

FFY 2019-2022 TRANSPORTATION IMPROVEMENT PROGRAM



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MPO Self-Certification

The Kansas Department of Transportation (KDOT) and the Lawrence - Douglas County Metropolitan Planning Organization (MPO) certify that the metropolitan transportation planning process is being carried out in accordance with all applicable requirements including the following:

1. 23 U.S.C. 134, 49 U.S.C. 5303, and this subpart; All core documents are current;
2. In nonattainment and maintenance areas, Sections 174 and 176 (c) and (d) of the Clean Air Act, as amended (42 USC 7504, 7506 (c) and (d)) and 40 CFR Part 93;
3. Title VI of the Civil Rights Act of 1964, as amended (42 USC 2000d-1) and 49 CFR Part 21;
4. 49 USC 5332, prohibiting discrimination on the basis of race, color, creed, national origin, sex, or age in employment or business opportunity;
5. Section 1101(b) of the SAFETEA-LU (Pub. L. 109-59) and 49 CFR Part 26 regarding the involvement of disadvantaged business enterprises in USDOT funded projects;
6. 23 CFR Part 230, regarding the implementation of an equal employment opportunity program on Federal and Federal-aid highway construction contracts,
7. The provisions of the Americans with Disabilities Act of 1990 (42 USC 12101 et seq.) and 49 CFR Parts 27, 37, and 38;
8. The Older Americans Act, as amended (42 USC 6101), prohibiting discrimination on the basis of age in programs or activities receiving Federal financial assistance;
9. Section 324 of Title 23 USC regarding the prohibition of discrimination based on gender; and
10. Section 504 of the Rehabilitation Act of 1973 (29 USC 794) and 49 CFR Part 27 regarding discrimination against individuals with disabilities.



Cory Davis, Chair
Lawrence-Douglas County MPO



Michael J Moriarty
Bureau Chief of Transportation Planning
Kansas Department of Transportation

Definitions

ADA	ADA- Americans with Disabilities Act of 1990 (P.L. 101-336) and ADA Amendment Act of 2008 (P.L. 110-325)
BAC	Bicycle Advisory Committee
BNSF	Burlington Northern-Santa Fe Railroad
CAPITAL	Purchase of equipment
CDBG	Community Development Block Grant
CFR	Code of Federal Regulations
CIP	Capital Improvement Program
CONST	Construction
CTD	Coordinated Transit District
CTP	Comprehensive Transportation Program
E+C	Existing Plus Committed
EJ	Environmental Justice
EPA	U.S. Environmental Protection Agency
FAA	Federal Aviation Administration
FAST Act	Fixing America's Surface Transportation Act (P.L. 114-94) (Signed by President Obama on December 4, 2015)
FFY	Federal Fiscal Year
FHWA	Federal Highway Administration
FTA	Federal Transit Administration
HOV	High-Occupancy Vehicle Lanes
ITS	Intelligent Transportation Systems
KDOT	Kansas Department of Transportation
KLINK	Kansas Connecting Link Program
KTA	Kansas Turnpike Authority
KU	University of Kansas, Lawrence
KUOW	KU on Wheels Transit Service
LOS	Level of Service
MAP-21	Moving Ahead for Progress in the 21st Century Act (P.L. 112-141) (Signed by President Obama on July 6, 2012)
MPO	Metropolitan Planning Organization, such as the Lawrence-Douglas County Metropolitan Planning Organization
MTP	Metropolitan Transportation Plan
NHS	National Highway System
O & M	Operation and Maintenance
OPERATING	Operation of transit
PE	Preliminary Engineering
PPP	Public Participation Plan
PTAC	Public Transportation Advisory Committee
ROW	Right-of-Way
RRFBs	Rectangular Rapid Flash Beacons
RTAC	Regional Transit Advisory Committee
STBG	Surface Transportation Block Grant Program
STIP	State Transportation Improvement Program
STP	Surface Transportation Program
T2040	Transportation 2040 - the Long Range Transportation Plan for the Lawrence-Douglas County region
TAC	Technical Advisory Committee
TAZ	Traffic Analysis Zone
TDM	Travel Demand Management
TA	Transportation Alternatives
TIP	Transportation Improvement Program
TSM	Transportation System Management
UGA	Urban Growth Area
UP	Union Pacific
UPWP	Unified Planning Work Program
USC	United States Code
UTIL	Utilities

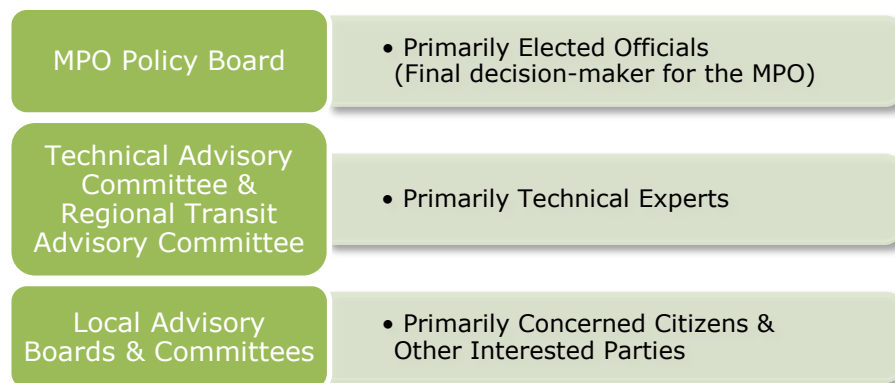
INTRODUCTION

What is an MPO?

A Metropolitan Planning Organization (MPO) is a regional decision making body charged with developing a transportation plan and related policy and programming documents. The Lawrence-Douglas County MPO is comprised of a Policy Board composed of mostly elected officials, a Technical Advisory Committee (TAC) made up of transportation and engineering professionals, the MPO Staff, and various other advisory groups that the MPO may form. Figure 1 displays the MPO structure. The MPO develops four core documents that create a regional vision for how the multimodal transportation system will function and grow – now and into the future. The MPO's core documents are the Metropolitan Transportation Plan (MTP), Transportation Improvement Program (TIP), the Unified Planning Work Program (UPWP), and the Public Participation Plan (PPP).

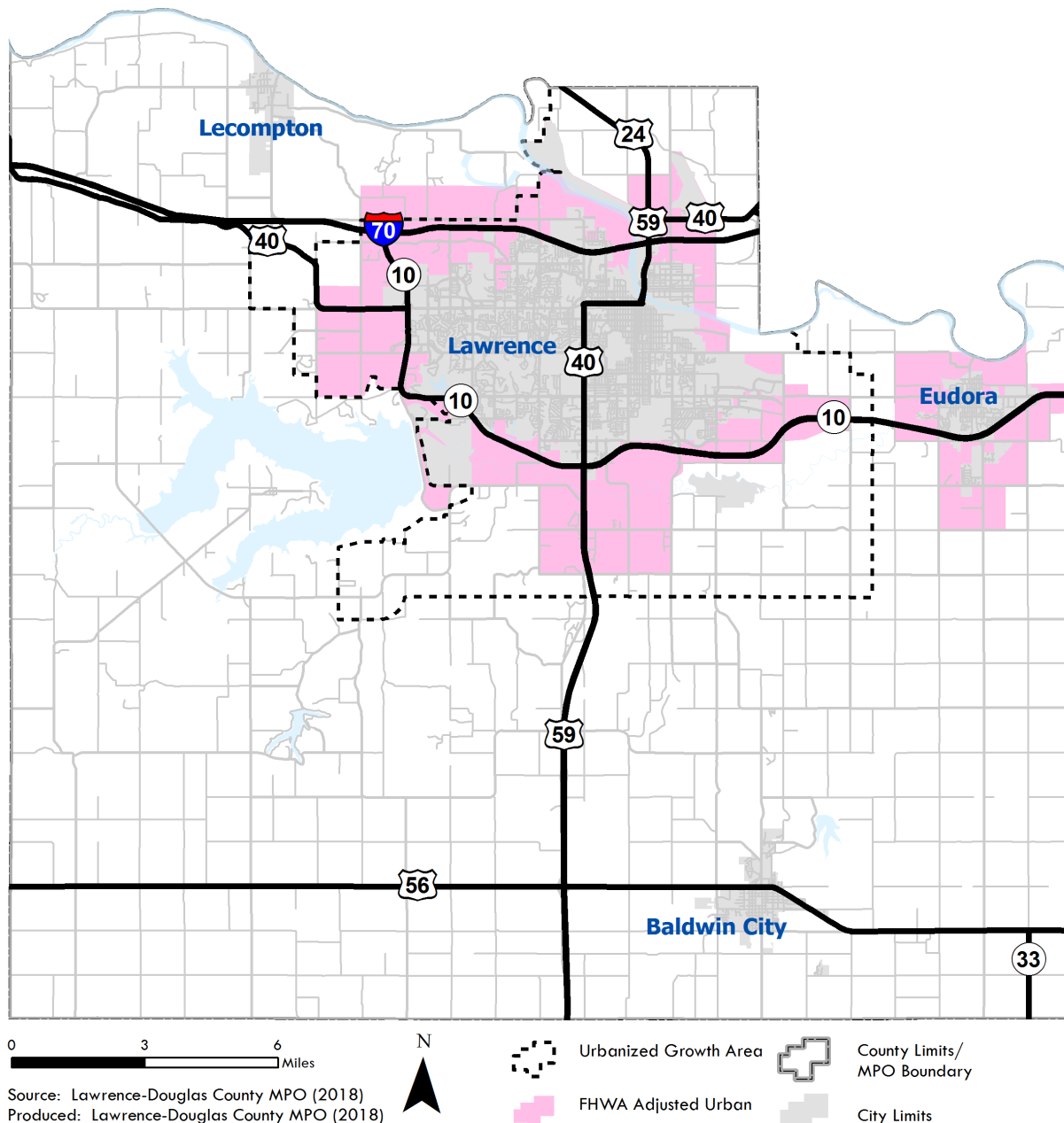
The MPO is a group that is composed of representatives from many local governments that collectively discusses the transportation issues facing the metropolitan area and then makes decisions about how to address those issues.

Figure 1: MPO Structure



The Lawrence-Douglas County Metropolitan Planning Organization (MPO) serves all of Douglas County, Kansas including Baldwin City, Eudora, Lawrence, and Lecompton (see Figure 2).

Figure 2: Lawrence-Douglas County Metropolitan Planning Area (MPA)



DISCLAIMER NOTICE
 The map is provided "as is" without warranty or any representation of accuracy, timeliness or completeness. The burden for determining accuracy, completeness, timeliness, merchantability and fitness for or the appropriateness for use rests solely on the requester. The City of Lawrence makes no warranties, express or implied, as to the use of the map. There are no implied warranties of merchantability or fitness for a particular purpose. The requester acknowledges and accepts the limitations of the map, including the fact that the map is dynamic and is in a constant state of maintenance, correction and update.

What is a TIP?

The Transportation Improvement Program (TIP) documents how the region prioritizes the limited transportation resources available among the various needs of the region.

Statewide Transportation Improvement Program





The STIP is the State's equivalent of an MPO's TIP. It includes all federally funded transportation projects in the state. Projects in the metropolitan areas are included by reference to the relevant STIP.

The TIP is a short-range, multi-year listing of federally funded and/or regionally significant improvements to the region's multimodal transportation system. Projects in the TIP are designed to implement the Metropolitan Transportation Plan (MTP). The TIP must be fiscally constrained and include only projects for which funding has been identified using existing or reasonably available revenue sources. The TIP must be updated at least once every four years, on a schedule compatible with the Statewide Transportation Improvement Program (STIP). The Lawrence-Douglas County TIP is updated every two years.

The TIP and T2040

The TIP and Transportation 2040 (the region's Metropolitan Transportation Plan (MTP)) are linked.¹ Transportation 2040 (T2040) is the long range transportation vision; while the TIP is the short range implementation list. For projects to be included in the TIP, they must be consistent with T2040. This ensures projects are implementing the MPO's vision for a healthy, safe, and efficient transportation system, which adequately serves Lawrence, Eudora, Baldwin City, Lecompton, and unincorporated areas of Douglas County. Community input led to the development of the T2040 vision, goals, priorities, and objectives (Table 1). These goals are implemented by the TIP. The Tracking Performance Measures section provides further details on how the two documents are linked.

Table 1: Transportation 2040 Goals and Objectives

		Goals	Objectives
Access & Choices		Enhance Transportation options and choices for improved system performance	Improve regional connectivity (urban/rural) of all modes of the transportation networks including access to desired destinations. Enhance transit service, amenities and facilities.
Mobility & Prosperity		Efficient movement of people, goods, and freight	Implement strategies that address system performance & improve reliability, capacity and competitiveness for regional freight.
Preservation, Safety, & Security		Prioritize preservation, safety, and security of the transportation network	Support projects and policies that improve safety and security. Preserve and enhance transportation infrastructure and assets.
Sustain & Enhance		Minimize adverse social, economic, and environmental impacts created by transportation	Promote density to reduce transportation costs & reduce environmental impacts of transportation. Reduce single occupancy vehicle trips.

TIP Public Involvement Process

The MPO's Public Participation Plan (PPP) requires a new TIP to undergo a 30-day comment period and amendments require a 15-day public comment period.² The full draft TIP is available on the MPO website (www.lawrenceks.org/mpo/tip) and a printed copy is available at Lawrence City Hall, Lawrence Public Library, Eudora Public Library, Baldwin City Public Library, and Lecompton City Hall. The public is notified of the opportunities to review the draft TIP through a local newspaper advertisement, notification by email, and by

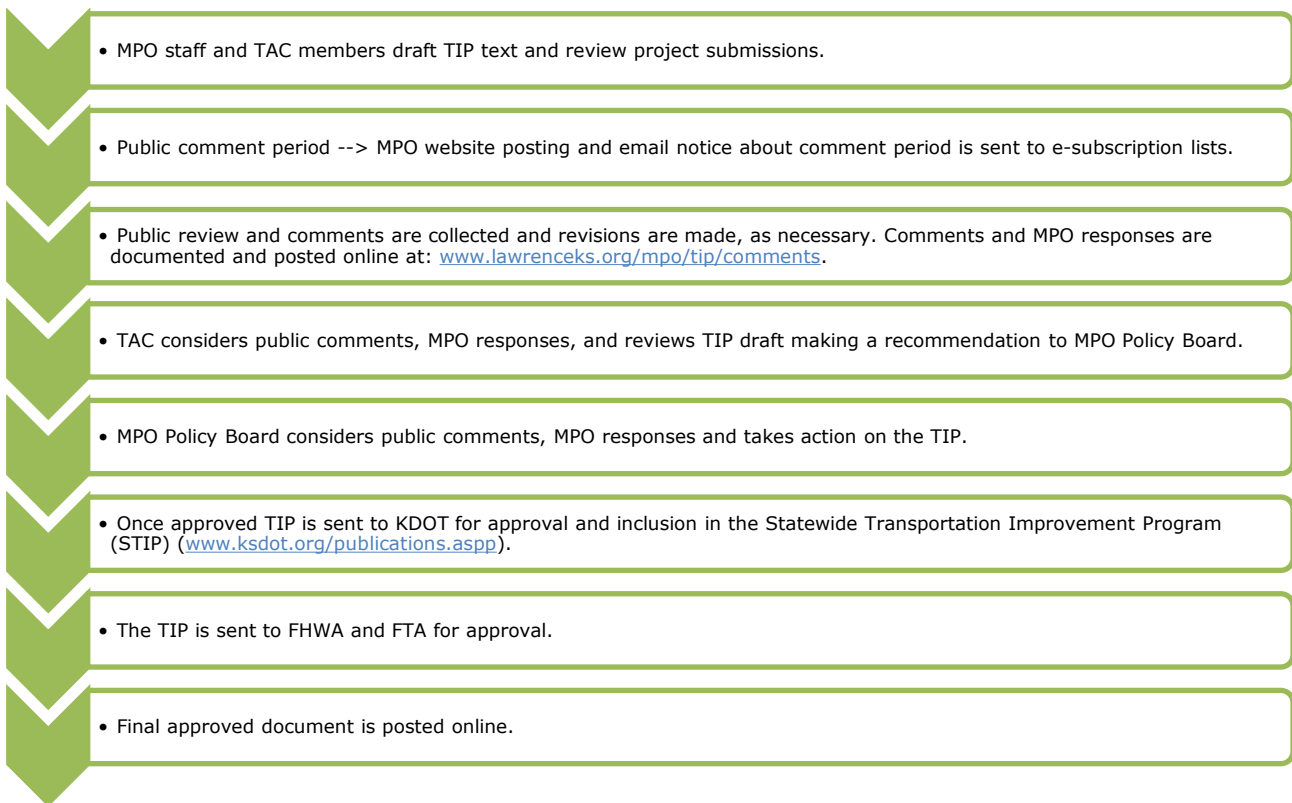
¹ <https://lawrenceks.org/mpo/t2040>

² Details about the public participation process for the approval and amendment of the TIP can be found at www.lawrenceks.org/mpo/public_participation.

staff announcements that the draft TIP is available for comment at MPO meetings. These strategies are consistent with the PPP, which addresses how everyone will be engaged in the planning process.

Public comments are posted online at www.lawrenceks.org/mpo/tip/comments and are shared with TAC and the MPO Policy Board. MPO staff reviews the comments and responds to the comment submitter and posts the MPO response in conjunction with the comment online. If comments have direct, applicable action these changes are discussed with the project sponsor (if relevant) and are incorporated into the final draft document sent to the MPO Policy Board for approval. Appendix E contains the public involvement process utilized to develop this TIP.

Figure 3: TIP Public Involvement Process



PROGRAMMING PROCESS

Legislative Requirement

The current federal surface transportation legislation is called the Fixing America's Surface Transportation (FAST) Act.³ It is a five year (FFY 2016-2020) transportation program signed into law by President Obama on December 4, 2015. MPOs are required to develop a TIP that is fiscally constrained and contain all capital and non-capital surface transportation projects within the MPO area that will receive federal funding, as well as other regionally significant transportation projects.⁴

Process for Including Projects in the TIP

The projects included in the TIP are drawn from the area's Metropolitan Transportation Plan (MTP), County and City governments' Capital Improvement Plans (CIP), as well as the State's Transportation Program known as T-WORKS. The MPO encourages Project Sponsors to use the factors in Appendix A to determine which projects should be prioritized for funding and inclusion in the TIP. Project Sponsors submit projects to the MPO staff for inclusion in the TIP and MPO staff work with TAC members to ensure that the projects are regionally significant and are consistent with the MTP.⁵ Figure 4 displays the process for including projects in the TIP.

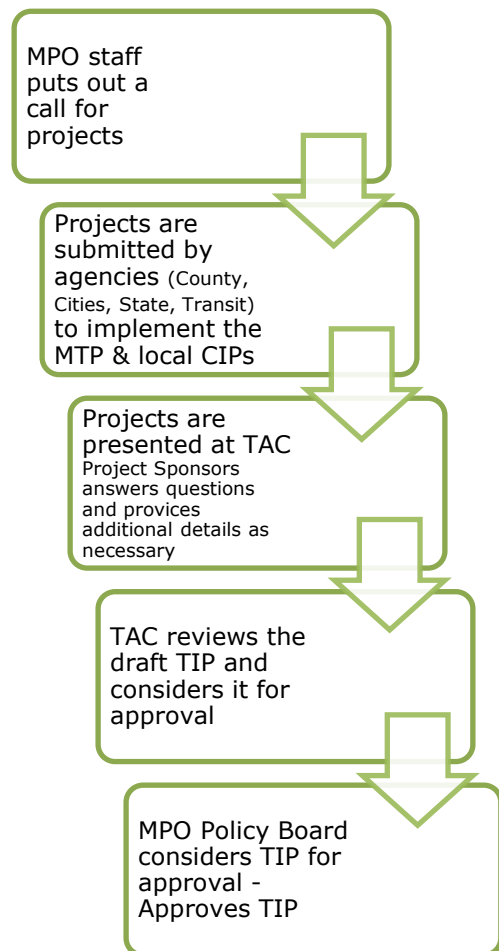
The transit and paratransit projects programmed in the TIP also go through a project selection process. Lawrence Transit staff works with the MPO, FTA, KDOT, and University of Kansas - KU On Wheels (KUOW) staffs to plan and program projects in the TIP that address transit needs and issues identified in the MTP. The KDOT-Office of Public Transportation in consultation with the Urban Corridor Coordinated Transit Council makes the selection of paratransit projects to include in the TIP.

