	$0	$0	$0	$0	$0	$0	$0	$0	$8,000	$0	$0	$0	$2,000	$0	$0	**$10,000**
GR1701	$0	$0	$80,000	$0	$0	$0	$0	$0	$0	$0	$0	$0	$20,000	$0	$0	**$100,000**
GR1703	$0	$0	$171,200	$0	$0	$0	$0	$0	$0	$0	$0	$0	$42,800	$0	$0	**$214,000**
GR1704	$0	$0	$668,000	$0	$0	$0	$0	$0	$0	$0	$0	$0	$167,000	$0	$0	**$835,000**
GR1705	$0	$0	$275,200	$0	$0	$0	$0	$0	$0	$0	$0	$0	$68,800	$0	$0	**$344,000**
GR1706	$0	$0	$1,800	$0	$0	$0	$0	$0	$0	$0	$0	$0	$200	$0	$0	**$2,000**
MO1105	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$284,000	$0	$0	**$284,000**
MO1705	$0	$0	$1,600	$0	$0	$0	$0	$0	$0	$0	$0	$0	$400	$0	$0	**$2,000**
MO1709	$0	$36,000	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$4,000	$0	$0	**$40,000**
MO1711	$0	$0	$518,400	$0	$0	$0	$0	$0	$0	$0	$0	$0	$129,600	$0	$0	**$648,000**
MO1712	$0	$0	$0	$0	$0	$0	$0	$0	$59,200	$0	$0	$0	$14,800	$0	$0	**$74,000**
MO1714	$0	$0	$0	$0	$0	$0	$0	$0	$1,600	$0	$0	$0	$400	$0	$0	**$2,000**
MO1717	$0	$0	$235,200	$0	$0	$0	$0	$0	$0	$0	$0	$0	$58,800	$0	$0	**$294,000**
MO1719	$0	$0	$0	$0	$0	$0	$0	$0	$38,400	$0	$0	$0	$9,600	$0	$0	**$48,000**
MO1720	$0	$0	$0	$0	$0	$0	$0	$0	$4,000	$0	$0	$0	$1,000	$0	$0	**$5,000**
MO1721	$0	$27,000	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$3,000	$0	$0	**$30,000**
MO1722	$0	$0	$0	$0	$0	$0	$0	$0	$16,800	$0	$0	$0	$4,200	$0	$0	**$21,000**
MO1723	$0	$0	$4,000	$0	$0	$0	$0	$0	$0	$0	$0	$0	$1,000	$0	$0	**$5,000**
NX1701	$0	$0	$0	$0	$0	$0	$0	$0	$5,812,000	$0	$0	$0	$1,453,000	$0	$0	**$7,265,000**
NX1704	$0	$0	$0	$0	$0	$0	$0	$0	$1,600	$0	$0	$0	$400	$0	$0	**$2,000**
NX1705	$0	$0	$0	$0	$0	$0	$0	$0	$3,926,400	$0	$0	$0	$981,600	$0	$0	**$4,908,000**
OK1401-17A2	$1,101,726	$0	$1,110,998	$0	$0	$0	$0	$0	$0	$0	$275,431	$0	$277,749	$0	$0	**$2,765,904**
OK1701	$0	$0	$2,528,800	$0	$0	$0	$0	$0	$0	$0	$0	$0	$632,200	$0	$0	**$3,161,000**
OK1703	$0	$0	$6,104,800	$0	$0	$0	$0	$0	$0	$0	$0	$0	$1,526,200	$0	$0	**$7,631,000**
OK1802-17A5	**$173,278**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$158,967**	**$0**	**$0**	**$135,375**	**$187,248**	**$0**	**$0**	**$0**	**$654,868**
RG0901	$0	$0	$0	$0	$0	$0	$0	$0	$8,000	$0	$0	$0	$2,000	$0	$0	**$10,000**
RG1201	$0	$0	$0	$0	$0	$0	$0	$0	$800	$0	$0	$0	$200	$0	$0	**$1,000**
RP1701	$0	$0	$0	$0	$0	$0	$0	$0	$8,000	$0	$0	$0	$2,000	$0	$0	**$10,000**
RP1702	$0	$0	$162,400	$0	$0	$0	$0	$0	$0	$0	$0	$0	$40,600	$0	$0	**$203,000**
RP1703-17A3	$0	$0	$1,600	$0	$0	$0	$0	$0	$0	$0	$0	$0	$400	$0	$0	**$2,000**
RP1704-17A3	$0	$0	$1,600	$0	$0	$0	$0	$0	$0	$0	$0	$0	$400	$0	$0	**$2,000**
RP1801-17A2	$0	$0	$391,040	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$391,040**
SP1401	$0	$0	$0	$0	$0	$0	$0	$0	$1,600	$0	$0	$0	$400	$0	$0	**$2,000**
SP1419	$0	$0	$0	$9,000	$0	$0	$0	$0	$0	$0	$0	$0	$1,000	$0	$0	**$10,000**
SP1704	$0	$0	$0	$0	$0	$0	$0	$0	$434,400	$0	$0	$0	$108,600	$0	$0	**$543,000**
SP1705	$0	$0	$0	$0	$0	$0	$0	$0	$8,271,200	$0	$0	$0	$2,067,800	$0	$0	**$10,339,000**
SP1707	$0	$0	$247,200	$0	$0	$0	$0	$0	$0	$0	$0	$0	$61,800	$0	$0	**$309,000**
SP1708	$0	$0	$0	$0	$0	$0	$0	$0	$2,400	$0	$0	$0	$600	$0	$0	**$3,000**
SP1709	$0	$0	$0	$0	$0	$0	$0	$0	$16,000	$0	$0	$0	$4,000	$0	$0	**$20,000**
SP1710	$0	$0	$0	$0	$0	$0	$0	$0	$2,400	$0	$0	$0	$600	$0	$0	**$3,000**
WI1001-17A2	$0	$0	$4,000	$0	$0	$0	$0	$0	$0	$0	$0	$0	$1,000	$0	$0	**$5,000**
WI1301	$0	$0	$800	$0	$0	$0	$0	$0	$0	$0	$0	$0	$200	$0	$0	**$1,000**
SUBTOTAL	$1,275,004	$121,600	$12,512,638	$9,000	$0	$0	$0	$158,967	$18,612,800	$0	$410,806	$187,248	$7,982,749	$0	$0	$41,270,812
2020																
CC1703	$0	$0	$4,000	$0	$0	$0	$0	$0	$0	$0	$0	$0	$1,000	$0	$0	**$5,000**
GR1403	$0	$0	$0	$0	$0	$0	$0	$0	$8,000	$0	$0	$0	$2,000	$0	$0	**$10,000**
GR1502	$1,120,000	$0	$0	$0	$0	$0	$0	$0	$0	$0	$280,000	$0	$0	$0	$0	**$1,400,000**
GR1701	$0	$0	$373,600	$0	$0	$0	$0	$0	$0	$0	$0	$0	$93,400	$0	$0	**$467,000**
GR1706	$0	$0	$18,000	$0	$0	$0	$0	$0	$0	$0	$0	$0	$2,000	$0	$0	**$20,000**
MO1105	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$284,000	$0	$0	**$284,000**
MO1705	$0	$0	$163,200	$0	$0	$0	$0	$0	$0	$0	$0	$0	$40,800	$0	$0	**$204,000**
MO1711	$0	$0	$4,468,800	$0	$0	$0	$0	$0	$0	$0	$0	$0	$1,117,200	$0	$0	**$5,586,000**
MO1712	$0	$0	$0	$0	$0	$0	$0	$0	$7,479,200	$0	$0	$0	$1,869,800	$0	$0	**$9,349,000**
MO1714	$0	$0	$0	$0	$0	$0	$0	$0	$33,600	$0	$0	$0	$8,400	$0	$0	**$42,000**
MO1719	$0	$0	$0	$0	$0	$0	$0	$0	$38,400	$0	$0	$0	$9,600	$0	$0	**$48,000**
MO1720	$0	$0	$0	$0	$0	$0	$0	$0	$4,000	$0	$0	$0	$1,000	$0	$0	**$5,000**
MO1721	$0	$27,000	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$3,000	$0	$0	**$30,000**
MO1722	$0	$0	$0	$0	$0	$0	$0	$0	$18,400	$0	$0	$0	$4,600	$0	$0	**$23,000**
MO1723	$0	$0	$3,200	$0	$0	$0	$0	$0	$0	$0	$0	$0	$800	$0	$0	**$4,000**
NX1704	$0	$0	$0	$0	$0	$0	$0	$0	$1,600	$0	$0	$0	$400	$0	$0	**$2,000**
RG0901	$0	$0	$0	$0	$0	$0	$0	$0	$8,000	$0	$0	$0	$2,000	$0	$0	**$10,000**
RG1201	$0	$0	$0	$0	$0	$0	$0	$0	$282,400	$0	$0	$0	$70,600	$0	$0	**$353,000**
RP1701	$0	$0	$0	$0	$0	$0	$0	$0	$8,000	$0	$0	$0	$2,000	$0	$0	**$10,000**
RP1703-17A3	$0	$0	$1,600	$0	$0	$0	$0	$0	$0	$0	$0	$0	$400	$0	$0	**$2,000**
RP1704-17A3	$0	$0	$1,600	$0	$0	$0	$0	$0	$0	$0	$0	$0	$400	$0	$0	**$2,000**
SP1401	$0	$0	$0	$0	$0	$0	$0	$0	$7,000	$0	$0	$0	$0	$0	$0	**$7,000**
SP1419	$0	$0	$0	$9,000	$0	$0	$0	$0	$0	$0	$0	$0	$1,000	$0	$0	**$10,000**
SP1708	$0	$0	$0	$0	$0	$0	$0	$0	$838,400	$0	$0	$0	$209,600	$0	$0	**$1,048,000**
SP1709	$0	$0	$0	$0	$0	$0	$0	$0	$16,000	$0	$0	$0	$4,000	$0	$0	**$20,000**
SP1710	$0	$0	$0	$0	$0	$0	$0	$0	$628,800	$0	$0	$0	$157,200	$0	$0	**$786,000**
WI1001-17A2	$0	$0	$4,000	$0	$0	$0	$0	$0	$0	$0	$0	$0	$1,000	$0	$0	**$5,000**
WI1301	$0	$0	$800	$0	$0	$0	$0	$0	$0	$0	$0	$0	$200	$0	$0	**$1,000**
SUBTOTAL	$1,120,000	$27,000	$5,038,800	$9,000	$0	$0	$0	$0	$9,371,800	$0	$280,000	$0	$3,886,400	$0	$0	$19,733,000
GRAND TOTAL	$15,617,852	$12,414,900	$43,123,186	$3,621,600	$2,250,000	$1,339,200	$1,001,069	$1,053,926	$54,689,220	$166,134	$5,217,122	$1,207,491	$28,379,391	$750,000	$0	$170,831,091

FINANCIAL CONSTRAINT

Roadways

	Federal Funding Source															
	STBG-U	Safety	STP	I/M	130	NHS	BRM	BRO	NHPP	HPP	TOTAL Federal Funds	Local	MoDOT Programmed Funds	Other	State Operations and Maintenance	TOTAL
2017 Funds Programmed	$7,905,198	$6,873,500	$7,385,688	$3,594,600	$2,250,000	$1,339,200	$1,001,069	$379,206	$14,732,306	$0	$45,460,767	$2,982,404	$8,545,823	$412,738	$6,648,603	**$64,050,335**
2018 Funds Programmed	$5,317,650	$5,392,800	$18,186,060	$9,000	$0	$0	$0	$515,753	$11,972,314	$166,134	$41,559,711	$1,543,912	$8,714,419	$607,505	$6,715,089	**$59,140,636**
2019 Funds Programmed	$1,275,004	$121,600	$12,512,638	$9,000	$0	$0	$0	$158,967	$18,612,800	$0	$32,690,009	$410,806	$7,982,749	$187,248	$6,782,240	**$48,053,052**
2020 Funds Programmed	$1,120,000	$27,000	$5,038,800	$9,000	$0	$0	$0	$0	$9,371,800	$0	$15,566,600	$280,000	$3,886,400	$0	$6,850,063	**$26,583,063**
Total	**$15,617,852**	**$ 12,414,900**	**$43,123,186**	**$ 3,621,600**	**$ 2,250,000**	**$ 1,339,200**	**$1,001,069**	**$ 1,053,926**	**$54,689,220**	**$166,134**	**$135,277,087**	**$5,217,122**	**$ 29,129,391**	**$1,207,491**	**$ 26,995,995**	**$197,827,086**

	Prior Year	FY 2017	FY 2018	FY 2019	FY 2020	TOTAL
Available State and Federal Funding	$0	$43,641,000	$38,872,220	$37,063,664	$37,075,338	**$156,652,222**
Available Operations and Maintenance Funding	$0	$6,648,603	$6,715,089	$6,782,240	$6,850,063	**$26,995,995**
Funds from Other Sources	$0	$3,300,000	$864,492	$0	$0	**$4,164,492**
Available Suballocated Funding	$17,300,705	$5,192,459	$5,806,798	$5,922,934	$6,041,392	**$40,264,288**
TOTAL AVAILABLE FUNDING	$17,300,705	$58,782,062	$52,258,599	$49,768,838	$49,966,793	**$228,076,997**
Prior Year Funding		$17,300,705	$12,032,432	$5,150,395	$6,866,181	**--**
Programmed State and Federal Funding		($64,050,335)	($59,140,636)	($48,053,052)	($26,583,063)	**($197,827,086)**
TOTAL REMAINING	**$17,300,705**	**$12,032,432**	**$5,150,395**	**$6,866,181**	**$30,249,911**	**$30,249,911**

Funds from Other Sources for FY 2017 include one-time Federal and State Rail money for the Chestnut Railroad Overpass.
Funds from Other Sources for FYs 2017-2019 include one-time FEMA and SEMA grant money for the Riverside Bridge.

J) Pending Amendment Section

TIP # CU1808-17A5 TRANSIT BUS STOP ADA IMPROVEMENTS

Route
From
To
Location/Agency Federal City Utilities
Agency Responsible FTA
Agency Federal Funding City Utilities
Category MoDOT Funding 5310
Category AC Year of Conv. N/A
STIP #

Project Description
Partnership with City of Springfield for a project on Division between Kansas Expressway and West Avenue to construct ADA accessible sidewalks and associated stormwater and roadway improvements on the south side of the street, providing accessibility to bus passengers and pedestrians.

Fund Code	Source	Phase	FY2017	FY2018	FY2019	FY2020	Total
FTA (5310)	Federal	CAPITAL	$0	$106,243	$108,496	$110,796	$325,535
LOCAL	Local	CAPITAL	$0	$26,560	$27,124	$27,699	$81,383
Totals			**$0**	**$132,803**	**$135,620**	**$138,495**	**$406,918**

Notes
Source of Federal Funds: FTA Section 5310 Funding
Source of Non-Federal Funds: City of Springfield and City Utilities Transit

Prior Cost	$0
Future Cost	$0
Total Cost	$406,918

J) Pending Amendment Section

TIP # MO1506-17A5 FTA 5310 HUMAN AGENCY CAPITAL PURCHASES

Route
From
To
Location/Agency Federal Area Wide
Agency Responsible FTA
Agency Federal Funding MoDOT
Category MoDOT Funding 5310
Category AC Year of Conv. N/A
STIP #

OZARKS TRANSPORTATION ORGANIZATION
A METROPOLITAN PLANNING ORGANIZATION

Transit Project

Project Description
Enhanced Mobility of Seniors and Individuals with Disabilities 5310 Program Capital Purchases for Human Service Agencies.

Fund Code	Source	Phase	FY2017	FY2018	FY2019	FY2020	Total
FTA (5310)	Federal	CAPITAL	$370,544	$0	$0	$0	$370,544
LOCAL	Local	CAPITAL	$92,636	$0	$0	$0	$92,636
Totals			**$463,180**	**$0**	**$0**	**$0**	**$463,180**

Notes
Minimum 55% allocation of FY 2013, FY 2014, and FY 2015 FTA 5310 funding for Human Service Agencies. Source of Local Funding: Human Service Agency applicants.

Prior Cost	$0
Future Cost	$0
Total Cost	$463,180

F) Transit Section

TIP # MO1506 FTA 5310 HUMAN AGENCY CAPITAL PURCHASES

Route
From
To
Location/Agency Area Wide
Federal Agency FTA
Responsible Agency MoDOT
Federal Funding Category 5310
MoDOT Funding Category N/A
AC Year of Conv.
STIP #

Project Description
Enhanced Mobility of Seniors and Individuals with Disabilities 5310 Program Capital Purchases for Human Service Agencies.

Fund Code	Source	Phase	FY2017	FY2018	FY2019	FY2020	Total
FTA (5310)	Federal	CAPITAL	$419,470	$0	$0	$0	$419,470
LOCAL	Local	CAPITAL	$104,867	$0	$0	$0	$104,867
Totals			**$524,337**	**$0**	**$0**	**$0**	**$524,337**

Notes
Minimum 55% allocation of FY 2013 and FY 2014 FTA 5310 funding for Human Service Agencies. Source of Local Funding: Human Service Agency applicants.

Prior Cost	$0
Future Cost	$0
Total Cost	$524,337

J) Pending Amendment Section

TIP # MO1702-17A5 5310-ARC OF THE OZARKS II

Route

From

To

Location/Agency Federal Area Wide

Agency Responsible FTA

Agency Federal Funding MoDOT-Arc of the Ozarks

Category MoDOT Funding 5310

Category AC Year of Conv. N/A

STIP #

OZARKS TRANSPORTATION ORGANIZATION
A METROPOLITAN PLANNING ORGANIZATION

Transit Project

Project Description
Two (2) HH-Wide Body Cutaways used for the transportation needs in the Springfield area.

Fund Code	Source	Phase	FY2017	FY2018	FY2019	FY2020	Total
FTA (5310)	Federal	CAPITAL	$43,490	$43,490	$0	$0	$86,980
LOCAL	Local	CAPITAL	$10,873	$10,873	$0	$0	$21,746
Totals			**$54,363**	**$54,363**	**$0**	**$0**	**$108,726**

Notes
Source of Federal Funds: Traditional FTA Section 5310 Funding
Source of Non-Federal Funds: Arc of the Ozarks

Prior Cost	$0
Future Cost	$0
Total Cost	$108,726

J) Pending Amendment Section

TIP # MO1703-17A45 5310-OZARK SENIOR CENTER

Route

From

To

Location/Agency Federal Area Wide

Agency Responsible FTA

Agency Federal Funding MoDOT-Ozark Senior Center

Category MoDOT Funding 5310

Category AC Year of Conv. N/A

STIP #

Project Description

One (1) BBB-Lowered Floor Van for transportation services provided by the Ozark Senior Center

Fund Code	Source	Phase	FY2017	FY2018	FY2019	FY2020	Total
FTA (5310)	Federal	CAPITAL	$29,786	$0	$0	$0	$29,786
LOCAL	Local	CAPITAL	$7,447	$0	$0	$0	$7,447
Totals			**$37,233**	**$0**	**$0**	**$0**	**$37,233**

Notes

Source of Federal Funds: Traditional FTA Section 5310 Funding
Source of Non-Federal Funds: Ozark Senior Center

Prior Cost	$0
Future Cost	$0
Total Cost	$37,233

J) Pending Amendment Section

TIP # MO1704-17A5 5310-OATS II

Route

From

To

Location/Agency Federal Area Wide

Agency Responsible FTA

Agency Federal Funding MoDOT-OATS, Inc

Category MoDOT Funding 5310

Category AC Year of Conv. N/A

STIP #

Project Description

One (1) High Roof Long Conversion vehicle in 2017 and two (2) II-Wide Body Cutaways in 2018 to provide service for the Christian County SB40 Board, the local county board for developmentally disabled adults, providing transportation to the sheltered workshop and other related programs and services funded by the Board.

Fund Code	Source	Phase	FY2017	FY2018	FY2019	FY2020	Total
FTA (5310)	Federal	CAPITAL	$50,426	$92,182	$0	$0	$142,608
LOCAL	Local	CAPITAL	$12,607	$23,046	$0	$0	$35,653
Totals			**$63,033**	**$115,228**	**$0**	**$0**	**$178,261**

Notes

Source of Federal Funds: Traditional FTA Section 5310 Funding
Source of Non-Federal Funds: OATS, Inc.

Prior Cost	$0
Future Cost	$0
Total Cost	$178,261

J) Pending Amendment Section

TIP # MO1729-17A5 5310-TRADITIONAL PROJECTS RESERVE

Route
From
To
Location/Agency Federal Area Wide
Agency Responsible FTA
Agency Federal Funding MoDOT
Category MoDOT Funding 5310
Category AC Year of Conv. N/A
STIP #

OZARKS TRANSPORTATION ORGANIZATION
A METROPOLITAN PLANNING ORGANIZATION

Transit Project

Project Description
Remaining funding to be awarded for the 55 percent traditional 5310 project category for FYs 2018-2020

Fund Code	Source	Phase	FY2017	FY2018	FY2019	FY2020	Total
FTA (5310)	Federal	CAPITAL	$0	$14,586	$153,444	$156,697	$324,727
LOCAL	Local	CAPITAL	$0	$3,647	$38,361	$39,174	$81,182
Totals			**$0**	**$18,233**	**$191,805**	**$195,871**	**$405,909**

Notes
Source of Federal Funds: Traditional FTA Section 5310 Funding
Source of Non-Federal Funds: Provided upon award of funding

FYI: Administered by MoDOT

Prior Cost	$0
Future Cost	$0
Total Cost	$405,909

F) Transit Section

TIP # MO1729 5310-TRADITIONAL PROJECTS RESERVE

Route

From

To

Location/Agency Area Wide

Federal Agency FTA

Responsible Agency MoDOT

Federal Funding Category 5310

MoDOT Funding Category N/A

AC Year of Conv.

STIP #

OZARKS TRANSPORTATION ORGANIZATION
A METROPOLITAN PLANNING ORGANIZATION

Transit Project

Project Description
Remaining funding to be awarded for the 55 percent traditional 5310 project category

Fund Code	Source	Phase	FY2017	FY2018	FY2019	FY2020	Total
FTA (5310)	Federal	CAPITAL	$136,783	$0	$0	$0	$136,783
LOCAL	Local	CAPITAL	$34,196	$0	$0	$0	$34,196
Totals			**$170,979**	**$0**	**$0**	**$0**	**$170,979**

Notes
Source of Federal Funds: Traditional FTA Section 5310 Funding
Source of Non-Federal Funds: Provided upon award of funding

FYI: Administered by MoDOT

Prior Cost	$0
Future Cost	$0
Total Cost	$170,979

J) Pending Amendment Section

TIP # MO1802-17A5 MODOT 5310 ADMINISTRATION 2018

Route
From
To
Location/Agency Federal Area Wide
Agency Responsible FTA
Agency Federal Funding MoDOT
Category MoDOT Funding 5310
Category AC Year of Conv. N/A
STIP #

OZARKS TRANSPORTATION ORGANIZATION
A METROPOLITAN PLANNING ORGANIZATION

Transit Project

Project Description
MoDOT Administration portion of FY 2018 FTA 5310 funding.

Fund Code	Source	Phase	FY2017	FY2018	FY2019	FY2020	Total
FTA (5310)	Federal	ADMIN	$0	$16,695	$0	$0	$16,695
Totals			**$0**	**$16,695**	**$0**	**$0**	**$16,695**

Notes
Source of Federal Funds: Traditional FTA Section 5310 Funding
Source of Non-Federal Funds: No local match required

FYI: Administered by MoDOT

Prior Cost	$0
Future Cost	$0
Total Cost	$16,695

J) Pending Amendment Section

TIP # MO1901-17A5 5310-MODOT ADMIN
Route
From
To
Location/Agency Federal Area Wide
Agency Responsible FTA
Agency Federal Funding MoDOT
Category MoDOT Funding 5310
Category AC Year of Conv. N/A
STIP #

OZARKS TRANSPORTATION ORGANIZATION
A METROPOLITAN PLANNING ORGANIZATION
Transit Project

Project Description
Remaining MoDOT Administration portion of FY 2018 through FY 2020 FTA 5310 funding.

Fund Code	Source	Phase	FY2017	FY2018	FY2019	FY2020	Total
FTA (5310)	Federal	ADMIN	$0	$0	$17,049	$17,410	$34,459
Totals			**$0**	**$0**	**$17,049**	**$17,410**	**$34,459**

Notes
Source of Federal Funds: Traditional FTA Section 5310 Funding
Source of Non-Federal Funds: No local match required

FYI: Administered by MoDOT

Prior Cost	$0
Future Cost	$0
Total Cost	$34,459

FINANCIAL SUMMARY

Transit

YEARLY SUMMARY

	Federal			Local	State	
PROJECT	**FTA (5307)**	**FTA (5310)**	**FTA (5339)**	**LOCAL**	**MoDOT**	**TOTAL**
2017						
CU1514	$0	$51,880	$0	$12,970	$0	**$64,850**
CU1700	$1,700,000	$0	$0	$1,750,000	$50,000	**$3,500,000**
CU1701	$447,792	$0	$0	$111,948	$0	**$559,740**
CU1702	$255,000	$0	$0	$64,826	$0	**$319,826**
CU1704	$160,000	$0	$0	$40,000	$0	**$200,000**
CU1705	$25,930	$0	$0	$6,482	$0	**$32,412**
CU1707	$0	$206,076	$0	$51,519	$0	**$257,595**
CU1709-A2	$0	$0	$416,000	$104,000	$0	**$520,000**
CU1711-17A1	$0	$0	$3,870,960	$967,740	$0	**$4,838,700**
MO1506-17A5	**$0**	**$370,544**	**$0**	**$92,636**	**$0**	**$463,180**
MO1507	$0	$46,608	$0	$0	$0	**$46,608**
MO1702-17A5	**$0**	**$43,490**	**$0**	**$10,873**	**$0**	**$54,363**
MO1703-17A5	**$0**	**$29,786**	**$0**	**$7,447**	**$0**	**$37,233**
MO1704-17A5	**$0**	**$50,426**	**$0**	**$12,607**	**$0**	**$63,033**
MO1724	$0	$41,643	$0	$10,411	$0	**$52,054**
MO1725	$0	$26,392	$0	$6,598	$0	**$32,990**
MO1726-17A1	$0	$104,000	$0	$26,000	$0	**$130,000**
MO1727	$0	$61,572	$0	$15,394	$0	**$76,966**
MO1728	$0	$32,383	$0	$0	$0	**$32,383**
~~MO1729~~	~~$0~~	~~$136,783~~	~~$0~~	~~$34,196~~	~~$0~~	~~**$170,979**~~
SUBTOTAL	$2,588,722	$1,064,800	$4,286,960	$3,291,451	$50,000	$11,281,933

FINANCIAL SUMMARY

Transit

YEARLY SUMMARY

	Federal			Local	State	
PROJECT	**FTA (5307)**	**FTA (5310)**	**FTA (5339)**	**LOCAL**	**MoDOT**	**TOTAL**
2018						
CU1800-17A2	$1,588,487	$0	$0	$1,588,487	$50,000	**$3,226,974**
CU1801-17A2	$900,142	$0	$0	$225,035	$0	**$1,125,177**
CU1804-17A2	$132,374	$0	$0	$33,093	$0	**$165,467**
CU1805-17A2	$26,475	$0	$0	$6,619	$0	**$33,094**
CU1808-17A5	**$0**	**$106,243**	**$0**	**$26,560**	**$0**	**$132,803**
MO1702-17A5	**$0**	**$43,490**	**$0**	**$10,873**	**$0**	**$54,363**
MO1704-17A5	**$0**	**$92,182**	**$0**	**$23,046**	**$0**	**$115,228**
MO1729-17A5	**$0**	**$14,586**	**$0**	**$3,647**	**$0**	**$18,233**
MO1802-17A5	**$0**	**$16,695**	**$0**	**$0**	**$0**	**$16,695**
SUBTOTAL	$2,647,478	$273,196	$0	$1,917,360	$50,000	$4,888,034
2019						
CU1808-17A5	**$0**	**$108,496**	**$0**	**$27,124**	**$0**	**$135,620**
CU1900-17A2	$1,622,136	$0	$0	$1,622,163	$50,000	**$3,294,299**
CU1901-17A2	$919,226	$0	$0	$229,806	$0	**$1,149,032**
CU1904-17A2	$135,180	$0	$0	$33,795	$0	**$168,975**
CU1905-17A2	$27,036	$0	$0	$6,759	$0	**$33,795**
MO1729-17A5	**$0**	**$153,444**	**$0**	**$38,361**	**$0**	**$191,805**
MO1901-17A5	**$0**	**$17,049**	**$0**	**$0**	**$0**	**$17,049**
SUBTOTAL	$2,703,578	$278,989	$0	$1,958,008	$50,000	$4,990,575

FINANCIAL SUMMARY

Transit

YEARLY SUMMARY

	Federal			Local	State	
PROJECT	**FTA (5307)**	**FTA (5310)**	**FTA (5339)**	**LOCAL**	**MoDOT**	**TOTAL**
2020						
CU1808-17A5	**$0**	**$110,796**	**$0**	**$27,699**	**$0**	**$138,495**
CU2000-17A2	$1,656,553	$0	$0	$1,656,553	$50,000	**$3,363,106**
CU2001-17A2	$425,000	$0	$0	$938,713	$0	**$1,363,713**
CU2004-17A2	$138,046	$0	$0	$34,511	$0	**$172,557**
CU2005-17A2	$27,609	$0	$0	$6,903	$0	**$34,512**
MO1729-17A5	**$0**	**$156,697**	**$0**	**$39,174**	**$0**	**$195,871**
MO1901-17A5	**$0**	**$17,410**	**$0**	**$0**	**$0**	**$17,410**
SUBTOTAL	$2,247,208	$284,903	$0	$2,703,553	$50,000	$5,285,664
GRAND TOTAL	$10,186,986	$1,901,888	$4,286,960	$9,870,372	$200,000	$26,446,206

FINANCIAL CONSTRAINT

Transit

	Federal Funding Source					
	5307	5310	5339	Local	MoDOT	TOTAL
FY 2017 (Including Carryover)						
Funds Anticipated	$ 2,588,722	$ 1,064,800	$ 4,286,960	$ 3,291,451	$ 50,000	**$11,281,933**
Funds Programmed	($2,588,722)	($1,064,800)	($4,286,960)	($3,291,451)	($50,000)	**($11,281,933)**
Running Balance	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**
FY 2018						
Funds Anticipated	$ 2,647,478	$ 273,196	$ 252,962	$ 1,917,360	$ 50,000	**$5,140,996**
Funds Programmed	($2,647,478)	($273,196)	$ -	($1,917,360)	($50,000)	**($4,888,034)**
Running Balance	**$0**	**$0**	**$252,962**	**$0**	**$0**	**$252,962**
FY 2019						
Funds Anticipated	$ 2,703,605	$ 278,989	$ 259,691	$ 1,958,008	$ 50,000	**$5,250,293**
Funds Programmed	($2,247,208)	($278,989)	$ -	($1,958,008)	($50,000)	**($4,534,205)**
Running Balance	**$456,397**	**$0**	**$512,653**	**$0**	**$0**	**$969,049**
FY 2020						
Funds Anticipated	$ 2,760,921	$ 284,903	$ 266,564	$ 2,703,553	$ 50,000	**$6,065,941**
Funds Programmed	($2,247,208)	($284,903)	$ -	($2,703,553)	($50,000)	**($5,285,664)**
Running Balance	**$970,110**	**$0**	**$779,217**	**$0**	**$0**	**$1,749,327**

EXPLANATION OF FISCAL CONSTRAINT

REVENUE SOURCES

In order to determine the adequacy of funding for projects that will be undertaken within the four-year Transportation Improvement Program period, the Ozarks Transportation Organization relies upon the expertise of the Federal Highway Administration, Federal Transit Administration, Missouri Department of Transportation, and the OTO member jurisdictions.

