



OZARKS TRANSPORTATION ORGANIZATION
A METROPOLITAN PLANNING ORGANIZATION

BOARD OF DIRECTORS MEETING AGENDA

OCTOBER 18, 2018
12:00 - 1:30 PM

OTO CONFERENCE ROOM, SUITE 101
2208 W. CHESTERFIELD BLVD., SPRINGFIELD

AGENDA



OZARKS TRANSPORTATION ORGANIZATION
A METROPOLITAN PLANNING ORGANIZATION

Board of Directors Meeting Agenda
Thursday, October 18, 2018
12:00 – 1:30 p.m.
OTO Conference Room
2208 W. Chesterfield Blvd, Suite 101, Springfield, MO

A full agenda can be found on the OTO website at: ozarkstransportation.org

Call to OrderNOON

I. Administration

A. Introductions

B. Approval of Board of Directors Meeting Agenda
(2 minutes/Smith)

BOARD OF DIRECTORS ACTION REQUESTED TO APPROVE THE AGENDA

C. Approval of the August 16, Meeting and the August 30, 2018 e-Meeting Minutes Tab 1
(2 minutes/Smith)

BOARD OF DIRECTORS ACTION REQUESTED TO APPROVE THE MEETING MINUTES

D. Public Comment Period for All Agenda Items Tab 2
(15 minutes/Smith)

Individuals requesting to speak are asked to state their name and organization or address before making comments. Individuals and organizations have a combined 15 minutes which will be divided among those requesting to address the Board of Directors (not to exceed five minutes per individual). Any public comment received since the last meeting has been included in the agenda packet.

E. Executive Director's Report
(5 minutes/Fields)

A review of staff activities since the last Board of Directors meeting will be given.

F. MoDOT Update
(5 minutes/MoDOT)

A MoDOT staff member will give an update of MoDOT activities.

G. Legislative Reports
(5 minutes/Smith)

Representatives from the OTO area congressional delegation will have an opportunity to give updates on current items of interest.

II. New Business

A. 2020-2024 STIP Priorities Tab 3
(15 minutes/Fields)

The Technical Planning Committee has recommended a prioritized list of projects for possible inclusion in the next Statewide Transportation Improvement Program.

BOARD OF DIRECTORS ACTION REQUESTED APPROVE THE PROPOSED 2020-2024 STIP PRIORITIES

B. Amendment Number One to the FY 2019-2022 TIP Tab 4
(5 minutes/Longpine)

There is one change requested to the FY 2019-2022 Transportation Improvement Program which is included for member review.

BOARD OF DIRECTORS ACTION REQUESTED TO APPROVE THE FY 2019-2022 TIP AMENDMENT NUMBER ONE TO THE BOARD OF DIRECTORS

C. Bridge, Pavement, and System Performance Measures Tab 5
(5 minutes/Longpine)

The OTO must adopt performance measures related to bridge, pavement, and system performance. The proposed measures are included for review.

BOARD OF DIRECTORS ACTION REQUESTED TO APPROVE THE PROPOSED PERFORMANCE MEASURES

D. Adoption of Resolution to Participate in LAGERS Tab 6
(5 minutes/Fields)

A draft resolution is being presented in order for OTO to participate in LAGERS and select the options that will govern the plan.

BOARD OF DIRECTORS ACTION REQUESTED TO APPROVE THE PROPOSED RESOLUTION AS PRESENTED.

E. Budget Amendment One to FY 2018-2019 Operating Budget Tab 7
(5 minutes/Cooper)

Amend the FY 2018-2019 OTO Operating Budget to fund LAGERS future liabilities at 100% effective January 1, 2019.

BOARD OF DIRECTORS ACTION REQUESTED TO APPROVE THE PROPOSED AMENDMENT TO FY 2018-2019 OPERATING BUDGET

F. 2019 Legislative Priorities..... Tab 8
(5 minutes/Fields)

OTO legislative priorities for the 2019 Legislative Session are included for review and approval.

BOARD OF DIRECTORS ACTION REQUESTED TO APPROVE THE DRAFT 2019 LEGISLATIVE PRIORITIES.

- G. 2017 State of Transportation Report Tab 9**
(5 minutes/Fields)
Staff will give an overview of 2017 State of Transportation Report.

NO ACTION REQUIRED – INFORMATIONAL ONLY

- H. Nominating Committee**
(2 minutes/Fields)
Staff is seeking nominations to serve on the nominating committee to appoint or reappoint OTO Officers and members of the Executive Committee

BOARD OF DIRECTORS ACTION REQUESTED TO APPOINT A NOMINATING COMMITTEE.

III. Other Business

- A. Board of Directors Member Announcements**
(5 minutes/Board of Directors Members)
Members are encouraged to announce transportation events being scheduled that may be of interest to OTO Board of Directors members.
- B. Transportation Issues for Board of Directors Member Review**
(5 minutes/Board of Directors Members)
Members are encouraged to raise transportation issues or concerns that they have for future agenda items or later in-depth discussion by the OTO Board of Directors.
- C. Articles for Board of Directors Member Information Tab 10**
(Articles attached)

IV. Closed Meeting

(20 minutes/Board of Directors Members)
In accordance with Section 610.021 (1), RSMo. 2017, the Board of Directors shall hold a closed meeting to discuss legal actions, causes of action, litigation, privileged and confidential communications; and this meeting, record, and vote shall be closed and the Board of Directors shall stand adjourned at the end of the closed meeting.

Information pertaining to the closed meeting will be sent under separate cover to active participants.

The next Board of Directors regular meeting is scheduled for Thursday, December 20, 2018, at 12:00 P.M. at the OTO Offices, 2208 W. Chesterfield Blvd, Suite 101.

Attachments

Pc: Ken McClure, Mayor, City of Springfield
Matt Morrow, President, Springfield Area Chamber of Commerce
Joelle Cannon, Senator Blunt's Office
Dan Wadlington, Senator Blunt's Office
David Stokely, Senator McCaskill'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

BOARD OF DIRECTORS AGENDA 10/18/2018; ITEM I.C.

August 16, 2018 Meeting and August 30, 2018 E-Meeting Minutes

**Ozarks Transportation Organization
(Springfield, MO Area MPO)**

AGENDA DESCRIPTION:

Attached for Board of Directors member review are the minutes from the August 16, 2018 Board of Directors' meeting and the August 30, 2018 E-Meeting. Please review these minutes prior to the meeting and note any changes that need to be made. The Chair will ask during the meeting if any member has any amendments to the attached minutes.

BOARD OF DIRECTORS ACTION REQUESTED:

That a member of the Board of Directors makes the following motion:

"Move to approve the minutes of the Board of Directors' August 16, 2018 Meeting and the August 30, 2018 E-Meeting."

OR

"Move to approve the minutes of the Board of Directors' August 16, 2018 Meeting and the August 30, 2018 E-Meeting with the following corrections..."

**OZARKS TRANSPORTATION ORGANIZATION
BOARD OF DIRECTORS MEETING MINUTES
August 16, 2018**

The Board of Directors of the Ozarks Transportation Organization met at its scheduled time of 12:00 p.m. in the Ozarks Transportation Organization Large Conference Room in Springfield, Missouri.

The following members were present:

Commissioner Harold Bengsch, Greene County	Mr. Brad Gray, City of Willard (a)
Mr. Steve Bodenhamer, City of Strafford (a)	Mr. Skip Jansen, City Utilities
Mr. David Cameron, City of Republic (a)	Mr. Andy Mueller, MoDOT (a)
Mr. Steve Childers, City of Ozark (a)	Mr. Jim O’Neal, Citizen at Large
Commissioner Bob Cirtin, Greene County	Mr. Dan Smith, City of Springfield (a)
Mr. Jerry Compton, Citizen-at-Large	Mr. Richard Walker, Citizen-at-Large
Mr. Travis Cossey, City of Nixa (a)	Mr. Brian Weiler, Airport Board (a)
Dr. Elise Crain, Citizen-at-Large	Commissioner, Ray Weter, Christian County
Mayor Debra Hickey, City of Battlefield	

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

The following members were not present:

Mr. Mokhtee Ahmad, FTA	Ms. Laurel McKean, MoDOT (a)
Mr. Chris Coulter, Greene County (a)	Mr. Bradley McMahon, FHWA
Mr. John Elkins, Citizen-at-Large (a)	Mr. Daniel Nguyen, FTA (a)
Ms. Jan Fisk, City of Springfield	Mr. Mark Schenkelberg, FAA
Mayor Rick Gardner, City of Ozark	Mr. Jeremiah Shuler, FTA (a)
Mayor Corey Hendrickson, City of Willard	Mayor Brian Steele, City of Nixa
Mr. Travis Koestner, MoDOT	Mayor Jeff Ussery, City of Republic
Mr. Michael Latuszek, FHWA (a)	

Others Present: Mr. David Stokely, Senator Claire McCaskill’s Office; Mr. Jeremy Pruett, Representative Billy Long’s Office; Mr. Carl Carlson; Mr. Jason Haynes, Mr. Christopher Kinzel, Mr. Cory Imhoff, HDR, Inc.; Ms. Brenda Cirtin, Ms. Kimberly Cooper, Mr. Dave Faucett, Ms. Sara Fields, Ms. Natasha Longpine, and Mr. Andy Thomason, Ozarks Transportation Organization.

Chair Smith called the meeting to order at approximately 12:00 p.m.

I. Administration

A. Introductions

Those in attendance made self-introductions stating their name and the organization they represent.

B. Approval of Board of Directors Meeting Agenda

Mr. Cameron moved to approve the August 16, 2018 agenda. Mr. Weiler seconded the motion and it was unanimously approved.

C. Approval of the June 21, 2018 Meeting Minutes

Mr. Weter moved to approve the June 21, 2018 Meeting minutes. Mr. Jansen seconded the motion and it was unanimously approved.

D. Public Comment Period for All Agenda Items

No public comment has been received since the packet was distributed and there was no one present to address the Board of Directors.

E. Executive Director's Report

Sara Fields announced that Andy Thomason had been promoted to Senior Planner, due to his taking on additional duties. She noted that David Faucett had been working on the project list for MoDOT for next year's Statewide Transportation Improvement Program (STIP). She noted MoDOT had requested this list by October, and the subcommittee, which consists of members of the Technical Planning Committee, will be meeting the first of September to prioritize this list.

Ms. Fields stated the Missouri Highway Commission had met in Springfield in July and she had discussed with them the process by which the OTO selects transportation projects. She added she believed it was important for the Commission to know that projects are selected based on a data-driven process, not political motivations. She stated she had also discussed how the area is growing and believed that was new information for some of the members of the Commission.

Ms. Fields said that during this Commission meeting the 2019-2023 STIP was approved. She added that during the public comment portion of the meeting, Mr. Dwayne Holden from Highland Springs and Gerald Andrews from the Missouri Sports Hall of Fame, addressed the Commission and requested an interchange at the entrance to Highland Springs and the Sports Hall of Fame. She noted the Commission thanked them for their comments, but no action was taken.

F. MoDOT Update

Andy Mueller stated MoDOT is beginning the I-44 bridge design fill project. He stated he anticipates it will impact between 25 and 35 bridges, depending on the proposals from the industry. He reminded the Board that the number of bridges that are in fair to poor condition continues to grow. He stated this project should go a long way in helping stop that trend.

Mr. Mueller stated the next phase of the Hwy 65 rebuild project is currently in progress. He said southbound Hwy 65 remains closed between Valley Water Mill Road and I-44, but is scheduled to reopen August 19, but the bridge won't be open until August 22. He added the next six-laning of Hwy 65 from Evans Road and Hwy CC is under contract and the work is expected to begin after Labor Day.

G. Legislative Reports

Jeremy Pruitt from Congressman Billy Long's Office stated the House is in recess, so the Representatives are back in their Districts. He noted that in January, the new House of Representatives and Senate will be back in session and the President is indicating he wants infrastructure to be a priority for next year.

II. New Business

A. *Transportation Plan 2040 Amendment 9A*

Natasha Longpine stated that for projects to be included in the Transportation Improvement Program, they must be on the Constrained List of Projects in the Long Range Transportation Plan. This proposed amendment moves the Proposed Route 60 Freeway Improvements from FR 213 to FR 247, including Route 125 interchange, from the Unconstrained Project List to the Constrained List so that it can be programmed into the TIP.

Ms. Longpine added that any amendment to the Long Range Transportation Plan requires the plan be updated to reflect the performance-based planning requirements of the FAST Act. This proposed amendment includes the addition of those performance measures.

Dr. Crain moved the Board of Directors approve *Transportation Plan 2040 Amendment 9a*. Mr. Cameron seconded the motion and it was unanimously approved.

B. *Transportation Plan 2040 Amendment 9B – Greene County MTP Amendments*

Natasha Longpine stated this proposed amendment reflects two changes to the Major Thoroughfare Plan requested by Greene County. The first is a realignment of proposed Farm Road 94 to connect straight across to AB. The second is the removal of proposed Farm Road 140 between Orchard Crest and West Bypass.

Ms. Longpine added that Greene County will take these changes through their approval process based on the recommendation of the OTO Board of Directors. Any action taken by the Board will be considered pending until Greene County has approved it.

Mr. O'Neal moved the Board of Directors approve *Transportation Plan 2040 Amendment 9B*. Mr. Jansen seconded the motion and it was unanimously approved.

C. *Federal Functional Classification Map Change Request*

Andy Thomason stated the City of Nixa had applied for a Federal Functional Classification change. He added that the Federal Functional Classification designates the highways and roadways that are eligible for federal funding. Nixa has asked to change portions of Truman Blvd., and Norton Rd. He added that these two roads are currently classified as "local" and Nixa is seeking "major collector" status. He said the two roads do not currently connect, but some proposed development will create a north/south corridor.

Sara Fields added that the Board's approval does not mean the classification has been changed; the Federal Highway Administration must approve the change for it to be in effect.

Mr. Cameron moved the Board of Directors approve the Federal Functional Classification change. Mr. Cossey seconded the motion and it was unanimously approved.

D. Nixa Trail Study Addendum

Andy Thomason stated staff is excited to have the completed Nixa Addendum to the Regional Trail Study. He briefly reviewed the history and the process that had been followed for this project. Mr. Thomason added that Nixa had been given a donation of park land on Route AA, which bordered the James River. He said the Community leaders had a desire to see this land connected to the developed portions of Nixa, so an addendum to the OTO's contract with Alta was signed, seeking two or three proposed trail connections. Mr. Thomason reviewed for the Board the proposed trail alignment, noting there was approximately 84 miles of trails, with 12 miles being incorporated into the Regional Trail Study. Mr. Thomason noted that with the completion of this addendum, the OTO now has a Regional Trail proposal that includes connections to all the communities in the OTO boundaries.

Dr. Crain moved the Board of Directors accept the *Nixa Addendum to the Regional Bicycle and Pedestrian Trail Investment Study*. Mr. O'Neal seconded the motion and it was unanimously approved.

E. Draft FY 2019-2022 Transportation Improvement Program

Natasha Longpine stated the Draft FY 2019-2022 had been sent to the Kindles and explained to the Committee how to access it. She noted the TIP takes projects from the Long Range Plan and designates which projects will be constructed over the next four years. She added this is a four year program and must be fiscally constrained. She said the OTO is required to show all regionally significant projects, regardless of their federal funding. She noted the only public comment that had been received was from CC Links in Christian County who contracts with OATS for service. Ms. Longpine stated CC Links had requested OATS services be expanded from what they are currently providing, but she noted the OTO does not have funding available for this service. However, she said she is aware that OATS is looking at ways it can accommodate this request.

Ms. Longpine reviewed the Draft TIP with the Committee highlighting the performance-based planning section, which is new this year. She added the Draft TIP was available for public comment throughout the OTO region. Ms. Longpine briefly reviewed the funding for the projects, noting that Roadways takes the bulk of our funding.

In response to a question, Ms. Longpine stated the agenda packet contains a document that outlines the proposed changes that USDOT recommended. She added these changes have been incorporated in the document that is currently before the Board of Directors.

Mr. Bengsch moved the Board of Directors approve the FY 2019-2022 Transportation Improvement Program, with changes as recommended by USDOT. Mr. Childers seconded the motion and it was unanimously approved.

F. LAGERS Participation

Sara Fields briefly reviewed the process that the OTO had been through to be able to participate in LAGERS. Ms. Fields noted that in advance of getting this legislation drafted, the OTO had asked for an actuarial valuation by LAGERS, which is included in the agenda packet. She stated that LAGERS noted the first action the OTO must take is a 45-day comment period so that the public can review the assumptions of the actuarial. She added that following the public comment period, then the draft resolution will be placed on the next Board of Directors' meeting agenda.

Ms. Fields noted the OTO is recommending the participation in LAGERS begin on January 1, 2019. She added she wanted to explain the questions that the OTO must answer prior to participating. She reviewed the questions and the recommendations, which are also being recommended by the Executive Committee. These recommendations are the plan the L-6 plan, non-contributory, with the final average salary being five years. She stated the rule of 80 is not being recommended.

Ms. Fields addressed the unfunded liability, stating it was believed the OTO should fund the unfunded liability upfront rather than adding it to the annual contribution rate. She noted the actuarial states the L-6 benefit will be a 14.1 percent contribution rate; however, if the unfunded liability is funded at the beginning, the annual percentage drops to 11.2 percent. This will also make the plan fully funded on day one.

Ms. Fields stated that all that is being requested for today is the commencement of the 45-day public comment period and the resolution be placed on the next Board of Director's meeting.

Mr. Weter moved that the OTO initiate the 45-day public information period and that the Board of Directors consider the resolution at the next Board of Directors' meeting. Dr. Crain seconded the motion and it was approved with Mr. Cirtin abstaining.

G. Year-End Financial Statements

David Cameron reviewed for the Board of Directors the year-end financial statements for the 2017-2018 budget year. He noted the total income for the fiscal year was \$921,692.39 and the total expenses was \$834,521.95. He added the next income for the fiscal year was \$37,170.44. He explained the budgeted income was less than the actual income due to some of the income being received and deposited in July 2018, which is the beginning of the next fiscal year.

Following a brief review of the year-end financials, Mr. Compton moved to the Board of Directors accept the OTO Operational and UPWP Year-End Financial Statements for the 2017-2018 Budget Year. Mr. Jansen seconded the motion and it was unanimously approved.

H. Transportation Alternatives Program (TAP) Guidelines and Application

Andy Thomason stated the Transportation Alternatives Program (TAP) subcommittee has reviewed the application and guidebook for this program and have made some minor changes. Mr. Thomason noted that the committee recognizes that trails and sidewalks are

very important to the communities in the OTO area. He added that in recognition of this, the committee made a minimum of \$750,000 available for sidewalks. In addition, they increased the maximum trail project size to \$400,000. The committee believes these changes will ensure larger trail projects and smaller sidewalk connections will now be eligible to receive funding.

Mr. Thomason reviewed the scoring criteria for the Board, noting the criteria with the most changes pertained to public involvement and regional significance. He noted the committee also determined to fund infrastructure projects as opposed to non-infrastructure positions such as a Safe Route to School coordinator.

Mr. Thomason reviewed the timeline for the submission of applications, noting the Board will be approving the applications at their December meeting. Mr. Smith asked if there was representation from all the jurisdictions on the TAP subcommittee, to which Mr. Thomason responded, "Yes."

Mr. Childers moved the Board of Directors approve the TAP Guidelines and Application. Mr. Jansen seconded the motion and it was unanimously approved.

I. OTO/MoDOT Freeway Study

Jason Haynes, a consultant with HDR, greeted the Board of Directors, noting the study he will be presenting was in line with the TIP that was discussed earlier in the meeting. Mr. Haynes added this study is in line with the mission of the OTO, which is to determine priority projects using real data. Mr. Haynes reviewed for the Board his PowerPoint presentation on the process for performing the study and the subsequent recommendations. He noted the study centered on I-44 and US 60 from West Bypass to Highway 125.

Mr. Haynes stated the study looked at 2017 traffic counts and then used the OTO travel demand model growth rates to project traffic demands for 2040. He added this resulted in 20 projects being identified, based on high crash rates and poor LOS/capacity deficiencies, bridge and roadway deficiencies, and excessive queue lengths. Mr. Haynes outlined the process and formula used to project the cost of the projects. He then reviewed the list of projects, both using the Benefit/Cost Methodology and the Net Benefits Methodology.

Following a brief discussion, Dr. Crain moved the Board of Directors accept the freeway study. Mr. Jansen seconded the motion and it was unanimously approved.

J. Resolution of Support for Proposition D

Sara Fields stated that Proposition D is the Missouri fuel tax increase. The Legislature is proposing an increase of 2.5 cents per gallon annually for four years, which is a 10-cent increase. She noted that if this measure is approved by the voters in November, it will free up current revenue that is being used to fund the Missouri Highway Patrol. The revenue could then be used for roadway projects.

Ms. Fields noted the OTO is working on a brochure that could be used by the member entities to show how much revenue each jurisdiction would receive from the tax. She added

the OTO's adopted list of priorities would be used to determine spending if the additional funding becomes available.

Mr. Weiler moved the Board of Directors approve a resolution of support for Proposition D. Mr. Cameron seconded the motion and it was unanimously approved.

III. Other Business

A. Board of Directors Member Announcements

Dan Smith announced the City of Springfield is seeking input from citizens regarding projects for the next ¼-cent capital improvement sales tax. He distributed the survey that is being provided to citizens for input.

Mayor Debra Hickey thanked those involved in the improvements to Republic Road to FF Highway. She stated it has been a real benefit to the City of Battlefield.

B. Transportation Issues for Board of Directors Member Review

Travis Cossey noted that he had a concern he wished to bring to the Board, followed by a request. He stated that currently Hwy 14 from Fort Street to Ridgecrest is under design. He added that the design does not include pedestrian infrastructure, which he believed was contrary to both OTO and MoDOT design requirements. He expressed his concern regarding this indicating this area is highly residential. Mr. Cossey moved the OTO formally request MoDOT to include pedestrian infrastructure in the design in conformance with the design standards. Mr. Cirtin seconded the motion.

Mr. Childers stated the City of Ozark experienced the same issue when they were making improvements to the portion of Hwy 14 that was in Ozark. He noted the project was so large, it had to be split into phases. He stated he believed the pedestrian component was in keeping with the safety performance measures that had been discussed earlier in the meeting. Mr. Childers asked if Mr. Cossey's motion was simply for the portion of Hwy 14 from Fort Street to Ridgecrest. Mr. Cossey responded in the negative, noting that his intent was to have the OTO request MoDOT look at this requirement system wide. Mr. Cossey amended his motion that the OTO request MoDOT comply with the design standards for improvements to the system within the MPO area. Mr. Cirtin seconded the amendment.

Andy Mueller stated MoDOT approves design exceptions for most projects based on feasibility and cost. He noted there are several design standards that are not applied to every project. Mr. Mueller asked for clarification as to whether the motion was requesting MoDOT to "consider" or to "design the project" with pedestrian accommodations. He said it could be designed for these accommodations and asked if there would be any consideration to cost-sharing on this project. Mr. Cossey stated he believed there was a design requirement and a specified need for such improvements and did not believe the City of Nixa should be asked to contribute to a cost that was a design standard. He stated he believed using funds in this way was counter-productive to Nixa's needs for their local system. He reiterated he was not asking for MoDOT to go above and beyond the standards; just to comply with the design standards.

Following additional discussion on design standards and exceptions that are made to them, the motion as amended was unanimously approved.

C. Articles for Board of Directors Member Information

Chair Dan Smith noted there were articles of interest included in the packet for the members review as time allows.

IV. Closed Meeting

Mr. Compton moved the Board of Directors hold a closed meeting to discuss individually identifiable personnel records, performance ratings or records pertaining to employees or applicants for employment pursuant to Section 610.021 (13), RSMo 2017; and this meeting, record, and vote shall be closed, and the Board of Directors shall stand adjourned at the end of the closed meeting. Mr. Weter seconded the motion and it was approved by the following roll call vote:

Aye: Bengsch, Bodenhamer, Cameron, Childers, Cirtin, Compton, Cossey, Crain, Hickey, Gray, Jansen, O'Neal, Smith, Walker, Weiler, and Weter.

Nay: None.

Absent: Fisk.

Mr. Cossey briefly reviewed the actions taken by the Executive Committee in the meeting of July 11, 2018. He noted they had unanimously approve Ms. Fields' Strategic Planning Status report and Performance Objectives as presented. He added they proposed Ms. Fields' be given a 4% merit increase and an additional five days of vacation that must be taken consecutively.

Following a brief discussion, Mr. Compton moved the Board of Directors accept the recommendation of the Executive Committee and approve the Strategic Planning Status report as presented; the Performance Objectives as presented; a 4% merit increase, and an additional five days of vacation that must be taken consecutively. Mr. Cameron seconded the motion and it was approved by the following roll call vote:

Aye: Bengsch, Bodenhamer, Cameron, Childers, Cirtin, Compton, Cossey, Crain, Hickey, Gray, Jansen, Smith, Walker, Weiler, and Weter.

Nay: None.

Absent: O'Neal and Fisk.

With no additional business to come before the Board of Directors, the meeting adjourned at approximately 2:15 p.m.

**OZARKS TRANSPORTATION ORGANIZATION
BOARD OF DIRECTORS E-MEETING MINUTES
August 30, 2018**

The Board of Directors of the Ozarks Transportation Organization held an electronic meeting at its scheduled time of 9:30 a.m. The item for discussion was as follows:

I. Planning Process and Financial Capacity Certifications.

MPOs must certify annually with FHWA and FTA compliance with federal, state and civil rights regulations and that recipients of federal transit funding have the financial capacity to complete awarded projects.

Mr. Cameron moved to Certify the Ozarks Transportation Organization's compliance with the Metropolitan Transportation Planning Process and to certify the financial capacity of City Utilities. Dr. Crain seconded the motion and it was approved by the following vote:

Aye: Bengsch, Cameron, Cirtin, Cossey, Crain, Hickey, Jansen, O'Neal, Smith, Weiler, and Weter.
Nay: None.

Dan Smith, OTO Board of Directors Chairman, adjourned the electronic meeting of the OTO Board of Directors at 10:53 a.m.

TAB 2

August 23, 2018



Ms. Sara Fields, AICP
Executive Director
2208 W. Chesterfield Blvd Suite 101
Springfield MO 65807

Re: US Highway 60 Corridor – Republic, Missouri

Sara,

This letter is intended to express a slight change in our thinking and direction concerning the priority of projects of regional significance within our jurisdiction, particularly as it relates to the improvement and expansion of US Highway 60 and State Highway MM in Republic.

As you are aware the Republic community has placed heavy emphasis over the last 10 years on the economic development potential of the State Highway MM corridor from US Highway 60 to Interstate 44. The region has experienced a substantial amount of commercial and industrial growth in the vicinity of this corridor, including the building of over 1 million square feet of commercial and industrial floor area that facilitates hundreds of new employees, patrons and other incidental traffic generators. Given the logistical value of the transportation facilities serving this area, we remain confident this area can, and will, grow to become a major regional activity center over the long term.

In concert with that growth the City has made the improvement and expansion of this corridor a major priority for transportation funding. Our messaging to OTO and MoDOT over this time period has consistently emphasized this priority. We have even filed multiple discretionary grant applications with USDOT in an effort to secure funding and place further emphasis on the potential of this corridor.

Our vision remains fixed in the long term on the potential of the State Highway MM corridor, but we are also increasingly mindful of the other major transportation issue of regional significance in Republic, that being the US Highway 60 corridor. Recent events and close study of the conditions along this corridor have revealed this facility, particularly the stretch which extends from the intersection with State Highway 174 to the interchange with James River Freeway, requires immediate and focused attention. The following list contains a brief summary of our conclusions that have informed the position taken in this letter:

- The US Highway 60 is a major regional transportation corridor that presently carries high volumes of commuter, patron and freight traffic serving a large multi-county area. The present economic value of this corridor is material to the region and should be given priority over the longer-term potential value of the State Highway MM corridor that exists in the future.
- The US Highway 60 corridor is already experiencing demonstrable congestion and safety problems.
- The US Highway 60 corridor carries such a large volume of traffic that development potential along the corridor becomes problematic, as intersections of commercial driveways or public streets almost immediately provide poor levels of service.
- The efficiency of travel along the US Highway 60 corridor for freight and commuter traffic is of great value to Republic and the communities lying west of the Republic along the same corridor. Protecting the efficiency of travel in close proximity to James River Freeway is vital to preserving

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GROWING TOGETHER

August 23, 2018
Re: US Highway 60 Corridor – Republic, Missouri
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an adequate and safe commute to the existing job and activity centers along James River Freeway in Springfield.

- In the end, while the State Highway MM corridor has tremendous long term potential and requires a dedication of transportation resources in order to realize that potential, we must also recognize the transportation issues present along the US Highway 60 corridor are more immediately pressing and of greater near-term consequence to the region and to our local community. As a result, it is our express desire to work to place a greater short-term emphasis on improvements to the US Highway 60 corridor as a priority. These improvements include:
- The improvement of the intersection of State Highway 174 and US Highway 60.
- The expansion of US Highway 60 to enhance capacity and safety.
- The implementation of a secondary circulation system along both frontages of the US Highway 60 corridor in order to reduce the number of intersections with the highway to as few as possible.
- The facilitation of a new intersection and overpass for the extension of State Highway MM through or over Highway 60 in order to connect to State Highway ZZ.
- The reduction and consolidation of direct access points and cross-access points along the divided highway section of US Highway 60.

I would welcome an opportunity to speak with you and your staff further about this issue, as well as, communicate this to the Executive Board.

Sincerely,



David Cameron
City Administrator

CC: Mayor and City Council
Brenda Jackson, City Clerk
Garrett Tyson, Community Development Director
Andrew Nelson, Public Works Director

TAB 3

BOARD OF DIRECTORS AGENDA, 10/18/2018; ITEM II.A.

2020-2024 STIP Priorities

Ozarks Transportation Organization (Springfield, MO Area MPO)

AGENDA DESCRIPTION:

In the beginning of 2019, MoDOT is expected to develop funding estimates for use in the 2020-2024 Statewide Transportation Improvement Program. Once those estimates are developed, there is a very short window to add projects to the program. Therefore, MoDOT has asked for a list of prioritized projects to begin estimating project costs. Projects will only be considered after the reflection of an asset management plan ensuring that pavement and bridges are kept in good condition.

The expectation is that there will be funding to add projects to state fiscal years 2022 and 2023 (July 2021 through June 2023). Once adopted by the Board, the list will be forwarded to MoDOT for consideration. The projects would be considered in the order that the Ozarks Transportation Organization prioritizes them.

The proposed list has a lot of impacts from existing projects which will limit the consideration of projects in order. Please be aware that if a top project cannot be ready, costs more the funding available or is being impacted by an planned construction project, the next project would be considered. MoDOT also has the flexibility to decide that a project doesn't meet the warrants for improvement or that the proposed improvement does not meet a benefit cost analysis or will not meet the identified need. There are cases where projects can be constructed together and therefore should be advanced. This list serves as OTO's request, not a final expected listing of projects.

There are many different project needs in the STIP. The first and foremost is taking care of the system. MoDOT must ensure that the current system is adequately maintained prior to considering any other type of project. This category includes pavement repair and rehabilitation, bridge repair or replacement, ITS operations, signal maintenance, ADA improvements, etc. The next set of needs are safety related. This includes guardrail and guard cable maintenance, site distance issues, and possibly intersection improvements at which accidents are very high. Finally, any remaining funding would go to fund the projects that are being prioritized.

A working group of the Technical Planning Committee has met to review a list of projects and to determine priority. After scoring the projects per the criteria from *Transportation Plan 2040*, which was slightly modified to include travel time, the group recommended the order as shown in the attached spreadsheet based on many factors.

FUTURE STEPS

1. OTO Board makes recommendation to MoDOT SW District
2. MoDOT refines project cost estimates and proposes projects for programming in the STIP
3. OTO TPC and Board review the proposed STIP and make recommendation for approval to MoDOT

4. Missouri Highway and Transportation Commission adopts Statewide Transportation Improvement Program
5. OTO adopts the Transportation Improvement Program incorporating approved STIP projects
6. FHWA and FTA authorize projects for obligation as planned in the STIP/TIP

TECHNICAL PLANNING COMMITTEE ACTION:

At the regular meeting of the Technical Planning Committee on September 19, 2018, the Committee recommended the Board of Directors approve the 2020-2024 STIP as presented.

BOARD OF DIRECTORS ACTION REQUESTED:

“Move to approve the list of priorities for consideration by MoDOT for inclusion in the 2020 – 2024 STIP.”

OR

“Move to approve the list of priorities as revised by the Board of Directors for consideration by MoDOT for inclusion in the 2020 – 2024 STIP.”

2020-2024 STIP Priority Projects

Priority	County	Route	Description
1	Greene	60	Land Use and Operational Study from Rte. M to JRF
2	Greene	Arterials	Operational and traffic flow improvements within the City of Springfield
3	Greene	Kansas Expwy	Capacity Improvements from Battlefield to JRF
4	Greene	60	Capacity improvements National to Kansas
5	Greene	60	Intersection Improvements at 174
6	Christian	14	Intersection Improvements at 6th
7	Greene	I-44	Auxillary Lanes and Bridge Replacement to accommodate expansion
8	Christian	14	Capacity improvements, 3rd st. to 14th Street
9	Christian	14	Capacity improvements with sidewalks 14th Street to W
10	Greene	60/Nat'l	Add 3rd left turn lane on EB and WB off ramps, add main line exit option EB off
11	Christian	160	Operational and safety improvements from CC to Hwy 14 in Nixa
12	Greene	60/65	Add 3rd lane to SB65 between ramps to 60
13	Greene	60	Capacity and safety improvements from Rte. 174 to Rte. M
14	Christian	14	Intersection Improvements at 3rd & Oak St.
15	Greene	I-244	Designation of an Interstate Loop on US65 and James River Freeway
16	Greene	60	Convert to freeway standards from US 65 to 125

Additional Priorities

County	Route	Description
Christian	14	Sidewalks from 6th to 14th
Greene	60	Capacity and safety improvements from Rte. M to JRF
Christian	14	Nicholas to OTO Western Limits
Christian	14	Capacity and Pedestrian Improvements Cheyenne to 32nd
Greene	65	Interchange Improvements at Kearney
Greene	60	Capacity improvements Glenstone to National
Greene	60	Capacity and safety improvements from Kansas to West Bypass
Christian	14	Intersection improvements at 3rd & Church St.
Greene	60/65	Extend WB to SB decel ramp and SB to EB accel ramp
Christian	14	Intersection Improvements at 32nd
Greene	60	Capacity and safety improvements west of Republic (Illinois St to OTO Boundary)
Greene	I-44/125	Signalize WB Off-Ramp at 125, extend ramps, close ramps to weigh station
Greene	MM	Capacity improvements I-44 to Rte. 360
Christian	65	Capacity Improvements from Route 14 to South/F
Christian	65	Capacity Improvements, Route CC to 14
Christian	14	Capacity and safety improvements from Rte. JJ to Hwy W
Greene	MM	Railroad overpass w/o Rte. 60
Greene	I-44/160	Add 2nd left turn lane on WB off ramp, extend all ramps
Greene	I-44	Capacity improvements from Rte. 360 to West Bypass
Greene	65	Evans Road Interchange Improvements
Greene	I-44/MM/B	Extend ramps and roundabout ramp terminals
Greene	MM	Capacity improvements Rte. 360 to US60
Greene	MM	Intersection Improvements at Sawyer
Greene	160	Intersection Improvements at West Bypass and FR146
Christian	160/CC	CC Extension from Main to 160
Christian	CC/22nd	Intersection Improvements
Christian	CC	Capacity and Safety Improvements west of 65
Christian	160	Capacity and Safety Improvements 14 to OTO southern Limits
Greene	AB	Safety Improvements from 160 to EE
Greene	125	Intersection Improvements at OO
Greene	FF	Intersection improvements at Weaver Rd
Christian	NN	Capacity and Safety Improvements east of J/NN
Greene	ZZ	Roundabout at FR 182
Christian	J	Capacity and Safety Improvements east of 65
Greene	P	Capacity and Safety Improvements US 60 to Miller
Greene	OO	Intersection Improvements at Washington
Greene	125	Intersection Improvements at FR 84
Christian	NN/Pheasant Rd	Intersection improvements
Christian	NN	Capacity and safety improvements Pheasant to Melton
Christian	NN	Capacity and safety improvements J to Sunset
Christian	NN	Capacity and safety improvements Sunset to Weaver
Christian	NN	Capacity and safety improvements Weaver to 14
Greene	413	Land Use and Operational Study from JRF to West Bypass
Chr/Gree	Various	Sidewalks according to Bike/Ped Plan on various routes
Christian	14	Sidewalks along Highway 14 from Main to Ridgecrest

TAB 4

BOARD OF DIRECTORS AGENDA 10/18/2018; ITEM II.B.