This TIP document contains projects for Lawrence Transit that collectively constitutes the Program of Projects (POP) for Lawrence Transit. This list of transit items is a prioritized list of projects used by the Lawrence Transit staff and reviewed by FTA officials. Approval of the TIP includes the approval of the POP for Lawrence Transit. The public involvement procedures used for TIP development and amendments are used to satisfy the POP requirements for FTA Section 5307 funding.

Revisions to the TIP

There are times when information about projects needs to be adjusted. Minor changes to project information are called revisions and are administrative actions with no public involvement required. Major changes are called amendments and require public involvement.

Figure 4: TIP Project Listing Submission Process



³ The FAST Act was created as Public Law 114-96. The official legislation can be accessed at <https://www.gpo.gov/fdsys/pkg/PLAW-114publ94/pdf/PLAW-114publ94.pdf>.

⁴ In accordance with United States Code Titles 23 and 49, the TIP document must outline at least a four-year program of: 1) All federally funded priority transportation projects, and 2) All regionally significant priority projects, regardless of funding source.

⁵ An electronic TIP submission form was developed as part of the FFY19 TIP development process. It can be accessed at: <https://lawrenceks.org/mpo/tip/submit>

Formal Amendments

Amendments to the TIP often consist of major changes to total project cost. Those types of fiscal changes may have impacts on the ability of the TIP and/or the MTP to remain fiscally constrained. The following types of project changes are always handled as TIP amendments:

- Addition or deletion of a project within the first four (4) years of the TIP (federal regulations require this part of the TIP to show fiscal constraint)
- Total costs of a project and/or funding amounts for a project listed in the TIP increase by more than 20% of the total project cost
- Change to a funding source (such as changing from state funding to federal)
- Change to a project scope and/or location (project limits)

Administrative Revisions

Administrative revisions include all revisions that are not formal amendments. These revisions usually involve, but are not limited to:

- Obvious minor data entry errors or editing corrections to text, map, and/or other graphics
- Splitting or combining projects (project scopes and costs cannot change)
- Changes or clarifying elements of a project description (with no major changes in scope)
- Change in funding program or category (such as changing from STP to HSIP funding)
- Shifting funds between a singular year
- Change of program year of project within the four-year fiscally constrained TIP
- Minor change of less than 20% of total project cost

In processing administrative revisions MPO staff will:

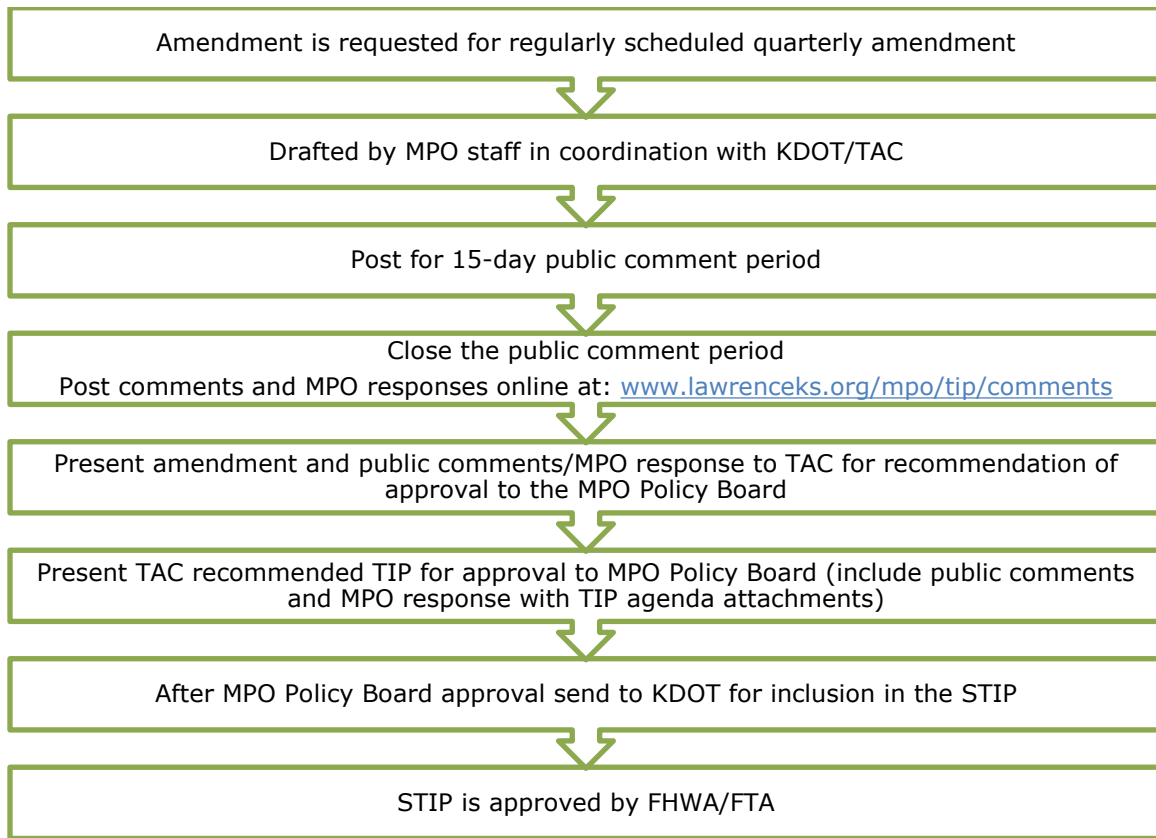
- Enter the requested revision into the project database.
- Prepare and publish an updated TIP and post it online.
- Notify the Kansas Department of Transportation of the modifications revisions.
- Prepare a summary of the revision to be presented at the next scheduled MPO Technical Advisory Committee and Policy Board meetings (no formal action required).

Administrative Revisions require no public comment.

Figure 5 displays the TIP amendment process. Amendments to the TIP will be drafted by the MPO staff in cooperation with KDOT staff and TAC members as needed and/or scheduled. The draft TIP amendment will be presented to the TAC for review and approval before sending the amendment to the MPO Policy Board for approval.

After the MPO Policy Board approves the amendment the MPO staff will forward the amendment to KDOT for their review and inclusion in the Statewide Transportation Improvement Program (STIP). The TIP is included in the STIP by reference so an amendment to the TIP also becomes an amendment to the STIP. Then the STIP is approved by FHWA/FTA.

Figure 5: Amendment Process



Amendment Public Process

TIP amendments must be posted for public review and comment, the MPO staff must collect and review any public comments and share those comments with the TAC and MPO Policy Board to address and/or incorporate them, as necessary, before TIP approval.⁶

A minimum 15-day public comment period is required for the proposed amendments are which is posted on the MPO web page. The MPO staff also places a paper copy of all TIP amendments in a binder kept at the front counter of the MPO Office for public review and comments. In addition, all TIP amendment announcements, including the printed advertisement in the newspaper, have the phone number, mailing address, and email address of the MPO staff listed on them so that anyone with questions or comments about the amendment can contact the staff to discuss it. Following the required 15-day public comment period, all comments will receive a response, either individually or in a summary form. The comments and responses will be posted at www.lawrenceks.org/mpo/tip/comments prior to distributing the TAC agenda packet (one week before the TAC meeting). The MPO staff presents these public comments and the staff response to the TAC and the MPO Policy Board before they discuss approving the amendment. There is no requirement for a public hearing.

Amendment Schedule

In order to facilitate the process of making TIP amendments, the MPO has a TIP amendment item on the TAC and Policy Board meeting agenda once each quarter (Table 3). These dates to consider TIP amendments will be coordinated with the KDOT calendar for making changes to the Statewide Transportation Improvement Program (STIP). A similar schedule will be followed for the other years covered by this TIP.

⁶ An appropriate level of public involvement activities are outlined in the latest MPO-approved Public Participation Plan found online at www.lawrenceks.org/mpo/public_participation.

Table 3: FFY2019 Quarterly Schedule for TIP Amendments

TIP Amendment Request Made to MPO Staff	Public Review Period	TAC Approval	MPO Approval	STIP Approval
August-31	9/6/18 to 9/21/18	October 2, 2018	October 18, 2018	November 2018
January-04	1/10/19 to 1/25/19	February 5, 2019	February 21, 2019	March 2019
March-01	3/7/19 to 3/22/19	April 2, 2019	April 18, 2019	May 2019
July-05	7/11/19 to 7/26/19	August 6, 2019	August 15, 2019	August 2019

These dates are approximate and subject to change following discussions between MPO and KDOT staffs and/or discussions at the Technical Advisory Committee (TAC) meetings.

FISCAL CONSTRAINT

Project Funding

Projects are funded from several sources. Street and highway projects can be financed entirely by State and/or local funds or by any combination of federal, state, and local funds. The Fixing America's Surface Transportation (FAST) Act provides federal-aid to state and local units of government for surface transportation projects.

The use of Federal Transit Administration (FTA) funds are allocated to transit operators by formulas through the FTA Region 7 Office in Kansas City and through the KDOT Public Transportation Programs Office of Public Transit in Topeka. State transit funds from the T-WORKS Program flows through KDOT. These funds are utilized for the operations of Lawrence Transit and various paratransit operations in the region.

KDOT administers Federal Highway Administration (FHWA) funding to local governments. The Surface Transportation Block Grant (STBG) Program and Highway Safety Improvement Program (HSIP) categories are the main federal categories or programs that cities receive through KDOT. The STBG Program combines the long-standing Surface Transportation Program and the Transportation Alternatives Program, now known as TA Set-Aside. Some of these funds provide annual allocations to cities while others require local governments to apply for project specific funding. The TA Set-Aside funds have helped build pathways, do historic preservation projects, and other projects outside the scope of traditional road and bridge improvements. They provide funding for former Transportation Alternatives (TA) program and the Safe Routes to Schools (SRTS) programs.

All of the estimated amounts of transportation project funds are included in Table 10: Estimated Revenues and Expenditures (located in the Demonstration of Fiscal Constraint section of this chapter). The estimates of reasonably expected funding levels based on Transportation 2040 historic averages are compared to the levels of federal, state, and local funding for transportation facilities and services that are requested by KDOT and local governments for inclusion in the TIP. Comparing these expected funding levels and funding request levels allows the MPO to determine if the TIP is fiscally constrained.

Federal Funds

The federal funding for road and bridge projects in the region is generally limited to formula funding levels set by the USDOT and KDOT. Those levels have been relatively steady over the last few years with Douglas County receiving about \$500,000 and the City of Lawrence receiving about \$1.2 million annually in federal aid for roads and bridges. The three smaller cities in Douglas County (Lecompton, Eudora, and Baldwin City) have small public works departments, thus large road or bridge projects are often managed by Douglas County or KDOT.

Discretionary funding for TA Set-Aside program projects is also available on a more sporadic competitive basis. This funding is not guaranteed in any given year, but our region has received some funding and expects to receive more in the foreseeable future. These funding levels have more uncertainty and therefore, projects must have awarded funding to be included in the TIP. If and when local governments in Douglas County are awarded funding from these discretionary programs the MPO will amend the TIP to add that funding and those projects in a timely manner.

State Funds

State funds used in Douglas County for road and bridge projects are mostly limited to KDOT facilities and projects. The level of KDOT funding expended in the region varies greatly by year due largely to how much work KDOT does on the area's major highways. Recently KDOT spent large amounts of funding to build the South Lawrence Trafficway (new K-10 alignment), and to build a new interchange along K-10 at Bob Billings Parkway/N 1500 Road. All of those projects are KDOT administered projects on KDOT routes, which typically do not significantly impact the local governments' budgets for transportation improvements (although the City of Lawrence/Douglas County contributed \$1,000,000 for pedestrian and bicycle facility improvements to the K-10/Bob Billings Parkway interchange). Some other smaller amounts of State funding are used for local projects, such as the occasional purchase of a paratransit van with state money or a state contribution to a local bridge project.

For most local governments in the region the main KDOT funding role has been to provide federal aid to local projects, not to provide large amounts of state aid to local transportation improvements. However, the one example in the region where the state funding of a local project does make a routine and significant difference in the local budget process is state transit operating assistance. Lawrence Transit receives about \$1.1 million in state operating and capital assistance annually which is an important part of their budget.

KDOT does not program projects in their budget documents or ask for projects to be added to the TIP unless a specific identified and reasonable funding source is identified. Therefore, KDOT requests for TIP actions represent a fiscally constrained condition for state funded and/or managed projects.

Local Funds

City of Lawrence

For Lawrence most of that federal funding has come recently in the form of Surface Transportation Program (STP) or Highway Safety Improvement Program (HSIP) funding and has remained about the same each year at about \$1.2 million.

The ten year sales tax to improve roads/infrastructure and transit service which was approved in November 2008 was reapproved by Lawrence voters in November 2017. This continuation of sale taxes included 0.3% dedicated to roads and infrastructure and 0.2% dedicated to funding transit service (Table 4).

Table 4: Lawrence Sales Tax for Improvement of Roads and Transit Service Projections (Shown in \$1,000s)

Source	Tax Percentage	Projected Collection in 2018
Roads/Infrastructure	0.30%	\$ 5,582
Transit Service	0.20%	\$ 3,514
Total		\$ 9,096

These sales taxes will expire in April of 2029; new referendums will need to be approved to ensure this funding is available in the future. With the addition of those taxes the City has a local dedicated funding source for road and transit improvements that has made funding more predictable. The City is utilizing the sales tax revenue to design and program some large road projects that were not financially feasible prior to the tax. Some projects are now funded with this sales tax revenue and some are still funded with a combination of federal aid and local matching funds.

City of Eudora, Baldwin City, and City of Lecompton

The City of Eudora became a second class city under Kansas statutes in 2010. With the designation, Eudora now receives an annual distribution of STP funding through KDOT. This amount of federal funding is typically small (less than \$60,000 on average).

Baldwin City, Eudora and Lecompton have used federal funding sporadically and worked with Douglas County staff to administer major road and bridge projects using federal aid. This cooperation between the small cities and the County for the use of federal aid is expected to continue through the life of this TIP.

Douglas County

Douglas County receives obligation authority for STP funds from KDOT. Douglas County has elected to exchange their available obligation authority of federal funds for state funds at an exchange rate of \$0.90 in state funds for every \$1.00 in federal obligation authority, per KDOT policy.

On average over the last five years, the County received \$485,000 in KDOT's federal funds exchange program, and \$523,000 in federal sources such as Federal Lands Access Program, U.S. Fish and Wildlife Service, and STP funding.

The County can also apply for TA Set-Aside funds if it chooses to do so. The County does not operate transit service and does not receive federal or state transit funding.

Douglas County has a CIP that is updated on a regular basis and other sources of local funds. Over the last five years, local funding averages \$8.5 million a year. However, due to planned mental health initiatives and expansion of the jail, the Board of County Commissioners has reduced the annual CIP allocations for roads and bridges by \$1 million for 2019. This annual reduction is anticipated to continue through 2023. The County programs its projects in their CIP and as needed the County staff coordinates its capital planning with the MPO staff for TIP development and changes.

Transit and Paratransit Funds

The public transit operations in Lawrence are composed of a mix of services operated by the Lawrence Transit and the University of Kansas service called KU on Wheels (KUOW). KUOW transit operations are primarily supported by student fees. The City transit service uses state operating assistance, state capital assistance, federal capital assistance, and federal operating assistance to keep buses running. Lawrence also uses local sales taxes to pay for transit. In recent years, Lawrence has used about \$2.1 million annually in flexible federal formula Section 5307 subsidies to provide transit services. This annually allocated funding can be used for capital projects (e.g., buying new buses), but most of it has been used for operations.

Capital assistance levels are typically much more unpredictable than operating assistance, but when the transit capital funding will be needed is fairly predictable because it is based on the life span of buses. That creates a dilemma for transit operators who in the past relied heavily on large discretionary grants from the FTA for bus fleet replacements. Now those large grants are gone and our transit operators are adjusting to buying only a few new buses at a time when funding is available instead of buying many buses on one large grant funded order.

Lawrence Transit uses a relatively constant mix of federal and local funds for operations. Under the State T-WORKS Program some state operating assistance is received each year.

The paratransit providers in the region provide all or most of their own funds to operate their services, and in some cases they use FTA grants for vehicle purchases. KDOT also funds paratransit vehicles in the region. As part of these vehicle purchases the agency requesting the federal funds is required to provide a local match, and those vehicles are programmed in the TIP.

Operation and Maintenance (O&M) Funding

The fiscal constraint analysis looks primarily at capital projects (e.g., building roads and bridges, buying buses, etc.); however, that is not a complete picture of funding for the region's multimodal transportation system. The funds needed for operating and maintaining transport facilities and services also has to be reviewed. An adequate level of Operations & Maintenance (O&M) funding needs to be budgeted to maintain the federal-aid highways in the region. Shortchanging the O&M budgets to make the road improvement projects fiscally feasible is not appropriate. This funding is divided into Roads/Bridges and Transit.

Road and Bridge Operations and Maintenance Funding Estimates

The expenses for O&M work items are usually paid for by the local government that owns and operates the road and the utility providers that use the road rights-of-ways.

In the case of major highways, KDOT is the owner of the road and maintains those facilities. The major exception to this is the Kansas Turnpike/I-70 which is owned and operated by the Kansas Turnpike Authority. Some of the state highway mileage in Lawrence is provided on City streets through a connecting link agreement between KDOT and the City. That agreement includes quarterly payments from KDOT to the City to pay a share of the maintenance costs for those route segments carrying a state highway. KDOT plays a role in the maintenance of some major roads in the region (approximately \$0.744 million per year), but major highway mileage comprises a small percentage of total roadway mileage. Most of the road mileage in Douglas County is owned by the County, City or Township Governments that levy local property taxes and sometimes other taxes to pay for road maintenance and operations.

O&M consists of routine things such as pothole patching, minor repairs to pavements and curbs, snow removal, striping and marking, utility work and patching, electrical repairs, tree trimming, mowing, signal repairs, sign replacement, bridge maintenance, and other minor work tasks.

The cities and county also receive a portion of the state gas tax collected in Douglas County. This amount of funding is anticipated to continue during the years covered by this TIP. The state supplied pass through gas tax funding is supplemented by local government funds to make up the bulk of Lawrence and Douglas County roadway O&M budgets.

Between 2012-2016, the City of Lawrence had an O&M budget for its road system of \$8.7 million, on average. Those costs were paid for with \$2.6 million of state gas tax funds, \$1.2 million of local tax sources including the 2008 approved sales tax increase dedicated to infrastructure improvements, and \$4.9 million from the CIP and budget. For 2012-2016 on average, the roadway O&M budget for Douglas County was approximately \$5.6 million with approximately \$1.7 million of that total coming from the state gas tax funds and the other \$3.9 million from County tax sources. It is expected that the local governments in the region will continue to fund their O&M budgets in order to adequately maintain their transportation infrastructure during this TIP period. Table 5 shows the KDOT, Douglas County, and the City of Lawrence O&M expected cost per lane mile.