On December 4, 2015, President Obama signed into law the Fixing America's Surface Transportation (FAST) Act, which authorizes the federal surface transportation program for highways, highway safety, transit, freight, ports and rail for the five-year period from 2016 through 2020. According to the MoDOT Statewide Transportation Improvement Program, it is estimated that the FAST Act will provide 2.9 percent or $27 million more in federal funds to Missouri, annually. The passage of the Fast Act allows MoDOT to have a more stable funding outlook than what has been the case for the previous few years.

STATE

MoDOT combines Federal Highway and Transit Administrations funding estimates with state transportation revenue projections to estimate funding for transportation improvements and includes them in the Statewide Transportation Improvement Program (STIP). OTO uses these projections in determining fiscal constraint.

MoDOT has continued to cost-effectively maintain a safe and efficient transportation system, improving the condition of Missouri's roads and bridges over the past decade. These improvements, however, have been funded with temporary funding sources, such as Amendment 3 bonding and the American Recovery and Reinvestment Act. With the conclusion of these programs, MoDOT's construction budget significantly declined between 2011 and 2015.

About 65 percent of every dollar MoDOT receives comes from fuel taxes, however the fuel tax has not changed since 1996 and vehicles continue to become more efficient, while the cost of concrete has tripled, steel prices have doubled, and asphalt costs more than twice what it did 20 years ago. This means that a 1996 purchasing power of 17 cents is the equivalent of 8 cents today. Through this, MoDOT has operated efficiently, keeping operating expenses flat. In the past 10 years, MoDOT has completed 4,560 projects, $12.8 billion, at 6 percent under budget. Even with significant savings undertaken since 2011, MoDOT's 2017-2021 STIP is primarily maintenance focused. Currently, annual contractor awards average approximately $800 million, down from $1.2 million, with nearly 88 percent aimed at taking care of the system, up from 50 percent. At the same time, revenue projections are up and MoDOT now assumes matching federal funds, bringing more revenue to the state than previously assumed.

The table below indicates the total amount of federal and state funding that MoDOT has projected as available for the OTO area in the 2017-2021 STIP. This table does not include OTO sub-allocated federal funding, such as STBG-Urban or Transportation Alternatives. Transit funding includes all formula funding distributed to the Springfield, MO area for FTA Sections 5307, 5310, and 5339 funding. MoDOT experienced awards savings of $8.5 million going from FY 2016 to FY 2017, which increased the amount of funding available for FY 2017.

Table G.1	2017	2018	2019	2020
Roadway Funding	$43,641,000	$38,872,220	$37,063,664	$37,075,338
Transit Funding	$3,114,802	$3,211,136	$3,365,008	$3,431,717

Funding for the Missouri Department of Transportation consists of both federal and state revenue, as well as proceeds received from the sale of bonds.

The largest source of transportation revenue for MoDOT is from the federal government and 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 tire, truck, and trailer sales, as well as heavy vehicle use. These highway user fees are deposited in the federal Highway Trust Fund and distributed to the states based on formulae prescribed by federal law through transportation funding acts. This revenue source also includes multi-modal and highway safety grants. Approximately 41 percent of Missouri'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. These tax revenues provide approximately 26 percent of transportation revenues. In July 2013, the state legislature eliminated the state motor vehicle use tax and replaced it with the state motor vehicle sales tax, which directs a greater portion to local government agencies.

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 taxes provide approximately 17 percent of transportation revenues. In November 2004, Missouri 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 has slowed.

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 multi-modal programs. These fees provide approximately 13 percent of transportation revenues MoDOT's transportation revenue. Similar to the 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 2 percent of transportation revenues. Cash balances in all funds for roads and bridges are declining. The cash balance of all funds for roads and bridges is expected to decline from $758 million at the beginning of fiscal year 2017 to approximately $215 million by the end of fiscal year 2021. 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 MoDOT's transportation revenue. This funding is appropriated by the Missouri General Assembly for multi-modal programs.

The TIP financial element is consistent with the OTO Long Range Transportation Plan, *Transportation Plan 2040*.

FEDERAL-STATEWIDE

MoDOT receives federal funding that can be spent within the OTO region. A statewide funding distribution formula, which uses population numbers, distributes this funding around the state.

National Highway Performance Program

The NHPP provides support for the condition and performance of the National Highway System (NHS), for construction of new facilities on the NHS, and to ensure that investments of Federal-aid funds in highway construction are directed to support progress toward the achievement of performance targets established in a State's asset management plan for the NHS.

Statewide Surface Transportation Block Grant Program

A long standing funding program, the Surface Transportation Block Grant Program is one of the most flexible funding sources available among Federal-aid highway funding programs. STBG promotes flexibility in state and local transportation decisions and provides flexible funding to best address state and local transportation needs. Missouri's required set-aside for pedestrian and bicycle activities has traditionally gone toward the implementation of the State ADA Transition Plan.

Highway Safety Improvement Program

The Highway Safety Improvement Program requires a data-driven, strategic approach to improving highway safety on all public roads that focuses on performance, achieving a significant reduction in traffic fatalities and serious injuries on all public roads.

Open Container Transfer Provision

The Open Container Transfer Provision requires states to enact and enforce a law that prohibits the possession of any open alcohol beverage container, or the consumption of any alcoholic beverage, in the passenger area of any motor vehicle located on a public highway, or the right-of-way of a public highway, in the states. States, like Missouri, which fail to comply with these minimum requirements have a portion of their highway funds transferred into the State and Community Highway Safety Grant Program. This money may further be transferred into the State's Highway Safety Improvement Program.

FEDERAL– REGIONAL SUBALLOCATED

The Ozarks Transportation Organization is responsible for selecting projects within three federal revenue categories. This means that OTO is responsible for project selection, programming, reasonable progress, and the maintenance of fund balances for STP-Urban, On-System Bridge (BRM), and Transportation Alternative Program funding categories. These fund balances are shown below.

OTO has been receiving sub-allocated funding since 2003. The funds which have accumulated "except for Transit" since then are referred to as "Carryover Balance" below. OTO has elected to maintain a healthy reserve of sub-allocated STP-Urban funding in order to be able to fund larger regionally significant projects, hence the larger carryover balance shown.

Table G.2 STBG-Urban/Small Urban	
Carryover Balance through FY2016	$15,739,262
Anticipated Allocation FY2017	$5,692,939
Anticipated Allocation FY2018	$5,806,798
Anticipated Allocation FY2019	$5,922,934
Anticipated Allocation FY2020	$6,041,392
Programmed through FY2020	($16,638,332)
Estimated Carryover Balance Through FY 2020	**$22,564,993**

Table G.3 On-System Bridge (BRM)	
Carryover Balance through FY2016	$963,132
Actual Allocation FY2017	$0
Actual Allocation FY2018	$0
Anticipated Allocation FY2019	$0
Anticipated Allocation FY2020	$0
Programmed through FY2020	($944,968)
Estimated Carryover Balance Through FY 2020	**$18,164**

Table G.4 Transportation Alternatives Program	
Carryover Balance through FY2016	$715,391
Anticipated Allocation FY2017	$405,085
Anticipated Allocation FY2018	$413,187
Anticipated Allocation FY2019	$421,450
Anticipated Allocation FY2020	$429,879
Programmed through FY2020	($901,955)
Estimated Carryover Balance Through FY 2020	**$1,511,748**

STP-Urban

STP-Urban funding is a subcategory of the Surface Transportation Program consisting of funding that is directly suballocated to metropolitan planning areas with urbanized area populations over 200,000. The federal share for this funding is generally 80 percent, with some specific exceptions for certain Interstate and Safety projects. A variety of activities are eligible under this funding category provided the funding is spent on roads federally functionally classified as collector or higher, excepting bridges not on federal-aid highways and carpool, biking, pedestrian walkway improvements and other transportation alternatives also not on federal-aid highways.

Small-Urban

The Small-Urban program is a subset of statewide STP funding, which is allocated to jurisdictions whose urbanized cluster or area population is greater than 5,000, but smaller than 200,000. The Missouri and Highways Commission has discontinued this program. The final allocation has been made for state fiscal year 2016, though balances will be available through September 30, 2019.

Bridge Rehabilitation and Maintenance

This program funds the replacement or rehabilitation of deficient bridges located on roads federally functionally classified as urban collectors, rural major collectors, and arterials. The Missouri and Highways Commission has discontinued this program. The final allocation has been made for state fiscal year 2016, though balances will be available through September 30, 2019.

STBG-Set Aside (formerly TAP)

The STBG-Set Aside program encompasses all previously eligible projects under the former Transportation Alternatives Program. It encompasses Enhancements, Recreational Trails, and Safe Routes to School. Throughout OTO planning documents, this funding is still referred to as TAP funding.

LOCAL

Most of the transportation revenue for local agencies is received through sales taxes. Many communities have a sales tax dedicated to transportation. In an effort to demonstrate that the local jurisdictions, as well as the airport

and transit agencies within the OTO boundary, are able to fund the projects programmed in the TIP, in addition to maintaining the federal aid system, the following revenue estimates are included. OTO is not using any inflation in these revenue projections as the sources are fuel taxes, sales taxes, and property taxes, rather, the projections are adjusted each year with the revised TIP. Local jurisdictions can choose to fund projects and maintenance from a wide array of funding sources which are also described herein.

PROJECTED REVENUES

Table G.5 Motor Fuel Taxes, Vehicle Sales and Use Taxes, and Vehicle Fee Projections

	2017	2018	2019	2020	TOTAL
Christian	$1,469,998	$1,469,998	$1,469,998	$1,469,998	**$5,879,992**
Greene	$3,589,907	$3,589,907	$3,589,907	$3,589,907	**$14,359,628**
Battlefield	$216,483	$216,483	$216,483	$216,483	**$865,932**
Nixa	$736,662	$736,662	$736,662	$736,662	**$2,946,648**
Ozark	$690,112	$690,112	$690,112	$690,112	**$2,760,448**
Republic	$571,259	$571,259	$571,259	$571,259	**$2,285,036**
Springfield	$6,176,852	$6,176,852	$6,176,852	$6,176,852	**$24,707,408**
Strafford	$91,318	$91,318	$91,318	$91,318	**$365,272**
Willard	$204,787	$204,787	$204,787	$204,787	**$819,148**
TOTAL	**$13,747,378**	**$13,747,378**	**$13,747,378**	**$13,747,378**	**$54,989,512**

Table G.6 Local Tax Revenue Projections

	2017	2018	2019	2020	TOTAL
Christian County two 1/2-cent	$200,000	$200,000	$200,000	$200,000	**$800,000**
Greene County Sales Tax	$13,253,800	$13,253,800	$13,253,800	$13,253,800	**$53,015,200**
Greene County Property Tax	$5,155,550	$5,155,550	$5,155,550	$5,155,550	**$20,622,200**
City of Nixa 1/2-cent	$1,325,000	$1,325,000	$1,325,000	$1,325,000	**$5,300,000**
City of Republic 1/2-cent	$964,890	$964,890	$964,890	$964,890	**$3,859,560**
City of Springfield 1/8-cent	$4,887,500	$4,887,500	$4,887,500	$4,887,500	**$19,550,000**
City of Springfield 1/4-cent	$9,775,500	$9,775,500	$9,775,500	$9,775,500	**$39,102,000**
City of Willard 1/2-cent	$250,000	$250,000	$250,000	$250,000	**$1,000,000**
TOTAL	**$35,812,240**	**$35,812,240**	**$35,812,240**	**$35,812,240**	**$143,248,960**

Table G.7 Projected Greene County Road and Bridge Fund Distribution

	2017	2018	2019	2020	TOTAL
Battlefield	$32,240	$32,240	$32,240	$32,240	**$128,960**
Republic	$101,920	$101,920	$101,920	$101,920	**$407,680**
Springfield	$1,684,139	$1,684,139	$1,684,139	$1,684,139	**$6,736,554**
Strafford	$16,120	$16,120	$16,120	$16,120	**$64,480**
Willard	$28,500	$28,500	$28,500	$28,500	**$114,000**
TOTAL	**$1,862,919**	**$1,862,919**	**$1,862,919**	**$1,862,919**	**$7,451,674**

Sales Tax

The Cities of Nixa, Republic, and Springfield all have voter-approved transportation sales taxes. Nixa has a 1/2-cent transportation sales tax, Republic's tax is 1/4-cent, and Springfield's tax is 1/8-cent. Other jurisdictions do not have a transportation sales tax in place but could elect to enact one. Springfield also has a 1/4-cent capital improvements tax, a portion of which goes toward transportation improvements. Willard recently approved a 1/2-cent capital improvements tax which may also be used on transportation projects within the City. Christian and

Greene Counties both have sales taxes that can be used for transportation as well. Greene County levies a 1/2-cent sales tax, half of which is dedicated to the road and bridge fund. Christian County levies two 1/2-cent sales taxes, one of which goes to the County for County road operations and projects, and the remaining is distributed to road projects throughout the County based on need.

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, transit funds, and 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. Based on the competitive nature of securing Corporation funding, this funding mechanism is not included in the Feasible Funding Sources section.

Neighborhood Improvement District (or Community Improvement District)

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.

Charges for Services

Charges for curb cuts and other transportation-related services generate $400,000. These funds are included in the Feasible Funding Sources section.

The City of Republic levies a fee for street lights which nets about $105,550 per year.

Railroad and Public Utility Tax

The Railroad and Public Utility Tax is paid by railroads and public utilities to Greene County, generating $106,800 for the road and bridge fund.

County Funding Sources

The majority of funding for Greene County projects which appear in the TIP is sourced from STP and BRO funding, while local matching funds are derived from state revenue first, then local revenues.

Property Tax

Greene County levies eight cents per $100 assessed valuation for both real and personal property for the road and bridge fund. Real property tax revenue for the road and bridge fund in 2015 is estimated to be $4,534,400 while personal property tax for 2015 is estimated to be $939,500.

PROJECT COST ESTIMATING

Revenue estimates for federal and state funding were taken directly from MoDOT. More information can be found in the 2017-2021 STIP. Revenue estimates for local funding were not inflated based on the recent lack of growth in sales tax, property tax, and motor fuel taxes.

INFLATION

Each project has inflation built in at a rate of three percent per year. This baseline inflation rate was utilized based on recommendations from MoDOT, who incorporates this three percent inflation rate into the STIP. According to the United States Department of Labor's Bureau of Labor Statistics, the average annual inflation rate over the past 20 years is currently 2.54 percent, but in recent years has been just over 3 percent.

ADVANCE CONSTRUCTION

MoDOT uses a federal funding tool called advance construction to maximize the receipt of federal funds and provide greater flexibility/efficiency in matching federal-aid categories to individual projects. Advance Construction (AC) is an innovative finance funding technique, which allows states to initiate a project using non-federal funds, while preserving eligibility for future federal-aid. Eligibility means the Federal Highway Administration (FHWA) has determined the project qualifies for federal-aid; however, no present or future federal-aid is committed to the project. States may convert the project to regular federal-aid provided federal-aid is available for the project. AC does not provide additional federal funding, but simply changes the timing of receipts by allowing states to construct projects with state or local money and then later seek federal-aid reimbursement.

MoDOT began using AC in 1992 and will continue to use it in future years. MoDOT utilizes AC for National Highway Performance Program (NHPP) and Surface Transportation System (STP) projects or when sufficient obligation limitation is not available. State funds pay for new AC project expenditures until federal-aid is available. The oldest projects are converted first, if possible, to maximize federal-aid reimbursement.

Previous TIPs specifically identified which projects would use AC, however, current practice is to show the actual federal funding category to be used on each project. A few outstanding projects still show MoDOT-AC, though they will be phased out in future TIPs.

OPERATIONS AND MAINTENANCE

ROADWAYS

MODOT

Maintenance costs include MoDOT's salaries, fringe benefits, materials and equipment needed to deliver the roadway and bridge maintenance programs. This category includes basic maintenance activities like minor surface treatments such as: sealing, small concrete repairs and pothole patching; mowing right of way; snow removal; replacing signs; striping; repairing guardrail; and repairing traffic signals. Performing these activities requires employees; vehicles and other machinery; facilities to house equipment and materials such as salt, asphalt and fuel. Maintenance Operations expenditures are projected to increase one percent annually. In fiscal year 2017, MoDOT is budgeting for $467,168,000 in maintenance expenditures that would grow to $481,323,658 at the end

of fiscal year 2020. Fleet investments, capital improvements and information systems investments are projected to remain constant through 2020, at this time.

This would make MoDOT's cost $6,682 per lane mile.

Calculations are $516,985,000/ 77,366** lane miles of roadway.

*Source: Fiscal Year 2017 Budget Request
** Source: Official 2015 State System Mileage

Assumptions (dollars in thousands)	
Maintenance Operations*	$467,168
Fleet Investments*	$22,617
Capital Improvements Investments*	$7,200
IS Investments*	$20,000
Total	**$516,985**

LOCAL JURISDICTIONS

Each jurisdiction has provided the annual maintenance costs for roadways per lane mile. These costs were then divided into the total number of lane miles and multiplied by the federal-aid highway miles. A one-percent inflation factor was used for these costs.

Table G.8	Number of Lane Miles on Federal-Aid System	Cost per Mile	FY 2017	FY 2018	FY 2019	FY 2020
State System						
MoDOT	**995.002**	**$6,682**	**$6,648,603.36**	**$6,715,089**	**$6,782,240**	**$6,850,063**
Non-State System						
Battlefield	5.86	$469	$2,748	$2,776	$2,804	$2,832
Nixa	9.39	$2,530	$23,757	$23,994	$24,234	$24,477
Ozark	7.119	$8,500	$60,512	$61,117	$61,728	$62,345
Republic	28.942	$5,885	$170,324	$172,027	$173,747	$175,485
Springfield	395.113	$6,172	$2,438,637	$2,463,024	$2,487,654	$2,512,531
Strafford	1.382	$1,626	$2,247	$2,270	$2,292	$2,315
Willard	5.089	$1,626	$8,275	$8,357	$8,441	$8,525
Christian County	38.657	$1,022	$39,507	$39,903	$40,302	$40,705
Greene County	94.013	$1,057	$99,372	$100,365	$101,369	$102,383
TOTAL	585.565		$2,845,379	$2,873,832	$2,902,571	$2,931,597

REVENUE

An explanation of revenue sources that provide for the operation and maintenance of the transportation system as well as the capital improvements to the transportation system may be found in the preceding pages under explanation of fiscal constraint.

The following table highlights the ability of OTO jurisdictions to deliver local projects as shown in the project pages.

Table G.9 Revenue	FY 2017	FY 2018	FY 2019	FY 2020
City of Battlefield				
Total Available Revenue	$248,723.00	$248,723.00	$248,723.00	$248,723.00
Estimated Operations and Maintenance Expenditures	($2,748.34)	($2,775.82)	($2,803.58)	($2,831.62)
Estimated TIP Project Expenditures	($125,119.00)	$0.00	$0.00	$0.00
Amount Available for Local Projects	$120,855.66	$245,947.18	$245,919.42	$245,891.38
City of Nixa				
Total Available Revenue (prior reserves included)	$2,061,662.00	$2,061,662.00	$2,061,662.00	$2,061,662.00
Estimated Operations and Maintenance Expenditures	($23,756.70)	($23,994.27)	($24,234.21)	($24,476.55)
Estimated TIP Project Expenditures	$0.00	($225,721.00)	$0.00	$0.00
Amount Available for Local Projects	$2,037,905.30	$1,811,946.73	$2,037,427.79	$2,037,185.45
City of Ozark				
Total Available Revenue	$690,112.00	$690,112.00	$690,112.00	$690,112.00
Carryover Balance from Prior Year	--	$445,727.50	$206,335.88	$974,776.10
Estimated Operations and Maintenance Expenditures	($60,511.50)	($61,116.62)	($61,727.78)	($62,345.06)
Estimated TIP Project Expenditures	($183,873.00)	($868,387.00)	$140,056.00	$0.00
Amount Available for Local Projects	$445,727.50	206,335.88	$974,776.10	$1,602,543.04
City of Republic				
Total Available Revenue	$1,743,619.00	$1,743,619.00	$1,743,619.00	$1,743,619.00
Estimated Operations and Maintenance Expenditures	($170,323.67)	($172,026.91)	($173,747.18)	($175,484.65)
Estimated TIP Project Expenditures	($626,170.00)	$0.00	$0.00	$0.00
Amount Available for Local Projects	$947,125.33	$1,571,592.09	$1,569,871.82	$1,568,134.35
City of Springfield				
Total Available Revenue	$22,523,990.56	$22,523,990.56	$22,523,990.56	$22,523,990.56
Estimated Operations and Maintenance Expenditures	($2,438,637.44)	($2,463,023.81)	($2,487,654.05)	($2,512,530.59)
Estimated TIP Project Expenditures	($2,025,875.00)	($82,750.00)	$0.00	$0.00
Amount Available for Local Projects	$18,059,478.12	$19,978,216.75	$20,036,336.51	$20,011,459.97

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Table G.9 Revenue	FY 2017	FY 2018	FY 2019	FY 2020
City of Strafford				
Total Available Revenue	$107,438.00	$107,438.00	$107,438.00	$107,438.00
Estimated Operations and Maintenance Expenditures	($2,247.13)	($2,269.60)	($2,292.30)	($2,315.22)
Estimated TIP Project Expenditures	$0.00	($39,700.00)	$0.00	$0.00
Amount Available for Local Projects	$105,190.87	$65,468.40	$105,145.70	$105,122.78
City of Willard				
Total Available Revenue	$483,287.00	$939,299.29	$483,287.00	$483,287.00
Estimated Operations and Maintenance Expenditures	($8,274.71)	($8,357.46)	($8,441.04)	($8,525.45)
Estimated TIP Project Expenditures	($19,000.00)	($327,354.00)	$0.00	$0.00
Amount Available for Local Projects	$456,012.29	$603,587.54	$474,845.96	$474,761.55
Christian County				
Total Available Revenue	$1,669,998.00	$1,669,998.00	$1,669,998.00	$1,669,998.00
Estimated Operations and Maintenance Expenditures	($39,507.45)	($39,902.53)	($40,301.55)	($40,704.57)
Estimated TIP Project Expenditures	$0.00	$0.00	$0.00	$0.00
Amount Available for Local Projects	$1,630,490.55	$1,630,095.47	$1,629,696.45	$1,629,293.43
Greene County				
Total Available Revenue	$21,999,257.00	$21,999,257.00	$21,999,257.00	$21,999,257.00
Estimated Operations and Maintenance Expenditures	($99,371.74)	($100,365.46)	($101,369.11)	($102,382.80)
Estimated TIP Project Expenditures	($499,982.00)	$0.00	$0.00	($280,000.00)
Amount Available for Local Projects	$21,399,903.26	$21,898,891.54	$21,897,887.89	$21,616,874.20

TRANSIT

Transit operations and maintenance include the costs to operate the bus system and to maintain buses, shelters, and other capital equipment. Funding is currently provided by federal, state, and local sources. FTA Section 5307 funds provide partial funding for operations and maintenance. Legislation allows for the continuation of partial Section 5307 funding for the operations of transit systems for population areas exceeding 200,000. Therefore, OTO is continuing to fund the operations of the City Utilities bus system with Section 5307 funds. Inflation rates are three percent over the timeline of the TIP.

Table G.10 Estimated Transit System Operations and Maintenance Costs	FY 2017	FY 2018	FY 2019	FY 2020
Total System Operations	$8,649,948	$8,916,529	$9,039,980	$9,251,399
Total System Maintenance	$1,958,191	$2,017,811	$1,934,299	$1,932,549
TOTAL	**$10,608,139**	**$10,934,340**	**$10,974,279**	**$11,183,948**

Table G.11 Estimated Revenue for Fixed Route Transit System Operations and Maintenance	FY 2017	FY 2018	FY 2019	FY 2020
MO HealthNet Contract	$31,000	$31,000	$31,000	$31,000
State Operating Funding	$30,000	$30,000	$30,000	$30,000
FTA Federal Funding	$2,940,399	$3,031,340	$3,122,279	$3,215,948
Local (CU Utility Revenue/Farebox/Ads)	$7,606,740	$7,842,000	$7,791,000	$7,907,000
TOTAL	**$10,608,139**	**$10,934,340**	**$10,974,279**	**$11,183,948**

The City Utility Revenue is a subsidy that offsets the difference between available revenue generated by the other four available funding sources and the estimated annual cost to operate the transit system.

In September 2016, the Federal Transit Administration announced it had awarded Section 5339 funding to City Utilities for eleven buses and workforce development. The TIP was amended by the Board of Directors in October 2016 (approved by U.S. DOT 12/19/2016) to incorporate this new funding. A new funding table, showing capital costs, has been added below, also clarifying the 5310 funding available for City Utilities and local human service agencies. Through financial submissions, human service agencies are required to demonstrate the ability to match requested funds at the time of application.

Table G.12 Estimated Transit Capital	FY 2017	FY 2018	FY 2019	FY 2020
FTA Federal Funding (5310 and 5339)	$5,334,776	$526,159	$538,680	$551,467
Local (CU, MoDOT, Human Service Agencies)	$1,333,695	$131,540	$134,670	$137,867
TOTAL	**$6,668,471**	**$657,699**	**$673,350**	**$689,334**

FTA Section 5310 funding is allocated annually, with 55 percent required to be used for traditional elderly and disabled transportation projects. MoDOT administers the traditional projects for the OTO region. The following pages outline the use of this funding from FY 2013 through FY 2020 as previously and currently programmed. Several projects have been completed and those labeled MO1506 had been programmed as one lump sum. The balances shown correspond to the reserve balances programmed with TIP Amendment Number 4 to this document.

Program of Projects and Subreceipients	Project Description	Quantity	Funding Year	Status	FTA Amount	Local Amount	Total Amount
The Arc of the Ozarks MO1506	Low Floor Minivan, Replacement	1	FY 2013/2014	Approved	$ 27,996	$ 6,999	$ 34,995
Arc of the Ozarks MO1506	2015 25' Wide Body Cutaway	1	FY 2015	Approved	$ 38,218	$ 9,555	$ 47,773
Arc of the Ozarks MO1724	2016 25' Wide Body Cutaway	1	FY 2016/17	New	$ 43,490	$ 10,873	$ 54,363
Arc of the Ozarks MO1702-17A4	Wide Body Cutaway Floor Plan HH	1	FY 17	New	$ 43,490	$ 10,873	$ 54,363
Arc of the Ozarks MO1702-17A4	Wide Body Cutaway Floor Plan HH	1	FY 18	New	$ 43,490	$ 10,873	$ 54,363
Burrell, Inc. MO1506	Shuttle bus body style CC, Replacement	1	FY 2013/2014	Approved	$ 40,874	$ 10,218	$ 51,092
Burrell, Inc. MO1506	Shuttle bus body style AA, Replacement	1	FY 2013/2014	Amended	$ 37,964	$ 9,491	$ 47,455
Burrell, Inc. MO1506	15-Passenger Van	1	FY 2015	Approved	$ 21,986	$ 5,497	$ 27,483
Burrell, Inc. MO1725	15-Passenger Van	1	FY 2016/17	Approved	$ 22,014	$ 5,504	$ 27,518
~~Christian County Enterprises~~/ OATS MO1506	Wheelchair Accessible Van	1	FY 2015	Approved	$ 38,076	$ 9,519	$ 47,595
City Utilities CU1414	Sidewalk and Shelter improvements	1	FY 2013/2014	Approved	$ 177,343	$ 44,336	$ 221,679
City Utilities CU1514	ADA Bus Bench Improvements/ITS Capital	N/A	FY 2015	Approved	$ 89,593	$ 22,398	$ 111,991

Program of Projects and Subreceipients	Project Description	Quantity	Funding Year	Status	FTA Amount	Local Amount	Total Amount
City Utilities CU1707	New Shelters and Braille	20	FY 2016/17	Approved	$ 185,468	$ 46,367	$ 231,835
City Utilities CU1808-17A4	Division Improvements	1	FY 18- FY 20	New	$ 325,534	$ 81,384	$ 406,918
Council of Churches of the Ozarks MO1726-17A1	Wide Body Cutaway Floor plan FF	1	FY 13,14,15	Approved	$ 40,702	$ 10,176	$ 50,878
Council of Churches of the Ozarks MO1726-17A1	Wide Body Cutaway Floor plan FF	1	FY 2016/17	Approved	$ 44,866	$ 11,217	$ 56,083
OATS, Inc. MO1506	Medium Duty Mini-bus, Replacement	1	FY 2013/2014	Approved	$ 43,276	$ 10,819	$ 54,095
OATS, Inc. MO1506	Body Style BBB, Low floor Minivan Replacement	1	FY 2013/2014	Approved	$ 29,796	$ 7,449	$ 37,245
OATS, Inc. MO1506	Minvan with Ramp	1	FY 2015	Approved	$ 30,786	$ 7,697	$ 38,483
OATS, Inc. MO1506	Minvan with Ramp	1	FY 2015	Approved	$ 30,786	$ 7,697	$ 38,483
OATS, Inc. MO1506	Minvan with Ramp	1	FY 2015	Approved	$ 30,786	$ 7,697	$ 38,483
OATS, Inc. MO1727	Minvan with Ramp	2	FY 2016/17	Approved	$ 59,573	$ 15,394	$ 74,466
OATS, Inc. MO1704-17A4	High Roof Long Conversion	1	FY 17	New	$ 50,426	$ 12,607	$ 63,033
OATS, Inc. MO1704-17A4	Wide Body Cutawy, Floor plan II	2	FY 18	New	$ 92,182	$ 23,046	$ 115,228
Ozark Senior Center MO1703-17A4	Minvan with Ramp	1	FY17	New	$ 29,786	$ 7,447	$ 37,233

Program of Projects and Subreceipients	Project Description	Quantity	Funding Year	Status	FTA Amount	Local Amount	Total Amount
City Utilities CU1517	**Admin**	**1**	**FY 2013/2014**	**Amended**	**$ 19,705.00**	**$ -**	**$ 19,705.00**
MoDOT MO1507	**Admin**	**1**	**FY 2013/2014**	**Amended**	**$ 30,965.00**	**$ -**	**$ 30,965.00**
City Utilities CU1517	**Admin**	**1**	**FY 2015**	**Approved**	**$ 9,955.00**	**$ -**	**$ 9,955.00**
MoDOT MO1507	**Admin**	**1**	**FY 2015**	**Approved**	**$ 15,643.00**	**$ -**	**$ 15,643.00**
City Utilities CU1707	**Admin**	**1**	**FY 2016/17**	**Approved**	**$ 20,608.00**	**$ -**	**$ 20,608.00**
MoDOT MO1728	**Admin**	**1**	**FY 16- FY 17**	**Approved**	**$ 32,383.00**	**$ -**	**$ 32,383.00**
MoDOT - MO1802-17A4	**Admin**	**1**	**FY 18**	**New**	**$ 16,695.00**		**$ 16,695.00**

Total FY 2013-2020 traditional 5310 capital amount available	$ 1,171,319
Total FY 13, FY 14, FY 15 traditional 5310 amount awarded	$ (411,246)
(June 2016) Total FY2016/2017 partial amount awarded	$ (169,943)
(Dec 2016) Total FY 17/ FY 18 partial amount awarded	$ (259,374)
Balance Remaining in reserve for 5310 traditional projects	$ 330,756
Total FY 2013-2020 other capital amount available	$ 777,938
Total FY 2013/2014 other capital amount awarded	$ (177,343)
Total FY 2015 other capital amount awarded	$ (89,593)
FY2016/17 other capital amount awarded	$ (185,468)
FY2018- FY 20 other capital amount awarded	$ (325,534)
Balance remaining for other capital	$0.00
Total FY 2013-2020 administration available	$ 180,413
Total FY 2013/2014 administration awarded	$ (50,670)
Total FY 2015 administration awarded	$ (25,598)
Total FY 2016/17 administration awarded	$ (52,991)
FY 18 administration awarded	$ (16,695)
Balance remaining for administration	$34,459.00

TAB 7

TECHNICAL PLANNING COMMITTEE AGENDA 3/15/2017; ITEM II.F.