Amendment Number One to the FY 2019-2022 Transportation Improvement Program

**Ozarks Transportation Organization
(Springfield, MO Area MPO)**

AGENDA DESCRIPTION:

One change is proposed for Amendment Number One to the FY 2019-2022 Transportation Improvement Program.

1. *Revised* Route 160 Safety Improvements at FR 157 and FR 192 (SP1807-19A1)
MoDOT has requested to change the description to add a southbound turn lane from Plainview Road to Farm Road 157. There is no change in the cost estimate for the project.

TECHNICAL PLANNING COMMITTEE ACTION TAKEN:

At its regularly scheduled meeting on September 19, 2018, the Technical Planning Committee unanimously recommended approval of FY 2019-2022 Transportation Improvement Program Amendment Number One to the Board of Directors.

BOARD OF DIRECTORS ACTION REQUESTED:

That a member of the Board of Directors makes one of the following motions:

“Move to approve FY 2019-2022 Transportation Improvement Program Amendment Number One.”

OR

“Move to approve FY 2019-2022 Transportation Improvement Program Amendment Number One with the following changes...”



Transportation Improvement Program - FY 2019-2022

Project Detail by Section and Project Number with Map

J) Pending Amendment Section

TIP # SP1807-19A1 **ROUTE 160 SAFETY IMPROVEMENTS AT FR 157 AND FR 192**

Route Rte. 160
From FR 157
To FR 192
Location City of Springfield
Federal Agency FHWA
Project Sponsor MoDOT
Federal Funding Category Safety
MoDOT Funding Category Safety
Bike/Ped Plan? EJ? Yes
STIP # 8P3091B
Federal ID #



Project Description

On Rte. 160, adding J-Turn at Farm Road 157, turn lanes at Farm Road 192, and southbound turn lane from Plainview Road to Farm Road 157.

Fund Code	Source	Phase	FY2019	FY2020	FY2021	FY2022	Total
FHWA (SAFETY)	Federal	ENG	\$386,100	\$0	\$0	\$0	\$386,100
MoDOT	State	ENG	\$42,900	\$0	\$0	\$0	\$42,900
FHWA (SAFETY)	Federal	ROW	\$4,500	\$0	\$0	\$0	\$4,500
MoDOT	State	ROW	\$500	\$0	\$0	\$0	\$500
FHWA (SAFETY)	Federal	CON	\$1,688,400	\$0	\$0	\$0	\$1,688,400
MoDOT	State	CON	\$187,600	\$0	\$0	\$0	\$187,600
Totals			\$2,310,000	\$0	\$0	\$0	\$2,310,000

Notes

Non-Federal Funding Source: State Transportation Revenues

Prior Cost	\$198,000
Future Cost	\$0
Total Cost	\$2,508,000



Transportation Improvement Program - FY 2019-2022

Project Detail by Section and Project Number with Map

F) Roadways Section

TIP # SP1807-18 **ROUTE 160 SAFETY IMPROVEMENTS AT FR 157 AND FR 192**

Route Rte. 160

From FR 157

To FR 192

Location City of Springfield

Federal Agency FHWA

Project Sponsor MoDOT

Federal Funding Category Safety

MoDOT Funding Category Safety

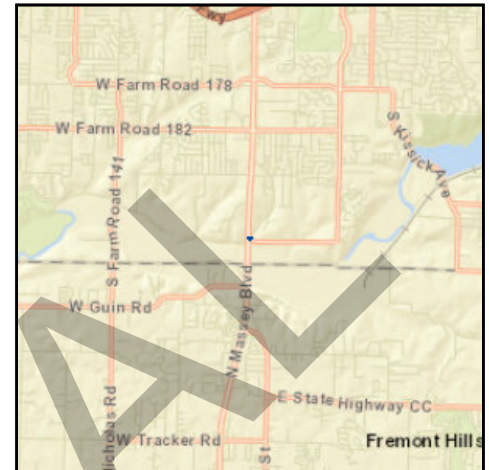
Bike/Ped Plan? EJ? Yes

STIP # 8P3091B

Federal ID #

Project Description

Adding J-Turn on Rte. 160 at Farm Road 157 and turn lanes Farm Road 192.



Fund Code	Source	Phase	FY2019	FY2020	FY2021	FY2022	Total
FHWA (SAFETY)	Federal	ENG	\$386,100	\$0	\$0	\$0	\$386,100
MoDOT	State	ENG	\$42,900	\$0	\$0	\$0	\$42,900
FHWA (SAFETY)	Federal	ROW	\$4,500	\$0	\$0	\$0	\$4,500
MoDOT	State	ROW	\$500	\$0	\$0	\$0	\$500
FHWA (SAFETY)	Federal	CON	\$1,688,400	\$0	\$0	\$0	\$1,688,400
MoDOT	State	CON	\$187,600	\$0	\$0	\$0	\$187,600
Totals			\$2,310,000	\$0	\$0	\$0	\$2,310,000

Notes

Non-Federal Funding Source: State Transportation Revenues

Prior Cost	\$198,000
Future Cost	\$0
Total Cost	\$2,508,000

TAB 5

BOARD OF DIRECTORS AGENDA 10/18/2018; ITEM II.C.

Bridge, Pavement, and System Performance Targets

Ozarks Transportation Organization (Springfield, MO Area MPO)

AGENDA DESCRIPTION:

MAP-21 established and the FAST Act maintained a performance-based approach to transportation investments, creating National Performance Goals. In keeping with these goals, State Departments of Transportation and Metropolitan Planning Organizations are required to establish targets. Each target has its own requirements and timelines. OTO established Transit Asset Management targets in February 2017. Safety Targets were established in December 2017. Now, Bridge and Pavement Targets and System Performance Targets must be set by November 2018. These are a combination of two- and four-year targets.

Six individual targets comprise the Bridge and Pavement Targets:

1. Percentage of NHS Bridges Classified as in Good Condition
2. Percentage of NHS Bridges Classified as in Poor Condition
3. Percentage of Pavements of the Interstate System in Good Condition
4. Percentage of Pavements of the non-Interstate NHS in Good Condition
5. Percentage of Pavements of the Interstate System in Poor Condition
6. Percentage of Pavements of the non-Interstate NHS in Poor Condition

There are also six individual targets for System Performance, however only three of them apply to OTO:

1. Interstate Travel Time Reliability Measure: Percent of Person-Miles Traveled on the Interstate that are Reliable (NPMRDS)
2. *Non-Interstate Travel Time Reliability Measure: Percent of Person-Miles Traveled on the Non-Interstate NHS that are Reliable (NPMRDS)
3. ~~*Peak Hour Excessive Delay (PHED) Measure: Annual Hours of PHED Per Capita (single unified target for EWG, IDOT, MoDOT) (NPMRDS)~~
4. ~~Non-Single Occupancy Vehicle Travel (SOV) Measure: Percent of non-SOV Travel (single unified target for EWG, IDOT, MoDOT) (ACS)~~
5. ~~Emissions Measure: Total Emissions Reduction for PM2.5, Ozone and CO individually (only applies to EWG, St. Louis)~~
6. Freight Reliability Measure: Truck Travel Time Reliability (TTTR) Index (NPMRDS)
*4-year target for 2022 initially for phase in and may be adjusted in 2020; in 2022, must establish 2- and 4-year targets

Targets will be reviewed and may be updated every two years. OTO can choose to set local targets or can choose to plan and program in support of the MoDOT targets. After review of the information and much discussion, the OTO Performance Measures Subcommittee voted to support the MoDOT targets for all measures.

MoDOT Pavement and Bridge Targets:

Performance Measure	2019 Statewide Target	2021 Statewide Target
Percentage of NHS Bridges Classified as in Good Condition	30.9	30.9
Percentage of NHS Bridges Classified as in Poor Condition	7.1	7.1
Percentage of Pavements of the Interstate System in Good Condition	N/A	77.5
Percentage of Pavements of the non-Interstate NHS in Good Condition	61.1	61.1
Percentage of Pavements of the Interstate System in Poor Condition	N/A	0.0
Percentage of Pavements of the non-Interstate NHS in Poor Condition	1.0	1.0

MoDOT System Performance Targets:

Performance Measure	2019 Statewide Target	2021 Statewide Target
Interstate Travel Time Reliability Measure: Percent of Person-Miles Traveled on the Interstate that are Reliable (NPMRDS)	88.9	87.1
Non-Interstate Travel Time Reliability Measure: Percent of Person-Miles Traveled on the Non-Interstate NHS that are Reliable (NPMRDS)	N/A	87.8
Freight Reliability Measure: Truck Travel Time Reliability (TTTR) Index (NPMRDS)	1.28	1.30

PERFORMANCE MEASURES SUBCOMMITTEE ACTION TAKEN:

At its meeting on August 20, 2018, the Performance Measures Subcommittee unanimously recommended that OTO should plan and program in support of the statewide targets for Bridge, Pavement, and System Performance.

TECHNICAL PLANNING COMMITTEE ACTION TAKEN:

At its regularly scheduled meeting on September 19, 2018, the Technical Planning Committee unanimously recommended that the Board of Directors supports the statewide targets for Bridge, Pavement, and Performance.

BOARD OF DIRECTORS ACTION REQUESTED:

That a member of the Board of Directors makes the following motion:

“Move that the Board of Directors supports the statewide targets for Bridge, Pavement, and Performance.”

Bridge, Pavement, and System Performance Target Meeting Summary – 8/20/2018

Recommendation:

It was the recommendation of the committee that OTO support the statewide bridge and pavement and statewide system performance targets.

Discussion:

Natasha Longpine reviewed the performance measure and target setting process as required in the current surface transportation authorization bill. This included a reminder of targets already set and those to be set. The committee discussed data provided by MoDOT which addressed both OTO and statewide current trends. Ms. Longpine explained that each target can be set individually and any combination can be set locally or to support the statewide targets.

Pavement

The discussion around pavement compared the OTO's current performance measure of "Major Roads in Good Condition" to the required measure of Interstate and Non-Interstate pavements in Good and Poor condition. Then, OTO's numbers were compared to the statewide trends and targets. While OTO has great numbers for the Interstate, Frank Miller explained that the interstate is broken into five segments and condition is based on the segment level, so if one segment changes to fair, it can have a large impact. Non-Interstate NHS conditions are not as strong as the Interstate, and this can especially be seen on the locally-owned roads. OTO's numbers are above the statewide numbers, but it was decided that since the majority of the affected lane miles are the responsibility of MoDOT and MoDOT's asset management plan, that it would make sense to support the state targets.

Performance Measure	2017 (OTO)
Percentage of Pavements of the Interstate System in Good Condition	98.2
Percentage of Pavements of the non-Interstate NHS in Good Condition	64.6
Percentage of Pavements of the Interstate System in Poor Condition	0.0
Percentage of Pavements of the non-Interstate NHS in Poor Condition	0.2

Bridge

A similar discussion was had for the bridge targets. OTO has very few bridges in poor condition, but there are a number of bridges in fair condition. Also, when bridge improvements are made, the bridge condition is only updated with the next bridge inspection. For these reasons, it was also recommended that OTO support the state targets.

Performance Measure	2017 (OTO)
Percentage of NHS Bridges Classified as in Good Condition	49.5
Percentage of NHS Bridges Classified as in Poor Condition	2.2

System Performance

OTO staff demonstrated the portal available through RITIS, which helps track the system performance measures. Not all of the system performance requirements apply to OTO, but for those that do, data is

only available for one year, so a trend is difficult to establish. Since data is so limited, it was recommended that OTO support the state targets.

Performance Measure	2017 (OTO)
Interstate Travel Time Reliability Measure: Percent of Person-Miles Traveled on the Interstate that are Reliable (NPMRDS)	100.0
Non-Interstate Travel Time Reliability Measure: Percent of Person-Miles Traveled on the Non-Interstate NHS that are Reliable (NPMRDS)	93.3
Freight Reliability Measure: Truck Travel Time Reliability (TTTR) Index (NPMRDS)	1.07

MoDOT Pavement and Bridge Targets:

Performance Measure	Statewide 2- and 4-Year Targets
Percentage of NHS Bridges Classified as in Good Condition	30.9
Percentage of NHS Bridges Classified as in Poor Condition	7.1
Percentage of Pavements of the Interstate System in Good Condition	77.5*
Percentage of Pavements of the non-Interstate NHS in Good Condition	61.1*
Percentage of Pavements of the Interstate System in Poor Condition	0.0
Percentage of Pavements of the non-Interstate NHS in Poor Condition	1.0

*Only 4-year targets

MoDOT System Performance Targets:

Performance Measure	2-Year Statewide Target	4-Year Statewide Target
Interstate Travel Time Reliability Measure: Percent of Person-Miles Traveled on the Interstate that are Reliable (NPMRDS)	88.9	87.1
Non-Interstate Travel Time Reliability Measure: Percent of Person-Miles Traveled on the Non-Interstate NHS that are Reliable (NPMRDS)	N/A	87.8
Freight Reliability Measure: Truck Travel Time Reliability (TTTR) Index (NPMRDS)	1.28	1.30



Missouri DOT/ FHWA Pavement and Bridge Target Setting Coordination

September 2017

FAST Act/ MAP-21 was the first transportation reauthorization bill requiring target setting collaboration between State DOTs and planning partners on national performance measures. Targets are required to be established in 2018 for six infrastructure performance measures. Two and four-year targets must be established first by State DOTs, then by each MPO, with the MPOs adopting state targets or establishing their own for:

1. Percentage of NHS Bridges Classified as in Good Condition
2. Percentage of NHS Bridges Classified as in Poor Condition
3. Percentage of Pavements of the Interstate System in Good Condition
4. Percentage of Pavements of the non-Interstate NHS in Good Condition
5. Percentage of Pavements of the Interstate System in Poor Condition
6. Percentage of Pavements of the non-Interstate NHS in Poor Condition

Targets may be adjusted every two years by the State DOT, with MPOs able to adjust their targets. Targets must be reported in the FHWA TPM portal (to be released). If FHWA determines the State DOT's Interstate pavement condition falls below the minimum level for the most recent year, the State DOT must obligate a portion of National Highway Performance Program (NHPP) and transfer a portion of Surface Transportation Program (STP) funds to address Interstate pavement condition. If for 3 consecutive years more than 10.0% of a State DOT's NHS bridges' total deck area is classified as Structurally Deficient, the State DOT must obligate and set aside National Highway Performance Program (NHPP) funds for eligible projects on bridges on the NHS.

Pavement and Bridge Target Setting Collaboration with Partners:

Sept. – Oct. 2016	MoDOT shared, solicited feedback and gained consensus from the MPOs on the target setting coordination process during the monthly partner collaboration calls.
Nov. – Dec. 2017	MoDOT Bridge and Pavement staff calculates data for each performance measure statewide, as available. Meet with MoDOT Executive Team.
Feb. 13, 2018	MoDOT Bridge and Pavement staff calculates data for each performance measure statewide and by MPO, as available. MoDOT shares data with MPOs and FHWA with discussion on data, assumptions and challenges for setting targets during the monthly partner collaboration call.
Feb. – Mar. 2018	MoDOT solicits target setting feedback from partners by email.
Mar. 12, 2018	MoDOT and MPOs finalize assumptions to use for targets during the monthly partner collaboration call.
By Apr. 30, 2018	MoDOT applies assumptions to pavement and bridge data to establish targets for initial Transportation Asset Management Plan and submits to FHWA Division Office.
By May 20, 2018	MoDOT shares targets with planning partners through email and monthly partner collaboration calls.
By Oct. 1, 2018	MoDOT posts pavement and bridge targets on FHWA TPM portal website.

MoDOT Statewide Pavement and Bridge Targets

May 2018

Performance Measure	2017 Baseline	2019 Target	2021 Target
Percentage of NHS Bridges in Good Condition	34.0%	30.9%	30.9%
Percentage of NHS Bridges in Poor Condition	7.1%	7.1%	7.1%
Percentage of Interstate Pavements in Good Condition	77.5%		77.5%
Percentage of Interstate Pavements in Poor Condition	0.0%		0.0%
Percentage of non-Interstate NHS Pavements in Good Condition	61.1%	61.1%	61.1%
Percentage of non-Interstate NHS Pavements in Poor Condition	1.0%	1.0%	1.0%

Final Rulemaking

The Federal Highway Administration (FHWA) published in the *Federal Register* (82 FR5886) a [final rule](#) establishing performance measures for State Departments of Transportation (DOTs) to use in managing pavement and bridge performance on the National Highway System (NHS). The National Performance Management Measures; Assessing Pavement Condition for the National Highway Performance Program and Bridge Condition for the National Highway Performance Program Final Rule addresses requirements established by the Moving Ahead for Progress in the 21st Century Act (MAP-21) and reflects passage of the Fixing America's Surface Transportation (FAST) Act. The rule is effective **May 20, 2017**.

Performance Measures

- ✓ % of NHS bridges classified as in Good condition
- ✓ % of NHS bridges classified as in Poor condition

Condition-Based Performance Measures

- Measures are based on deck area.
- The classification is based on National Bridge Inventory (NBI) condition ratings for item 58 - Deck, 59 - Superstructure, 60 - Substructure, and 62 - Culvert.
- Condition is determined by the lowest rating of deck, superstructure, substructure, or culvert. If the lowest rating is greater than or equal to 7, the bridge is classified as good; if is less than or equal to 4, the classification is poor. (Bridges rated below 7 but above 4 will be classified as fair; there is no related performance measure.)
- Deck area is computed using NBI item 49 - Structure Length, and 52 - Deck Width or 32 - Approach Roadway Width (for some culverts).

Target Setting

State DOTs:

- Must establish targets for all bridges carrying the NHS, which includes on- and off-ramps connected to the NHS within a State, and bridges carrying the NHS that cross a State border, regardless of ownership.
- Must establish statewide 2- and 4-year targets by May 20, 2018, and report targets by October 1, 2018, in the Baseline Performance Period Report.
- May adjust 4-year targets at the Mid Performance Period Progress Report (October 1, 2020).

Metropolitan Planning Organizations (MPOs):

- Support the relevant State DOT(s) 4-year target or establish their own by 180 days after the State DOT(s) target is established.



BRIDGE

PERFORMANCE MEASURES



Key Dates

May 20, 2017	Final rule effective date.
January 1, 2018	1st 4- year performance period begins.
May 20, 2018	Initial 2- and 4-year targets established.
October 1, 2018	Baseline Performance Period Report for the 1 st Performance Period due. State DOTs report 2-year and 4-year targets; etc.
Within 180 days of relevant State DOT(s) target establishment	MPOs must commit to support State target or establish separate quantifiable target.
October 1, 2020	Mid Performance Period Progress Report for the 1 st Performance Period due. State DOTs report 2-year condition/performance; progress toward achieving 2-year targets; etc.
December 31, 2021	1st 4-year performance period ends.
October 1, 2022	Full Performance Period Progress Report for 1 st performance period due. State DOTs report 4-year condition/performance; progress toward achieving 4-year targets; etc. Baseline report due for 2 nd performance period due. State DOTs report 2- and 4-year targets; baseline condition, etc.

Other Specifics

- State DOT targets should be determined from asset management analyses and procedures and reflect investment strategies that work toward achieving a state of good repair over the life cycle of assets at minimum practicable cost. State DOTs may establish additional measures and targets that reflect asset management objectives.
- The rule applies to bridges carrying the NHS, including bridges on on- and off-ramps connected to the NHS.
- If for 3 consecutive years more than 10.0% of a State DOT's NHS bridges' total deck area is classified as Structurally Deficient, the State DOT must obligate and set aside National Highway Performance Program (NHPP) funds for eligible projects on bridges on the NHS.
- Deck area of all border bridges counts toward both States DOTs' totals.

Visit www.fhwa.dot.gov/tpm/ to learn about training, guidance, and other implementation-related information.



PAVEMENT

PERFORMANCE MEASURES



Final Rulemaking

The Federal Highway Administration (FHWA) published in the *Federal Register* (82 FR 5886) a [final rule](#) establishing performance measures for State Departments of Transportation (DOTs) to use in managing pavement and bridge performance on the National Highway System (NHS). The National Performance Management Measures; Assessing Pavement Condition for the National Highway Performance Program and Bridge Condition for the National Highway Performance Program Final Rule addresses requirements established by the Moving Ahead for Progress in the 21st Century Act (MAP-21) and reflects passage of the Fixing America's Surface Transportation (FAST) Act. The rule is effective **May 20, 2017**.

Performance Measures

- | | |
|---|---|
| ✓ | % of Interstate pavements in Good condition |
| ✓ | % of Interstate pavements in Poor condition |
| ✓ | % of non-Interstate NHS pavements in Good condition |
| ✓ | % of non-Interstate NHS pavements in Poor condition |

About Condition

- **Good condition:** Suggests no major investment is needed.
- **Poor condition:** Suggests major reconstruction investment is needed.

Penalty Provisions

If FHWA determines the State DOT's Interstate pavement condition falls below the minimum level for the most recent year, the State DOT must obligate a portion of National Highway Performance Program (NHPP) and transfer a portion of Surface Transportation Program (STP) funds to address Interstate pavement condition.

Target Setting

State DOTs:

- Must establish targets, regardless of ownership, for the full extent of the Interstate and non-Interstate NHS.
- Must establish statewide 2- and 4-year targets for the non-Interstate NHS and 4-year targets for the Interstate by May 20, 2018, and report by October 1, 2018.
- May adjust targets at the Mid Performance Period Progress Report (October 1, 2020).

Metropolitan Planning Organizations (MPOs):

- Support the relevant State DOT(s) 4-year target or establish their own by 180 days after the State DOT(s) target is established.



PAVEMENT

PERFORMANCE MEASURES



Key Dates

May 20, 2017	Final rule effective date.
January 1, 2018	1st 4-year performance period begins.
May 20, 2018	State DOT targets must be established.
January 1, 2018	State DOTs collect data for Interstate pavements that conform to the final rule (IRI, Rutting, Cracking %, Faulting, and Inventory).
Within 180 days of relevant State DOT(s) target establishment	MPOs must commit to support state target or establish separate quantifiable target.
October 1, 2018	Baseline Performance Period Report for 1 st Performance Period due. State DOTs report 4-year targets for Interstate and 2-year and 4-year targets for non-Interstate NHS; etc.
April 15, 2019, and each April 15 thereafter	State DOTs submit first Interstate data that conform to the final rule.
January 1, 2020	State DOTs collect data for non-Interstate NHS pavements that conform to the final rules.
October 1, 2020	Mid Performance Period Progress Report for the 1st Performance Period due. State DOTs report 2-year condition/performance; progress toward achieving 2-year targets; etc.
June 15, 2021, and each June 15 thereafter	State DOTs submit non-Interstate NHS data that conform to the final rule.
December 31, 2021	1st 4-year performance period ends.
October 1, 2022	Full Performance Period Progress Report for 1 st Performance Period due. State DOTs reports 4-year condition/performance; progress toward achieving 4-year targets, etc. Baseline Performance Period Report for 2 nd Performance Period due. State DOTs report 2-year and 4-year targets for Interstate and non-Interstate NHS; baseline condition; etc.





Missouri DOT/ FHWA System Performance Target Setting Coordination

September 2017

FAST Act/ MAP-21 was the first transportation reauthorization bill requiring target setting collaboration between State DOTs and planning partners on national performance measures. Targets are required to be established in 2018 for six system performance measures. Two and four-year targets must be set by State DOTs, then by each MPO, with the choice of MPOs adopting state targets or establishing their own for:

1. Interstate Travel Time Reliability Measure: Percent of Person-Miles Traveled on the Interstate that are Reliable (NPMRDS)
 2. *Non-Interstate Travel Time Reliability Measure: Percent of Person-Miles Traveled on the Non-Interstate NHS that are Reliable (NPMRDS)
 3. *Peak Hour Excessive Delay (PHED) Measure: Annual Hours of PHED Per Capita (single unified target for EWG, IDOT, MoDOT) (NPMRDS)
 4. Non-Single Occupancy Vehicle Travel (SOV) Measure: Percent of non-SOV Travel (single unified target for EWG, IDOT, MoDOT) (ACS)
 5. Emissions Measure: Total Emissions Reduction for PM2.5, Ozone and CO individually (only applies to EWG, St. Louis)
 6. Freight Reliability Measure: Truck Travel Time Reliability (TTTR) Index (NPMRDS)
- *4-year target for 2022 initially for phase in and may be adjusted in 2020; in 2022, must establish 2 and 4 year targets

Targets may be adjusted every two years by the State DOT, with MPOs able to adjust their targets. Targets must be reported in the FHWA TPM portal (to be released). If FHWA determines the State DOT has not made significant progress on the first two reliability targets, the State DOT must document actions it will take to achieve targets. If FHWA determines the State DOT has not made significant progress on the freight reliability target, then include this in the next State DOT Biennial report:

- Identification of significant freight system trends, needs, and issues
- Description of freight policies and strategies that will guide the freight-related transportation investments
- Inventory of truck freight bottlenecks and description of the ways in which the State DOT is allocating funding to improve those bottlenecks

System Performance Target Setting Collaboration with Partners:

Sept. – Oct. 2016	MoDOT shared, solicited feedback and gained consensus from the MPOs on the target setting coordination process during the monthly partner collaboration calls.
Jan. 2018	MoDOT staff calculates data for each performance measure statewide, as available. Meet with MoDOT Executive Team.
Mar. 12, 2018	MoDOT staff calculates data for each performance measure statewide and by MPO, as applicable. MoDOT shares data with MPOs and FHWA with discussion on data, assumptions and challenges for setting targets during the monthly partner collaboration call.
Mar. – Apr. 2018	MoDOT solicits target setting feedback from partners by email.
Apr. 9, 2018	MoDOT and MPOs finalize assumptions to use for targets during the monthly partner collaboration call.
By May 20, 2018	MoDOT shares targets with planning partners through email and monthly partner collaboration calls.
By Oct. 1, 2018	MoDOT posts system performance targets on FHWA TPM portal website.

MoDOT/ EWG System Performance Targets

May 2018

Performance Measure	2017 Baseline	2019 Target	2021 Target
Interstate Travel Time Reliability Measure: Percent of Reliable Person-Miles Traveled on the Interstate	91.6%	88.9%	87.1%
Non-Interstate Travel Time Reliability Measure: Percent of Reliable Person-Miles Traveled on the Non-Interstate NHS	92.3%		87.8%
Freight Reliability Measure: Truck Travel Time Reliability Index	1.25	1.28	1.30
Peak Hour Excessive Delay (PHED) Measure: Annual Hours of PHED Per Capita (single unified target for EWG, IDOT, MoDOT)	9.5		9.5
Non-Single Occupancy Vehicle Travel (SOV) Measure: Percent of non-SOV Travel (single unified target for EWG, IDOT, MoDOT)	17.8%	16.7%	17.0%
Total Emissions Reduction for PM2.5 reported in kg/day			
Total Emissions Reduction for NOx reported in kg/day			
Total Emissions Reduction for VOC reported in kg/day			
Total Emissions Reduction for CO reported in kg/day	0.000		

TRANSPORTATION PERFORMANCE MANAGEMENT

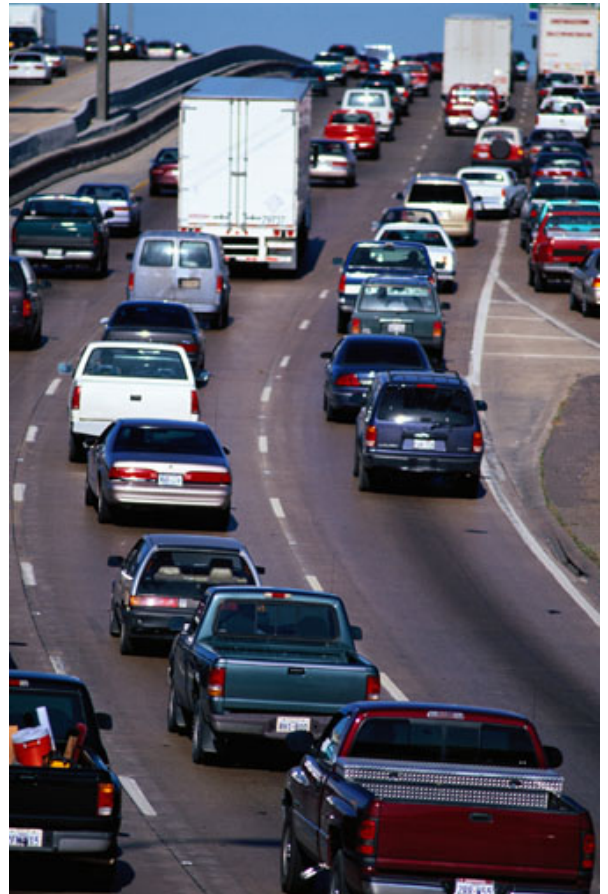


The Federal Highway Administration (FHWA) has finalized six interrelated performance rulemakings to implement the TPM framework established by the Moving Ahead for Progress in the 21st Century Act (MAP-21) and the Fixing America's Surface Transportation (FAST) Act.

Collectively, the rules address challenges facing the U.S. transportation system, including:

- improving safety
- maintaining infrastructure condition
- reducing traffic congestion
- improving efficiency of the system and freight movement
- protecting the environment and
- reducing delays in project delivery.

The rules establish national performance measures; State Departments of Transportation (DOTs)



and metropolitan planning organizations (MPOs) will establish targets for applicable measures. New and existing plans will document the strategies and investments used to achieve the targets; progress toward the targets will be reported through new and existing mechanisms.

Learn more at the FHWA TPM web site:

[\(http://www.fhwa.dot.gov/tpm/\)](http://www.fhwa.dot.gov/tpm/)



U.S. Department of Transportation
Federal Highway Administration

NHS Travel Time Reliability Measures



WHAT: Measurement of travel time reliability on the Interstate and non-Interstate National Highway System (NHS). Read the final rule in the [Federal Register](#) [82 FR 5970 (January 18, 2017)].

WHO: State DOTs, as well as MPOs with Interstate and/or non-Interstate NHS within their metropolitan planning area.

WHY: Through MAP-21, Congress required FHWA to establish measures to assess performance in 12 areas, including performance on the Interstate and non-Interstate NHS. [See 23 CFR 490.507(a)]

WHEN: Implementation differs for the Interstate and non-Interstate NHS measures for the first performance period. State DOTs must establish 2- and 4-year targets for the Interstate, but only a 4-year target for the non-Interstate NHS, by **May 20, 2018**. Those targets will be reported in the State's baseline performance period report due by **October 1, 2018**. The State DOTs have the option to adjust 4-year targets in their mid performance period progress report, due **October 1, 2020**. For the first performance period only, there is no requirement for States to report baseline condition/performance or 2-year targets for the non-Interstate NHS before the mid performance period progress report. This will allow State DOTs to consider more complete data. The process will align for both Interstate and non-Interstate measures with the beginning of the second performance period on **January 1, 2022**.

MPOs must either support the State target or establish their own quantifiable 4-year targets within 180 days of the State target establishment.

HOW: Level of Travel Time Reliability (LOTTR) is defined as the ratio of the longer travel times (80th percentile) to a "normal" travel time (50th percentile), using data from FHWA's National Performance Management Research Data Set (NPMRDS) or equivalent. Data are collected in 15-minute segments during all time periods between 6 a.m. and 8 p.m. local time. The measures are the percent of person-miles traveled on the relevant portion of the NHS that are reliable. Person-miles take into account the users of the NHS. Data to reflect the users can include bus, auto, and truck occupancy levels.

Note: The FHWA is preparing guidance on how all rules should be implemented.



TRANSPORTATION PERFORMANCE MANAGEMENT

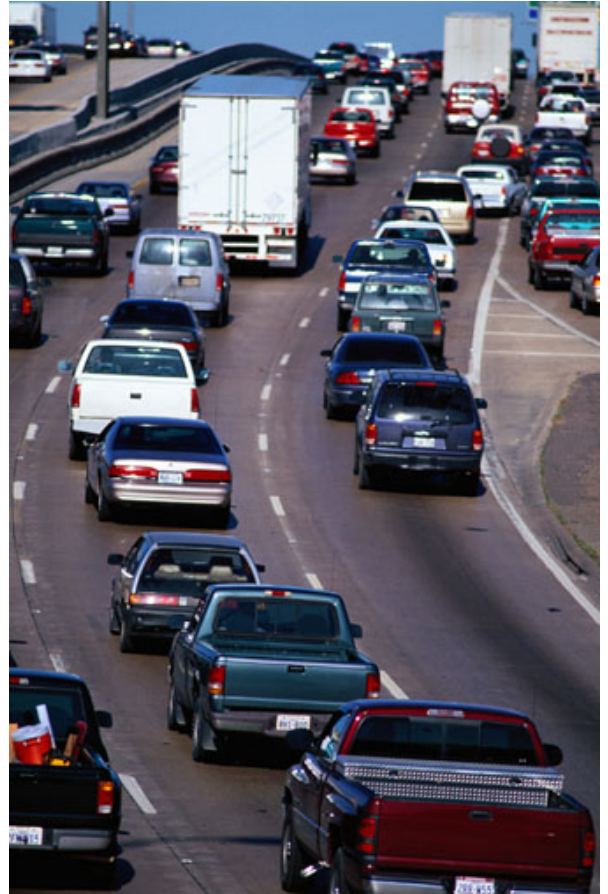


The Federal Highway Administration (FHWA) has finalized six interrelated performance rulemakings to implement the TPM framework established by the Moving Ahead for Progress in the 21st Century Act (MAP-21) and the Fixing America's Surface Transportation (FAST) Act.