Table 5: Road and Bridge O&M (Shown in \$1,000s)

	KDOT	County*	Lawrence	Total
Base Cost Per Lane Mile	\$ 2.73	\$ 12.03	\$ 10.84	
Lane Miles	234	500	862	1,596
2019	\$ 638	\$ 6,018	\$ 9,348	\$ 16,003
2020	\$ 660	\$ 6,228	\$ 9,675	\$ 16,564
2021	\$ 683	\$ 6,446	\$ 10,014	\$ 17,143
2022	\$ 707	\$ 6,672	\$ 10,364	\$ 17,743
Total	\$ 2,688	\$ 25,364	\$ 39,402	\$ 67,453

*Does not include Township roads or road maintenance funds, but County maintenance costs does include bridges and large culverts on township roads that are maintained by the County.

Transit Operations and Maintenance Funding Estimates

Transit operations are funded with a mix of local, state, and federal funds. The transit system in Douglas County is a coordination of services owned and operated by the City of Lawrence, the University of Kansas, social service agencies that run paratransit vehicles, and Johnson County Transit that operates a commuter bus service called the K-10 Connector, which traverses between Lawrence and locations in Johnson County. K-10 Connector funding is programmed in the TIP produced by the Mid-America Regional Council (MARC), which is the MPO for the Kansas City area.

Lawrence Transit

Lawrence Transit service uses federal, state, and local funds for operating and routine maintenance expenses for their fixed-route and complementary paratransit services. Lawrence Transit needs to pay for its services when they are rendered (i.e., when the buses are rolling, burning fuel and labor costs are incurred) by maintaining a cash flow to pay for its vendors and staff as they work. Unlike a road or a bridge that can be bonded for twenty years and paid for over time, transit operations are typically not paid for with debt service. For 2018, Lawrence Transit had an O&M budget of approximately \$8.2 million which was funded with \$2.1 million of federal aid, \$1.7 million of state aid, \$4.4 million of local funds. Lawrence Transit programs \$1 million every other year to acquire rolling stock. Additionally, \$5 million of the local funds is programmed towards a multimodal facility and will be utilized once a location is selected. These levels of O&M expenses and revenues (without the \$5 million multimodal facility) are anticipated to continue through the four-year fiscally constrained period (2020-2022), as shown in Table 6.

Table 6: Lawrence Transit O&M (Shown in \$1,000s)

FFY	2019	2020	2021	2022	Total
Total O&M	\$ 7,375	\$ 8,467	\$ 7,561	\$ 8,656	\$ 32,057

*Based on financial information from Transportation 2040

Operations and maintenance funding for Lawrence Transit is shown in Table 10: Estimated Revenues and Expenditures (located in the Demonstration of Fiscal Constraint section of this chapter).

The O&M costs are deducted from the estimated revenues; therefore, funding for O&M projects are not available other projects and the TIP is fiscally constrained.

University of Kansas (KU on Wheels) Transit Funding

The University of Kansas also provides transit services that are available to the general population as well as KU students and staff. Funding for the KU on Wheels system includes a considerable amount of funding that supports fixed route transit in Lawrence. The KU transit funding information listed in Table 7 gives a more complete and realistic account of the size and costs of the transit system in Lawrence.

The KU on Wheels (KUOW) and the Lawrence Transit services are integrated into one route and schedule system and both of these operations accept each other's bus passes. Even though these two services are coordinated into one route map and schedule book, only Lawrence Transit receives FTA funding. The KUOW

operations are expected to maintain the KUOW transit service at current levels through the years covered by this TIP. The KUOW part of the public transit system in Lawrence is fiscally constrained by the revenues provided by fees that support it.

Table 7: KU on Wheels (KUOW) O&M (Shown in \$1,000s)

FFY	2019	2020	2021	2022	Total
Total O&M	\$ 4,957	\$ 5,031	\$ 5,107	\$ 5,184	\$ 20,279

*Based on financial information from Transportation 2040

Paratransit

The paratransit providers in the region mostly provide their own funds to operate their services, but in some cases receive a small amount of state operating subsidy from KDOT. Typically, this state operating assistance is only a few thousand dollars per year for each operator. Most of the federal and state aid to paratransit is for vehicle purchases. The MPO staff works closely with the KDOT transit staff, the Regional Transit Advisory Committee (RTAC), and the Urban Corridor Coordinated Transit Council members to keep informed about the status of paratransit operations and funding issues. Those paratransit issues are discussed in more detail in the Coordinated Public Transit-Human Services Transportation Plan (CPT-HSTP).⁷

Taking into account all transit expenses in the region including Lawrence Transit, KU on Wheels, and the various paratransit providers the regional transit O&M is close to \$13 million in 2019 (Table 8).

Table 8: Regional Transit O&M (Shown in \$1,000s)

FFY	2019	2020	2021	2022	Total
Total O&M	\$ 12,820	\$ 13,993	\$ 13,170	\$ 14,350	\$ 54,333

*Based on financial information from Transportation 2040

Year of Expenditure (YOE) Inflation Factor

In addition to having a clearly identified source of funding for each roadway, bridge, transit, and enhancement project listed in the TIP, the project sponsor must also present their project costs in year of expenditure (YOE) dollars. This allows the project estimates to take into account inflation and should make them more realistic than using constant dollars. This fiscal analysis uses an annual inflation factor of 1.5% (which matches the T2040 Inflation Factor) for all TIP projects to determine the estimated costs in the year of expenditure. This inflation factor was developed by KDOT in 2012 for use with federal aid projects. TAC and MPO Policy Board members agreed to the YOE inflation rate.

Demonstration of Fiscal Constraint

TIPs are required to have a four year fiscally constrained program of projects. Fiscally constrained means enough financial resources are available to fund projects listed in the TIP. Fiscal constraint also makes good sense.

The MPO accounts for O&M expenditures "Off the Top" from available funding before projects are programmed (Table 9). This ensures there is enough funding to operate, maintain, and preserve the existing transportation system, which is a high priority of T2040.

⁷ Access this plan at <https://www.lawrenceks.org/mpo/transit>.

Table 9: Funding Available for Projects after Accounting for all O&M Expenditures (in \$1,000s)

Subtracting O&M "Off the Top" (in thousands)					
	FFY 2019	FFY 2020	FFY 2021	FFY 2022	Total
Anticipated Funding	\$ 71,619	\$ 73,727	\$ 74,389	\$ 83,931	\$ 303,666
Anticipated O&M Expenditures	\$ 28,823	\$ 30,557	\$ 30,314	\$ 32,093	\$ 121,786
Funding Available for Projects	\$ 42,796	\$ 43,170	\$ 44,076	\$ 51,838	\$ 181,880

This TIP document provides realistic cost and funding estimates for improvement projects in the first two years of the fiscal constraint period (2019 and 2020). Predicting the revenues which will be available and costs for projects in the second half of that period (2021 and 2022) are a more speculative exercise. The MPO utilized Transportation 2040's fiscal analysis to determine federal revenues. This was developed by creating a historic average based on funding levels from 2012–2016. A 1.5% inflation factor was applied to the average to determine future funding amounts. The MPO has assumed these funding levels for federal funding will remain in place through 2022. The Funding Summary in Table 10 show the level of projected funding from reasonable sources and the total level of project funding programmed in this TIP are balanced and this TIP is fiscally constrained. The fiscal breakdown by funding source for all roadway and transit projects listed in the 2019-2022 TIP are shown in the table. The projects are shown by year and funding source.

Table 10: Funding Summary (in \$1,000s)

Anticipated Funding (in thousands)						
Funding Source		FFY 2019	FFY 2020	FFY 2021	FFY 2022	Total
Transit	Federal	\$ 2,211	\$ 2,212	\$ 2,213	\$ 2,215	\$ 8,851
	State	\$ 712	\$ 713	\$ 713	\$ 714	\$ 2,852
	Local	\$ 10,274	\$ 10,849	\$ 11,027	\$ 13,913	\$ 46,063
Non-Transit	Federal	\$ 1,961	\$ 1,989	\$ 2,018	\$ 2,436	\$ 8,405
	State	\$ 4,737	\$ 3,975	\$ 4,035	\$ 8,095	\$ 20,842
	Local	\$ 22,901	\$ 23,432	\$ 24,070	\$ 24,465	\$ 94,868
Transit Total		\$ 13,197	\$ 13,774	\$ 13,954	\$ 16,842	\$ 57,766
Non-Transit Total		\$ 29,599	\$ 29,396	\$ 30,122	\$ 34,997	\$ 124,114
Grand Total		\$ 42,796	\$ 43,170	\$ 44,076	\$ 51,838	\$ 181,880

Anticipated funding is based on the revenue assumptions in Transportation 2040. Local transit funds include KU on Wheels funding. 1.5% growth is applied to the funding and the 2017 Lawrence sales tax referendum (funds roads/infrastructure and transit service) passed, which provides local funding until 2028.

Estimated Expenditures by Year and Funding Source (in thousands)							
Funding Source			FFY 2019	FFY 2020	FFY 2021	FFY 2022	Total
Transit	Federal Funds	FTA 5307	\$ 2,350	\$ 2,468	\$ 2,591	\$ 2,720	\$ 10,129
		FTA 5310	\$ 78	\$ -	\$ -	\$ -	\$ 78
		FTA 5311	\$ 55	\$ -	\$ -	\$ -	\$ 55
	State-PT		\$ 1,259	\$ 1,259	\$ 1,259	\$ -	\$ 3,777
	Local		\$ 7,784	\$ 8,895	\$ 7,064	\$ 7,239	\$ 30,982
Non-Transit	Federal Funds	CDBG	\$ 303	\$ -	\$ -	\$ -	\$ 303
		HRRR	\$ 36	\$ -	\$ -	\$ -	\$ 36
		HSIP	\$ 500	\$ 500	\$ 500	\$ 500	\$ 2,000
		NHPP	\$ -	\$ -	\$ -	\$ -	\$ -
		STP	\$ 54	\$ -	\$ -	\$ -	\$ 54
		TA	\$ 394	\$ -	\$ -	\$ -	\$ 394
	State		\$ 5,089	\$ 500	\$ 2,500	\$ 2,500	\$ 10,589
	State AC Conversion*		\$ (500)	\$ (500)	\$ (500)	\$ (500)	\$ (2,000)
	Local		\$ 10,873	\$ 3,350	\$ 13,025	\$ 11,550	\$ 38,798
	Transit Total		\$ 11,526	\$ 12,622	\$ 10,914	\$ 9,959	\$ 45,021
Non-Transit Total		\$ 16,749	\$ 3,850	\$ 15,525	\$ 14,050	\$ 50,174	
Grand Total		\$ 28,275	\$ 16,472	\$ 26,439	\$ 24,009	\$ 95,195	

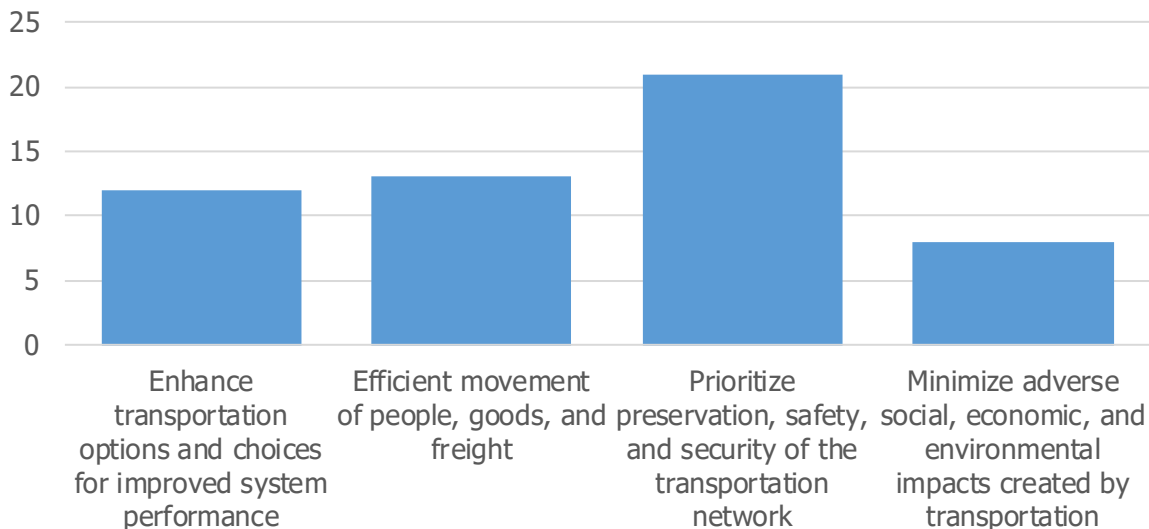
*State AC Conversions are negative because the State is receiving federal reimbursement for funds spent in previous years (as noted in the project listing).

TRACKING FEDERAL PERFORMANCE MEASURES

The Moving Ahead for Progress in the 21st Century Act (MAP-21) and Fixing America's Surface Transportation (FAST) Act requires Performance-Based Planning and Programming (PBPP) in the development of the MTP and TIP. According to MAP-21, "Performance management will transform the Federal-aid highway program and provide a means to the most efficient investment of Federal transportation funds by refocusing on national transportation goals, increasing the accountability and transparency of the Federal-aid highway program, and improving project decision-making through performance-based planning and programming."⁸

Transportation 2040 (T2040) is the region's MTP. The TIP acts as the implementation arm of T2040. T2040 has 26 performance measures: 12 federally mandated and 14 community established. The T2040 performance measures promote the overarching goals shown below. The MPO uses the best available information provided by TIP project sponsors to evaluate progress on plan goals and to track project implementation's impacts on achieving performance measure targets. Figure 6 illustrates which T2040 goals the TIP's projects are implementing. As shown, "Prioritizing preservation, safety, and security of the transportation network" is the most frequently addressed T2040 goal by the projects in this 2019-2022 TIP.

Figure 6: TIP Projects addressing T2040 Goal Theme (Projects can support more than one goal)



PBPP is accomplished by tracking performance measures, setting data-driven targets for each measure, and selecting projects to help meet the targets. Transit State of Good Repair measures include the Useful Life Benchmark (ULB) for revenue and non-revenue vehicles by auto type including full-sized buses, cutaway buses, vans, minivans, SUVs, and automobile. The percentage of assets with a condition rating below 3 on the FTA Transit Economic Requirements Model (TERM) scale is another federal performance measure, but there are no federally funded transit facilities in the MPO area. Reliability performance measures relate to person-miles traveled on the Interstate and Non-Interstate NHS, as well as truck travel time reliability on the Interstate. This data all comes from NPMRDS RITIS. NHS bridge condition and Interstate and Non-Interstate NHS pavement condition data is provided by KDOT. Safety performance measures reflect data for all public roads including the number of fatalities, rate of fatalities per 100 million Vehicle Miles Traveled (VMT), number of serious injuries, rate of serious injuries per 100 million VMT, and number of non-motorized fatalities and serious injuries.

The targets listed in Tables 11 – 15 were set for the federal performance measures and were incorporated into T2040.

⁸ §1203; 23 USC 150(a) found at <https://www.fhwa.dot.gov/map21/factsheets/pm.cfm>

Table 11: L-DC MPO T2040 Transit State of Good Repair Targets (Useful Life Benchmark – ULB)

Transit State of Good Repair Performance Measures	Vehicle Type	L-DC MPO Target (2018-2022)
16) Revenue Vehicles	Full-sized bus	25%
	Cutaway bus	25%
	Van	25%
	Minivan	25%
16) Non-Revenue Vehicles (Equipment)	Minivan	75%
	SUV	75%
	Automobile	75%
17) Percentage of assets with a condition rating below 3 on the FTA Transit Economic Requirements Model (TERM) scale	There are no federally funded facilities	

Table 12: L-DC MPO T2040 Reliability Targets

Performance Measures	L-DC MPO Target (2018-2022)
6) Percent of the Person-Miles Traveled on the Interstate That Are Reliable (LOTTR)	99.0%
6) Percent of the Person-Miles Traveled on the Non-Interstate NHS That Are Reliable (LOTTR)	99.0%
8) Truck Travel Time Reliability (TTTR) Index on the Interstate system	1.07

Table 13: L-DC MPO T2040 NHS Bridges by Deck Area Targets

Performance Measures	L-DC MPO Target (2018-2022)
14) Percentage of NHS bridges by deck area classified as in GOOD condition	93.2%
14) Percentage of NHS bridges by deck area classified as in POOR condition	0.0%

Table 14: L-DC MPO T2040 Interstate and Non-Interstate NHS Pavement Condition Targets

Performance Measures	2018	2019	2020	2021	2022
18) Percentage of pavements of the Interstate System in GOOD condition	96.0%	96.0%	96.0%	96.0%	96.0%
18) Percentage of pavements of the Interstate System in POOR condition	0.0%	0.0%	0.0%	0.0%	0.0%
19) Percentage of pavements of the Non-Interstate NHS in GOOD condition	58.0%	58.0%	58.0%	58.0%	58.0%
19) Percentage of pavements of the Non-Interstate NHS in POOR condition	3.0%	3.0%	3.0%	3.0%	3.0%

Table 15: L-DC MPO T2040 Safety Targets

Safety Performance Measures	L-DC MPO 5-Yr Rolling Avg Targets		
	2018	2019	2020
9) Number of fatalities	6.2	5.8	5.6
10) Rate of fatalities per 100 million VMT	0.8	0.8	0.8
11) Number of serious injuries	26.2	25.0	25.7
12) Rate of serious injuries per 100 million VMT	2.6	2.4	2.4
13) Number of non-motorized fatalities & serious injuries	7.2	7.1	7.8

Project Evaluation

Through the TIP development process, project sponsors were asked a series of questions to determine if the project would assist the MPO in reaching our desired targets. There are 5.18 miles of new sidewalk and 5.4 miles of new bikeway associated with projects in the fiscally constrained portion of the TIP (2019-2022). However, there are additional local projects that improve sidewalk and/or bikeway that are not included in the TIP or have not currently determined how many miles of bikeway or sidewalk will be associated with projects. There are 20 (twenty) projects included in the fiscally constrained TIP. According to information provided by project sponsors, 25% of projects work to improve the useful service life of the combined transit fleet.

Four (4) out of five (5) transit projects will help address the transit useful life benchmark (Table 16). The projects include purchasing new transit vehicles and preventative maintenance on vehicles. By purchasing these new vehicles the overall percentage of vehicles at or exceeding the Useful Life Benchmark (ULB) will be reduced.