FY 2018 Unified Planning Work Program (UPWP)

Ozarks Transportation Organization
(Springfield, MO Area MPO)

AGENDA DESCRIPTION:

OTO is required on an annual basis to prepare a Unified Planning Work Program (UPWP), which includes plans and programs the MPO will undertake during the fiscal year. The UPWP is programmed into the following tasks:

Task 1 – OTO General Administration
Task 2 – OTO Committee Support
Task 3 – General Planning and Plan Implementation
Task 4 – Project Selection and Programming
Task 5 – OTO Transit Planning
Task 6 – City Utilities Transit Planning (FTA 5307 funding for City Utilities)
Task 7 – Special Studies and Projects
Task 8 – Transportation Demand Management
Task 9 – MoDOT Transportation Studies and Data Collection

The UPWP contains the proposed budget for FY 2018. The budget is based on the federal funds available and the local 20 percent match. The OTO portion of the UPWP budget for FY 2017 and FY 2018 is shown below:

	FY 2017	Proposed FY2018
OTO Consolidated FHWA/FTA PL Funds	$799,349.00	$754,666.00
MoDOT FTA 5310 Planning Funds	$15,420.00	0
Local Jurisdiction Match Funds/In-Kind Match	$114,192.00	$96,988.00
MoDOT "Direct Costs"	$89,500.00	$91,679.00
Total OTO Revenue	$1,018,461.00	$943,333.00

The total UPWP budget also includes FTA 5307 Transit Funds going directly to City Utilities in the amount of $168,000. City Utilities is providing the local match in the amount of $42,000. The total budget amount for FY 2018 UPWP is $1,153,333.

OTO is utilizing In-Kind Match and Direct Cost Match Funds. These additional match sources allow OTO to build an operating fund balance.

The primary tasks to be accomplished during the fiscal year include:

- Board of Directors, Technical Committee, Local Coordinating Board for Transit, Bicycle and Pedestrian Committee and Traffic Incident Management Subcommittee meetings
- Process Long Range Transportation Plan Amendments

- FY 2019 Unified Planning Work Program
- Continued maintenance of Ozarkstransportation.org and giveusyourinput.org
- Social Media updates
- Public Participation Plan Annual Evaluation
- Bicycle and Pedestrian Plan Implementation
- Christian County Bicycle Destination Plan
- Mapping and graphic support
- Financial Audit
- Performance Measures Report
- Annual Transportation Report Card
- Congestion Management Process Implementation
- Travel Demand Model Scenarios as needed
- Growth Trends Reports
- Fund Balance Reporting
- FY 2019-2022 Transportation Improvement Program
- Online Transportation Improvement Program Tool Maintenance
- Aerial Photography
- Regional Bicycle and Pedestrian Trail Investment Study

The UPWP Subcommittee met and voted to recommend the Draft FY 2018 UPWP to the Technical Planning Committee.

TECHNICAL PLANNING COMMITTEE ACTION REQUESTED:

That a member of the Technical Planning Committee makes one of the following motions:

"Move to recommend approval of the FY 2018 UPWP to the Board of Directors."

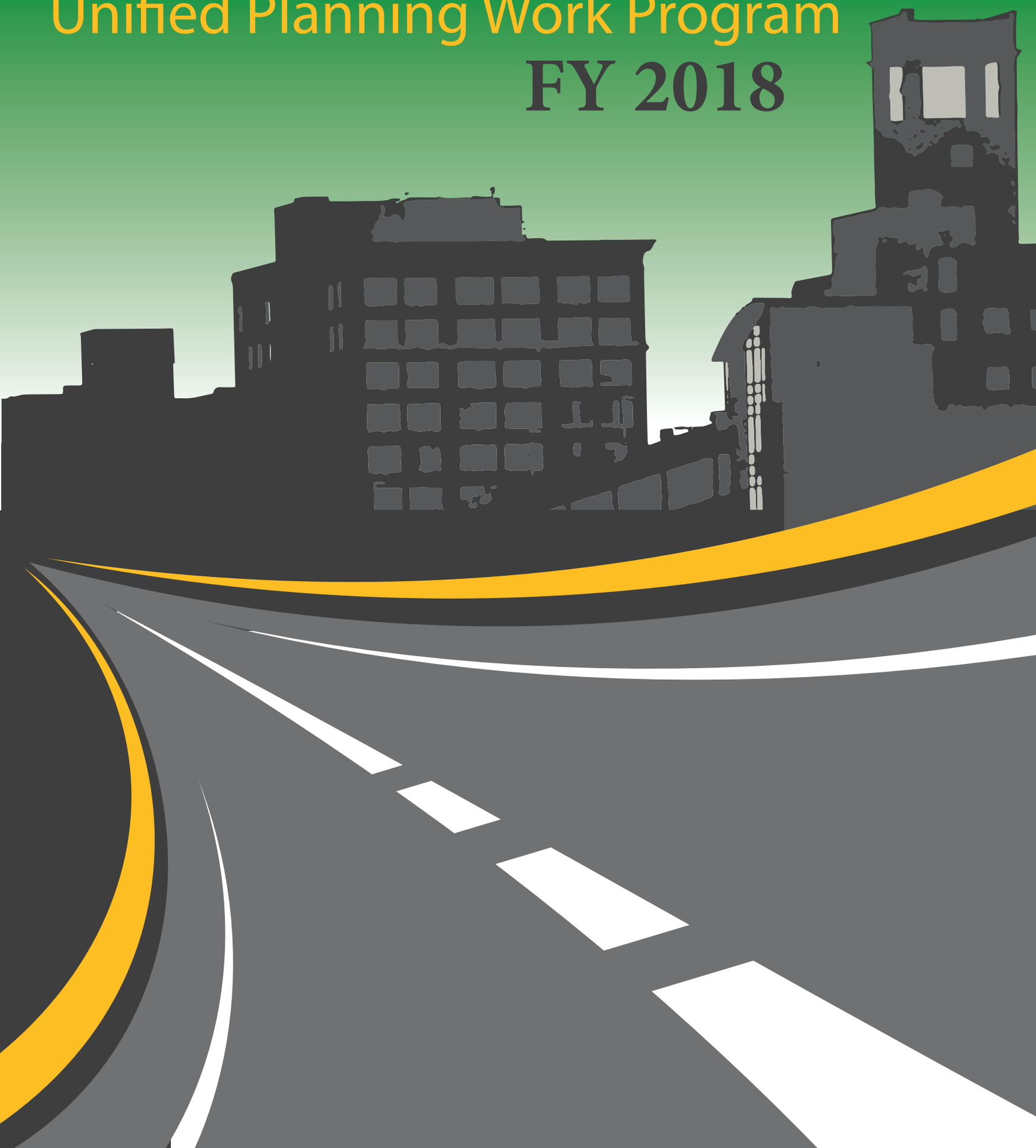
OR

"Move to return to the UPWP Subcommittee to consider…"

Ozarks Transportation Organization

Unified Planning Work Program

FY 2018



OZARKS TRANSPORTATION ORGANIZATION

A METROPOLITAN PLANNING ORGANIZATION

Unified Planning Work Program

Fiscal Year 2018

(July 1, 2017 – June 30, 2018)

APPROVED BY OTO BOARD OF DIRECTORS:

APPROVED BY USDOT:

The Metropolitan Planning Organization (MPO) fully complies with Title VI of the Civil Rights Act of 1964 and related statutes and regulations in all programs and activities. The MPO does not discriminate on the basis of race, color, national origin, English proficiency, religious creed, disability, age, sex. Any person who believes he/she or any specific class of persons has been subjected to discrimination prohibited by Title VI or related statutes or regulations may, herself/himself or via a representative, file a written complaint with the MPO. A complaint must be filed no later than 180 calendar days after the date on which the person believes the discrimination occurred. A complaint form and additional information can be obtained by contacting the Ozarks Transportation Organization (see below) or at www.ozarkstransportation.org.

For additional copies of this document or to request it in an accessible format, contact:

By mail:	Ozarks Transportation Organization 2208 W Chesterfield Blvd., Suite 101 Springfield, MO 65807
By Telephone:	417-865-3042, Ext. 100
By Fax:	417-862-6013
By Email	staff@ozarkstransportation.org

Or download it by going to www.ozarkstransportation.org.

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Table of Contents

Introduction

The Unified Planning Work Program (UPWP) is a description of the proposed activities of the Ozarks Transportation Organization during Fiscal Year 2018 (July 2017 - June 2018). The program is prepared annually and serves as a basis for requesting federal planning funds from the U. S. Department of Transportation through the Missouri Department of Transportation. All tasks are to be completed by OTO staff unless otherwise identified.

It also serves as a management tool for scheduling, budgeting, and monitoring the planning activities of the participating agencies. This document was prepared by staff from the Ozarks Transportation Organization (OTO), the Springfield Area Metropolitan Planning Organization (MPO), with assistance from various agencies, including the Missouri Department of Transportation (MoDOT), the Federal Highway Administration (FHWA), the Federal Transit Administration (FTA), City Utilities (CU) Transit, and members of the OTO Technical Planning Committee consisting of representatives from each of the nine OTO jurisdictions. Federal funding is received through a Federal Transportation Grant from the Federal Highway Administration and the Federal Transit Administration, known as a Consolidated Planning Grant (CPG).

The implementation of this document is a cooperative process of the OTO, Missouri Department of Transportation, the Federal Highway Administration, the Federal Transit Administration, City Utilities Transit, and members of the OTO Technical Planning Committee and OTO Board of Directors.

The OTO is interested in public input on this document and all planning products and transportation projects. The Ozarks Transportation Organization's Public Participation Plan may be found on the OTO website at:

http://www.ozarkstransportation.org/Documents/OTO_PPP_Rev_A_BOD_approved041615.pdf

The planning factors used as a basis for the creation of the UPWP are:

- Support the economic vitality of the metropolitan area, especially by enabling global competitiveness, productivity, and efficiency;
- Increase the safety of the transportation system for motorized and non-motorized users;
- Increase the security of the transportation system for motorized and non-motorized users;
- Increase the accessibility and mobility of people and freight;
- 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;
- Enhance the integration and connectivity of the transportation system, across and between modes, for people and freight;
- Promote efficient system management and operation;
- Emphasize the preservation of the existing transportation system;
- Improve the resiliency and reliability of the transportation system and reduce or mitigate stormwater impacts of surface transportation; and
- Enhance travel and tourism.

Important Metropolitan Planning Issues

The mission of the Ozarks Transportation Organization is:

"To Provide a Forum for Cooperative Decision-Making in Support of an Excellent Transportation System."

In fulfilling that mission, much staff time and effort are spent bringing together decision-makers who make funding and planning decisions that better the transportation network, including all modes.

With the passage of the Fixing American's Surface Transportation (FAST) Act, funding over the next five years will be more stable than in the past. Through the goals of the long range metropolitan plan, OTO is working in partnership with MoDOT and the OTO member jurisdictions to determine how that funding can be best programmed. OTO will be updating the Transportation Improvement Program this year, which will reflect these priority projects, as seen in Task 4.

Performance measurement is becoming more integrated into the OTO planning process. OTO has adopted the first Performance Measures related to transit and is planning to adopt safety Performance Measures this winter. OTO will work in coordination with MoDOT to set additional measures for the region. This work will fall into Task 3 and will continue in future years.

OTO continues to track air quality in the region and participate on the regional Ozarks Clean Air Alliance. Currently, OTO remains in attainment for both $PM_{2.5}$ and Ozone, even with the recent tightening of the standards. With the recovering economy and increased traffic, however, OTO understands that this is still a concern that requires constant awareness. Air quality activities can be seen in Task 3, which participation on the OCAA is in Task 2.

OTO's work program for FY 2018 is poised to tackle existing and forthcoming transportation planning issues. Continued staff training and public outreach, as well as improved data collection and planning efforts, ensures the region can prepare for the ever-changing future.

With the adoption of Transportation Plan 2040, The Metropolitan Transportation Plan, in 2016, much work is underway. Implementation of the actions outlined in the plan will continue in the next fiscal year.

Community discussions have been increasing on how to provide transportation options, especially to the under privileged. In addition, the community Health Improvement Plan has outline active transportation as a priority.

Anticipated Consultant Contracts

The table below lists the anticipated consultant contracts for the 2018 Fiscal Year. Most of the contracts listed below are carryover multi-year contracts.

Cost Category	*Budgeted Amount FY 2018*
Aerial Photography	$25,000
Audit	$4,600
Professional Services Fees	$24,000
Data Storage/Backup	$4,500
IT Maintenance Contract	$12,000
Online TIP Tool Maintenance	$9,600
Regional Bicycle and Pedestrian Trail Investment Study	$63,980
Transportation Consultant/Modeling Services	$36,000
VOIP Phone System	$6,500
Total Consultant Usage	**$186,180**

Items to be purchased that exceed $5,000

Aerial Photography - $25,000
GIS Licenses - $5,000
IT maintenance Contract - $12,000
Online TIP Tool Maintenance - $9,600
Professional Services Fees - $24,000
Regional Bicycle and Pedestrian Trail Investment Study - $63,980
Transportation Consultant/Modeling Services - $36,000
VOIP Phone System - $6,500

Task 1 - OTO General Administration

Conduct daily administrative activities including accounting, payroll, maintenance of equipment, software, and personnel needed for federally-required regional transportation planning activities.

Work Elements **Estimated Cost**

1.1 Financial Management $34,000
July to June
Responsible Agency – OTO

- Preparation of quarterly financial reports, payment requests, payroll, and year-end reports to MoDOT.
- Maintenance of OTO accounts and budget, with reporting to Board of Directors.
- Dues calculated and statements mailed.

1.2 Financial Audit $7,000
August to December
Consultant Contract
Responsible Agency – OTO

- Conduct an annual and likely single audit of FY 2017 and report to Board of Directors.
- Implement measures as suggested by audit.

1.3 Unified Planning Work Program (UPWP) $9,000
January to June
Responsible Agency – OTO

- Amendments to the FY 2018 UPWP as necessary.
- Development of the FY 2019 UPWP, including subcommittee meetings, presentation at Technical Planning Committee and Board of Directors Meetings, and public participation in accordance with the OTO Public Participation Plan.
- UPWP Quarterly Progress Reports.

1.4 Travel and Training $39,000
July to June
Responsible Agency – OTO

- Travel to meetings both regionally and statewide. Training and development of OTO staff and OTO members through educational programs that are related to OTO work committees. Possible training includes:
  - Association of MPOs Annual Conference
  - ESRI User Conference
  - Missouri GIS Conference
  - Institute for Transportation Engineers Conferences including meetings of the Missouri Valley Section and Ozarks Chapter
  - ITE Web Seminars
  - Missouri Chapter and National, American Planning Association Conference and Activities
  - Geographic Information Systems (GIS) Advanced Training (ESRI's Arc Products)
  - Missouri Public Transit Association Annual Conference
  - MoDOT Planning Partners Meetings

- GFOA
- AICP Exam
- Employee Educational Assistance
- Provide Other OTO Member Training Sessions, as needed and appropriate
- Transportation Research Board Training and Conference

1.5 General Administration and Contract Management..... $25,000
July to June
Responsible Agency – OTO

- Coordinate contract negotiations and Memorandums of Understanding.
- Prepare contract and Memorandums of Understandings Addendums.
- Legal Services.
- Bylaw amendments as needed.

1.6 Electronic Support for OTO Operations $32,820
July to June
Responsible Agency – OTO

- Maintain and update website www.ozarkstransportation.org.
- Maintain and update website www.giveusyourinput.org.
- Maintain and update OTO Facebook and Twitter pages.
- Software updates.
- Web hosting, backup services and maintenance contracts. Consultant Contract
- Graphics and website design. Consultant Contract
- VOIP Phone System. Consultant Contract

End Products for FY 2018

- Complete quarterly progress reports, payment requests and the end-of-year report provided to MoDOT.
- Financial reporting to the Board of Directors.
- Calculate dues and send out statements.
- FY 2017 Audit Report.
- The FY 2019 UPWP approved by OTO Board of Directors and MoDOT.
- FY 2018 UPWP Amendments as needed.
- Attendance of OTO staff and OTO members at the various training programs.
- Legal Document revisions as needed.
- Monthly content updates to websites.
- Social media postings.
- Graphics for documents.
- Revisions to OTO websites.
- Legal services.

Tasks Completed in FY 2017

- Quarterly progress reports, payment requests and year end reports for MoDOT (Completed June 2017).
- Quarterly Financial Reporting to the Board of Directors (Completed June 2017).
- Dues calculated and mailed statements for FY 2018 (Completed April 2017).
- FY 2017 Audit Report (December 2017).
- FY 2018 UPWP approved by OTO Board of Directors and MoDOT (Completed June 2017).
- Staff attended various conferences and training (Completed June 2017).
- Monthly websites maintenance (Completed June 2017).
- DBE Report submitted to MoDOT (Completed October 2016 and April 2017).
- DBE Annual Goal Approved (Completed December 2016).
- Title VI Questionnaire Report submitted to MoDOT (Completed October 2016 and February 2017).
- Title VI Annual Survey submitted to MoDOT (Completed February 2017).

Training Attended Included in FY 2017

- MoAPA Conference
- Association of Metropolitan Planning Organizations Annual Conference
- Programming ArcGIS with Python Workshops
- OCITE Training
- FTA MPOwerment Roundtable
- MoDOT Planning Partner Meetings
- American Planning Association Annual Conference
- Basic Responder Class
- Smart Growth America Transit Lessons for Springfield
- FHWA TPM Pre-Workshop on Data Capacity
- Webinars: Road Diet, Planning Law, MPO Coordination Rule, Making the Business Case for TIM, Let's Talk Performance Webinars – Basics of Target Setting, Safety Target Settings

Funding Sources

Local Match Funds	$29,364	20.00%
Federal CPG Funds	$117,456	80.00%
Total Funds	**$146,820**	**100.00%**

Task 2 – OTO Committee Support

Support various committees of the OTO and participate in various community committees directly relating to regional transportation planning activities.

Work Elements **Estimated Cost**

2.1 OTO Committee Support $135,000
July to June
Responsible Agency – OTO

- Conduct and staff all Bicycle and Pedestrian Advisory Committee, Board of Directors, Executive Committee, Local Coordinating Board for Transit, Technical Planning Committee meetings and Traffic Incident Management.
- Respond to individual committee requests.
- Facilitate and administer any OTO subcommittees formed during the Fiscal Year.

2.2 Community Committee Participation $11,000
July to June
Responsible Agency – OTO

- Participate in and encourage collaboration among various community committees directly related to transportation. Committees include:
  - City of Springfield Traffic Advisory Board
  - Community Partnership Transportation Collaborative
  - CU Fixed Route Advisory Committee
  - Missouri Public Transit Association
  - MoDOT Blueprint for Safety
  - Ozarks Clean Air Alliance and Clean Air Action Plan Committee
  - Ozark Greenways Technical Committee
  - Ozark Greenways Sustainable Transportation Advocacy Resource Team (STAR Team)
  - SeniorLink Transportation Committee
  - The Springfield Area Chamber of Commerce Transportation Committee
  - The Southwest Missouri Council of Governments Board and Transportation Advisory Committee
  - Other committees as needed

2.3 OTO Policy and Administrative Documents $5,000
July to June
Responsible Agency – OTO

- Process amendments to bylaws, policy documents, and administrative staff support consistent with the OTO organizational growth.

2.4 Public Involvement..... $28,000
July to June
Responsible Agency – OTO

- Maintain www.GiveUsYourInput.org with public comments posted by work product.
- Publish public notices and press releases.
- Comply with Missouri Sunshine Law requirements, including record retention.
- Annual Public Participation Plan (PPP) Evaluation.

2.5 Member Attendance at OTO Meetings..... $10,000

July to June

Responsible Agencies – OTO and Member Jurisdictions

- OTO member jurisdiction member's time spent at OTO meetings.

End Products for FY 2018

- Conduct meetings, prepare agendas and meeting minutes for OTO Committees, Subcommittees, and Board of Directors.
- Attendance of OTO staff and OTO members at various community committees.
- Revisions to bylaws, inter-local agreements, and the Public Participation Plan as needed.
- Document meeting attendance for in-kind reporting.
- Public input tracked and published.
- Continued work with the MO Coalition of Roadway Safety SW District.
- Implementation of PPP through website and press release.
- Annual PPP Evaluation.

Tasks Completed in FY 2017

- Conducted Bicycle and Pedestrian Advisory Committee, Board of Directors, Executive Committee, and Local Coordinating Board for Transit meetings (Completed June 2017).
- Conducted Congestion Management Process, TIP/STIP Project Priorities FY 2018-2022, Transportation Alternative Program, Traffic Incident Management, and Unified Planning Work Program subcommittee meetings (Completed June 2017).
- Prepared agendas and minutes (Completed June 2017).
- Documented meeting attendance for in-kind reporting (Completed June 2017).
- Staff participated in multiple community committees (Completed June 2017).
- Update of Public Participation Plan (PPP) and implementation of PPP through website and press releases (Completed June 2017).
- Public input tracked and published (Completed June 2017).
- Staff attended meetings and worked with the MO Coalition of Roadway Safety SW District to evaluate projects (Completed June 2017).

Funding Sources

Local Match Funds	$27,800	14.80%
In-kind Services*	$10,000	5.20%
Federal CPG Funds	$151,200	80.00%
Total Funds	**$189,000**	**100.00%**

***The maximum amount of in-kind credit available to the OTO is 80% of the total value of in-kind time.**

Task 3 – General Planning and Plan Implementation

This task addresses general planning activities, including the OTO Long Range Transportation Plan (LRTP), approval of the functional classification map, the Congestion Management Process (CMP), and the Bicycle and Pedestrian Plan, as well as the implementation of related plans and policies. FAST Act guidance will continue to be incorporated as it becomes available.

Work Elements **Estimated Cost**

3.1 OTO Long Range Transportation Plan (LRTP), *Transportation Plan 2040*..... $16,500
July to June
Responsible Agency – OTO

- Process amendments to the Long Range Transportation Plan, including the Major Thoroughfare Plan.

3.2 Performance Measures..... $60,500
July to June
Responsible Agency – OTO

- Coordinate with MoDOT on efforts to address national performance measures as outlined in MAP-21 and continued by the FAST Act.
- Production of an annual transportation report card to monitor the performance measures as outlined in the Long Range Transportation Plan, incorporating connections to MAP-21 performance measures.

3.3 Congestion Management Process Implementation..... $10,672
July to December
Responsible Agency – OTO

- Coordinate data collection efforts for FY 2018.
- Review goals and implementation strategies to ensure effective measurements are being used for evaluation of the system.
- Use travel time data for Annual Report.

3.4 Federal Functional Classification Maintenance and Updates..... $5,300
July to June
Responsible Agency – OTO

- The annual call for updates will be made and requests processed.
- Other periodic requests will be processed as received.

3.5 Bicycle and Pedestrian Plan Implementation..... $15,000
July to June
Responsible Agency – OTO

- The Bicycle and Pedestrian Advisory Committee will continue the coordination and monitoring of the implementation of the OTO Bicycle and Pedestrian Plan and Regional Bicycle and Pedestrian Trail Investment Study.

3.6 Bicycle Destination Plan..... $15,000
July to June
Responsible Agency – OTO

- Add Christian County to current Bicycle Destination Plan to include a bicycle wayfinding plan.

3.7 Freight Planning $5,000
July to June
Responsible Agency – OTO

- Participate in the Southwest Missouri Freight Advisory Committee.

3.8 Traffic Incident Management Planning..... $5,000
July to June
Responsible Agency – OTO

- Traffic Incident Management Action Plan Implementation.

3.9 Air Quality Planning..... $5,000
July to June
Responsible Agency – OTO

- Staff serves on the Ozarks Clean Air Alliance along with the Springfield Department of Environmental Services, which is implementing the regional Clean Air Action Plan, in hopes to preempt designation as a non-attainment area for ozone and $PM_{2.5}$.

3.10 Hazard Environmental Assessment $10,000
July to June
Responsible Agency – OTO

- Conduct an Environmental Assessment to identify endangered species and flood vulnerable facilities.

3.11 Demographics and Future Projections $14,000
July to June
Responsible Agency – OTO

- Continue to analyze growth and make growth projections for use in transportation decision-making by collecting and compiling development data into a demographic report that will be used in travel demand model runs, plan updates, and planning assumptions.

3.12 Geographic Information Systems (GIS) $35,000
July to June
Responsible Agency – OTO

- Continue developing the Geographic Information System (GIS) and work on inputting data into the system that will support Transportation Planning efforts. Specific emphasis will be given to incorporating traffic data.
- GIS licenses ($5,000 ESRI Contract).

3.13 Mapping and Graphics Support for OTO Operations $16,500
July to June
Responsible Agency – OTO

- Development and maintenance of mapping and graphics for OTO activities, including, but not limited to, the OTO website, OTO publications, and other printed or digital materials.

3.14 Support for Jurisdictions Plans $5,200
July to June
Responsible Agency – OTO

- Provide support for Long Range Transportation Planning for member jurisdictions.

3.15 Studies of Parking, Land Use, and Traffic Circulation $10,000
July to June
Responsible Agency – OTO

- Studies that are requested by member jurisdictions to look at traffic, parking, or land use.

3.16 Transportation Consultant/Modeling Services $36,000
July to June
Consultant Contract
Responsible Agency – OTO

- Travel Demand Model Scenarios to assist with Long Range Transportation Plan implementation.
- Data collection efforts to support the OTO planning products, signal timing, and transportation decision-making.
- Determination of daily/hourly roadway capacities based on geometry.
- Analyze predictive crash rates for crash analysis.

3.17 Civil Rights Compliance $10,500
July to June
Responsible Agency – OTO

- Meet federal and state reporting requirements for Title VI and Americans with Disabilities Act (ADA).
- Adopt annual DBE goal.
- Semiannual DBE reporting.
- Semiannual Title VI/ADA reporting.
- Accept and process complaint forms and review all projects for Title VI/ADA compliance.
- Continue to include Environmental Justice and Limited English Proficiency requirements in planning process.

3.18 Regional Trail Bicycle and Pedestrian Investment Study $63,980
November to June
Consultant Contract

- Completion of a regional trail investment study to provide cost estimates and determine location feasibility.

3.19 Aerial Photography $25,000
July to August
Responsible Agency – OTO

- Cooperatively Purchase Aerial Photography with the City of Springfield, City Utilities and other

local jurisdictions. OTO's cost is approximately 11% of the overall cost of $230,641. 100% of the OTO portion will be used for regional transportation planning.

End Products for FY 2018

- Amendments to the LRTP as necessary.
- Bicycle Destination Plan.
- Continued implementation of Bicycle and Pedestrian Plan with report documenting accomplishments.
- Continued monitoring of attainment status.
- Demographic Report.
- Hazard/Environmental Assessment.
- Annual Transportation Report Card (includes Performance Measures).
- Studies in accordance with Long Range Transportation Plan as needed.
- Federal Functional Classification Map maintenance and updates.
- GIS maintenance and mapping.
- Additional Travel Demand Model Scenarios as needed.
- Transportation data in GIS.
- Other projects as needed.
- Semiannual DBE reporting submitted to MoDOT.
- Title VI/ADA semiannual reporting and complaint tracking submitted to MoDOT.
- Adopted Regional Trail Investment Study.
- Aerial Photography electronic files.
- TIM Implementation Report.

Tasks Completed in FY 2017

- Adopted Long Range Transportation Plan (LRTP) Update.
- LRTP Five-Year Implementation Plan.
- LRTP Executive Summary.
- Traffic Incident Management Action Plan.
- Travel Demand Model Scenarios (Completed June 2017).
- Assist jurisdictions with adoption and compliance with the Major Thoroughfare Plan.
- One amendment to the Major Thoroughfare Plan (Completed February 2016).
- Recommend critical urban freight corridors to MoDOT.
- Maintenance of GIS System Layers (Completed June 2017).
- Continued Monitoring of Attainment Status (Completed June 2017).
- Performance Measure Report (Completed December 2016).
- CMP Update (Completed April 2017).
- Annual Traffic Report Card (completed in June 2017)
- LEP Update.
- Title VI/ADA Program Update.
- Regional Bicycle and Pedestrian Trail Investment Study underway with end product to be presented to Board at August 2017 meeting.

Funding Sources

Local Match Funds	$72,830	20.00%
Federal CPG Funds	$291,322	80.00%
Total Funds	**$364,152**	**100.00%**

Task 4 – Project Selection and Programming

Prepare a four-year program for anticipated transportation improvements and amendments as needed.

Work Elements **Estimated Cost**

4.1 FY 2018-2021 Transportation Improvement Program (TIP)..... $15,000
July to August
Responsible Agency – OTO

- Complete and publish the 2018-2021 TIP.
    - Item should be on the July Technical Planning Committee Agenda and the August Board of Directors Agenda.

4.2 FY 2019-2022 Transportation Improvement Program (TIP)..... $30,000
March to June
Responsible Agency – OTO

- Begin development of the 2019-2022 TIP.
- Conduct the Public Involvement Process for the TIP (March-August).
- Work with the TIP subcommittees (June).
- Complete Draft document.

4.3 Project Programming..... $25,500
July to June
Responsible Agency – OTO

- Process all modifications to the FY 2017-2020 and the FY 2018-2021 TIPs including the coordination, advertising, public comment, Board approval and submissions to MoDOT for incorporation in the STIP.
- Solicit and advertise for projects.
- Award funding and program projects.
- Review Prioritization Process and Priority Projects of Regional Significance for possible updates.

4.4 Federal Funds Tracking $4,476
July to June
Responsible Agency – OTO

- Gather obligation information and develop the Annual Listing of Obligated Projects and publish to website.
- Monitor STBG-Urban, and TAP balances.
- Track area cost-share projects.
- Track reasonable progress on project implementation following programming.

4.5 Online TIP Tool Maintenance $9,600
July to June
Consultant Contract
Responsible Agency – OTO

- Maintenance contract for web-based tool to make an online searchable database for projects.

End Product(s) for FY 2018

- TIP amendments, as needed.
- Draft of the FY 2019-2022 Transportation Improvement Program.
- Approved FY 2018-2021Transportation Improvement Program.
- Annual Listing of Obligated Projects.
- Federal Funds Balance Reports.
- Online searchable database of TIP projects.
- Award funding and program projects.
- Update Priority Projects of Regional Significance and Prioritization Process.

Tasks Completed in FY 2017

- Amended the FY 2017-2020 TIP numerous times (Completed June 2017).
- Annual Listing of Obligated Projects (Completed December 2016).
- Maintained fund balance information (Completed June 2017).
- Maintained online searchable database of TIP projects (Completed June 2017).

Funding Sources

Local Match Funds	$16,915	20.00%
Federal CPG Funds	$67,661	80.00%
Total Funds	**$84,576**	**100.00%**

Task 5 – OTO Transit Planning

Prepare plans to provide efficient and cost-effective transit service for transit users. City Utilities (CU) 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.

Work Elements **Estimated Cost**

5.1 Operational Planning..... $6,000
July to June
Responsible Agencies – OTO

- OTO staff shall support operational planning functions including surveys, analysis of headways and schedules, and development of proposed changes in transit services.
- Occasionally OTO staff, upon the request of City Utilities (CU), provides information toward the National Transit Database Report, such as the data from the National Transit Database bus survey.

5.3 Transit Coordination Plan Implementation..... $10,300
July to June
Responsible Agencies – OTO, Human Service Transit Providers

- Transit Coordination Plan Implementation.
- As part of the TIP process, a competitive selection process will be conducted for selection of projects utilizing relevant federal funds.
- OTO staffing of the Local Coordinating Board for Transit.
- OTO staff to maintain a list of operators developed in the transit coordination plan for use by City Utilities (CU) and other transit providers in the development of transit plans.

5.4 Program Management Plan Review $5,000
July to June
Responsible Agencies – OTO

- Review and/or update the existing program management plan to ensure compliance with FAST ACT.