Collectively, the rules address challenges facing the U.S. transportation system, including:

- improving safety
- maintaining infrastructure condition
- reducing traffic congestion
- improving efficiency of the system and freight movement
- protecting the environment and
- reducing delays in project delivery.

The rules establish national performance measures; State Departments of Transportation (DOTs)



and metropolitan planning organizations (MPOs) will establish targets for applicable measures. New and existing plans will document the strategies and investments used to achieve the targets; progress toward the targets will be reported through new and existing mechanisms.

Learn more at the FHWA TPM web site:
[\(http://www.fhwa.dot.gov/tpm/\)](http://www.fhwa.dot.gov/tpm/)



Freight Reliability Measure



WHAT: Measurement of travel time reliability on the Interstate System (Truck Travel Time Reliability (TTTR) Index). Read the final rule in the [Federal Register](#) [82 FR 5970 (January 18, 2017)].

WHO: State DOTs and MPOs.

WHY: Through MAP-21, Congress required FHWA to establish measures to assess performance in 12 areas, including freight movement on the Interstate. The measure considers factors that are unique to this industry, such as the use of the system during all hours of the day and the need to consider more extreme impacts to the system in planning for on-time arrivals. [23 CFR 490.607]

WHEN: State DOTs must establish 2- and 4-year targets by **May 20, 2018**. Those targets will be reported in the State's baseline performance period report due by **October 1, 2018**. The State DOTs have the option to adjust 4-year targets in their mid performance period progress report, due **October 1, 2020**.

MPOs must either support the State target or establish their own quantifiable 4-year targets within 180 days of the State target establishment.

HOW: Freight movement will be assessed by the TTTR Index. Reporting is divided into five periods: morning peak (6-10 a.m.), midday (10 a.m.-4 p.m.) and afternoon peak (4-8 p.m.) Mondays through Fridays; weekends (6 a.m.-8 p.m.); and overnights for all days (8 p.m.-6 a.m.). The TTTR ratio will be generated by dividing the 95th percentile time by the normal time (50th percentile) for each segment. The TTTR Index will be generated by multiplying each segment's largest ratio of the five periods by its length, then dividing the sum of all length-weighted segments by the total length of Interstate.

State DOTs and MPOs will have the data they need in FHWA's National Performance Management Research Data Set (NPMRDS) as data set includes truck travel times for the full Interstate System. State DOTs and MPOs may use an equivalent data set if they prefer.

Note: The FHWA is preparing guidance on how all rules should be implemented.



TAB 6

BOARD OF DIRECTORS AGENDA 10/18/2018; ITEM II.D.

MO Local Government Employees Retirement System Participation

Ozarks Transportation Organization (Springfield, MO Area MPO)

AGENDA DESCRIPTION:

Over the past two years, OTO has been working to get legislation passed to allow MPOs in Missouri to participate in LAGERS. Last year, Representative Fraker filed a bill that did not make it out of committee; this year Representative Taylor filed a bill. In the end, Taylor added an amendment to another bill that came to be known as the omnibus pension bill. Earlier this month, the Governor signed Senate Bill 892, allowing OTO to participate in LAGERS.

OTO conducted an actuarial valuation in October 2016 for the purpose of understanding the financial ramifications to participating in LAGERS. This actuarial assured OTO that offering LAGERS to OTO employees was financially feasible. Per Missouri Law, this actuarial is required to be made available for public comment and review for 45 days before adoption.

The following steps are required:

1. July - Executive Committee recommends plan to the Board (*Completed July 26, 2018*)
2. August - Board votes to begin 45-day public comment period and review of draft resolution (*Completed August 16, 2018*)
3. October - Board votes on resolution to participate in LAGERS effective January 1, 2019
4. Staff facilitates the process to participate in LAGERS, including funding the unfunded liability
5. January 1, 2019 - OTO begins participation in LAGERS and current retirement plan is discontinued

Plan Options:

Question 1: Contributory or Non-Contributory.

Recommend Non-Contributory as employees do not currently contribute to the plan. If a contributory plan were selected, 4% of salary is required to be contributed by each employee.

Question 2: Final Average Salary (FAS) calculation

Recommend 5-year Final Average Salary to reduce costs. OTO may select either a five year or a three-year FAS

Question 3: Rule of 80

Recommend not using the rule of 80, which allows for early retirement when age plus years of service equals 80. This is only beneficial to employees who participate in the plan prior to age 40 and increases the contribution rate.

Question 4: What benefit plan to select?

Recommend L-6. The 2% multiplier plan is used in Nixa, City of Springfield, and City Utilities and represents a similar contribution to the 14% contributed currently. The L-6 plan would require a 14.10%

contribution or an 11.20% contribution in the event OTO funds the pension at 100%. The benefit calculation is $(2\%) \times (\text{Final Average Monthly Salary}) \times (\text{Years of Service}) = \text{Monthly Benefit}$

Additional Details:

A new calculation will be made annually to adjust the contribution rate. This rate will be adjusted up or down to reflect the age and salaries of employees as well as the market conditions.

Any unfunded liability accrues to all OTO jurisdictions (political subdivisions). OTO is proposing to offset this liability by making a payment equal to the unfunded liability in the amount of \$166,512. This would make the plan 100% funded on Day 1.

Staff vesting time will begin on the date of hire. The vesting requirement is 5 years. Two OTO staff members will be immediately vested.

Only employees working over 1500 hours a year will be eligible for LAGERS.

Currently OTO contributes 14% to a Simplified Employee Pension offered through Fidelity. All contributions would stop on January 1st and one part-time employee would be provided a 14% raise to compensate for the loss.

Action Requested:

Recommendation regarding benefit plan. Staff is recommending L-6 Non-Contributory plan with 5-year Final Average Salary Calculation.

EXECUTIVE COMMITTEE ACTION TAKEN:

At its meeting on July 26, 2018, the Executive Committee unanimously recommended that the Board of Directors approve that:

1. The OTO move its retirement plan to LAGERS
2. The commencement of the 45-day public input period on the actuarial valuation begin August 21, 2018
3. The OTO elect to participate in the L-6 Non-Contributory plan using the 5-year Final Average Salary
4. The OTO pay off the unfunded liability upon beginning LAGERS

BOARD OF DIRECTORS ACTION REQUESTED:

That a member of the Board of Directors makes one of the following motions:

“Move that the resolution be adopted as presented.”

OR

“Move that the resolution be amended ...”

ATTACHMENTS:

LAGERS brochure
Resolution
Survey of OTO members
Actuarial

**RESOLUTION FOR THE ADOPTION OF THE
MISSOURI LOCAL GOVERNMENT EMPLOYEES RETIREMENT SYSTEM**

RESOLUTION NO: _____

WHEREAS, the **Board of Directors** of the **Ozarks Transportation Organization** desires to provide retirement benefits for its eligible employees under the Missouri Local Government Employees Retirement System (LAGERS), pursuant to the provisions of Sections 70.600 through 70.755, RSMo and has complied with the notice and filing requirements of Section 105.675 RSMo; and

WHEREAS, employees of **Ozarks Transportation Organization** do participate in the federal Social Security program; and

WHEREAS, the Board of Directors of the Ozarks Transportation Organization agrees not to continue or commence coverage of its current or future employees under another retirement plan similar in purpose to LAGERS as is prohibited by Sections 70.615 and 70.620 RSMo.

NOW, THEREFORE, BE IT **RESOLVED** that the **Board of Directors** of the **Ozarks Transportation Organization**, a “political subdivision,” as defined in Section 70.600(19) RSMo, hereby elects to become a participating employer of the Missouri Local Government Employees Retirement System (LAGERS), as defined in Section 70.600(11) RSMo, and to thereby provide retirement benefits to all its eligible **General Employees** under Benefit Program **L-6**, pursuant to Section 70.655.1 RSMo; and

BE IT FURTHER **RESOLVED** that all employment prior to the date **Ozarks Transportation Organization** becomes a participating employer is to be considered for vesting purposes for current employees and for determining the beginning date of employer contributions for employees hired and/or employed during this period but not for the calculation of credited service or final average salary; and

BE IT FURTHER **RESOLVED** that “membership service,” as defined in Section 70.600(15) RSMo, refers to any period of employment beginning or rendered on or after the date the **Ozarks Transportation Organization** becomes a LAGERS employer. Such service shall be considered for purposes of vesting, calculating credited service, and calculating final average salary; and

BE IT **FURTHER RESOLVED** that the Board of Directors of the Ozarks Transportation Organization hereby elects that employees eligible to become members of LAGERS are those employees employed in positions normally requiring **1500** hours of work a year, provided such employees are not members of another governmental retirement plan, or are otherwise excluded from membership in LAGERS by state law, pursuant to 16 CSR 20-2.010(B) RSMo; and

BE IT **FURTHER RESOLVED** that the Board of Directors of the Ozarks Transportation Organization hereby elects to have the “final average salary” of its employee members determined over a **60** consecutive-month period pursuant to the provisions in Sections 70.600(12) and 70.656 RSMo; and

BE IT **FURTHER RESOLVED** that the Board of Directors of the Ozarks Transportation Organization hereby elects to require employees who become members of LAGERS to pay **no** employee contributions to LAGERS, pursuant to Section 70.705 RSMo; and

BE IT **FURTHER RESOLVED** that the Board of Directors of the Ozarks Transportation Organization hereby elects the minimum service retirement age for all eligible employees in accordance with Sections 70.600(16) or 70.646 RSMo; and

BE IT **FURTHER RESOLVED**, that the Board of Directors of the Ozarks Transportation Organization agrees to hold LAGERS harmless from any liability with respect to this transaction, apart from those obligations imposed on LAGERS by Sections 70.600 – 70.755 RSMo, provided the transaction is completed according to the terms contained herein; and

BE IT **FURTHER RESOLVED** that the **Executive Director of the Ozarks Transportation Organization** is hereby authorized and directed to deduct from the wages or salaries of each employee member, the employee contributions, if any, required by Section 70.705, RSMo, and to promptly remit such contributions to LAGERS, along with the employer contributions required by Sections 70.705, 70.730, and 70.735 RSMo.

BE IT **FURTHER RESOLVED** that while there is no statutory provision for a participating political subdivision to terminate its membership under LAGERS, any political subdivision participating in the **Ozarks Transportation Organization** shall be subject to the delinquent recovery procedures under section 70.735 RSMo for any contribution payments due the system. Any political subdivision withdrawing from membership in the **Ozarks Transportation Organization** shall be subject to payments for any unfunded liabilities existing for its past and current employees. Any political subdivision becoming a new member shall be subject to the same terms and conditions then existing including liabilities in proportion to all participating political subdivisions, pursuant to the provisions of section 70.225 (2) RSMo.

BE IT **FURTHER RESOLVED** that the **Executive Director of the Ozarks Transportation Organization** is hereby authorized and directed to take all actions, sign all documents, and to do any and all things and take any and all actions required to place the foregoing resolutions into effect, including the revision of any relevant ordinances and resolutions of the **Ozarks Transportation Organization** which shall be promptly submitted the **Board of Directors** for approval; and

BE IT **FURTHER RESOLVED/ORDAINED** that **Ozarks Transportation Organization** participation as a LAGERS employer will commence on the **FIRST DAY of JANUARY, 2019**.

Signature

(Presiding Officer of Governing Body)

CERTIFICATION

I hereby certify that the above **Resolution** is a true and correct copy of a **Resolution/ Ordinance** that was duly enacted by the **Board of Directors of Ozarks Transportation Organization**.

Date

Signature

(Secretary/Clerk)

OPTIONS

1. Elect Group(s) of Employees to be Covered:

General employees

General employees and Police Officers

General employees, Police Officers and Firefighters

General employees and Firefighters

2. Elect the Benefit Program for all Covered Employees:

L-1 (1.00% life allowance)

L-3 (1.25% life allowance)

L-7 (1.50% life allowance)

L-12 (1.75% life allowance)

LT-4(65) (1.00% life allowance, plus 1.00% temporary allowance to age 65)

LT-5(65) (1.25% life allowance, plus 0.75% temporary allowance to age 65)

LT-8(65) (1.50% life allowance, plus 0.50% temporary allowance to age 65)

LT-14(65) (1.75% life allowance, plus 0.25% temporary allowance to age 65)

L-6 (2.00% life allowance)

L-11 (2.50% life allowance) Available only to political subdivisions not in Social Security

3. Elect the amount of Annual Hours an employee must work to be covered:

1,500

1,250

1,000

4. Elect the number of months for the Final Average Salary calculation:

36

60

5. Elect if the employees will be required Contribute to LAGERS:

"4% of gross salary and wages as"

or

"no." (If "no" is indicated, the political subdivision is responsible for all required contributions.)

6. Elect the Retirement Eligibility for covered employees:

"minimum service retirement age"

or

"alternate retirement option (Rule of 80)"



Your Secure Path



MISSOURI LOCAL GOVERNMENT
EMPLOYEES RETIREMENT SYSTEM

Why are Retirement Benefits Important?

Retirement benefits are an important part of an employer's overall benefit package. Providing these benefits helps recruit quality employees, retain those quality individuals throughout their most productive years, and allows a dignified exit from the workforce when an individual's productivity begins to decline. Employees who stay on the job longer than expected because they cannot afford to retire are among the most costly, and often least productive, employees. A well structured retirement plan can help an employer efficiently manage personnel throughout the employee life cycle.



What is a Defined Benefit Pension?

LAGERS is a defined benefit retirement plan. Defined benefit plans provide guaranteed monthly payments based upon a formula that reflects an employee's working career. The payments begin at retirement age and continue for the lifetime of the retiree.

LAGERS benefits are calculated using a formula based upon three factors:

- How long you work
- How much you earn in salary
- A unique set of benefit levels elected by your employer

Benefits are not affected by swings in the markets, do not require individual portfolio management, and are not based on an account balance that can be outlived.

Benefits are permanent, protected, and guaranteed for the lifetime of every LAGERS member.



Who is LAGERS?

LAGERS is helping thousands of local government employees across the state of Missouri from more than 665 local government employers reach their retirement destination. As a non-profit public pension system, LAGERS provides Missouri's local government employers a path to offer affordable and sustainable retirement benefits in the most efficient and economical manner possible.



How Does LAGERS Work?

$$\begin{array}{c} \text{Benefit Program} \\ \times \\ \text{Credited Service} \\ \times \\ \text{Final Average Salary} \\ = \\ \text{Monthly Benefit for Life} \end{array}$$

All LAGERS benefits are calculated using this formula. Members earn their monthly benefit by accumulating credited service: the longer they work and the more they earn in salary, the more they receive at retirement. Calculating benefits in this way encourages employees to stay with an employer long-term.

Employee Eligibility

All full time employees are eligible for LAGERS membership. To receive a benefit, an employee must become **vested** and reach a **retirement age**.

Vesting

A member becomes vested when they earn **60 months** of credited service with one or more LAGERS employer(s)

***Once a member is vested, they are guaranteed a benefit regardless of whether or not they continue work with their current employer until retirement age.*

Retirement Ages

General Employees: **Age 60**
Police and Fire Employees: **Age 55**

All members may individually choose to retire up to five years early of normal retirement age with a reduced benefit.

Disability and Survivor Benefits

Because LAGERS has hundreds of members across the state of Missouri, LAGERS is able to provide every member with Disability and Survivor benefits at a nominal cost to each employer.

All vested members are eligible for these lifetime benefits and non-vested members are eligible if the cause of disability or death is duty-related.

These benefits are automatic for all members; no separate election must be made.



Does an Employer Have Options?

Every LAGERS employer has complete control over the level of benefits they wish to provide to their employees, and subsequently the cost of providing those benefits. **An employer must obtain an Initial Valuation which details the employer's unique cost of partnering with LAGERS.** The cost varies depending on the level of benefits elected (higher benefits = higher cost) and the employer's unique employee group (age, salaries, amounts of services, turnover rates, etc).

One-Time Elections:

There are three one-time elections that are made when an employer Partners with LAGERS:

Annual Hours for Coverage

Defines Who is Eligible for LAGERS Participation. (1500, 1250, or 1000 hours annually)

Prior Service Coverage

Allows employers to give credit toward a LAGERS benefit for time the employee worked prior to the commencement of LAGERS. (100%, 75%, 50%, or 25% coverage)

Election to Provide Coverage

Providing a defined benefit is about making a commitment between employees and their employer. As such, an employer must honor the benefits they promise and make the full required contributions each month.

Flexible Elections (Can be changed once every 2 years.)

Benefit Program:

Benefit multipliers range from 1-2%. The higher the multiplier, the greater the monthly income replacement for employees in retirement.

Final Average Salary:

Benefits can be based on either a 60 month (5 year) or a 36 month (3 year) average salary. A 36 month average is generally yields a slightly higher average, producing a slightly larger benefit.

Employee Contributions:


Employers may elect to pay for the full cost of the benefit, or to require full time employees to contribute 4% of their gross pay (after tax) to help offset the cost.

Retirement Age

Employers may offer an additional early retirement option called the Rule of 80, which allows employees to retire with unreduced benefits when their age and credited service total the number 80.

How Does the Benefit Multiplier Impact the Benefit Calculation?

$$\begin{array}{r} 1.00\% \text{ (L-1 Program)} \\ \times \\ 25 \text{ Years of Service} \\ \times \\ \text{Final Average Salary} \\ = \\ \textbf{25\% of Final Average Salary for Life} \end{array}$$



Life Program	Multiplier	Income Replacement with 25 Years Service
L-1	1.00%	25%
L-3	1.25%	31%
L-7	1.50%	38%
L-12	1.75%	44%
L-6	2.00%	50%

Ready to make your elections? See the employer worksheet on page 7.

How Do We Start?

Every LAGERS employer that joins LAGERS completes the same process. A prospective employer can expect the membership process to take 3-4 months from start to finish.



Joining Process Checklist:



Request an Actuarial Valuation

- To request this cost study, contact a LAGERS representative.
- You will be asked to complete a personnel data form. This form will ask for information about your employees, such as hire date and salary, and also about any current retirement plan / investment program you may already have in place.



LAGERS reviews any current retirement plans/investment programs.



LAGERS actuaries prepare your Valuation (cost study), generally within 3-4 weeks.

- A LAGERS representative would be happy to meet with your Staff, Administration, or Governing body at any point during the membership process to present the program, review Valuation results, and/or answer questions. Contact the LAGERS office to schedule this meeting.



Your initial valuation must be made public information for 45 calendars days.

- Many employers note in their meeting minutes that cost information for LAGERS was discussed and is available for viewing for 45 days. This will satisfy your public notice requirement.



Adopt an ordinance/resolution electing your benefits and effective date.

- Effective date can be the 1st day of any month after the 45 day public information period



Be sure LAGERS receives a copy of the signed resolution within 10 days of adoption and before the effective date.

Understanding the Actuarial Valuation

Your Actuarial Valuation is a cost study that shows your employer's unique cost for providing a specific set of LAGERS benefits to your employee group. This study is good for two years from date of issue.

Employer Contribution Rates (Contributory Plan - 5 Year FAS) (4% member contributions are additional)					
Regular Retirement Eligibility					
Benefit Program	Employee Groups	Percents of Active Member Payroll			Total Employer Contribution Rate
		Prior Service Cost *	Current Cost	Disability Cost	
L-1	General	5.70%	2.40%	0.20%	8.30%
	Police	0.20	2.50	0.20	2.90
L-3	General	7.20	3.60	0.20	11.00
	Police	0.30	3.80	0.20	4.30
LT-4(65)	General	6.30	3.00	0.20	9.50
	Police	0.30	3.90	0.20	4.40
LT-5(65)	General	7.70	4.10	0.20	12.00
	Police	0.40	4.80	0.20	5.40
L-7	General	8.80	4.80	0.20	13.80
	Police	0.40	5.20	0.20	5.80
LT-8(65)	General	9.00	5.20	0.20	14.40
	Police	0.50	5.90	0.20	6.60
L-12	General	10.30	6.10	0.30	16.70
	Police	0.50	6.60	0.30	7.40
LT-14(65)	General	10.40	6.30	0.30	17.00
	Police	0.50	7.00	0.30	7.80
L-6	General	11.80	7.40	0.30	19.50
	Police	0.60	8.00	0.30	8.90

The top portion of pages 4-11 identifies a specific combination of benefit elections: Member Contributions, Final Average Salary (FAS), and Retirement Eligibility

LAGERS benefits are funded by monthly contributions. Each employer pays a specific rate of their gross payroll (depending on which benefits you elect) to fund the benefits. There are three components to a total employer rate.

Prior Service Cost represents the cost for current employees' prior service before joining LAGERS. An employer may elect to cover less than 100% prior service, which would reduce this rate. Prior Service cost is the portion of the rate that pays for an employer's unfunded liability (see below).

Disability Cost: All employers pay the same rate for LAGERS disability benefits. The cost is pooled between all of LAGERS employers.

Current Cost is the cost of covering the upcoming year of credited service for all employees. It is the pre-funding component of the rate.

The table on pages 15-16 of the valuation shows the unfunded actuarially accrued liability. This is the present value cost of covering 100% of employees' prior service. **This is not an amount immediately due from the employer.**

This liability is amortized over a closed 30 year period and paid off as the "Prior Service" component of your monthly contribution.

Regular Retirement Eligibility					
Benefit Group	Employee Group	Contributory		Non-Contributory	
		UAAL (5 Year FAS)	UAAL (3 Year FAS)	UAAL (5 Year FAS)	UAAL (3 Year FAS)
L-1	General	\$ 2,350,833	\$ 2,440,893	\$ 2,454,598	\$ 2,543,977
	Police	2,375,181	2,467,822	2,467,366	2,559,246
L-3	General	2,966,803	3,079,151	3,068,137	3,179,999
	Police	2,994,818	3,110,136	3,084,254	3,199,081
LT-4(65)	General	2,703,004	2,806,235	2,803,382	2,905,785
	Police	2,869,269	2,980,691	2,958,272	3,068,841
LT-5(65)	General	3,230,976	3,353,119	3,329,799	3,451,320
	Police	3,365,397	3,494,801	3,452,400	3,581,341

The unfunded liability is the amount owed to pay promised benefits, and is also where any actuarial gains and losses are credited in the future. Rates and liabilities are re-evaluated once a year by LAGERS' actuaries.

Subdivision Worksheet

As a part of the membership process, an employer must complete a resolution or ordinance. Below is a worksheet to assist your governing body in determining what level of benefits and cost they are considering before making final legislative action.

Subdivision Resolution or Ordinance Check List

1.) Effective Date of Membership: _____ 1, 20____

The effective date of membership must be a 1st of a month and LAGERS must receive a copy of the resolution within 10 days of it passing and prior to the effective date.

2.) Annual Hours of Employment for LAGERS Eligibility

Subdivision may only choose one and CANNOT be changed

- _____ 1,500 hours per year
- _____ 1,250 hours per year
- _____ 1,000 hours per year

The hourly standard is evaluated on a rolling, consistent basis.

3.) Employee Groups to be Covered

Choose applicable. Police and/or Firefighters can be covered later

- _____ General employees (mandatory)
- _____ General employees AND Police Officers
- _____ General employees AND Fire Fighters
- _____ General employees, Police Officers, and Fire Fighters

4.) Amount of Prior Service to be covered:

Subdivision can choose only one and this option CANNOT be changed.

- _____ 100% _____ 75%
- _____ 50% _____ 25%

5.) Benefit Program:

Can be changed once every 2 years.

Life Programs

Same percent for life

- _____ L-1 (1.00%) _____ L-12 (1.75%)
- _____ L-3 (1.25%) _____ L-6 (2.00%)
- _____ L-7 (1.50%) _____ L-11* (2.50%)

Life & Temporary Programs

Benefit for life with temporary benefit to age 65

- _____ LT-4(65) (1.00% life + 1.00% to 65)
- _____ LT-5(65) (1.25% life + 0.75% to 65)
- _____ LT-8(65) (1.50% life + 0.50 % to 65)
- _____ LT-14(65) (1.75% life + .025% to 65)

6) Final Average Salary Period

Can be changed once every 2 years.

_____ 3 Year FAS

Highest consecutive 36 months within the last 120 months of credited service.

_____ 5 Year FAS

Highest consecutive 60 months within the last 120 months of credited service

7.) Member Contributions

Can be changed once every 2 years.

_____ Member Contributory

Requires 4 % employee contribution of gross salary

_____ Member Non-Contributory

Entire monthly cost paid by the employer

8.) Optional Rule of 80 Retirement Provision

Can be changed once every 2 years.

_____ This option allows for an unreduced age and service retirement for members whose age and service total eighty or more.

You will receive a sample ordinance with your Actuarial Valuation



Your Secure Path

MISSOURI LOCAL GOVERNMENT EMPLOYEES RETIREMENT SYSTEM

www.molagers.org

info@molagers.org

800-447-4334





**THE INITIAL ACTUARIAL VALUATION FOR
OZARKS TRANSPORTATION ORGANIZATION
AS OF OCTOBER 31, 2016**

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December 2, 2016

Ozarks Transportation Organization
Springfield, Missouri

Ladies and Gentlemen:

Submitted in this report are the results of the actuarial valuation prepared to determine the employer contribution rates required to support, for your employees, the benefits provided by the Missouri Local Government Employees Retirement System (LAGERS). This report contains the information needed to comply with Missouri state disclosure requirements regarding the adoption of LAGERS benefits by a political subdivision (Sections 105.660 - 106.685 RSMo).

The contribution requirement for benefits likely to accrue as a result of the future service of your employees is described on pages 4 thru 11 as the current cost plus the disability cost. This contribution rate, expressed as a percent of active employee payroll, will depend on the benefit program adopted.

The contribution requirement to pay for benefits likely to result from service rendered by your employees before you join LAGERS is described on pages 4 thru 11 as the prior service cost. The value established for prior service is called the unfunded actuarial accrued liability (these amounts are further described in Appendix I). The prior service cost is the rate of contribution designed to pay for the unfunded actuarial accrued liability over a period of not more than 30 years.

Section 70.730 of the Revised Statutes of Missouri requires participating employers to contribute the current cost, disability cost, and prior service cost (the total employer cost as shown on pages 4 thru 11). These contributions are mandatory after official action has been taken to join the System.

The total annual dollar costs shown on pages 12 and 13 represent the dollar cost of each benefit program for a one year period based on the payroll reported for this actuarial valuation. In budgeting amounts for LAGERS contributions you should consider any changes in payroll which have been made since data was submitted for the valuation and any changes anticipated to be made before the end of the period for which you are preparing the budget.

The actuarial assumptions and methods used to determine the stated costs are described in Appendix II of this report. In our opinion, they do produce results which, in the aggregate, are reasonable. Additional miscellaneous and technical assumptions as well as disclosures required by the actuarial standards of practice may be found in the LAGERS Compiled Annual Actuarial Valuation report as of February 29, 2016.

The computed contributions required for LAGERS participation will permit the System to continue to operate in accordance with the actuarial principles of level cost financing and the state law which governs LAGERS. Summary provisions of the law as well as benefit illustrations can be found in Appendices III and IV.

Projections needed to comply with Missouri state disclosure requirements (Section 105.665 of the RSMo) regarding the adoption of LAGERS benefits by a political subdivision are available upon request from LAGERS.

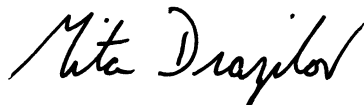
Please note that this entire report must be available as public information for at least 45 calendar days prior to the date final official action is taken by your governing body to join the System. You may wish to make notice of this report in the official minutes of the next meeting of your governing body. This action would not be binding on your subdivision, yet would establish the beginning date of the 45 day waiting period.

In accordance with LAGERS Board policy, the employer contribution rates established by this valuation report are valid for purposes of joining the System for a two year period from the date of this valuation which was October 31, 2016. The valuation was based on data furnished from your records concerning individual employees (see Appendix V).

If you have any questions concerning this report or LAGERS in general, please contact the LAGERS office in Jefferson City.

Mita Drazilov is a member of the American Academy of Actuaries and meets the Qualification Standards of the Academy of Actuaries to render the actuarial opinion herein.

Respectfully submitted,

A handwritten signature in black ink, reading "Mita Drazilov". The signature is fluid and cursive, with the first name "Mita" and last name "Drazilov" clearly distinguishable.

Mita D. Drazilov, ASA, MAAA

Alternate Plan Provisions Affecting Employer Contribution Rates

The law governing LAGERS provides for either a contributory plan or a non-contributory plan, with benefits based on either a 5 year or 3 year Final Average Salary (FAS).

Contributory Plan. Under the contributory plan, each covered member contributes 4% of compensation to LAGERS. If an employee terminates before being eligible for an immediate benefit, the member's contributions, plus any interest credited to the member's individual account, are refunded upon request.

Non-Contributory Plan. Under the non-contributory plan, there is no individual employee contribution to the plan, no individual account maintained for each employee, and no refund paid to employees who terminate before being eligible for a benefit.

The law further provides for nine different benefit programs (benefit formula factors) and allows an employer to elect "rule of 80" eligibility for benefits. Under the rule of 80, employees are eligible for unreduced benefits at the earlier of (i) attainment of their minimum service retirement age or (ii) such time as their years of age plus years of LAGERS credited service equals 80.

In total this allows for 72 different combinations of benefit plans, giving employers considerable latitude in designing the retirement program which they feel best suits their particular situation.

The applicable combinations of these items may be changed from time to time, however, there are limitations on the frequency of changes. A more detailed description of plan provisions may be found in Appendix III of this report.

Ozarks Transportation Organization

Employer Contribution Rates (Contributory Plan - 5 Year FAS)
(4% member contributions are additional)

Regular Retirement Eligibility

Benefit Program	Employee Groups	Percents of Active Member Payroll			
		Prior Service Cost *	Current Cost	Disability Cost	Total Employer Contribution Rate
L-1	General	1.10%	2.40%	0.20%	3.70%
L-3	General	1.50	3.50	0.30	5.30
LT-4(65)	General	1.30	3.00	0.20	4.50
LT-5(65)	General	1.70	3.90	0.30	5.90
L-7	General	1.90	4.60	0.30	6.80
LT-8(65)	General	2.00	4.90	0.30	7.20
L-12	General	2.30	5.90	0.40	8.60
LT-14(65)	General	2.40	5.90	0.40	8.70
L-6	General	2.70	7.00	0.50	10.20

* It was assumed that prior service would be given for vesting purposes only.

Ozarks Transportation Organization

Employer Contribution Rates (Contributory Plan - 3 Year FAS)
(4% member contributions are additional)

Regular Retirement Eligibility

Benefit Program	Employee Groups	Percents of Active Member Payroll			
		Prior Service Cost *	Current Cost	Disability Cost	Total Employer Contribution Rate
L-1	General	1.20%	2.60%	0.20%	4.00%
L-3	General	1.60	3.70	0.30	5.60
LT-4(65)	General	1.40	3.10	0.20	4.70
LT-5(65)	General	1.70	4.10	0.30	6.10
L-7	General	2.00	4.90	0.30	7.20
LT-8(65)	General	2.10	5.20	0.30	7.60
L-12	General	2.40	6.20	0.40	9.00
LT-14(65)	General	2.50	6.20	0.40	9.10
L-6	General	2.80	7.30	0.50	10.60

* It was assumed that prior service would be given for vesting purposes only.

Ozarks Transportation Organization

Employer Contribution Rates (Non-Contributory Plan - 5 Year FAS)
(No member contributions)

Regular Retirement Eligibility

Benefit Program	Employee Groups	Percents of Active Member Payroll			
		Prior Service Cost *	Current Cost	Disability Cost	Total Employer Contribution Rate
L-1	General	1.50%	5.80%	0.20%	7.50%
L-3	General	1.80	7.00	0.30	9.10
LT-4(65)	General	1.70	6.30	0.20	8.20
LT-5(65)	General	2.00	7.40	0.30	9.70
L-7	General	2.20	8.20	0.30	10.70
LT-8(65)	General	2.30	8.50	0.30	11.10
L-12	General	2.60	9.50	0.40	12.50
LT-14(65)	General	2.60	9.60	0.40	12.60
L-6	General	2.90	10.70	0.50	14.10

Reduced to
11.20

* It was assumed that prior service would be given for vesting purposes only.

Ozarks Transportation Organization

Employer Contribution Rates (Non-Contributory Plan - 3 Year FAS)
(No member contributions)

Regular Retirement Eligibility

Benefit Program	Employee Groups	Percents of Active Member Payroll			
		Prior Service Cost *	Current Cost	Disability Cost	Total Employer Contribution Rate
L-1	General	1.50%	6.00%	0.20%	7.70%
L-3	General	1.90	7.20	0.30	9.40
LT-4(65)	General	1.70	6.50	0.20	8.40
LT-5(65)	General	2.00	7.60	0.30	9.90
L-7	General	2.30	8.50	0.30	11.10
LT-8(65)	General	2.40	8.80	0.30	11.50
L-12	General	2.70	9.80	0.40	12.90
LT-14(65)	General	2.70	9.90	0.40	13.00
L-6	General	3.00	11.00	0.50	14.50

* It was assumed that prior service would be given for vesting purposes only.

Ozarks Transportation Organization

Employer Contribution Rates (Contributory Plan - 5 Year FAS)
(4% member contributions are additional)

Rule of 80 Retirement Eligibility#

Benefit Program	Employee Groups	Percents of Active Member Payroll			
		Prior Service Cost *	Current Cost	Disability Cost	Total Employer Contribution Rate
L-1	General	1.30%	3.00%	0.20%	4.50%
L-3	General	1.70	4.20	0.30	6.20
LT-4(65)	General	1.80	4.10	0.20	6.10
LT-5(65)	General	2.10	5.10	0.30	7.50
L-7	General	2.10	5.40	0.30	7.80
LT-8(65)	General	2.40	6.00	0.30	8.70
L-12	General	2.60	6.70	0.40	9.70
LT-14(65)	General	2.70	7.00	0.40	10.10
L-6	General	3.00	8.00	0.50	11.50

The cost for the Rule of 80 provision is very dependent upon the age at hire of the employees. If hiring practices in the future differ from those of the past, the cost for this provision could increase or decrease. The cost shown is based on the age and service characteristics of the present group.

* It was assumed that prior service would be given for vesting purposes only.