Table 16: Projects addressing L-DC MPO Transit Useful Life Benchmark Targets

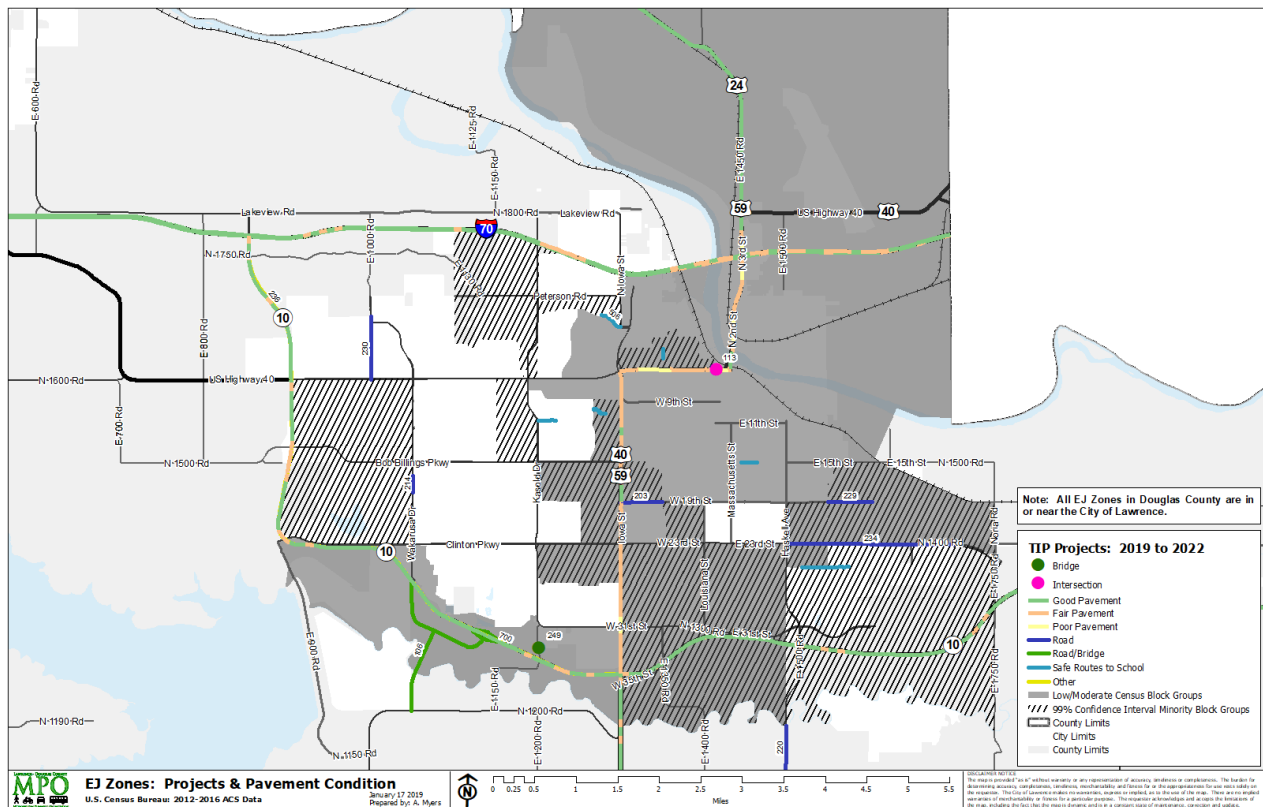
#	Project Name	How the Project Improves Transit ULB
401	Independence Inc.: FTA 5311 Operating & Capital	Vehicle preventative maintenance
403	Lawrence Transit Capital Assistance	Purchase paratransit vehicles
412	Lawrence Transit Operating Funds	Vehicle preventative maintenance
415	Bert Nash: FTA 5310 Capital Funds	Purchase ramp mini-van & full size van

There are no TIP projects that are part of the interstate system. Thus there are no specific projects working to achieve the person-miles traveled and truck travel time reliability targets pertaining to the interstate (T2040 PM 6 and 8). Furthermore, the data is provided as a set number by from NPMRDS RITIS and there is no way to determine which portion of the roadway is assigned a specific score. However, one project is part of the Non-Interstate NHS and will improve the person-miles traveled reliability (LOTTR) as the project will improve auto capacity by adding a right turn lane to US 40/6th St (#113).

There are 3 bridge projects in the TIP. None are NHS bridges. But improving the overall quality of bridges in Douglas County will assist in achieving the local performance measures of improving non-NHS bridges.

Sixty-five (65%) of non-transit projects identify improved pavement condition as a project characteristic. Only one of these projects is on the NHS (#113 – Lawrence CCLIP, US-40/Tennessee St. Intersection). Figure 7 displays TIP projects and NHS pavement condition. It assists in determining if projects will assist in improving “poor” pavement and achieving our pavement condition targets. The other projects which are not on the NHS will help achieve the local performance measures of improving non-NHS major roads (collector and above) pavement condition.

Figure 7: Projects and NHS Pavement Condition



Of the twenty (20) projects, all fifteen (15) non-transit projects have some component to address safety concerns. They are categorized as intersection projects, railroad projects, standalone bicycle/pedestrian projects, roadway projects including bicycle and pedestrian elements, and roadway projects. Table 17 displays the projects per category and describes the safety impact of the improvement.

Common Improvements That Impact Safety

Separated or dedicated facilities for pedestrians and bicyclists

According to a report from the Office of the New York City Mayor, when protected bike lanes are installed, injury crashes for all road users (motorists, pedestrians, and bicyclists) typically drop by 40% and by more than 50% in some locations.⁹ (Example: Project #506: Lawrence Safe Routes to School TA Phase 2)

Dedicated vehicle turning movements lanes

By creating two way left turn lanes, vehicles are separated from through traffic improving traffic flow and reduce the potential risk of rear end crashes. (Example: Project #110: 23rd St 2 way left turn lane)

Access management

Access management improves safety by separating access points so turning and cross movements occur at fewer locations. (Example: Project #234: 23rd Street Reconstruction: Haskell Ave to East City Limits)

⁹ Howard Wolfson Memo on March 21, 2011 regarding Bike Lanes - http://www.nyc.gov/html/om/pdf/bike_lanes_memo.pdf

Roundabouts

According to AASHTO Highway Safety Manual, installing roundabouts reduce the types of crashes where people are seriously hurt or killed by 78-82% when compared to conventional stop-controlled and signalized intersections.¹⁰ (Example: Project #229: 19th Street Reconstruction: O'Connell Rd to Harper St)

Meeting design standards

The safety of the roadway can be improved by flattening roadside slopes and making geometric improvements to bring roadways up to design standards. (Example: Project #230: Queens Road, 6th to North City Limits)

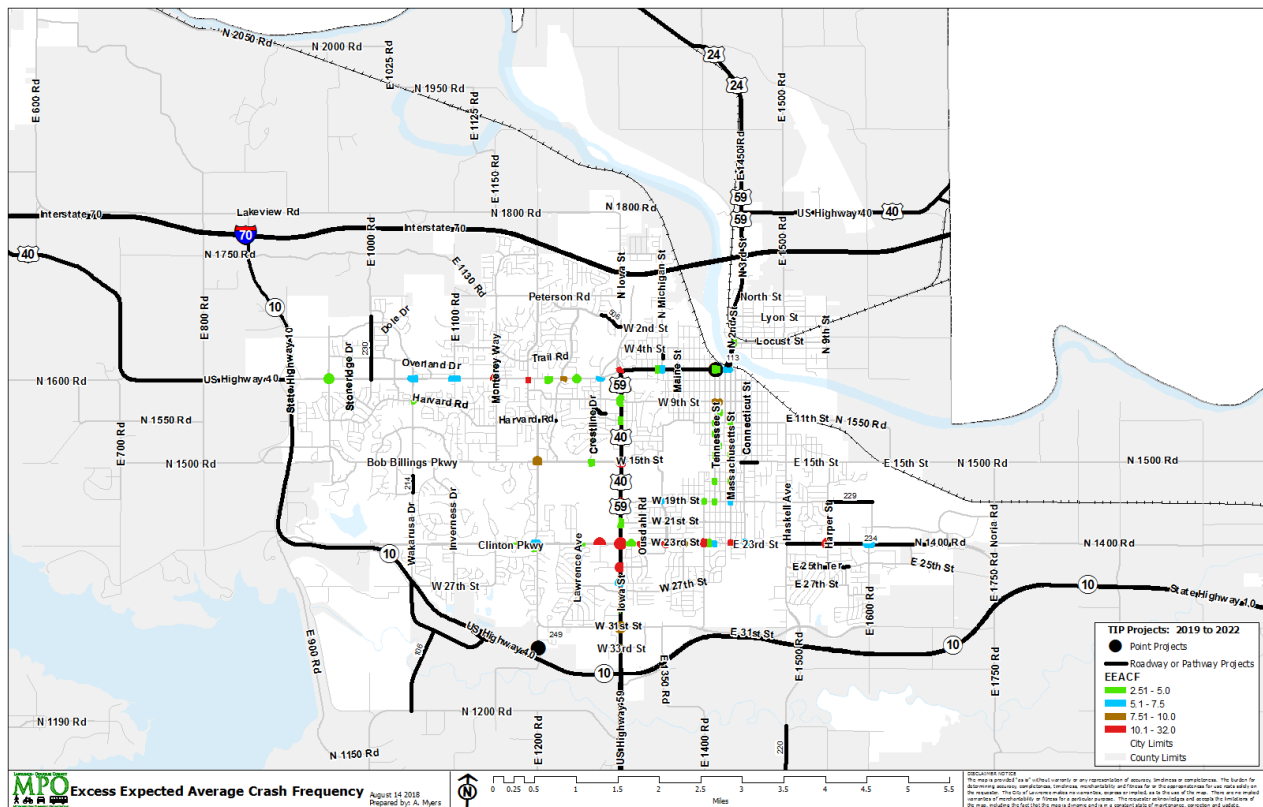
Table 17: Projects addressing L-DC MPO Safety Targets

Railroad		
#	Project Name	Improvement with Safety Impact
600	Various Railroad Safety Projects in the Region	This grouped project is for railroad safety projects that improve safety hazards at public railroad crossings. It targets known railroad safety issues throughout the region.
Standalone Bicycle/Pedestrian		
#	Project Name	Improvement with Safety Impact
506	Lawrence Safe Routes to School TA Phase 2	Provides sidewalk for pedestrians along designated safe routes to school
507	Various Lawrence Sidewalk/Bike/Ped/ADA Ramps Projects	Provide dedicated space for pedestrians and bicyclists
Roadway		
#	Project Name	Improvement with Safety Impact
106	Wakarusa Drive Extension	KDOT's construction of interchange
110	23rd St 2 Way Left Turn Lane	Installation of center turn lane
113	Lawrence CCLIP: US-40/ Tennessee St. Intersection	Installation of turn lane
134	US-40 M/I Overlay: SN/DG CO to 0.15 Miles W of E50thRd	Improving deteriorating road surface and shoulder work
208	Route 1055 at North 700 Curve	Replace 3 narrow drainage structures and flatten slopes near those structures
219	Rte 458 Improv., E1500 to E1600, & Rte 1055, N940 to N1000	Provide paved shoulders and flatten roadside slopes
220	Route 1055 Improvements, N1000 to N1180	Provide paved shoulders and flatten roadside slopes
248	Bridge 0964-1000 replacement	Replace with wider bridge
249	Bridge 1267-1200 replacement	Replaces narrow bridge
Roadways Including Bicycle/Pedestrian Elements		
#	Project Name	Improvement with Safety Impact
214	Wakarusa Reconstruction: Research Pkwy to 18th St	Sidewalks and bike facilities
229	19th Street Reconstruction: O'Connell Rd to Harper St	Sidewalk, bicycle facilities, access management, roundabout
230	Queens Road, 6th to North City Limits	Geometric improvements to meet collector street standards, sidewalks, and bike facilities
234	23rd Street Reconstruction: Haskell Ave to East City Limits	New sidewalks, bike facilities, turn lanes, and access management

In 2017, the MPO conducted a Crash Analysis and Countermeasure Identification Study to identify intersections with crash histories that exceed the average expected crashes, also known as the Excess Expected Average Crash Frequency (EEACF). The study evaluated countywide 2013-2016 crash data obtained from KDOT. Locations that had more than 2.51 crashes in excess of expected average crashes are shown in Figure 8. Of the 11,764 intersections evaluated, sixty-nine (69) exceed an average of 2.51 crashes. Fiscally constrained TIP projects address eight (8) of the sixty-nine (69) locations. Overall the project improvements are expected to improve safety.

¹⁰ FHWA's Office of Safety - <https://safety.fhwa.dot.gov/intersection/innovative/roundabouts>

Figure 8: Fiscally Constrained TIP Projects and Excess Expected Average Crash Frequency (EEACF)



Progress towards Targets

In summary, all non-transit projects have some component to improve safety. 12% of intersections that exceed an average of 2.51 crashes have projects in the fiscally constrained portion of the TIP working to achieve safety improvements. Eighty (80%) of transit projects are working towards improving the transit ULB. There are no TIP projects as part of the interstate system. The MPO currently has a 100% reliability rating for the interstate and a 99.4% rating for the non-interstate NHS. The MPO has no reason to believe the reliability targets will not be met. There are no NHS bridge projects in the TIP and one NHS pavement project. The MPO uses information provided by project sponsors to determine if projects are working towards improving individual targets. Based on information available, the projects and/or ongoing operations are meeting the targets set in T2040.

Evaluating Performance over Time

Federal performance measures will be tracked annually in the performance measure report – T2040 Appendix F: System Performance Report. Performance measures will be evaluated as part of the annual report process and may be altered as the MPO Policy Board deems necessary (based on the Public Participation Plan (PPP)). Evaluating performance measures will be updated when a full TIP update is completed or if regulations have changed requiring an update.

ENVIRONMENTAL JUSTICE REVIEW

The Environmental Protection Agency (EPA) defines Environmental Justice as the "fair treatment for people of all races, cultures, and incomes, regarding the development of environmental laws, regulations, and policies." Environmental Justice (EJ) is a federal requirement that projects using federal funds be selected and distributed fairly to all people regardless of income or race and that all people have equal access to the benefits afforded by federally funded projects as well as equal access to the decision-making process for the selection of those federal projects.¹¹ This concept is conveyed in the three Environmental Justice Principles shown in Figure 9.

Figure 9: U.S. DOT Environmental Justice Principles



Read about how the MPO is providing access to the transportation planning process at www.lawrenceks.org/mpo/public_participation.¹²

Methodology

In response to EJ regulations the MPO developed a process to assess the impact of transportation planning processes regarding the TIP on the target populations. The results of the analysis in this EJ review provide insight to the MPO's commitment to achieve the US DOT EJ Principles.

Define Target Populations and Thresholds

Low-income and minority populations were identified in the MPO area. This is done by utilizing Census block groups and 2012-2016 American Community Survey (ACS) 5-year estimate data. Block groups are determined to meet the EJ threshold if they meet either of the criteria listed below.

Low/Moderate Household Income Population, by 2010 Census Block Groups (vintage 2017 TIGER/Line Shapefiles)

The threshold for low/moderate household income was 51 percent or more of the population residing in households earning less than 80 percent of the area's median income. The City of Lawrence Neighborhood Resources Division of the Planning and Development Services Department currently uses this information to identify areas within the community that have higher concentrations of low and moderate income residents. This data is updated annually. Various housing rehabilitation program funds and Community Development Block Grant (CDBG) funds are targeted toward these areas.

¹¹ This policy is defined in Executive Order 12898 that was signed by President Clinton on February 11, 1994.

¹² Title VI Civil Rights and Environmental Justice Non-Discrimination issues can be found in the MPO's Title VI Program Manual and the Public Participation Plan. More Environmental Justice information related to programs, including MPO operations which are funded by the Federal Highway Administration (FHWA) and the Federal Transit Administration (FTA), can be found at the following website: www.fhwa.dot.gov/environment/environmental_justice/overview.

99% Confidence Interval for the Mean Minority Population, by 2010 Census Block Groups (vintage 2017 TIGER/Line Shapefiles)

The US Census Bureau collects demographic data for one race and a combination of races. For this review, only one race data attribute was used to depict areas within Douglas County that have a minority population within the 99% Confidence Interval average population residing in Lawrence and Douglas County. Essentially, a confidence interval indicates a range of values that's likely to encompass the true value in our community. With a 99% mean confidence interval we are 99% sure that the interval contains all of the values. The mean minority population is 11.88%. The 99% confidence interval is $\pm 3.13\%$. Therefore, $11.88\% + 3.13\%$ equals 15.01% . So we are 99% sure that the minority population is under 15.01% .

The majority race in this region is White/Caucasian and the other races collectively are considered as the minority group population for this EJ analysis. The 2012-2016 American Community Survey 5 Year Estimates indicates the minority population within Douglas County represents 12.25% of the total population. In Lawrence, the minority population is slightly higher representing 13.9% percent of the total population.

The EJ zones consist of areas where census tracts are either Low/Moderate household income and/or at the minority 99% confidence interval. The EJ zones are mapped in Figure 10 & 11. Approximately 69,723 people or 58% of the total Douglas County population resides within EJ zones. No EJ zones are identified outside of the City of Lawrence. The EJ zones within Lawrence are located south of Clinton Parkway and generally east of Kasold Drive.

Assess and Analyze Investments in the TIP

This assessment and analysis compares the EJ zones with TIP projects locations and fixed route transit services. EJ zones were also evaluated by EJ population within the $\frac{1}{4}$ mile buffer of transit stops and EJ population with zero vehicle households.

TIP Projects: Roadway, Bridge, Intersection, Enhancement, Access Management

Fiscally constrained TIP projects were mapped to see where the projects intersect with EJ zones. Not all TIP projects could be mapped for the EJ analysis. This analysis does not include transit allocations, planning studies, and projects that are not limited to a specific point on a map. Table 18 shows the total 2019-2022 TIP projects, the TIP projects that were able to be mapped, and the mapped TIP projects that are within the EJ zones.

Table 18: Fiscally Constrained TIP Projects (Shown in \$1,000s)

	Number of Projects	Total Project Cost
TIP Projects (2019-2022)	21	\$ 77,544
TIP Projects Mapped (2019-2022)	14	\$ 39,513
TIP Projects Mapped in EJ Zones (2019-2022)	10	\$ 35,095

*Total project costs includes project phases outside of the TIP years (2019-2022)

**Various Lawrence Sidewalk/Bike/Ped/ADA Ramps Projects are not mapped, but EJ prioritization is included in the selection of locations process, thus this project was included in the projects mapped in EJ Zones

Fourteen (14) projects were mapped in this 2019-2022 TIP, for a combined total of \$37.5 million. Of the 14 mapped projects in the TIP, 10 are considered EJ projects for the purpose of this analysis for a total improvement cost of \$35 million (as shown in Table 19). Approximately 89% of the total funding for the 14 mapped projects will be invested in EJ zones. These projects are completely or partially, on a road that is in an EJ zone or along an EJ zone border.

Table 19: EJ Zone Projects (Shown in \$1,000s)

Project #	Project Name	Project Type	Total Project Cost	Miles of New Bikeway	Miles of New Sidewalk
106	Wakarusa Drive Extension	Road, Bridge	\$ 9,300	0	0
110	23rd St 2 Way Left Turn Lane	Road	\$ 1,800	0	0.21
113	Lawrence CCLIP, US-40/ Tennessee St. Intersection	Road	\$ 279	0	0
203	19th Street Reconstruction, Naismith Dr to Iowa St	Road	\$ 3,775	1	0.5
214	Wakarusa Reconstruction, Research Pkwy to 18th St	Road	\$ 2,800	0.19	0
229	19th Street Reconstruction, O'Connell Rd to Harper St	Road	\$ 2,825	0.5	0.5
234	23rd Street Reconstruction, Haskell to East City Limits	Road	\$ 9,750	TBD	TBD
249	Bridge 1267-1200 replacement	Bridge	\$ 357	0	0
506	Lawrence Safe Routes to School TA Phase 2	Safe Routes to School (SRTS)	\$ 559	0	1.68
507	Various Lawrence Sidewalk/Bike/Ped/ADA Ramps Projects	Enhancement	\$ 3,650	TBD	TBD
*Total project cost includes project phases outside of the TIP years (2019-2022) Totals			\$ 35,095	1.7	2.9

A majority of the projects that are within EJ zones are reconstruction projects, where the only expected impact is during the actual reconstruction, e.g. road closures, delays. Furthermore, many of the projects include new bikeway and sidewalk facilities. The projects included in the EJ zones include at least 1.7 miles of new bikeway facilities and 2.9 miles of new sidewalks. These numbers do not take into account facilities on 23rd St. Reconstruction: Haskell Ave. to East City Limits (234) or the Various Lawrence Sidewalk/Bike/Ped/ADA Ramps (507) projects as the miles have not been determined.

Project 507 – Various Lawrence Sidewalk/Bike/Ped/ADA Ramps – is a grouped project for the first dedicated funding for non-motorized projects in Lawrence. Approximately \$600,000 of local funding is available in 2019, increasing to \$1 million annually in 2021. This funding utilizes the Non-Motorized Projects Prioritization Policy to select projects.¹³ Distribution of projects in EJ zones is part of the selection process; therefore, projects this locally funded project will be distributed in EJ zones. Also \$303,000 of Community Development Block Grant (CDBG) was awarded to the City of Lawrence to address sidewalk and ADA ramp issues in the low/moderate income areas (a portion of the EJ zones). CDBG funding is competitively awarded annually. The City of Lawrence will continue to pursue additional CDBG funding. All of the local and federal funding used to build new miles of bikeway and sidewalk will improve connectivity and mobility for all populations.