5.5 Data Collection and Analysis..... $9,500
July to June
Responsible Agencies – OTO

- OTO will assist CU in providing necessary demographic analysis for proposed route and/or fare changes.
- OTO's staff assistance in collecting ridership data for use in transit planning and other OTO planning efforts.

5.6 Community Support $5,000
July to June
Responsible Agencies – OTO

- OTO will assist the City of Springfield in transit planning for the Impacting Poverty Commission support initiatives.

5.7 ADA/Title VI Appeal Process $3,000
July to June
Responsible Agencies – OTO

- OTO staff assistance on CU Transit ADA/Title VI Appeal Process.

End Products for FY 2018

- Transit agency coordination
- Solicit for FTA funding, rank applications and program projects for FY 2019-2021 TIP.
- Special Studies
- LCBT agendas, minutes, and meetings.
- Transit Survey
- CU Transit ADA/Title VI Appeals processed.
- Data collection
- PMP review

Tasks Completed in FY 2017

- Transit Coordination Plan Implementation
- Solicit for FTA funding, rank applications and program projects for FY 2017-2019 TIP amendments (Completed December 2016).
- LCBT agenda, minutes, and meetings (Completed June 2017)
- Transit agency coordination
- Regional paratransit coordination
- Human Services Transportation Coordination Plan Update
- Transit Signal Priority Committee
- Survey of comparable transit agencies

Funding Sources		
Local Match Funds	$7,760	20%
Federal CPG Funds	$31,040	58%
Total Funds	**$38,800**	**100%**

Task 6 – City Utilities Transit Planning (FTA 5307 Funding for City Utilities)

Work Elements **Estimated Cost**

6.1 Operational Planning.....$100,000
July to June
Responsible Agencies – City Utilities

- Route analysis.
- City Utilities Transit grant submittal and tracking.
- City Utilities Transit collection and analysis of data required for the National Transit Database Report.
- City Utilities Transit participation in Ozarks Transportation Organization committees and related public hearings.
- CU Transit collection of data required to implement the requirements of the Americans with Disabilities Act and non-discriminatory practices (FTA Line Item Code 44.24.00).

6.2 ADA Accessibility..... $20,000
July to June
Responsible Agencies – City Utilities

- CU Transit ADA accessibility projects for the past New Freedom grants and future Section 5310 grants.

6.3 Transit Fixed Route and Regional Service Analysis Implementation $10,000
July to June
Responsible Agencies – City Utilities

- CU will implement recommendations of the Transit Fixed Route Regional Service Analysis.

6.4 Service Planning $30,000
July to June
Responsible Agencies – City Utilities

- Collection of data from paratransit operations as required.
- CU Transit development of route and schedule alternatives to make services more efficient and cost-effective within current hub and spoke system operating within the City of Springfield. (FTA Line Item Code 44.23.01)
- Title VI service planning.

6.5 Financial Planning $30,000
July to June
Responsible Agency – City Utilities

- CU Transit preparation and monitoring of long and short-range financial and capital plans and identification of potential revenue sources.

6.6 Competitive Contract Planning $2,000
July to June
Responsible Agencies – City Utilities

- CU Transit will study opportunities for transit cost reductions through the use of third-party and

private sector providers.

6.7 *S*afety, Security and Drug and Alcohol Control Planning..... $6,000
July to June
Responsible Agencies – City Utilities

- Implementation of additional safety and security policies as required by MAP-21.

6.8 Transit Coordination Plan Implementation..... $6,000
July to June
Responsible Agencies – City Utilities

- Updating and implementation of the Transit Coordination Plan, due to Section 5310 grants and MAP-21 changes. To include annual training for applicants of 5310 funding and a focus on education, including media outreach.

6.9 Program Management Plan $3,000
July to June
Responsible Agencies – City Utilities

- Review the existing program management plan to ensure compliance with MAP-21 and future reauthorization. Depending on final federal guidance Section 5339 grants may require a Program Management Plan.

6.10 Data Collection and Analysis $3,000
July to June
Responsible Agencies – City Utilities

- Update demographics for CU's Title VI and LEP Plans.
- CU will collect and analyze, ridership data for use in transit planning and other OTO planning efforts.

End Products for FY 2018

- Operational Planning
- ADA Accessibility
- Fixed Route Analysis
- Service Planning
- Financial Planning
- Competitive Contract Planning
- Safety Planning
- Transit Coordination Plan
- Program Management Plan
- Data Collection & Analysis

Tasks Completed in FY 2016

- Operational Planning
- ADA Accessibility
- Fixed Route Analysis
- Service Planning
- Financial Planning
- Competitive Contract Planning
- Safety, Security and Drug and Alcohol Planning
- Transit Coordination Plan
- Data Collection & Analysis

Funding Sources

CU Match Funds	$42,000	20%
FTA 5307 Funds	$168,000	80%
Total Funds	**$210,000**	**100%**

Task 7 – Special Studies and Projects

Conduct special transportation studies as requested by the OTO Board of Directors, subject to funding availability. Priority for these studies shall be given to those projects that address recommendations and implementation strategies from the Long Range Transportation Plan.

Work Elements **Estimated Cost**

7.1 Continued Coordination with entities that are implementing Intelligent Transportation Systems $8,306

July to June

Responsible Agency – OTO

- Coordination with the Traffic Management Center in Springfield and with City Utilities Transit as needed.

7.2 Grant Applications to support Livability/Sustainable Planning $6,500

July to June

Responsible Agency – OTO

- Working on partnerships with DOT, HUD, EPA, and USDA through developing applications for discretionary funding programs for livability and sustainability planning. Project selection could result in OTO administering livability/sustainability-type projects.

7.3 Other Special Studies in accordance with the Adopted Long-Range Transportation Plan $8,500

July to June

Responsible Agency – OTO

- Studies relating to projects in the Long Range Transportation Plan.
- Work with City of Springfield to update the Growth Management and Land Use Plan.

End Products for FY 2018

- ITS Coordination.
- Grant Applications.
- Study for projects in the Long Range Transportation Plan.

Tasks Completed in FY 2017

- ITS Coordination (Completed June 2017).
- Worked with Springfield's Impacting Poverty Group (Completed June 2017).

Funding Sources

Local Match Funds	$4,661	20.00%
Federal CPG Funds	$18,645	80.00%
Total Funds	**$23,306**	**100.00%**

Task 8 – Transportation Demand Management

Planning Activities to support the Regional Rideshare program, as well as efforts to manage demand on the transportation system.

Work Elements **Estimated Cost**

Coordinate Employer Outreach Activities $3,000
July to June
Responsible Agencies – OTO, City of Springfield

- Work with the City of Springfield to identify and coordinate with major employers to develop employer-based programs that promote ridesharing and other transportation demand management (TDM) techniques within employer groups.
- Update the Rideshare Brochure design and publication.

Collect and Analyze Data to Determine Potential Demand $2,000
July to June
Responsible Agency – OTO

- Gather and analyze data to determine the best location in terms of demand to target ridesharing activities.

End Product(s) for FY 2018

- Annual report of TDM activities, including number of users, employer promotional activities, results of location data analysis, and benefits to the region
- Updated Rideshare Brochure publication

Funding Sources

Local Match Funds	$1,000	20.00%
Federal CPG Funds	$4,000	80.00%
Total Funds	**$5,000**	**100.00%**

Task 9 – MoDOT Transportation Studies & Data Collection

MoDOT Transportation Studies and Data Collection $91,679
July to June MoDOT Southwest District - $91,679
Responsible Agency – MoDOT Southwest District

- MoDOT, in coordination with OTO and using non-federal funding, performs several activities to improve the overall efficiency of the metropolitan transportation system.
    - OTO and MoDOT work to conduct a Traffic Count Program to provide hourly and daily volumes for use in the Congestion Management Process, Long Range Transportation Plan, and Travel Demand Model.
    - Transportation studies would be conducted to provide accident data for use in the Congestion Management Process.
    - Speed studies would be conducted to analyze signal progression to meet requirements of the Congestion Management Process.
    - Miscellaneous studies to analyze congestion along essential corridors may also be conducted.
    - Maintenance of the travel time collection units.

Source of Eligible MoDOT Match

MoDOT Position	Annual Salary	Annual Fringe	Annual Additives	TOTAL	% Time	Eligible
Traffic Center Manager	$69,732	$44,682	$24,859	$139,273	15	$20,891
Traffic Study Specialist	$48,696	$29,019	$16,145	$93,860	30	$28,158
Information Systems Specialist	$39,936	$25,592	$14,238	$79,766	10	$7,977
Senior Traffic Studies Technician	$38,556	$24,705	$13,745	$77,006	45	$34,653
Total Eligible Match						$91,679
Total Match Requested						**$91,679**

End Products for FY 2018

- Annual traffic counts within the OTO area for MoDOT roadways.
- Annual crash data.
- Speed Studies.
- Maintenance of the travel time collection units.

Tasks Completed in FY 2017

- Annual traffic counts within the OTO area for MoDOT roadways (Completed June 2017).
- Annual crash data (Completed June 2017).
- Speed Studies (Completed June 2017).
- Signal Timing (Completed June 2017).

Funding Sources

Value of MoDOT Direct Costs	$91,679
	X 80%
Credit amount available for local match	$73,343

(federal pro rata share of value of direct costs – no actual funds)

Expenditure Summary by Work Task

	Local Funding			Federal Funding			
Task	**Local Match**	**City Utilities**	**In-Kind**	**CPG**	**5307**	**Total**	**Percent (%)**
1	$29,364			$117,456		$146,820	13.83%
2	$27,800		$10,000	$151,200		$189,000	17.80%
3	$72,830			$291,322		$364,152	34.30%
4	$16,915			$67,661		$84,576	7.97%
5	$7,760			$31,040		$38,800	3.65%
6		$42,000			$168,000	$210,000	19.78%
7	$4,661			$18,645		$23,306	2.20%
8	$1,000			$4,000		$5,000	0.47%
TOTAL	**$160,330**	**$42,000**	**$10,000**	**$681,324**	**$168,000**	**$1,061,654**	**100.00%**
9	Value of MoDOT "Direct Cost"					$91,679	
Total of Transportation Planning Work						**$1,153,333**	

Federal Consolidated Planning Grant (CPG) Funding FY 2017 UPWP

	Amount Budgeted
Estimated Actual Costs of Tasks 1-8	$1,061,654
Minus City Utilities Transit (FTA 5307 Funding)	-$210,000
Actual Total Ozarks Transportation Organization Expenditures	$851,654
PLUS Value of Task 8 MoDOT Direct Costs Credit	+$91,679
Total Value of OTO/Springfield Metropolitan Transportation Planning Work	$943,333
Federal Pro-Rata share	80%*

Federal CPG Funding Eligible **$754,666**

*Federal Funding as a percentage of total OTO actual transportation planning costs is actually 88.6% ($754,666/$851,654). The value of MoDOT Direct Costs allows the OTO to include an additional $73,343 in Federal CPG funding.

Budgeted Revenue FY 2018 UPWP

Ozarks Transportation Organization Revenue	**Total Amount Budgeted**
Consolidated FHWA/FTA PL Funds (CPG Funds)	$754,666
MoDOT "Direct Costs" Match	$18,336
Local Match to be Provided/In-kind Match	$170,331
Total Ozarks Transportation Organization Revenue	**$943,333**

CU Revenue (FTA 5307 Funding for City Utilities)	**Total Amount Budgeted**
City Utilities Transit Planning – FTA 5307 Funding	$168,000
City Utilities Local Match	$42,000
Total CU Revenue	**$210,000**
TOTAL Budgeted Revenue for FY 2018 UPWP	**$1,153,333**

Total Available Federal Revenue for FY 2018 UPWP Work Activities

(MO-81-0013) CPG Fund Balance as of 1/31/2017*	$835,474.26
Less remaining CPG funds to be spent FY 2017	$382,378.65
	$453,095.61
FY 2017 Estimated CPG Funds allocation	$570,848.00
FY 2018 Estimated CPG Funds allocation**	$582,265.00
TOTAL Estimated CPG Funds Available for FY 2018 UPWP	$1,606,208.61
TOTAL CPG Funds Programmed for FY 2018	($754,666.00)
Remaining Unprogrammed Balance****	**$851,542.61**

*Previously allocated, but unspent CPG Funds through 1/31/2017.

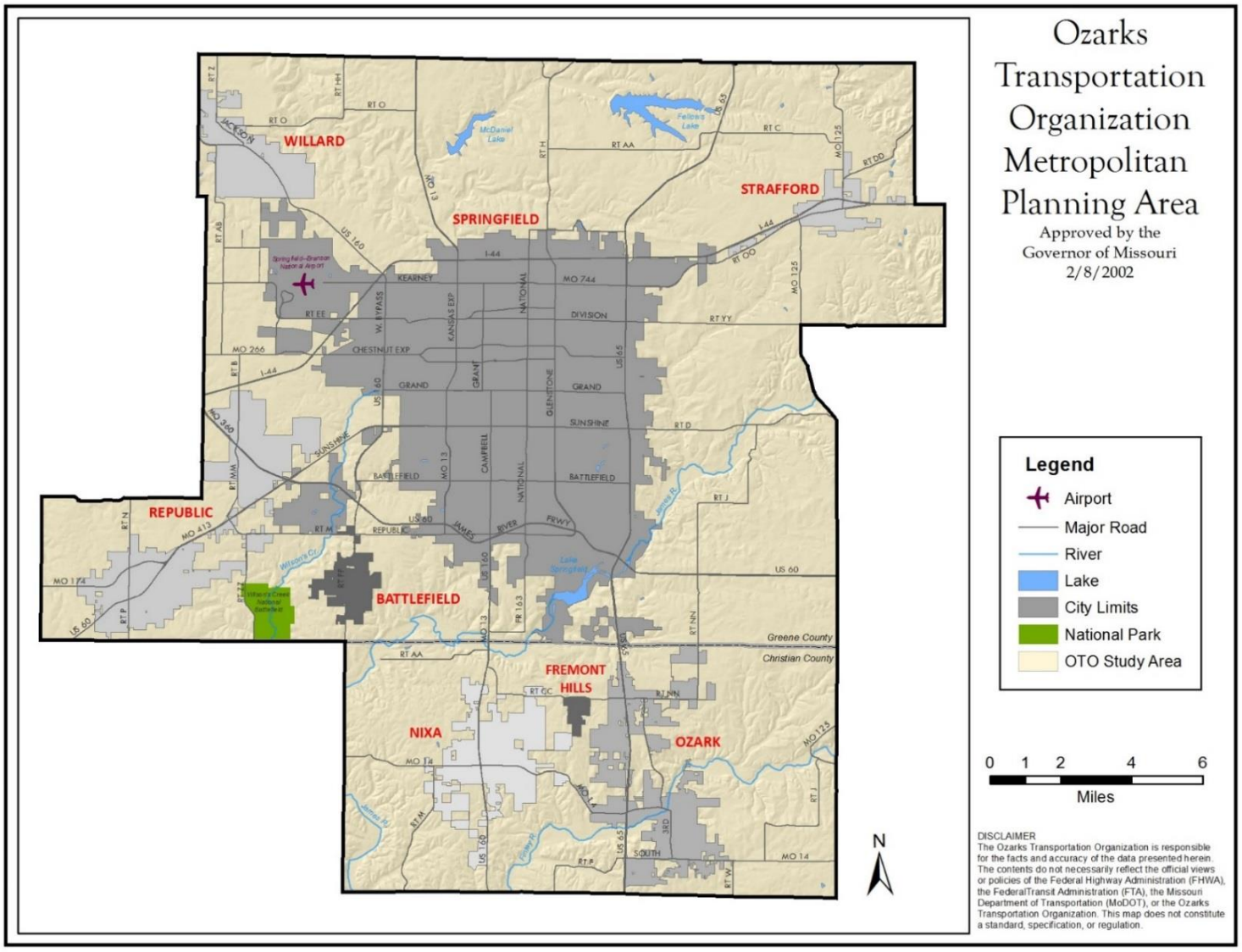
**The 2018 Estimated CPG Funds Available is an estimated figure based on the FAST ACT funding bill.

****Previously allocated but unprogrammed CPG funds.

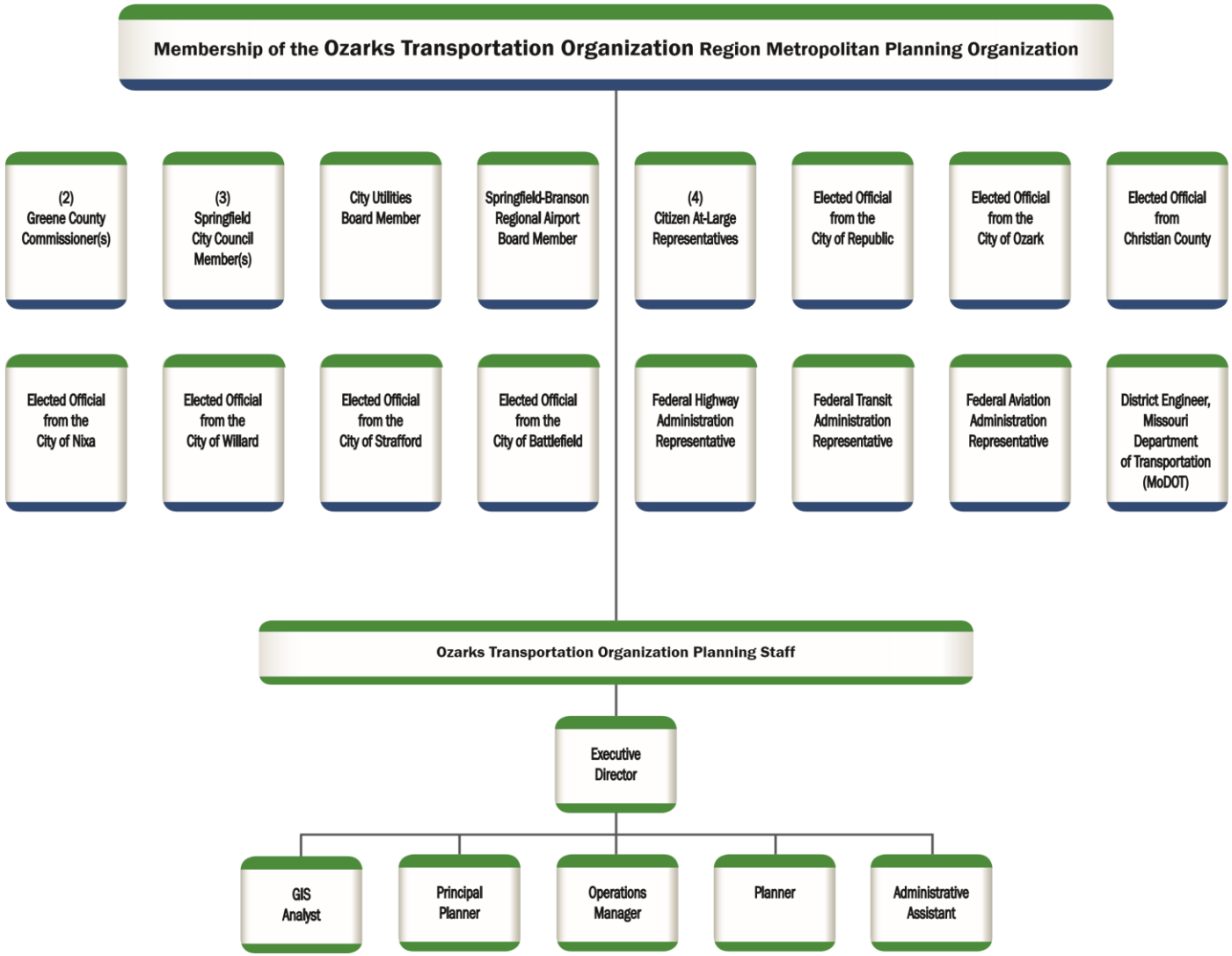
Justification for Carryover Balance

The projected carryover balance of $851,542.61 represents approximately 1.46 years of federal planning funding allocations to OTO. OTO is funded by a combined Federal Highway and Federal Transit grant through the Missouri Department of Transportation. While Federal Highway funds are available upon Congressional authorization, Federal transit funds are not available until Congressional appropriation. In FY 2016, Congress delayed the full appropriation until after the beginning of the OTO fiscal year. The full combined FHWA/FTA grant amount was not known until March 2016. Therefore, MoDOT as a general rule, does not allow for FY 2018 amounts to be available until the next OTO budget year, FY 2019. Therefore, OTO must always maintain a balance of at least one years' worth of funding. The remaining carryover balance of approximately six months' worth of funding is reserved for special studies and projects.

OTO Map


Ozarks Transportation Organization Metropolitan Planning Area
Approved by the Governor of Missouri
2/8/2002
WILLARD
SPRINGFIELD
STRAFFORD
REPUBLIC
BATTLEFIELD
FREMONT HILLS
NIXA
OZARK
Greene County
Christian County
Legend
Airport
Major Road
River
Lake
City Limits
National Park
OTO Study Area
0 1 2 4 6
Miles
N
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 FederalTransit Administration (FTA), the Missouri Department of Transportation (MoDOT), or the Ozarks Transportation Organization. This map does not constitute a standard, specification, or regulation.

OTO Organization Chart



Board and Committee membership composition may be found at: http://www.ozarkstransportation.or

APPENDIX A

Fiscal Year 2018

July 1, 2017 - June 30, 2018

OTO UPWP DETAIL

Utilizing Consolidated Planning Grant Funds

ESTIMATED EXPENDITURES

Cost Category	*Approved Budgeted Amount FY17*	*Total Amount Budgeted FY17*	*Proposed Budgeted Amount FY18*	*Total Budget FY18*	*Increase/ Decrease*
Building					
Building Lease	$64,492		$70,488		↑ $5,996
Infill Costs	$0		$2,000		↑ $2,000
Utilities	$5,400		$4,200		↓ $1,200
Office Cleaning	$3,300		$3,300		SAME
Total Building		$73,192		$79,988	
Commodities					
Office Supplies/Furniture	$12,000		$9,500		↓ $2,600
Publications	$550		$300		↓ $250
Public Input Promotional Items	$2,000		$2,000		SAME
Total Commodities		$14,550		$11,800	
Information Technology					
Computer Upgrades/Equipment Replacement/Repair	$6,000		$9,000		↑ $3,000
Data Backup/Storage	$4,500		$4,500		SAME
GIS Licenses	$5,000		$5,000		SAME
IT Maintenance Contract	$9,000		$12,000		↑ $3,000
Software	$3,000		$3,000		SAME
Webhosting	$800		$1,500		↑ $700
Total Information Technology		$28,300		$35,000	
Insurance					
Board of Directors Insurance	$5,000		$5,500		↑ $500
Errors & Omissions	$2,900		$4,900		↑ $2,000
Liability Insurance	$1,300		$1,700		↑ $400
Workers Comp	$1,200		$1,350		↑ $150
Total Insurance		$10,400		$13,450	
Operating					
Copy Machine Lease	$3,000.00		$4,000.00		↑ $1,000
Dues/Memberships	$8,000.00		$6,000.00		↓ $2,000
Education/Training/Travel	$25,000.00		$25,000.00		SAME
Food/Meeting Expense	$4,500.00		$4,000.00		↓ $500
Legal/Bid Notices	$6,000.00		$3,500.00		↓ $2,500
Postage/Postal Services	$5,000.00		$2,500.00		↓ $2,500
Printing/Mapping Services	$13,000.00		$10,000.00		↓ $3,000
Public Input Event Registrations	$1,500.00		$1,500.00		SAME
Staff Mileage Reimbursement	$3,300.00		$4,500.00		↑ $1,200
Telephone/Internet	$5,650.00		$5,000.00		↓ $650
VOIP Phone System			$6,500.00		↑ $6,500
Total Operating		$74,950.00		$72,500.00	

Cost Category	*Budgeted Amount FY17*	*Total Amount Budgeted FY17*	*Budgeted Amount FY18*	*Total Amount Budgeted FY18*	*Increase/ Decrease*
Personnel					
Salaries & Fringe	$445,294		$460,336		↑ $15,042
Mobile Data Plans	$2,700		$2,700		SAME
Payroll Services	$2,700		$2,700		SAME
Total Personnel		$450,694		$465,736	
Services					
Aerial Photography	$0		$25,000		↑ $25,000
Audit	$7,000		$4,600		↓ $2,400
Professional Services	$24,000		$24,000		SAME
Regional Bicycle and Pedestrian Trail Investment Study	$150,000		$63,980		↓ $86,020
TIP Tool Maintenance	$9,600		$9,600		SAME
TIP Tool Software	$25,000		$0		↓ $25,000
Transportation Consultant/Modeling Services (Formerly Travel Time Runs and Travel Model)	$12,000		$36,000		↑ $24,000
Travel Model Consultant	$20,000		$0		↓ $20,000
Total Services		$247,600		$163,180	
		$899,686		$841,654	
In-Kind Match, Donated Member Attendance at Meetings	$10,000		$10,000	$10,000	SAME
TOTAL OTO Expenditures		**$909,686**		**$851,654**	
In-Kind Match, Direct Cost, Donated Direct Cost - MoDOT Salaries	$89,500		$91,679		↑ $2,179
TOTAL OTO Budget		**$999,186**		**$943,333**	
Direct Outside Grant					
CU Transit Salaries*	$216,000		$210,000		
TOTAL EXPENDITURES		**$1,215,186**		**$1,153,333**	↓ $66,149

Notes * Cost includes federal and required 20% matching funds.

ESTIMATED REVENUES

Ozarks Transportation Organization Revenue					
Consolidated FHWA/FTA PL Funds	$799,349		$754,666		
Local Jurisdiction Match Funds	$100,337		$86,988		
In-kind Match, Meeting Attendance**	$10,000		$10,000		
MoDOT Direct Service Match**	$89,500		$91,679		
Total Ozarks Transportation Organization Revenue		**$999,186**		**$943,333**	↓ $61,849
Direct Outside Grant					
City Utilities Transit Planning					
FTA 5307	$172,800		$168,000		
City Utilities Local Match	$43,200		$42,000		
Total Direct Outside Grant		**$216,000**		**$210,000**	
TOTAL REVENUE		**$1,215,186**		**$1,153,333**	

Notes: * Cost includes federal and required 20% matching funds. Pass through funds, OTO does not administer or spend the City Utility funds.

** In the event that In-kind Match/Direct Cost/Donated is not available, local jurisdictions match funds will be utilized.

APPENDIX B

FY 2018

July 1, 2017 - June 30, 2018

ANTICIPATED CONSULTANT USAGE

Cost Category	*Budgeted Amount FY17*	*Total Amount Budgeted FY17*	*Budgeted Amount FY18*	
al Photography			$25,000	
Audit	$7,000		$4,600	
Professional Services Fees	$24,000		$24,000	
Data Storage/Backup	$4,500		$4,500	
IT Maintenance Contract	$9,000		$12,000	
Online TIP Tool	$9,600		$9,600	
Online TIP Tool Software	$25,000		$0	
Regional Bicyle and Pedestrian Trail Investment Study	$150,000		$63,980	
Travel Time Runs and Traffic Counts	$12,000		$0	
Travel Model Consultant	$20,000		$0	
Transportation Consultant/Modeling Services (Formerly Travel Time Runs and Travel Model) combined			$36,000	
VOIP Phone System			$6,500	
Total Consultant Usage		**$261,100.00**		**$186,180.00**

TAB 8

TECHNICAL PLANNING COMMITTEE AGENDA 3/15/2017; ITEM II.G.

Growth Trends Report

Ozarks Transportation Organization
(Springfield, MO Area MPO)

AGENDA DESCRIPTION:
The Growth Trends report is based on the most recent census data and building permit information collected from area jurisdictions.

This report includes information for residential units permitted, population and socioeconomic data, and growth trend maps, providing a view of growth for the OTO service area and the five county Metropolitan Statistical Area (Christian, Dallas, Greene, Polk and Webster counties). The report is published for information purposes and can be viewed in full on the OTO website at http://www.ozarkstransportation.org/Documents/OTO_Growth_Trends12312016.pdf.

If there is additional information that the Technical Planning Committee is interested in seeing in the annual growth trends report, members are asked to let staff know.

TECHNICAL PLANNING COMMITTEE ACTION REQUESTED:

Information only. No action required.

Growth Trends

OZARKS TRANSPORTATION ORGANIZATION

A METROPOLITAN PLANNING ORGANIZATION

THROUGH DECEMBER 31, 2016

2208 W. CHESTERFIELD BLVD, SUITE 101
SPRINGFIELD, MISSOURI 65807

Disclaimer

This report was prepared in cooperation with the USDOT, including FHWA and FTA, as well as the Missouri Department of Transportation. The opinion, findings, and conclusions expressed in this publication are those of the authors and not necessarily those of the Missouri Highway and Transportation Commission, the Federal Highway Administration, and the Federal Transit Administration.

Table of Contents

Introduction

Each year the Ozarks Transportation Organization, or OTO, examines residential construction activity and socioeconomic data for its planning area and member jurisdictions. This report is comprised of three main sections:

RESIDENTIAL UNITS

Single-family and multi-family residential construction activity for the various jurisdictions within the OTO planning area.

POPULATION & SOCIOECONOMIC DATA

Population, income, poverty, education, commuting, and workforce data.

GROWTH TRENDS MAPS

A display of residential construction activity within various OTO-area jurisdictions for the year 2016.

Residential Units

BUILDING PERMIT ACTIVITY

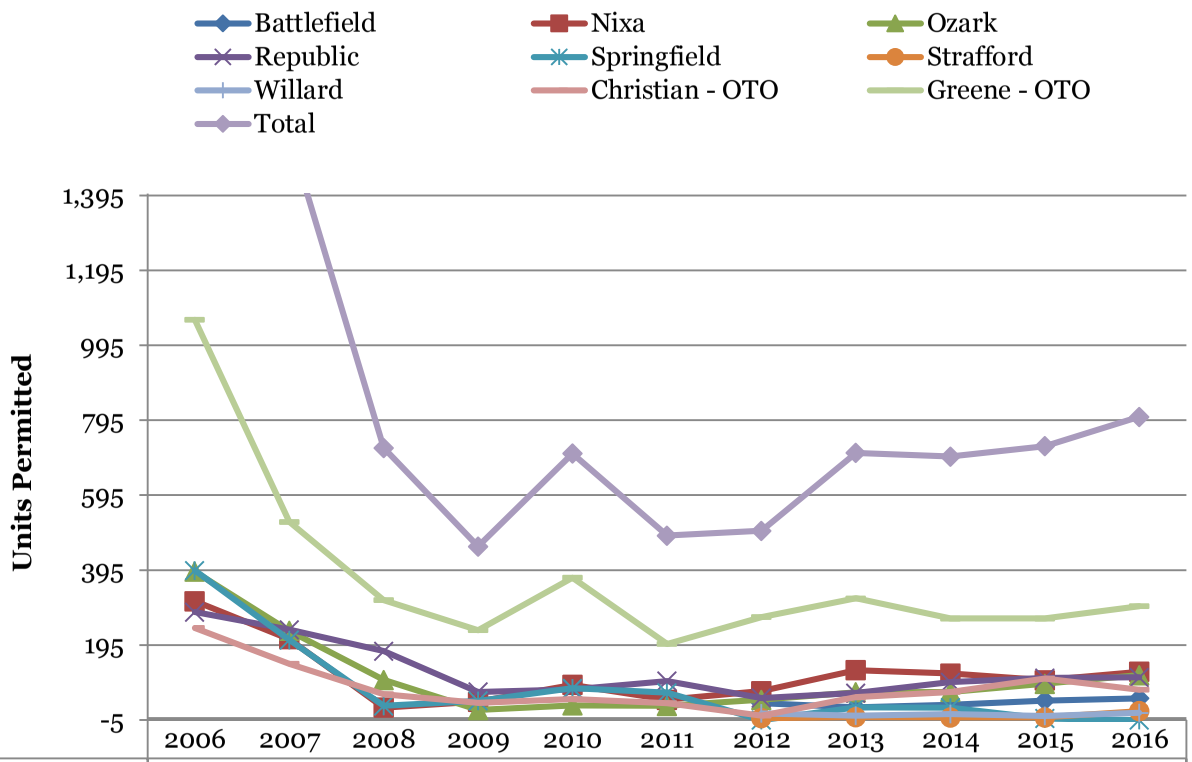
The building permit data was obtained from each municipality in the OTO area. The data was geocoded into a Growth Trends GIS database by the address given. The number of units per census tract were obtained by adding together the single family and multifamily units and subtracting the permitted demolition units.

