

Transportation 2040 Amendment #1 for Public Review and Comment

The Lawrence - Douglas County Metropolitan Planning Organization (MPO) Policy Board approved Transportation 2040 on March 15, 2018.¹ Transportation 2040 is the blueprint for our future Transportation system. It is a vision for a healthy, safe, and efficient Transportation system, which adequately serves Lawrence, Eudora, Baldwin City, Lecompton, and unincorporated areas of Douglas County. Transportation 2040 forecasts \$1.503 billion in funding for Transportation operations/maintenance and projects addressing Transportation needs throughout Douglas County between 2017 and 2040. The plan can be amended as new projects, funding, or programs occur. The MPO's Public Participation Plan requires proposed amendments to Transportation 2040 be released for 30-day public comment and review.²

The Kansas Department of Transportation (KDOT) has requested an amendment to Transportation 2040 for two projects that are included in the Kansas Department of Transportation Eisenhower Legacy Transportation Program IKE Development Pipeline Project.^{3 & 4}

- The **US-40/K-10 Interchange Improvement (Diverging Diamond Interchange, at W. 6th Street, KA-2841-02, MPO #142)** project is currently listed on the illustrative list and is being requested to be moved into the Transportation 2040 fiscally constrained project list.
- The addition of a project **US-56 Reconstruction (US-56/US-59 Junction to East to 1600 Rd, KA-6015-01, MPO #143)** is being requested to be included to the Transportation 2040 fiscally constrained project list.

Financial Capacity

Transportation 2040's financial plan must be fiscally constrained, which is intended to ensure the plan reflects realistic assumptions about future revenues and revenues are "reasonably expected to be available" to implement projects identified. Transportation 2040 can only include projects that can be constructed given the total funding reasonably expected to be available through 2040. Projects outside of this fiscal constraint can be included in long range plan, but only as illustrative projects for consideration with future funding sources. Since funding wasn't allocated for the US-40/K-10 Interchange Improvement (Diverging Diamond Interchange) project during the development of Transportation 2040 it was included in the illustrative project listing. The development of a project to reconstruct US-56 has been identified since Transportation 2040 was adopted, and needs to be added to proceed with the reconstruction.

Transportation 2040's KDOT revenue forecast anticipated an average of \$2.51 million per year over a 10-year period to complete state projects based on historical projections. Since adoption of Transportation

What is the IKE Development Pipeline?

IKE is a rolling program, which means major highway modernization and expansion projects will be selected every two years rather than once a decade as previous programs did. This ensures the State can address the most pressing needs and adjust to fluctuating revenues.

The IKE Development Pipeline is the name of projects which are having preliminary engineering (the design and additional advance work) completed. This is necessary before projects are committed to be constructed. Learn more about the IKE Development Pipeline at: http://www.ksdot.org/Assets/wwwksdotorg/IKE/Documents/Pipeline_Summary_FINAL.pdf

¹ Access Transportation 2040 at: <https://lawrenceks.org/mpo/t2040>

² Access the Public Participation Plan at: https://lawrenceks.org/mpo/public_participation

³ Access the Kansas Department of Transportation Eisenhower Legacy Transportation Program (IKE) <http://www.ksdot.org/IKE.asp>

⁴ Access the District 1 list of IKE Development Pipeline Projects at: http://www.ksdot.org/Assets/wwwksdotorg/IKE/Documents/District_1_Guarantee_Handout_FINAL.pdf

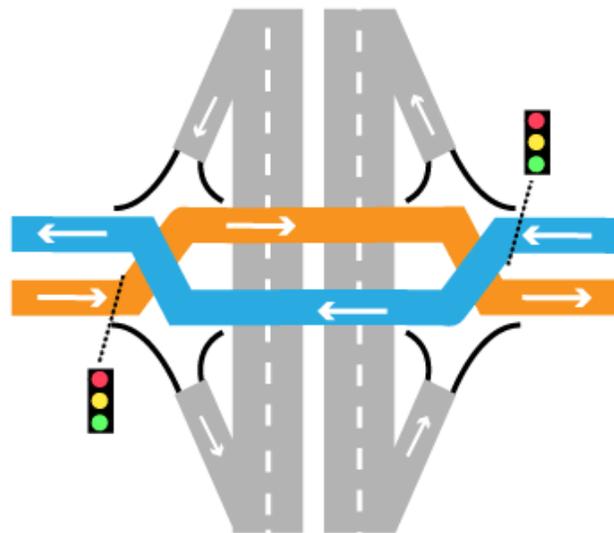
2040, the Kansas Legislature passed a new 10-year rolling Transportation program. The Eisenhower Legacy Transportation Program (IKE) identifies 10 years' worth of funding and programs. IKE projects are different from past KDOT funding programs. IKE has a Development Pipeline so preliminary engineering work (the design and additional advance work) can begin. However, not all projects that are in the Development Pipeline are committed to be constructed. The US-40/K-10 Interchange Improvement and US-56 Reconstruction projects were selected to be in the IKE Development Pipeline as modernization projects.⁵

Selection of projects into the IKE Development Pipeline includes project funding outside of the anticipated revenues originally projected, so these projects are fiscally constrained when amended into Transportation 2040.

US-40/K-10 Interchange Improvement (Diverging Diamond Interchange) – KA-2841-02 (at W. 6th Street, Lawrence, MPO #142)

Description: Construct a Diverging Diamond Interchange (DDI) shown in Figure 1. The project is authorized for preliminary engineering (PE), and right-of-way (ROW) and utility (UTIL) work only. The estimated total project cost is \$ 12,350,000 which shall be used for planning purposes only. The preliminary engineering phase will utilize Advanced Construction in the amount of \$ 800,000 with conversion to National Highway Performance Program (NHPP) funding in 2025. The utility phase will utilize Advanced Construction in the amount of \$240,000 with conversion to National Highway Performance Program (NHPP) funding in 2025. The project has anticipated construction slated for 2023 but is currently not authorized for construction.

Figure 1: Example of a Diverging Diamond Interchange



Source: Missouri Department of Transportation (Modified) <https://rb.gv/ohztmg>

Advanced Construction is utilized when KDOT spends state funding upfront and the expenses are later converted to a federal funding source (in this case National Highway Performance Program funding) and KDOT is credited the expenditures.

Preliminary Engineering and subsequent phases for the project will begin when this project is included in the Federal Fiscal Year (FFY) 2021-2024 Transportation Improvement Program (TIP).⁶ However, the project cannot be amended into the TIP until it is included in the fiscally constrained portion of Transportation 2040.

The US-40/K-10 interchange improvements meet the following Transportation 2040 goals:

⁵ Access the Douglas County projects in the District 1 summary: http://www.ksdot.org/Assets/wwwksdotorg/IKE/Documents/District_1_Guarantee_Handout_FINAL.pdf

⁶ Access the Transportation Improvement Program at: <https://lawrenceks.org/mpo/tip>

- **Mobility & Prosperity:** A diverging diamond interchange will more efficiently move people, goods and freight which improves system performance and reliability.
- **Access & Choice:** This interchange will improve access to areas identified as commercial, residential office, and low/medium density residential future land uses by the West of K-10 Sector Plan.⁷ Planning for bicycle and pedestrian infrastructure will be included when the project is designed to accommodate multimodal trip making.
- **Preservation, Safety, & Security:** A diverging diamond interchange will add additional capacity and improve safety to accommodate growth in the area. The existing traffic lights were installed as an interim improvement to address vehicles queuing on the K-10 access ramps in 2014. Crash history since the 2014 improvement is shown in Figure 2. Diverging Diamond Interchanges have fewer conflict points than conventional intersections, shown in Figure 3. 58 crashes occurred between 2015 and 2019 in the map extent shown in the heatmap in Figure 2. These crashes are listed per year in Table 1.