However, EJ analysis is more than just the location of the projects and how many are (or aren't) in EJ areas. All of the projects in this TIP have impacts and benefits both during construction and long term after they are built as part of the network. Of the projects included in this TIP, there are no anticipated impacts to significant property displacement.

A review of the MPO's urban area indicates that all residents in the urban portion of the region regardless of race or income experience the impacts of the urban transport system in similar fashion. The benefits and impacts of that urban transportation network are not concentrated in any particular EJ zones.

The region's transportation projects are selected based on the merit of the project and the need for improvements to the transport system without any intended bias towards impacting EJ areas any more than any other area in the region.

There are busy congested intersections all around the urban area in both high and low income areas. Regardless of your racial group or where you live you are likely to encounter one of these intersections near your home. The impacts from the transportation system (congestion, noise, pollutant emissions, etc.) appear to be more related to whether you live in the Lawrence Urbanized Area or not; more than related to whether you live in a minority or low income area or not. Disproportionate impacts from federally funded transportation projects on low income or minority population clusters were not observed in this EJ analysis.

¹³ <https://assets.lawrenceks.org/assets/boards/transportation-commission/NonMotorizedPolicy.pdf>

Figure 10: MPO Fiscally Constrained Programmed Roadway Projects in Relation to EJ Zones (Douglas County)

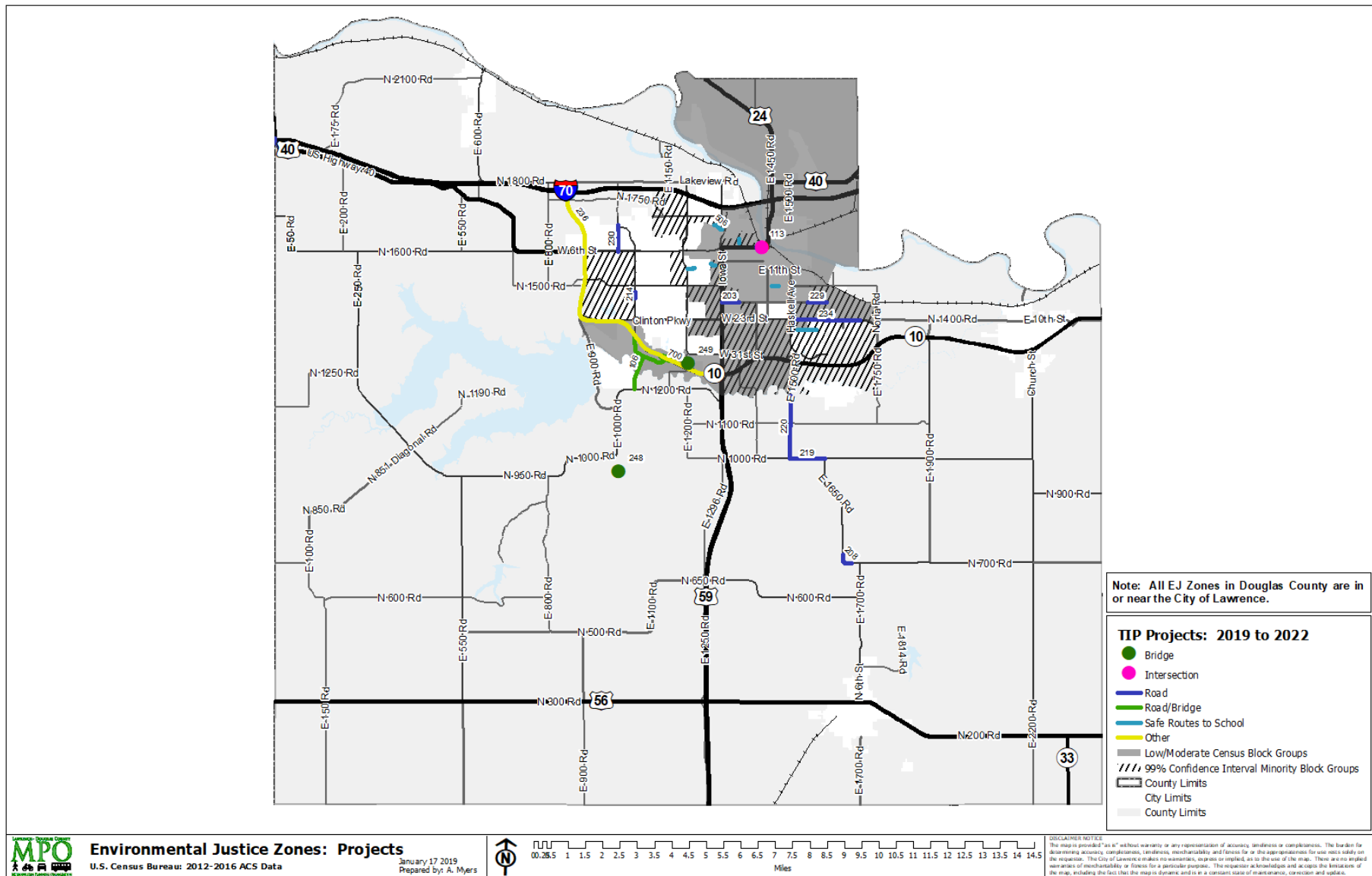
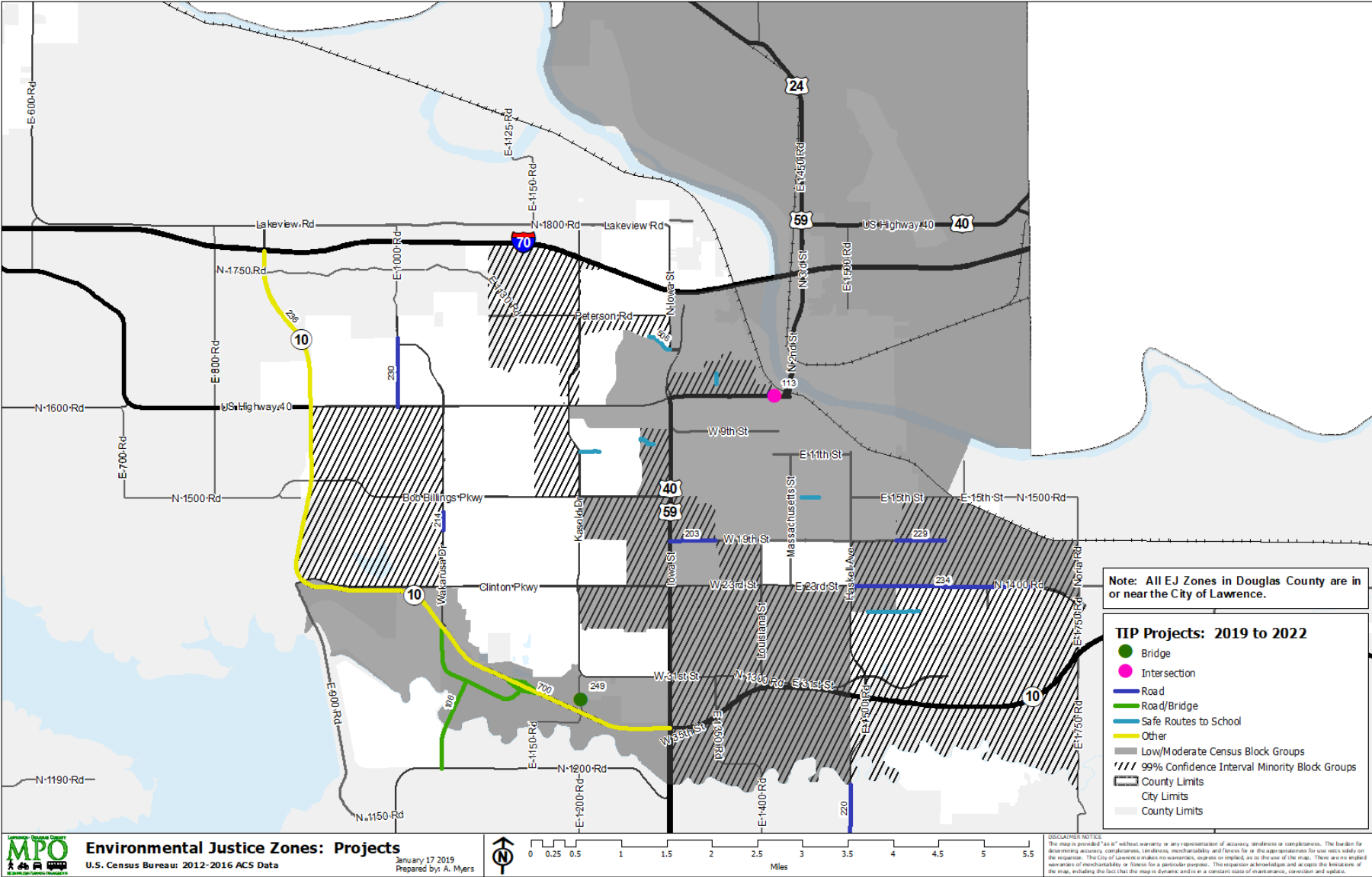


Figure 11: MPO Fiscally Constrained Programmed Roadway Projects in Relation to EJ Zones (Lawrence)



TIP Projects: Fixed Route Transit

Lawrence Transit & KU on Wheels 2018-2019 fixed routes are shown on Figure 12. Sixteen (16) or 84% of the current routes have 30 minute or less service during peak times. As resources becoming available, Lawrence Transit & KU on Wheels are transitioning all routes to 30 minute or less service during peak times. Route information can be accessed at www.lawrencetransit.org/routes. None of Lawrence Transit projects were mapped because the transit service occurs throughout the community and is not located on one fixed point. Lawrence Transit projects include operating costs for fixed route and paratransit services, as well as the capital costs associated with vehicle acquisition.

For the case of federally supported transit services, both the fixed route system and paratransit service areas, cover parts of Douglas County with low-income and/or minority populations. Therefore, the TIP projects associated with these transit and paratransit services are all considered to serve EJ populations and to be located in EJ zones for the purpose of this analysis. If there is any difference with EJ zones it seems to be that some EJ zones receive greater choice and frequency of transit services because those areas coincide with the parts of the region with population densities high enough to support frequent fixed route transit.

Additional review was performed to provide further mobility analysis in determining if there are any disparate or adverse impacts resulting from transit services included in the TIP. Projects were evaluated to determine the percentage of people who live within the EJ zones that are within a ¼ mile buffer of transit stops and the people who live within the EJ zones that are zero vehicle households. Zero vehicle households also access transit to gain mobility, but again stops must be within walking distance to be easily used.

As shown in Figure 13, approximately 60,500 people or 87% of people who live within the EJ zones are within ¼ mile of a transit stop. A ¼ mile is generally the distance people are comfortable walking. Thus, 87% of people who live within EJ zones have easy to access transit service, thereby expanding their mobility.

The darker red color within the zero vehicle households map (Figure 14) indicates a high concentration of zero vehicle households. The highest concentration of zero vehicle households is located at the southwest corner of Clinton Parkway and US-59/Iowa Street, which is also part of the EJ zone. Transit service is provided in this area. Other higher concentration areas of zero vehicle households are also located in EJ zones. Transit service is offered in many of the higher concentrated zero vehicle households and EJ zones. This provides more mobility and promotes movement of residents throughout Lawrence.

Figure 12: Fixed Route Transit Routes 2018-2019 in Relation to EJ Zones

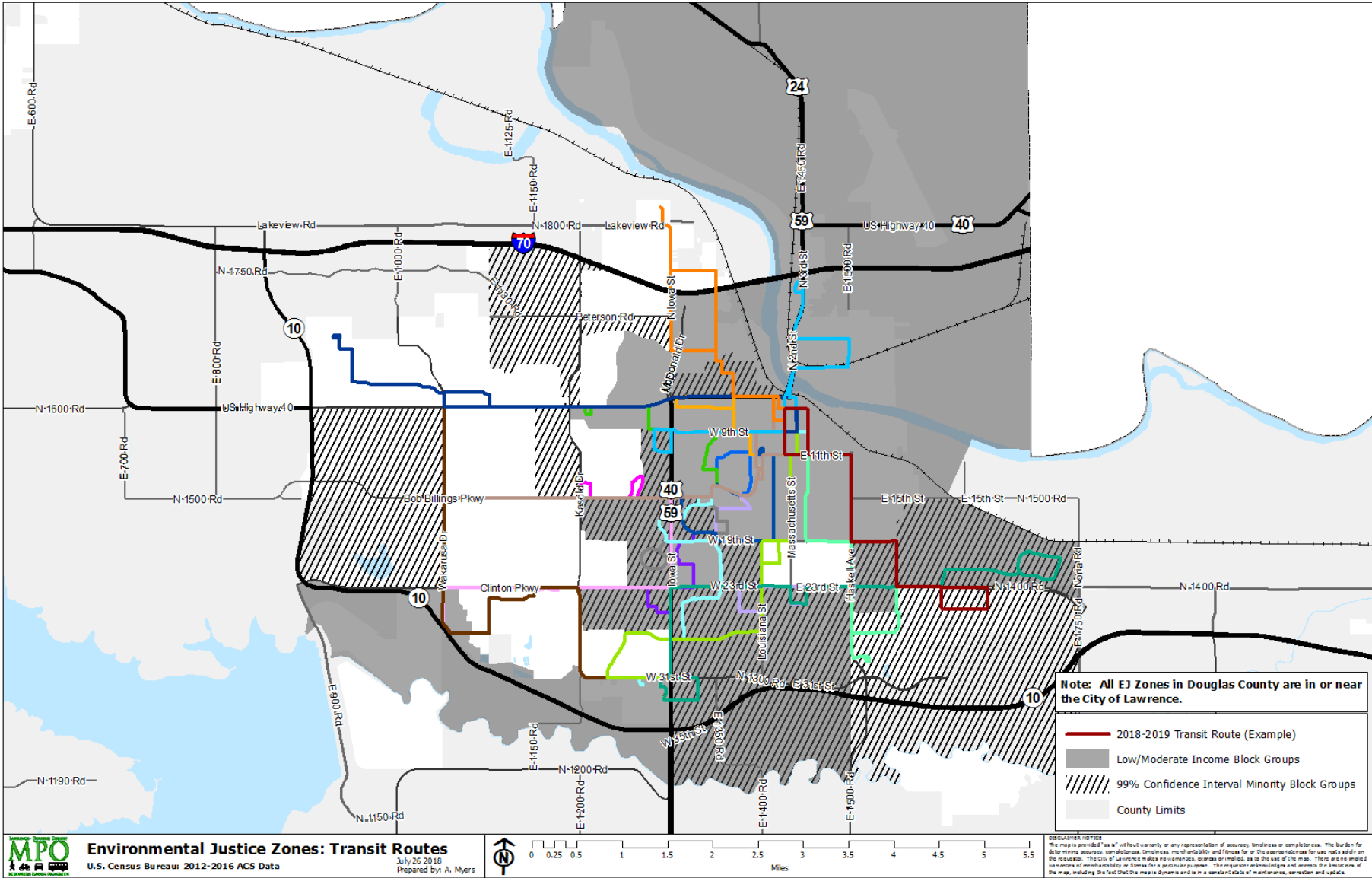


Figure 13: ¼ Mile Bus Stop Transit Sheds in Relation to EJ Zones

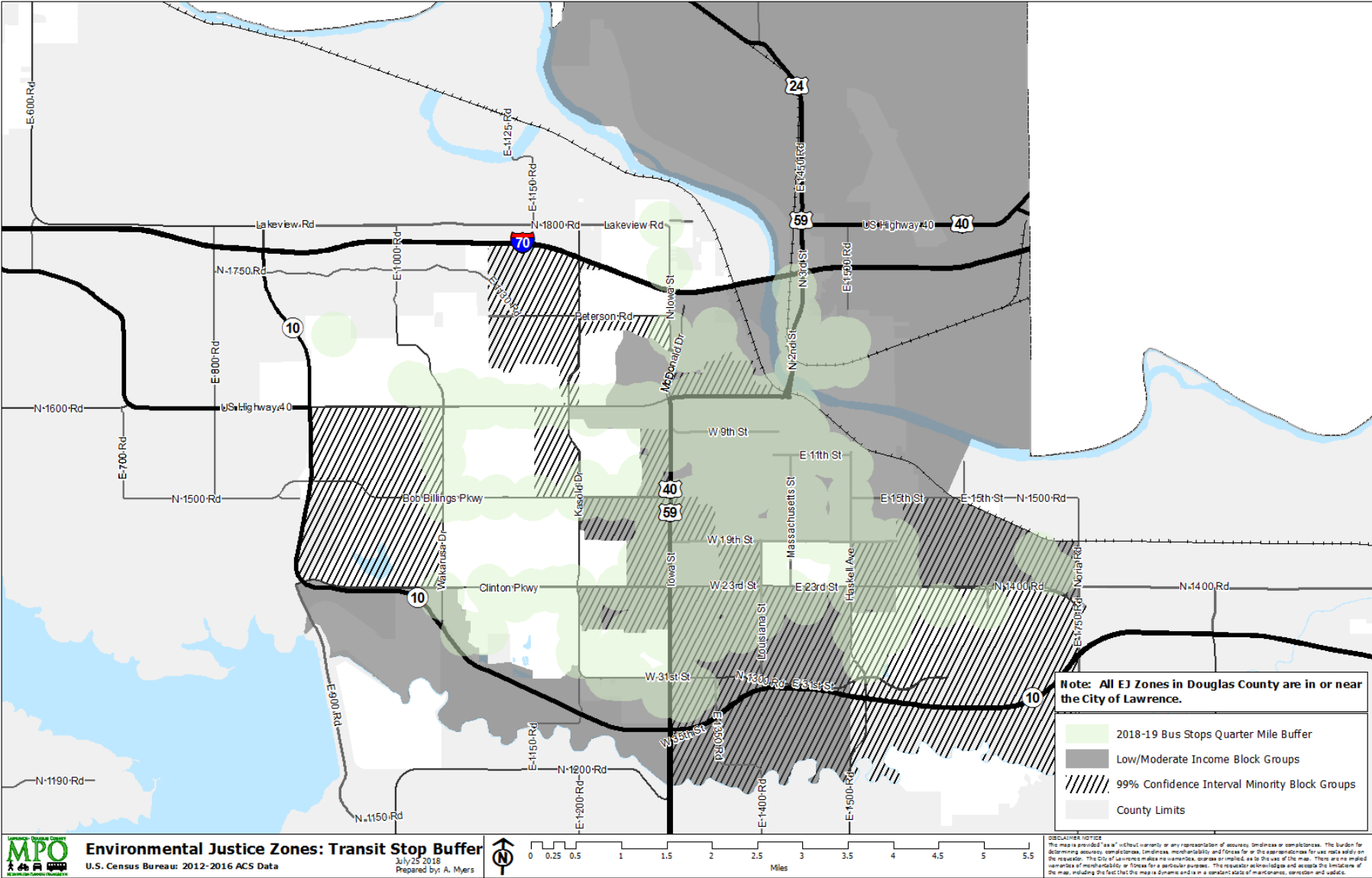
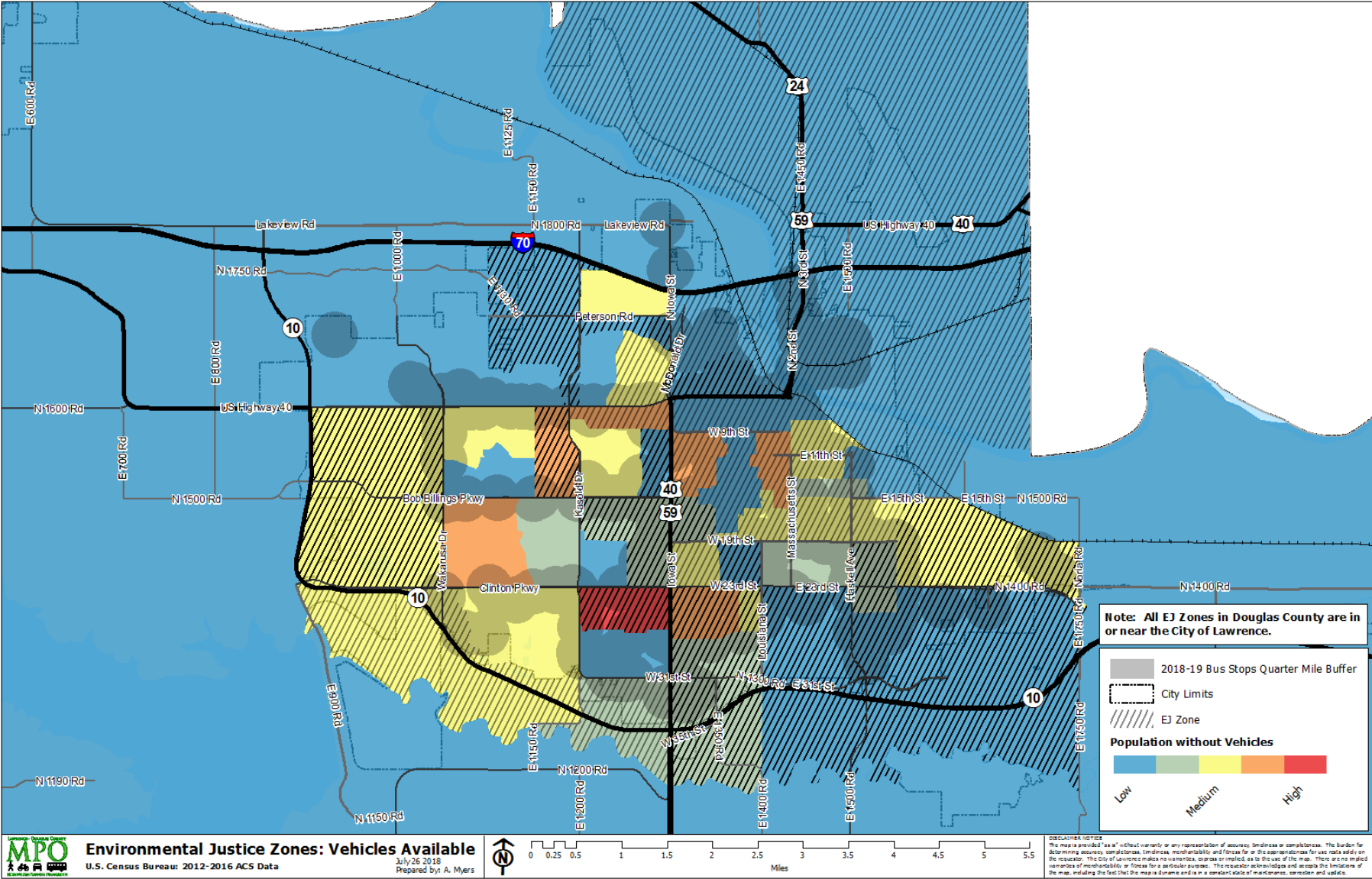