Ozarks Transportation Organization

Employer Contribution Rates (Contributory Plan - 3 Year FAS)
(4% member contributions are additional)

Rule of 80 Retirement Eligibility#

Benefit Program	Employee Groups	Percents of Active Member Payroll			
		Prior Service Cost *	Current Cost	Disability Cost	Total Employer Contribution Rate
L-1	General	1.30%	3.10%	0.20%	4.60%
L-3	General	1.80	4.40	0.30	6.50
LT-4(65)	General	1.90	4.40	0.20	6.50
LT-5(65)	General	2.20	5.30	0.30	7.80
L-7	General	2.20	5.70	0.30	8.20
LT-8(65)	General	2.50	6.30	0.30	9.10
L-12	General	2.70	7.00	0.40	10.10
LT-14(65)	General	2.80	7.40	0.40	10.60
L-6	General	3.10	8.50	0.50	12.10

The cost for the Rule of 80 provision is very dependent upon the age at hire of the employees. If hiring practices in the future differ from those of the past, the cost for this provision could increase or decrease. The cost shown is based on the age and service characteristics of the present group.

* It was assumed that prior service would be given for vesting purposes only.

Ozarks Transportation Organization

Employer Contribution Rates (Non-Contributory Plan - 5 Year FAS)
(No member contributions)

Rule of 80 Retirement Eligibility#

Benefit Program	Employee Groups	Percents of Active Member Payroll			
		Prior Service Cost *	Current Cost	Disability Cost	Total Employer Contribution Rate
L-1	General	1.60%	6.30%	0.20%	8.10%
L-3	General	2.00	7.60	0.30	9.90
LT-4(65)	General	2.10	7.50	0.20	9.80
LT-5(65)	General	2.40	8.50	0.30	11.20
L-7	General	2.40	9.00	0.30	11.70
LT-8(65)	General	2.70	9.60	0.30	12.60
L-12	General	2.80	10.30	0.40	13.50
LT-14(65)	General	3.00	10.60	0.40	14.00
L-6	General	3.20	11.70	0.50	15.40

The cost for the Rule of 80 provision is very dependent upon the age at hire of the employees. If hiring practices in the future differ from those of the past, the cost for this provision could increase or decrease. The cost shown is based on the age and service characteristics of the present group.

* It was assumed that prior service would be given for vesting purposes only.

Ozarks Transportation Organization

Employer Contribution Rates (Non-Contributory Plan - 3 Year FAS)
(No member contributions)

Rule of 80 Retirement Eligibility#

Benefit Program	Employee Groups	Percents of Active Member Payroll			
		Prior Service Cost *	Current Cost	Disability Cost	Total Employer Contribution Rate
L-1	General	1.70%	6.50%	0.20%	8.40%
L-3	General	2.10	7.90	0.30	10.30
LT-4(65)	General	2.20	7.70	0.20	10.10
LT-5(65)	General	2.50	8.80	0.30	11.60
L-7	General	2.50	9.30	0.30	12.10
LT-8(65)	General	2.80	9.90	0.30	13.00
L-12	General	2.90	10.70	0.40	14.00
LT-14(65)	General	3.10	11.00	0.40	14.50
L-6	General	3.40	12.10	0.50	16.00

The cost for the Rule of 80 provision is very dependent upon the age at hire of the employees. If hiring practices in the future differ from those of the past, the cost for this provision could increase or decrease. The cost shown is based on the age and service characteristics of the present group.

* It was assumed that prior service would be given for vesting purposes only.

Ozarks Transportation Organization

Employer Contribution Dollars

Regular Retirement Eligibility

Employer contributions are payable monthly, and each month's actual dollar contribution will be the contribution percent multiplied by the payroll during the month. If payroll during your first year of LAGERS participation equals the annual payroll reported for this valuation, the approximate employer dollar contribution for the year would be as follows:

Contributory Plan

5 Year FAS	
Benefit Program	General
L-1	\$ 11,903
L-3	17,050
LT-4(65)	14,476
LT-5(65)	18,980
L-7	21,875
LT-8(65)	23,162
L-12	27,666
LT-14(65)	27,988
L-6	32,813

3 Year FAS	
Benefit Program	General
L-1	\$ 12,868
L-3	18,015
LT-4(65)	15,120
LT-5(65)	19,624
L-7	23,162
LT-8(65)	24,449
L-12	28,953
LT-14(65)	29,274
L-6	34,100

Non-Contributory Plan

5 Year FAS	
Benefit Program	General
L-1	\$ 24,127
L-3	29,274
LT-4(65)	26,379
LT-5(65)	31,205
L-7	34,422
LT-8(65)	35,708
L-12	40,212
LT-14(65)	40,534
L-6	45,359

3 Year FAS	
Benefit Program	General
L-1	\$ 24,771
L-3	30,240
LT-4(65)	27,023
LT-5(65)	31,848
L-7	35,708
LT-8(65)	36,995
L-12	41,499
LT-14(65)	41,821
L-6	46,646

PLEASE NOTE THAT THE ABOVE INFORMATION IS BASED ON THE PERSONNEL AND PAYROLL DATA SUBMITTED FOR THE ACTUARIAL VALUATION. IN BUDGETING AMOUNTS FOR LAGERS CONTRIBUTIONS YOU SHOULD CONSIDER ANY CHANGES WHICH HAVE BEEN MADE SINCE DATA WAS SUBMITTED FOR THE VALUATION AND ANY CHANGES ANTICIPATED TO BE MADE BEFORE THE END OF THE PERIOD FOR WHICH YOU ARE PREPARING THE BUDGET.

Ozarks Transportation Organization

Employer Contribution Dollars

Rule of 80 Retirement Eligibility

Employer contributions are payable monthly, and each month's actual dollar contribution will be the contribution percent multiplied by the payroll during the month. If payroll during your first year of LAGERS participation equals the annual payroll reported for this valuation, the approximate employer dollar contribution for the year would be as follows:

Contributory Plan

5 Year FAS	
Benefit Program	General
L-1	\$ 14,476
L-3	19,945
LT-4(65)	19,624
LT-5(65)	24,127
L-7	25,092
LT-8(65)	27,988
L-12	31,205
LT-14(65)	32,491
L-6	36,995

3 Year FAS	
Benefit Program	General
L-1	\$ 14,798
L-3	20,910
LT-4(65)	20,910
LT-5(65)	25,092
L-7	26,379
LT-8(65)	29,274
L-12	32,491
LT-14(65)	34,100
L-6	38,925

Non-Contributory Plan

5 Year FAS	
Benefit Program	General
L-1	\$ 26,057
L-3	31,848
LT-4(65)	31,526
LT-5(65)	36,030
L-7	37,639
LT-8(65)	40,534
L-12	43,429
LT-14(65)	45,038
L-6	49,541

3 Year FAS	
Benefit Program	General
L-1	\$ 27,023
L-3	33,135
LT-4(65)	32,491
LT-5(65)	37,317
L-7	38,925
LT-8(65)	41,821
L-12	45,038
LT-14(65)	46,646
L-6	51,472

PLEASE NOTE THAT THE ABOVE INFORMATION IS BASED ON THE PERSONNEL AND PAYROLL DATA SUBMITTED FOR THE ACTUARIAL VALUATION. IN BUDGETING AMOUNTS FOR LAGERS CONTRIBUTIONS YOU SHOULD CONSIDER ANY CHANGES WHICH HAVE BEEN MADE SINCE DATA WAS SUBMITTED FOR THE VALUATION AND ANY CHANGES ANTICIPATED TO BE MADE BEFORE THE END OF THE PERIOD FOR WHICH YOU ARE PREPARING THE BUDGET.

Ozarks Transportation Organization

Employees and Payroll Included in the Valuation

	General
Number of Employees	5
Annual Payroll	\$ 321,697

Information regarding the age and service characteristics of the employees is contained in Appendix V.

APPENDIX I

UNFUNDED ACTUARIAL ACCRUED LIABILITY

UNFUNDED ACTUARIAL ACCRUED LIABILITY (UAAL)

If the decision is made to join LAGERS the governing body also must decide how much credit to grant employees for their service before the membership date. The options are to cover 25%, 50%, 75% or 100% of prior service. The granting of prior service credit results in the establishment of an actuarial accrued liability. Because your political subdivision will not have established an asset balance with the System as of the membership date, the value established for prior service is an unfunded actuarial accrued liability.

The policy of the LAGERS Board of Trustees provides that unfunded liabilities are to be paid for by level percent of payroll contributions over a period of 30 years. The contribution rates shown on pages 4 through 11 as the "Prior Service Cost" are designed to pay for the applicable unfunded actuarial accrued liability. This procedure will allow your political subdivision to retire the unfunded actuarial accrued liability in an orderly fashion over a period of years without the need for an immediate large payment upon joining the System.

Should the governing body elect to grant credit for 100% of the employees' prior service, the unfunded actuarial accrued liability as of the date of this valuation would be as follows:

Ozarks Transportation Organization

Regular Retirement Eligibility

Benefit Group	Employee Group	Contributory		Non-Contributory	
		UAAL (5 Year FAS)	UAAL (3 Year FAS)	UAAL (5 Year FAS)	UAAL (3 Year FAS)
L-1	General	\$ 62,835	\$ 65,996	\$ 83,249	\$ 85,937
L-3	General	85,872	89,823	104,043	107,423
LT-4(65)	General	73,547	77,080	93,886	96,954
LT-5(65)	General	93,878	98,118	112,045	115,687
L-7	General	108,836	113,460	124,881	128,900
LT-8(65)	General	114,168	119,020	130,206	134,413
L-12	General	131,561	136,862	145,684	150,396
LT-14(65)	General	134,255	139,617	148,338	153,126
L-6	General	153,884	159,852	166,512	171,848

Ozarks Transportation Organization

UNFUNDED ACTUARIAL ACCRUED LIABILITY (UAAL)

Rule of 80 Retirement Eligibility

Benefit Group	Employee Group	Contributory		Non-Contributory	
		UAAL (5 Year FAS)	UAAL (3 Year FAS)	UAAL (5 Year FAS)	UAAL (3 Year FAS)
L-1	General	\$ 72,573	\$ 76,031	\$ 92,017	\$ 95,085
L-3	General	97,114	101,474	115,006	118,869
LT-4(65)	General	102,347	106,844	121,702	125,844
LT-5(65)	General	119,451	124,598	137,254	141,931
L-7	General	121,663	126,826	138,001	142,661
LT-8(65)	General	136,537	142,257	152,832	158,048
L-12	General	146,002	151,841	161,006	166,464
LT-14(65)	General	153,435	159,558	168,428	174,138
L-6	General	169,949	176,574	183,991	190,202

APPENDIX II

SUMMARY OF FINANCIAL ASSUMPTIONS

Summary of Assumptions Used in Actuarial Valuations

Assumptions Adopted by Board of Trustees After Consulting With Actuary

1. The investment return rate used in making the valuations was 7.25% per year, net of investment expenses, compounded annually. This rate of return is not the assumed real rate of return. The real rate of return is the rate of investment return in excess of the inflation rate. The price inflation rate used in making the valuations was 2.50% and the wage inflation rate used in making the valuations was 3.25%. The investment return rate translates to an assumed real rate of return over price inflation of 4.75% and over wage inflation of 4.00%. Adopted 2011 and 2016.
2. The healthy retiree mortality tables, for post-retirement mortality, used in evaluating allowances to be paid were the RP-2014 Healthy Annuitant mortality table for males and females, adjusted for mortality improvement back to the observation period base year of 2006. The disabled retiree mortality tables, for post-retirement mortality, used in evaluating allowances to be paid were the RP-2014 disabled mortality table for males and females, adjusted for mortality improvement back to the observation period base year of 2006. The pre-retirement mortality tables used were the RP-2014 employees mortality table for males and females, adjusted for mortality improvement back to the observation period base year of 2006. For both the post-retirement and pre-retirement tables, the base year for males was then established to be 2017. Mortality rates for a particular calendar year are determined by applying the MP-2015 mortality improvement scale to the above described tables. Adopted 2016.
3. The probabilities of withdrawal from service, together with individual pay increase assumptions, are shown in Schedule 1. Adopted 2016.
4. The probabilities of retirement with an age and service allowance are shown in Schedule 2. Adopted 2016.
5. Post-retirement cost of living allowances are assumed to be 2.50% per year. Adopted 2016.
6. Total active member payroll is assumed to increase a year, which is the portion of the individual pay increase assumptions attributable to wage inflation. In effect, this assumes no change in the number of active members per employer. Adopted 2016.
7. An individual entry-age actuarial cost method of valuation was used in determining age and service allowance actuarial liabilities and normal cost. Adopted 1986.
8. The data about persons now covered was furnished by the political subdivision. Although examined for general reasonableness, the data was not audited by us.

Schedule 1.

Withdrawal From Active Employment Before Age & Service Retirement and Individual Pay Increase Assumptions

Sample Ages	Years of Service	Percent of Active Members Separating Within Next Year				Percent Increase in Individual's Pay During Next Year Excluding Fire
		General Members		Police	Fire	
		Men	Women			
All	0	19.00%	22.00%	18.00%	10.00%	
	1	17.00	20.00	17.00	8.00	
	2	15.00	17.00	16.00	7.00	
	3	13.00	14.00	13.00	6.00	
	4	11.00	13.00	12.00	6.00	
25	5 & Over	7.30	10.80	9.80	5.00	6.6%
30		6.50	8.90	7.80	4.00	5.8
35		5.00	7.40	6.10	2.80	5.3
40		3.70	5.70	4.40	2.20	4.8
45		3.00	4.20	3.20	1.80	4.3
50		2.40	3.30	1.80	1.00	3.9
55		1.80	2.50	1.00	0.50	3.7
60		1.00	1.20	0.00	0.00	3.6
65		0.00	0.00	0.00	0.00	3.3

Percent Increase in Individual's Pay During Next Year	
Sample Ages	Fire
25	7.2%
30	6.1
35	5.2
40	4.5
45	4.2
50	3.9
55	3.7
60	3.3
65	3.3

Schedule 2.

Percent of Eligible Active Members Retiring Within Next Year Without Rule of 80 Eligibility

Early Retirement

Retirement Ages	General Members		Retirement Ages	Police	Fire
	Men	Women			
55	3.00%	3.00%	50	2.50%	2.50%
56	3.00%	3.00%	51	2.50%	2.50%
57	3.00%	3.00%	52	2.50%	2.50%
58	3.00%	3.00%	53	2.50%	2.50%
59	3.00%	3.00%	54	2.50%	2.50%

Normal Retirement

Retirement Ages	General Members		Retirement Ages	Police	Fire
	Men	Women			
60	10%	10%	55	10%	13%
61	10	10	56	10	13
62	25	15	57	10	13
63	20	15	58	10	13
64	20	15	59	10	13
65	25	25	60	10	15
66	25	25	61	10	15
67	20	25	62	25	20
68	20	25	63	20	20
69	20	20	64	20	20
70	100	100	65	100	100

Schedule 2. (Continued)

Percent of Eligible Active Members Retiring Within Next Year With Rule of 80 Eligibility

Retirement Ages	General Members		Police	Fire
	Men	Women		
50	15%	15%	25%	25%
51	15	15	25	20
52	15	15	15	20
53	15	15	15	20
54	15	15	15	20
55	15	15	15	20
56	15	15	15	20
57	15	15	15	25
58	15	15	15	25
59	15	15	15	25
60	15	15	15	35
61	15	15	25	35
62	30	15	30	45
63	30	15	30	45
64	30	20	30	45
65	30	25	100	100
66	30	25		
67	30	25		
68	30	25		
69	30	25		
70	100	100		

APPENDIX III

SUMMARY OF LAGERS PROVISIONS

Missouri Local Government Employees Retirement System
Brief Summary of LAGERS
Benefits and Conditions Evaluated and/or Considered
as of February 29, 2016
(Section references are to RSMo)

Voluntary Retirement. Sections 70.645 & 70.600. A member may retire with an age & service allowance after both (i) completing 5 years of credited service, and (ii) attaining the minimum service retirement age.

The minimum service retirement age is age 60 for a general employee and age 55 for a police or fire employee. Optionally, employers may also elect to provide for unreduced benefits for employees whose combination of years of age and years of service equals 80 or more.

Final Average Salary. Section 70.600. The average of a member's monthly compensation during the period of 60 consecutive months (or optionally, 36 consecutive months) of credited service producing the highest monthly average, which period is contained within the 120 consecutive months of credited service immediately preceding retirement.

Age & Service Allowance. Section 70.655. The allowance, payable monthly for life, equals a specified percent of a member's final average salary multiplied by the number of years of credited service. Each employer elects the percent applicable to its members, from the following programs:

L-1 Benefit Program:	1.00% for life
L-3 Benefit Program:	1.25% for life
L-7 Benefit Program:	1.50% for life
L-12 Benefit Program:	1.75% for life
L-6 Benefit Program:	2.00% for life
LT-4(65) Benefit Program:	1.00% for life, plus 1.00% to age 65
LT-5(65) Benefit Program:	1.25% for life, plus 0.75% to age 65
LT-8(65) Benefit Program:	1.50% for life, plus 0.50% to age 65
LT-14(65) Benefit Program:	1.75% for life, plus 0.25% to age 65

The only LT benefit programs available for adoption after August 1, 1994 are the LT(65) programs.

Benefit programs L-9 and LT-10(65) are unavailable for adoption after August 1, 2005.

Benefit program L-11, available only to groups not covered by social security, provides for 2.5% for life.

Subsequent to joining the System the governing body can elect to change benefit programs for the employees, but not more often than once every 2 years.

Early Allowance. Section 70.670. A member may retire with an early allowance after both (i) completing 5 years of credited service, and (ii) attaining age 55 if a general employee or age 50 if a police or fire employee.

The early allowance amount, payable monthly for life, is computed in the same manner as an age & service allowance, based upon the service and earnings record to time of early retirement, but reduced to reflect the fact that the age when payments begin is younger than the minimum service retirement age. The amount of the reduction is 1/2 of 1% (.005) for each month the age at retirement is younger than the minimum service retirement age.

Deferred Allowance. Section 70.675. If a member leaves LAGERS-covered employment (i) before attaining the early retirement age, and (ii) after completing 5 years of credited service, the member becomes eligible for a deferred allowance; provided the former member lives to the minimum service retirement age and does not withdraw the accumulated contributions.

The deferred allowance amount, payable monthly for life from the minimum service retirement age, is computed in the same manner as an age & service allowance, based upon the service and earnings record to time of leaving LAGERS coverage.

Deferred allowances are also payable any time after reaching the early retirement age, with the reduction for early retirement noted on the previous page.

Non-Duty Disability Allowance. Section 70.680. A member with 5 or more years of credited service who becomes totally and permanently disabled from other than duty-connected causes becomes eligible to receive a non-duty disability allowance computed in the same manner as an age & service allowance, based upon the service & earnings record to time of disability.

Duty Disability Allowance. Section 70.680. A member regardless of credited service who becomes totally and permanently disabled from duty-connected causes becomes eligible to receive a duty disability allowance computed in the same manner as an age & service allowance, based upon the earnings record to time of disability but based upon the years of credited service the member would have completed had the member continued in LAGERS-covered employment to age 60.

Death-in-Service. Section 70.661. Upon the death of a member who had completed 5 years of credited service, the eligible surviving dependents receive the following benefits:

(a) The surviving spouse receives an allowance equal to the Option A allowance (joint and 75% survivor benefit) computed based upon the deceased members' service & earnings record to time of death.

(b) When no spouse benefit is payable, the dependent children under age 18 (age 23 if they are full time students) each receive an equal share of 60% of an age & service allowance computed based upon the deceased member's service & earnings record to time of death.

(c) If the death is determined to be duty related, the 5 year service requirement is waived and the benefit is based on years of credited service the member would have completed had the member continued in LAGERS-covered employment to age 60.

Benefit Changes After Retirement. Section 70.655. For retirements effective after September 28, 1975, there is an annual redetermination of monthly benefit amount, beginning the October first following 12 months of retirement. As of each October first the amount of each eligible benefit is redetermined as follows:

(a) Subject to the maximum in (b), the redetermined amount is the amount other-wise payable multiplied by: 100% plus up to 4%, as determined by the LAGERS Board of Trustees, for each full year of retirement.

(b) The redetermined amount may not exceed the amount otherwise payable multiplied by the ratio of the Consumer Price Index for the immediately preceding month of June to the Consumer Price Index for the month of June immediately preceding retirement.

Member Contributions. Sections 70.690 & 70.705. Each member contributes 4% of compensation beginning after completion of sufficient employment for 6 months of credited service.

If a member leaves LAGERS-covered employment before an allowance is payable, the accumulated contributions are refunded to the member. If the member dies, his accumulated contributions are refunded to a designated beneficiary.

The law governing LAGERS also has a provision for the adoption of a non-contributory plan in which the full cost of LAGERS participation is paid by the employer. Adoption of the non-contributory provisions may be done at the time of membership or a later date; however, a change from contributory to non-contributory or vice-versa may not be made more frequently than every 2 years. Under the non-contributory provisions there is no individual account maintained for each employee and no refund of contributions if an employee terminates before being eligible for a benefit.

Employer Contributions. Section 70.730. Each employer contributes the remainder amounts necessary to finance the employees' participation in LAGERS. Contributions to LAGERS are determined based upon level-percent-of-payroll principles, so that contribution rates do not have to increase over decades of time.

APPENDIX IV

BENEFIT ILLUSTRATIONS

Missouri LAGERS
Illustrations of Age and Service Allowance Amounts
For Sample Combinations of Service & Salary
(L-1 Benefit Program is Years of Credited Service
times: 1.00% of FAS ¹)

Final Average Salary (FAS) ¹	LAGERS BENEFIT ³	Estimated Social Security ²	Estimated Monthly Total	
			\$	% of FAS
35 Years of Service:				
\$1,500	\$ 525	\$ 882	\$1,407	94%
2,000	700	1,028	1,728	86%
2,500	875	1,174	2,049	82%
3,000	1,050	1,320	2,370	79%
3,500	1,225	1,465	2,690	77%
4,000	1,400	1,611	3,011	75%
25 Years of Service:				
\$1,500	\$ 375	\$ 882	\$1,257	84%
2,000	500	1,028	1,528	76%
2,500	625	1,174	1,799	72%
3,000	750	1,320	2,070	69%
3,500	875	1,465	2,340	67%
4,000	1,000	1,611	2,611	65%
15 Years of Service:				
\$1,500	\$225	\$ 882	\$1,107	74%
2,000	300	1,028	1,328	66%
2,500	375	1,174	1,549	62%
3,000	450	1,320	1,770	59%
3,500	525	1,465	1,990	57%
4,000	600	1,611	2,211	55%

¹ "Final Average Salary" means the monthly average of an employee's compensation during the period of 60 consecutive months (or optionally, 36 consecutive months) when they were highest, contained within the last 120 months of Credited Service.

² "Estimated Social Security" means, for an employee covered by Social Security, an employee's estimated OASDI retirement benefit and is based upon an estimated "average indexed monthly earnings" for an employee retiring at age 65 in 2016 - it does not include any amounts which might be payable to an eligible spouse or children.

³ Amounts are shown to nearest \$1, for simplicity; actual amounts are to nearest 1¢.

Missouri LAGERS
Illustrations of Age and Service Allowance Amounts
For Sample Combinations of Service & Salary
(L-3 Benefit Program is Years of Credited Service
times: 1.25% of FAS ¹)

Final Average Salary (FAS) ¹	LAGERS BENEFIT ³	Estimated Social Security ²	Estimated Monthly Total	
			\$	% of FAS
35 Years of Service:				
\$1,500	\$ 656	\$ 882	\$1,538	103%
2,000	875	1,028	1,903	95%
2,500	1,094	1,174	2,268	91%
3,000	1,313	1,320	2,633	88%
3,500	1,531	1,465	2,996	86%
4,000	1,750	1,611	3,361	84%
25 Years of Service:				
\$1,500	\$ 469	\$ 882	\$1,351	90%
2,000	625	1,028	1,653	83%
2,500	781	1,174	1,955	78%
3,000	938	1,320	2,258	75%
3,500	1,094	1,465	2,559	73%
4,000	1,250	1,611	2,861	72%
15 Years of Service:				
\$1,500	\$281	\$ 882	\$1,163	78%
2,000	375	1,028	1,403	70%
2,500	469	1,174	1,643	66%
3,000	563	1,320	1,883	63%
3,500	656	1,465	2,121	61%
4,000	750	1,611	2,361	59%

¹ "Final Average Salary" means the monthly average of an employee's compensation during the period of 60 consecutive months (or optionally, 36 consecutive months) when they were highest, contained within the last 120 months of Credited Service.

² "Estimated Social Security" means, for an employee covered by Social Security, an employee's estimated OASDI retirement benefit and is based upon an estimated "average indexed monthly earnings" for an employee retiring at age 65 in 2016 - it does not include any amounts which might be payable to an eligible spouse or children.

³ Amounts are shown to nearest \$1, for simplicity; actual amounts are to nearest 1¢.

Missouri LAGERS
Illustrations of Age and Service Allowance Amounts
For Sample Combinations of Service & Salary
(L-7 Benefit Program is Years of Credited Service
times: 1.50% of FAS ¹)

Final Average Salary (FAS) ¹	LAGERS BENEFIT ³	Estimated Social Security ²	Estimated Monthly Total	
			\$	% of FAS
35 Years of Service:				
\$1,500	\$ 788	\$ 882	\$1,670	111%
2,000	1,050	1,028	2,078	104%
2,500	1,313	1,174	2,487	99%
3,000	1,575	1,320	2,895	97%
3,500	1,838	1,465	3,303	94%
4,000	2,100	1,611	3,711	93%
25 Years of Service:				
\$1,500	\$ 563	\$ 882	\$1,445	96%
2,000	750	1,028	1,778	89%
2,500	938	1,174	2,112	84%
3,000	1,125	1,320	2,445	82%
3,500	1,313	1,465	2,778	79%
4,000	1,500	1,611	3,111	78%
15 Years of Service:				
\$1,500	\$338	\$ 882	\$1,220	81%
2,000	450	1,028	1,478	74%
2,500	563	1,174	1,737	69%
3,000	675	1,320	1,995	67%
3,500	788	1,465	2,253	64%
4,000	900	1,611	2,511	63%

¹ "Final Average Salary" means the monthly average of an employee's compensation during the period of 60 consecutive months (or optionally, 36 consecutive months) when they were highest, contained within the last 120 months of Credited Service.

² "Estimated Social Security" means, for an employee covered by Social Security, an employee's estimated OASDI retirement benefit and is based upon an estimated "average indexed monthly earnings" for an employee retiring at age 65 in 2016 - it does not include any amounts which might be payable to an eligible spouse or children.

³ Amounts are shown to nearest \$1, for simplicity; actual amounts are to nearest 1¢.

Missouri LAGERS
Illustrations of Age and Service Allowance Amounts
For Sample Combinations of Service & Salary
(L-12 Benefit Program is Years of Credited Service
times: 1.75% of FAS ¹)

Final Average Salary (FAS) ¹	LAGERS BENEFIT ³	Estimated Social Security ²	Estimated Monthly Total	
			\$	% of FAS
35 Years of Service:				
\$1,500	\$ 919	\$ 882	\$1,801	120%
2,000	1,225	1,028	2,253	113%
2,500	1,531	1,174	2,705	108%
3,000	1,838	1,320	3,158	105%
3,500	2,144	1,465	3,609	103%
4,000	2,450	1,611	4,061	102%
25 Years of Service:				
\$1,500	\$ 656	\$ 882	\$1,538	103%
2,000	875	1,028	1,903	95%
2,500	1,094	1,174	2,268	91%
3,000	1,313	1,320	2,633	88%
3,500	1,531	1,465	2,996	86%
4,000	1,750	1,611	3,361	84%
15 Years of Service:				
\$1,500	\$ 394	\$ 882	\$1,276	85%
2,000	525	1,028	1,553	78%
2,500	656	1,174	1,830	73%
3,000	788	1,320	2,108	70%
3,500	919	1,465	2,384	68%
4,000	1,050	1,611	2,661	67%

¹ "Final Average Salary" means the monthly average of an employee's compensation during the period of 60 consecutive months (or optionally, 36 consecutive months) when they were highest, contained within the last 120 months of Credited Service.

² "Estimated Social Security" means, for an employee covered by Social Security, an employee's estimated OASDI retirement benefit and is based upon an estimated "average indexed monthly earnings" for an employee retiring at age 65 in 2016 - it does not include any amounts which might be payable to an eligible spouse or children.

³ Amounts are shown to nearest \$1, for simplicity; actual amounts are to nearest 1¢.

Missouri LAGERS
Illustrations of Age and Service Allowance Amounts
For Sample Combinations of Service & Salary
(L-6 Benefit Program is Years of Credited Service
times: 2.00% of FAS ¹)

Final Average Salary (FAS) ¹	LAGERS BENEFIT ³	Estimated Social Security ²	Estimated Monthly Total	
			\$	% of FAS
35 Years of Service:				
\$1,500	\$1,050	\$ 882	\$1,932	129%
2,000	1,400	1,028	2,428	121%
2,500	1,750	1,174	2,924	117%
3,000	2,100	1,320	3,420	114%
3,500	2,450	1,465	3,915	112%
4,000	2,800	1,611	4,411	110%
25 Years of Service:				
\$1,500	\$ 750	\$ 882	\$1,632	109%
2,000	1,000	1,028	2,028	101%
2,500	1,250	1,174	2,424	97%
3,000	1,500	1,320	2,820	94%
3,500	1,750	1,465	3,215	92%
4,000	2,000	1,611	3,611	90%
15 Years of Service:				
\$1,500	\$ 450	\$ 882	\$1,332	89%
2,000	600	1,028	1,628	81%
2,500	750	1,174	1,924	77%
3,000	900	1,320	2,220	74%
3,500	1,050	1,465	2,515	72%
4,000	1,200	1,611	2,811	70%

¹ "Final Average Salary" means the monthly average of an employee's compensation during the period of 60 consecutive months (or optionally, 36 consecutive months) when they were highest, contained within the last 120 months of Credited Service.

² "Estimated Social Security" means, for an employee covered by Social Security, an employee's estimated OASDI retirement benefit and is based upon an estimated "average indexed monthly earnings" for an employee retiring at age 65 in 2016 - it does not include any amounts which might be payable to an eligible spouse or children.

³ Amounts are shown to nearest \$1, for simplicity; actual amounts are to nearest 1¢.

Missouri LAGERS
Illustrations of Age and Service Allowance Amounts
For Sample Combinations of Service & Salary
(LT-4(65) Benefit Program is Years of Credited Service
times: 2.00% of FAS¹ to age 65)
1.00% of FAS¹ at age 65)

Final Average Salary (FAS) ¹	LAGERS BENEFIT ³		Estimated Social Security ²	Estimated Monthly Total		Percent of FAS	
	To 65	At 65		To 65	At 65	To 65	At 65
35 Years of Service:							
\$1,500	\$1,050	\$ 525	\$ 882	\$1,050	\$1,407	70%	94%
2,000	1,400	700	1,028	1,400	1,728	70%	86%
2,500	1,750	875	1,174	1,750	2,049	70%	82%
3,000	2,100	1,050	1,320	2,100	2,370	70%	79%
3,500	2,450	1,225	1,465	2,450	2,690	70%	77%
4,000	2,800	1,400	1,611	2,800	3,011	70%	75%
25 Years of Service:							
\$1,500	\$ 750	\$ 375	\$ 882	\$ 750	\$1,257	50%	84%
2,000	1,000	500	1,028	1,000	1,528	50%	76%
2,500	1,250	625	1,174	1,250	1,799	50%	72%
3,000	1,500	750	1,320	1,500	2,070	50%	69%
3,500	1,750	875	1,465	1,750	2,340	50%	67%
4,000	2,000	1,000	1,611	2,000	2,611	50%	65%
15 Years of Service:							
\$1,500	\$ 450	\$225	\$ 882	\$ 450	\$1,107	30%	74%
2,000	600	300	1,028	600	1,328	30%	66%
2,500	750	375	1,174	750	1,549	30%	62%
3,000	900	450	1,320	900	1,770	30%	59%
3,500	1,050	525	1,465	1,050	1,990	30%	57%
4,000	1,200	600	1,611	1,200	2,211	30%	55%

¹ "Final Average Salary" means the monthly average of an employee's compensation during the period of 60 consecutive months (or optionally, 36 consecutive months) when they were highest, contained within the last 120 months of Credited Service.

² "Estimated Social Security" means, for an employee covered by Social Security, an employee's estimated OASDI retirement benefit and is based upon an estimated "average indexed monthly earnings" for an employee retiring at age 65 in 2016 - it does not include any amounts which might be payable to an eligible spouse or children.

³ Amounts are shown to nearest \$1, for simplicity; actual amounts are to nearest 1¢.

Missouri LAGERS
Illustrations of Age and Service Allowance Amounts
For Sample Combinations of Service & Salary
(LT-5(65) Benefit Program is Years of Credited Service
times: 2.00% of FAS¹ to age 65)
1.25% of FAS¹ at age 65)

Final Average Salary (FAS) ¹	LAGERS BENEFIT ³		Estimated Social Security ²	Estimated Monthly Total		Percent of FAS	
	To 65	At 65		To 65	At 65	To 65	At 65
35 Years of Service:							
\$1,500	\$1,050	\$ 656	\$ 882	\$1,050	\$1,538	70%	103%
2,000	1,400	875	1,028	1,400	1,903	70%	95%
2,500	1,750	1,094	1,174	1,750	2,268	70%	91%
3,000	2,100	1,313	1,320	2,100	2,633	70%	88%
3,500	2,450	1,531	1,465	2,450	2,996	70%	86%
4,000	2,800	1,750	1,611	2,800	3,361	70%	84%
25 Years of Service:							
\$1,500	\$ 750	\$ 469	\$ 882	\$ 750	\$1,351	50%	90%
2,000	1,000	625	1,028	1,000	1,653	50%	83%
2,500	1,250	781	1,174	1,250	1,955	50%	78%
3,000	1,500	938	1,320	1,500	2,258	50%	75%
3,500	1,750	1,094	1,465	1,750	2,559	50%	73%
4,000	2,000	1,250	1,611	2,000	2,861	50%	72%
15 Years of Service:							
\$1,500	\$ 450	\$281	\$ 882	\$ 450	\$1,163	30%	78%
2,000	600	375	1,028	600	1,403	30%	70%
2,500	750	469	1,174	750	1,643	30%	66%
3,000	900	563	1,320	900	1,883	30%	63%
3,500	1,050	656	1,465	1,050	2,121	30%	61%
4,000	1,200	750	1,611	1,200	2,361	30%	59%

¹ "Final Average Salary" means the monthly average of an employee's compensation during the period of 60 consecutive months (or optionally, 36 consecutive months) when they were highest, contained within the last 120 months of Credited Service.