Table 1: Crash History

Year	Auto Crashes
2015	13
2016	11
2017	15
2018	8
2019	11
Total	58

Note: Number of crashes in the map extent shown in Figure 2. No recorded crashes for autos/pedestrians and autos/bicycle riders.

Source: 2015-2019 KDOT Crash Data

Figure 3: Crash History

**US-40/K-10 Interchange
Auto Crash History
2015 - 2019**

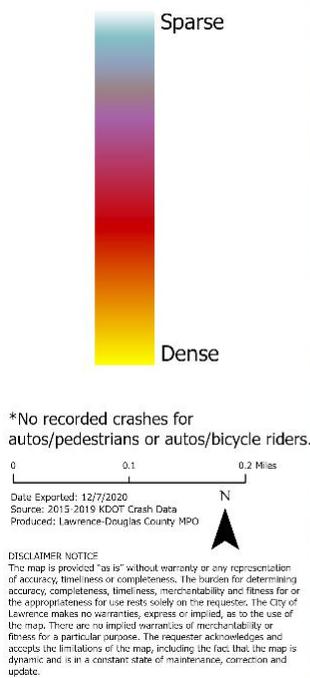
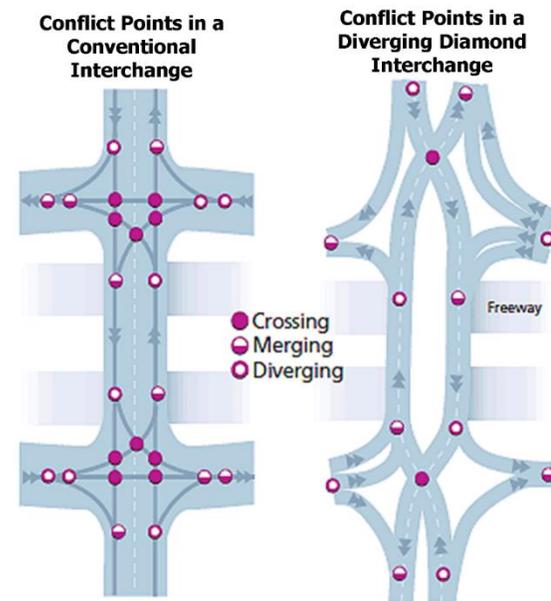


Figure 3: Conflict Points



Source: Federal Highway Administration
<https://www.rvsafety.com/rveducation/driving/intersections-driving-innovative>

⁷ Page 31 of the plan: <https://assets.lawrenceks.org/assets/pds/planning/documents/West-of-K10-Sector-Plan.pdf>

US-56 Reconstruction (US-56/US-59 Junction to East to 1600 Rd, KA-6015-01, MPO #143)

Description: This project is authorized for Preliminary Engineering ONLY. The estimated total project cost is \$ 14,820,000 which shall be used for planning purposes only. The Preliminary Engineering Phase will utilize Advanced Construction in the amount of \$ 960,000 with conversion to National Highway Performance Program (NHPP) in 2026. The project has anticipated construction slated for 2025, but is currently not authorized for construction. Advanced Construction is utilized when KDOT spends state funding upfront and the expenses are later converted to a federal funding source (in this case National Highway Performance Program funding) and KDOT is credited the expenditures.

Preliminary Engineering for the project will begin when this project is included in the Federal Fiscal Year (FFY) 2021-2024 Transportation Improvement Program (TIP).⁸ However, the project cannot be amended into the TIP until it is included in the fiscally constrained portion of Transportation 2040.

The US-56 Reconstruction meets the following Transportation 2040 goals:

- Preservation, Safety, & Security:** This is the highest-rated modernization project in the state for geometric, safety and pavement structure concerns.⁹ The addition of acceleration and deceleration lanes as warranted will improve safety along this stretch of highway. Further, the shoulders will be expanded from 4 feet to 10 feet. This will provide adequate space for people to bicycle on the shoulder removed from moving traffic. A minimum shoulder of 8 feet is recommend for this facility in the current draft of the Countywide Bike Plan. The 2015-2019 crash history along US-56 is shown in the heat map in Figure 5. These 41 crashes are listed per year in Table 2. The latest pavement condition inventory of the 3.375 miles of US-56 shows pavement in good and fair condition (Figure 5). The project includes new pavement.

Table 2: Crash History

Year	Crashes
2015	11
2016	7
2017	4
2018	12
2019	7
Total	41

Note: Number of crashes along US-56 from the US-56/US59 Junction to 1600 Rd. No recorded crashes for autos/pedestrians and autos/bicycle riders.

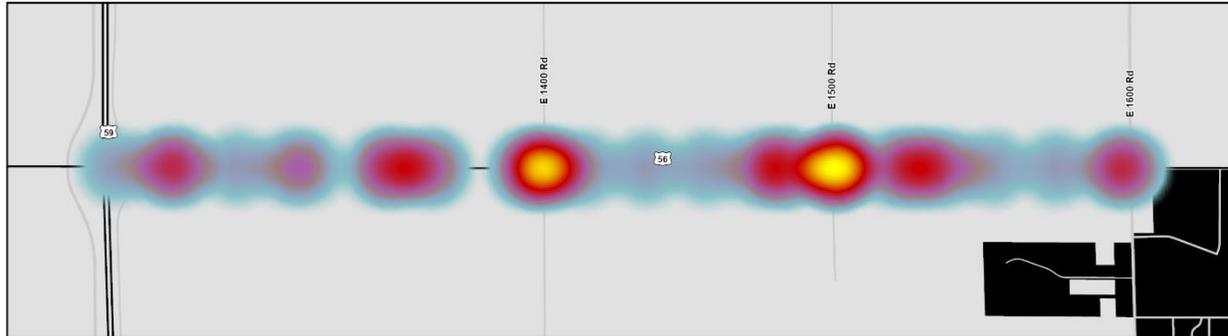
Source: 2015-2019 KDOT Crash Data

⁸ Access the Transportation Improvement Program at: <https://lawrenceks.org/mpo/tip>

⁹ According to the District 1 award summary at: http://www.ksdot.org/Assets/wwwksdotorg/IKE/Documents/District_1_Guarantee_Handout_FINAL.pdf

Figure 4: Crash History

US-56 Auto Crash History 2015 - 2019



*No recorded crashes for autos/pedestrians or autos/bicycle riders.

0 0.75 1.5 Miles

Date Exported: 12/10/2020
Source: 2015-2019 KDOT Crash Data
Produced: Lawrence-Douglas County MPO



Sparse
Dense
Baldwin City Limits

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.

Figure 5: Pavement Condition

US-56 Pavement Condition 2019



0 0.75 1.5 Miles

Date Exported: 12/10/2020
Source: 2015-2019 KDOT Crash Data
Produced: Lawrence-Douglas County MPO



2019 Pavement Condition
Good
Fair
Poor
Baldwin City Limits

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.