Figure 14: Zero Vehicle Households in Relation to EJ Zones



Conclusion

Reviewing the assessment and analysis in this chapter the MPO believes there are no significant EJ issues with the selection of roadway, bridge, transportation enhancement, or transit projects in Douglas County. This TIP includes projects inside and outside of EJ zones, and projects for this TIP are selected based on objective planning and engineering criteria (e.g., bridge deterioration, pavement condition, transit demand, etc.).

APPENDICES

Appendix A – Planning and Engineering Factors for Local Project Consideration

Planning Factors

- Is the project consistent with the goals and objectives found in the Metropolitan Transportation Plan (MTP)?
- Is the project listed as a recommended transportation system improvement in the MTP?
- Is the project regionally significant as defined by federal regulations and the latest Regionally Significant Policy approved by the MPO?
- Is the project consistent with the latest MPO/FHWA approved Functional Classification Map?
- Is the project consistent with the latest locally approved comprehensive plan (including the land use plan, area plans, Safe Routes to School, and other comprehensive plan elements/chapters) covering the project location?
- Does the project include provisions for transit, bicycle, and pedestrian movements (including students and ADA accessibility) as needed to provide a regional multimodal transportation system?
- Has the project sponsor considered Title VI and Environmental Justice (EJ) impacts in the planning for this project, and if the project is in a minority and/or low-income area has the project sponsor considered and addressed the Title VI and EJ issues related to the project?
- Has the project sponsor received public comments about this project and if received considered those public comments in the planning and design of the project?
- Is the project eligible for the type of federal and/or state funding being proposed for it, and is there adequate funding available for the project in the year it is proposed?

Engineering Factors

- Does the Project address a facility that has (existing or projected) a high volume to capacity ratio indicating it or will experience significant congestion and lower levels of service?
- Does the project location have a traffic accident history marked by a higher than expected accident rate which, along with other accident attributes, indicates that an engineering change could reduce the number and/or severity of crashes?
- Does the project location have pavement conditions noting a deteriorated state showing that the facility is in need of improvements to maintain its function and/or that those improvements can be made economically now before more costly reconstruction is needed?
- Does the project site include geometric design that is inadequate by current standards and does the project sponsor have documentation that this design is hampering the facility's ability to handle the traffic loads and/or vehicle sizes using the facility in a safe and efficient manner, and does the project sponsor plan to address those geometric deficiencies as part of this project?
- Does the project site or facility have structural deficiencies indicating that the facility is near the end of its projected lifespan and that it will need frequent maintenance to function adequately, and does the project sponsor plan to address these structural deficiencies as part of this project?
- Have safety concerns involving motorists, bicyclists, pedestrians and/or transit users and transit operations been identified at the project location and does the project sponsor plan to address those concerns as part of this project?
- Has the project location met minimum engineering standards set by the project sponsor that indicate the facility is in need of improvement, rehabilitation or replacement?

*This list is not exhaustive. It is used at the discretion of local governments and project sponsors and may be changed in the future.

Appendix B – Definitions of Major Projects and Significant Delay

Roadways (including intersections and bridges)

The major roadway projects include projects located on a roadway classified by the MPO as a Major Collector or higher, with construction costs of at least \$2.0 million and that have at least one of the following attributes:

- Designed to increase roadway capacity and/or decrease traffic congestion
- Designed to improve safety
- Designed to replace aging infrastructure and bring it up to current standards
- Results in significant delay and/or detours during construction

Major projects do not include the following types of projects that are considered to be routine maintenance projects: mill & overlay, micro-abrasion, micro-surfacing, crack sealing, concrete rehabilitation, curb repairs, sweeping, mowing, spot repairs, and interim measures on detour routes.

Transit Facilities and Services

The major transit projects include projects that need to be listed in the TIP because they use federal funding and/or are regionally significant, have a total cost of at least \$1.0 million, and meet at least one of the following criteria:

- Acquisition of three or more new transit vehicles
- Addition or expansion operations and/or maintenance buildings
- Initiation of new transit service or expansion of transit services into territory not previously served

Major transit projects do not include the following types of projects that are considered to be routine: preventive maintenance on transit vehicles; purchase of spare parts, shop supplies and fuel; annually received formula based operating assistance; purchase of bus stop signs, shelters and related items; scheduled purchases of one or two transit vehicles; staff training and recruitment; and other routine operational activities.

Bikeway and Pedestrian Facilities

The major bikeway and pedestrian projects includes projects that need to be listed in the TIP because of federal funding and/or regional significance, and meet at least one of the following criteria:

- Total project cost of at least \$ 500,000
- Construction of bikeway or pedestrian facility (or extension of existing facility) into a location where a bicycle/pedestrian facility did not exist before

Major bikeway/pedestrian projects do not include the following types of projects that are considered to be routine maintenance projects: patching, crack sealing, curb repairs, sweeping, mowing, spot repairs, landscaping maintenance, sign replacements, and other routine operational activities.

Significant Delay

The term significant delay will be defined as two years or more from the year first listed for the project in the previous TIP.

Appendix C – Progress on Previous TIP Projects

Major Projects from the Previous 2017-2020 TIP

Using the definitions listed above the following major projects from the previous 2017-2020 TIP were implemented between the start of 2017 and the approval date for this new 2019-2022 TIP. This current TIP covers 2019 to 2022 so some 2019 projects could be listed in both the previous and current TIP documents.

Table C-1: Completed Major Projects

TIP #	Project Type	Project Name	Project Sponsor	Location	Description	Year	Cost (in 1,000s)
103	Bridge	US 56 Taury Creek Drainage Bridge	KDOT	Bridge 1.95 miles east of US 59 & Taury Creek Bridge 2.7 miles east of US-59	Bridge Replacement	2010-2013	\$ 3,035
109	Intersection	South Lawrence Trafficway/K-10 West Leg in DG Co.	KDOT	K-10: 2000 ft W of Junction K-10/E 1200 Rd to 1500 ft E of Junction of K-10/E 1200 Rd	Conversion of Standard Stop Controlled intersection to Right In - Right Out configuration.	2016	\$ 304
204	Road	Kasold Reconstruction: 6th St to Bob Billings Pkwy	Lawrence	Kasold Drive: 6th St to Bob Billings Pkwy	Reconstruction of street will include subgrade treatment, concrete pavement, traffic signal at Kasold and Harvard, and multi-modal facilities.	2014-2017	\$ 6,500
205	Road	23rd Street (K-10) Access Point Consolidation	KDOT	23rd St. (K-10) from US 59 (Iowa St.) E to O'Connell Rd.	Consolidation of Access Points.	2016-2018	\$ 316
212	Road	9th Street Reconstruction	Lawrence	Massachusetts St to Delaware St	Reconstruction of street will include subgrade treatment, surfacing, storm sewer, geometric improvements and multimodal facilities.	2015-2018	\$ 2,500
222	Bridge	Bridge 1000-1638 Replacement	Douglas County	Rte 458 .38 mi east of Rte 1055	Replace Rte 458 bridge over Coal Creek	2013-2016	\$ 938
224	Bridge	Bridge 0064-0550 Replacement	Douglas County	Rte 1029 .6 mi north of N1 Rd	Replace bridge	2016-2017	\$ 686
225	Culvert	Culvert 1500-1624 Replacement	Douglas County	N 1500 Rd/E 15th St. at E 1625 Rd intersection	Replace narrow culverts, channel improvements	2016-2017	\$ 500
226	Intersection	Harvard & Wakarusa Roundabout	Lawrence	Harvard & Wakarusa Intersection	Convert All Way Stop controlled intersection to two lane roundabout/	2016	\$ 2,214
232	Intersection	23rd & Ousdahl Storm Sewer Improvements	Lawrence	23rd & Ousdahl Intersection	Geometric Improvements & Storm Sewer.	2016-2017	\$ 3,000
242	Road	Access Consolidation on K-10 West of Ousdahl Rd	KDOT	K-10 W of Ousdahl Rd.	Access Improvements.	2017	\$ 80
243	Road	US-56 Improvements from Eisenhower St to 1st St	KDOT	Eisenhower St to 1st St	Improvements to US-56 - Realign Eisenhower and construct 3 lane US-56 in Baldwin City.	2017	\$ 1,675
300	Traffic Signal	Install Permanent Signal at K-10 at US-59/CR 458	KDOT	K-10 at US-59/CR 458	Installation of a permanent signal.	2016-2017	\$ 936
403	Transit/Paratransit	Transit Capital Assistance	Lawrence Transit	Lawrence	Comprehensive Transportation Program. Purchase of replacement paratransit vehicles	2015-2017	\$ 3,363
409	Transit/Paratransit	Cwood: FTA 5310 Capital Funds	Cottonwood Inc.	Lawrence	Purchase a Ramp Mini-Van.	2018	\$ 39
411	Transit/Paratransit	Indep. Inc: FTA 5310 Capital Funds	Independence Inc.		Full size van.	2017	\$ 59
413	Transit/Paratransit	LPM: FTA 5310 Capital Funds	Lawrence Presbyterian Manor	Lawrence	Purchase a 14 Passenger Composite Small Transit Bus.	2018	\$ 65
414	Transit/Paratransit	SRC DGCO: FTA 5310 Capital Funds	Resource Center for	Lawrence	Purchase a Ramp Mini-Van (\$38) and a Full Size Van (\$60).	2018	\$ 98

Table C-1: Completed Major Projects (Continued)

TIP #	Project Type	Project Name	Project Sponsor	Location	Description	Year	Cost (in 1,000s)
500	Enhancement	Santa Fe Depot Restoration	Lawrence	413 East 7th Street, Lawrence, KS	Revitalize the Santa Fe Depot site and building.	2015-2018	\$ 2,042
501	Enhancement	Baldwin City Depot Railscape	Baldwin City		Extend the length of the brick boarding platform, cover the platform and install lighting, install native prairie landscaping and three additional ADA parking spaces to complete the Depot Railscape.	2015-2018	\$ 285
503	Enhancement	Eudora South Trail Phase 2	Eudora	South Eudora from Eudora High School to Eudora Middle School	10' wide shared use path that will have ADA ramps and create a safe access for residents of all ages.	2016-2017	\$ 354
504	Enhancement	Lawrence Safe Routes to School TA	Lawrence	Various sidewalk in 2 locations, RRFB at approx. 9 locations	The project will add sidewalks along designated safe routes for 2 schools (LMCMS/WES) on arterial roadways w/sidewalk on 1 side & residential roadways w/no sidewalk on either side. It will also add RRFBs at existing school crossings w/o a crossing guard	2016-2018	\$ 322
603	Safety	23rd St Access Management - 2246 Ohio St Driveway	Lawrence	23rd Street & Ohio Street	Removal of driveway access to 23rd Street east of Ohio Street.	2017	\$ 9
703	Other	Toll Feasibility Study for the SLT & K-10 Corridors	KDOT	I-10(KTA)/K-10 Junction to I-435/K-10 Junction	Study for the feasibility of tolling in the SLT & K-10 Corridors in Douglas and Johnson County. This study will include a determination of which tolling scenarios are most feasible at a sketch planning level for implementing corridor improvements.	2016	\$ 188

Major Projects from the 2017-2020TIP That Were Significantly Delayed**Table C-2: Significantly Delayed Major Projects**

TIP #	Project Type	Project Name	Project Sponsor	Location	Description	Original Year	Currently Programmed Year in the TIP	Cost (in 1,000s)
108	Road	Wakarusa Reconstruction: Research Pkwy to 23rd St	Lawrence	Wakarusa: Research Pkwy to 23rd St	Reconstruction of street including pavement, storm sewer, sidewalks, bicycle facilities, and median.	2020-2021	2022-2021	\$ 6,500
208	Road	Route 1055 at North 700 Curve	Douglas County	Route 1055 from 725 North to 1670 East	Roadside safety improvements, replace two bridges and one culvert.	2017	2019-2020	\$ 950
219	Road	Rte 458 Improv., E1500 to E1600, & Rte 1055, N940 to N1000	Douglas County	E1500 to E1600 & N940 to N1000	Construct paved shoulders; replace narrow culvert; flatten roadside slope.	2017-2019	2019-2021	\$ 2,275
229	Road	19th Street Reconstruction, O'Connell to Harper	Lawrence	O'Connell to Harper	Reconstruct & tie into venture park, roundabout at 19th & harper, construct sidewalk & bike lanes.	2016-2017	2018-2019	\$ 3,000

Appendix D – Latest Federal Fiscal Year - List of Obligated Projects

The purpose of this listing is to illustrate the progress of federal aid transportation projects in the region as they move through the years in the TIP projects table and onto the recently obligated projects list. Projects are listed based on the year the federal funds were obligated, not necessarily the year the construction of the project began. The federal amount represents the federal funds spent on the project.

The table below describes projects listed in the TIP that were obligated in the previous Federal Fiscal Year (FFY). A listing of projects with federal aid obligated in the previous FFY are presented to the MPO each year for review either as part of a TIP approval or amendment or as a separate memo.

The listing will be available on the MPO website and is sent to the Kansas Department of Transportation who will then distribute the listing to the FHWA and the FTA for informational purposes.

Lawrence-Douglas County MPO Area - List of Project for Which Federal Funds Were Obligated to in FFY 2018 (Cost in \$1,000's)													
MPO #	KDOT #	Project Name	Responsible Party	Route or Service Area / Project Location	Project Description	Work Description	Federal Funding Source	Federal Funds Requested in TIP	Federal Funds Obligated in FFY 2018	Federal Funds Obligated To Date	Federal Funds Remaining	Bike &/or Ped Elements	Project Status
415	-	Bert Nash, FTA 5310 Capital Funds	Bert Nash Community Health Center	Lawrence	Transit/Paratransit	Purchase a Ramp Mini-Van and a Full Size Van	5310	78	78	78	0	N	Ordered 03/18 - delivered in 2018/early 2019
412	5307 FTA	Lawrence Transit - Operating Funds	Lawrence Transit	Lawrence	Operating and Preventative Maintenance activities	Operating	5307	2,237	1,434	1,434	803	N	ACTIV
601	C-4857-01	Route 458 HRRR	Douglas County	Rte 458 E 1800 Rd. to E 2000 Rd.	Replace nine narrow culverts and remove roadside trees to improve roadside safety.	Roadside Improvement	HSP	753	753	753	0	N	ACTIV
306	KA-1826-01	K-10 (SLT)/Bob Billings Pkwy on West Side of Lawrence	KDOT	K-10/15th Street/Bob Billings Pkwy	K-10 (South Lawrence Trafficway)/Bob Billings Pkwy on West Side of Lawrence	A current interchange configuration has been developed as part of the K-10, South Lawrence Trafficway Corridor (Proj. No. K-3359-01). This project will construct the interchange.	STP	23,641	(1,239)	15,904	7,737	N	CLOSE
500	TE-0373-01	Preservation of Historic Santa Fe Station in Lawrence	Lawrence	413 East 7th St., Lawrence, KS	Preservation of Santa Fe Station located at 413 E 7th Street, Lawrence	Preservation of historic features, improvements to the exterior (doors, roof, chimney and windows), interior improvements (doors, walls, ADA compliance, restoration of original finishes and furnishings), and mechanical/electrical systems (heating and cooling systems, light fixtures, fire suppression system, emergency lighting)	TA	1,632	431	1,632	0	N	ACTIV
501	TE-0424-01	Improvements to Platform of the Baldwin City Depot	Baldwin City	1601 High Street	Baldwin City Depot located at 1601 High Street	Improvements to depot platform including extending the length of the brick train boarding platform, covering the boarding platform, platform lighting, landscaping, and addition of three ADA parking places	TA	190	14	189	1	N	CLOSE
505	TE-0459-01	Lawrence: 19th & Iowa Ped/Bike Underpass	Lawrence	19th St & Iowa St (US-59) Intersection	Pedestrian/bicycle underpass	Install ped/bike underpass at intersection	TA	1,868	1,869	1,869	(1)	Y	ACTIV
604	U-0225-01	Lawrence: 13th & Massachusetts	Lawrence	Massachusetts St: 11th St to 14th St	Lawrence: Massachusetts 11th Street to 14th Street	Construct Two Way Left Turn Lanes (TWLTL) between 11th and 14th Street. This road diet will reduce the existing 4 lane to a 3 lane with the addition of bike lanes for NB/SB traffic on Massachusetts Street. Surface milling, overlay and pavement markings.	HSP	100	100	100	0	Y	ACTIV
504	U-2305-01	Lawrence: Safe Routes to School (Phase 2)	Lawrence	Various sidewalk in 2 locations, RFB at approx. 9 locations	The project will add sidewalks along designated safe routes for 2 schools (LUNCH/MES) on arterial roadways w/sidewalk on 1 side & residential roadways w/no sidewalk on either side. It will also add RFBs at existing school crossings w/o a crossing guard.	Add sidewalks and signals	TA	189	189	189	0	Y	ACTIV
600	X-2892-01	BNSF & E 1900 Road east of Lawrence	KDOT	BNSF & E 1900 Road east of Lawrence	BNSF & E 1900 Road east of Lawrence	Rail/Highway Signals Flashing Light Straight Post Type w/Gates	HSP	2,000	(289)	272	1,728	N	CLOSE

Legend
 5307 - FTA Section 5307 - Operating Assistance, Preventive Maintenance, Program Administration, & Security and Capital
 5309 - FTA Section 5309 - Capital Bus and Bus Facilities
 5310 - FTA Section 5310 - Elderly and Disabled
 5317 - FTA Section 5317 - New Freedom
 5339 - FTA Section 5339 - Bus and Bus Facilities

BR - Bridge Replacement Funds
 HSP - Highway Safety Improvement Program
 NHPP - National Highway Performance Program
 SFP - Surface Transportation Program
 SRTS - Safe Routes to School

Note - Projects with * are from a master project in the STIP and are not included in our region's TIP.