² "Estimated Social Security" means, for an employee covered by Social Security, an employee's estimated OASDI retirement benefit and is based upon an estimated "average indexed monthly earnings" for an employee retiring at age 65 in 2016 - it does not include any amounts which might be payable to an eligible spouse or children.

³ Amounts are shown to nearest \$1, for simplicity; actual amounts are to nearest 1¢.

Missouri LAGERS
Illustrations of Age and Service Allowance Amounts
For Sample Combinations of Service & Salary
(LT-8(65) Benefit Program is Years of Credited Service
times: 2.00% of FAS¹ to age 65)
1.50% of FAS¹ at age 65)

Final Average Salary (FAS) ¹	LAGERS BENEFIT ³		Estimated Social Security ²	Estimated Monthly Total		Percent of FAS	
	To 65	At 65		To 65	At 65	To 65	At 65
35 Years of Service:							
\$1,500	\$1,050	\$ 788	\$ 882	\$1,050	\$1,670	70%	111%
2,000	1,400	1,050	1,028	1,400	2,078	70%	104%
2,500	1,750	1,313	1,174	1,750	2,487	70%	99%
3,000	2,100	1,575	1,320	2,100	2,895	70%	97%
3,500	2,450	1,838	1,465	2,450	3,303	70%	94%
4,000	2,800	2,100	1,611	2,800	3,711	70%	93%
25 Years of Service:							
\$1,500	\$ 750	\$ 563	\$ 882	\$ 750	\$1,445	50%	96%
2,000	1,000	750	1,028	1,000	1,778	50%	89%
2,500	1,250	938	1,174	1,250	2,112	50%	84%
3,000	1,500	1,125	1,320	1,500	2,445	50%	82%
3,500	1,750	1,313	1,465	1,750	2,778	50%	79%
4,000	2,000	1,500	1,611	2,000	3,111	50%	78%
15 Years of Service:							
\$1,500	\$ 450	\$338	\$ 882	\$ 450	\$1,220	30%	81%
2,000	600	450	1,028	600	1,478	30%	74%
2,500	750	563	1,174	750	1,737	30%	69%
3,000	900	675	1,320	900	1,995	30%	67%
3,500	1,050	788	1,465	1,050	2,253	30%	64%
4,000	1,200	900	1,611	1,200	2,511	30%	63%

¹ "Final Average Salary" means the monthly average of an employee's compensation during the period of 60 consecutive months (or optionally, 36 consecutive months) when they were highest, contained within the last 120 months of Credited Service.

² "Estimated Social Security" means, for an employee covered by Social Security, an employee's estimated OASDI retirement benefit and is based upon an estimated "average indexed monthly earnings" for an employee retiring at age 65 in 2016 - it does not include any amounts which might be payable to an eligible spouse or children.

³ Amounts are shown to nearest \$1, for simplicity; actual amounts are to nearest 1¢.

Missouri LAGERS
Illustrations of Age and Service Allowance Amounts
For Sample Combinations of Service & Salary
(LT-14(65) Benefit Program is Years of Credited Service
times: 2.00% of FAS¹ to age 65)
1.75% of FAS¹ at age 65)

Final Average Salary (FAS) ¹	LAGERS BENEFIT ³		Estimated Social Security ²	Estimated Monthly Total		Percent of FAS	
	To 65	At 65		To 65	At 65	To 65	At 65
35 Years of Service:							
\$1,500	\$1,050	\$ 919	\$ 882	\$1,050	\$1,801	70%	120%
2,000	1,400	1,225	1,028	1,400	2,253	70%	113%
2,500	1,750	1,531	1,174	1,750	2,705	70%	108%
3,000	2,100	1,838	1,320	2,100	3,158	70%	105%
3,500	2,450	2,144	1,465	2,450	3,609	70%	103%
4,000	2,800	2,450	1,611	2,800	4,061	70%	102%
25 Years of Service:							
\$1,500	\$ 750	\$ 656	\$ 882	\$ 750	\$1,538	50%	103%
2,000	1,000	875	1,028	1,000	1,903	50%	95%
2,500	1,250	1,094	1,174	1,250	2,268	50%	91%
3,000	1,500	1,313	1,320	1,500	2,633	50%	88%
3,500	1,750	1,531	1,465	1,750	2,996	50%	86%
4,000	2,000	1,750	1,611	2,000	3,361	50%	84%
15 Years of Service:							
\$1,500	\$ 450	\$ 394	\$ 882	\$ 450	\$1,276	30%	85%
2,000	600	525	1,028	600	1,553	30%	78%
2,500	750	656	1,174	750	1,830	30%	73%
3,000	900	788	1,320	900	2,108	30%	70%
3,500	1,050	919	1,465	1,050	2,384	30%	68%
4,000	1,200	1,050	1,611	1,200	2,661	30%	67%

¹ "Final Average Salary" means the monthly average of an employee's compensation during the period of 60 consecutive months (or optionally, 36 consecutive months) when they were highest, contained within the last 120 months of Credited Service.

² "Estimated Social Security" means, for an employee covered by Social Security, an employee's estimated OASDI retirement benefit and is based upon an estimated "average indexed monthly earnings" for an employee retiring at age 65 in 2016 - it does not include any amounts which might be payable to an eligible spouse or children.

³ Amounts are shown to nearest \$1, for simplicity; actual amounts are to nearest 1¢.

APPENDIX V

AGE AND SERVICE CHARACTERISTICS OF EMPLOYEES

Ozarks Transportation Organization

October 31, 2016

By Attained Age and Years of Service

Attained Age	Years of Service to Valuation Date							Totals	
	0-4	5-9	10-14	15-19	20-24	25-29	30 Plus	No.	Valuation Payroll
Under 20									
20-24									
25-29	1							1	\$ 47,500
30-34									
35-39			2					2	\$ 175,697
40-44		1						1	\$ 51,000
45-49									
50-54	1							1	\$ 47,500
55-59									
60-64									
65-69									
70 & Over									
Totals	2	1	2					5	\$ 321,697

While not used in the financial computations, the following group averages are computed and shown because of their general interest.

Age: 39.1 years.

Benefit Service: 0.0 years.

Annual Pay: \$64,339.

December 2, 2016 E-mail

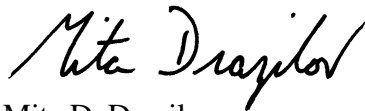
Mr. Keith Hughes, Executive Secretary
Missouri Local Government
Employees Retirement System
P.O. Box 1665
Jefferson City, Missouri 65102

Dear Keith:

Enclosed is the report of the October 31, 2016 Initial Actuarial
Valuation of LAGERS benefits for the employees of

Ozarks Transportation Organization

Sincerely,



Mita D. Drazilov

MDD:adh

OTO MEMBERS LAGERS BENEFITS

Member	Benefit Program	FAS	Rule of 80	Employee Contribution
Greene	L-7	3	No	No
City Utilities	L-6	3	No	No
Springfield	L-6	3	No	No
Nixa	L-6	5	No	Yes
Ozark	L-7	3	No	No
Republic	L-3	3	No	Yes
Willard	L-7	5	No	Yes
Christian	L-9	3	No	No
Strafford	L-3	5	No	No

Proposed

OTO	L-6	5	No	No
-----	-----	---	----	----

TAB 7

BOARD OF DIRECTORS AGENDA 10.18.18; ITEM II. E.

Proposed FY 19 Operational Budget Amendment One

**Ozarks Transportation Organization
(Springfield, MO Area MPO)**

AGENDA DESCRIPTION:

An amendment to the Fiscal Year 2019 Operational Budget is proposed to add a line item of \$166,512 for the LAGERS payment to relieve accrued liability from employee vesting. This will place the OTO retirement plan on stable footing at 100% funded and result in minimal liability to member jurisdictions. The OTO has adequate funds to cover this liability with unrestricted funds and this amount will not be reflected in the UPWP budget nor reimbursed with federal funds at this time.

The attached Operational Budget reflects the line item under Personnel as “Accrued Pension Liability Funding”. The impact on the Operating Fund Balance is highlighted as well as the line item that has been added. The beginning Operating Fund balance has been updated to reflect actual funds on hand as of 6/30/2018.

BOARD OF DIRECTORS ACTION REQUESTED:

That a member of the Board of Directors makes one of the following motions:

“Move to approve the Amendment One to the Operational Budget.”

OR

“Move to approve the Amendment One to the Operational Budget with the following changes...”

OTO Operational Budget
Approved 4/2018

Fiscal Year 2019

July 1, 2018 - June 30, 2019

Operating Fund **6/30/2018** **\$573,866.68**

ESTIMATED REVENUES

<i>Cost Category</i>	<i>Budgeted Amount FY19</i>	<i>Total Amount Budgeted FY19</i>
Ozarks Transportation Organization Revenue		
Consolidated FHWA/FTA PL Funds	\$818,475	
Local Jurisdiction Match Funds	\$134,423	
Total Ozarks Transportation Organization Revenue		\$952,898
TOTAL REVENUE		\$952,898

ESTIMATED EXPENDITURES

<i>Cost Category</i>	<i>Proposed Budgeted Amount FY 2019</i>	<i>Total Amount Budgeted FY 2019</i>
Building		
Building Lease	\$72,804	
Infill Cost	\$2,000	
Maintenance	\$4,000	
Utilities	\$3,500	
Office Cleaning	\$3,300	
Total Building		\$85,604
Commodities		
Office Supplies/Furniture	\$7,000	
OTO Media/Advertising (not included in UPWP)	\$2,500	
OTO Promotional Items (not included in UPWP)	\$1,500	
Publications	\$300	
Public Input Promotional Items	\$2,000	
RideShare Signs	\$10,000	
Total Commodities		\$23,300
Information Technology		
Computer Upgrades/Equipment Replacement/Repair	\$8,000	
Data Backup/Storage	\$4,200	
GIS Licenses	\$5,500	
IT Maintenance Contract	\$10,000	
Software	\$4,800	
Webhosting	\$1,500	
Total Information Technology		\$34,000
Insurance		
Board of Directors Insurance	\$3,000	
Errors & Omissions	\$3,000	
Liability Insurance	\$2,500	
Workers Comp	\$1,700	
Total Insurance		\$10,200

ESTIMATED EXPENDITURES Continued

<i>Cost Category</i>	<i>Proposed Budgeted Amount FY 2019</i>	<i>Total Amount Budgeted FY 2019</i>
Operating		
Bank Fees (not included in UPWP)	\$100	
Copy Machine Lease	\$5,700	
Dues/Memberships	\$5,000	
Education/Training/Travel	\$20,000	
Food/Meeting Expense	\$4,000	
Legal/Bid Notices	\$2,500	
Postage/Postal Services	\$1,800	
Printing/Mapping Services/Tablets	\$2,500	
Public Input Event Registrations	\$1,500	
Staff Mileage Reimbursement	\$3,500	
Telephone/Internet	\$5,000	
VOIP Phone System	\$0	
Total Operating		\$51,600
Personnel		
Salaries **	\$380,978	
Payroll Tax	\$30,478	
Retirement	\$53,397	
Accrued Pension Liability Funding ^{††} (Not in UPWP)	\$166,512	
Health & Dental Insurance †	\$50,776	
Employee Family Insurance Contribution *	(\$12,278)	
Mobile Data Plans	\$3,240	
Payroll Services	\$2,700	
Total Personnel		\$509,290
		\$675,802
** Up to 4% Merit; \$1500 COLA, 1/2 PT; \$250 per employee Holiday Pay		
†10% Increase Health; 3% Increase Dental		
††Paid in full in FY 2019 to provide 100% funding		
* Employee Family Insurance Contribution Withholding is debited to the health insurance account.		
Services		
Aerial Photos	\$25,000	
Audit	\$4,600	
Professional Services	\$24,000	
Website Redesign	\$30,000	
Legislative Education (Not in UPWP)	\$7,000	
TIP Tool Maintenance	\$9,600	
Transportation Consultant/Modeling Services	\$30,000	
Travel Sensing & Travel Time Services Project	\$3,000	
Travel Demand Model Update	\$25,000	
Total Services		\$158,200
TOTAL OTO Expenditures	\$872,194	\$1,038,706
Estimated Net Decrease in Operating Fund Balance	\$80,704	-\$85,808
Estimated Ending Operating Fund Balance 6/30/2018	6/30/2018	\$654,571
		\$488,058

LAGERS Expense Comparison

	OTO Biweekly Payroll	Retirement Contribution %	Biweekly Retirement Contribution	Annual Retirement Contribution	Total Retirement Contribution over 30 Year Period
Current Plan	\$13,791.58	14.00%	\$1,930.82	\$50,201.35	\$1,506,040.54
LAGERS Without Liability Payment	\$13,791.58	14.10%	\$1,944.61	\$50,559.93	\$1,516,797.97
LAGERS With Liability Payment	\$13,791.58	11.20%	\$1,544.66	\$40,161.08	\$1,204,832.43

Difference in LAGERS contributions over 30 Years	\$311,965.54
Less Upfront Liability Payment	\$166,512.00
Savings from Pre-Funding Upfront Liability	\$145,453.54

TAB 8

BOARD OF DIRECTORS AGENDA 10/18/2018; ITEM II.F.

2019 State of Missouri Legislative Priorities

**Ozarks Transportation Organization
(Springfield, MO Area MPO)**

DESCRIPTION:

Last year the OTO established a list of Legislative Priorities for use when communicating with our area legislators. It proved to be very valuable and was well received.

Included for member review and input is a draft list of priorities for 2019.

EXECUTIVE COMMITTEE ACTION:

At its meeting of September 12, 2018, the Executive Committee recommended adoption the 2019 Legislative Priorities by the Board of Directors.

BOARD OF DIRECTORS REQUESTED:

That a member of the Board of Directors makes one of the following motions:

“Move to recommend adoption of the 2019 Legislative Priorities.

Or

“Move to recommend adoption of the 2019 Legislative Priorities with the following changes...”

OTO 2019 Federal Legislative Priorities

Short Term Priorities

OTO supports legislation that provides states, cities and counties the right to collect sales and use taxes from internet sales regardless of the location of the business providing the good or service.

OTO supports the continued appropriation of funding approved in the FAST Act which authorized annual increases for transportation through 2020. Transportation appropriations should honor the authorized funding level.

OTO requests additional transportation infrastructure funding to support the OTO Priority Projects of Regional Significance which include safety and congestion relieving projects to support the continued development of a healthy region.

OTO supports an increase in the FAA Passenger Facility Charge and supports a multi-year Federal Aviation Authorization Bill to avoid the disruption of continued short-term extensions and ensure needed airport improvements are made.

Longer Term Priorities

The OTO encourages continued support of partnerships between local, state, and federal entities that will maximize available dollars through collaborative efforts.

OTO supports long term sustainable funding for transportation in order to strengthen the United States Highway Trust Fund program and ensure funding is available for the country's critical transportation infrastructure projects.

OTO supports federal operating assistance for the Springfield area's transit systems including efforts to secure capital funds for bus replacement and multimodal infrastructure.

OTO supports more direct allocations to state, regional, and local governments with less federal oversight and streamlined regulations.

OTO 2019 State Legislative Priorities

OTO supports alternative sources of funding for transportation infrastructure to ensure increased investment in the statewide system; such funding should not negatively impact the state's limited general revenue budget.

OTO supports raising the motor fuel tax within the confines of the Hancock Amendment.

OTO supports Modifying Missouri's timely sales tax filing discount for retailers and directing the savings to fund transportation infrastructure.

OTO supports increasing auto license and registration fees in order to fund transportation infrastructure improvements.

OTO supports Increased funding for multimodal transportation to improve port, rail, aviation and a dedicated source of state transit funding for Missouri's public transit providers.

OTO supports repeal of the prevailing wage requirement for public works projects.

OTO opposes the transfer of state owned roadways to local ownership and maintenance with or without funding to offset the cost.

OTO supports legislation that provides cities and counties the right to collect sales and use taxes from internet sales regardless of the location of the business providing the good or service.

TAB 9

BOARD OF DIRECTORS AGENDA 10/18/2018; ITEM II.G.

2017 State of Transportation Report

**Ozarks Transportation Organization
(Springfield, MO Area MPO)**

AGENDA DESCRIPTION:

As another step to inform the public of transportation concerns in the region, OTO has produced a State of Transportation Report, which includes achievements and statistics from 2017. This report will be produced annually and will be made available at public events and on the OTO website.

BOARD OF DIRECTORS ACTION REQUESTED:

This item is included for informational purposes only. No action is required.

2017 STATE OF TRANSPORTATION

FOR JANUARY 1 TO DECEMBER 31, 2017

OZARKS TRANSPORTATION ORGANIZATION



ROUTE 65: THE REBUILD

Winner of America's Transportation Award for
Quality of Life/Community Development

Small Category

July to September 2017



AMERICA'S transportation awards





**SARA
FIELDS**
EXECUTIVE DIRECTOR

CONTACT

(417) 865-3042 p
(417) 862-6013 f



ozarkstransportation.org
sfields@ozarkstransportation.org
giveusyourinput.com



2208 W. Chesterfield Blvd., Ste 101
Springfield, MO 65807

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GROUNDING	4
BUCKLE UP	6
CHOICES	8
ACTION	10
MAINTAIN	12
RESOURCES	14
ON TARGET	16
ABOUT OTO	18

A note...

FROM EXECUTIVE DIRECTOR SARA FIELDS

The Ozarks Transportation Organization region has a lot to celebrate. The Springfield-Branson National Airport has seen record passenger growth. Ozark Greenways was recognized for making an outstanding contribution to parks and recreation by the Missouri Parks and Recreation Association. Area roads are in good condition and Ozone levels are at their lowest.

We also have a lot of work to do. The improving economy, with record employment, has led to over 181,000 jobs in the region and increased travel to work. The evening commute is getting slower. The number of crashes is still high. Thirty traffic-related fatalities are thirty too many. State and federal fuel taxes continue to be eroded by inflation and there is not enough revenue to combat increasing congestion.

We at the OTO recognize these challenges, and while we applaud our region's achievements, we continue to work behind the scenes to support an excellent transportation system.

Stay safe,
Sara J. Fields, AICP



The Springfield-Branson National Airport had another record year in 2017, with 993,129 total passengers. Enplanements were up over 7 percent for the 2017 Fiscal Year over 2016. Airlines increased the number of plane seats for sale in this market by more than 31,000.

Freight moves through the OTO region by air, rail, and truck. According to the Springfield Chamber website, more than 40 trucking terminals are located in Springfield and the region is accessible to either coast within 2 days by truck and 5 days by rail. One key project that was underway for most of 2017 and wrapped up in Spring 2018 is the Chestnut Expressway Railroad Bridge. This \$14.8 million project separates Chestnut Expressway, raising it over the BNSF railroad. This project not only reduces conflicts at the railroad crossing, it reduces train related congestion on Chestnut Expressway and US 65.

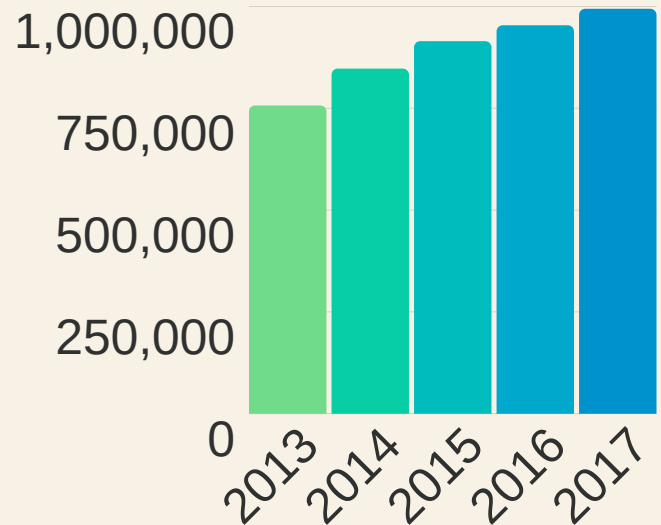
AIR & LAND

Springfield-Branson National Airport

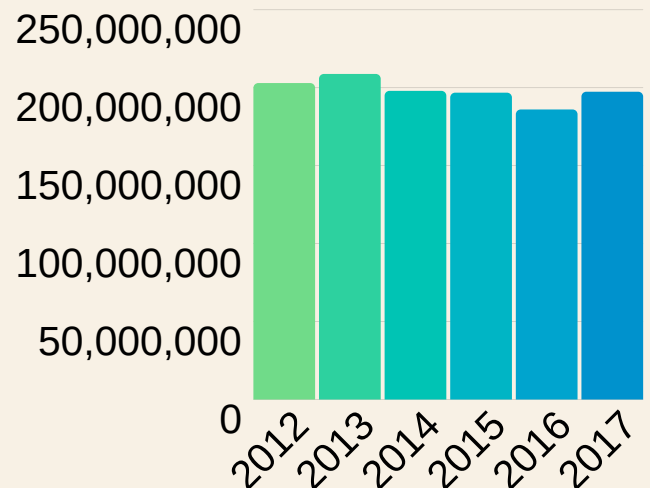
Non-Stop Destinations

Atlanta
 Charlotte
 Chicago
 Dallas
 Denver
 Destin/Ft. Walton
 Beach
 Houston
 Las Vegas
 Los Angeles
 Orlando
 Phoenix
 Punta Gorda/Ft. Myers
 Tampa/St. Petersburg

Total Passengers



Springfield-Branson National Airport Landed Cargo Weights





Commute Times

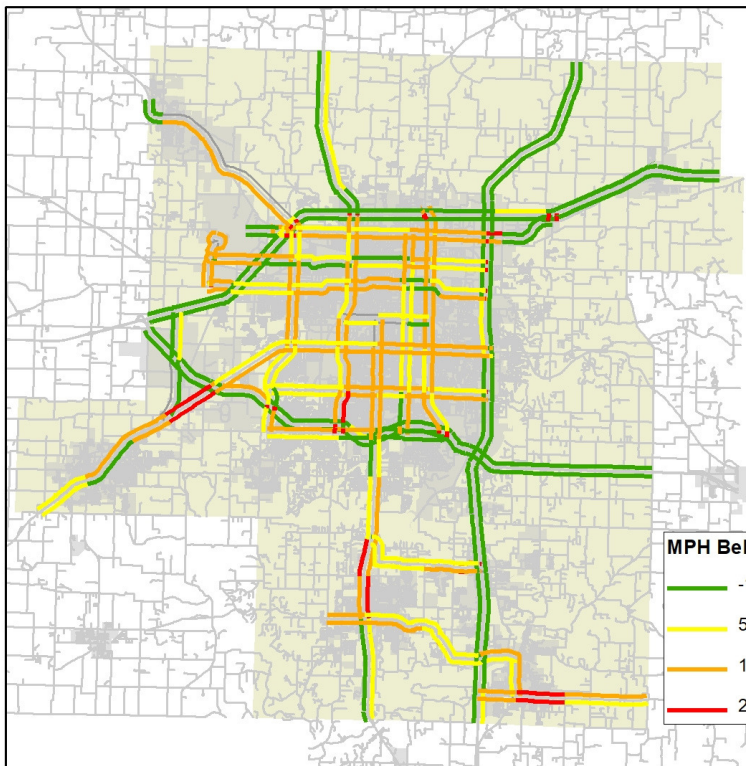
Battlefield	22.5 mins
Fremont Hills	23.1 mins
Nixa	24.7 mins
Ozark	24.4 mins
Republic	22.4 mins
Springfield	17.5 mins
Strafford	22.5 mins
Willard	24.1 mins
Average OTO Cities	22.7 mins

Drivers in the OTO region are driving more, as seen with the increased Daily Vehicle Miles Traveled per Capita, however, the average commute time for cities in the area is holding fairly steady at 22.7 minutes.

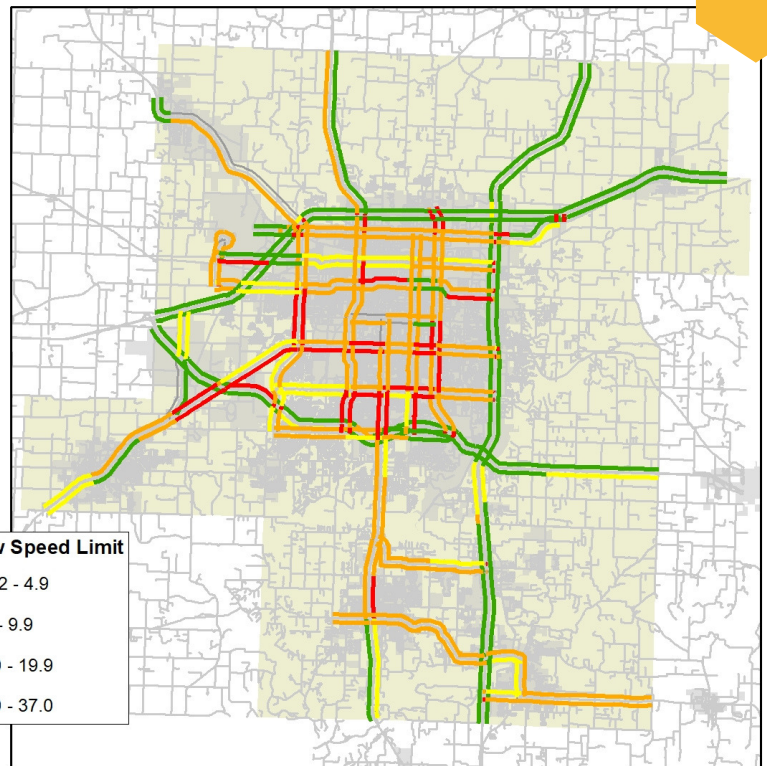
One of OTO's goals is to reduce the percent of roadways significantly delayed. While the AM peak has consistently stayed below 10 percent, the PM peak is steadily increasing toward 20 percent, which is the maximum desired. OTO, in partnership with MoDOT and the City of Springfield, has monitored travel speeds with real-time traffic sensors since 2016. In the last year, the percentage of roadways during the PM peak with speeds 20 miles per hour below the limit increased from 17 percent to 19 percent. OTO continues to monitor these speeds to understand how projects are impacting commuting.

GROUND

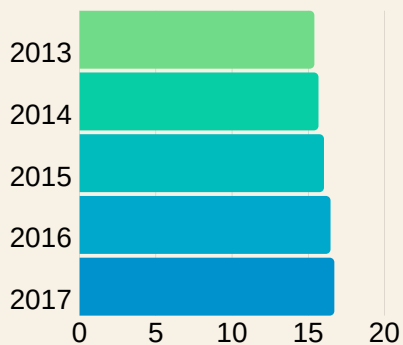
AM Commute



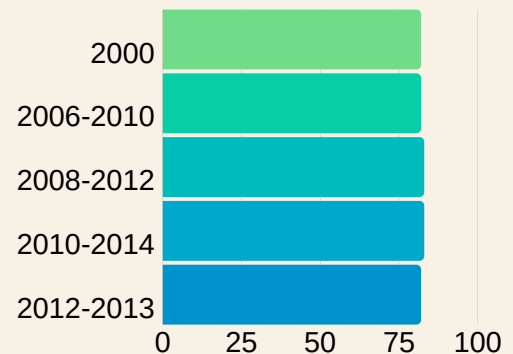
PM Commute



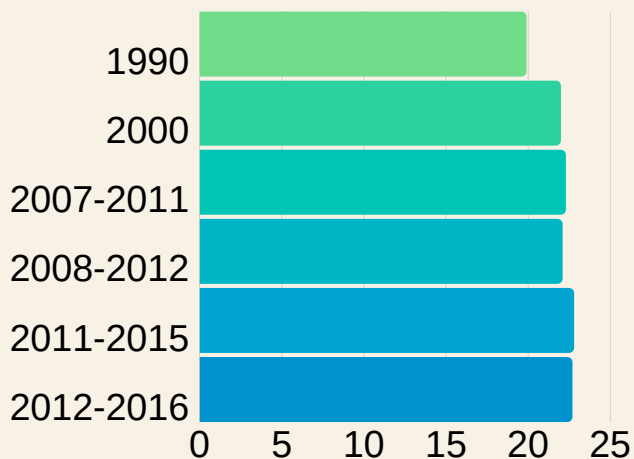
Daily Vehicle Miles Traveled/Capita



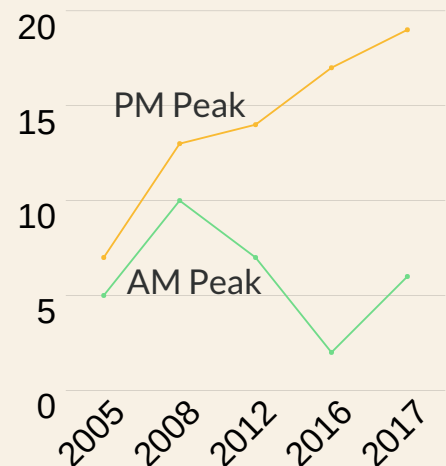
Percent "Drove Alone" to Work



Average OTO Commute Time in Minutes



Percent Roadways Significantly Delayed





Where is Mr. Walker?

Park Central Square
Commercial Street
Grand Street
Grant and Sunset
South Jefferson
Campbell Ave. Pedestrian Bridge
Pythian and Patterson
Walnut Lawn
National and Trafficway

In 2017, MoDOT issued a new challenge to Missouri residents and businesses, Buckle Up-Phone Down. In 2016, there were 947 fatalities on Missouri roadways, 97 of which were due to distracted driving. In 2017, there were 932 fatalities, with 79 due to distracted driving.



In the OTO area, the Disabling Injury and Fatal Crash rate has been creeping upward, but in 2017, the number of fatalities did decrease.

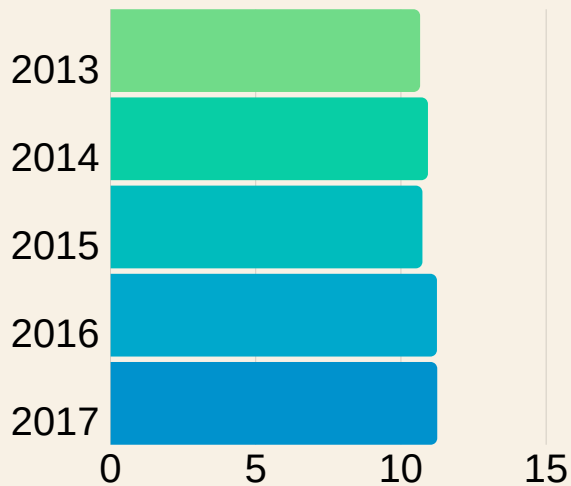
Mr. Walker



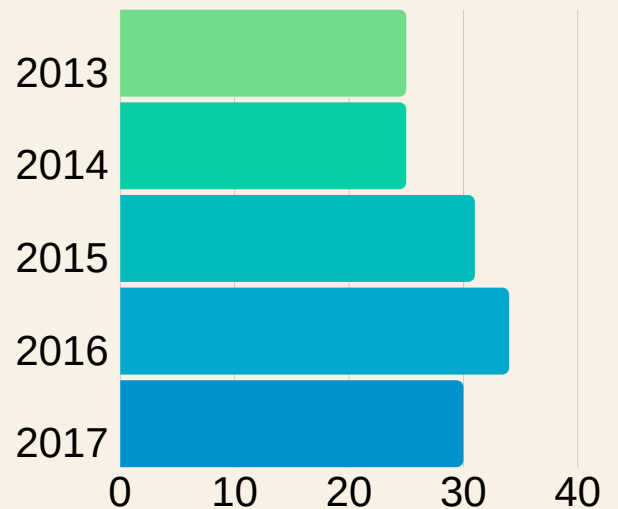
To help combat pedestrian crashes, the City of Springfield has developed a program called SGF Yields with a neon green mascot called Mr. Walker, who is meant to bring attention to pedestrians, especially at cross walks.

BUCKLE UP

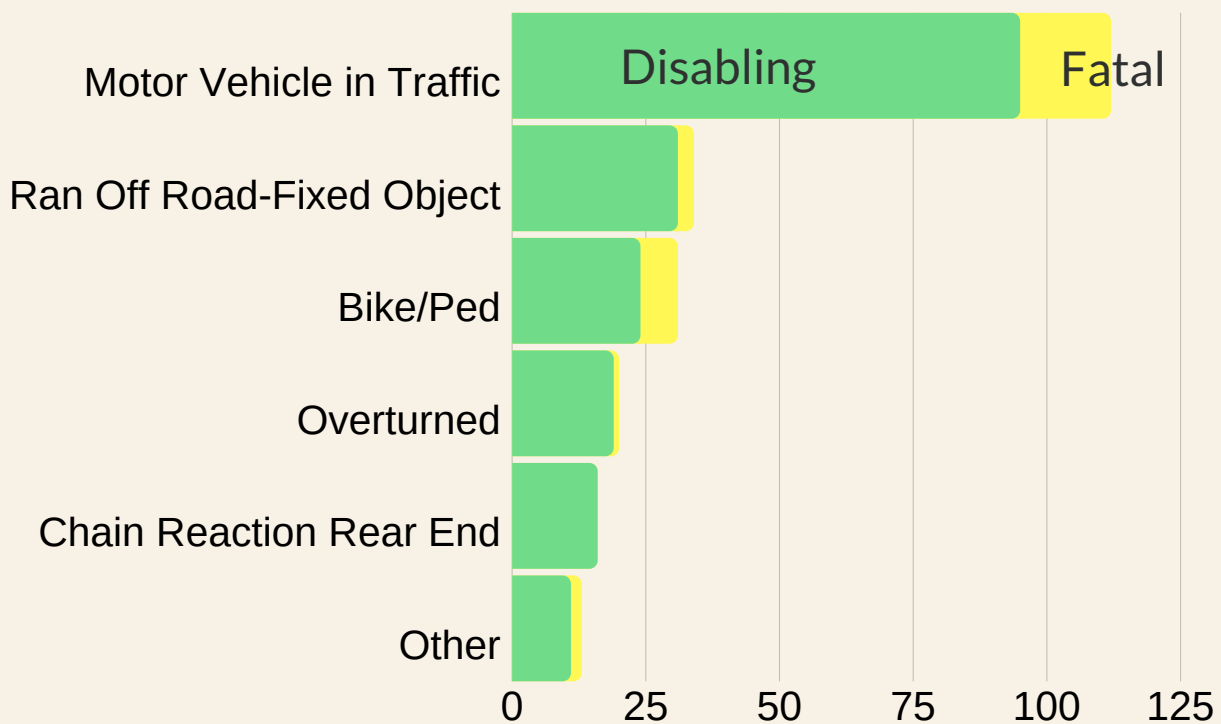
Disabling and Fatal Crash Rate



Number Fatal Crashes



2017 Disabling and Fatal Crash Types





OZARK GREENWAYS

Ozark Greenways received the Citation Award from the Missouri Parks and Recreation Association

SPRINGFIELD

Springfield's Bicycle Friendly Community - Bronze Level Reaffirmed

The OTO region continues to increase the availability of bicycle and pedestrian facilities throughout the region, however, there were no significant changes made to the transit system in 2017.