Project Budget in 1,000s

**US-40/K-10 Interchange Improvement
(DDI, at W. 6th St, KA-2841-02, MPO #142)**

FFY	Fund Source	Phase	Federal	State	Authorized
2021	State-AC	PE	\$ -	\$ 800	Yes
2021	State	PE	\$ -	\$ 200	Yes
2021	State	ROW	\$ -	\$ 300	Yes
2022	State-AC	UTIL	\$ -	\$ 240	Yes
2022	State	UTIL	\$ -	\$ 60	Yes
2023	State-AC	CONST	\$ -	\$ 8,600	No
2023	State	CONST	\$ -	\$ 2,150	No
2025	NHPP	CONVERSION	\$ 9,640	\$ -	No
2025	Credit	OTHER	\$ -	\$ (9,640)	No

Federal Total: \$ 9,640 **Non-Federal Total:** \$ 2,710 **Grand Total:** \$ 12,350

*The construction phase is not authorized at this time, meaning it is not guaranteed to be completed.

Legend:

FFY = Federal Fiscal Year – the year of the funds

Phases:

PE = Preliminary Engineering – the project design

ROW = Right-of-Way – purchasing the ability to build the roadway on the piece of property

UTIL = Utility – refers to planning for utility relocations needed for the project

State-AC = state Advanced Construction – KDOT spends state funding upfront and the expenses are later converted to a federal funding source (in this case National Highway Performance Program funding) and KDOT is credited the expenditures.

State = funding from the State of Kansas

NHPP = National Highway Performance Program Funding – a federal funding source - <https://www.fhwa.dot.gov/fastact/factsheets/nhpps.cfm>

Credit = part of the Advanced Construction process where KDOT is reimbursed for qualifying state expenditures towards a project. The credit phase is when funding is reimbursed to KDOT from the Federal Highway Administration (FHWA).

Conversion = references when the FHWA reimburses KDOT for the qualifying State Advanced Construction Expenditures.

Other = references when KDOT is reimbursed for the qualifying State Advanced Construction Expenditures.

US-56 Reconstruction: US-56/US-59 Junction East to 1600 Fund

FFY	Source	Phase	Federal	State	Authorized
2021	State	PE	\$ -	\$ 240	Yes
2021	State-AC	PE	\$ -	\$ 960	Yes
2022	State	ROW	\$ -	\$ 360	No
2024	State	UTIL	\$ -	\$ 72	No
2024	State-AC	UTIL	\$ -	\$ 288	No
2025	State	CONST	\$ -	\$ 2,580	No
2025	State-AC	CONST	\$ -	\$ 10,320	No
2026	NHPP	CONVERSION	\$ 11,568	\$ -	No
2026	Credit	OTHER	\$ -	\$ (11,568)	No
Federal Total:	\$ 11,568	Non-Federal Total:	\$ 3,252	Grand Total:	\$ 14,820

*The right-of-way, utility, and construction phases are not authorized at this time, meaning they are not guaranteed to be completed.

Legend:

FFY = Federal Fiscal Year – the year of the funds

Phases:

PE = Preliminary Engineering – the project design

ROW = Right-of-Way – purchasing the ability to build the roadway on the piece of property

UTIL = Utility – refers to planning for utility relocations needed for the project

State-AC = state Advanced Construction – KDOT spends state funding upfront and the expenses are later converted to a federal funding source (in this case National Highway Performance Program funding) and KDOT is credited the expenditures.

State = funding from the State of Kansas

NHPP = National Highway Performance Program Funding – a federal funding source - <https://www.fhwa.dot.gov/fastact/factsheets/nhpps.cfm>

Credit = part of the Advanced Construction process where KDOT is reimbursed for qualifying state expenditures towards a project. The credit phase is when funding is reimbursed to KDOT from the Federal Highway Administration (FHWA).

Conversion = references when the FHWA reimburses KDOT for the qualifying State Advanced Construction Expenditures.

Other = references when KDOT is reimbursed for the qualifying State Advanced Construction Expenditures.

Assessing Implementation

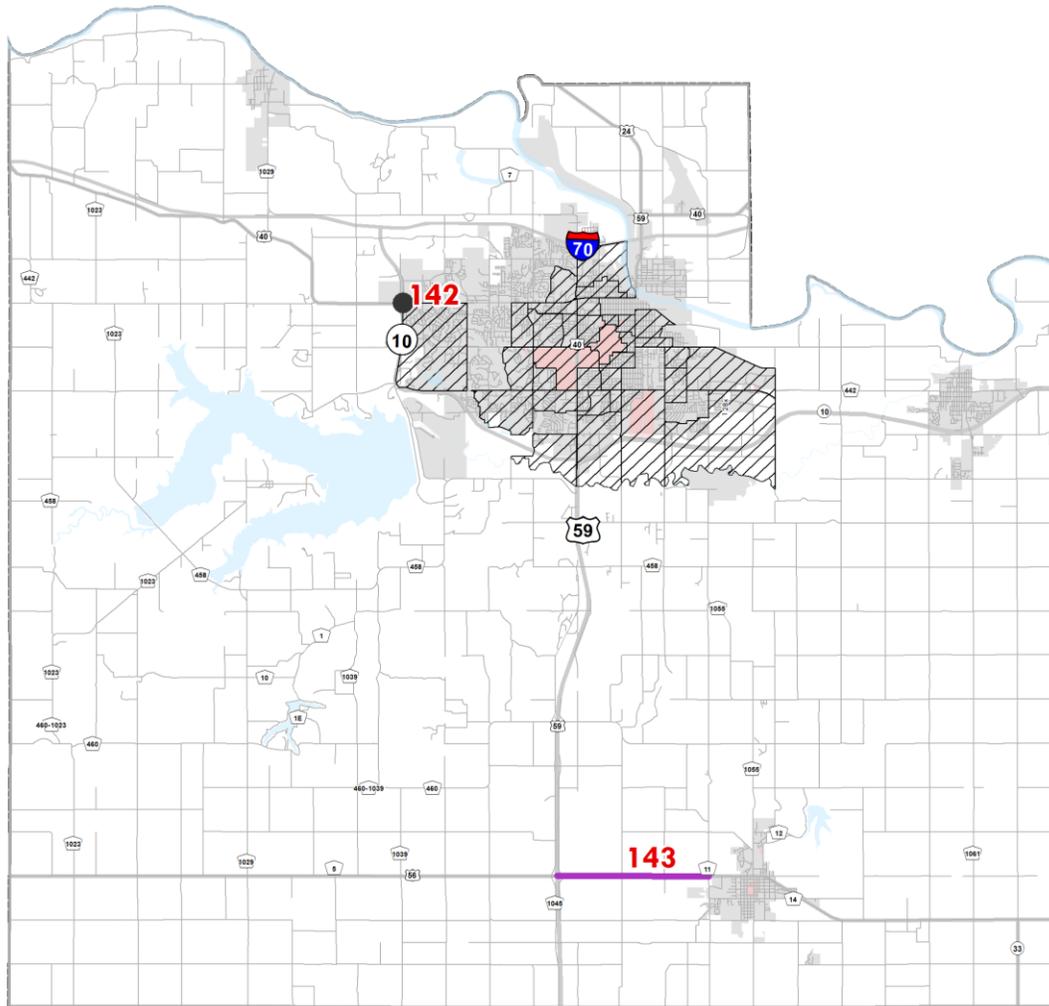
The two projects included in the amendment were analyzed using the newest Environmental Justice (EJ) criteria from the Federal Fiscal Year (FFY) 2021-2024 Transportation Improvement Program (TIP).¹⁰ This Environmental Justice criteria has been updated with the newest available data since Transportation 2040 was adopted in March of 2018. Project 142 is adjacent to the Federal Fiscal Year (FFY) 2021-2024 Transportation Improvement Program (TIP) Environmental Justice Zone. The Transportation 2040 Environmental Justice zone would not have included either project. Figure 6 shows the projects and the EJ zone, which is located adjacent to project 142. These projects were also evaluated for the potential impacts on the environment based on their interaction with floodplains, wetlands, other environmentally sensitive areas, threatened and endangered species, and historic resources, as shown in Table 2. People who reside within the EJ area directly abutting this project will have a safer multimodal interchange to access K-10 and destinations west of K-10. Project 142 (US-40/K-10 Interchange Improvement) will provide access and mobility and increased safety to multimodal roadway users. Currently there is not any dedicated bicycle and pedestrian infrastructure, bicycle and pedestrian users must use a shared roadway. A deeper evaluation of potential environmental impacts should be conducted by KDOT as design elements are considered and implemented for the projects.. It is not anticipated for the project to have any adverse disproportionate impacts on the EJ population after construction. KDOT should be sensitive to possible impacts of access for traffic control, noise, and downstream watersheds during construction.

