Reimagine Rainbow

Rainbow Boulevard Complete Streets and Traffic Management Plan

Study Overview

Project Purpose and Study Area

How can a state highway transform from a barrier to a place of connection? **Reimagine Rainbow** is a planning effort to help guide the future of Rainbow Boulevard to support a vibrant and growing area in the Kansas City region.

The Reimagine Rainbow plan focuses on creating ***Complete Streets*** within the study area by improving mobility, safety, and comfort for everyone that uses Rainbow and adjacent streets. This study examines the existing road design on multiple sections throughout Rainbow Boulevard to understand how geometric changes could improve the safety, accessibility, and attractiveness of using multiple modes of transportation, such as walking, bicycling, and transit, in addition to driving.

The study area, shown in **Figure 2**, is focused on Rainbow Boulevard, running from Southwest Boulevard in Kansas City, Kansas on the north end to Shawnee Mission Parkway on the south end. The broader study area includes an area approximately one half-mile on either side of Rainbow Boulevard and areas as far north as I-35.

Complete Streets: Roadways that are designed for safe and convenient travel by users of all ages and abilities. Pedestrians, bicyclists, motorists, and transit riders must be able to move safely along and across a complete street.

Study Team Partners

Mid-America Regional Council
City of Westwood, Kansas
Unified Government of Wyandotte County and Kansas City, KS
City of Westwood Hills, Kansas
City of Mission Woods, Kansas
Rosedale Development Association
The University of Kansas Health System
Kansas Department of Transportation
Kansas City Area Transportation Authority

Steering Committee

Leslie Herring, City of Westwood
John Sullivan, City of Westwood
Alyssa Marcy, Unified Government
Gunnar Hand, AICP, Unified Government
Taylor Cunningham, MARC
Mayor Rosemary Podrebarac, City of Westwood Hills
Councilmember Erica Hartley, City of Mission Woods
Michael Moriarty, KDOT
Erin Stryka, Rosedale Development Association
Jason Glasrud, KU Health System
Sherrie Gayed, KU Health System
Kevin Rowland, KU Med Center
Rachel Russell, KCKPS
AJ Farris, KCATA
Mira Felzein, KCATA
Michael Kelley, BikeWalkKC
Gayle Bergman, Resident
Mark Vranicar, Resident
Annette Rude, Resident
Gil Pintar, Resident
Jake Hodson, Resident
Mike Coffman, Resident

Consultant Team

wsp
vireo

Past Plans and Policy Review

There are many previous plans and recommendations within the study area. Fortunately, several of these recommendations have advanced and been implemented. This planning effort will take into consideration relevant previous plan recommendations and re-evaluate some recommendations that have not yet been implemented.