Trail Construction during 2017:

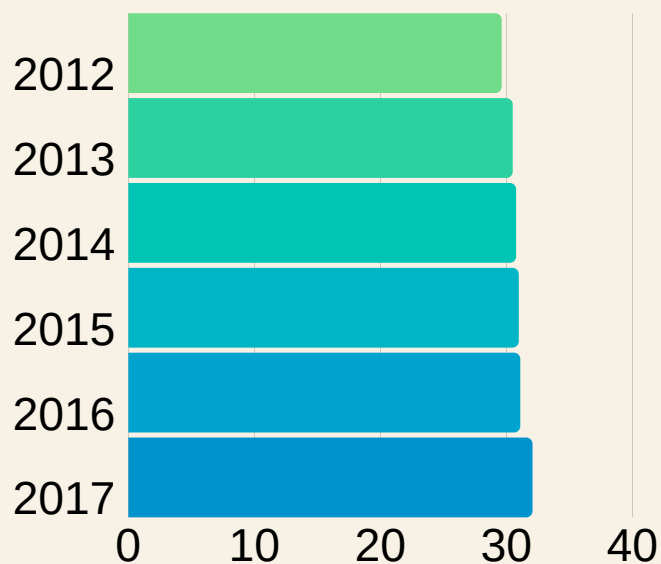
- 0.03 miles of new Fasnicht Trail from Jefferson to Bennett
- 0.88 miles of new Trail of Honor from Southwood Boat Ramp to Lake Springfield
- Restrooms at Willard Trailhead
- 0.10 miles of new North Jordan Creek Trail through OTC Campus
- 0.38 miles of new Ward Branch Trail through CU Twin Oaks Substation
- 0.09 miles of new Fulbright Spring Trail east from Farm Road 141
- 0.71 miles of new Hwy 174 Trail in Republic

Sidewalk and Bike Route Construction during 2017:

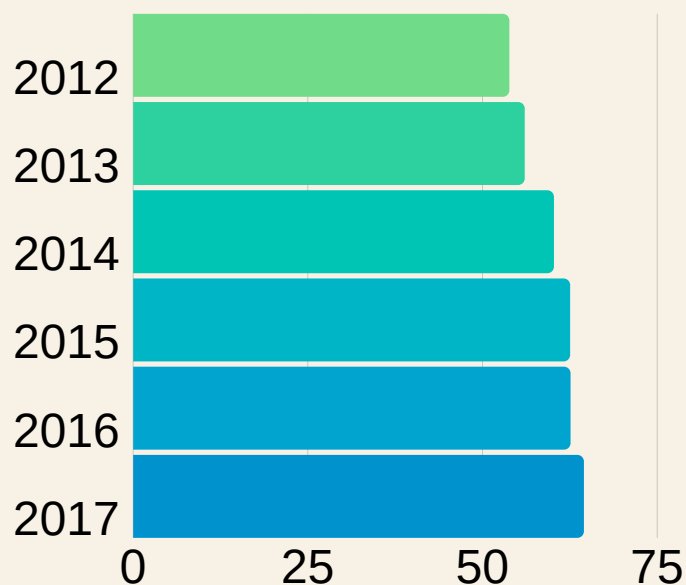
- Springfield constructed nearly 4 miles of sidewalk, including a 1/3-mile of Route 66 streetscape
- Springfield signed and marked 7.15 street miles of bike route
- MoDOT performed ADA improvements at various locations along Kearney and Kansas
- City of Strafford and Strafford Schools partnered to construct 0.30 miles of sidewalk in the downtown
- Ozark completed three projects - the Hartley Road, McGuffey Park, and Finley River Park Connections

CHOICES

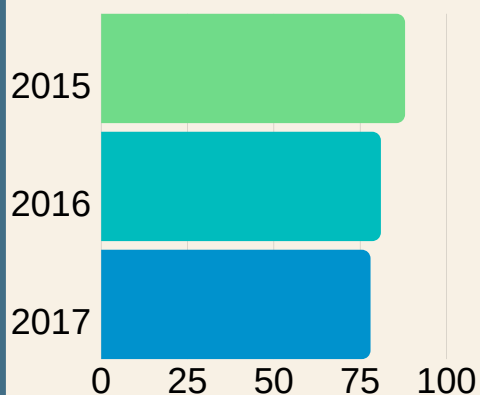
Percent Roadway with Sidewalks



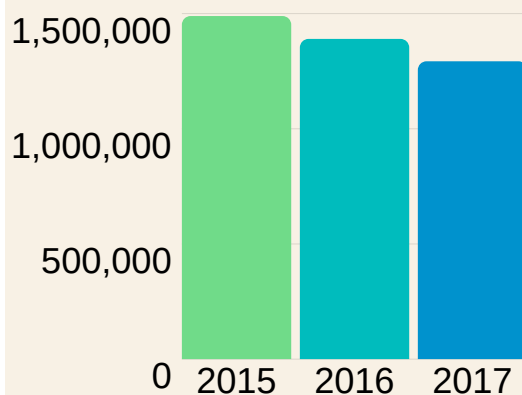
Miles of Greenway



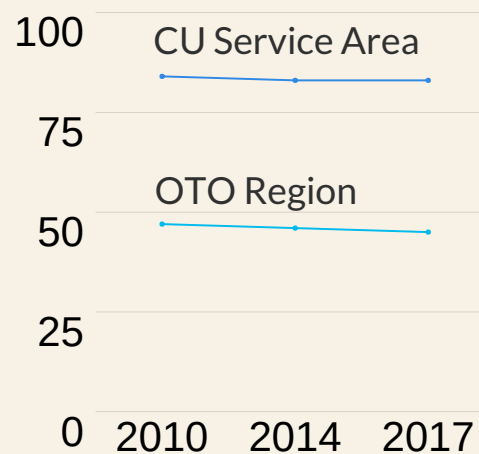
CU Transit On-Time Performance



CU Transit Revenue Bus Passengers



Percent Households near Transit





League of American Bicyclists - Five E's

Engineering
Education
Encouragement
Enforcement
Evaluation & Planning

The Five E's used by the League of American Bicyclists doesn't apply only to bicycling. There are many activities taking place around the region that improve bicycling confidence and create a walking and biking culture.

Bike to Work Week and the Move Your Shoes Challenge are two major annual events that celebrate getting out and moving.

In 2017, Bike to Work Week had 150 participants who tracked 649 trips. A month long walking event, the Move Your Shoes Challenge had 1,361 participants who tracked 154,873 miles.



Photo courtesy of Ozark Greenways



ACTION

2017 Education Activities

- Two 12-hour training sessions for Public Right-of-Way Accessibility Guidelines with 66 attendees
- Thirty 4th through 6th grade students at Phelps School for the Gifted received bicycle education
- SPS Summer School included a Bikeology class with 12 students
- Bicycle Traffic Skills classes included a total of 8 students
- Pedestrian Safety Class was provided to four classes at Fremont School
- The Walk this Way program provided safety instruction to 6 classes at Sherwood
- Let's Go Smart Committee provided 6 articles for Ozarks Living Magazine

New Website for Let's Go Smart

Let's Go Smart is a product of Ozark Greenways, with support from the Healthy Living Alliance, City of Springfield, City Utilities, the Ozarks Transportation Organization, and MoDOT. Let's Go Smart is designed to encourage wiser transportation choices.

In 2017, OTO worked with Ozark Greenways and the Let's Go Smart Committee to develop a new look for <http://www.letsgosmart.org>. This site is available for all community initiatives that encourage better transportation.





Missouri by the Numbers

46th in Revenue per Mile

7th Largest Highway System

33,856 miles

6th in Number of Bridges

10,403 state-owned bridges

17-cent fuel tax

Last raised in 1996

97,000 miles locally-owned roads

14,000 locally-owned bridges

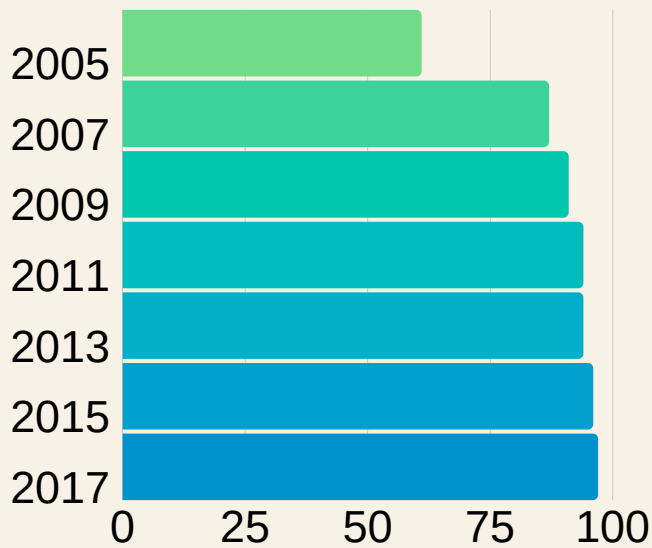
MoDOT and OTO's jurisdictions strive to keep the existing transportation system in its current condition, or better, when possible. This requires significant investment from the funding available to the region.

Fortunately, the major roads in the OTO region are generally in good condition, and while OTO does not have many bridges in poor condition, nearly half are in fair condition. MoDOT maintains an asset management plan, which directs investment to taking care of the system before funding can be spent on other priorities. Keeping the transportation system in good condition reduces wear and tear for roadway users.

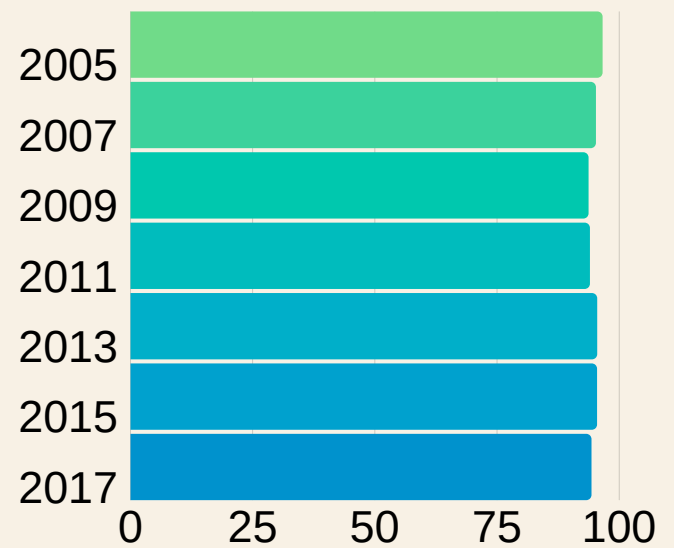
Excellent air quality is also a sign of a quality transportation system. OTO has partnered with the Ozarks Clean Air Alliance since the region risked non-attainment in 2007. Now the region has some of the best air quality in Missouri.

MAINTAIN

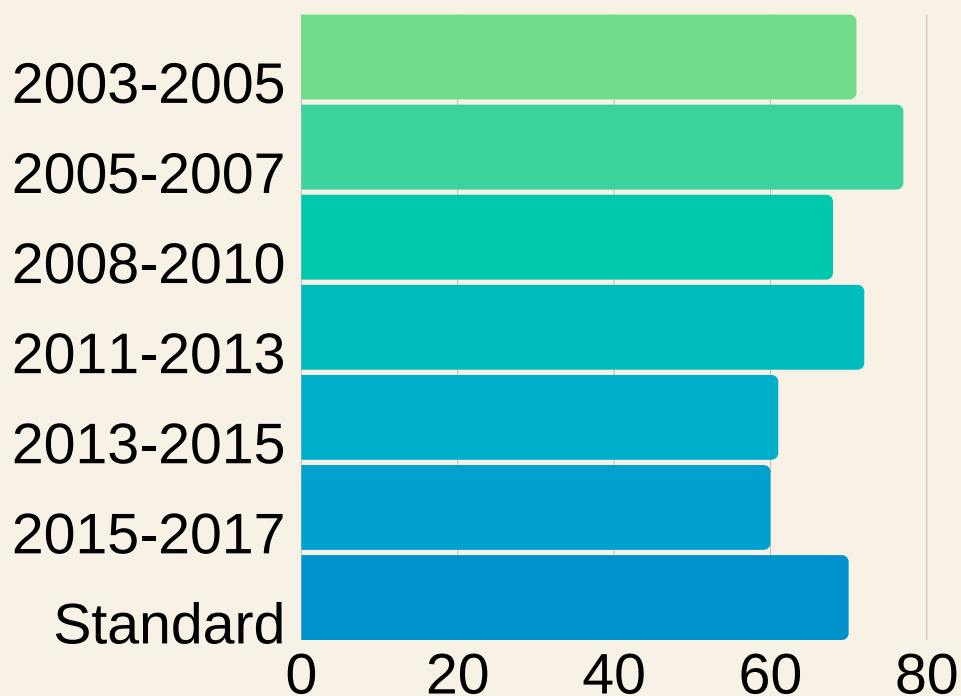
Percent Major Roads in Good Condition



Percent Bridges in Fair+ Condition



Ozone Levels





Funding Sources

17-cent/gallon State Gasoline Tax

17-cent/gallon State Diesel Tax

9-cent/gallon State Aviation Tax

4.225 State Sales Tax on Vehicles

Vehicle and Driver's Licensing Fees

The fuel tax in Missouri has not increased since 1996. The 17 cents collected per gallon has the purchasing power of 8 cents today, while transportation needs continue to increase.

Through 2040, unfunded identified transportation needs total over \$318 million. Transportation Alternatives funding available directly to the region has been reduced while MoDOT focuses on ADA improvements. Funding dedicated to on-system bridge improvements has also ceased. Thus, suballocated funding to the region has fluctuated. Asset management needs also take priority, limiting the funding available to address congestion needs. In spite of these unknowns, OTO has continued to prepare for the advent of more funding through corridor studies, scoping projects, and a regional trail investment study.

RESOURCES

How OTO Selects Projects

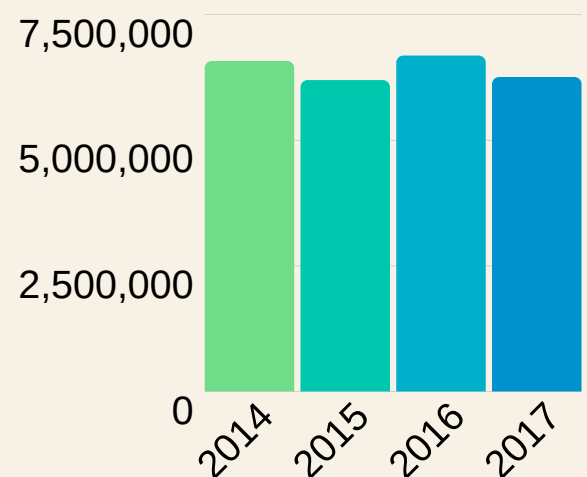
Annually, the OTO provides MoDOT with priorities for the state system. Using public input, the [Priority Projects of Regional Significance](#), and the long range transportation plan, Transportation Plan 2040, OTO scores and ranks area needs. After reviewing funding availability and maintenance needs, MoDOT selects projects from the list for the Statewide Transportation Improvement Program (STIP). Readiness and costs can influence when and if a project is included. Cost sharing has allowed OTO and its members to add even more projects to the STIP.

OTO receives input year round through [GiveUsYourInput.org](#), where the public can view press releases, public comment items, and make general comments on any transportation concerns. This input is shared at each OTO Board of Directors meeting.

2018 Selected Priorities

- Operational and Safety Improvements
- Interchange Improvements at Route 60 and Route 125
- Scoping for James River Freeway Capacity Improvements
- Scoping for Interstate Designation on Freeways
- Scoping for Safety and Operational Improvements on Glenstone
- Scoping for Safety and Operational Improvements on Sunshine
- US 60 Improvements - Glenstone to 65

Suballocated Federal Funding to the OTO Region





In 2012, the Moving Ahead for Progress in the 21st Century Act (MAP-21) outlined a performance based planning process for the use of surface transportation funding. While OTO had already included 11 performance measures in the long range transportation plan (see next page), MAP-21 identified national goals and prescribed a process for developing performance targets based on those goals. MoDOT and fellow planning partners have worked within this framework to adopt statewide performance targets. OTO, as well as the other MPOs in the state, can choose to support the statewide targets or develop local targets.

In 2017, OTO chose to support both the statewide transit asset management and statewide safety targets. In 2018, OTO will have an opportunity to address these again, as well as set targets for pavement and bridge condition and system performance.

ON TARGET

At a Glance:



Improving



Declining



No Change

Performance Measure	Target	2017 vs. 2016
Vehicle Miles Traveled per Capita	That VMT per Capita will grow no more than 5 percent from its peak in 2004, at a value of 19, by 2035. Growth should be captured in other modes.	
Modal Balance	Decrease "Drove Alone" to 75 percent for the region by 2035	
Bicycle/Pedestrian Network Completion	If, on average, 4 miles of sidewalk are added each year within the OTO area, but no new roadways, by 2035, the total percent of roadways with sidewalks would be 33.5	
Total Disabling Injury and Fatal Crashes per Million Vehicle Miles Traveled	That disabling injury and fatal crashes/MVMT will continue a downward trend	
On-Time Performance of Transit System	The CU service standard is 90 percent. The system will be considered to have acceptable on-time performance at this 90 percent level	
Percent of Housing Units within ¼-mile of a Bus Route	That the percent of housing units within the CU Transit service area and the OTO area within ¼-mile of a bus route is on the upward trend between now and 2035	
Average Commute Time	Keep the average commute time less than 25 minutes by 2035	
Peak Travel Time	That less than 20 percent of the OTO area roadways will be severely delayed	
Percent of Roadways in Good Condition	That 85 percent or more of the Major Roads in the OTO region are in Good Condition	
Bridge Condition	That the percent of bridges in Fair or Better Condition will stay above 90 percent	
Ozone Levels	That the region will be able to demonstrate transportation conformity for its plans, programs, and projects	



OZARKS TRANSPORTATION ORGANIZATION

As the region's Metropolitan Planning Organization, the Ozarks Transportation Organization is the federally designated regional transportation planning organization that serves as a forum for cooperative transportation decision-making by state and local governments, and regional transportation and planning agencies.

MPOs are charged with maintaining and conducting a "continuing, cooperative, and comprehensive" regional transportation planning and project programming process for the MPO's study area. The study area is defined as the area projected to become urbanized within the next 20 years.

The MPO includes local elected and appointed officials from Christian and Greene Counties, and the cities of Battlefield, Nixa, Ozark, Republic, Springfield, Strafford and Willard. It also includes technical staffs from the Missouri Department of Transportation, Federal Highway Administration, Federal Transit Administration, and the Federal Aviation Administration.

Staff from local governments and area transportation agencies serve on OTO's Technical Planning Committee (TPC) which provides technical review, comments, and recommendations on draft MPO plans, programs, studies, and issues.





OZARKS TRANSPORTATION ORGANIZATION

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.

Ozarks Transportation Organization

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Springfield, Missouri 65807

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(417) 862-6013 Fax

www.OzarksTransportation.org

TAB 10

From: Statewide.news@modot.mo.gov
Subject: Two MoDOT Projects Among the Winners in in National Competition
Date: Wednesday, August 29, 2018 1:04:15 PM



August 29, 2018

Two MoDOT Projects Among the Winners in in National Competition

For more information on the Route 65: The Rebuild project, contact Jennifer Williams, 417.895.7713.

For more information on the Ozark County North Fork River Bridge Replacements, contact Nicole Thieret, 573.472.6632

TRAVERSE CITY, Mich. – Eight outstanding transportation projects from five mid-America states were honored today in the fourth and final regional America's Transportation Awards competition. The projects were recognized for major achievements, including: engaging small businesses through a "first of its kind" training program; replacing bridges to reconnect communities after major flooding; increasing mobility through a \$2 billion overhaul of the most popular Amtrak route in the Midwest; and modernizing an aging freeway to improve safety and economic development.

"State DOTs are committed to making America safer, better and stronger by improving connections between communities both large and small, urban and rural," said John Schroer, president of the American Association of State Highway and Transportation Officials and commissioner of the Tennessee Department of Transportation. "The transportation projects in this competition are part of a national multimodal network that is moving millions of people and tons of goods where they need to go every day."

Sponsored by AASHTO, Socrata, AAA, and the U.S. Chamber of Commerce, the 11th annual America's Transportation Awards competition recognizes transportation projects in three categories: Quality of Life/Community Development, Best Use of Technology and Innovation, and Operations Excellence. Project categories are also broken down by size: small (projects costing less than \$25 million), medium (projects that cost between \$25 million and \$200 million), and large (projects costing more than \$200 million).

The Mid America region winners are:

- **Missouri Department of Transportation's** [Route 65: The Rebuild](#) (Quality of Life/Community Development, Small category)
- **Michigan Department of Transportation's** [I-94 Modernization Project—Advanced Bridges Phase I Small Business Enterprise](#) (Quality of Life/Community Development, Medium category)
- **Illinois Department of Transportation's** [Chicago-St. Louis Passenger Rail Improvements](#) (Quality of Life/Community Development, Large category)
- **Missouri Department of Transportation's** [Ozark County North Fork River Bridge Replacements](#) (Operations Excellence, Small category)
- **Ohio Department of Transportation's** [Diverging Diamond Interchange](#) (Operations Excellence, Small category)
- **Michigan Department of Transportation's** [US-23 Flex Route](#) (Operations Excellence, Medium category)
- **Indiana Department of Transportation's** [I-70 Twin Bridges over State Road 121](#) (Best Use of Technology and Innovation, Small category)

- **Illinois Department of Transportation's [Interstate 55 and Lake Shore Drive Interchange](#)** (Best Use of Technology and Innovation, Medium category)

These award winners are the last to be announced in the regional competition. The three highest-scoring projects from each region will earn a place on the list of "Top 12" projects. Those 12 projects will compete for the Grand Prize, selected by an independent panel of industry judges and the Socrata People's Choice Award, which is chosen by the general public through online voting. The top two winners also receive \$10,000 cash awards, to be donated to a charity or scholarship of the state DOT's choosing. The Top 12 projects will be announced on Aug. 30, when online voting for the Socrata People's Choice Award will begin. The winners of the top two awards will be announced Sept. 23 at the AASHTO Annual Meeting in Atlanta.

Learn more about the nominees and the competition at www.AmericasTransportationAwards.org.

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Appeals judge tosses attempt to scrub gas tax increase from Missouri's November ballot

By Jack Suntrup St. Louis Post-Dispatch Sep 4, 2018

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A view looking west of traffic on Interstate 70 on Wednesday, Dec. 17, 2014 in Foristell. Photo by Huy Mach, hmach@post-dispatch.com

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JEFFERSON CITY • A state appeals court in Kansas City on Tuesday dismissed a lawsuit that was attempting to remove a proposal to raise Missouri's fuel tax from the November ballot.

The Missouri Court of Appeals Western District tossed the lawsuit on Tuesday, which was brought by activist Ron Calzone and state Rep. Mike Moon, R-Ash Grove.

Proposition D would raise Missouri's gasoline tax by 10 cents over four years in order to help fund a backlog of state road projects. Lawmakers approved the ballot question in the frantic closing hours of their spring legislative session.

Moon had said the referendum violated the Missouri Constitution because the measure's wording deals with two topics, which is not allowed. With the legislative session ending in May, lawmakers tacked the gasoline tax issue onto a bill authorizing a tax deduction for Olympic medalists.

An Osage County judge ruled last month that the legislation's different aspects fit together under a common title.

"(T)he provisions undoubtedly have a natural connection to regulating Missouri's state revenue stream," Associate Circuit Judge Robert Schollmeyer said on Aug. 14.

Judge Victor C. Howard, writing an opinion Tuesday on behalf of a three-judge appellate panel, ruled that procedural concerns were not enough to allow the court to weigh in on the proposal.

Howard also said that because the legislation "may never be enacted by voters," it was premature for the court to consider Calzone's and Moon's lawsuit.

Moon said he and Calzone were considering their next move, which could include asking the Missouri Supreme Court to intervene.

Safer MO, a group backing the gasoline tax increase, said it was pleased with the appellate court's ruling.

“Missourians understand the need (for road improvements), as shown by our broad and growing coalition in support of Prop D, and that is why we are confident Missouri voters will say ‘yes’ on Prop D on Nov. 6,” spokesman Scott Charton said in a statement.

Jack Suntrup

Jack Suntrup is a reporter at the Post-Dispatch



(<http://www.roadlink.com/pages/Roads-bridges.com/RBNews>)

Looking deep into the eyes

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Q

Green light on TMAs could be another option for DOTs

WORK-ZONE SAFETY (ATTENUATORS) (/WORK-ZONE-SAFETY-ATTENUATORS) | ARTICLE | BY SIYANG ZHANG, ZHU QING, HENRY BROWN, P.E., CARLOS SUN, PH.D., P.E., J.D. AND PRAVEEN EDARA, PH.D., P.E., P.T.O.E. | SEPTEMBER 04, 2018

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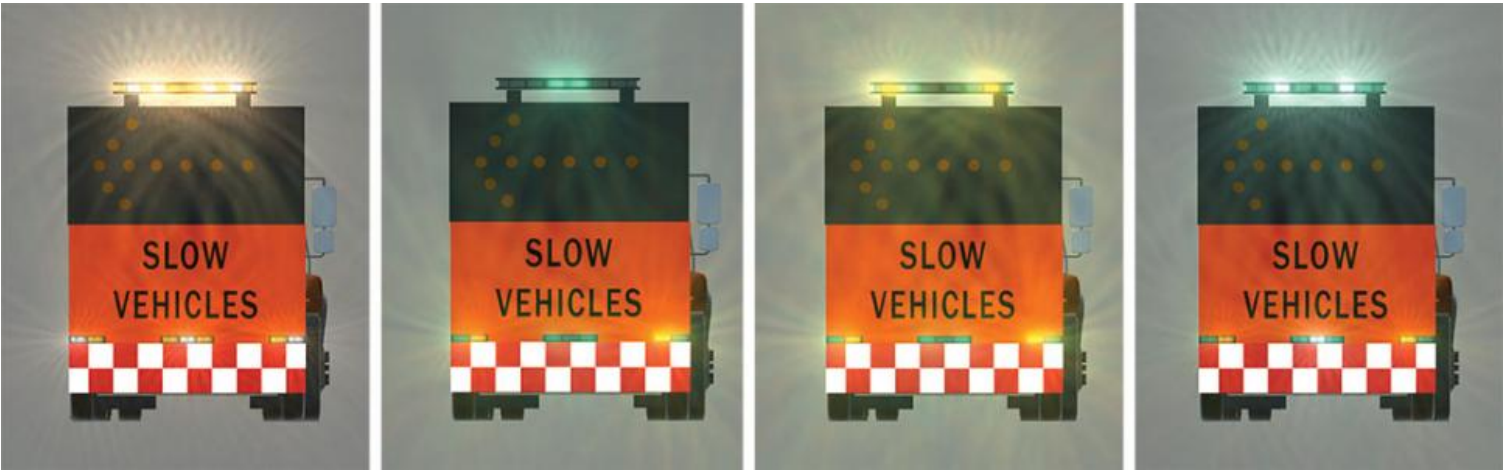


Figure 1. TMA light configurations investigated in the study.

As state departments of transportation (DOTs) shift their attention towards maintenance of existing infrastructure, improving safety in both stationary and mobile work zones is becoming more of a consideration.

One countermeasure to help improve safety in mobile work zones is the truck-mounted attenuator (TMA). TMAs protect the work vehicle by absorbing impacts of rear-end collisions and also perform other functions such as enhancing work-zone visibility, getting drivers' attention, and notifying drivers of the work-zone presence. Collisions of vehicles with TMAs are a major concern. A TMA crash report by the Missouri Department of Transportation (MoDOT) indicated that there were 139 TMA crashes in Missouri from 2012 to 2017 with distracted driving given as the main reason for 44% of these crashes.

In order to reduce the number of vehicle collisions with TMAs, innovative solutions are needed. MoDOT sought to explore the use of green lights on TMAs as a possible countermeasure to improve mobile work-zone safety. The objective of this project was to assess the effectiveness of green lights on TMAs for MoDOT. To achieve this objective, both a simulator test and field test were used to obtain quantitative measures for different TMA light configurations. For the simulator study, four light configurations were examined as shown in Figure 1: amber/white, green only, green/amber and green/white. The field study included an investigation of only the amber/white and green-only configurations.

Prior studies by the American Association of State Highway & Transportation Officials determined that flashing lights on work vehicles with an asynchronous pattern were more readily recognized by drivers. The studies also found that higher effective intensity lights were better able to garner drivers' attention but also led to increased glare.

Practices regarding the use of warning lights on maintenance vehicles vary between the state DOTs. Currently, the Ohio Department of Transportation (ODOT) is the only state DOT using green lights. The ODOT color configuration includes green, amber, and white, and its use is limited to snow-removal vehicles. ODOT believes that the green lights help to improve visibility and safety but is still working towards a formal assessment of their safety impacts. The Michigan Department of Transportation (MDOT) is in the process of implementing green and amber lights on snow-removal vehicles with an expected rollout date of Fall 2018. MDOT is currently developing the final layout of the light configuration that will be used.

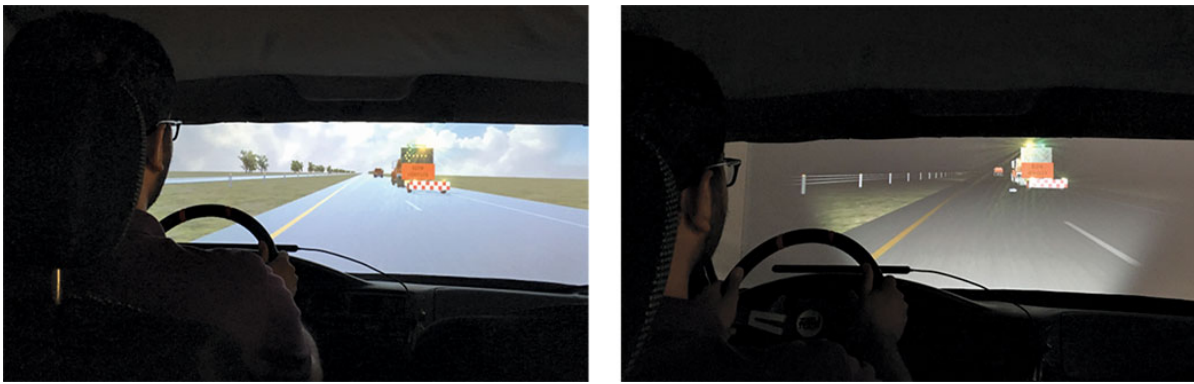


Figure 2. TMA experiment using ZouSim: (a) Daytime example: green-only TMA; and (b) Nighttime example: green/amber TMA.

Capturing the light

The assessment of the green lights included several approaches: driving simulator study, post-simulator survey and field monitoring. The simulator provided for the efficient assessment of four TMA light configurations in a safe, controlled environment. The post-simulator survey captured information regarding drivers' preferences and perceptions of the different configurations. In the field study, vehicle speeds and driver behavior were directly observed in a real-world environment for two of the four light configurations from the simulator study.

Driving simulator study

ZouSim, the University of Missouri's driving simulator, was used for the simulator component of the green-light study. ZouSim is a medium-fidelity simulator built around the half-cab of a sedan. Figure 2 shows an example of the ZouSim configuration for the green-light experiment. The work-zone layout met the requirements of the MoDOT Engineering Policy Guide and is shown in Figure 3.

The simulator testing was comprised of three elements: a TMA light configurations test, a TMA visibility test and a post-simulator survey. Each of the four TMA light configurations shown in Figure 1 was encountered once during daytime and once during nighttime by each participant, with the lights dimmed by half for nighttime. To assess possible disability glare effects at nighttime, a rolling water bottle was placed next to the rear advance TMA, and an eye tracker was utilized to determine if the participants detected the water bottle. The TMA light configurations and disability glare were examined during the same road test. In the post-simulator survey, participants were asked for feedback regarding the four TMA light configurations, including their overall preferences and ratings for the attributes of visibility of work-zone vehicles, awareness of work zones, clear recognition of arrow direction, and easiness on the eyes. For the visibility testing, participants pressed a button when they first ascertained the presence of the work zone and the arrow direction in trials that were conducted separately from the road test.

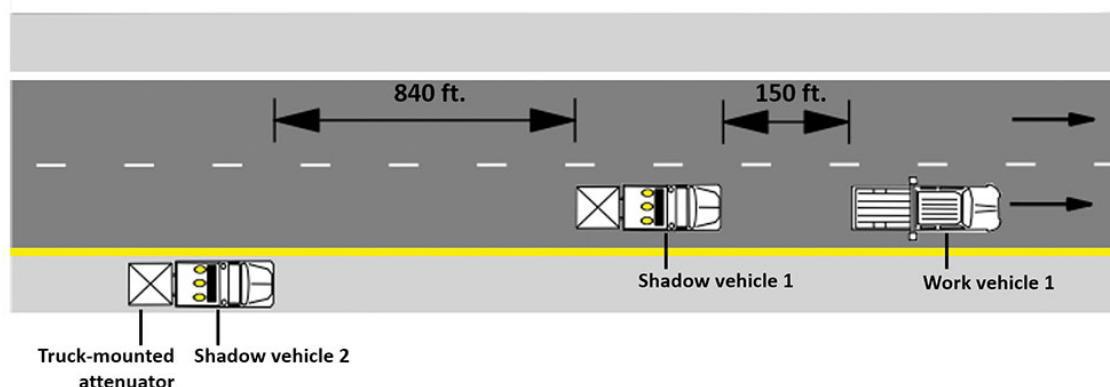


Figure 3. Mobile work-zone layout for simulator testing.

Field study

The field study included an evaluation for the amber/white TMA and green-only TMA. The field testing was performed on a 31.7-mile stretch of U.S. 50, a four-lane freeway near Kansas City, Mo., in December 2017. For each of the two configurations, four hours of daytime video data and four hours of nighttime video data were collected. The distance of vehicles from the rear advance TMA were measured using an eye-safe active infrared LiDAR detector. A camera was deployed as shown in Figure 4 to capture traffic conditions and driver behavior. Although Missouri state law does not currently allow for the use of green lights on work vehicles, a change in state law was not required for this pilot study. A change in state law would be necessary if MoDOT decides to implement the green lights.

Measurements of Effectiveness (MOEs)

The six MOEs used for the simulator study are described below:

- MOE 1 (First blinker distance, feet): Distance between the participant's vehicle and the shoulder TMA when the participant first flashed the blinker;
- MOE 2 (Merge distance, feet): Distance between the participant's vehicle and the shoulder TMA when the participant initiated a merge to the passing lane;
- MOE 3 (Speed when passing the rear advance TMA, mph): Speed of the participant's vehicle as it passed the back end of the rear advance TMA;
- MOE 4 (Water bottle recognition): Binary indicator of whether or not the participant discerned the presence of the water bottle at nighttime;
- MOE 5 (Work-zone recognition distance, feet): Distance from the participant's vehicle to the back of the shoulder TMA when the participant observed the work zone; and
- MOE 6 (Arrow direction recognition distance, feet): Distance from the participant's vehicle to the back of the shoulder TMA when the participant first noticed the arrow direction.