What is Environmental Justice?

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, color, or national origin 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

¹⁰ <https://assets.lawrenceks.org/mpo/tip/2021-2024TIP.pdf#page=30>

Figure 6: T2040 Amendment #1 Project Additions and the Environmental Justice Zone



0 3.25 6.5 Miles

● Interchange Project ⬛ County Limits ⬛ City Limits
 — Modernization Project ⬛ University ⬛ FFY21 TIP Environmental Justice Zone

Source: Lawrence-Douglas County MPO (2020)
 Produced: Lawrence-Douglas County MPO (2020)

Note: Project 142 (US-40/K-10 Interchange Improvement, Diverging Diamond Interchange, at W. 6th Street) and Project 143 (US-56 Reconstruction from US-56/US-59 to 1600 Rd) are being added to Transportation 2040 in Amendment 1. The projects were evaluated with the newest Environmental Justice data from the Federal Fiscal Year (FFY) 2021 Transportation Improvement Program (TIP).

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.

Table 3: Summary of EJ/Environmental Mitigation Concerns

MPO #	Project Name	Project Type	EJ Zone	Protected Area	High/Medium Threatened & Endangered Species	100 Year Floodplain	Historical Resource
142	US-40/K-10 Interchange Improvement (Diverging Diamond Interchange, at W. 6th St, Lawrence)	Intersection	X*	-	-	-	-
143	US-56 Reconstruction: US-56/US-59 Junction east to 1600 Rd.	Modernization	-	-	-	-	-

*Project 142 and 143 are included in Transportation 2040 through Amendment 1. The Environmental Justice (EJ) zones have been updated since Transportation 2040 was completed. This project was evaluated with the EJ zone developed for the Federal Fiscal Year (FFY) 2021 Transportation Improvement Program (TIP).

Planning Process

This amendment is the first step to begin design of the project. Before KDOT can spend funding on designing and engineering the projects, the projects need to be included on the Transportation 2040 fiscally constrained project list. Projects in Transportation 2040 can be included in the Federal Fiscal Year (FFY) 2021-2024 Transportation Improvement Program (TIP), which is the short range listing of transportation projects in Douglas County. Once the projects are in the TIP, KDOT can proceed with the design phase.

Construction is not currently authorized for either project. Once KDOT is ready to move forward with constructing the projects, the construction phase will be amended into a future TIP.

Public Comment Period

All amendments to Transportation 2040 require a 30-day public comment period. The public may comment on changes being made in the amendment.

The 30-day public comment period was December 22 to January 21.

Comments received on or before January 21 will be considered for the final document, to be presented to the Lawrence-Douglas County Metropolitan Planning Organization (MPO) Policy Board for consideration at their February 18 regular meeting, 3 pm to be hosted virtually.

The draft Transportation 2040 Amendment 1 was available for public review at:

Online at: <https://lawrenceks.org/mpo/t2040>

Lecompton City Hall
327 Elmore Street

Lawrence Public Library
707 Vermont Street

Baldwin City Public Library
800 7th Street

Lawrence City Hall Riverfront - Planning &
Development Services Office
1 Riverfront Plaza, Suite 320,
from 8 am to 4 pm

Eudora City Hall
4 E 7th Street

Written comments could be emailed to mpo@lawrenceks.org or mailed to Jessica Mortinger at the Lawrence-Douglas County Metropolitan Planning Organization, PO Box 708, Lawrence, KS 66044-0708.

Public Comments Received – One Comment Received

The City of Baldwin City would like KDOT to analyze traffic counts at the intersection of Highway 56/E1600 Road. This intersection is a dangerous intersection with the potential for vehicle accidents. The City would like to see if a stoplight is warranted by a traffic study for this intersection. Furthermore, the City is looking at updating our existing truck route through the city and this road and intersection is a primary component. We feel this intersection needs to have a stoplight in order to divert trucks from the main grain tower away from our downtown to highway 56 and use E1600 Road as a primary entrance and exit point for the city by heavy farmer trucks. Without a stoplight, heavy farmer trucks would exacerbate the existing traffic hazard at this intersection. A stoplight would also help alleviate elementary school traffic in the morning and afternoon. This intersection does back up at critical times both in the morning and afternoon.