Jurisdictions within the OTO

Each year the Ozarks Transportation Organization (OTO) collects building permit data from its member jurisdictions. The chart to the right shows that single family home construction has slowed throughout the OTO planning area since peak highs in the mid-2000s. In 2016, however, single family home construction in the OTO area rose to its highest level since 2007.

The number of single family homes permitted increased in most jurisdictions from 2015 with the exception of Springfield and the unincorporated part of Christian County in the OTO area. The Cities of Nixa, Ozark, Strafford and the unincorporated part of Greene County in the OTO area led the modest rise in construction permits in 2016 with the most significant increases in single family permits in these communities.

The total number of single family permits in the OTO area was offset by the demolition of 167 single family housing units with 96 demolitions occurring in Springfield. Greene County and Ozark also accounted for 39 and 24 demolitions respectively. The majority of demolitions in Ozark were manufactured homes.



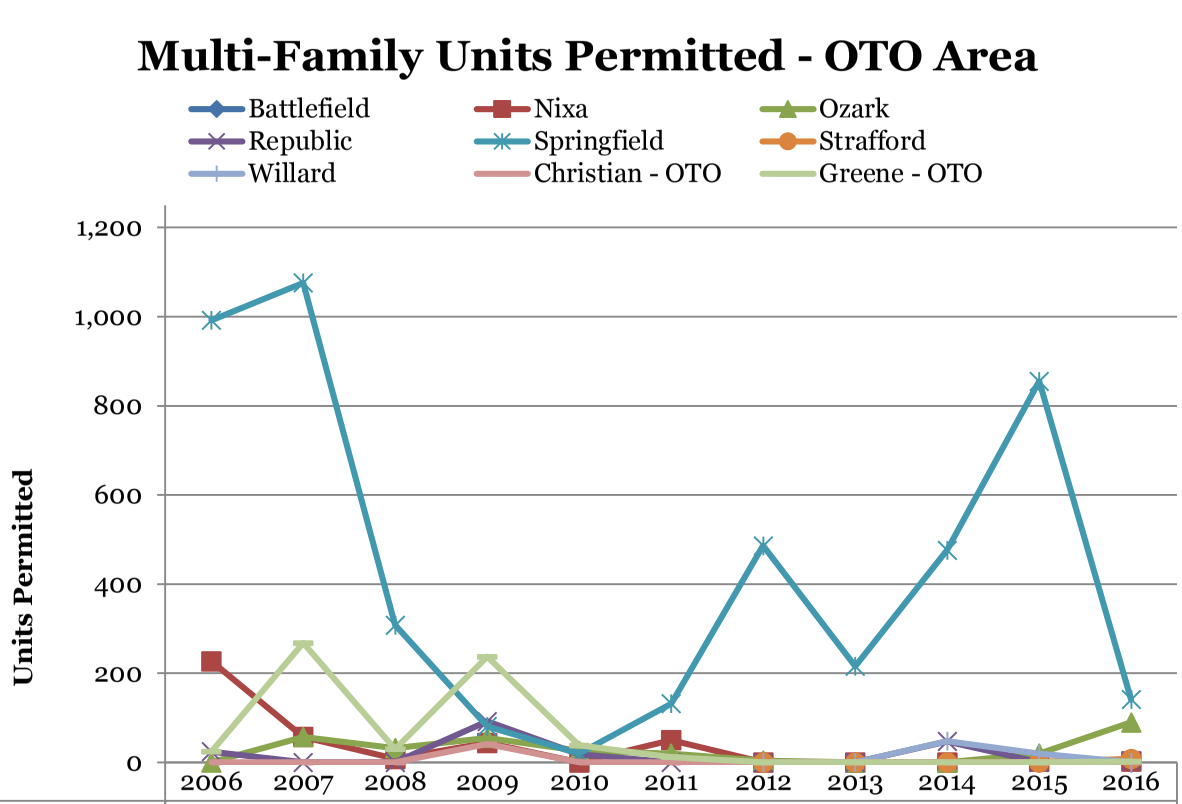
	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Battlefield	Not Available						40	29	36	47	53
Nixa	312	211	28	44	89	49	72	128	119	101	124
Ozark	391	233	102	22	34	33	49	69	70	92	115
Republic	283	236	179	70	77	99	54	67	96	107	109
Springfield	394	209	33	46	80	68	-5	29	28	-1	-5
Strafford	Not Available						0	3	2	2	19
Willard	Not Available						13	7	11	6	14
Christian - OTO	241	145	64	41	51	40	7	56	70	106	76
Greene - OTO	1,063	524	315	235	375	198	270	320	266	266	299
Total	2,684	1,558	721	458	706	487	500	708	698	726	804

Jurisdictions within the OTO (continued)

Over the past 11 years the vast majority of local multi-family residential construction has occurred within the City of Springfield, where the number of multi-family building permits issued rose sharply after 2003 and then dropped significantly after 2007. Except for just a few multi-family construction permits issued in Ozark, Nixa and Willard, Springfield issued the only multi-family residential construction in 2015 with a resurgence to nearly the level of the mid-2000s.

In 2016, only the cities of Ozark and Springfield issued permits for multi-family housing other than duplexes. While the City of Springfield issued the most permits, the 2016 total of 195 was significantly less than the 2015 total. This number was further offset by the demolition of 54 multi-family units. The City of Ozark, in addition to several duplexes, permitted three 24 unit apartment buildings in 2016 near State Highway J and U.S. Highway 65.

The significant decrease in the City of Springfield's multi-family residential construction permits from the previous four years has resulted in a relatively small gain in the OTO area as a whole for 2016.



	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Battlefield	Not Available						0	0	0	0	0
Nixa	227	57	8	44	0	50	0	0	0	2	2
Ozark	0	57	32	55	26	20	4	0	0	20	90
Republic	24	0	0	92	18	0	0	0	47	0	4
Springfield	992	1,076	308	81	20	132	486	216	476	855	141
Strafford	Not Available						0	0	0	0	8
Willard	Not Available						0	0	48	20	0
Christian - OTO	0	0	0	41	0	0	0	0	0	0	0
Greene - OTO	24	268	30	237	38	12	0	0	0	0	2
Total	1,267	1,458	378	550	102	214	490	216	571	897	247

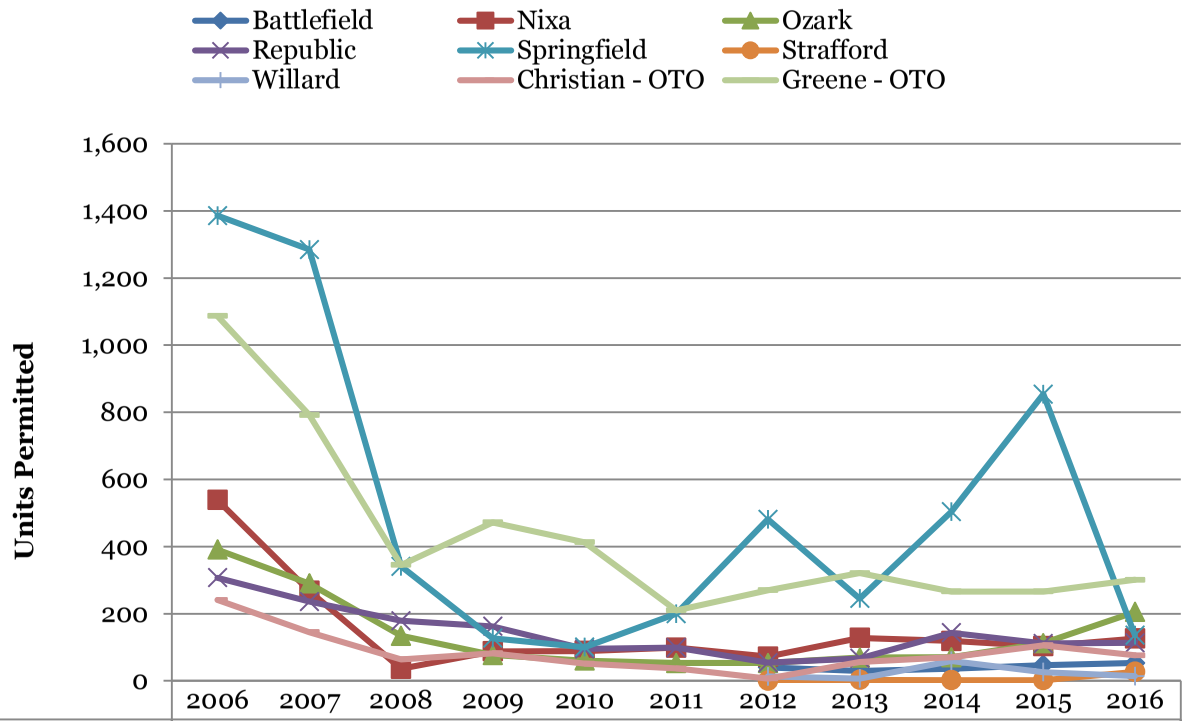
Jurisdictions within the OTO (continued)

The chart to the right shows the total number of residential units permitted minus single family and multi-family demolitions in Battlefield, Nixa, Ozark, Republic, Springfield, Strafford, Willard, and the unincorporated portions of Greene County and Christian County within the OTO planning area.

Residential construction in Ozark (441 units), Nixa (547), and Greene County (1,424) peaked in 2005, while Springfield (1,386), Republic (307), and Christian County (241) reached their highest levels in 2006.

Residential unit construction permits within the OTO planning area increased from 2014 (1,269 units) to 2015 (1,627 units) despite a number of demolitions occurring in 2015 (-143 units). The net growth in housing units was not sustained in 2016 (1,051) and included higher number of demolitions (-221). The decline from 2015 to 2016 is largely attributable to the drop in multi-family construction in Springfield.

Total Residential Units Permitted – OTO Area



	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Battlefield	Not Available						40	29	36	47	53
Nixa	539	268	36	88	89	99	72	128	119	103	126
Ozark	391	290	134	77	60	53	53	69	70	112	205
Republic	307	236	179	162	95	99	54	67	143	111	113
Springfield	1,386	1,285	341	127	100	200	481	245	504	854	136
Strafford	Not Available						0	3	2	2	27
Willard	Not Available						13	7	59	26	14
Christian - OTO	241	145	64	82	51	37	7	56	70	106	76
Greene - OTO	1,087	792	345	472	413	210	270	321	266	266	301
Total	3,951	3,016	1,099	1,008	808	698	990	925	1,269	1,627	1,051

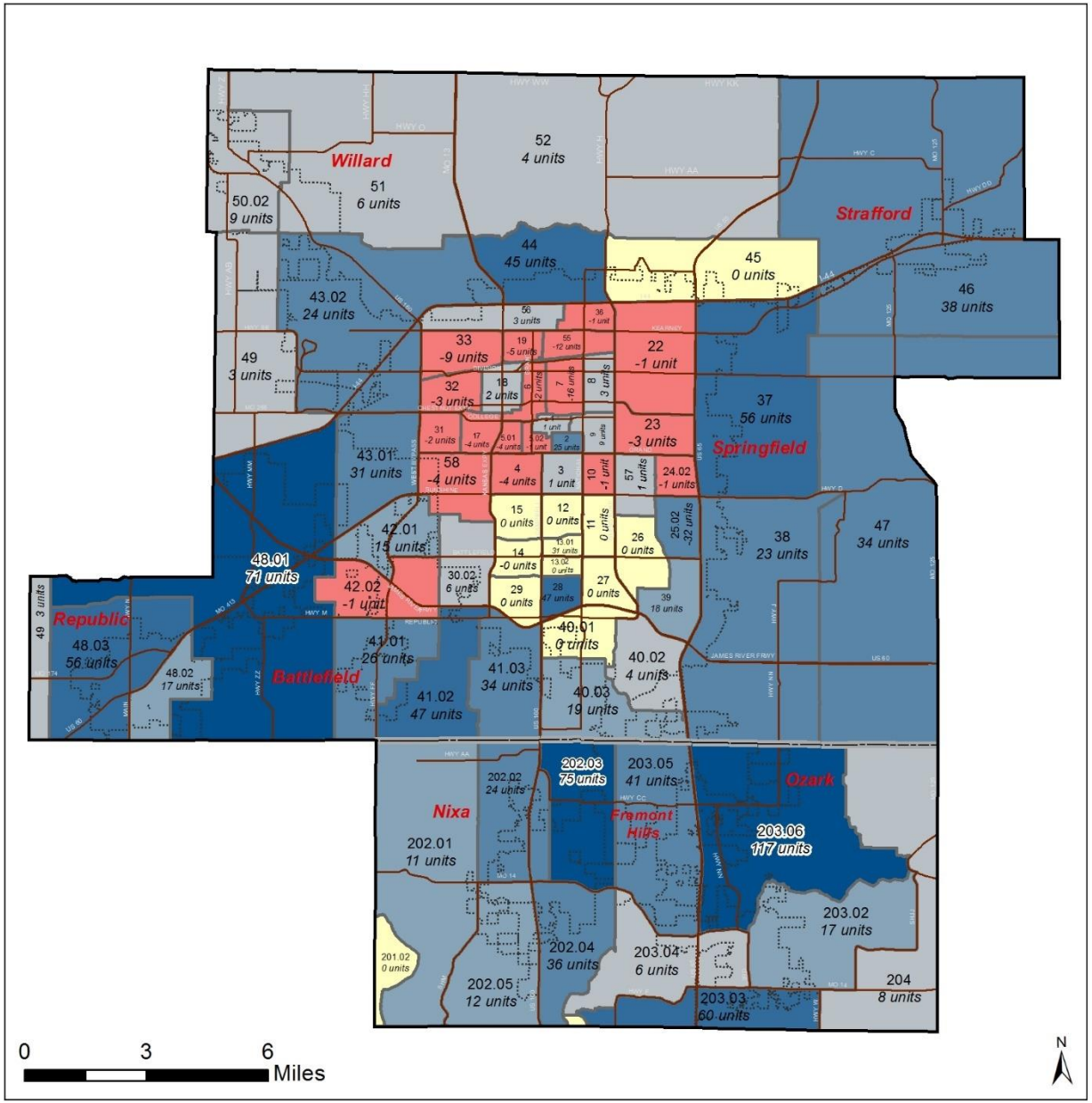
Growth Trends Maps

CHANGES IN HOUSING UNITS

In the following maps, new residential construction activity is analyzed at the MPO, county, and city levels along with the analysis of migration to and from Christian County and Greene County. The majority of growth in the OTO planning area during 2016 occurred to the south and southwest of the City of Springfield. Over the past 16 years, the areas at and outside the periphery of Springfield (including Willard, Republic, and Battlefield), and northern Christian County (including Nixa and Ozark), have witnessed the most growth.

While Greene County and Christian County saw the biggest migration between themselves, Greene County saw a net loss of 678 residents. Christian County saw an increase of 394 residents.

2016 Housing Units Added



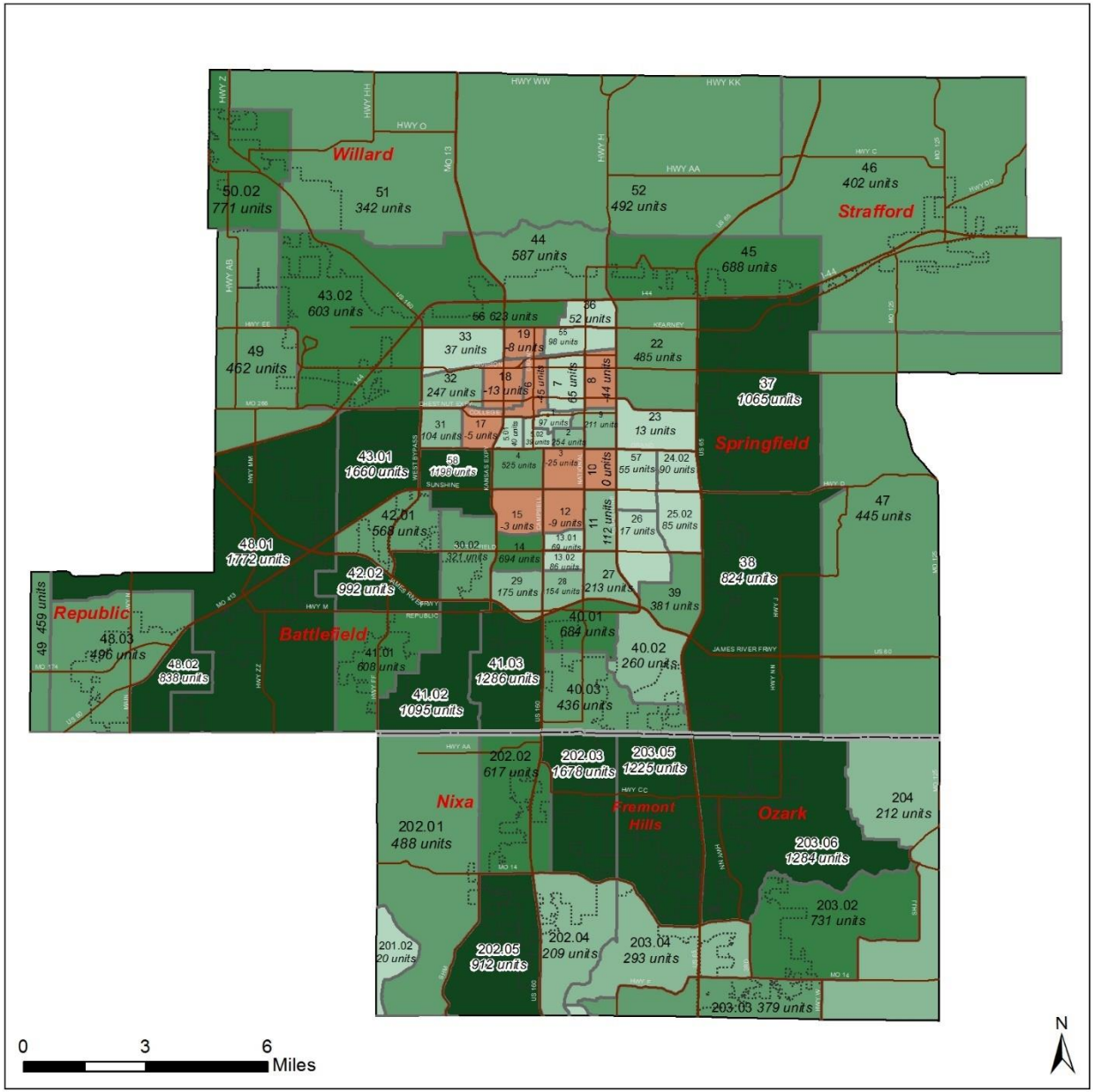
OTO Planning Area Boundary

Net Change in Housing Units by 2010 Census Tract
Jan 1, 2016 to Dec 31, 2016

- County Boundary
- Road
- Census Tract Boundary
- City Limit

Number of Housing Units

- < 0
- 0
- 1 - 10
- 11 - 20
- 21 - 40
- 41 - 60
- > 60



2000 - 2016 Housing Units Added

OTO Planning Area Boundary

Net Change in Housing Units by 2010 Census Tract April 1, 2000 to Dec 31, 2016

County Boundary

Road

Census Tract Boundary

City Limit

Number of Housing Units

- ≤ 0
- 1 - 100
- 101 - 300
- 301 - 600
- 601 - 800
- > 800

Disclaimer: This map is provided "as is" without warranty, representation, or guarantee as to the accuracy nor completeness of the data presented herein. Data not available for all jurisdictions for all years.

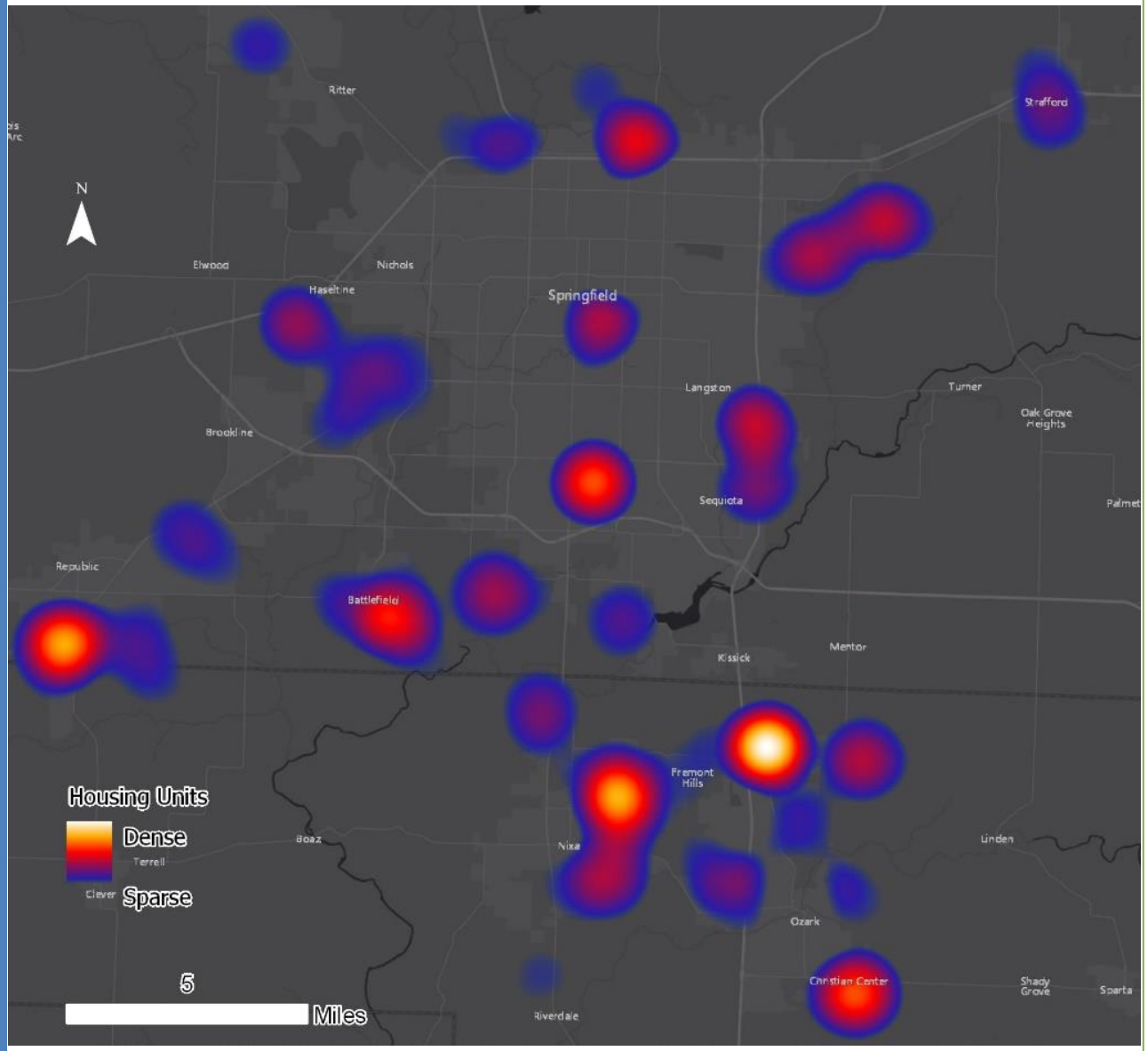
2016 Permit Heat map

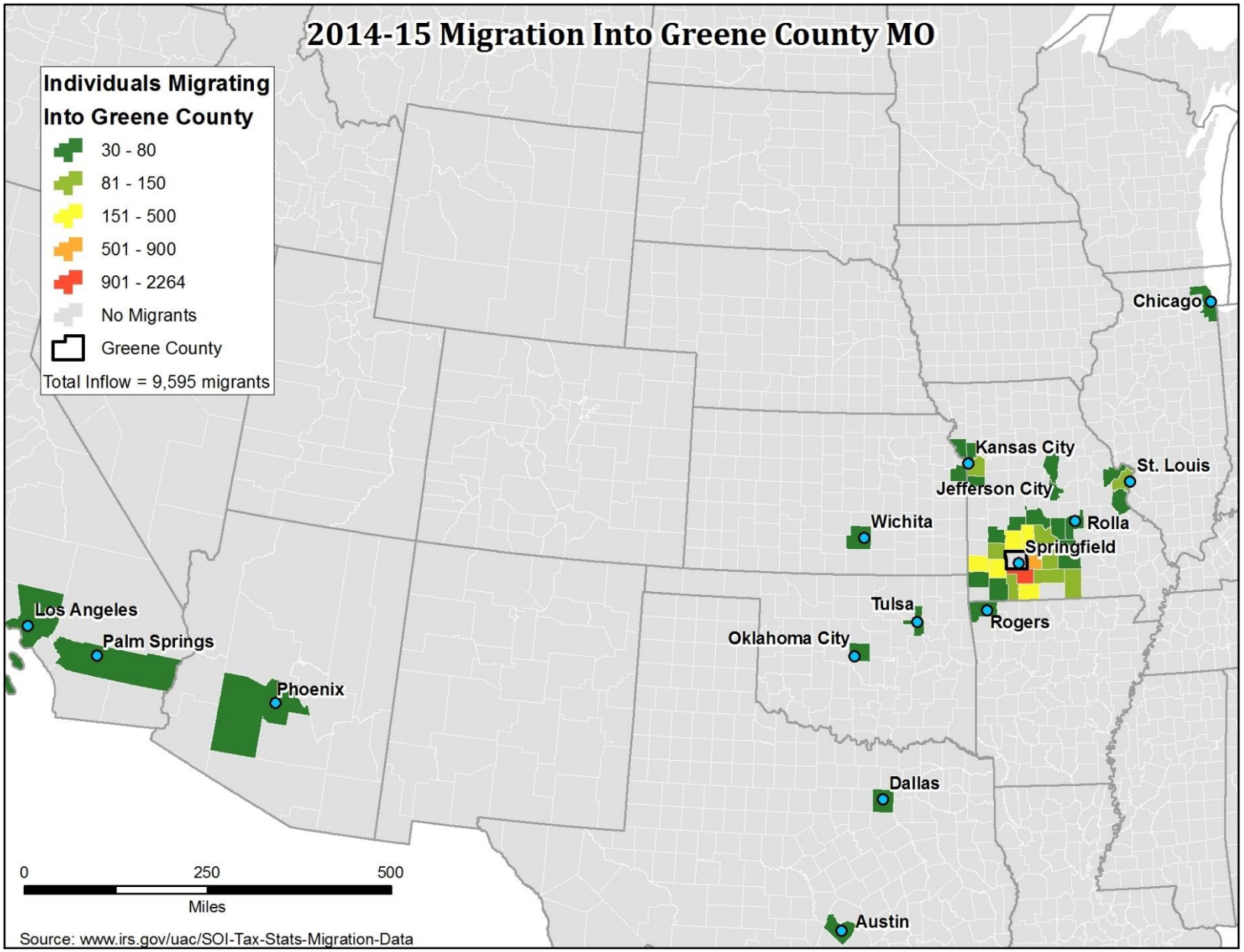
The map on the right shows the areas where the most new residential structure permits were issued in the OTO area in 2016.

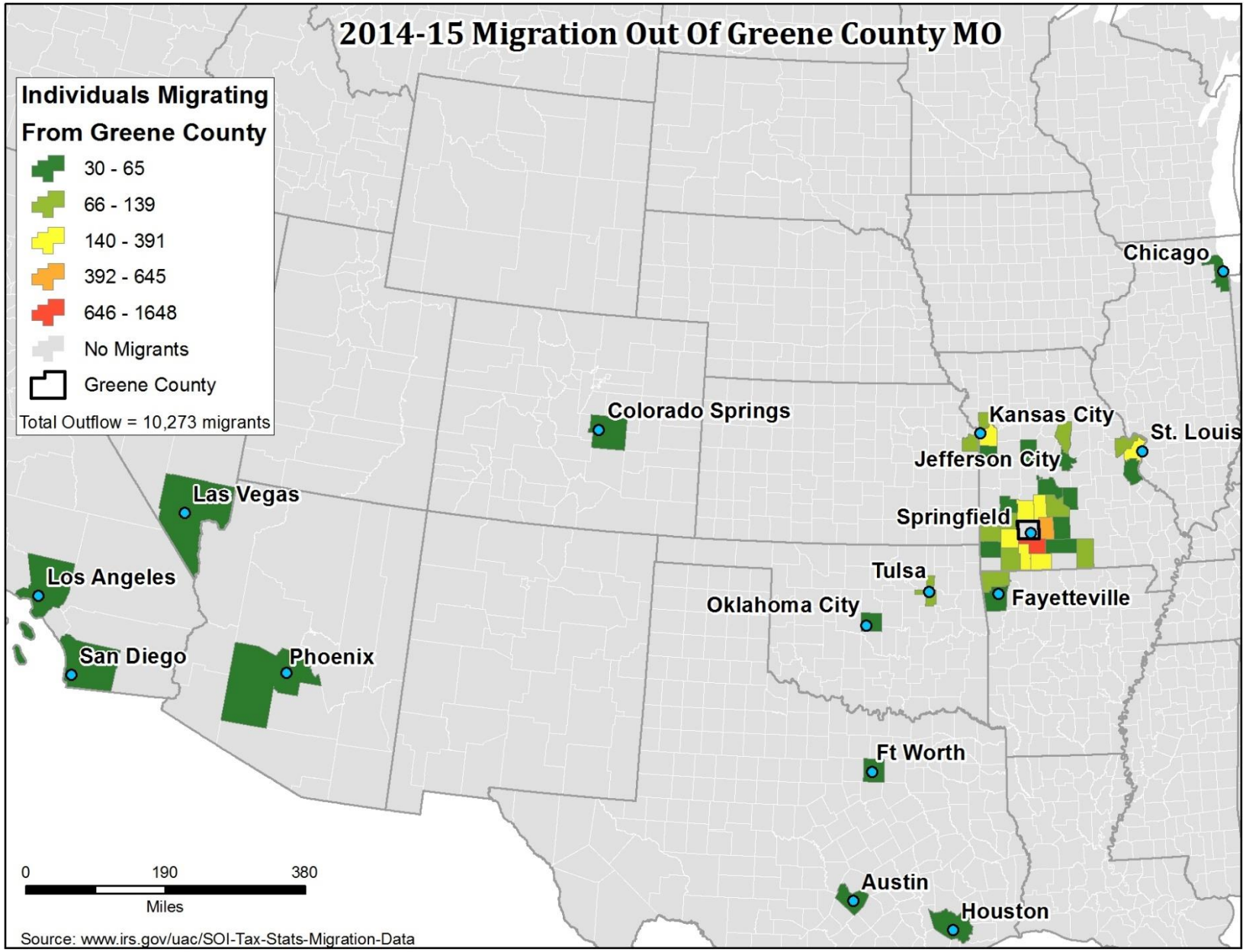
The densest cluster of new housing units can be seen in Ozark near State Highway J and U.S. Highway 65 where 72 new multi-family units were permitted in 2016. Other significant clusters of new residential construction permits are in northeast Nixa and southwest Republic. These are clusters of new single family home permits.