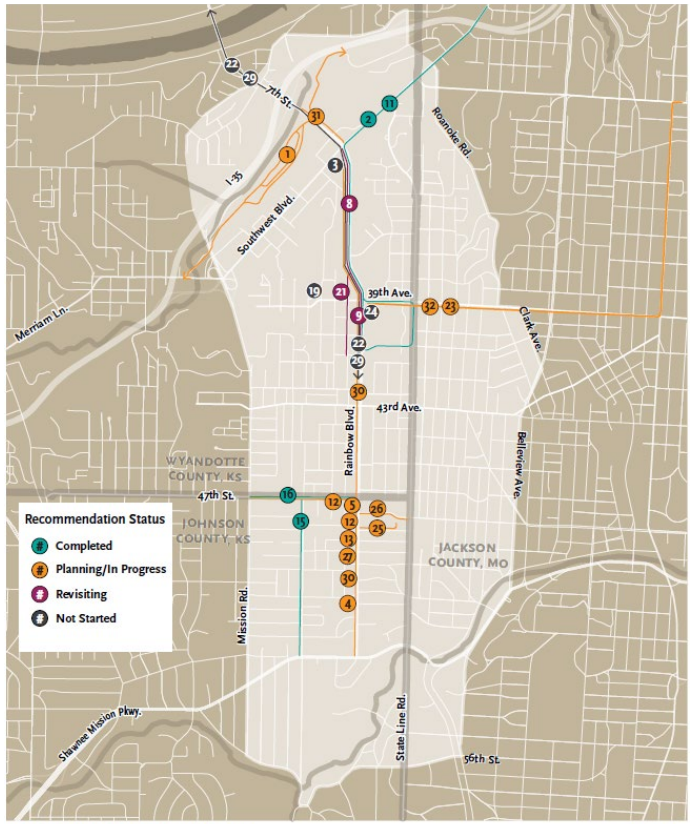


Figure 3. *Location of Key Recommendations*

Public Input

Table 2. *List of Community and Stakeholder Engagement Activities*

	Activity	Date	Location
Round 1 Issues & Opportunities	Project Kickoff Meeting	6/27/2023	Westwood City Hall
	KU Health System Staff	7/21/2023	KU Economic Development Offices
	Unified Government Staff	8/17/2023	KCK City Hall
	Rosedale Development Association staff	8/22/2023	RDA
	Westwood / Mission Woods / Westwood Hills	8/22/2023	Westwood City Hall
	Hanover Heights Neighborhood Association	8/27/2023	Yard of private residence
	Steering Committee Meeting #1	8/31/2023	Westwood City Hall
	Round 1 Online Survey	9/7/2023	Virtual
	Spring Valley Neighborhood Association	9/28/2023	Westwood City Hall
	Popup Meeting - Frank Rushton Elementary	10/4/2023	Frank Rushton Elementary School
	Steering Committee Meeting #2	10/5/2023	Virtual
	Popup Meeting - KU	10/19/2023	KU Hospital Cafeteria
	Popup Meeting - Westwood KC Symphony Event	10/22/2023	Westwood City Hall
	Popup Meeting - Rosedale Middle School	10/25/2023	Rosedale Middle School
Round 2 Exploring Alternatives	Popup Meeting - PlanKCK Summit	10/28/2023	Gloria Willis Middle School
	Round 2 Online Survey	11/2/2023	Virtual
	Steering Committee Meeting #3	1/4/2024	Virtual
Round 3 Preferred Alternative and Refinement	Open House	1/27/2024	Westwood City Hall
	KU Health System Staff	2/6/2024	Virtual
	Round 3 Online Survey	2/8/2024	Virtual
	Westwood Staff	2/13/2024	Westwood City Hall
	KDOT Staff	3/6/2024	Virtual
	Westwood + Unified Government Staff	3/21/2024	Virtual
	KU Health System Staff	3/22/2024	KU Hospital
	Spring Valley Neighborhood Association	3/27/2024	The Knotty Rug
	Steering Committee Meeting #4	4/2/2024	Virtual
	Westwood Staff	4/5/2024	Virtual

The project featured three rounds of engagement, focused on:

- **Issues and Opportunities**: Focused on understanding the challenges people have navigating the study area through multiple modes, as well as specific opportunities and ideas they see.
- **Exploring Alternatives**: Focused on understanding what people value in their transportation system and community (such as safety, comfort, convenience) and how those values are supported by each alternative.
- **Preferred Alternative & Refinement**: Focused on selecting a preferred alternative and refining and developing that concept.

Figure 39. *A Pop-up public meeting (left) and Steering Committee feedback (below)*

Participation Totals:

- 297 pop-up meeting participants at 5 events
- 12 stakeholder meetings
- 23 open house attendees
- 4 steering committee meetings
- 3,285 online views
- 622 online participants
- 2,809 survey responses (3 rounds)
- 936 comments and replies
- 30 eblasts with 40% open rate

Public Input, Cnt'd.

Issues and Opportunities

Most of the feedback around the first phase of engagement centered around feelings of safety while walking, bicycling, or even driving on Rainbow Boulevard. Traffic was described by many respondents as being ***scary***, ***dangerous***, and ***loud***. Respondents said that they hoped that future travel on Rainbow Boulevard would be ***accessible***, ***comfortable***, ***balanced***, ***multimodal***, and ***for everyone***.

Many participants specifically addressed issues surrounding speed, the feeling of safety while walking or crossing the street, and the ability to make turns safely while driving on Rainbow.