Best Regards,
Baldwin City

Transportation 2040 Pages Changing in Amendment 1

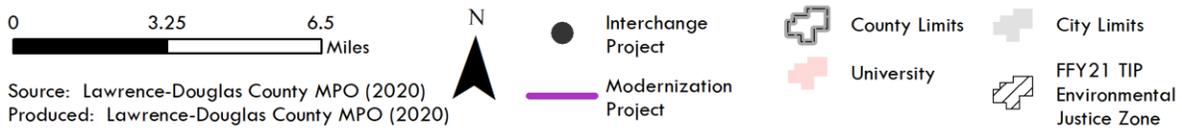
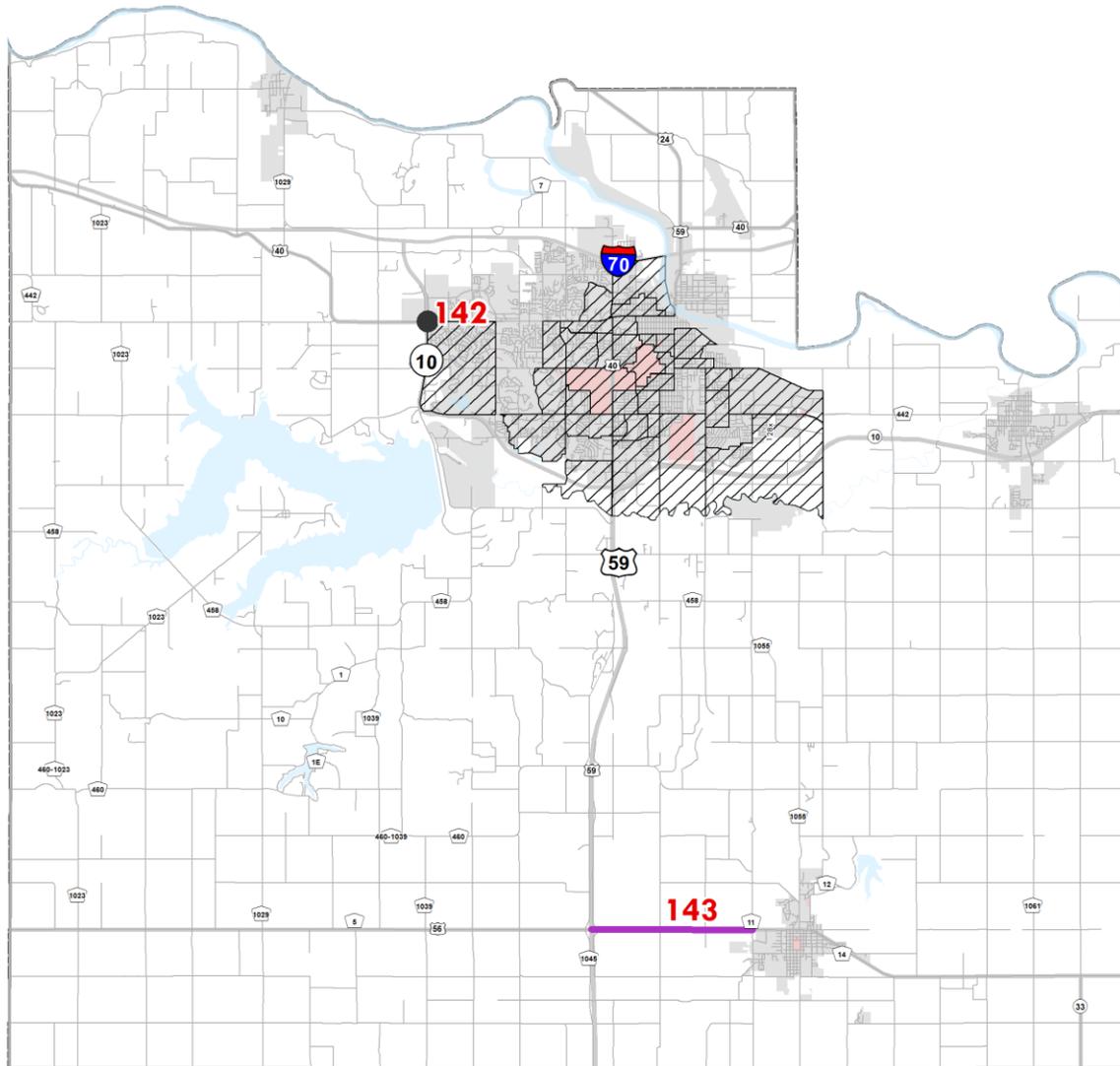
Update	Existing Page #	New Page #
Table 5.9: Historical Road & Bridge Revenues	146	146
Figure 6.8b/7.1b: Transportation 2040 Amendment 1 Mapped Projects and the EJ Zone	New pages after 172 & 183	173 & 187
Table 6.4: Fiscally Constrained Road and Bridge Projects – KDOT	177	179
Table 6.5: Illustrative Projects	179	181
Table 7.1: Mapped Investment Priorities Located in the EJ Zone	183	185
Figure 7.6: Floodplains and Wetlands and Mapped Projects	191	195
Figure 7.7: Other Environmentally Sensitive Areas and Mapped Projects	192	196
Figure 7.8: Threatened and Endangered Species and Mapped Projects	193	197
Table 7.4: Summary of Road and Bridge Projects and EJ/Environmental Mitigation Concerns	195	199

Table 5.9: Historical Road & Bridge Revenues

Lawrence	FY2012	FY2013	FY2014	FY2015	FY2016	5-Year Average
Surface Transportation Program	\$900,000	\$900,000	\$900,000	\$900,000	\$900,000	\$900,000
Highway Safety Improvement Program	\$-	\$1,200,000	\$715,000	\$-	\$-	\$383,000
State	\$-	\$2,000,000	\$1,605,000	\$6,000	\$-	\$722,200
State Gas Tax (Special City/County Highway Fund)	\$2,525,368	\$2,491,425	\$2,575,910	\$2,669,620	\$2,708,951	\$2,594,300
Stormwater Fund	\$140,000	\$140,000	\$140,000	\$140,000	\$140,000	\$140,000
General Fund Support	\$3,824,149	\$3,956,461	\$3,894,927	\$4,038,428	\$3,966,866	\$3,936,200
Eudora						
Federal Funds Exchange	\$-	\$-	\$170,436	\$64,285	\$65,024	\$59,900
Motor Fuel Tax - State	\$160,026	\$156,224	\$160,427	\$164,399	\$168,272	\$161,900
Motor Fuel Tax - County	\$16,846	\$16,609	\$16,465	\$16,503	\$15,116	\$16,300
Mud Bond Fees	\$-	\$-	\$2,500	\$2,500	\$1,500	\$1,300
Misc	\$65	\$-	\$-	\$-	\$-	\$-
Special Highway Reserve	\$38,017	\$13,845	\$-	\$-	\$32,786	\$16,900
General Fund	\$449,370	\$343,019	\$356,438	\$356,438	\$319,119	\$364,900
Storm Drainage	\$93,235	\$27,241	\$33,784	\$33,784	\$84,324	\$54,500
Baldwin City						
Motor Fuel Tax - State	\$119,543	\$114,973	\$118,824	\$119,869	\$122,808	\$119,200
Motor Fuel Tax - County	\$12,395	\$12,187	\$10,558	\$12,034	\$111,028	\$31,600
General Fund Support	\$301,455	\$351,581	\$313,481	\$442,497	\$306,435	\$343,100
Special Highway Fund - Cash Carry	\$295,372	\$269,514	\$340,311	\$214,067	\$124,296	\$248,700
Lecompton						
Local	\$6,769	\$15,860	\$16,705	\$16,705	\$16,943	\$14,600
Douglas County						
Surface Transportation Program	\$1,879,000	\$-	\$-	\$-	\$-	\$375,800
Federal Lands Access Program	\$-	\$-	\$500,000	\$-	\$-	\$100,000
U.S. Fish and Wildlife Service	\$-	\$-	\$75,000	\$165,000	\$-	\$48,000
Kansas Local Bridge Improvement Program	\$-	\$-	\$-	\$-	\$120,000	\$24,000
State - Federal Funds Exchange	\$-	\$-	\$-	\$1,200,918	\$1,224,613	\$485,100
Local	\$3,469,300	\$3,742,679	\$3,955,242	\$4,076,797	\$4,423,101	\$3,933,400
Capital Improvement Program Allocation	\$2,625,000	\$2,582,729	\$3,554,137	\$3,666,161	\$2,070,075	\$2,899,600
State Gas Tax (Special City/County Highway Fund)	\$1,717,048	\$1,699,441	\$1,702,557	\$1,722,947	\$1,750,250	\$1,718,400
KDOT						
State Annual Average	See KDOT Table 5.10					\$2,510,000
Project Specific Funding	Funding comes with the project - a large influx of Federal and State funding is expected for the K-10/SLT projects (Project 236 & 237) in 2017-2020 and 2026-2030, as well as 2021-2025 for the IKE Development Pipeline Projects in Amendment 1 (Project 142 & 143)					
KTA						
Toll Revenues	Funding comes with the projects - See Table 5.11					

Note: 5-Year Averages are rounded to nearest 100.

Figure 6.8b & 7.1b: Amendment 1 Mapped Projects and the EJ Zone



Source: Lawrence-Douglas County MPO (2020)
 Produced: Lawrence-Douglas County MPO (2020)

Note: Project 142 (US-40/K-10 Interchange Improvement, Diverging Diamond Interchange, at W. 6th Street) and Project 143 (US-56 Reconstruction from US-56/US-59 to 1600 Rd) are being added to Transportation 2040 in Amendment 1. The projects were evaluated with the newest Environmental Justice data from the Federal Fiscal Year (FFY) 2021 Transportation Improvement Program (TIP). Project 142 is adjacent to the FFY21 TIP Environmental Justice zone. The Transportation 2040 Environmental Justice zone would not have included either project in Amendment 1.