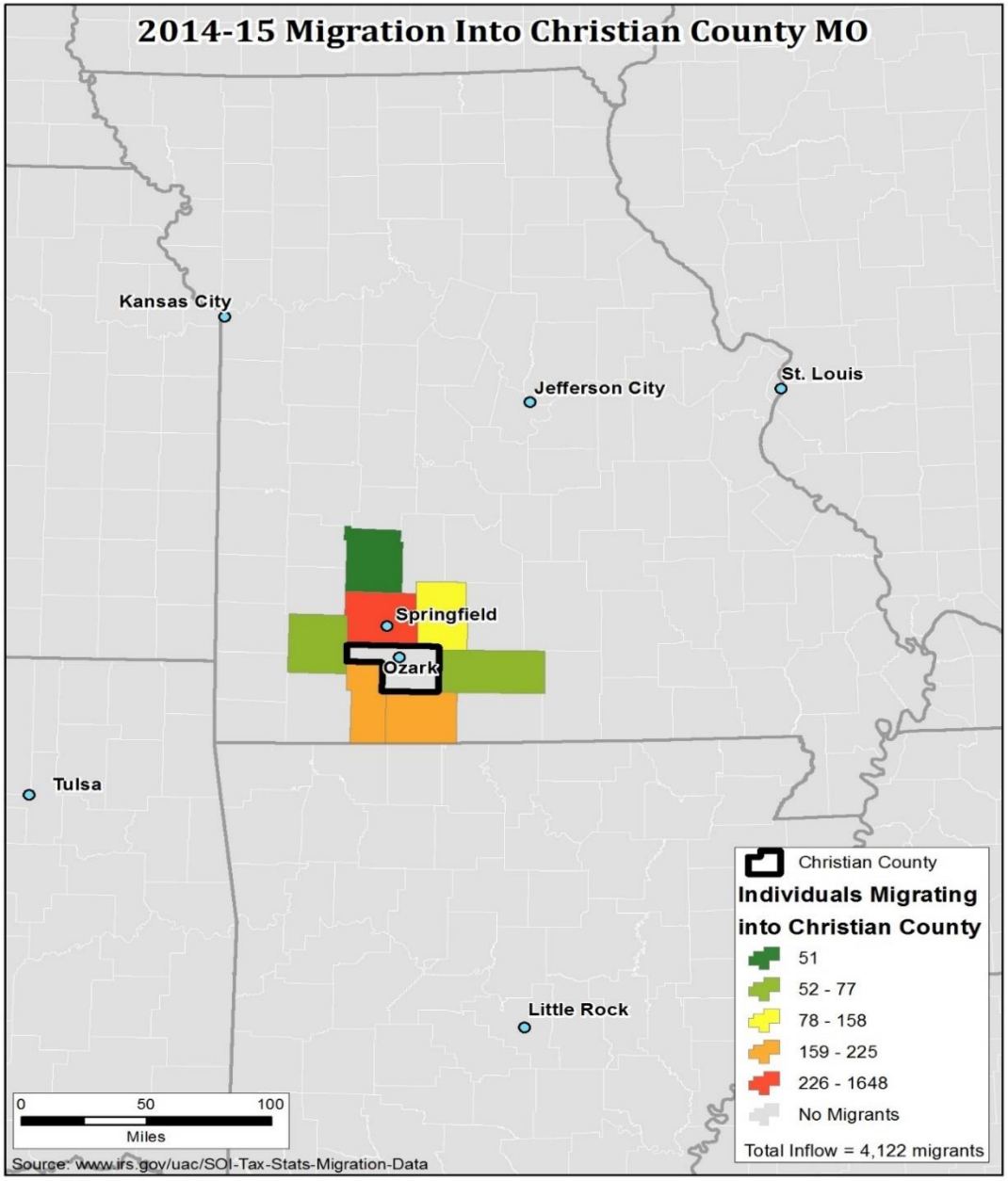
Other clusters of permits issued are in Battlefield, southern Ozark, and central and south central Springfield. The clusters within Springfield represent mostly multi-family housing units.

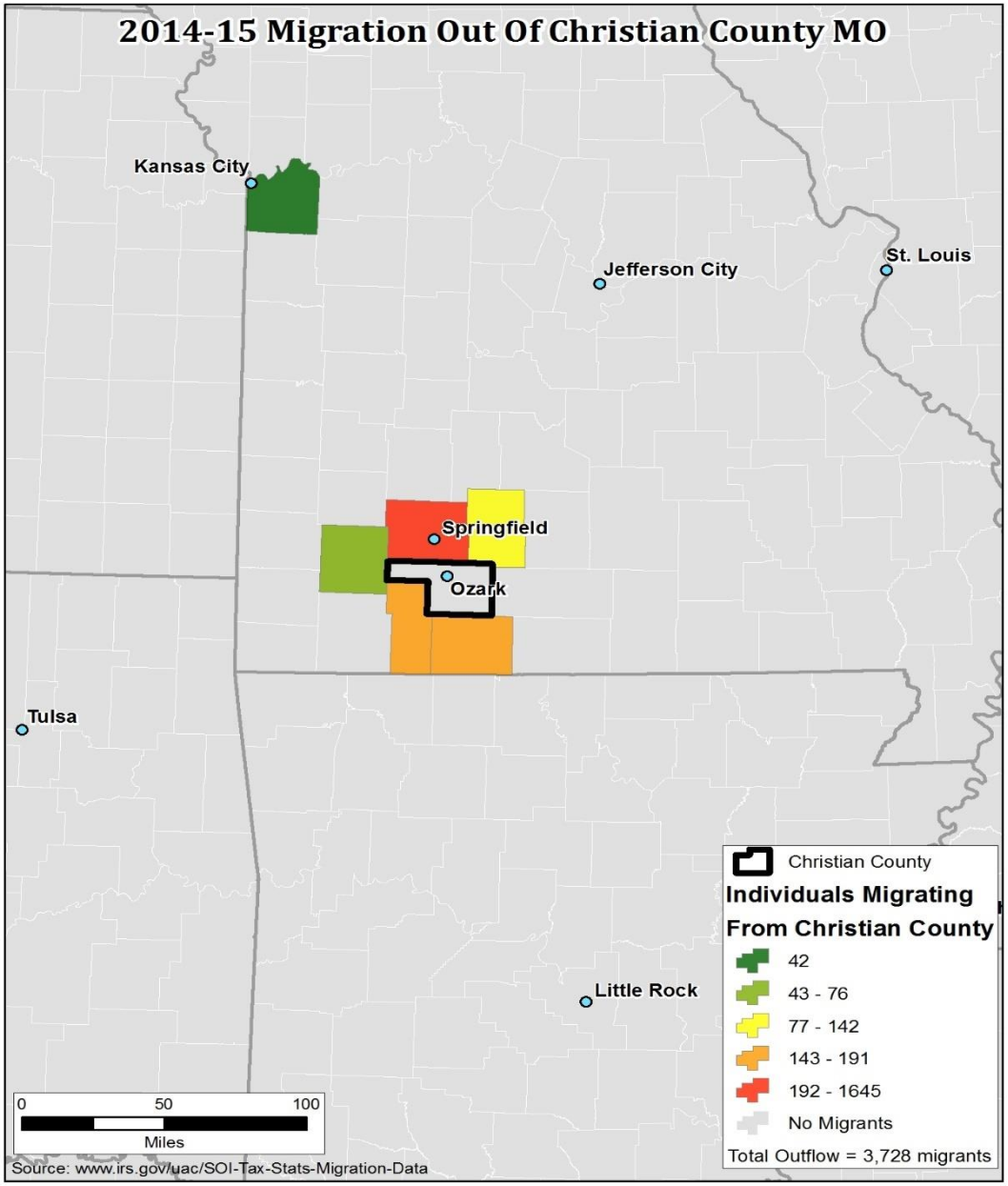
There are smaller clusters to the east and northeast of Springfield around Battlefield Road and U.S. Highway 65 and east Division Street. These clusters consist of new single family structures.




2014-15 Migration Into Greene County MO
Individuals Migrating Into Greene County
30 - 80
81 - 150
151 - 500
501 - 900
901 - 2264
No Migrants
Greene County
Total Inflow = 9,595 migrants
Chicago
Kansas City
St. Louis
Jefferson City
Wichita
Rolla
Springfield
Tulsa
Rogers
Oklahoma City
Los Angeles
Palm Springs
Phoenix
Dallas
Austin
0
250
500
Miles
Source: www.irs.gov/uac/SOI-Tax-Stats-Migration-Data


2014-15 Migration Out Of Greene County MO
Individuals Migrating From Greene County
30 - 65
66 - 139
140 - 391
392 - 645
646 - 1648
No Migrants
Greene County
Total Outflow = 10,273 migrants
Chicago
Colorado Springs
Kansas City
St. Louis
Jefferson City
Las Vegas
Springfield
Los Angeles
Tulsa
Oklahoma City
Fayetteville
San Diego
Phoenix
Ft Worth
0
190
380
Miles
Austin
Houston
Source: www.irs.gov/uac/SOI-Tax-Stats-Migration-Data


2014-15 Migration Into Christian County MO
Kansas City
Jefferson City
St. Louis
Springfield
Ozark
Tulsa
Little Rock
Christian County
Individuals Migrating into Christian County
51
52 - 77
78 - 158
159 - 225
226 - 1648
No Migrants
Total Inflow = 4,122 migrants
0
50
100
Miles
Source: www.irs.gov/uac/SOI-Tax-Stats-Migration-Data


2014-15 Migration Out Of Christian County MO
Kansas City
Jefferson City
St. Louis
Springfield
Ozark
Tulsa
Little Rock
0
50
100
Miles
Source: www.irs.gov/uac/SOI-Tax-Stats-Migration-Data
Christian County
Individuals Migrating From Christian County
42
43 - 76
77 - 142
143 - 191
192 - 1645
No Migrants
Total Outflow = 3,728 migrants

Population & Socioeconomic Data

THROUGH DECEMBER 31, 2016

Based on figures from the 2010 Census, the five-county MSA (Christian, Dallas, Greene, Polk, Webster) has a population of 436,712. This represents a 15.6 percent increase over the 2000 MSA population of 368,374 and an average annual growth rate of 1.56 percent between 2000 and 2010.

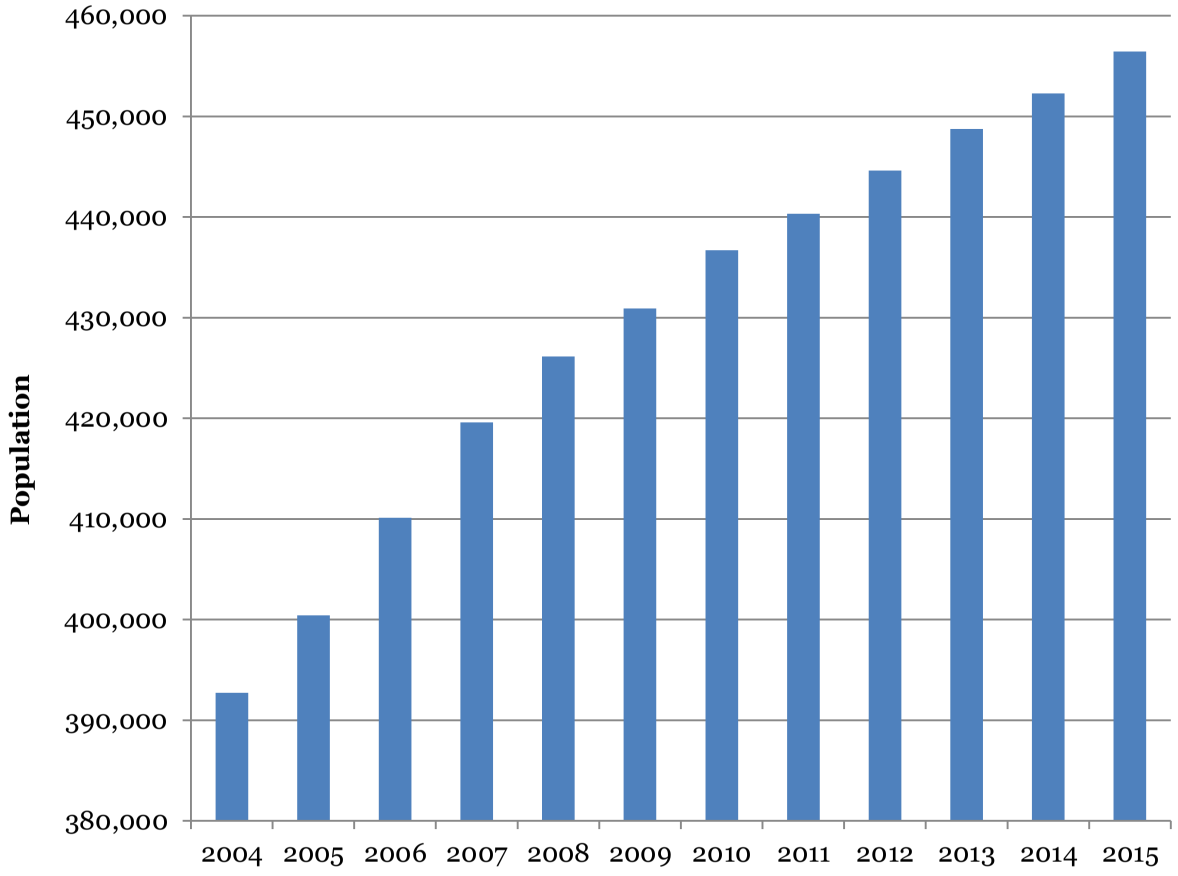
Springfield MSA

After the 2000 Census, the Springfield Metropolitan Statistical Area, or MSA, was expanded from three counties - Greene, Christian, and Webster - to five counties - Greene, Christian, Webster, Dallas, and Polk. The chart to the right shows the steady population increase in the five-county MSA. From 2004 to 2015 the MSA has increased over 16 percent. This is an annual average increase of 1.35 percent.

Using the rule of 70, at a growth percent of 1.35, it will take the Springfield MSA over 50 years to double in population to 912,912 people.

Springfield MSA Population

Source: US Census Bureau (Based on 2010 MSA of Greene, Christian, Webster, Polk and Dallas Counties)



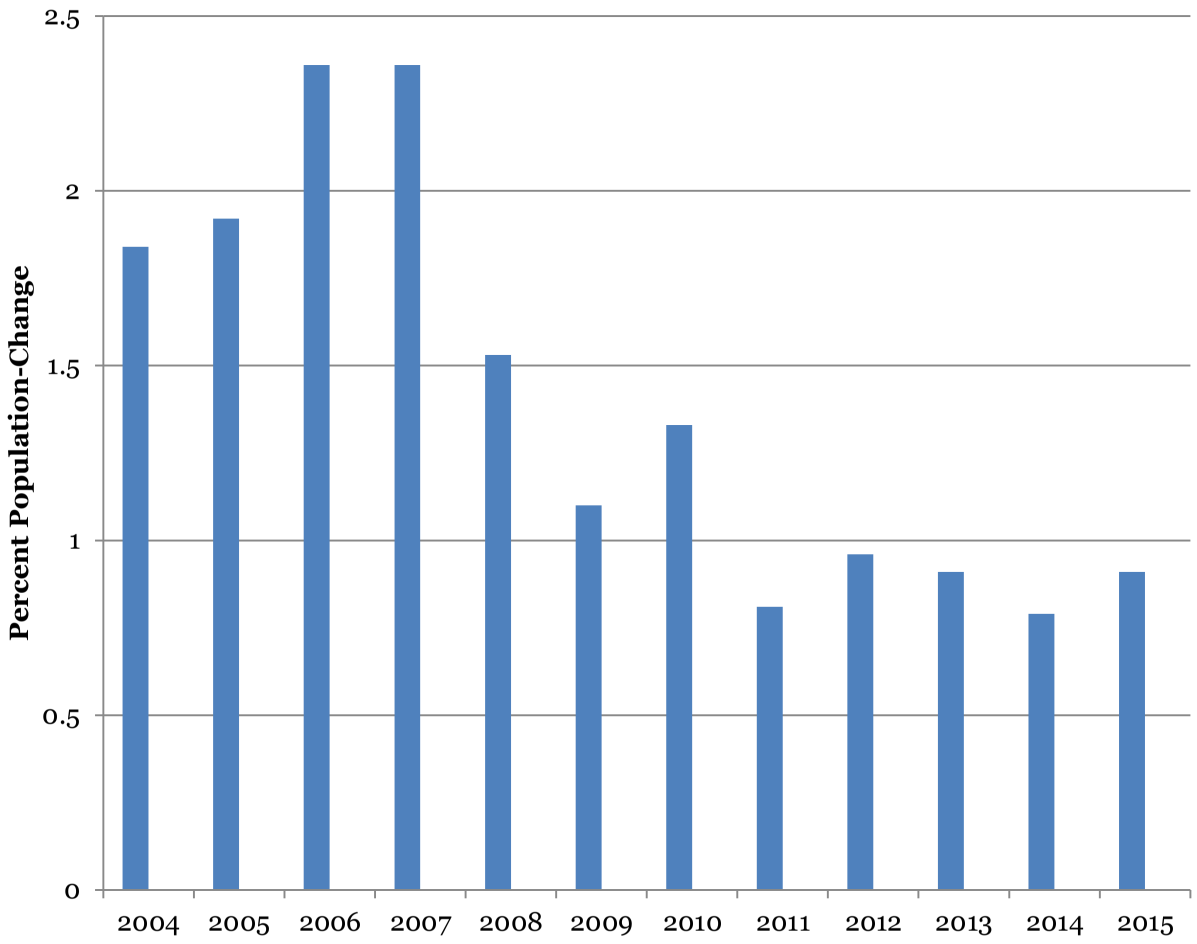
Springfield MSA (continued)

The chart to the right shows the annual population percentage change between 2004 and 2015 for the five-county Springfield Metropolitan Statistical Area (MSA).

Although population growth in the five-county MSA has been consistently positive, the percent of change varies from year to year. The highest year over year growth percentages during the 12-year period from 2004 to 2015 were in 2006 and 2007, immediately before the "Great Recession."

After 2007, population growth rates stayed at recession levels. The 2015 growth rate increased to .91 percent from .79 percent in 2014 which was the lowest growth rate in the last 12 years.

Annual Percent Change
Springfield MSA Population
Source: US Census Bureau (Based on the 2010 MSA of Greene, Christian, Webster, Polk, and Dallas Counties)



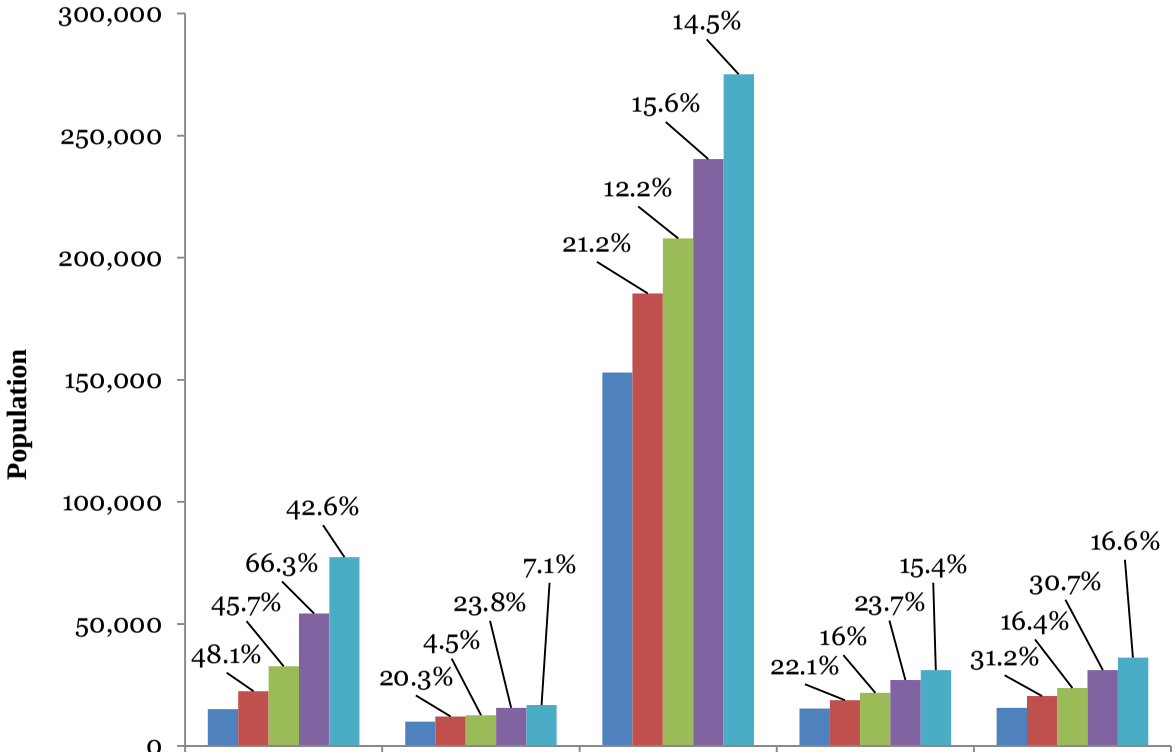
Individual Counties

The chart to the right shows both the actual number of people added in each of the five Springfield Metropolitan Statistical Area (MSA) counties and the population growth for each county (as noted above the bars) between 1970 and 2010.

Greene County added the most population (34,783) of any MSA county between 2000 and 2010, but had only the fourth-highest population growth rate. Christian County, by far, had the highest population growth rate (29.9%) of any MSA county between 2000 and 2010; this growth rate represented an actual population increase of 23,137. The population of Webster County grew by 14.2% between 2000 and 2010, while the populations of Polk County and Dallas County increased by 13.3% and 6.7%, respectively, over the same time period.

Population Increase
Springfield MSA Counties 1970-2010

Source: Missouri Census Data Center



	Christian County	Dallas County	Greene County	Polk County	Webster County
1970	15,124	10,054	152,929	15,415	15,562
1980	22,402	12,096	185,302	18,822	20,414
1990	32,644	12,646	207,949	21,826	23,753
2000	54,285	15,661	240,391	26,992	31,045
2010	77,422	16,777	275,174	31,137	36,202

Jurisdictions within the OTO

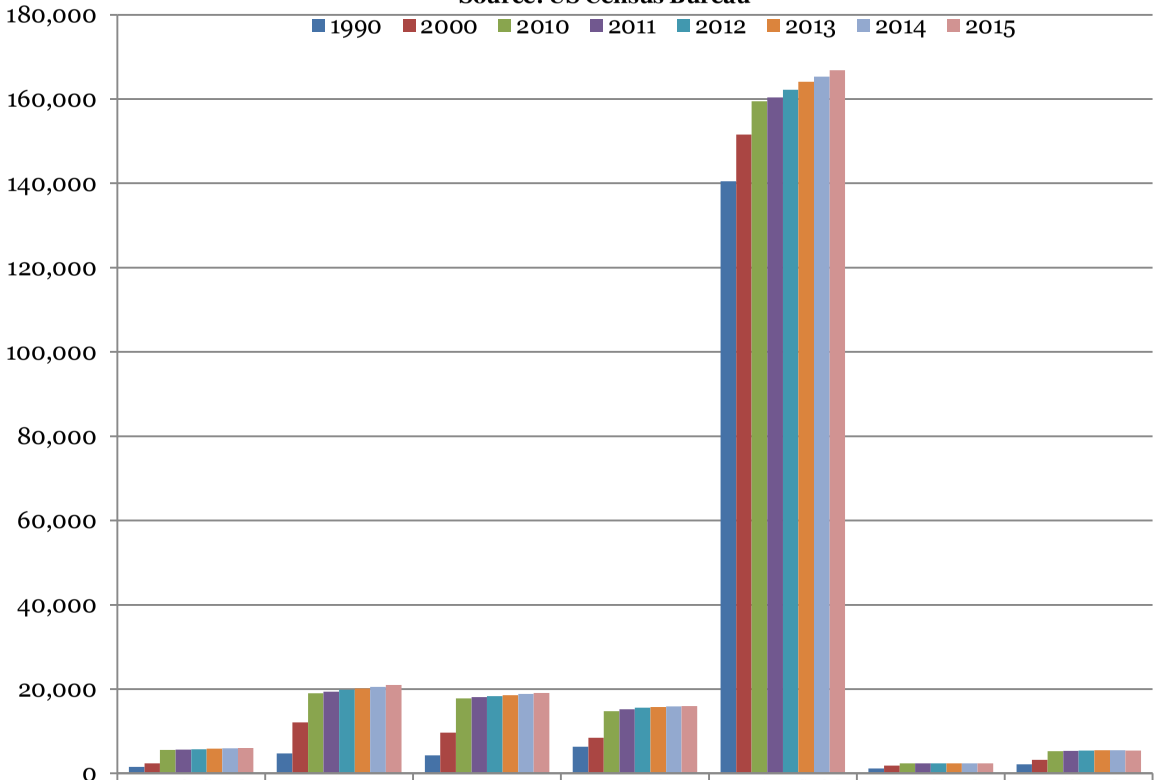
The chart and data table to the right show the populations of the cities within the OTO planning area. The City of Springfield, the most populous city within the OTO area and the region's employment center, has experienced steady growth over the past 25 years, adding a total of 26,316 people between 1990 and 2015.

The cities surrounding Springfield have enjoyed incredible rates of population growth over the past 25 years. Between 1990 and 2010, the populations of the cities around Springfield have all more than doubled and in some cases (see Nixa and Ozark) even quadrupled. However, from 2013 to 2015 the area has only seen moderate increases with the exception of Strafford and Willard.

Average daily traffic on the highways connecting Springfield to the other cities in the OTO area has steadily increased during the last decade as residents commute into Springfield in increasing numbers for jobs, shopping, health care, and higher education.

Population
Cities in the OTO Planning Area

Source: US Census Bureau

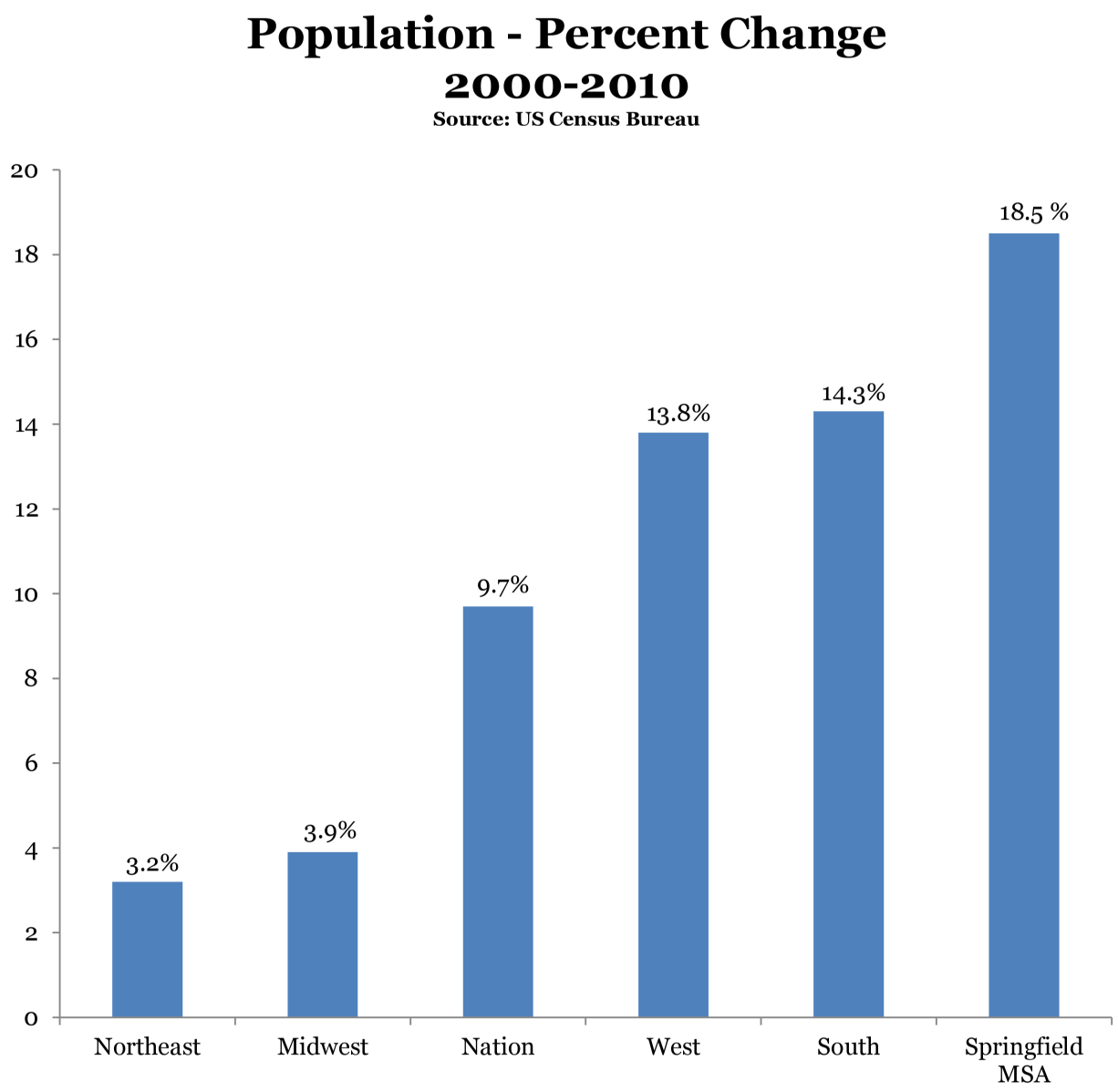


	Battlefield	Nixa	Ozark	Republic	Springfield	Strafford	Willard
1990	1,526	4,707	4,243	6,292	140,494	1,166	2,177
2000	2,385	12,124	9,665	8,438	151,580	1,845	3,193
2010	5,590	19,022	17,820	14,751	159,498	2,358	5,288
2011	5,664	19,394	18,125	15,204	160,361	2,349	5,353
2012	5,743	19,853	18,336	15,561	162,224	2,359	5,412
2013	5,877	20,123	18,555	15,760	164,115	2,365	5,472
2014	5,931	20,553	18,858	15,864	165,312	2,362	5,459
2015	6,001	20,984	19,120	16,005	166,810	2,361	5,454

State, Region, Nation

Between 2000 and 2010, the five-county Springfield Metropolitan Statistical Area (MSA) population growth rate exceeded the growth rate of the nation as a whole, as well as the various regions (Midwest, South, etc.) within the United States. The population of the United States increased by 9.7% between 2000 and 2010 while the population of the Springfield MSA grew by 18.5%.

Nationally, the South (14.3%) and West (13.8%) grew more population-wise than the nation as a whole. Meanwhile, the Midwest (3.9%) and Northeast (3.2%) saw slower than average population growth.



Median Household Income

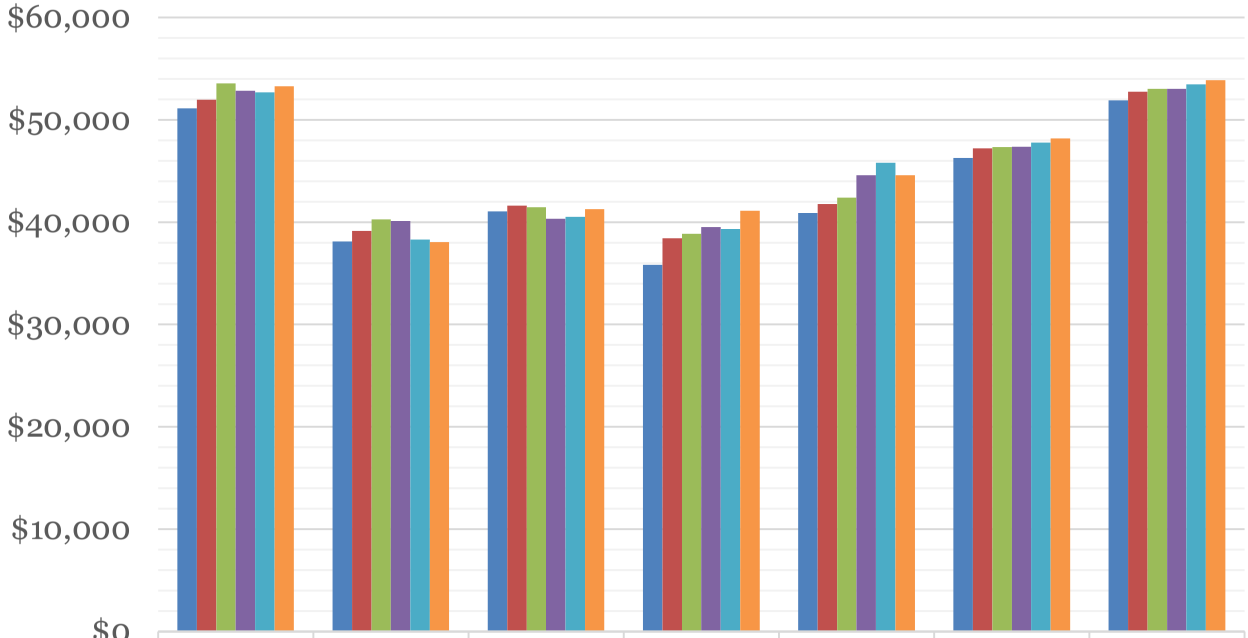
The chart to the right shows median household income for the five counties that comprise the Springfield Metropolitan Statistical Area, or MSA. Christian County ($53,270) and Dallas County ($38,062) have the highest and lowest median household income levels, respectively, within the Springfield MSA.