Specifically, participants suggested:

- Better crossings and crosswalks
- Easier and protected bicycling
- Consistent sidewalk elevations
- Removal of sidewalk obstacles
- Widening of sidewalks
- Narrower, fewer traffic lanes
- Intersection improvements
- Lower speed limits
- Address turning issues
- Better trail connections

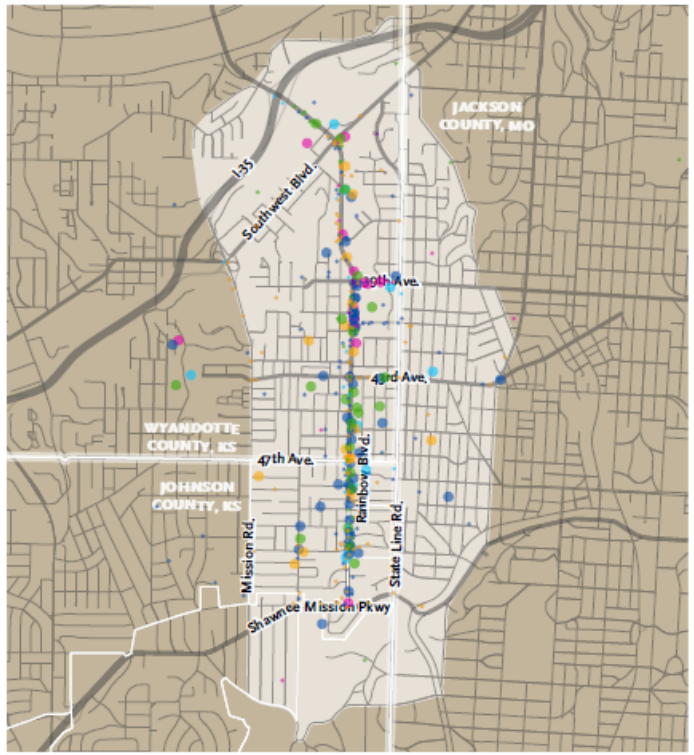


Figure 40. *Map-based feedback identifying Issues and Opportunities on the Rainbow Corridor*

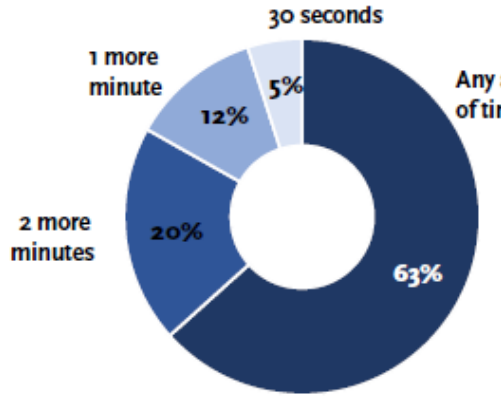


Figure 43. *Travel Time Trade-off Preferences of Online Poll Participants ("How Much Additional Travel Time would you be willing to spend on Rainbow in exchange for improvements?")*