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.

Table 6.4: Fiscally Constrained Road and Bridge Projects

Kansas Department of Transportation								
#	Name	Description	FY2017-2020	FY2021-2025	FY2026-2030	FY2031-2035	FY2036-2040	Total
142	US-40/K-10 Interchange Improvement (Diverging Diamond Interchange, DD) (W. 6th St) at Lawrence	Construct a Diverging Diamond Interchange (DD)	\$-	\$12,350,000	\$-	\$-	\$-	\$12,350,000
143	US-56 Reconstruction: US-56/US-59 Junction east to 1600 Rd.	Roadway reconstruction based on 44 ft roadway with 10 ft shoulders. Add acceleration/ deceleration lanes as warranted.	\$-	\$14,820,000	\$-	\$-	\$-	\$14,820,000
236	K-10/South Lawrence Trfwy. West Leg: I-70/K10 Junction South to 3500 ft N of K-10/US-40 Junction (KA-3634-02)	Add 2-lanes to the existing 2-lanes for a 4-Lane Freeway section. This will include reconstruction of existing interchange at I-70 (KTA). A mainline ORT (Open Road Tolling) toll plaza on K-10 is included in reconstruction of the interchange at I-70. Design not finalized.	\$4,200,000	\$-	\$69,575,000	\$-	\$-	\$73,775,000
237	K-10/South Lawrence Trfwy. West Leg: 3500 ft N of K-10/US-40 Junction, to K-10/US-59/Iowa St. Junction (KA-3634-03)	Add 2-lanes to the existing 2-lanes for a 4-Lane Freeway section. This will include existing interchanges at US-40 (6th St.), Bob Billings Pkwy., Clinton Pkwy. and US-59 (Iowa St.) There will be a new interchange approximately 0.8 miles east of the Wakarusa/27th St. intersection. The Kasold Dr./E 1200 Rd. intersection will be closed. Design not finalized.	\$10,800,000	\$-	\$149,000,000	\$-	\$-	\$159,800,000
-	OG&M	General Operations & Maintenance activities	\$2,509,100	\$3,662,900	\$4,349,500	\$5,389,448	\$6,401,200	\$22,312,148
		Total Project Cost	\$17,509,100	\$30,832,900	\$222,924,500	\$5,389,448	\$6,401,200	\$283,057,148
		Projected Revenues	\$17,509,100	\$30,832,900	\$222,924,500	\$15,931,000	\$17,162,300	\$304,359,800
		Remaining Unprogrammed Revenues	\$-	\$-	\$-	\$10,541,552	\$10,761,100	\$21,302,652
		Fiscally Constrained	Yes	Yes	Yes	Yes	Yes	Yes

Through the plan development process several projects were identified as important, but are not currently funded. These projects are on the illustrative project list shown in Table 6.5. These projects would be amended into the fiscally constrained project list if allocated funding is greater than anticipated or if funding is secured for a specific project. This list is not exhaustive. If funding is available other projects could be amended into the fiscally constrained project list.

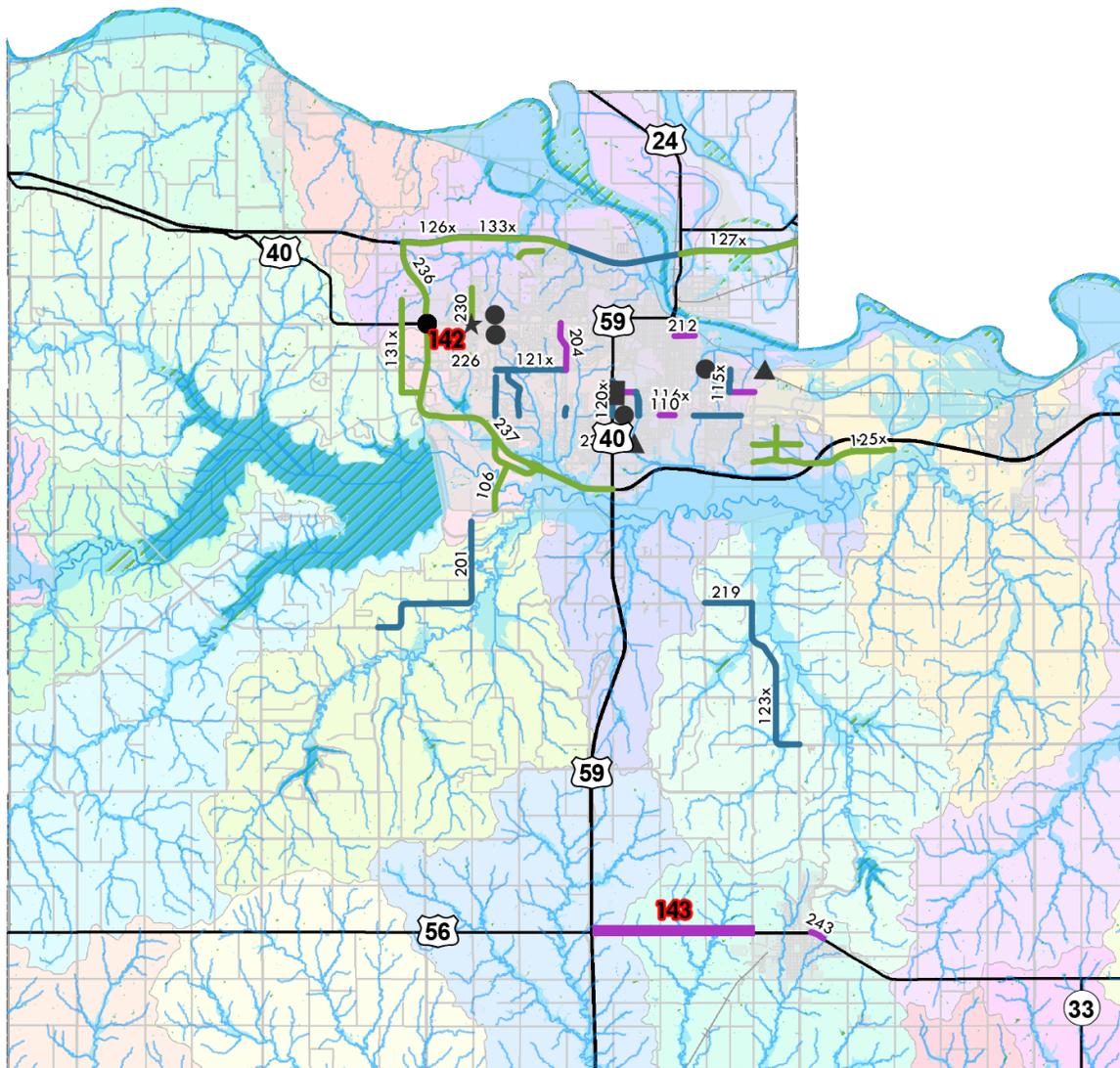
Table 6.5: Illustrative Projects

Entity	Project Route	Project Description	Project Location	Estimated Cost
Lawrence	US-40 Corridor	Bikeway Construction	Queens Rd. west to Rock Chalk Park near the US-10/K-10 Interchange	\$580,000
Lawrence	6th St./US-40 and McDonald Rd./US-59	Replacement and Upgrades	6th St./US-40 and McDonald Rd./US-59 Interchange	\$25,000,000
Remove KDOT	K-10/US-40/6th St Interchange Area	Construction of a Diverging Diamond Interchange (DDI)	US-40/K-10 Junction	\$10,478,212
Lawrence-DG County	US-40	Widen to 4 lanes	E 800 Rd. to Stull Rd./CR. 442 at E 700 Rd.	\$23,919,869
Lawrence-DG County	US-56	Reconstruction and addition of paved shoulders, intersection improvements and other safety upgrades	US-59 east to the Douglas/Johnson County Line	\$34,741,161
Lawrence-KDOT	Olympic Dr. Underpass	Extend Olympic Dr. south under K-10	Olympic Dr. south under K-10 connecting with Speicher Rd.	\$4,000,000