Christian County household income increased 1.1 percent from 2014 to 2015, and is the only county in the MSA that is greater than the state median household income ($48,173). All Counties in the Springfield MSA are below the national level ($53,889).

Dallas (-.7%) and Webster (-2.66%) counties saw dips in median household incomes from 2014 to 2015. Christian, Greene and Polk counties saw increases over this same period of 1.1 percent, 1.9 percent, and 4.6 percent respectively.

Median Household Income Springfield MSA Counties

Source: 2010,2011,2012,2013,2014, & 2015 ACS 5-Year Estimates



	Christian County	Dallas County	Greene County	Polk County	Webster County	Missouri	United States
2010	$51,135	$38,101	$41,059	$35,831	$40,889	$46,262	$51,914
2011	$51,961	$39,132	$41,622	$38,423	$41,764	$47,202	$52,762
2012	$53,549	$40,286	$41,458	$38,852	$42,384	$47,333	$53,046
2013	$52,838	$40,120	$40,337	$39,512	$44,596	$47,380	$53,046
2014	$52,693	$38,314	$40,512	$39,336	$45,798	$47,764	$53,482
2015	$53,270	$38,062	$41,277	$41,130	$44,581	$48,173	$53,889

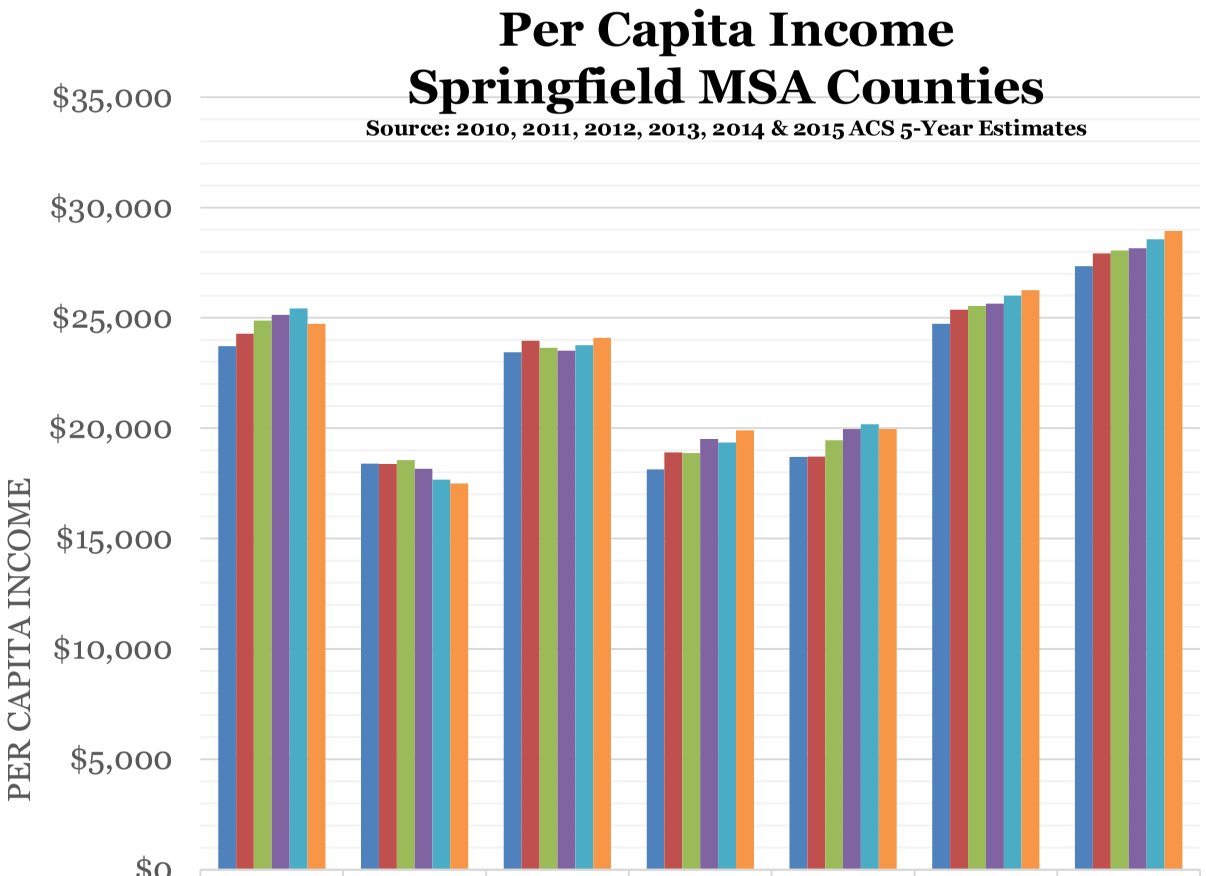
Per Capita Income

The chart to the right shows per capita income for the United States, the state of Missouri, and the five counties that comprise the Springfield Metropolitan Statistical Area (MSA).

All five counties within the MSA are below both the national ($28,930) and state ($26,259) per capita income levels.

Within the Springfield MSA, Christian County and Dallas County have the highest and lowest per capita income levels at $24,730 and $17,494, respectively.

In this instance, the only counties in the Springfield MSA to see a decrease in per capita income from 2014 to 2015 were Dallas (-1.0%) and Webster counties (-1.1%).



	Christian County	Dallas County	Greene County	Polk County	Webster County	Missouri	United States
2010	23,720	18,400	23,443	18,138	18,699	24,724	27,334
2011	24,284	18,384	23,956	18,905	18,709	25,371	27,915
2012	24,879	18,557	23,637	18,876	19,449	25,546	28,051
2013	25,134	18,155	23,520	19,511	19,955	25,649	28,155
2014	25,428	17,663	23,765	19,357	20,183	26,006	28,555
2015	24,730	17,494	24,097	19,908	19,956	26,259	28,930

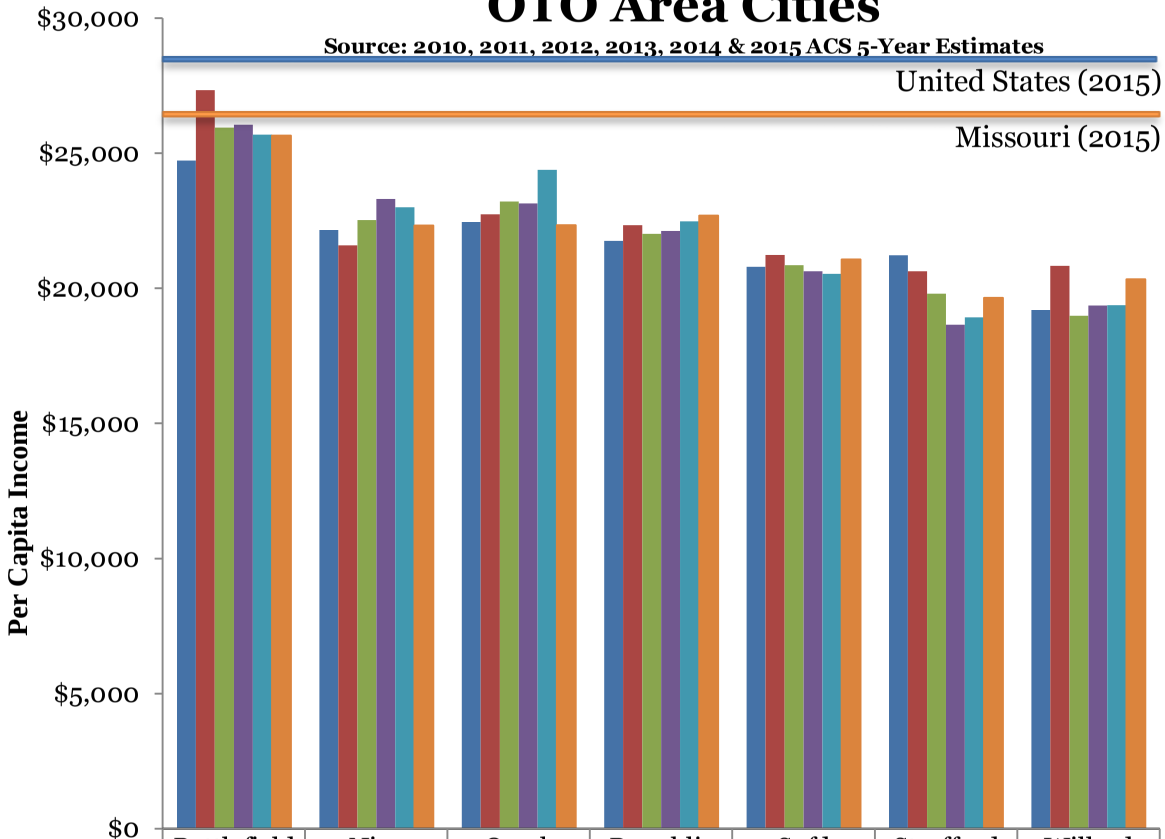
Per Capita Income

The chart to the right shows per capita income for the cities within the OTO planning area.

No city in 2015 is higher than the nation ($28,930), or the state of Missouri's ($26,259) per capita income.

Per Capita Income
OTO Area Cities

Source: 2010, 2011, 2012, 2013, 2014 & 2015 ACS 5-Year Estimates



	Battlefield	Nixa	Ozark	Republic	Spfd	Strafford	Willard
2010	24,727	22,166	22,457	21,758	20,793	21,220	19,195
2011	27,332	21,589	22,745	22,342	21,233	20,637	20,829
2012	25,950	22,524	23,215	22,019	20,857	19,809	18,988
2013	26,055	23,313	23,149	22,121	20,634	18,654	19,368
2014	25,692	23,004	24,384	22,482	20,540	18,928	19,372
2015	25,651	22,326	22,334	22,699	21,075	19,650	20,338

Persons Living in Poverty

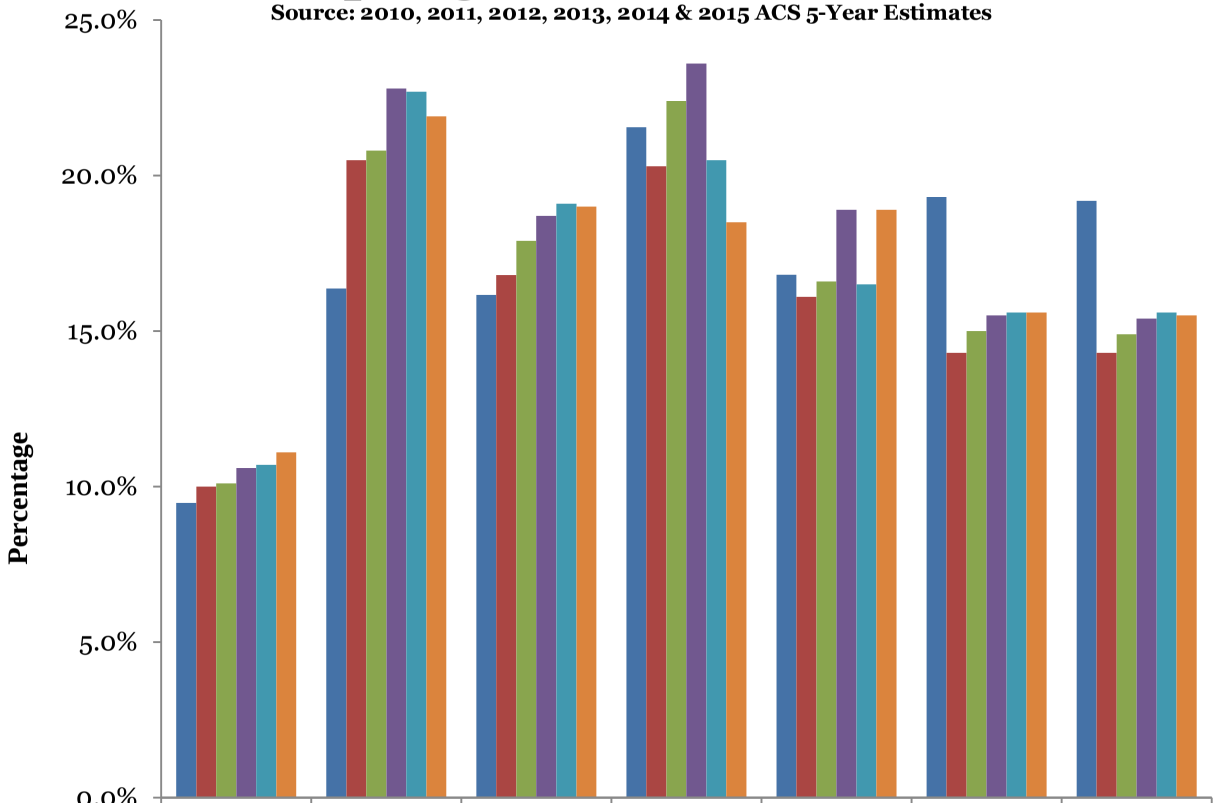
The chart on the right shows the percentage of individuals in the five-county Springfield Metropolitan Statistical Area, or MSA, whose income was at or below the poverty level.

Dallas County has the highest percent of people living at or below the poverty level in 2015 (21.9%). Polk County continued to see a drop in poverty levels since 2013 from 23.6% to 18.5%. Christian County had the lowest estimated percent living at or below poverty (11.1%) in the Springfield MSA.

Christian and Webster counties were the only counties to see an increase in their poverty percentages from 2014 to 2015.

Persons Living in Poverty Springfield MSA Counties

Source: 2010, 2011, 2012, 2013, 2014 & 2015 ACS 5-Year Estimates



	Christian County	Dallas County	Greene County	Polk County	Webster County	Missouri	United States
2010	9.48%	16.37%	16.16%	21.55%	16.81%	19.31%	19.19%
2011	10.00%	20.50%	16.80%	20.30%	16.10%	14.30%	14.30%
2012	10.10%	20.80%	17.90%	22.40%	16.60%	15.00%	14.90%
2013	10.60%	22.80%	18.70%	23.60%	18.90%	15.50%	15.40%
2014	10.70%	22.70%	19.10%	20.50%	16.50%	15.60%	15.60%
2015	11.10%	21.90%	19.00%	18.50%	18.90%	15.60%	15.50%

Children Living in Poverty

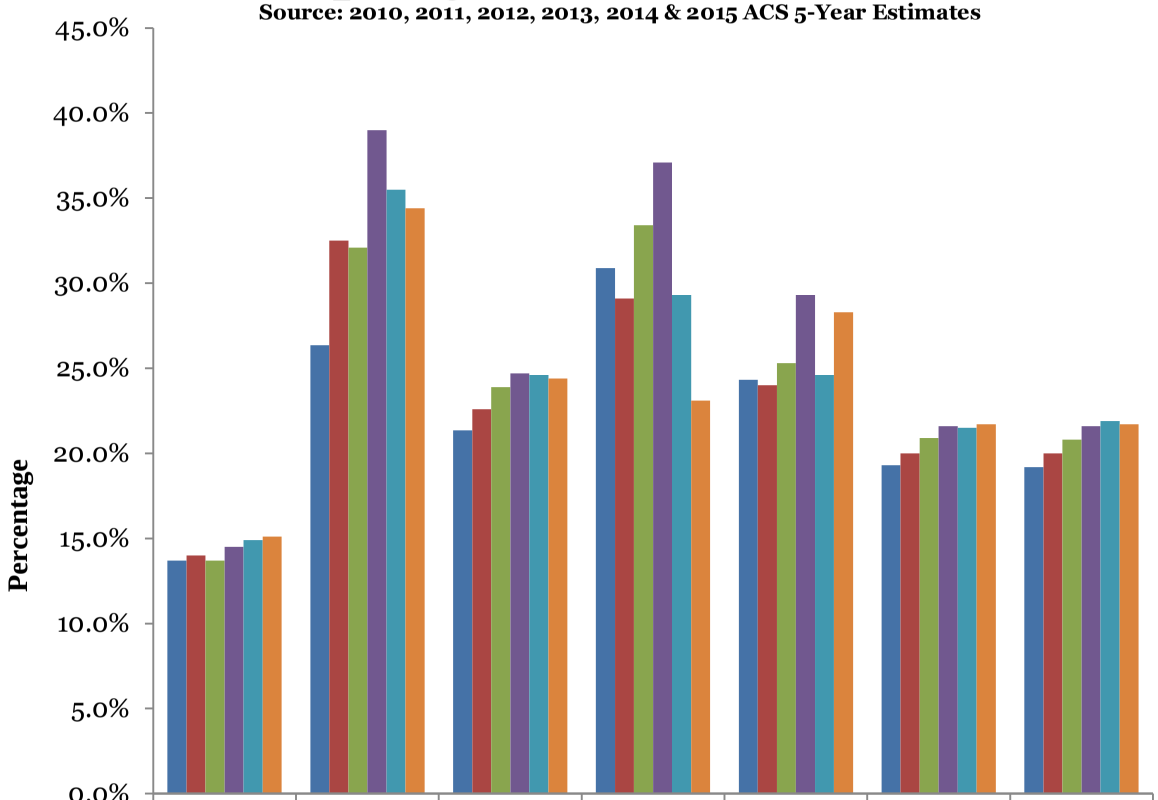
The chart to the right shows the percentage of children (17 years old and younger) living in poverty in the five-county Springfield Metropolitan Statistical Area, or MSA.

In Dallas County, over 34 percent of children live in poverty, which represents more than 1 in 3 children. This is 12.5 percent higher than the national average of 21.7 percent and is the highest percentage inside the Springfield MSA.

Polk County saw a dramatic decrease since 2014 of 6.2 percent. Webster County saw an increase in percentage since 2014 of 3.7 percent, which brought Webster to just 28.3 percent. The only county below the state and national percentage was Christian County (15.1%) which actually experienced a 0.2 percent increase.

Children Living in Poverty Springfield MSA Counties

Source: 2010, 2011, 2012, 2013, 2014 & 2015 ACS 5-Year Estimates



	Christian County	Dallas County	Greene County	Polk County	Webster County	Missouri	United States
2010	13.69%	26.36%	21.36%	30.88%	24.33%	19.31%	19.19%
2011	14.00%	32.50%	22.60%	29.10%	24.00%	20.00%	20.00%
2012	13.70%	32.10%	23.90%	33.40%	25.30%	20.90%	20.80%
2013	14.50%	39.00%	24.70%	37.10%	29.30%	21.60%	21.60%
2014	14.90%	35.50%	24.60%	29.30%	24.60%	21.50%	21.90%
2015	15.10%	34.40%	24.40%	23.10%	28.30%	21.70%	21.70%

Workforce Education Levels

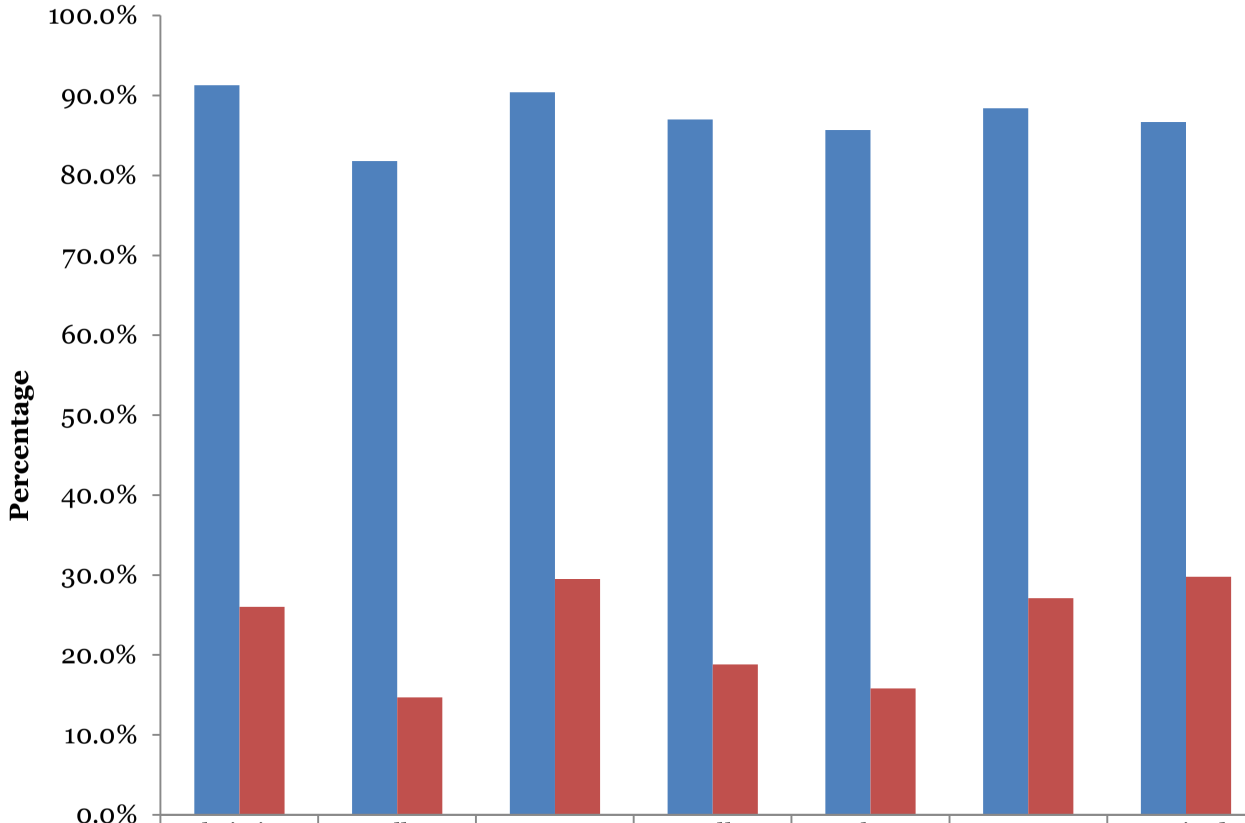
Workforce education levels affect employment and earning levels within communities. Additionally, prospective employers are interested in workforce characteristics with education being an important factor in location and relocation decisions.

Christian County has the highest percentage at 91.3 percent of residents 25 years of age or older with a high school diploma. Greene County has the highest percentage of residents 25 years of age or older with a four-year college degree at 29.5 percent.

Within the Springfield MSA, Dallas County has the lowest percentage of high school graduates at 81.8 percent and has the lowest percentage of college graduates at 14.7 percent.

2015 Workforce Education Levels Percent with High School Diploma and College Degrees in Springfield MSA Counties

Source: 2015 ACS 5-Year Estimates



	Christian County	Dallas County	Greene County	Polk County	Webster County	Missouri	United States
% High School	91.3%	81.8%	90.4%	87.0%	85.7%	88.4%	86.7%
% BA or Higher	26.0%	14.7%	29.5%	18.8%	15.8%	27.1%	29.8%

Commuting Patterns

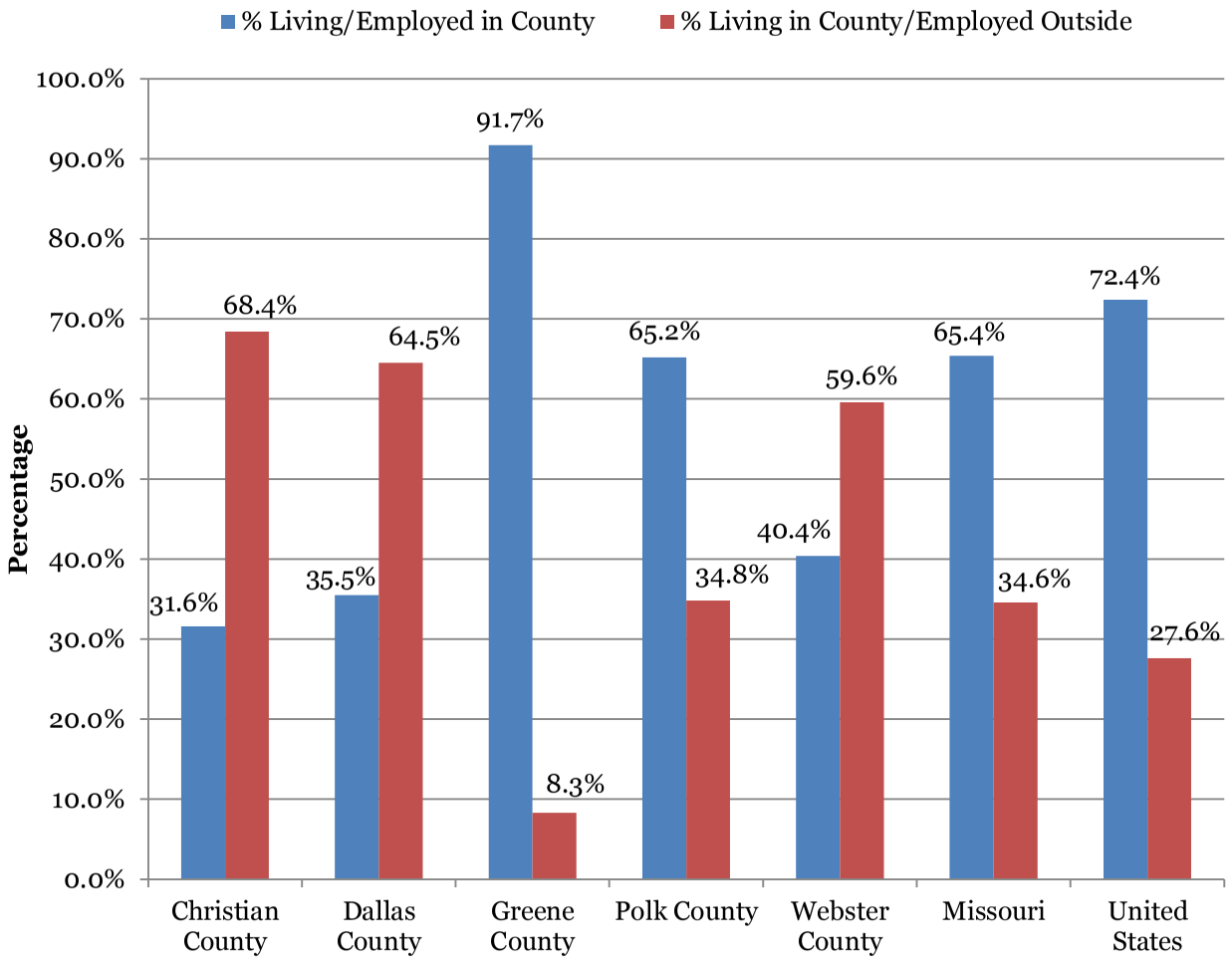
The chart to the right shows the percentage of local workers who both live and work in their county of residence compared to the percentage of workers leaving their home county for work.

Almost 92 percent of the people who work in Greene County also live in Greene County, as would be expected of the county where the region's primary employment center, the City of Springfield, is located. Conversely, over 68 percent of Christian County residents commute outside of their home county for work, as do over 59.6 percent of workers in Webster County and 64.5 percent of workers in Dallas County.

Only 34.8 percent of Polk County residents leave Polk County for work as the City of Bolivar is a relatively large employment center (e.g., Southwest Baptist University, Citizens Memorial Hospital) compared to other smaller cities in the Springfield area.

Place of Residence vs. Place of Employment - Primary Jobs

Source: 2015 ACS 5-Year Estimates



Mean Travel Time to Work

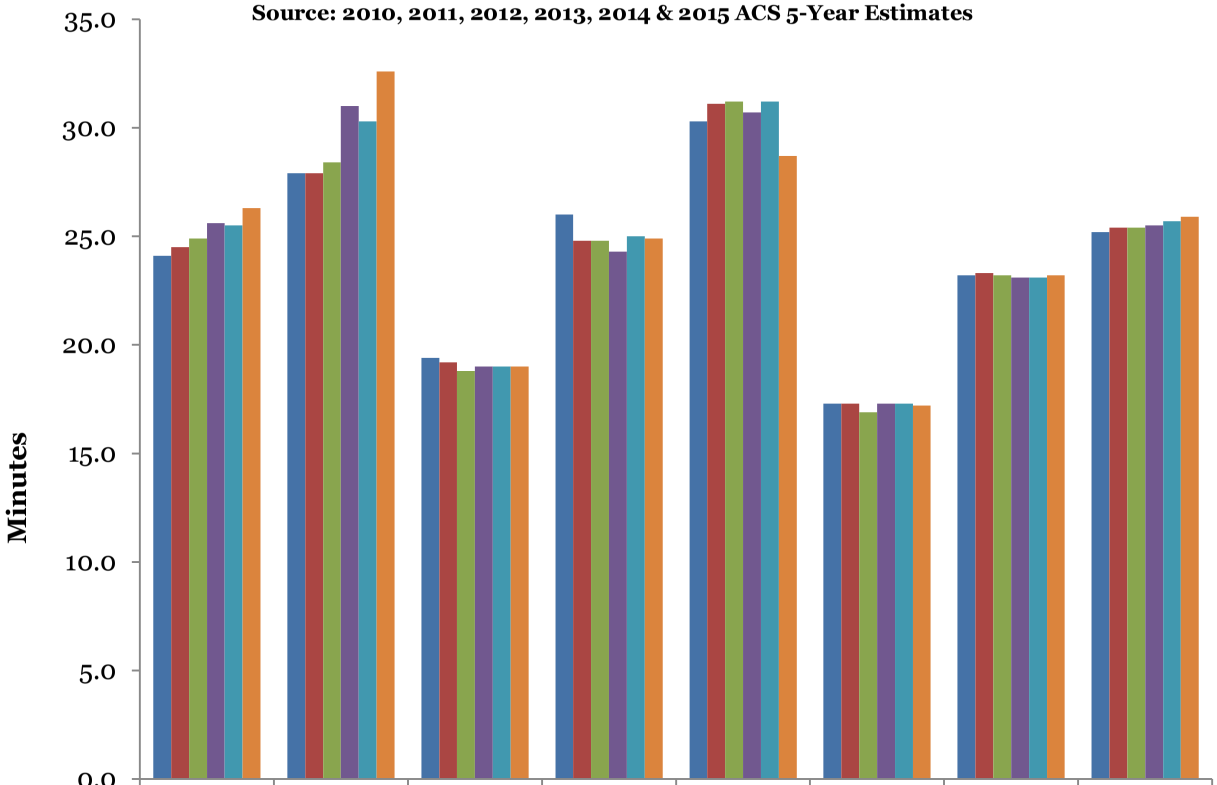
The chart to the right shows the average commute time for individuals living in Springfield and the five-county Springfield Metropolitan Statistical Area (MSA).

Residents of Springfield and Greene County have the shortest commutes to work at 17.2 minutes and 19 minutes, respectively. Workers living in Dallas County have the longest commutes with the average of 32.6 minutes to their place of employment.