MOE 3 was the main MOE used for the field study. Other MOEs were not useful as vehicles usually merged far upstream from the TMA. The speed of the rear advance TMA (mph) also was measured in the field study to control for the effect of TMA vehicle speed. Vehicle speeds were measured in the field study by applying photogrammetry on the rear videos.



Figure 4. The distance of vehicles from the rear-advance TMA were measured using a LiDAR detector.

Following the eye

There were 30 participants in the simulator road test and 20 participants in the visibility testing. Eye-tracker data were obtained for 18/30 participants as eye-tracking effectiveness depended on physiology. The daytime results for the simulator tests are shown in Table 1. Driver reactions appeared to be the fastest with the amber/white TMA as this configuration experienced the farthest distances for first blinker, merging and work-zone recognition. The green/amber TMA experienced the second-farthest distances for first blinker, merging and arrow direction. Speed differences between the configurations were not statistically significant. The nighttime simulator results are similar to the daytime results as shown in Table 1. The amber/white configuration led to the lowest rate of water bottle recognition, indicating that disability glare could be a concern with this configuration.

In the post-simulator survey, the green/amber TMA was ranked as the participants' top preference for both daytime and nighttime. The green-only TMA received the lowest ranking for daytime while the amber/white TMA was ranked the lowest for nighttime. Approximately 2/3 of the participants felt that the amber/white TMA lights were too bright at nighttime. For the attribute ratings, the amber/white TMA was rated the highest for visibility and awareness of the work zone but the lowest for arrow direction recognition and easiness on the eyes. The green-only TMA was rated the highest for arrow direction recognition and easiness on the eyes.

The results from the field study are shown in Table 2. During the testing of the amber/white TMA, the TMA speed was significantly lower in the afternoon than in the morning which resulted in reduced vehicle passing speeds. Overall, the passing speeds for the green-only and amber/white configurations were comparable during daytime even with the lower amber/white TMA speeds. Therefore, it is reasonable to conclude that vehicle speeds would be lower with the green-only TMA under similar TMA speeds, i.e., green only is more effective than amber/white. Nighttime vehicle speeds also were lower with the green-only TMA. Vehicle nighttime speeds were lower than daytime speeds.

Table 1. Driving Simulator Results

	Daytime			Nighttime		
	MOE 1: First Blinker Distance (ft)					
	Mean	SD	Diff.	Mean	SD	Diff.
Amber/White	1,039.1	589.2	Baseline	1,577.6	748.1	Baseline
Green Only	813.8	377.7	-225.3*	869.1	389.7	-708.5*
Green/Amber	973.1	508.6	-66.0	1,483.0	1,218.3	-94.6
Green/White	788.4	444.4	-250.7*	887.3	462.8	-690.3*
	MOE 2: Merge Distance (ft)					
	Mean	SD	Diff.	Mean	SD	Diff.
Amber/White	971.0	599.5	Baseline	1,309.4	762.3	Baseline
Green Only	649.0	336.6	-322.0*	706.5	398.1	-602.9*
Green/Amber	814.5	468.2	-156.5	1,288.7	1,134.5	-20.8
Green/White	750.1	643.4	-220.9*	851.9	603.6	-457.5*
	MOE 3: Speed at Rear Advance TMA (mph)					
	Mean	SD	Diff.	Mean	SD	Diff.
Amber/White	51.0	8.3	Baseline	48.6	11.2	Baseline
Green Only	52.1	9.6	1.2	49.3	10.4	0.8
Green/Amber	50.6	9.6	-0.4	47.7	9.6	-0.9
Green/White	50.8	8.5	-0.2	48.2	9.4	-0.4
	MOE 4: Water Bottle Recognition Percentage					
Amber/White	n/a			71.4%	11.2	Baseline
Green Only				91.7%	10.4	0.8
Green/Amber				84.6%	9.6	-0.9
Green/White				92.3%	9.4	-0.4
	MOE 5: Work Zone Recognition Distance (ft)					
	Mean	SD	Diff.	Mean	SD	Diff.
Amber/White	1554.2	746.2	Baseline	1388.7	419.0	Baseline
Green Only	1166.2	469.6	-388.0	976.5	319.9	412.2*
Green/Amber	1292.8	546.0	-261.4	1162.5	473.3	226.2
Green/White	1382.6	722.6	-171.6	1296.0	667.8	92.7
	MOE 6: Arrow Direction Recognition Distance (ft)					
	Mean	SD	Diff.	Mean	SD	Diff.
Amber/White	569.7	195.2	Baseline	530.9	156.4	Baseline
Green Only	663.0	224.8	93.3	555.1	161.5	24.2
Green/Amber	644.6	215.8	74.9	546.9	110.6	16.0
Green/White	578.6	137.6	8.9	519.5	142.5	11.4

Does it have the green light?

The study was the first formal evaluation of the performance of green lights on work vehicles under both simulated and real conditions. Overall, the results show that there appears to be an inverse relationship between visibility/awareness of work zone and arrow board recognition/easiness on the eyes leading to trade-offs between the different configurations. In other words, a light configuration that is visible from far away due to high intensity also inhibits arrow-board recognition due to the same high intensity. Due to these trade-offs, none of the four configurations appear to be clearly superior although they all seem to be viable. The trade-offs are an important consideration for agencies contemplating the use of green lights on work vehicles, especially if nighttime operation is contemplated. MoDOT is currently in the process of deciding whether to implement the green lights on its TMAs.

The research produced the first evaluation of green lights on TMAs as current DOT implementations are limited to snow vehicles. The study could be enhanced in several ways in the future, such as testing for novelty effects, seasonal effects due to foliage and other configurations in the field. The use of green lights represents one possible countermeasure for improving work-zone safety. Agencies can consider other countermeasures such as increasing public education and using audio alerts for work zones to help improve mobile work-zone safety.

Table 2. Field Study Results

	Daytime			
	TMA Speed (mph)		Leader Speed (mph)	
	Green Only	Amber/White	Green Only	Amber/White
Count	45	48	702	752
Mean	19.0	12.6*	62.5	62.6
	Nighttime			
	TMA Speed (mph)		Leader Speed (mph)	
	Green Only	Amber/White	Green Only	Amber/White
Count	45	48	504	631
Mean	22.2	12.6*	52.1	52.9*

About the author:

Zhang and Qing are graduate research assistants in the Department of Civil and Environmental Engineering at the University of Missouri. Brown is a research engineer in the Department of Civil and Environmental Engineering at the University of Missouri. Sun is a professor in the Department of Civil and Environmental Engineering at the University of Missouri. Edara is a James C. Dowell professor in the Department of Civil and Environmental Engineering at the University of Missouri.



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Missouri Transportation Dept. head hopes Prop D passes to address urgent road projects

SEPTEMBER 5, 2018 BY [JASON TAYLOR](#)

The head of the Missouri Department of Transportation (MoDOT) hopes a ballot measure to increase the motor fuel tax is approved by voters and is used on crucial projects.

The measure itself was challenged in court. A three-judge panel in the Missouri Court of Appeals-Western District in Kansas City dismissed a lawsuit from a conservative activist and a Republican state lawmaker who wanted it taken off the voting ticket.

Ron Calzone and GOP state Representative Mike Moon of Ash Grove had claimed Proposition D, as it's labeled, violates state law by failing to meet certain requirements including a stipulation that all ballot measures pertain to a single subject. The appeals court reaffirmed a circuit court judge in mid-Missouri's Cole County who also had dismissed their lawsuit.

If the ballot measure is approved by voters, the state's motor fuel tax would be raised from 17-cents to 27-cents per gallon by 2022.

MoDOT Director Patrick McKenna contends the hike simply makes up for the rate of inflation since the motor fuel tax was last increased in 1996. "Even though it doesn't solve the entire problem, it trends us in the right direction across the board," McKenna said. "It's really useful in the way that we can purchase construction in the way that we could back in 1996."

MoDOT has pegged the state's high-priority unfunded annual transportation needs at \$825 million. The motor fuel tax increase, when fully implemented, is projected to provide \$288 million in additional resources annually to MoDOT for use on roads and bridges.



**MODOT Director Patrick
McKenna**

Another \$123 million would flow to cities and counties for local road maintenance and improvement. About 30% percent of the motor fuel tax is sent to cities and counties, with an even split of 15% distributed to each one.

Missouri has the 7th largest transportation system in the country but ranks 46th in revenue per mile. The reason the system is so large is that the state has long taken care of county roads that are named after letters in the alphabet.

Missouri has a lower fuel tax rate than any of its nine neighboring states except Oklahoma. Oklahoma maintains 12,257 miles of highway while Missouri manages 33,856 miles. Both states tax gasoline sales at 17-cents per gallon although Oklahoma's levy on diesel is three cents less than Missouri's.

According to data from 2016, the busiest portion of Interstate 270 in the St. Louis area carries 198,800 vehicles per day and is the most well-traveled stretch of roadway in the state. McKenna says I-270 is in the worst condition of any highway in Missouri and needs attention quickly because of the amount of freight it carries.

"We have over 500 million tons of freight that move on that facility each year valued at about \$700 billion," said McKenna. "So, the current condition is it requires immediate work."

Proposition D includes a component to establish a dedicated fund for certain road projects in order to reduce traffic bottlenecks that affect freight. McKenna says three projects are at the top of the list as needing swift action – I-270, the I-70 bridge across the Missouri River at Rocheport in mid-Missouri and the Buck O'Neal Bridge in Kansas City.

"Those three projects affect every Missourian, whether you live near them or not because of their value and connection to the rest of the nation and to the movement of goods throughout our state," said McKenna. "These are vital, vital very large projects and we need to get going on them."

Efforts in recent years to raise money for roads have been met with public resistance. A 2014 sales tax ballot measure was rejected by voters. There's thinking that this year's proposal which targets those who use the roads through the fuel tax will be more acceptable to voters.

The ballot measure actually boosts funding for the Missouri State Highway Patrol's oversight of motor vehicle laws and traffic regulations.

The same source of funding is used by the Department of Transportation (MoDOT) to address roads and bridges once the Highway Patrol's budget needs are met as required by the Missouri Constitution.

The ballot measure will ask voters to weigh in on a third issue beyond the motor fuel tax and the fund to reduce traffic bottlenecks that affect freight. They'll be asked if they want to exempt Olympic (as well as Special Olympic, Paralympic) prizes from state taxes. The three measures were lumped together and passed as a single bill during the final days of this year's legislative session.

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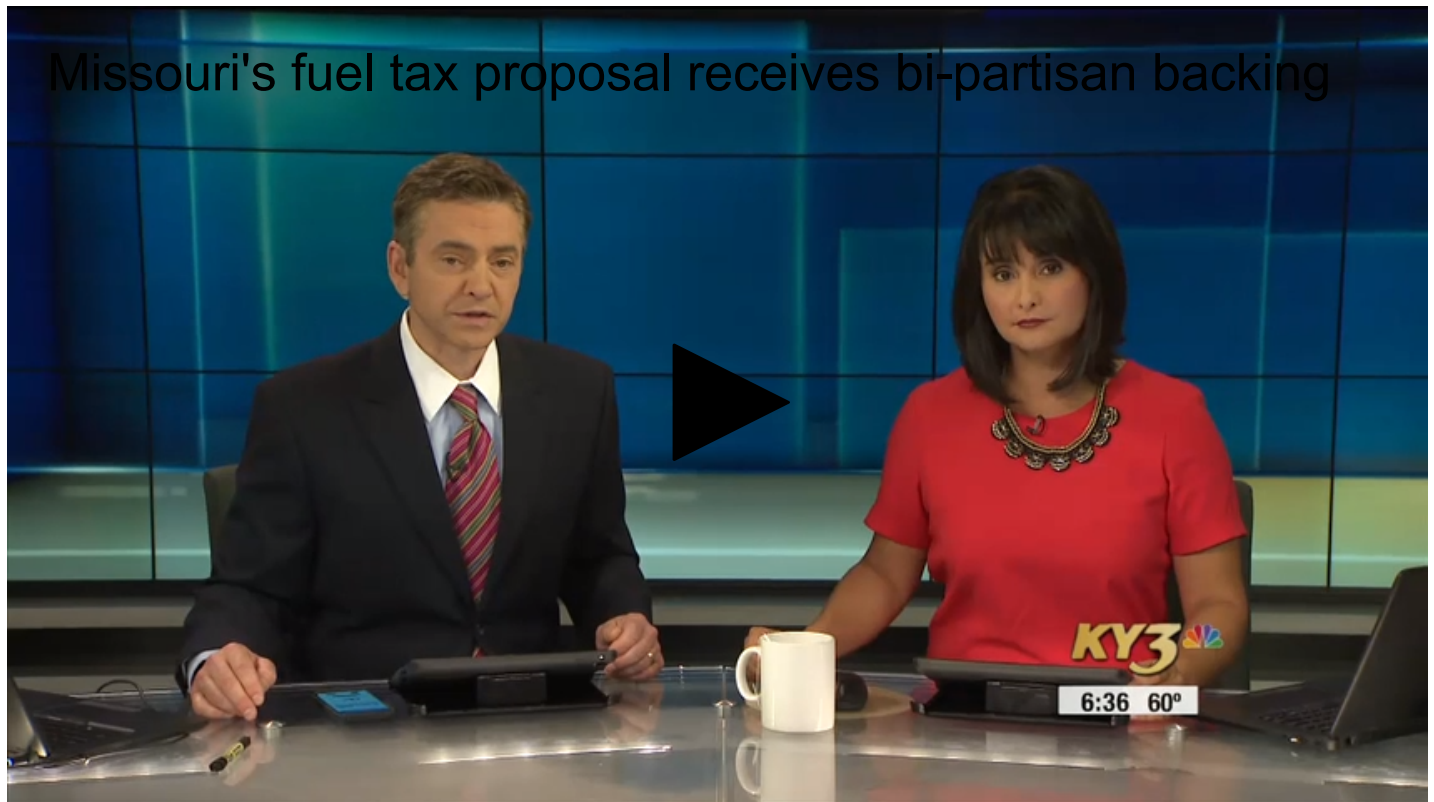
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Missouri's fuel tax hike in November receives bipartisan support



Posted: Tue 1:24 PM, Sep 11, 2018 | Updated: Tue 1:25 PM, Sep 11, 2018

SPRINGFIELD, Mo. -- Missouri's fuel tax increase up for a vote in November has bi-partisanship support.



If Proposition D passes, you'll eventually pay a dime more at the pump. If approved the tax would rise from 17 cents now to 27 cents in 2022, still below the national average.

Governor Parson, a Republican, is signaling his support for the tax increase. Republican Lieutenant Governor Mike Kehoe is backing it too. Democrat Claire McCaskill, at a campaign stop in Springfield this week, said she supports the fuel tax.

"As a Republican he and his Republican lieutenant governor are campaigning for the gas tax all over the state," said McCaskill. "They know they know what it will do for our state in terms of the economy."

The last time Missourians approved a tax increase on fuel was in 1992. A tax increase in 2002 failed miserably. But it included a general sales tax hike too. Supporters say the tax will generate at least \$123 million each year for road construction and maintenance. MoDOT reports it would also generate \$288 million for law enforcement.

Governor Parson says he's behind the gas tax bump for all that it does. He believes it would be a boost to all the state's infrastructure.

"When I talk about infrastructure a lot of times we think about highways and bridges," said Gov. Parson. "But, it's much more than that. It's about utilities. It's about water. It's about broadband. It's about a lot of other factors in there. And, if we really want Missouri to do well for the future, we gotta be prepared to make those changes."

Senator McCaskill says she hopes voters see those other benefits too.

"I also support the gas tax I think it's really important for Missouri," said McCaskill. "So we can continue to draw down the federal funds that we need."

Last week, a Missouri Court of Appeals judge tossed out a lawsuit looking to keep the gas tax off the ballot. Opponents say they will appeal.

Voters will decide the tax's fate November 6.

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MoDOT's innovative truck saving time, money and potentially lives

POSTED 6:49 PM, AUGUST 28, 2018, BY KERA MASHEK



KANSAS CITY, Mo. -- It's saving time, money, and could save lives. The Missouri Department of Transportation is hoping to expand use of a new truck called JAWS, an innovation that came from tragedy.

Most of us have had the not-so-fun experience of driving down the interstate, and wham! There's a tire, mattress, or ladder laying smack in the middle of the road. MoDOT responds round the clock to clear that debris and now they're able to do it much more safely.

"Very tense moment. Your heart's racing, your heart's pounding," said Marcus Slaughter.

That's how Slaughter describes the sensation of jumping out of a truck, to remove debris from the middle of a busy highway.

"But now, you can do it from the seat of your pants," he said.

That ability is thanks to an innovative new truck dubbed JAWS. At first glance, it might look like your average motorist assist vehicle. But this rig is outfitted with a special skid plate. It drops down, allowing the vehicle to push debris to the shoulder more quickly and safely than before.

"We wanted something that could be self contained and still have the maneuverability of the truck itself," said Slaughter, KC SCOUT incident management coordinator.

JAWS was an idea many years in the making. It stands for Julie's Automated Waste-removal System.

Back in 2004, Marcus lost a friend and colleague, Julie Love. Love was picking up road debris near I-435 and Front Street when she was hit and killed.

"Our wheels have constantly been turning on how we can do things better and safer," said Slaughter.

It was two years ago when Slaughter transferred to a new department that he had an idea. MoDOT and KC SCOUT experimented using a snow plow on a motorist assist truck to push away road debris. It worked well, but needed some tweaking to be less wide and move at slightly quicker speeds.

"So it definitely eases our minds to know we have JAWS out there on the road," Slaughter said.

Last fall, JAWS was born. The skid plate is maneuvered by a joystick. And the driver can see the debris through a camera display in the rearview mirror. It also prevents a need for multiple crews to respond. Just one person can do the job.

"We all want to go home each day. We want to be safe. We want the public to be safe. And this is our tool to do so," he said.

The truck is so unique, it's won local and international safety awards and is being used as a model for safer debris removal around the country.

Right now, MoDOT only has one JAWS vehicle, and that truck's already racked up almost 100,000 miles. So the department's planning to get two more JAWS trucks on the road in the coming months.

00:30 / 00:30



Kansas Highway Patrol gives details about I-435 wrong-way crash, identifies driver killed



Crash involving Brinks truck injures one man, sends coins flying for Northland drivers to collect

https://www.postandcourier.com/news/scdot-giving-state-roads-to-local-governments-hoping-to-shrink/article_cd13378c-aa3f-11e8-a884-27b190333273.html

SCDOT giving state roads to local governments, hoping to shrink huge maintenance backlog

BY ABIGAIL DARLINGTON ADARLINGTON@POSTANDCOURIER.COM

AUG 31, 2018 UPDATED AUG 31, 2018



This Mar. 11, 2016 photo shows the Williamson-Johnson Road at the Orangeburg-Aiken county line in Salley. Transportation officials say 46 percent of the pavement on South Carolina's state roads are in poor condition. File/AP Photo/Jeffrey Collins

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Even as more road funding rolls in with the higher gas tax approved last year, the S.C. Department of Transportation is looking to shrink the number of roads the state is responsible for maintaining.

The department is launching a pilot program this year to give local governments the option to take over certain state roads in their communities. Each transfer would come with an advance payment from DOT to cover the road's maintenance costs for the next 40 years.

About two dozen municipalities have submitted letters of intent to apply, according to Transportation Secretary Christy Hall. The cities of Charleston, North Charleston and Greenville, as well as Charleston County, are among them.

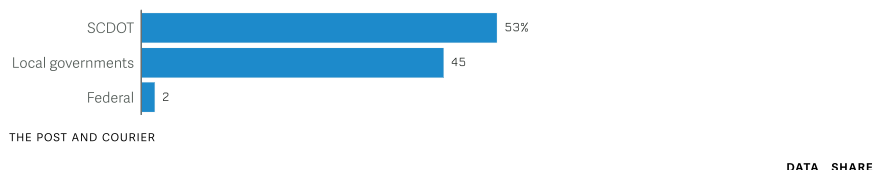
Local officials in some of those communities say the plus side of the program is that it would give them control over their repaving schedules, speed limits and improvement plans. Hall says it will help the state narrow its focus on improving larger highways and bridges.

But even with the offer of upfront maintenance money, some local officials question whether their governments are equipped to shoulder more of the burden of the state's aging road network in the long run.

South Carolina has the fourth largest state-owned road system, with DOT controlling 41,330 of 76,250 total roadway miles. About 16 percent are in poor condition, according to the American Society of Civil Engineers' 2017 Infrastructure Report Card.

BREAKDOWN OF S.C. ROAD OWNERSHIP

STATE RESPONSIBLE FOR MAJORITY OF ROAD NETWORK



The state's crumbling roads and bridges led the Legislature last year to increase the gas tax by 12 cents per gallon over six years, generating about \$600 million annually. It was the first state gas tax hike in 30 years.

The 10-year spending plan includes repaving and widening roads, rebuilding 465 bridges and making safety improvements along the deadliest rural stretches. But DOT leaders have said at least \$1.1 billion would be needed annually to bring the whole road system up to good condition.

"We're basically dealing with almost three decades of backlogs," Hall said.

Adam McConnell, executive project manager for North Charleston, said taking over some of their state-owned roads such as Spruill Avenue would give the city more flexibility with things like bike lanes and road designs. The state has rigid permitting standards that don't always match what the local community wants, he said.

"For us, it's about being able to control our own destiny," he said.

Charleston County already maintains some of the roads on the list it submitted to the state, such as a portion of Betsy Kerrison Parkway on Johns Island. The new program at least provides some funds to cover those costs, said Jim Armstrong, director of the county's transportation department.

County Councilman Teddie Pryor cast the sole "no" vote against the proposal.

"Once we accept these roads and they give us whatever money that is, when the money runs out, that's it. We're going to be responsible for the roads for a lifetime," he said.

Other local officials around the state echoed those concerns.

Richland County Council voted against the proposal to apply for the program on July 24. Councilman Norman Jackson said the state has more funding for road maintenance than cities and counties.

"We have to find additional funding while they're collecting the gasoline tax," he said.

Hall said that's not exactly true, because a portion of the gas tax revenue does go to county-run transportation committees.

"I would argue that these county-based organizations are receiving increased funding as part of the gas tax increase," she said.

She emphasized that the program is voluntary and that the state will only transfer roads to the interested governments if both parties agree on the price.

"This is not meant to be a trap for local governments," she said. "We feel like we're trying to be responsive to local governments' request to have more authority over the roads within their communities."

City Councilman Mike Seekings, chairman of the Traffic and Transportation Committee, voted in favor of participating in the program. The city applied to take over portions of 10 roads, including St. Philip Street and Rutledge Avenue downtown and Cane Slash Road on Johns Island.

Seekings said he still has his doubts about the concept.

“Roads are expensive. They’re expensive to build. They’re expensive to maintain. They’re expensive to improve,” he said. “I go into this cautiously pessimistic, but willing to learn through the pilot program whether it will work.”

The initial budget for this fiscal year, which ends June 30, 2019, is \$10 million, a relatively small pool. The maintenance fee the state would pay would be more than \$560,000 per mile of a two-lane road in good condition, and much more for roads that are larger and in poorer conditions.

Reach Abigail Darlington at 843-937-5906 and follow her on Twitter @A_Big_Gail.

ABIGAIL DARLINGTON

Abigail Darlington is a local government reporter focusing primarily on the City of Charleston. She previously covered local arts & entertainment, technology, innovation, tourism and retail for the Post and Courier.

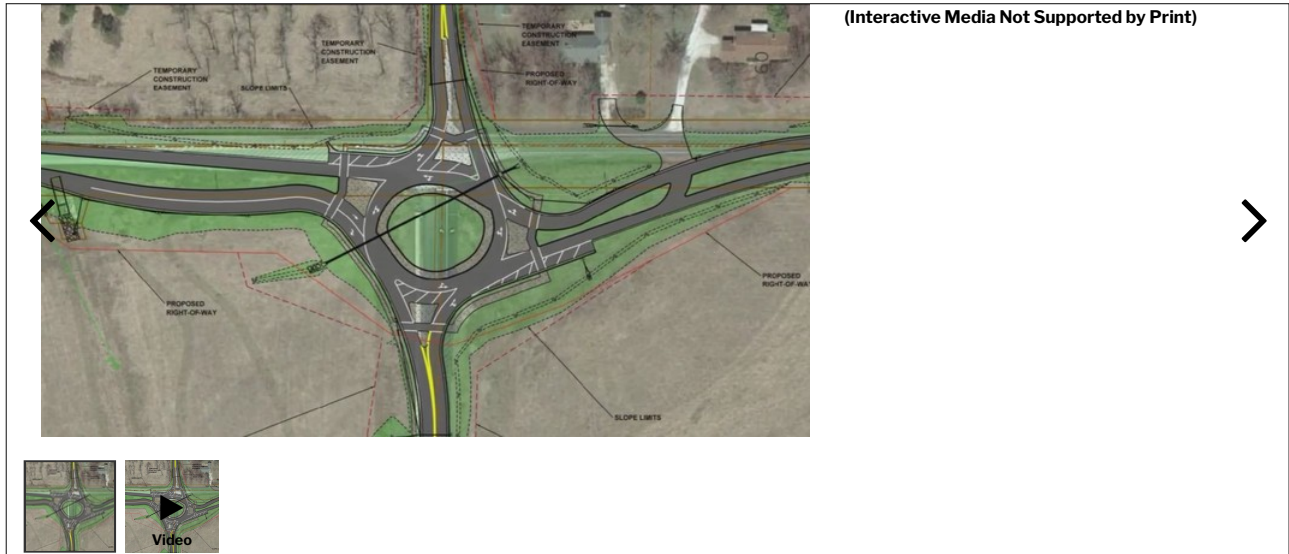
News

Traffic Tuesday: Roundabout Planned Near Republic High School

By:

Daniel Shedd (<https://www.ozarksfirst.com/meet-the-team/daniel-shedd/56316124>) ✉ (<mailto:dshedd@kolr10.com>)

Updated: Sep 04, 2018 08:09 AM CDT



REPUBLIC, Mo -- Citizens in Republic are hoping plans for a new roundabout will help eliminate a dangerous intersection just north of the high school, at Highway M and Farm Road 103.

"We try to make a presence out here when we can just to be visible and to wake drivers up," said Cpl. Peery with Republic PD. "The side affect of that is them watching what they're doing and not running into the person in front of them."

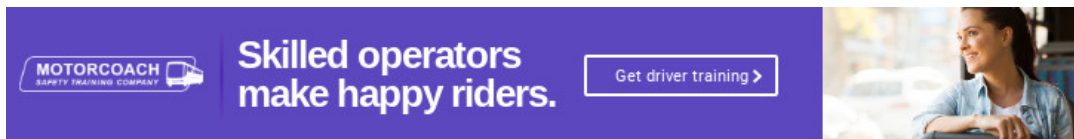
Currently, Highway M has a right hand turn lane into the high school, but no left turn lane onto Farm Road 103. Drivers looking to turn left onto 103 often cause sudden stops on a major highway.

Holly Garrison's son, Wyatt, was involved in a non-injury collision less than 2 weeks ago.

"If he was just 2 feet further, he could have been killed. Is it going to take someone to get killed before something is done with this intersection?"

"I can start a petition and get thousands of signatures to get something done on this," she continued. "We just need some help."

MODOT proposed the \$2.3 million dollar project to begin in 2019, and to be paid for in conjunction between the City of Republic and the school district.


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Management & Operations

Nashville's Transit System Defies Defeat with New Brand, Revised Plan

Posted on September 13, 2018 by Janna Starcic, Executive Editor

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In mid-July, Nashville MTA celebrated a rebirth of sorts by rebranding itself as WeGo Public Transit, which included the roll-out of 31 new hybrid buses. This comes on the heels of the defeat of a mass transit referendum, which would have funded a \$5.4 million infrastructure plan, including light rail and bus rapid transit corridors. We spoke with WeGo President/CEO Stephen Bland about the impact of the loss and what projects are in the works.



Photos courtesy of WeGo Public Transit

Discuss the referendum loss. Without doubt, it was a disappointment and a setback — not just for mass transit in Nashville, but for overall mobility and the quality of life in our region. However, as I continue to tell our staff, the fact that we won't be getting a lot bigger in the short-term is no excuse for not getting better. The definitive direction of the referendum now allows us to focus on a number of initiatives to improve the quality of service for our region and to be more responsive to our customers. To use a sports analogy: if we can't hit a grand slam, let's hit more singles and take the extra base. I also have no doubt that the issue will eventually go back to the voters and we'll be successful. This region deserves no less.

I read the *New York Times* article about the Koch brothers' opposition efforts. Were you aware of those machinations?

Certainly, and we knew well before we put the issue on the ballot that they'd be involved. But, I also think the national media has severely overestimated the impact of the Koch brothers and Americans for Prosperity on the Nashville referendum outcome. In point of fact, the coalition promoting passage of the referendum significantly outspent the opposition on media, and the margin of defeat was too



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large to pin on any one factor. Nashvillians also tend to resent outsiders coming in and trying to tell them what to do, so there was obviously no overt messaging by anyone who wasn't from Nashville against the plan. The outcome generally points to a need for us to continue the conversation in public and to be clearer about the steps we plan to take to make individual people's lives better, and why it makes sense to spend their hard earned money on those steps.

RELATED: [WeGo partners with Hytch to reward public transit users](#)

Will you use a different approach in the future? Well, when you get beat by a 64-36 margin, it certainly suggests that something needs to change the next time around. As with the last effort, any future referendum will be the result of a much broader community effort than WeGo Public Transit or the RTA, so I'd be foolish to predict what form it might take, or even when it might happen — there will be a lot of cooks making that stew. However, for our part, I think that continuing to take an open, transparent communications approach to our services, projects, and planning will be crucial; and continuing to expand the constituencies we ask to participate will be of utmost importance. I also think that our agency will need to include itself in discussions of broader public issues in Nashville beyond mass transit and mobility. During the course of the transit debate, we saw significant discussion over other issues weighing on people's minds such as housing affordability, gentrification, equitable treatment, and a general sense of stress about the pace and nature of growth in our region. If we think we can be successful by simply pushing a 'transit' measure, we're sorely mistaken and missing a much larger opportunity to improve the quality of life for the people who live here. We're seeing that play out currently as we discuss incorporating affordable and workforce housing components into transit oriented development.

How will this loss impact your transportation plan (nMotion) goals? Well, as I've told a number of the transit industry consultants and other suppliers I've spoken to since May 1, 'sorry, I don't have \$6 billion to spend right now!' However, the majority of the stated opposition I've heard about the referendum program of projects relates to the big ticket items like light rail and the downtown tunnel. nMotion contains dozens of other enhancements — small and large. During the week after the referendum, I heard from several of the higher-profile opponents directly and their message was simple and consistent: Just because we opposed this measure, please don't think we're not in favor of better transit service. nMotion remains the adopted strategic service plan of both WeGo Public Transit and The Regional Transportation Authority of Middle Tennessee. As such, we are continuing to advance a number of these initiatives within the resources we have available to make services simpler, more reliable, and more responsive to the needs of our community. Those were the overriding goals of nMotion, regardless of the level of investment we can afford.

What are some nMotion plan highlights? Again, nMotion has dozens of components and we're moving forward on many of them as we speak.

Let's start with an item from the plan that the referendum loss leaves us with question marks



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Transit Dispatches



WeGo Public Transit President/CEO Stephen Bland talks transit projects at an nMotion plan event.

about. That is how we develop high-capacity transit in some of our key congested corridors. With the loss, we won't be developing light rail or even Gold Standard BRT in those corridors for the foreseeable future, but we are working collaboratively with TDOT (the Tennessee Department of Transportation) and Metro Nashville Public Works to begin making those corridors safer and better suited to

multimodal use. On our Murfreesboro Pike Corridor, as an example, we're partnering with Public Works on a U.S. DOT Tiger-funded project to upgrade our traffic signal infrastructure to adaptive signaling with transit priority, as well as queue jumps at key congested intersections and major pedestrian improvements in the form of expanded sidewalk and crossing infrastructure. We're working with TDOT in the I-24 Southeast Corridor on a variety of intelligent transportation initiatives, and TDOT is examining the potential to advance "Bus on Shoulder" enhancements, which was allowed via legislation passed by the Tennessee General Assembly two sessions ago.

A key element of the nMotion plan was the development of a 'frequent transit network,' entailing more robust service in our busiest corridors. Over the past two years, we've added our Nolensville Pike, Jefferson Street, and Bordeaux Corridors into this mix that already included four corridors.

With respect to customer amenities, we've more than doubled the number of passenger waiting shelters over the past three years and we continue to add more. We know from our own experience that these amenities will draw riders from surrounding stops and the neighborhoods in which they're located. Our new buses are also coming in with Wi-Fi and USB plug-in capabilities to further enhance the rider experience.

We are also advancing into design and real estate acquisition for several of the neighborhood transit centers called out in nMotion, including partnerships with the Metro Nashville School District on a site adjacent to a high school they're completely rebuilding in our Green Hills neighborhood; one on the campus of Tennessee State University; and one in partnership with a mixed-use development are being advanced in North Nashville. Once in place, these centers will reduce our reliance on our primary downtown hub, and allow more direct travel by the public and fewer 'out of direction' movements. We are also working with neighbors of these centers to make them assets to the neighborhood, attracting other activities beyond transit use.

Finally, recognizing that most of our short-term improvements will center around our bus system, we are joining a number of other transit agencies that successfully completed bus network redesigns. We delayed this process during the months leading up to the referendum, but are now working on it full speed, with an expectation to do public outreach later this year.

Generally, all of the above projects and the nMotion plan, in general, are about improving the rider experience and enhancing connectivity in Middle Tennessee. We want our system to be simpler, more reliable, more comfortable, and more accessible. Those goals remain a constant.

RELATED: [Rebrand, improved service gives EMBARK a boost](#)

How did the rebrand come about and what went into its development? Actually, the origins of it started from conversations I had with community leadership when I first arrived in Nashville, even including conversations with our board during my first interview for this job. Of course, it also included the input of thousands of folks who participated in the nMotion strategic plan, as well as a number of diverse focus groups we hosted as part of the branding strategy process.

Their message was simple and consistent. There is a perception of transit in this community that we need to change — who rides it, how it operates, and the fact that it's viewed as a government bureaucracy. Our board was very clear in saying that we needed to change that perception to one of being part of the fabric of the community. The process was not really different than any organization's effort to reframe itself with respect to public perception.