Table 7.1: Mapped Investment Priorities Located in the EJ Zone

#	Project Name	Project Year	Project Type	Description	Benefit	Total Cost
110	23rd St.: Louisiana St. to Massachusetts St.	2017-2020	Modernization	2 way left turn lane		\$1,150,000
111	23rd St.: Iowa St. to Ousdahl Rd.	2017-2020	Preservation	Resurfacing		\$500,000
142	US-40/K-10 Interchange Improvement (Diverging Diamond Interchange, at W. 6th St, Lawrence)	2021-2025	Intersection	Construct a Diverging Diamond Interchange (DDI)	Includes multimodal facilities	\$12,350,000
203	19th St.: Naismith Dr. to Iowa St. /US-59	2017-2020	Modernization	Reconstruction	Includes bike lanes	\$2,000,000
212	9th St.: Massachusetts St. to Delaware St.	2017-2020	Modernization	Reconstruction	Includes multimodal facilities	\$2,500,000
229	19th St.: O'Connell Rd. to Harper St.	2017-2020	Modernization	Reconstruction	Includes sidewalk & bike lanes	\$3,000,000
232	23rd St./Ousdahl Rd. Intersection	2017-2020	Intersection	Improvements		\$4,000,000
114x	23rd St.: Haskell Bridge to FF St.	2017-2025	Preservation	Reconstruction		\$9,750,000
237	K-10/South Lawrence Trfwy. West Leg: 3500 ft N of K-10/US-40 Junction, to K-10 US-59/ Iowa St. Junction (KA-3634-03)	2017-2030	Expansion	Widen to 4 lanes		\$159,800,000
115x	Harper St.: 15th St. to 19th St.	2021-2025	Preservation	Reconstruction		\$1,000,000
116x	15th & Haskell Intersection	2021-2025	Intersection	Improvements		\$1,000,000
117x	Naismith Dr.: 19th St. to 23rd St.	2021-2025	Preservation	Reconstruction	Includes multimodal facilities	\$2,300,000
124x	31st St.: O'Connell Rd. to Noria Rd.	2021-2025	Expansion	Construction		\$11,806,982
247x	27th St. Bridge @ Naismith Valley Park	2021-2030	Bridge	Replacement		\$500,000
120x	Iowa St.: Irving Hill to 23rd St.	2026-2030	Preservation	Reconstruction	Includes multimodal facilities	\$5,500,000
129x	E 28th St.: O'Connell Rd. to E 1700 Rd.	2026-2030	Expansion	Construction		\$5,375,485
128x	Franklin Rd.: E 25th St. to E 31St. St	2031-2035	Expansion	Construction		\$2,101,005
127x	I-70/Kansas Turnpike: Eastern Lawrence Interchange (MM 204) to Douglas/Leavenworth County Line (MM 206)	2036-2030	Expansion	Widen to 6 lanes		\$20,486,000
133x	I-70/Kansas Turnpike: K-10/ Lecompton Interchange E (MM 197) to Douglas/Leavenworth County Line (MM 206)	2017-2020	Preservation	Surfacing		\$2,200,000
505	19th St. & Iowa St. Pedestrian and Bicycle Underpass	2017-2020	Non-motorized	Pedestrian/ bicycle underpass	Multimodal facility	\$2,397,000
Total						\$249,716,472

Figure 7.6: Floodplains and Wetlands and Mapped Projects



0 3 6 Miles

N

▲ Bridge	Waterways	—+— Railroads
● Intersection	Water Bodies	— Highway
★ Signal	Wetlands	⊕ County Limits
■ Underpass	100 Year Flood Plain	⊖ City Limits
— Expansion	Watersheds	
— Modernization		
— Preservation		

Source: Lawrence GIS & Douglas County GIS (2017),
 USGS National Hydrology Dataset (2014), FEMA (2015),
 Lawrence-Douglas County MPO (2017)
 Produced: Lawrence-Douglas County MPO (2020)

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 of 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.