Appendix E – TIP Public Participation

Task	Date	March	April	May	June	July	August	September	October	November
Discuss TIP development with KDOT, FHWA, & FTA	3/30/18									
Implement updates (TIP form and database)	April									
Discuss TIP development & incorporation of PMs with TAC	TAC - 5/1/18									
TIP project submission deadline to MPO staff	6/8/18									
Develop new TIP	6/8/18 - 8/7/18									
Send draft to KDOT, FHWA, and FTA for review	8/7/18 - 8/14/18									
30 day public comment period*	8/15/18 - 9/14/18									
Incorporate public comments	9/14/18 - 9/18/18									
Revised draft back to KDOT, FHWA, and FTA	9/18/18 - 9/21/18									
TAC/MPO Policy Board consideration of incorporating public comments into final TIP	TAC - 10/2/18 MPO - 10/18/18									
Pending Policy Board approval post online and send to KDOT, FHWA, and FTA	10/18/18									
Inclusion in Kansas STIP	November									

* Public participation process includes: Newspaper advertisement, email to subscription list, place document online and at public locations - Baldwin City Public Library, Eudora Public Library, Lawrence Public Library, Leocompton City Hall, and MPO Office, send to TAC and Policy Board for review

	Public Comment Period	# of Public Comments	TAC Action	Policy Board Action
Original Approval	8/15/18 - 9/14/18	0	October 2, 2018	October 18, 2018
Amendment 1	1/10/19 - 1/25/19	0	February 5, 2019	February 21, 2019

TIP public comments and MPO staff responses can be viewed at www.lawrenceks.org/mpo/tip/comments.

Appendix F - Summary of TIP Changes

Costs in 1,000s



FFY 2019 - 2022 L-DC MPO Transportation Improvement Program (TIP)

Revision Summary: Amendment 1

TIP #:	KDOT #:	Project Name:	Project Sponsor:	Action:	Revision Description:	Total Project Cost:
700	KA-3634-01	South Lawrence Trafficway Widening Study	KDOT	New Project	Additional planning work for the west leg study evaluating the possibility of widening the west leg of K-10 to a 4-lane freeway.	\$4,175
113	KA-4767-01	Lawrence CCLIP, US-40/ Tennessee St. Intersection	KDOT	Project Change	Revised estimates/funding. Converting 2018 State & Local PE to 2019. Increase 2019 Local CONST from \$47 to \$131. Changing \$192 2019 State-AC CONST funding to \$321 State funding. Removing \$192 2020 NHPP Conversion/Credit.	\$492
134	KA-5046-01	US-40 Mill/Overlay, SN/DG CO to 0.15 Miles W of E50thRd	KDOT	Project Change	Correcting the KDOT project # and increasing 2019 State CONST from \$13 to \$14.	\$69
203		19th St, Naismith to Iowa Reconstruction	Lawrence	Project Change	Change 2018 Local CONST to 2019.	\$3,775
236	KA-3634-02	SLT/K-10 West Leg in Douglas County	KDOT	Project Change	Change 2016 State PE to 2019. Updating the project comments to reflect the new estimated project cost.	\$4,200

Appendix G– TIP Project Listings

		13	14	15	16	
1	Project Sponsor:	Douglas County	7	Project Name:	Wakarusa Drive Extension	
2	TIP #:	106	8	KDOT #:		
3	Length (mi):	1.70	9	Location:	Rte 458 to planned K-10 interchange at Wakarusa Dr	
4	Project Type:	Road, Bridge	10	Work Type:	Grading, Bridge, Surfacing	
5	Date Added:	10/2016	11	Last Revised:	10/2018	
6	Description:	New road construction to extend Wakarusa Drive from planned K-10 interchange to Route 458. Includes new bridge over Wakarusa River. *Alignment not finalized		12	Comments:	Construction contingent on KDOT construction of K-10 interchange at Wakarusa Drive. Changed TIP # from 100 to 106 in 2/2017 - Bridge const. 2021; road const. 2022; Douglas County & Lawrence would partner on project.
		17	18	19		
		Federal Total:	\$0	Non-Federal Total:	\$9,300	Grand Total: \$9,300
1	Project Sponsor:	Agency responsible for project		15	Phase:	Enhanced Mobility of Seniors and Individuals with Disabilities (5310) Bus and Bus Facilities (5339) Program State of Kansas Funding (State) Local Government Funding (Local) - County and City funds from local property and sales taxes
2	TIP #:	MPO assigned number based on project type: - 100 – Roadway/Intersection - 200 – Bridges - 300 – ITS - 400 – Transit/Paratransit		16	Funding:	Federal, State, or Local funding shown in 1,000s
3	Length (mi):	Measures the length or distance of the project		17	Federal Total:	Total federal funding
4	Project Type:	Classified into categories: - Bridge - Enhancement - Interchange - Intersection - ITS		18	Non-Federal Total:	Total non-federal (state and local) funding
5	Date Added:	Date incorporated into the TIP		19	Grand Total:	Total amount of funding for the project
6	Description:	Brief definition of the range of the project's work and tasks included				
7	Project Name:	General project name to identify the project				
8	KDOT #:	Assigned by KDOT for each state administered and/or funded project (including projects for which KDOT provides federal money to the local government)				
9	Location:	Identifies the starting and ending point of project				
10	Work Type:	Classified into categories: - Access Management - Bridge Rehabilitation - Bridge Replacement - Capital - Geometric Improvement - Grading - Mill/Overlay - Operating - Other - Pedestrian & Bicycle Work				
11	Last Revised:	Date of most recent project adjustment and amendment/revision number				
12	Comments:	Include notes or observations about the project, not included in the other categories.				
13	FFY:	Federal Fiscal Year – October 1 – September 30				
14	Fund Source:	Community Development Block Grant (CDBG) National Highway Performance Program (NHPP) Surface Transportation Program (STP) Highway Safety Improvement Program (HSIP) Railway-Highway Crossings (set-aside from HSIP) Transportation Alternatives (TA) –includes Safe Routes To School funding Urban Area Formula Grants (5307) Rural Area Formula Grants (5311)				



Lawrence-Douglas County MPO
FFY 2019 - 2022 Transportation Improvement Program Projects (Costs in 1,000s)
(Includes the Program of Projects for the Lawrence Transit System)

Project Sponsor: Douglas County

Project Name: Wakarusa Drive Extension

TIP #: 106

KDOT #:

Length (mi): 1.70

Location: Rte 458 to planned K-10 interchange at Wakarusa Dr

Project Type: Road, Bridge

Work Type: Grading, Bridge, Surfacing

Date Added: 10/2016

Last Revised: 10/2018

Description:

New road construction to extend Wakarusa Drive from planned K-10 interchange to Route 458. Includes new bridge over Wakarusa River. *Alignment not finalized

Comments:

Construction contingent on KDOT construction of K-10 interchange at Wakarusa Drive. Changed TIP # from 100 to 106 in 2/2017 - Bridge const. 2021; road const. 2022; Douglas County & Lawrence would partner on project.

FFY	Fund Source	Phase	Federal	State	Local
2019	Local	PE	\$0	\$0	\$700
2020	Local	ROW	\$0	\$0	\$300
2020	Local	UTIL	\$0	\$0	\$100
2021	Local	CONST	\$0	\$0	\$3,200
2022	Local	CONST	\$0	\$0	\$5,000

Federal Total:	\$0	Non-Federal Total:	\$9,300	Grand Total:	\$9,300
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Project Sponsor: Lawrence

Project Name: Kasold Reconstruction, Clinton Pkwy to HyVee

TIP #: 107

KDOT #:

Length (mi): 0.20

Location: Kasold from 22nd St to Clinton Pkwy

Project Type: Road

Work Type: Reconstruction

Date Added: 10/2016

Last Revised: 2/2017

Description:

Reconstruction of street including pavement, storm sewer, sidewalks, bicycle facilities, and median.

Comments:

Included in 2018 CIP. Changed TIP # from 101 to 107 in 2/2017 - this amendment makes no changes to scope or funding.

FFY	Fund Source	Phase	Federal	State	Local
2017	Local	PE	\$0	\$0	\$100
2018	Local	CONST	\$0	\$0	\$1,000

Federal Total:	\$0	Non-Federal Total:	\$1,100	Grand Total:	\$1,100
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Lawrence-Douglas County MPO
FFY 2019 - 2022 Transportation Improvement Program Projects (Costs in 1,000s)
 (Includes the Program of Projects for the Lawrence Transit System)

Project Sponsor: KDOT

Project Name: 23rd St 2 Way Left Turn Lane

TIP #: 110

KDOT #: KA-4473-04

Length (mi): 0.32

Location: 23rd St: Louisiana St to
Massachusetts St

Project Type: Road

Work Type: Special Work

Date Added: 2/2017

Last Revised: 10/2018

Description:

Construction of a 2 way left turn lane on 23rd St from Louisiana St to Massachusetts St.

Comments:

This project is part of the 23rd St KDOT/City turn back agreement. Agreement #385-16 was executed 4/24/17.

FFY	Fund Source	Phase	Federal	State	Local
2018	State	CONST	\$0	\$500	\$0
2018	Local	CONST	\$0	\$0	\$1,300

Federal Total:	\$0	Non-Federal Total:	\$1,800	Grand Total:	\$1,800
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Project Sponsor: KDOT

Project Name: Access Consolidation on 23rd St
East of Naismith Dr.

TIP #: 112

KDOT #: K-9667-12

Length (mi): 0.12

Location: Approx. 450 ft east of Naismith Dr

Project Type: Road

Work Type: Access Management

Date Added: 2/2018

Last Revised: 10/2018

Description:

Consolidate two existing access points to one access approx. 450 ft east of Naismith Dr. Also constructing a right turn lane into a grocery store.

Comments:

Last access management project for 23rd St. KDOT to fund 100% of actual construction costs not to exceed \$103,513.

FFY	Fund Source	Phase	Federal	State	Local
2018	State	CONST	\$0	\$104	\$0
2018	Local	CONST	\$0	\$0	\$10

Federal Total:	\$0	Non-Federal Total:	\$114	Grand Total:	\$114
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Lawrence-Douglas County MPO
FFY 2019 - 2022 Transportation Improvement Program Projects (Costs in 1,000s)
(Includes the Program of Projects for the Lawrence Transit System)

Project Sponsor: KDOT

Project Name: Lawrence CCLIP, US-40/
Tennessee St. Intersection

TIP #: 113

KDOT #: KA-4767-01

Length (mi): 0.10

Location: US-40/Tennessee St. Intersection

Project Type: Road

Work Type: Other

Date Added: 8/2018

Last Revised: 2/2019

Description:

Construct new right turn lane eastbound
to southbound

Comments:

Revised estimates and funding

FFY	Fund Source	Phase	Federal	State	Local
2019	State	PE	\$0	\$16	\$0
2019	Local	PE	\$0	\$0	\$4
2019	State	ROW	\$0	\$8	\$0
2019	Local	ROW	\$0	\$0	\$2
2019	State	UTIL	\$0	\$8	\$0
2019	Local	UTIL	\$0	\$0	\$2
2019	State	CONST	\$0	\$321	\$0
2019	Local	CONST	\$0	\$0	\$131

Federal Total:	\$0	Non-Federal Total:	\$492	Grand Total:	\$492
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Project Sponsor: KDOT

Project Name: US-40 Mill/Overlay, SN/DG CO to
0.15 Miles W of E50thRd

TIP #: 134

KDOT #: KA-5046-01

Length (mi): 0.53

Location: Shawnee/Douglas County Line to 0.15
Miles West of County Road E50th Road

Project Type: Road

Work Type: Mill/Overlay, Surfacing

Date Added: 10/2018

Last Revised: 2/2019

Description:

0.5 Inch Cold Mill, 1.5 Inch Overlay and
Edge Wedge Rock on Shoulders

Comments:

FFY	Fund Source	Phase	Federal	State	Local
2018	State	PE	\$0	\$1	\$0
2019	STP	CONST	\$54	\$0	\$0
2019	State	CONST	\$0	\$14	\$0

Federal Total:	\$54	Non-Federal Total:	\$15	Grand Total:	\$69
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Lawrence-Douglas County MPO
FFY 2019 - 2022 Transportation Improvement Program Projects (Costs in 1,000s)
(Includes the Program of Projects for the Lawrence Transit System)

Project Sponsor: KDOT

Project Name: South Lawrence Trafficway

TIP #: 200

KDOT #: K-8392-04

Length (mi): 5.96

Location: SO Junct US 59/K10 E to K10

Project Type: Road

Work Type: Special Work, Right of Way

Date Added: 10/2014

Last Revised: 10/2018

Description:

Linked to Project L-8392-01.

Comments:

Revise the source of local match for the use of toll credits- Fed amount of NHPP/STP reflect change to toll credits. State \$ reflects non-participating amount of project.

FFY	Fund Source	Phase	Federal	State	Local
2016	State	PE/R/U/C/CE	\$0	\$37,123	\$0
2016	STP/NHPP	PE	\$7,337	\$0	\$0
2016	STP/NHPP	UTIL	\$12,640	\$0	\$0
2016	STP/NHPP	CONST/CE	\$129,000	\$0	\$0

Federal Total:	\$148,977	Non-Federal Total:	\$37,123	Grand Total:	\$186,100
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Project Sponsor: Lawrence

Project Name: 19th St, Naismith to Iowa Reconstruction

TIP #: 203

KDOT #:

Length (mi): 0.50

Location: 19th St from Iowa St to Naismith Dr

Project Type: Road

Work Type: Grading, Surfacing

Date Added: 10/2014

Last Revised: 2/2019

Description:

Reconstruction of street will include subgrade treatment, surfacing, storm sewer, geometric improvements and multimodal facilities.

Comments:

FFY	Fund Source	Phase	Federal	State	Local
2017	Local	PE	\$0	\$0	\$300
2019	Local	CONST	\$0	\$0	\$3,475

Federal Total:	\$0	Non-Federal Total:	\$3,775	Grand Total:	\$3,775
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Lawrence-Douglas County MPO
FFY 2019 - 2022 Transportation Improvement Program Projects (Costs in 1,000s)
(Includes the Program of Projects for the Lawrence Transit System)

Project Sponsor: Douglas County

Project Name: Route 1055 at North 700 Curve

TIP #: 208

KDOT #:

Length (mi): 0.75

Location: Route 1055 from 725 North to 1670 East

Project Type: Road

Work Type: Rehabilitation, Bridge Replacement

Date Added: 10/2014

Last Revised: 10/2018

Description:

Roadside safety improvements, replace two bridges and one culvert.

Comments:

FFY	Fund Source	Phase	Federal	State	Local
2020	Local	ROW	\$0	\$0	\$25
2020	Local	UTIL	\$0	\$0	\$100
2020	Local	CONST	\$0	\$0	\$1,325

Federal Total:	\$0	Non-Federal Total:	\$1,450	Grand Total:	\$1,450
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Project Sponsor: Lawrence

Project Name: Wakarusa Reconstruction, Research Pkwy to 18th St

TIP #: 214

KDOT #:

Length (mi): 0.19

Location: Wakarusa: Research Pkwy to 18th St

Project Type: Road

Work Type: Reconstruction

Date Added: 10/2016

Last Revised: 10/2018

Description:

Reconstruction of street will include subgrade treatment, surfacing, storm sewer, geometric improvements, and multimodal facilities.

Comments:

FFY	Fund Source	Phase	Federal	State	Local
2022	Local	PE	\$0	\$0	\$400
2022	Local	CONST	\$0	\$0	\$2,400

Federal Total:	\$0	Non-Federal Total:	\$2,800	Grand Total:	\$2,800
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Lawrence-Douglas County MPO
FFY 2019 - 2022 Transportation Improvement Program Projects (Costs in 1,000s)
(Includes the Program of Projects for the Lawrence Transit System)

Project Sponsor: Douglas County
Project Name: Rte 458 Improv., E1500 to E1600, & Rte 1055, N940 to N1000
TIP #: 219
KDOT #:
Length (mi): 1.60
Location: E1500 to E1600 & N940 to N1000
Project Type: Road
Work Type: Grading, Surfacing
Date Added: 8/2015
Last Revised: 10/2018
Description:
Construct paved shoulders; replace narrow culvert; flatten roadside slope.

FFY	Fund Source	Phase	Federal	State	Local
2020	Local	ROW	\$0	\$0	\$125
2021	Local	UTIL	\$0	\$0	\$250
2021	Local	CONST	\$0	\$0	\$1,900

Federal Total:	\$0	Non-Federal Total:	\$2,275	Grand Total:	\$2,275
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Project Sponsor: Douglas County
Project Name: Route 1055 Improvements, N1000 to N1180
TIP #: 220
KDOT #:
Length (mi): 1.80
Location: N1000 to N1180
Project Type: Road
Work Type: Grading, Surfacing
Date Added: 8/2015
Last Revised: 10/2018
Description:
Construct paved shoulders; replace narrow culvert; flatten roadside slope.

FFY	Fund Source	Phase	Federal	State	Local
2018	Local	ROW	\$0	\$0	\$75
2019	Local	UTIL	\$0	\$0	\$225
2019	Local	CONST	\$0	\$0	\$1,950

Federal Total:	\$0	Non-Federal Total:	\$2,250	Grand Total:	\$2,250
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Lawrence-Douglas County MPO
FFY 2019 - 2022 Transportation Improvement Program Projects (Costs in 1,000s)
(Includes the Program of Projects for the Lawrence Transit System)

Project Sponsor: Lawrence

TIP #: 229

Length (mi): 0.54

Project Type: Road

Date Added: 8/2015

Description:

Reconstruct & tie into venture park, roundabout at 19th & Harper, construct sidewalk & bike lanes.

Project Name: 19th Street Reconstruction, O'Connell Rd to Harper St

KDOT #:

Location: O'Connell Rd to Harper St

Work Type: Reconstruction

Last Revised: 10/2018

Comments:

PE/ROW are each estimated at 10% of Construction Costs

FFY	Fund Source	Phase	Federal	State	Local
2019	Local	PE	\$0	\$0	\$275
2019	Local	ROW	\$0	\$0	\$50
2021	Local	CONST	\$0	\$0	\$2,500

Federal Total:	\$0	Non-Federal Total:	\$2,825	Grand Total:	\$2,825
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Project Sponsor: Lawrence

TIP #: 230

Length (mi): 0.75

Project Type: Road

Date Added: 8/2015

Description:

Construct Queens Road, roundabout at Overland Dr & Queens Rd, construct sidewalk & bike lanes.

Project Name: Queens Road, 6th to North City Limits

KDOT #:

Location: 6th St to North City Limits

Work Type: Reconstruction

Last Revised: 10/2018

Comments:

PE/ROW are each estimated at 10% of Construction Costs.