Beginning in the nMotion planning process, and continuing well beyond its conclusion, we asked people about their perceptions of our organization, and how they wished we could change those perceptions. Some of the aspirational words we heard back repeatedly were 'inclusive,' 'approachable,' 'friendly,' 'caring,' and 'connected.' All of that led us to pretty much eliminate including the word 'Authority' anywhere in our brand. There was also some debate as to whether or not Nashville's overall 'Music City' theme should be incorporated. We concluded, though not without some healthy debate, that it had kind of reached a saturation point.

Finally, when our creative services team came up with 'WeGo,' after my typical over-analysis, it made perfect sense to me. 'We' as in 'we're all in this together,' and 'Go,' as in let's move forward.



Nashville's new Gillig hybrid buses featuring the new branding, include Wi-Fi and USB plug-in capabilities to further enhance the rider experience.

Do you feel the rebrand has more meaning to it now, perhaps like a rebirth? I believe that very strongly, and I don't think it could possibly be better timed. Keep in mind that we began planning for the rebranding well before the referendum, even though we knew it wouldn't be rolled out until after the votes had been counted. Obviously, had we won, it would have been an awesome way to give people a visual sense

of what was to come. But I think it's even more important, symbolically, in the face of the loss. Several weeks before we announced the new branding, we did several preview events with our employees. This was after the referendum outcome was known, and our staff was feeling a bit uncertain about the future. They were genuinely excited about the new look, but also about my description of some of the initiatives we'd be pursuing despite the outcome of the vote. I think their reaction was akin to that famous WC Fields quote, 'the news of my death is greatly exaggerated.' Days before we were scheduled to roll out the new brand, one of our board members called me and suggested that maybe we should put a hold on it in light of the defeat. By that time, buses in our new paint scheme were literally on the

road from Gillig's plant in California. Beyond the expense and logistical nightmare of calling the whole thing off, I shared with that member the excitement that our employees demonstrated about the whole thing at our preview events. That person gave me a four-word reaction: 'Fantastic! Forget I called.'

I can also share personal experiences that make me smile. When I wear my purple WeGo Public Transit golf shirt to a restaurant or other public space, it's become quite common for complete strangers to approach me and ask about it — keeping in mind, they have no idea I'm the CEO. After the 'why WeGo' question, the conversation typically turns to thoughts about the referendum outcome, and our plans to pursue improvements in the future. I have yet to speak with anyone, regardless of how they tell me they voted, and yes, they always tell me how they voted, who has said we should just drop this whole transit thing in Nashville. It's gotten to the point that, if my wife and I are looking for a quiet evening out, I make sure I don't wear that shirt.

RELATED: [Nashville taps INIT for electronic fare project](#)

What are the region's current mobility challenges? The same challenges you would typically associate with a rapidly growing southern city that was designed around single-occupant auto use. The Greater Nashville region has very sprawling development patterns, and with the exception of the downtown core and certain neighborhoods, is not very walkable. People drive much more here than in similarly-sized cities, and that makes alternate mobility modes challenging. As such, I'd say the overriding challenges are two-fold. First, where and how can we retrofit and adapt our infrastructure in order for more traditional forms of mass transit to emerge and succeed? Second, how can we adapt our service models, for instance, more mobility on demand options, to address a need where it doesn't make sense to radically alter the built environment?

Besides funding, what other challenges are you faced with? Generally speaking, the same challenges we all talk about at any gathering of transit professionals.

Attracting and retaining talent is tough, whether we're talking about bus operators, maintenance technicians, or support staff. I've only been here for about four years, and over half of our employees have started since then. Beyond the issues of absorbing all those people is one of maintaining a certain culture in the organization and making sure everyone's moving in the same direction.

Integrating new technologies in a way that makes sense for our customers is also challenging. In this regard, we have an advantage over a lot of transit agencies our size. While we have a core IT staff that manages most of our core enterprise functions, we also partner with Metro Nashville's broader IT Department, who has state-of-the-art knowledge on issues ranging from mobile data communication to cybersecurity.

Finally, I'd say that safety and security on our system will always be something worth worrying about. While our system is very safe, the sheer numbers of people who use it, coupled with the general anxiety of our times, create challenges. In this regard, I'd highlight two T's as our way of focusing — teams and technology. With respect to teams, under our security manager, the work of our operations staff with respect to security is supplemented by contracted private security personnel and an outstanding working relationship with the Metropolitan Nashville Police Department.

With respect to technology, digital video surveillance has been a godsend. Hundreds of cameras throughout our system supplement the work of operations and security/policing staff to assure the system isn't just safe, but feels that way.

What are your agency's strengths? I'd sum it up in one word — people.

First and foremost, and I challenge anyone in the industry coming to Nashville for the APTA Annual Meeting to disagree with me on this point: we have the friendliest bus operators in North America — bar none. Our city generally has a reputation for being 'Nashville Nice,' but our operators take it to another level. I wish I possessed their patience and innate kindness.

Second, even though I did mention talent attraction as a challenge, I do think the fact that we have a lot of new and very diverse folks coming in to work for us is a strength. When I first started here, I'd ask our staff why we did things in certain ways. They learned very quickly that 'because we've always done it that way' was always the wrong answer, even if there were very good reasons to keep doing things the same way. We've got operators and other operations staff who have experiences with dozens of other transit agencies, as well as a broad variety of public and private sector companies; an attorney from Vanderbilt University; engineers from private development firms who live by "on-time/on-budget" project; and the list goes on. They've all brought a fresh approach to the way we look at things and they aren't afraid to challenge the status quo.

Third, our boards of directors. For WeGo Public Transit, it's a five-member board who genuinely care about the organization and, more important, the people we serve. For such a small board, they are diverse in both their professional backgrounds and their spheres of influence. Yet, there are remarkably cohesive and congenial. This is reflected in the direction they set, and the questions they ask our staff. On the RTA side, it's a 39-member board, largely composed of the regional city and county mayors in our 10-county service area. The fact that high-level policy officials, ranging from the Mayor of Nashville to mayors of some of our smallest municipalities can come together and talk about common challenges makes us stronger.

Discuss how recent/planned tech implementations have/will help your operation? About three years ago we rolled out our real-time transit technology — something our riders had been demanding for quite some time. Beyond the obvious customer service advantage of knowing when your bus will arrive, the data this system generates has been a gold mine for our service planners, and we're continually asked for access to this data by other entities who are trying to get a handle on issues like regional traffic congestion, for instance. Through this data, we've seen significant improvements in our on-time performance over the past two years despite increasing traffic congestion in Nashville.

Two years ago we started operating fully electric buses on our Music City Circuit Downtown Circulator. The buses have been well received by our customers, the community at large, and our employees. The limited deployment — we operate nine electric buses now, with two more on order — has allowed us to assess the longer term potential for this technology in a measured way.

Earlier, I mentioned the signal project we are constructing in the Murfreesboro Road corridor. When it's fully operational next year, we'll begin to evaluate its impact both on travel speed in the corridor and service reliability, with a hope of expanding it to

our other frequent service corridors. We, along with City government, will also be able to assess the impact of pedestrian improvements on safety along the corridor.

Finally, I'll mention our account-based fare payment system. We are currently in the design and early implementation stage of an account-based fare collection system that is based on an open architecture that will enable mobile payment, as well as our own smart card system. Beyond the benefit to WeGo customers, we are doing it in collaboration with the RTA and other regional transit providers in Franklin and Murfreesboro in an effort to create a truly seamless system. In parallel, we are revamping our fare structure to simplify fare payment and provide best value pricing to our customers in a manner that is invisible to them. Apart from mass transit, we are working with Metro Nashville IT to assure the technology is adaptable to broader uses such as city parking facilities and other mobility services. Our overall goal is to make sure that anyone who is in close proximity to our services already has exact change in their pockets, whether they know it or not.

Discuss a current project and how it will benefit customers? We are in the midst of a major renovation to our WeGo Central Downtown Transit hub. This year, the facility marks its 10th anniversary. On a daily basis, about 17,000 people visit this facility, and we have about 2,200 bus movements in and out. It is the front door for our organization. The renovation will provide necessary structural rehabilitation to extend its life, but from a customer perspective, we'll have enhanced restrooms, expanded customer service capacity to reduce waiting lines, and improved wayfinding. We will also 'freshen up' the place, with new paint, resurfaced sidewalk and drive surfaces, and brightened up LED lighting. I will add, however, that our future depends on us continuing to evolve our service model in a way that reduces our reliance on this facility. We are serving about 25% more people in the building than it was designed for, and it is reaching its upper limits for capacity, even after the renovation. As a result, we are in the early planning stages of advancing a secondary downtown hub with the City of Nashville South of Broadway, as well as advancing planning, real estate activities, and design for a number of neighborhood transit centers throughout our service area to relieve the pressure on this building.

Finally, a project I am personally extremely excited about, we are also piloting 'Access-on-Demand,' a premium service for our WeGo Access customers. WeGo Access, our paratransit system, carries about 450,000 trips per year and is noteworthy in that it exceeds ADA requirements by providing service county-wide, well beyond the bounds of ADA requirements. With Access-on-Demand, for a higher fare, customers can receive same day service. Although still in early stages of deployment, the service has been a rousing success with our customers, who tend to mix their use of the higher priced Access-on-Demand service and traditional paratransit. Recently, we awarded additional contracts to broaden the provider pool for this service, and are implementing technology improvements to move toward a more 'app-based' platform that will also likely form the backbone of a broader Mobility on Demand service model.

Tags: funding Nashville MTA nMotion rebrand revamped bus network Stephen Bland
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» New AASHTO President Says Workforce and Funding Issues Top His Priority List

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Utah DOT's Carlos Braceras Elected AASHTO President, Missouri DOT's Patrick McKenna VP

ATLANTA – Today, the board of directors of the American Association of State Highway and Transportation Officials elected Carlos Braceras P.E., executive director of the Utah Department of Transportation, to serve as its new president and Missouri DOT Director Patrick McKenna as its vice president.

"I'm honored and inspired to accept the role of AASHTO president during this inflection point in transportation history," said Braceras. "State DOTs are facing new challenges on several fronts. As technology develops rapidly, we as owners need to adapt proactively to operate safer, more effective transportation systems. Attracting and keeping a highly-skilled workforce is critical. It's also imperative that we find ways to educate lawmakers and members of the general public about the irrefutable connection between long-term investment and safer, smarter, and more reliable transportation systems."

Prior to today's election, Braceras served as AASHTO's vice president and secretary-treasurer. As president he will focus on three emphasis areas: workforce development, reauthorization of current surface transportation legislation to include funding and policy reform, all while "communicating transportation's vital role" in American life.

In terms of workforce development, Braceras said the current robust economy and low unemployment rate are making it difficult for state agencies to compete with the private sector for engineers, technicians, and information technology professionals.

"State DOTs must attract and keep these workers to build, maintain and manage America's increasingly sophisticated transportation networks," said Braceras, who added: "Funding and policy reforms will also be needed because the Fixing America's Surface Transportation (FAST) Act expires in 2020."

A native of New Jersey, Braceras began his career at UDOT in 1986, becoming UDOT's executive director in 2013, responsible for more than 1,600 employees along with the design, construction, and maintenance of Utah's 6,000-mile road and highway system, as well as transit projects. Braceras previously served as the agency's deputy director and chief engineer, where he helped shape UDOT's strategic direction and its mission of developing innovative transportation solutions to strengthen Utah's economy and enhance quality of life.


Braceras earned a bachelor's degree in geology from the University of Vermont and a bachelor's degree in civil engineering from the University of Utah. Prior to UDOT, he worked as a well-site geologist in the oil and gas exploration and development industry.


Braceras said he and his wife enjoy spending time in the great outdoors, with their favorite activities including skiing, bicycling, golfing, camping, windsurfing and sailing on the Great Salt Lake.


Newly-elected AASHTO Vice President McKenna has served as director of the Missouri Department of Transportation since December of 2015. He previously was the deputy commissioner of the New Hampshire Department of Transportation.

McKenna, who is also president of the Mid America Association of Transportation Officials for 2017-2018, is a member of the executive committee for the National Academy of Science's Transportation Research Board. He received a bachelor of science degree in finance from Bentley College and a master of science in management and finance from the University of Maryland University College.

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Texas Is Once Again the Only Highway "Donor State" As FHWA Distributes \$42B in FY19 Funding



By [Jeff Davis](#)

Senior Fellow and Editor, Eno Transportation Weekly

[FHWA](#) [FY19](#) [Highways](#)

October 4, 2018

On the first day of the new fiscal year, the Federal Highway Administration issued a [formal notice](#) apportioning \$42.3 billion in highway formula contract authority to state governments. The main notice apportions \$42.355

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billion in funding, but a [second notice](#) then takes back \$39.6 million of the money for budgetary sequestration, for a net total of \$42.316 billion.

The gross total is the precise amount [predicted in December 2015](#) when the conference report on the FAST Act was presented to Congress, but the distribution to states is slightly different, because once again, Texas is the only state to have triggered the 95 percent "donor state" rule in [23 U.S.C. §104\(c\)\(1\)\(B\)](#).

Because Texas's estimated [fiscal year 2017 excise tax payments to the Highway Trust Fund's Highway Account](#) totaled \$3.99 billion, Texas's total highway formula funding for 2019 was guaranteed to be at least 95 percent of that, or \$3.79 billion. The Lone Star State's revised FY 2019 formula apportionment was \$56.9 million more than originally predicted in December 2015, and that money was then proportionally taken out of the apportionments of the other 49 states and the District of Columbia.

(Texas actually made more Highway Account tax payments than California, despite having almost 40 percent fewer people (39.5 million people in California per the 2017 Census estimates vs 28.3 million in Texas). Put another way, the residents of California paid \$86.53 per capita in excise taxes into the Highway Account in 2017, versus Texans paying \$141.04 per capita in excise taxes.)

This means it is as good at time as any to take a quick look at how the Highway Trust Fund going bankrupt has affected the old donor-donee arguments between states. As the table at the end of this article shows, Texas is the only state whose highway formula funding to Highway Account tax payment ratio, in terms of dollars in vs dollars out, is less than 100 percent. Every other state is getting more money than it put in, from Alaska (which gets 680 cents of highway formula funding for every dollar of tax payments) down to Colorado (the only other state close to being a donor state, at 101 cents on the dollar of tax payments).

The excess, of course, comes from the \$51.9 billion of general fund bailout money deposited in the Highway Account by the FAST Act, which is equivalent to about one-and-a-half years of Highway Account excise tax receipts and which keeps the Highway Account solvent until sometime in spring or summer of 2021.

In the aggregate, total highway formula funding for 2019 was 119 percent of total 2017 Highway Account excise tax receipts.

In addition, so-called "allocated" (non-formula) highway programs – FHWA administrative overhead and research programs, highways on federal lands and in U.S. territories, FASTLANE grants, and TIFIA loans – are not included in the donor state calculation and totaled an additional \$3.9 billion in contract authority in 2019, all of which can be presumed to have been supported from the general fund bailouts.

And the donor state calculation in title 23 does not apply to the HTF's Mass Transit Account, which received \$5.286 billion in excise taxes in 2017 (and which got \$18.1 billion in general fund bailout money in the FAST Act, or 3.4 years worth of excise taxes, because the overspending problem is proportionally much worse in the Mass Transit Account than it is in the Highway Account). The Federal Transit Administration's annual apportionment tables are not broken down by state, making a donor-donee comparison of the Mass Transit Account difficult (but it's a safe bet that New York is the mega-donee and about 40+ states are donors in that regard).

Document of the Week

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1978 Conable-Gibbons Amendment to the Highway Bill

This PDF is a series of documents relating to a proposed amendment in the House Ways and Means Committee to the revenue title of the highway bill in 1978. Drafted (at the Department of Transportation's request) by Reps. Barber Conable (R-NY) and Sam Gibbons (D-FL), the amendment would have put the Highway Trust Fund on a form of "accrual accounting" and ensured that each year's new funding authorizations were reduced to that upcoming year's estimated excise tax revenues.

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Alice Grossman | September 28, 2018

FY 2017 Highway Trust Fund Highway Account Tax Payments Attributed to States, vs. FY 2019 Highway Contract Authority Formula Apportionments

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Millions of dollars.

	FY 2017 HTF-HA Tax Payments	FY 2019 Highway Formula C.A.	Funding Exceeds Taxes By:	Funding As Pct. Of Taxes
Alabama	\$738.7	\$819.3	\$80.7	111%
Alaska	\$79.6	\$541.5	\$461.9	680%
Arizona	\$722.8	\$790.2	\$67.4	109%
Arkansas	\$442.0	\$559.1	\$117.2	127%
California	\$3,421.2	\$3,963.8	\$542.5	116%
Colorado	\$571.4	\$577.5	\$6.1	101%
Connecticut	\$325.4	\$542.4	\$217.0	167%
Delaware	\$97.1	\$182.7	\$85.6	188%
Dist. of Col.	\$23.9	\$172.3	\$148.4	721%
Florida	\$1,881.7	\$2,046.2	\$164.5	109%
Georgia	\$1,185.9	\$1,394.4	\$208.6	118%
Hawaii	\$88.9	\$182.7	\$93.8	206%
Idaho	\$216.3	\$308.9	\$92.6	143%
Illinois	\$1,273.2	\$1,535.4	\$262.2	121%
Indiana	\$914.9	\$1,029.0	\$114.2	112%
Iowa	\$496.3	\$530.8	\$34.5	107%
Kansas	\$364.1	\$408.1	\$44.0	112%
Kentucky	\$605.3	\$717.6	\$112.3	119%
Louisiana	\$577.0	\$758.0	\$181.0	131%
Maine	\$173.5	\$199.4	\$25.8	115%
Maryland	\$606.0	\$649.0	\$43.0	107%
Massachusetts	\$591.7	\$655.9	\$64.2	111%
Michigan	\$1,050.2	\$1,137.1	\$86.8	108%
Minnesota	\$664.3	\$704.2	\$39.9	106%
Mississippi	\$501.1	\$522.3	\$21.2	104%
Missouri	\$844.6	\$1,022.4	\$177.8	121%
Montana	\$167.7	\$443.1	\$275.4	264%
Nebraska	\$292.6	\$312.2	\$19.6	107%
Nevada	\$290.9	\$392.2	\$101.3	135%
New Hampshire	\$140.2	\$178.4	\$38.2	127%
New Jersey	\$958.0	\$1,078.3	\$120.3	113%
New Mexico	\$325.6	\$396.6	\$71.0	122%
New York	\$1,362.7	\$1,812.8	\$450.0	133%
North Carolina	\$1,098.5	\$1,126.3	\$27.8	103%



Week of October 1, 2018



Week of September 24, 2018

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August 24, 2018

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10/8/2018	Texas Is Once Again the Only Highway "Donor State" As FHWA Distributes \$42B in FY19 Funding - The Eno Center for Transportation			
North Dakota	\$162.0	\$268.1	\$106.1	166%
Ohio	\$1,318.1	\$1,447.6	\$129.5	110%
Oklahoma	\$591.3	\$684.9	\$93.6	116%
Oregon	\$431.3	\$539.8	\$108.5	125%
Pennsylvania	\$1,263.5	\$1,771.9	\$508.4	140%
Rhode Island	\$75.9	\$236.2	\$160.3	311%
South Carolina	\$697.6	\$723.2	\$25.5	104%
South Dakota	\$150.3	\$304.6	\$154.2	203%
Tennessee	\$851.8	\$912.6	\$60.8	107%
Texas	\$3,992.1	\$3,790.2	-\$202.0	95%
Utah	\$347.8	\$375.0	\$27.2	108%
Vermont	\$71.5	\$219.2	\$147.7	306%
Virginia	\$979.5	\$1,099.0	\$119.5	112%
Washington	\$660.9	\$732.1	\$71.2	111%
West Virginia	\$221.5	\$472.0	\$250.5	213%
Wisconsin	\$661.2	\$812.6	\$151.4	123%
Wyoming	\$163.7	\$276.7	\$112.9	169%
TOTAL	\$35,733.5	\$42,355.4	\$6,621.9	119%

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ABOUT

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A photograph of a city street with brick buildings on the left, a tram in the middle, and modern skyscrapers in the background under a clear blue sky.

THE HIGHEST RETURN ON INVESTMENT FOR YOUR CITY IS NOT WHERE YOU THINK

MAY 11, 2017

BY RACHEL QUEDNAU

Consider the two following investment options for your personal portfolio:

Option A: Invest in a handful of very large entities. Each comes with a lot of hype yet has a track record of under performing, even dramatically losing money. A look at peer entities shows a consistent track record of failure and decline over time.

Option B: Invest in an expansive portfolio of hundreds to thousands of small to mid-sized entities. None of these have much hype or prestige associated with them. While collectively they have a consistent track record of success, individual entities within the portfolio may be a spectacular boom or a total failure.

This metaphor comes from [an article we wrote in January](#) and it's an apt description of the current choice our nation faces, only it's not being framed as a choice. We're told the federal government is going to [spend \\$1 trillion on infrastructure](#)—i.e. invest in some very large corporations and some very large projects, but we at Strong Towns know that those have a low return on investment and often a negative impact on our communities. We've found time and again that Option B, the smaller scale investments, produce far better returns and cost far less.

Let's recap the main flaws in the idea that we can spend \$1 trillion on infrastructure in order to improve our country. Then let's talk about a better plan that will actually offer long-term gains for everyone, for far less than \$1 trillion.

How Federal Infrastructure Spending Makes Cities Poorer

Federal infrastructure spending [tends to make cities poorer not wealthier](#) because, while the federal government may pay the initial cost to build a new highway or bridge, it's local governments that take on the long-term maintenance liabilities, often going into enormous amounts of debt to do so. We've also seen time and again the way that federal infrastructure money goes to some of the *least* productive types of development — like [suburban housing](#) and [inner city highways](#) — blinding local governments to small-scale investments that have the potential to be far more financially beneficial.



It's not just the federal government that's misguided in its belief in extensive infrastructure spending. [Macroeconomists also tend to misunderstand the impact of infrastructure spending](#) on local communities. Spending on infrastructure is seen as the

	ASHEVILLE WALMART	DOWNTOWN MIXED-USE
Land Consumed (acres):	34.0	00.2
Total Property Taxes per Acre:	\$6,500	\$634,000
Retail Taxes* per Acre to City:	\$47,500	\$ 83,600
Residents per Acre:	0.0	90.0
Jobs per Acre:	5.9	73.7

Source: Urban3 and Strong Towns

consequence-free way to boost the economy, but in city after city that we visit across the country, that's not the case. For local governments, [infrastructure is a liability](#) that weighs on a city's budget with the promise of expensive maintenance costs down the road, even though it's usually counted as an asset on municipal balance sheets.

Growth—building new infrastructure, new homes, new businesses—is not sufficient to improve a local economy or indeed, the United States economy as a whole. [We need productive growth](#) in order to achieve true prosperity. Our investments must pay for themselves and add to our communal wealth. We're talking real concrete return on investment, [not just social benefit or "time savings"](#) (which is so often used to justify road construction and expansion projects). There's nothing wrong with counting social benefits, but those don't pay the bills. An infrastructure project that has no long-term plan to cover its costs is doomed to fail.

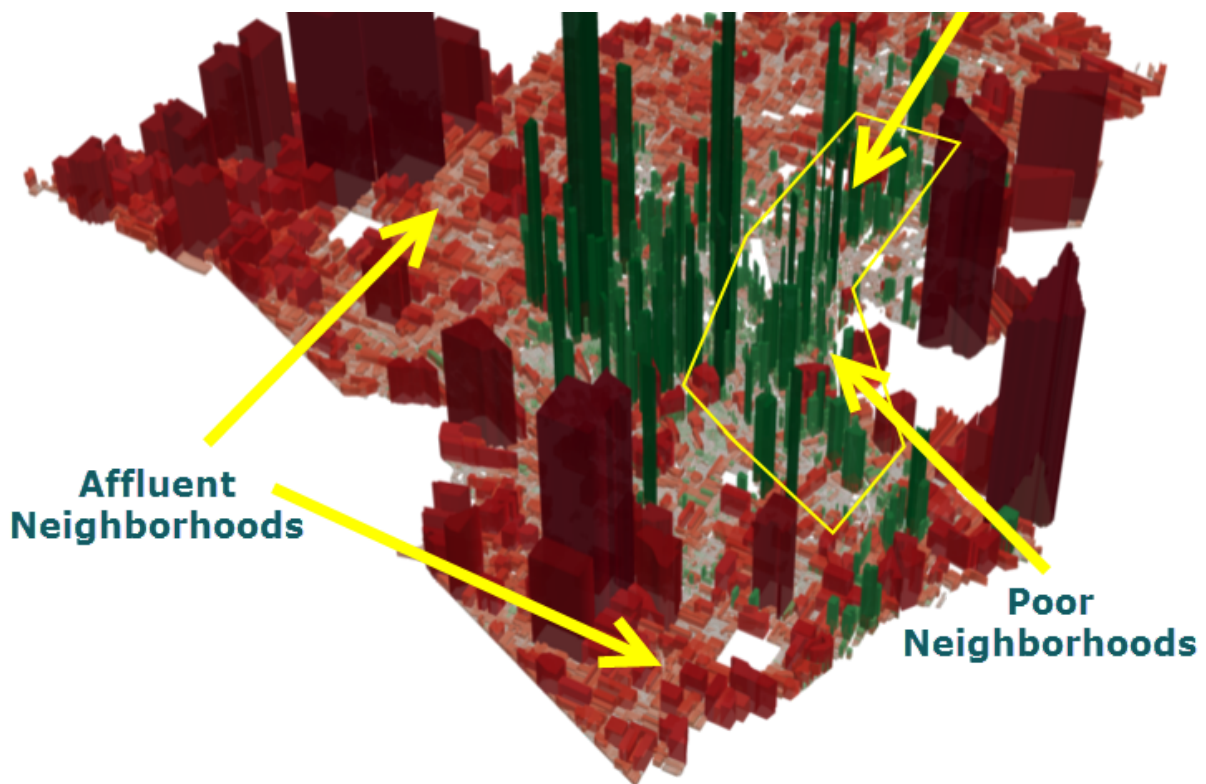
But perhaps the biggest macroeconomics mistake that is costing our cities dearly is the fact that [infrastructure investments are not something we can walk away from](#). While the federal government can sponsor a project, hold a ribbon cutting, then move on to the next project, cities can't do that. Our cities are stuck with the consequences of these decisions for decades. [That dangerously wide road](#) funded through federal dollars will make life unsafe, even fatal, for the people in the surrounding neighborhood. [That big box store](#) with frontage roads and turn lanes that were created through federal money will leave a vacant hole that contributes nothing to its town in a decade or two, with acres of public infrastructure suddenly serving no purpose.

It's Time to Invest in Something Different

Rather than spending billions of dollars on large infrastructure projects, we should be focusing our investments in the most high-returning areas of our town: the poorest neighborhoods.

It might be counter-intuitive but [take a look at this map](#) of tax value per acre, created in partnership with [Urban3](#). Green equals profit and red equals loss. The higher the block goes, the larger the amount of profit/loss.





Source: Urban3

This is Lafayette, LA but this map looks like most towns in America. Strong Towns president, Chuck Marohn, [described this phenomenon](#) in January 2017:

The poor neighborhoods are profitable while the affluent neighborhoods are not. Throughout the poor neighborhoods, the city is, today, bringing in more revenue than they will spend to maintain the neighborhood, and that's assuming they actually invest the money to maintain the neighborhood (which they have not been doing). If they fail to maintain the neighborhood, the profit margins will be even higher.

This might strike some of you as surprising, yet it is important to understand that it is a consistent feature we see revealed in city after city after city all over North America. Poor neighborhoods subsidize the affluent; it is a ubiquitous condition of the American development pattern.

Chuck continues with examples of some of the affordable, small-scale investments we could make if we wanted to boost the returns in these neighborhoods:

We're talking about things like putting in street trees, painting crosswalks, patching sidewalks, and making changes to zoning

regulations to provide more flexibility for neighborhood businesses, accessory apartments and parking. If we try some things and they don't work, we don't lose much because they don't cost much. We learn from our small failures and try something else.

In a presentation at the 2017 Strong Towns Summit, Jason Roberts, co-founder of the [Better Block](#) organization discusses high returning, small-scale investments you can make in your city.

[We've shared some other great examples of these types of small-scale investments](#) whose values are being tested and proven across the nation in places like [Memphis, TN](#), [Oswego, NY](#), and [Pittsburgh, PA](#). Low-cost investments in the neighborhoods that need them the most? Seems like a no-brainer.

Wrap-Up

So, to summarize:

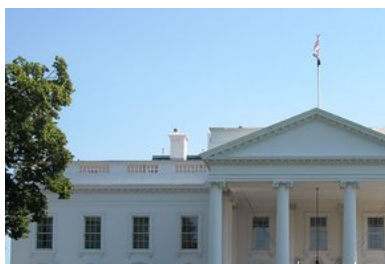
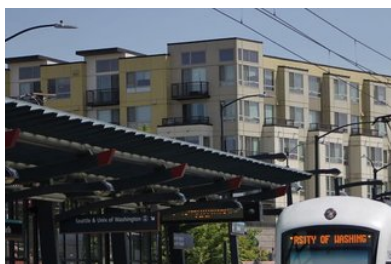
1. Don't shell out billions in federal infrastructure money. It will just sink our cities into debt with additional maintenance liabilities we can't afford to take on.
2. Instead, make small investments in the highest-returning areas—the poor, neglected neighborhoods of our cities.

Federal infrastructure spending is a huge, expensive gamble that we already know doesn't pay off. Strong Towns' proposal for a path forward is cheap, and it offers high upside potential with low downside potential. The choice should be clear.

MORE ON INFRASTRUCTURE FROM STRONG TOWNS

(Top photo source: [Dox Tzob](#))

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FEATURE

Walkable Suburbia

It's not impossible to reshape the suburbs to be more walkable, but it does require careful planning and design.

September 6, 2018, 6am PDT | [Jason Beske](#), [David Dixon](#)



Pedestrians on the street in Bethesda, Maryland.

Nicole S Glass / [Shutterstock](#)

Can suburbs be walkable? Absolutely! Do we know how to create complete streets that are designed to be safe and inviting for people, bikes, and cars? Yes. Is it harder to promote walkability in suburbs than in cities? Not necessarily, but it requires careful thinking about how we shape the next era of suburban development.

We know the basics. Walkable streets are typically tree-lined and well lit at a pedestrian scale. Walkable streets rarely require pedestrians to cross more than two lanes of traffic at a time. They have sidewalks wide enough for people to pass each other comfortably, for trees, and, ideally, for tables outside a café.

Walkable streets are lined with curbside parking (at least until autonomous mobility renders parking obsolete) and include bike lanes. They allow pedestrians and cyclists to stop and engage a friend, drop into a bakery or bookstore, or hang out in a square. They function as "third places," where people meet, gather, and celebrate in a diverse community.

Still, too many lifeless "Main Streets" check all the boxes without offering real walkability. Creating a great street designed for walking doesn't necessarily mean people will use it for walking. The arrival of near-universal auto ownership following World War II forced walking into a competition for our time and our hearts. In the 21st century, this competition has grown more complex, with new competitors unleashed by the internet, mobile devices, and corporations fighting relentlessly for our time, attention, and disposable income.

Safety—actual and perceived—plays a key role in making suburbs walkable. Although roughly 30 cities have adopted safety-driven Vision Zero programs, only one suburban jurisdiction had done so as of January: Montgomery County, Maryland.

Walkable Main Streets don't just accommodate walking; their programming and design actively invite it by following four principles.

1. Promote density. Density is a threshold requirement that the subsequent principles can reinforce but not replace. Many suburbs have increased density allowances as a way to satisfy housing demand while bringing long-held community visions to life. Depending on household incomes, 1,000 to 2,000 housing units within a quarter-mile/five-minute walk can support a block of community-oriented Main Street retail—as opposed to chain stores that must draw from an area so large that customers have to drive. If the market can't fully animate a Main Street with stores, cafés, and restaurants, then artist workspaces, dance studios, cultural amenities, entertainment, and similar active uses can help. Walk-to markets will gain importance as e-retailing continues chipping away at mass market, drive-to retail. As a rule of thumb, two or more square feet of office, research, and hotel space provide the same amount of support for retail as one square foot of housing.
2. Connect to the larger community. Bike access continues to gain importance, in part because of its unmatched capacity to move people. Public transit [pdf] plays an even bigger role, boosting both the economic and social quality of residents' lives. Where possible, develop transit-oriented, walkable urban places, ideally within a five-minute walk of a station. A compact, walkable urban place may also provide sufficient ridership to justify extension of a nearby light rail or bus rapid transit line.
3. Use parking strategically. A single garage can serve workers during the weekday; residents at night and on weekends; and restaurants, shops, and other uses throughout the week. A garage that requires walking brings life to the blocks around it (but should never sit on a Main Street—nothing kills walkability like hulking blank walls). The walk to or from the garage can showcase everything a neighborhood offers. For example, a new mixed-use "urban village" in

the Boston suburb of Newton locates much of its parking in a central garage, wrapped with housing and retail. On their way to or from their cars, people pass shops, restaurants, craft breweries, and cafés.

4. Invite walkability in every season. Walkable streets should celebrate regional ecology with native plants and other natural features that underscore the pleasure of being outdoors. Weather and climate can, however, strip away the charm. Enclosed malls solved this problem but their artificial environment lost appeal over time. "Managing" weather today means creating a great place to be outside any day of the year.
 - Cold climates: walkable streets in "winter cities" can't afford to take six months off, and many have devised ways to attract people throughout the year. Proclaiming "climate is our ally," Edmonton treats winter as an opportunity to reconnect with childhood fun and whimsy. Warming huts and pop-up patios appear in parks, where people gather around fires with hot drinks and music. Instead of hauling away cleared snow, the city uses it to fill parks with sledding hills, labyrinths, and walls that kids of all ages paint. Darkness arrives early, so Edmonton uses fire and outdoor lighting to help make even the drabest block feel enchanted.
 - Hot, humid climates: "summer cities" face equal challenges. The narrow passageways and fountains that characterize the historic medinas of North Africa represent centuries-old ways of creating shade and enlisting the cooling effect of water. While misting represents one newer cooling technique, it consumes significant energy; fountains, water courses, and other features that animate as well as cool offer a more sustainable approach and add appealing elements to the public realm. Cities like Miami and Austin have worked to increase tree canopy along streets to cool pedestrians in the hottest months of the year.

The same recipe that creates walkability downtown—density, connectivity, strategic use of parking, and the creative embrace of climate—doesn't have to stay downtown. Applied with care, it can bring walkability to the growing group of suburbs that see their future in the creation or extension of walkable urban centers.

Jason Beske AICP, a planner based in Northern Virginia, has played a key role in shaping walkable suburban environments in metro Washington, D.C. David Dixon FAIA, head of planning and urban design for Stantec's Urban Places, has led planning for significant urban districts in cities and suburbs across North America. They are the co-editors of Suburban Remix: Creating the Next Generation of Urban Places (Island Press, 2018).

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