Figure 7.7: Other Environmentally Sensitive Areas and Mapped Projects

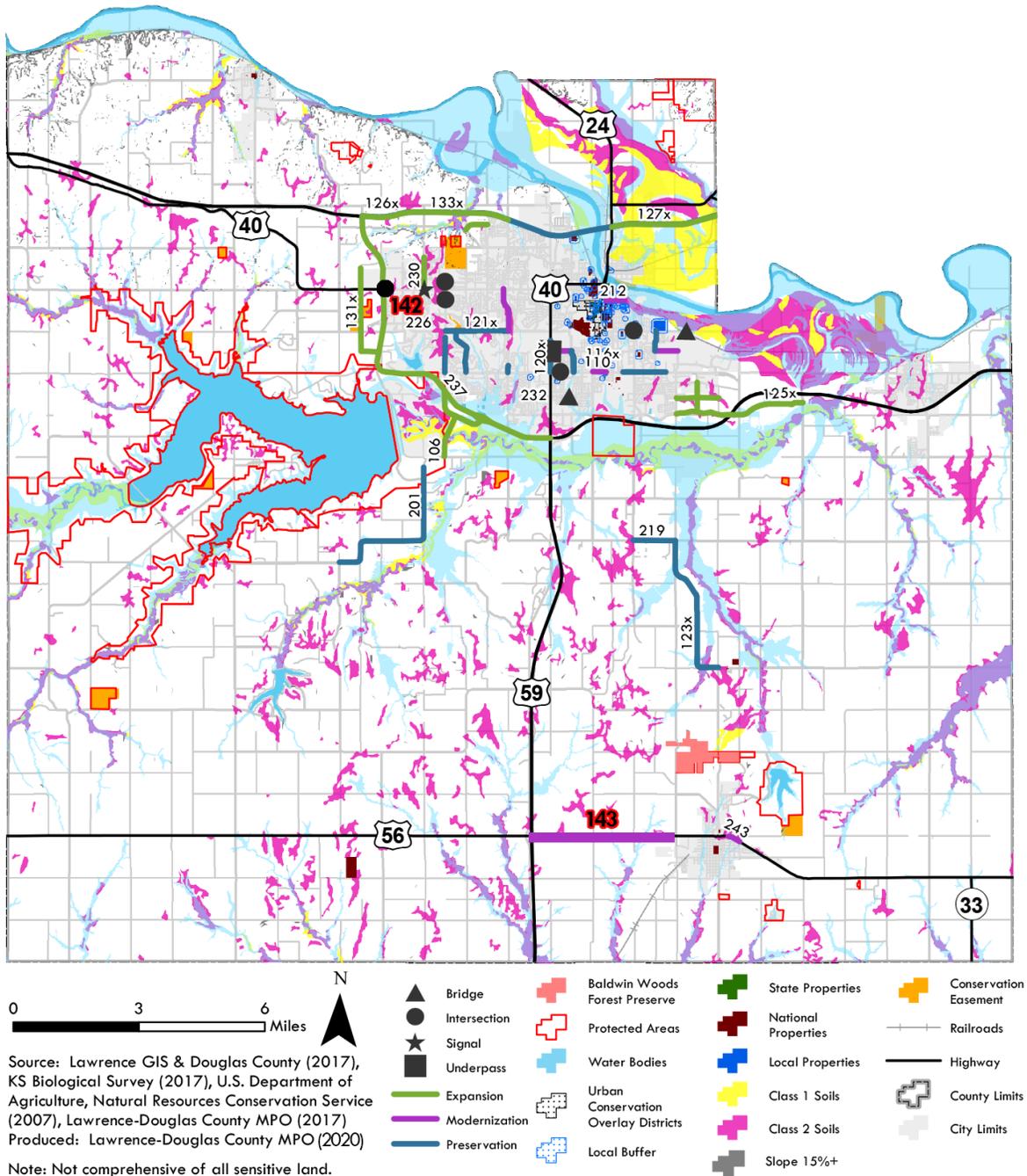
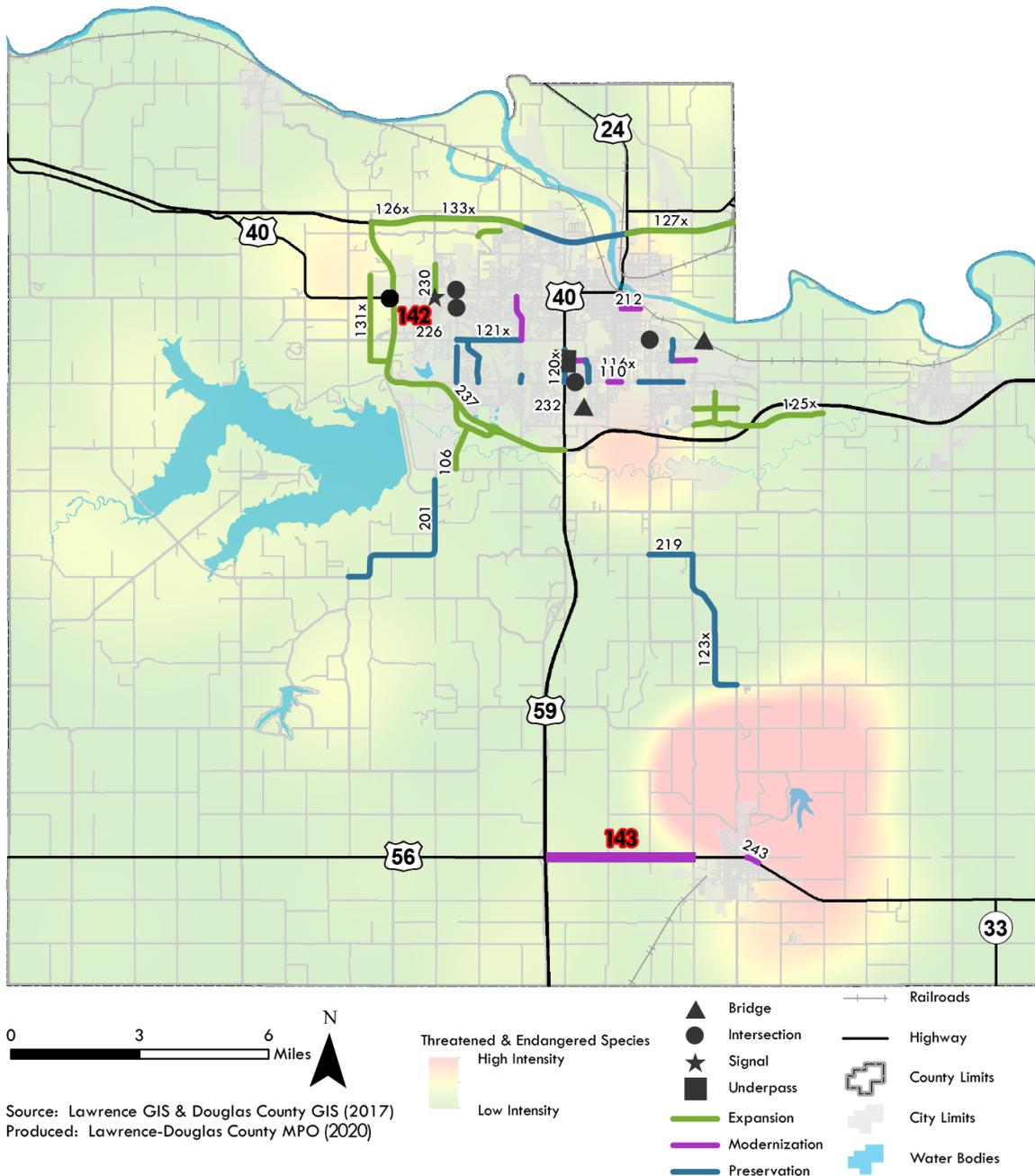


Figure 7.8: Threatened and Endangered Species and Mapped Projects



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.

Table 7.4: Summary of Road and Bridge Projects and EJ/Environmental Mitigation Concerns

#	Name	Type	EJ Zone	Protected Area	High/Medium Threatened & Endangered Species	100 Year Floodplain	Historical Resource
106	Wakarusa Dr. Extension: Rte. 458 to planned K-10 interchange	Expansion		X		X	
107	Kasold Dr.: Clinton Pkwy. to Hyvee	Preservation					
108	Wakarusa Dr.: 18th St. to 23rd St.	Preservation					
110	23rd St.: Louisiana St. to Massachusetts St.	Modernization	X		X		X
111	23rd St.: Iowa St. to Ousdahl Rd.	Preservation	X				
142	US-40/K-10 Interchange Improvement (Diverging Diamond Interchange, at W. 6th St, Lawrence)	Intersection	X*				
143	US-56 Reconstruction: US-56/US-59 Junction east to 1600 Rd.	Modernization					
201	Rte. 458: E 800 Rd. to N 1175 Rd.	Preservation		X		X	
203	19th St.: Naismith Dr. to Iowa St./US-59	Modernization	X				
204	Kasold Dr.: W. 6th St. to Bob Billings Pkwy.	Modernization	X				
208	Rte. 1055 at North 700 Curve: Rte. 1055 from N 725 Rd. to E 1675 Rd.	Preservation				X	
212	9th St.: Massachusetts St. to Delaware St.	Modernization	X		X		X
214	Wakarusa Dr. (South): Research Pkwy. to 18th St.	Preservation					
219	Rte. 458: East 1500 Rd. to E 1600 Rd.	Preservation					
225	Culvert 1500-1624: N 1500 Rd./E 15th St. at E 1625 Rd. Intersection	Bridge				X	
226	Harvard Rd./Wakarusa Dr. Roundabout	Intersection					
229	19th St.: O'Connell Rd. to Harper St.	Modernization	X				
230	Queens Rd.: 6th St. to North City Limits	Expansion					
232	23rd St./Ousdahl Rd. Intersection	Intersection	X				

*Project 142 and 143 are included in Transportation 2040 through Amendment 1. The Environmental Justice (EJ) zones have been updated since Transportation 2040 was completed. This project was evaluated with the EJ zone developed for the Federal Fiscal Year (FFY) 2021 Transportation Improvement Program (TIP). Project 142 is adjacent to the FFY 21 TIP EJ zone as shown in Figure 7.1b. The Transportation 2040 Environmental Justice zone would not have included either project in Amendment 1.