These figures reflect the reality that a large number of residents of the Springfield MSA commute into Springfield for their jobs.

Mean Travel Time to Work in Minutes Springfield & MSA Counties

Source: 2010, 2011, 2012, 2013, 2014 & 2015 ACS 5-Year Estimates

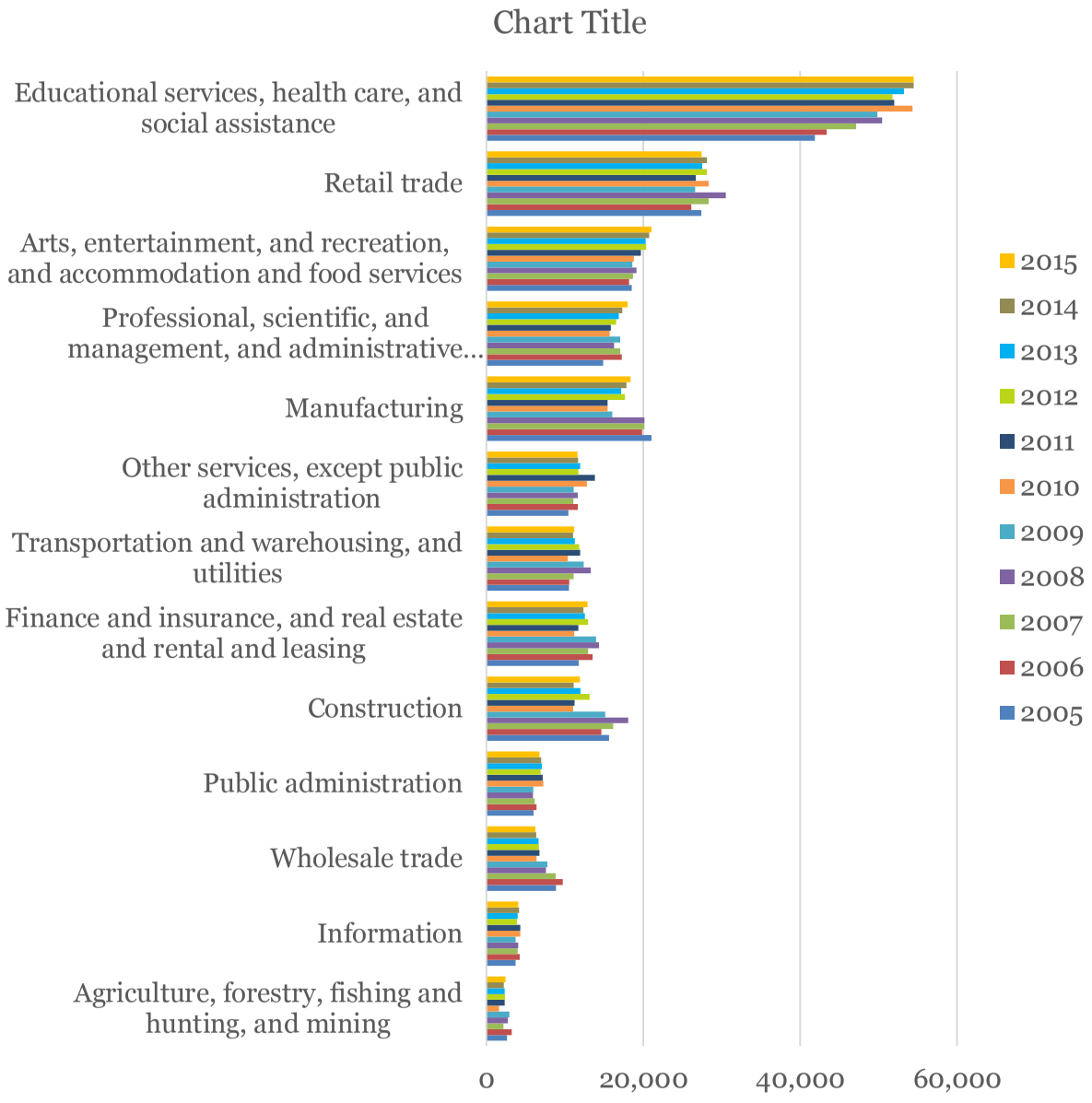


	Christian County	Dallas County	Greene County	Polk County	Webster County	Spfd	Missouri	United States
2010	24.1	27.9	19.4	26.0	30.3	17.3	23.2	25.2
2011	24.5	27.9	19.2	24.8	31.1	17.3	23.3	25.4
2012	24.9	28.4	18.8	24.8	31.2	16.9	23.2	25.4
2013	25.6	31.0	19.0	24.3	30.7	17.3	23.1	25.5
2014	25.5	30.3	19.0	25.0	31.2	17.3	23.1	25.7
2015	26.3	32.6	19.0	24.9	28.7	17.2	23.2	25.9

Workforce By Industry
Springfield MSA

Source: 2011-2015 ACS 5-Year Estimates

The chart to the right shows the various industries in which the residents of Christian, Dallas, Greene, Polk, and Webster counties are employed. Educational service, health care, and social assistance continues to employ the largest work force. The Springfield MSA is home to Missouri State University, has a number of regional hospitals, and sources of public assistance.



Appendix

The figures provided in this report are for informational purposes only. The Ozarks Transportation Organization (OTO) offers no warranty, either expressed or implied, that the population and housing unit numbers published here are accurate and assumes no liability for any use to which the data may be put.

Building permit data were provided by the Springfield Department of Building Development Services, the Greene County Department of Building Regulations, and the governments of Christian County, Battlefield, Republic, Nixa, Ozark, Strafford, and Willard. The Village of Fremont Hills, while located within the OTO planning area, is not an OTO member jurisdiction and is therefore not included in this report.

The ACS collects survey information continuously nearly every day of the year and then aggregates the results over a specific time period—1 year, 3 years, or 5 years. The data collection is spread evenly across the entire period represented so as not to over-represent any particular month or year within the period.

TAB 9

TECHNICAL PLANNING COMMITTEE AGENDA 3/15/2017; ITEM II.H.

LRTP Executive Summary

Ozarks Transportation Organization
(Springfield, MO Area MPO)

AGENDA DESCRIPTION:

The Long Range Transportation Plan, *Transportation Plan 2040*, was adopted in August of 2016. Staff has developed an Executive Summary, which highlights and condenses the Plan. Technical Planning Committee members are asked to review the Executive Summary and inform staff if there is additional information that would be useful in communicating the Plan within member jurisdictions and to the public.

TECHNICAL PLANNING COMMITTEE ACTION REQUESTED:

Information only. No action requested.

TAB 10

TECHNICAL COMMITTEE AGENDA 3/15/2017; ITEM II.I.

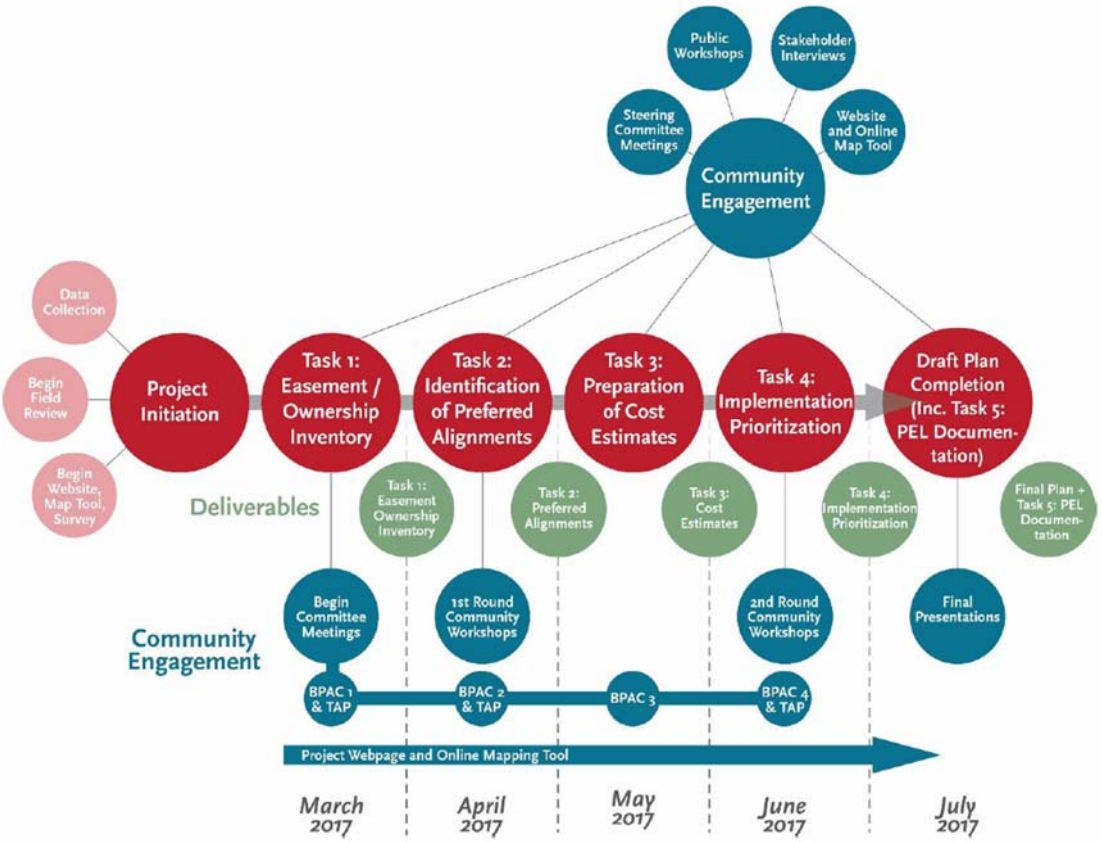
Regional Bike and Pedestrian Investment Study

Ozarks Transportation Organization
(Springfield, MO Area MPO)

AGENDA DESCRIPTION:

The OTO has executed a contract with Alta Planning and Design, Inc. for the completion of the Regional Bike and Pedestrian Investment Study. Alta is a national multi-modal transportation planning and design firm. Regionally, Alta was the lead consultant on the development and implementation of the Razorback Regional Greenway in Northwest Arkansas. The BPAC felt Alta had the proven record of accomplishments and technical expertise to best complete this investment study.

The graphic below illustrates the process Alta will follow to complete this study. The first meeting between Alta and the BPAC occurred at the regular March BPAC meeting on the 1st. Paul Wojciechowski, Alta's project manager, discussed the public involvement plan, data and file sharing, and communication with the BPAC and OTO staff.



The investment study will include two sets of community workshops to build awareness and get community feedback. The first set of workshops have been tentatively scheduled for **April 19th and 20th**. The second set is scheduled for **June 21st and 22nd**. Additional meetings with property owners and other stakeholders will occur throughout the project.

Alta has hired CJW and CFS, both local engineering firms, to assist with this project. CJW will be helping with early data collection efforts and providing feedback and comments on cost estimates and prioritization. CFS will assist with the development of PEL documentation.

TECHNICAL PLANNING COMMITTEE ACTION REQUESTED:

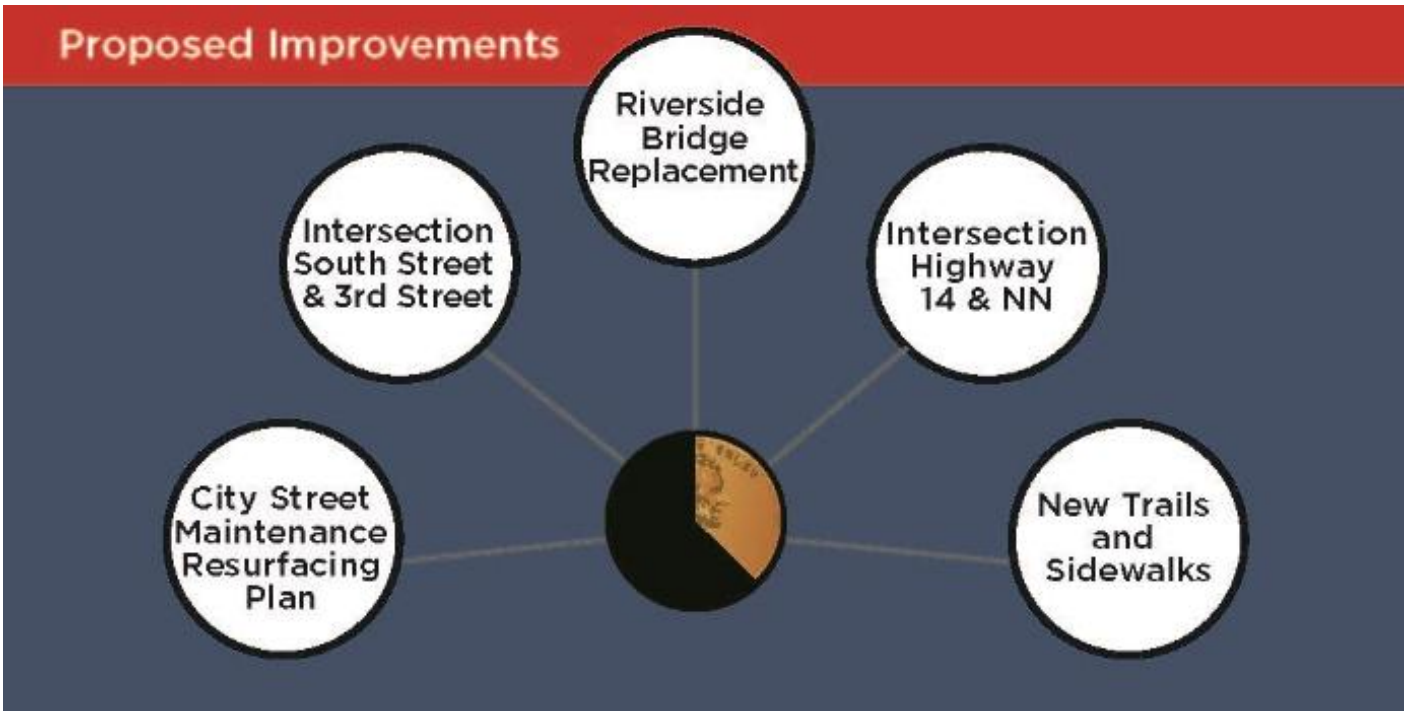
Information only. No action required.

TAB 11

Transportation tax on the ballot in Ozark

By reporter Sara Forhetz and videographer Tim Leimkuhler, kY3 News | Posted: Mon 5:36 PM, Mar 06, 2017 | Updated: Mon 6:34 PM, Mar 06, 2017

OZARK, Mo. (KY3) - A big vote in Ozark is on the way in April. Residents will decide on an additional 3/8-percent sales tax for several transportation projects. It likely would raise about $5.5 million over five years.



The city of Ozark says if you spend $100 on taxable goods per week in Ozark, it'd cost you an additional 38 cents per week, and about $20 per year.

One of the most widely used intersections that would be improved is the one at Highway NN at Missouri 14, also known as Jackson street. It's currently a three-way intersection, but it would become a four-way intersection with this tax. Highway NN would go through an old gas station that is currently closed down, which the City of Ozark owns.

The other major intersection that would be worked on is South Street at 3rd Street. There would be some major upgrades there and crews would make five lanes from 3rd Street to U.S. 65, plus add new sidewalks and crosswalks for the South Elementary students.

Here's the summary: 40 percent of the money raised would be spent on intersections, 40 percent on local streets and sidewalks, 15 percent on the proposed new Riverside Bridge, and 5 percent for a connected trail system.

"We're going to be able to leverage about $7.5 million of federal and state transportation funds. Right now we have to match those funds with a 20-percent in-kind local cash contribution," said City Administrator Steve Childers. "We want to capture those state and local funds and in order to do that, this tax will help us generate the revenue we need to make that match."

"It's a hard one (decision) because we want to support the locals which we do as much as we can, but then you've still got to go and make your money stretch because we're retired.. we're seniors... and so you are kind of torn on which way you want to go sometimes," said Ozark residents Dan and Roxi Gallagher.

The vote is on April 4. The 3/8-percent sales tax would sunset, meaning it would be gone after five years.

Ozark is hosting its second Public Informational Meeting on Tuesday, March 7, at 6 p.m. at the Ozark Community Center. If you'd like to learn more about the proposed tax, the city will cover more specifics on where the money would go.

AASHTO Journal

Trump Continues Push for Congress to Pass Major Infrastructure Investment Package

President Trump in his speech to a joint session of Congress repeated his goal of seeing Congress pass a $1 trillion infrastructure investment package, and compared his vision to that of President Eisenhower in creating the interstate highway network.

"To launch our national rebuilding, I will be asking Congress to approve legislation that produces a $1 trillion investment in infrastructure of the United States – financed through both public and private capital – creating millions of new jobs," the president said Feb. 28. "This effort will be guided by two core principles: Buy American and hire American."

Although he did not provide details of a plan his administration is still developing, transportation news agencies interpreted Trump's reference to "public" capital to suggest an awareness that the investment package would need to go beyond just the private financing his campaign advisers had talked about, to require more federal investment as well.

Trump describes his investment goal.

Trump led up to that statement by stressing issues he has mentioned in the past. "We've spent trillions and trillions of dollars overseas, while our infrastructure at home has so badly crumbled," he said.

Although many policymakers have said the investment plan will include sectors beyond transportation, Trump made clear he wanted the package to improve travel systems. He said: "Crumbling infrastructure will be replaced with new roads, bridges, tunnels, airports and railways gleaming across our very, very beautiful land."

He noted that "another Republican president, Dwight D. Eisenhower, initiated the last truly great national infrastructure program – the building of the Interstate Highway System. The time has come for a new program of national rebuilding."

Bud Wright, executive director of the American Association of State Highway and Transportation Officials that represents state departments of transportation, told the AASHTO Journal: "We appreciate President Trump's continued emphasis on producing an infrastructure investment package. Our state members hope it will generate sufficient investments to really improve mobility throughout the nation."

However, Wright added that state DOTs and other transportation stakeholders "are looking for the details" of what the president will propose. "There's not a lot of meat on the bones yet," he said.

The White House scheduled an investment-focused meeting March 2 of officials from at least 15 federal agencies, Bloomberg news reported, "as a first government-wide step toward crafting the president's $1 trillion infrastructure initiative, a senior White House official said."

The report said Gary Cohn, director of the National Economic Council, would lead the meeting, which was to "focus on identifying new projects that would boost the economy," plus existing projects that could be expedited and target policies, rules or laws that could delay them.

Bloomberg reported that the group would also be "developing funding and financing options," and that the official said all funding options are on the table.

Cohn announced Feb. 27 that D.J. Gribbin will serve as special assistant to the president for infrastructure policy. The announcement said Gribbin previously worked for Macquarie Capital, where he led advisory teams structuring public-private partnerships for government clients. He has also worked for Koch Industries and HDR, and has been chief counsel for the Federal Highway Administration and the USDOT's general counsel.

AASHTO has said the investment package should include new federal funding as well as private financing incentives, funnel as much spending as possible through existing highway and transit formula programs that let state DOTs apply it to their priority needs, and should include dedicated revenues to keep the Highway Trust Fund solvent over the long term.

At the American Road & Transportation Builders Association, CEO Pete Ruane said in a statement: "When it comes to infrastructure, strategic focus should be the key.

"The biggest return on investment would be found by modernizing America's economic expressway – the Interstate System and its connections to the nation's major ports, inland waterways, rail hubs, airports and pipelines. Right now it is woefully underperforming, costing every American citizen and business time and money."

Regina Hopper, President of the Intelligent Transportation Society of America, said that group thanks the Trump administration "for recognizing the urgent need to rebuild America's crumbling infrastructure."

She added that "ITS America looks forward to working with the White House, Congress and others to find intelligent technological solutions to repair and rebuild our extensive transportation system."

Questions regarding this article may be directed to editor@aashtojournal.org. March 03, 2017

AASHTO Journal

FHWA OKs First Three State Freight Plans Required for Future Funding Under FAST Act

The Federal Highway Administration through its division offices has approved the first three state freight plans that will be tied to future freight program funding under the Fixing America's Surface Transportation Act.

The FHWA has so far approved freight plans in recent weeks for Nevada, Idaho and Ohio, said Katelyn Dwyer, program manager for freight at the American Association of State Highway and Transportation Officials.

She told the AASHTO Journal that the 2015 FAST Act requires a state department of transportation to put in place an FHWA-approved plan to be eligible to use its allocated freight-designated program funding out of the Highway Trust Fund.

"In order to obligate 2018 funds, and later, state DOTs have to have a state freight plan approved by the FHWA division office," Dwyer said.

That deadline is coming quickly, since the federal 2018 budget year begins Oct. 1, 2017. However, states have until December to finalize their freight plans.

"It's a good sign that three states have already done it," she said. "And some other states are very close to submitting their plans" to FHWA offices in their states.

Dwyer said the FHWA has estimated that it would take about 60 days to review a state plan to determine compliance, but has so far been taking less time to complete.

In the plans, state DOTs are required to address 10 elements, including identification of significant freight system trends, needs and issues, strategies that guide a state's related project investments, critical multimodal freight facilities and corridors and how the state plan would meet national freight program goals. There are also requirements to identify bottlenecks and their mitigation needs, describe improvements that may be required to reduce pavement deterioration due to heavy truck traffic, and to list priority projects.

The plans also allow state DOTs to position themselves for emerging opportunities.

For instance, the Nevada DOT's plan notes that the state's freight traffic has traditionally been cross-country moves between the big West Coast ports and commercial centers and those farther inland.

However, it said in an executive summary, "the urban and economic growth in Nevada combined with its proximity to the increasingly congested gateway hubs in California is changing the nature of goods movements within Nevada, and increasing the potential for a new relationship to domestic and global trading hubs.

"Growing congestion, significantly larger deepwater ships, and increasing use of short-haul rail lines in California surrounding the major metropolitan areas of Los Angeles and San Francisco, major global sea and air hubs, are driving new development further inland. Northern and southern Nevada have the ability to capture a significant amount of this growth with a strategic plan that responds to the needs of the freight industry – bringing regional economic benefits not only to Nevada, but to the western U.S. freight industry. Infrastructure and distribution space can be thought of as a pull factor that draws economic activity to the state from nearby regions."

The Idaho Transportation Department in its plan said eight industries that are "freight-reliant or freight-intensive" accounted for 70.1 percent of sales revenue and 44 percent of Idaho's 2014 gross domestic product. "More than 60,000 miles of roads1 and 1,900 miles of rail connect these businesses and consumers to Idaho's multimodal hubs including airports, rail transload facilities and the most inland water port in the western U.S. – the Port of Lewiston," it said.

While the ITD said most of those freight facilities are in good condition, "there are weaknesses in the system and constrained resources to meet the challenges of a growing economy." Among constraints it cited were a disconnected highway network for higher-load trucks, limited container-on-barge service and a ban on oversized trucks on U.S. 12 that "limits the effectiveness of the Port of Lewiston," and two-lane mountain roads with sharp curves on important truck corridors.

The Ohio DOT's plan said that state "is a well-established base for companies moving goods around the globe, being just a one-day drive from more than 60 percent of the U.S. and Canadian populations." Ohio benefits, it added, from "having the nation's fourth-largest interstate system, fourth-highest number of rail lines, eighth-most maritime tonnage, and being second in the number of intermodal facilities."

But ODOT also said that "freight movement is incredibly competitive," so it designed a freight plan to help it woo business and entice more economic opportunity.

Although the state has significant amounts of water, rail and air cargo, ODOT said most of its project freight growth will come from trucking, about evenly split between in-state and through traffic. The department will have to continue to monitor cargo movements and infrastructure needs on all travel modes, it said, but "continued growth in trucking will place significant demand on Ohio's highway system. This will require ODOT's continued attention to system preservation, maintenance and improved operations."

Questions regarding this article may be directed to editor@aashtojournal.org. March 03, 2017

INFRASTRUCTURE & ENVIRONMENT

These Places Lost the Smart Cities Challenge. But They Say They Ended Up Ahead.

Even though Denver and Austin came up just short in the federal technology competition, both are moving forward with their ideas.

BY DANIEL C. VOCK | FEBRUARY 13, 2017

The 16th Street Pedestrian Mall in Denver *(Shutterstock)*

Neither Austin or Denver won last year's federal Smart City Challenge. But top officials in both cities say they are already reaping the rewards for competing, anyway.

Columbus, Ohio, ultimately walked away with bragging rights and $50 million in federal and private money. But transportation officials in many of the cities that didn't win say they're still moving ahead with some of the ideas they proposed for the contest.

Crissy Fanganello, Denver's director of transportation and mobility, said the competition "energized" city staff and brought people together who normally don't work side by side. "In some ways, we might be better off not having won," she says. "We don't have quite the lens on us. We have some freedom and flexibility to do some really interesting and good work, and still have some good partnerships with the private sector."

Denver is using its own money, along with a $6 million federal grant, to work on several of projects it proposed for the Smart City Challenge, which was hosted by the U.S. Department of Transportation.

For example, the money will help Denver develop technology to detect pedestrians at crossings using video and lidar (which works much the same way that radar does, only using lasers instead of radio waves). Most pedestrian crossing systems rely on the walker to press a button, which activates lights for a set period of time based on the assumption that pedestrians move at 3.5 feet a second. But Denver wants to use technology to extend the time the lights flash if the pedestrian moves more slowly. The city will use the data gathered at those crossings to see whether the assumptions it uses when building pedestrian crossings elsewhere are correct.

The federal grant money will also go toward keeping 18-wheel trucks off neighborhood streets where children walk to school in North Denver. Between 12 and 14 percent of all traffic on arterial roads are trucks, and "right now it's pretty much a free-for-all," especially when the trucks leave congested through streets to try to find alternative routes through the neighborhoods, said Michael Finochio, one of the leaders on the project.

So Denver will work with one of the freight companies in the area to install wireless transmitters in the cabs that will communicate with traffic signals and give trucks priority at intersections on freight routes. "If they stay on a certain route of our choosing, at a certain time of day of our choosing, then we will give them priority," Finochio said.

The truck prioritization project addresses some of the major emphases of the Smart City Challenge, too, by working with private industry and by using technology to address problems faced by low-income and minority communities.

Austin, too, plans to use other funding sources and new partnerships to roll out ideas they pitched during the contest.

One of the first improvements to come out of the city's Smart City Challenge plan will be a new center where transportation officials from the city, state, toll roads and transit agencies can coordinate their day-to-day operations with each other. The Regional Operations Management Center will likely open within the next year, said Robert Spillar, the director of the Austin Transportation Department.

Putting all those people under the same roof could actually improve traffic in the notoriously congested city, Spillar said. Right now, if an accident causes major backups on a freeway, there's no easy way to adjust the timing of traffic lights on major arterial roads that are likely to get more crowded as frustrated drivers leave the highways. That's because the freeways are run by the state, and the arterials are managed by the city.

"Ultimately, I don't care if it's a state engineer that hits the button that automatically gets more green time on city arterials, or if it's a city traffic engineering saying, 'There's an accident over there on the freeway, so I better put up information signs up and down the freeway so that people know what to expect,'" Spillar said. "That seems simple, but I will tell you it's like trying to jump over the Grand Canyon."

Another major component of Austin's Smart City application will be put into place thanks to a voter-approved bond measure from November that included $482 million for up to nine "smart corridors" in the city. The improvements along those arterial roads will include a mix of old and new technology: turn lanes, bus bays and sidewalks will go in along with traffic and weather sensors and connected traffic lights.

The sensors will help traffic engineers better respond to changing conditions, as well help motorists and improve road networks. Texas universities, for instance, will use the information to improve traffic projections and troubleshoot the road network. The city has already done something similar using Bluetooth signals, which led officials to change a downtown street from one-way to two-way during major events to reduce traffic.

Many of the other projects Austin is still working on deal with broader societal problems. The city is exploring the idea of installing refrigerated food lockers at transit stops in food deserts, so grocery stores can drop off items for their customers to pick up on the way home from work. It is also looking into vanpools to help low-income and elderly residents get to medical services.

"When you start thinking of how technology might be used to answer [those problems], you get some really inventive solutions," Spillar said.

Daniel C. Vock | Staff Writer

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AARIAN MARSHALL TRANSPORTATION 03.06.17 10:00 AM

HOW A FAILED EXPERIMENT COULD STILL BE THE FUTURE OF PUBLIC TRANSIT

HENRYK SADURA/GETTY IMAGES

BRINGING BRIDJ TO Kansas City seemed like a no-brainer to transit officials. For just $1.50, anyone could use an app to summon a ride downtown in van that would follow a route calculated on the fly by an algorithm. No one within the service area was ever more than a 10 minute walk from a stop, and as an added incentive, your first 10 rides were free.

It flopped. Just 1,480 people rode on a Bridj van, a laughably small figure in a city of 2 million people. The city launched the program with the Boston mobility startup in March 2016, and in the past six months just one-third of riders took more than 10 rides. The one-year, $1.3 million project ended Friday. You might call it a failure.

Government officials and transit researchers call it a success.

FORD

“I’ll be honest: The ridership was not the top priority,” says Jameson Auten, who leads the innovation division of the Kansas City Area Transportation Authority. “The top priority for us was learning who uses on demand. Really, the big goal for us was learning itself.”

Transit agencies nationwide hope to learn from it, too. Many of them think on-demand, app-driven transportation services could make public transit cheaper, more accessible, and more convenient. The typical rider can reach just 30 percent of local jobs on mass transit, and rides can last 90 minutes. So Uber drivers are getting folks in Summit, New Jersey, to the train station. Lyft provides residents of Centennial, Colorado, with lifts to light rail. Both companies work with the city of Boston to serve those with disabilities.

The Bridj project was a bit different, in that it used unionized transit employees driving American Disabilities Act-compliant vehicles. “I think this was a bridge to inspiring a lot of transit agencies to start looking at public-private partnership,”

says Susan Shaheen, a UC-Berkeley civil engineer who studies mobility innovation. The results, however, prove the model needs revising, and a lot more data.

Everything's Up to Date in Kansas City

Research suggests Bridj faced two problems in Missouri: Marketing and geography. A survey conducted six months into the experiment found that 40 percent of the people being serviced by Bridj didn't know about it. And among those who signed up, most didn't use the service regularly because it didn't go where they wanted or operate when they most needed it, like late at night.

The data also revealed that Bridj reached an unusual audience. "The demographics of the riders for Bridj are different from the riders for our other services," says Auten. He means younger and richer: 55 percent of riders were between 19 and 35, and more than 80 percent earned more than the local median income of $46,000.

Transit officials see three takeaways here. First, marketing matters. Second, any public transportation service should probably know ahead of time where people need to go, when they want to go, and how quickly they want to get there. And third, you can pull off a quick public-private partnership working totally by the book. "We tried to prove that the public sector and private sector can work together in a utility relationship," says Bridj CEO Matt George. "You're fighting a headwind in a place like Kansas City, where the entire system has been built around requiring someone to have a car."

Now What?

This summer, the transit agency will use what's its learned to launch an app that lets riders with disabilities summon subsidized on-demand rides. Anyone else can ride too, but they'll pay full fare, and a phone booking system will serve those without a smartphone. Bridj, meanwhile, will continue its private service in Boston and Washington, DC, while seeking more transit partners.

The federal government dug the pilot's approach. "Research is all about learning, and we see value in experimenting with new ways of providing mobility," says a Federal Transit Administration spokesperson. "Every pilot project provides lessons from which future entrepreneurs can learn." The agency so loves the idea that it launched an $8 million funding program last fall that awarded grants to projects that will,

among other things, help San Francisco's Bay Area Rapid Transit integrate carpool and the Los Angeles Metropolitan Transportation Authority provide on-demand service through Lyft.

The future of public transit is a question mark, and it's hard to say right now whether spending money on tech companies' services or on luddite-friendly infrastructure (like sidewalks and cycling lanes) will move more people around more efficiently. Probably both. But today, more city governments are getting comfortable with turning their roads into laboratories, and more might be willing to fail. In the end, that failure might be good for them—if they learn from their mistakes.