Updated project description to include roundabout at Overland/Queens.

FFY	Fund Source	Phase	Federal	State	Local
2015	Local	ROW	\$0	\$0	\$600
2016	Local	PE	\$0	\$0	\$200
2019	Local	CONST	\$0	\$0	\$3,000

Federal Total:	\$0	Non-Federal Total:	\$3,800	Grand Total:	\$3,800
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Lawrence-Douglas County MPO
FFY 2019 - 2022 Transportation Improvement Program Projects (Costs in 1,000s)
 (Includes the Program of Projects for the Lawrence Transit System)

Project Sponsor: Lawrence

TIP #: 234

Length (mi): 2.01

Project Type: Road

Date Added: 8/2015

Description:

Reconstruction of street including pavement, storm sewer, geometric improvements and multimodal facilities.

Project Name: 23rd Street Reconstruction, Haskell to East City Limits

KDOT #: KA-4473-01

Location: Haskell Ave to East City Limits

Work Type: Reconstruction

Last Revised: 2/2017

Comments:

PE/ROW are each estimated at 10% of Construction Costs. Project is part of the 23rd St KDOT/City turn back agreement. This agreement, including final project(s) cost share, has not been finalized to date.

FFY	Fund Source	Phase	Federal	State	Local
2020	Local	PE	\$0	\$0	\$500
2021	State	CONST	\$0	\$2,000	\$0
2021	Local	CONST	\$0	\$0	\$2,500
2022	State	CONST	\$0	\$2,000	\$0
2022	Local	CONST	\$0	\$0	\$2,750

Federal Total:	\$0	Non-Federal Total:	\$9,750	Grand Total:	\$9,750
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Project Sponsor: KDOT

TIP #: 236

Length (mi): 1.20

Project Type: Road/Interchange

Date Added: 1/2016

Description:

Add 2 lanes to existing 2 lanes for a 4 lane freeway section. This will include reconstruction of existing interchange @ KTA (I-70). A mainline ORT (open road tolling) toll plaza on K-10 is included in reconstruction of interchange @ I-70.

Project Name: SLT/K-10 West Leg in Douglas County

KDOT #: KA-3634-02

Location: I-70/K10 Junction South to 3500 ft N of K-10/US-40 Junction

Work Type: Interchange/Reconstruction

Last Revised: 2/2019

Comments:

Project is authorized for PE only. The total project cost, including all work phases, is estimated at \$83,031,969. This estimate should be used for planning purposes only.

FFY	Fund Source	Phase	Federal	State	Local
2019	State	PE	\$0	\$4,200	\$0

Federal Total:	\$0	Non-Federal Total:	\$4,200	Grand Total:	\$4,200
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Lawrence-Douglas County MPO
FFY 2019 - 2022 Transportation Improvement Program Projects (Costs in 1,000s)
(Includes the Program of Projects for the Lawrence Transit System)

Project Sponsor: KDOT

Project Name: SLT/K-10 West Leg in Douglas County

TIP #: 237

KDOT #: KA-3634-03

Length (mi): 7.00

Location: 3500 ft N of K-10/US-40 Junction, to K-10 US-59/Iowa St Junction

Project Type: Road/Interchange

Work Type: Interchange/Reconstruction

Date Added: 1/2016

Last Revised: 10/2018

Description:

Add 2 lanes to existing 2 lanes for a 4 lane freeway section. Includes existing interchanges @ US-40, Bob Billings, Clinton & US-59. New interchange approx. .8 mi east of Wakarusa/27th St intersection. Kasold Dr intersection will be RI-RO [Project #109]

Comments:

Project is authorized for PE only. The total project cost, including all work phases, is estimated at \$164,465K. This estimate should be used for planning purposes only.

FFY	Fund Source	Phase	Federal	State	Local
2018	State	PE		\$0	\$10,800
					\$0
			Federal Total:	Non-Federal Total:	Grand Total:
			\$0	\$10,800	\$10,800

Project Sponsor: Douglas County

Project Name: Bridge 0964-1000 replacement

TIP #: 248

KDOT #:

Length (mi): 0.15

Location: E 1000 Road 0.4 mi. South of Route 458

Project Type: Bridge

Work Type: Bridge Replacement, Grading

Date Added: 10/2018

Last Revised:

Description:

Replace load posted, fracture critical bridge

Comments:

Funding amounts assume all Local funding. Will apply for Off System bridge replacement Federal funding.

FFY	Fund Source	Phase	Federal	State	Local
2020	Local	PE		\$0	\$110
2020	Local	ROW		\$0	\$15
2021	Local	UTIL		\$0	\$75
2021	Local	CONST		\$0	\$1,600
			Federal Total:	Non-Federal Total:	Grand Total:
			\$0	\$1,800	\$1,800



Lawrence-Douglas County MPO

FFY 2019 - 2022 Transportation Improvement Program Projects (Costs in 1,000s)

(Includes the Program of Projects for the Lawrence Transit System)

Project Sponsor: Douglas County **Project Name:** Bridge 1267-1200 replacement

TIP #: 249 **KDOT #:**

Length (mi): 0.10 **Location:** 0.3 mi. South of 31st & Kasold on E 1200 Rd

Project Type: Bridge **Work Type:** Bridge Replacement, Grading

Date Added: 10/2018 **Last Revised:**

Description:
Replace existing bridge with structural stability concerns

Comments:
Bridge to be replaced with precast concrete structure. Virtually no road improvements.

FFY	Fund Source	Phase	Federal	State	Local
2018	Local	PE	\$0	\$0	\$2
2019	Local	CONST	\$0	\$0	\$355

Federal Total:	\$0	Non-Federal Total:	\$357	Grand Total:	\$357
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Project Sponsor: Independence Inc. **Project Name:** Independence Inc., FTA 5311 Operating & Capital

TIP #: 401 **KDOT #:**

Length (mi): **Location:** Lawrence

Project Type: Transit/Paratransit **Work Type:** Operating/Capital

Date Added: 10/2014 **Last Revised:** 8/2018

Description:
Operating

Comments:
2017 – 5311 Admin- \$25, Local Admin \$6; 2018 – 5311 Admin- \$32, Local Admin \$8; 2019 – 5311 Admin- \$32, Local Admin \$8

FFY	Fund Source	Phase	Federal	State	Local
2017	Local	OPERATING	\$0	\$0	\$23
2017	State	OPERATING	\$0	\$11	\$0
2017	5311	OPERATING	\$54	\$0	\$0
2018	Local	OPERATING	\$0	\$0	\$34
2018	State	OPERATING	\$0	\$23	\$0
2018	5311	OPERATING	\$57	\$0	\$0
2019	Local	OPERATING	\$0	\$0	\$33
2019	State	OPERATING	\$0	\$22	\$0
2019	5311	OPERATING	\$55	\$0	\$0

Federal Total:	\$166	Non-Federal Total:	\$146	Grand Total:	\$312
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Lawrence-Douglas County MPO

FFY 2019 - 2022 Transportation Improvement Program Projects (Costs in 1,000s)

(Includes the Program of Projects for the Lawrence Transit System)

Project Sponsor: Lawrence Transit **Project Name:** Lawrence Transit Operating Funds

TIP #: 402 **KDOT #:** 5307 FTA

Length (mi): 0.00 **Location:** Lawrence

Project Type: Transit/Paratransit **Work Type:** Operating

Date Added: 10/2014 **Last Revised:** 10/2016

Description:
Operating and Preventative Maintenance activities.

Comments:
Federal Transit 5307 Funds. Not included in fiscal constraint. Previous unspent balances. Linked with project #412.

FFY	Fund Source	Phase	Federal	State	Local
2012	Local	OPERATING	\$0	\$0	\$13
2012	5307	OPERATING	\$50	\$0	\$0
2014	Local	OPERATING	\$0	\$0	\$18
2014	5307	OPERATING	\$100	\$0	\$0
2015	Local	OPERATING	\$0	\$0	\$18
2015	5307	OPERATING	\$100	\$0	\$0
2016	Local	OPERATING	\$0	\$0	\$1,524
2016	5307	OPERATING	\$2,135	\$0	\$0
Federal Total:			\$2,385	Non-Federal Total: \$1,573	Grand Total: \$3,958

Project Sponsor: Lawrence Transit **Project Name:** Lawrence Transit Capital Assistance

TIP #: 403 **KDOT #:** PT-0701

Length (mi): **Location:** Lawrence

Project Type: Transit/Paratransit **Work Type:** Special Work

Date Added: 10/2014 **Last Revised:** 10/2018

Description:
Comprehensive Transportation Program. Purchase of replacement paratransit vehicles.

Comments:
StateCTP

FFY	Fund Source	Phase	Federal	State	Local
2018	State-PT	CAPITAL	\$0	\$500	\$0
2018	State-PT	OPERATING	\$0	\$699	\$0
2019	State-PT	CAPITAL	\$0	\$500	\$0
2019	State-PT	OPERATING	\$0	\$759	\$0
2020	State-PT	CAPITAL	\$0	\$500	\$0
2020	State-PT	OPERATING	\$0	\$759	\$0
2021	State-PT	CAPITAL	\$0	\$500	\$0
2021	State-PT	OPERATING	\$0	\$759	\$0
Federal Total:			\$0	Non-Federal Total: \$4,976	Grand Total: \$4,976

Lawrence-Douglas County MPO
FFY 2019 - 2022 Transportation Improvement Program Projects (Costs in 1,000s)
 (Includes the Program of Projects for the Lawrence Transit System)

Project Sponsor: Lawrence Transit

Project Name: Lawrence Multi-Modal Center

TIP #: 410

KDOT #:

Length (mi):

Location: Lawrence

Project Type: Transit/Paratransit

Work Type: Capital

Date Added: 7/2016

Last Revised: 10/2018

Description:

Transit Facility

Comments:

FFY	Fund Source	Phase	Federal	State	Local
2018	Local	PE	\$0	\$0	\$1,000
2019	Local	CONST	\$0	\$0	\$1,000
2020	Local	CONST	\$0	\$0	\$2,000

Federal Total:	\$0	Non-Federal Total:	\$4,000	Grand Total:	\$4,000
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Project Sponsor: Lawrence Transit

Project Name: Lawrence Transit Operating Funds

TIP #: 412

KDOT #: 5307 FTA

Length (mi):

Location: Lawrence

Project Type: Transit/Paratransit

Work Type: Operating

Date Added: 10/2014

Last Revised: 10/2018

Description:

Operating and Preventative Maintenance activities.

Comments:

Federal Transit 5307 Funds. 2018-2022 amounts are projected. Linked with project #402.

FFY	Fund Source	Phase	Federal	State	Local
2017	Local	OPERATING	\$0	\$0	\$1,524
2017	5307	OPERATING	\$2,135	\$0	\$0
2018	Local	OPERATING	\$0	\$0	\$1,690
2018	5307	OPERATING	\$2,237	\$0	\$0
2019	Local	OPERATING	\$0	\$0	\$1,775
2019	5307	OPERATING	\$2,350	\$0	\$0
2020	Local	OPERATING	\$0	\$0	\$1,864
2020	5307	OPERATING	\$2,468	\$0	\$0
2021	Local	OPERATING	\$0	\$0	\$1,957
2021	5307	OPERATING	\$2,591	\$0	\$0
2022	Local	OPERATING	\$0	\$0	\$2,055
2022	5307	OPERATING	\$2,720	\$0	\$0

Federal Total:	\$14,501	Non-Federal Total:	\$10,865	Grand Total:	\$25,366
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Lawrence-Douglas County MPO
FFY 2019 - 2022 Transportation Improvement Program Projects (Costs in 1,000s)
(Includes the Program of Projects for the Lawrence Transit System)

Project Sponsor: Bert Nash
Community Mental
Health Center

TIP #: 415

Length (mi): 0.00

Project Type: Transit/Paratransit

Date Added: 8/2018

Description:

Purchase a Ramp Mini-Van (\$40) and a Full Size Van (\$57).

Project Name: Bert Nash, FTA 5310 Capital Funds

KDOT #:

Location: Lawrence

Work Type: Capital

Last Revised:

Comments:

80/20 federal/local split

FFY	Fund Source	Phase	Federal	State	Local
2019	Local	CAPITAL	\$0	\$0	\$19
2019	5310	CAPITAL	\$78	\$0	\$0

Federal Total:	\$78	Non-Federal Total:	\$19	Grand Total:	\$97
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Project Sponsor: Lawrence

TIP #: 505

Length (mi): 0.02

Project Type: Enhancement

Date Added: 12/2017

Description:

Pedestrian/bicycle underpass

Project Name: 19th & Iowa St Ped/Bike Underpass

KDOT #: TE-0459-01

Location: 19th St & Iowa St (US-59) Intersection

Work Type: Pedestrian & Bicycle Work

Last Revised: 8/2018

Comments:

KDOT awarded Transportation Alternatives (TA) grant. Linked with project #203. Pending Advanced Construction.

FFY	Fund Source	Phase	Federal	State	Local
2018	Local	PE	\$0	\$0	\$120
2018	Local	CONST	\$0	\$0	\$1,181
2018	TA	CONST	\$1,868	\$0	\$0

Federal Total:	\$1,868	Non-Federal Total:	\$1,301	Grand Total:	\$3,169
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Lawrence-Douglas County MPO

FFY 2019 - 2022 Transportation Improvement Program Projects (Costs in 1,000s)

(Includes the Program of Projects for the Lawrence Transit System)

Project Sponsor: Lawrence

TIP #: 506

Length (mi): 1.68

Project Type: Safe Routes to School (SRTS)

Date Added: 12/2017

Description:
New sidewalk construction along designated Safe Routes to School. Driveway and sidewalk ramp construction will be included for ADA compliance.

Project Name: Lawrence Safe Routes to School TA Phase 2

KDOT #: U-2334-01

Location: Various sidewalk along 6 streets in Lawrence

Work Type: Pedestrian & Bicycle Work

Last Revised: 10/2018

Comments:
This project will give a space for children to walk and/or bike to school along designated safe routes. The SRTS funding is an 80/20 (KDOT/City) cost share with KDOT contributing a max of \$394,128.

FFY	Fund Source	Phase	Federal	State	Local
2018	Local	PE	\$0	\$0	\$65
2019	Local	CONST	\$0	\$0	\$100
2019	TA	CONST	\$394	\$0	\$0
Federal Total:			\$394	Non-Federal Total: \$165	Grand Total: \$559

Project Sponsor: Lawrence

TIP #: 507

Length (mi): 0.00

Project Type: Enhancement

Date Added: 10/2018

Description:
Pedestrian, Bicycle, and ADA ramp projects throughout Lawrence including EJ areas. Community Development Block Grant (CDBG) is a competitive HUD program administered by the Lawrence Development Services Department.

Project Name: Various Lawrence Sidewalk/Bike/Ped/ADA Ramps

KDOT #:

Location: Lawrence

Work Type: Pedestrian & Bicycle Work

Last Revised:

Comments:
The grouped CDBG only includes awarded competitive funding. CONST funding may be used for additional work tasks. Local funding matching TA project specific funding will be listed separately.

Funding based on July 10, 2018 CIP.

FFY	Fund Source	Phase	Federal	State	Local
2019	Local	CONST	\$0	\$0	\$600
2019	CDBG	CONST	\$303	\$0	\$0
2020	Local	CONST	\$0	\$0	\$750
2021	Local	CONST	\$0	\$0	\$1,000
2022	Local	CONST	\$0	\$0	\$1,000
Federal Total:			\$303	Non-Federal Total: \$3,350	Grand Total: \$3,653

Lawrence-Douglas County MPO
FFY 2019 - 2022 Transportation Improvement Program Projects (Costs in 1,000s)
 (Includes the Program of Projects for the Lawrence Transit System)

Project Sponsor: KDOT **Project Name:** Various Railroad Safety Projects in the Region

TIP #: 600 **KDOT #:**

Length (mi): **Location:**

Project Type: Safety **Work Type:**

Date Added: 10/2014 **Last Revised:** 10/2018

Description:
 Safety improvements along railroads in region as identified by KDOT. These funds may be used to benefit the region by working to correct or improve identified safety hazards at public railway-highway crossing in a proactive manner.

Comments:
 This is a master project that would include any safety projects selected in region. State funds (SF) Conversions: 2018 SF to 2019 HSIP, 2019 SF to 2020 HSIP, 2020 SF to 2021 HSIP, 2021 SF to 2022 HSIP.

FFY	Fund Source	Phase	Federal	State	Local
2018	State-AC	CONST	\$0	\$500	\$0
2019	HSIP	CONVERSION	\$500	\$0	\$0
2019	Credit	OTHER	\$0	(\$500)	\$0
2019	State-AC	CONST	\$0	\$500	\$0
2020	HSIP	CONVERSION	\$500	\$0	\$0
2020	Credit	OTHER	\$0	(\$500)	\$0
2020	State-AC	CONST	\$0	\$500	\$0
2021	HSIP	CONVERSION	\$500	\$0	\$0
2021	Credit	OTHER	\$0	(\$500)	\$0
2021	State-AC	CONST	\$0	\$500	\$0
2022	HSIP	CONVERSION	\$500	\$0	\$0
2022	Credit	OTHER	\$0	(\$500)	\$0
Federal Total:	\$2,000	Non-Federal Total:	\$0	Grand Total:	\$2,000

Project Sponsor: Douglas County **Project Name:** Local Road Safety Plan

TIP #: 602 **KDOT #:**

Length (mi): **Location:** County road network

Project Type: Safety **Work Type:** Safety

Date Added: 1/2016 **Last Revised:** 10/2018

Description:
 Safety study of county road network (major collectors) to identify needed safety improvements.

Comments:

FFY	Fund Source	Phase	Federal	State	Local
2019	Local		\$0	\$0	\$4
2019	HRRR		\$36	\$0	\$0
Federal Total:	\$36	Non-Federal Total:	\$4	Grand Total:	\$40

Lawrence-Douglas County MPO
FFY 2019 - 2022 Transportation Improvement Program Projects (Costs in 1,000s)
 (Includes the Program of Projects for the Lawrence Transit System)

Project Sponsor: Lawrence

TIP #: 604

Length (mi): 0.37

Project Type: Safety

Date Added: 8/2017

Description:

Reconfigure lanes for center turn lane and bike amenities.

Project Name: Massachusetts St, 11th to 14th St Reconfigure Lanes

KDOT #: U-0225-01

Location: Massachusetts St: 11th St to 14th St

Work Type: Mill/Overlay

Last Revised: 8/2018

Comments:

FFY	Fund Source	Phase	Federal	State	Local
2018	Local	PE	\$0	\$0	\$14
2018	Local	CONST	\$0	\$0	\$50
2018	HSIP	CONST	\$100	\$0	\$0

Federal Total:	\$100	Non-Federal Total:	\$64	Grand Total:	\$164
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Project Sponsor: KDOT

TIP #: 700

Length (mi): 8.40

Project Type: Other

Date Added: 2/2019

Description:

Study K10 becoming a 4-lane freeway. This project will review project area issues, current transportation needs, impacts on current projects, interchange configurations and reevaluate the environmental documentation for the preferred improvements.

Project Name: South Lawrence Trafficway Widening Study

KDOT #: KA-3634-01

Location: K-10 West Leg in Douglas County US 59/K10/Iowa to I70/KTA/K10 Junction

Work Type: Road Widening

Last Revised:

Comments:

This project will include traffic analysis, full field survey and Public involvement. This project will include selected R/W acquisition as parcels become available.

Project is authorized for PE & ROW ONLY.

FFY	Fund Source	Phase	Federal	State	Local
2018	State	PE	\$0	\$4,000	\$0
2018	State	ROW	\$0	\$175	\$0

Federal Total:	\$0	Non-Federal Total:	\$4,175	Grand Total:	\$4,175
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