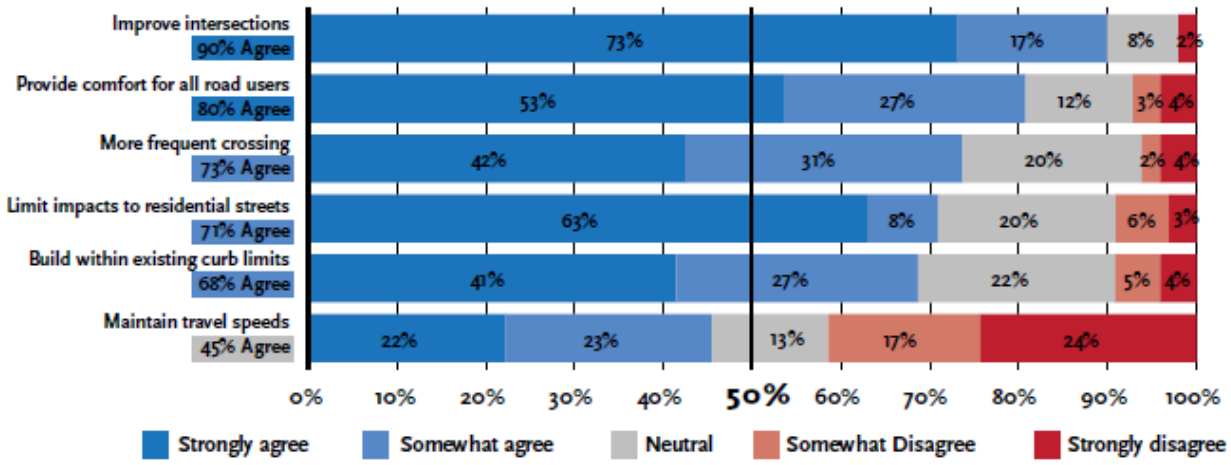


Figure 44. *Design Priorities of Online Poll Participants*

Study Findings

Figure 33. *Average Annual Daily Traffic Volumes for Rainbow Boulevard*

Legend

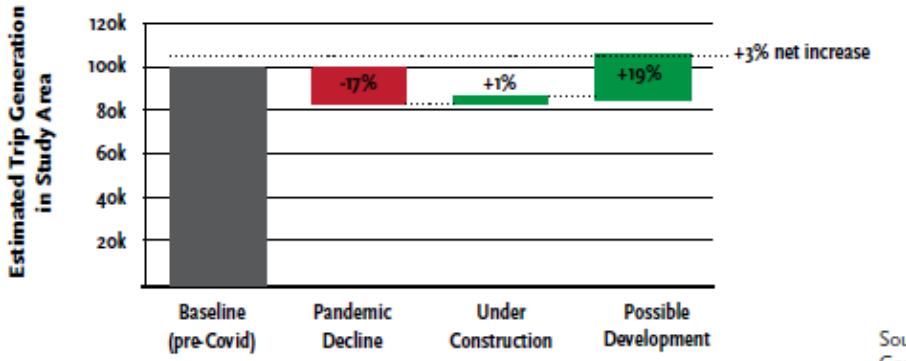
- Study Area Boundary
- KU Med./Health System Campuses

Annual Average Daily Traffic

- <8k Vehicles per Day
- 8-10k
- 10k-15k
- 15k-18k
- >18k

Source: Replica

Figure 36. *Long-term traffic trends on Rainbow (or 7th St.) at I-35, Southwest Boulevard, and 47th*



Source: Analysis of Replica and ITE Trip Generation Manual, 11th Ed.

Figure 37. *Reconciling past trends and future growth*

Study Findings, Cnt'd.

Regional Trip Patterns

According to data from ***Replica***, around half of the trips that occur in the study area are under 5 miles. Of these trips, 74% are by car. Approximately 30% of trips are under 2 miles, and 62% of those trips are by car. There is significant potential to increase walking, biking, and transit trips, particularly for shorter trips within the study area. This would also reduce traffic and improve convenience for people that do drive.

Replica: A traffic model and "big data" source that combines information from GPS data, connected vehicles, and many other sources to provide an accurate picture of travel patterns in a particular study area.

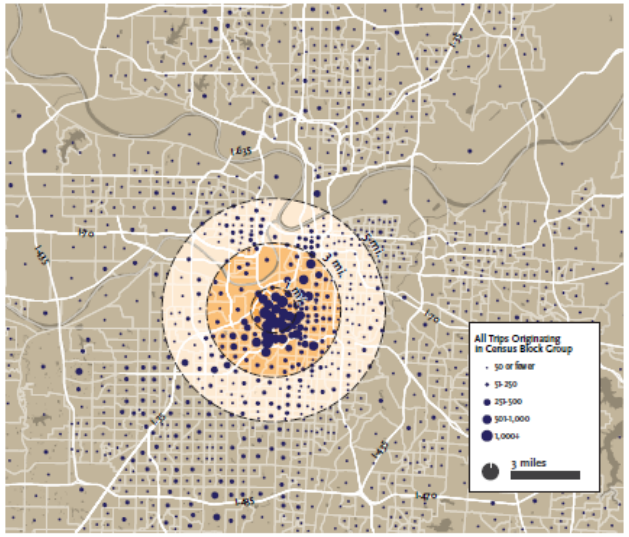


Figure 19. ***Regional Distribution of Trips Destined to the Study Area***

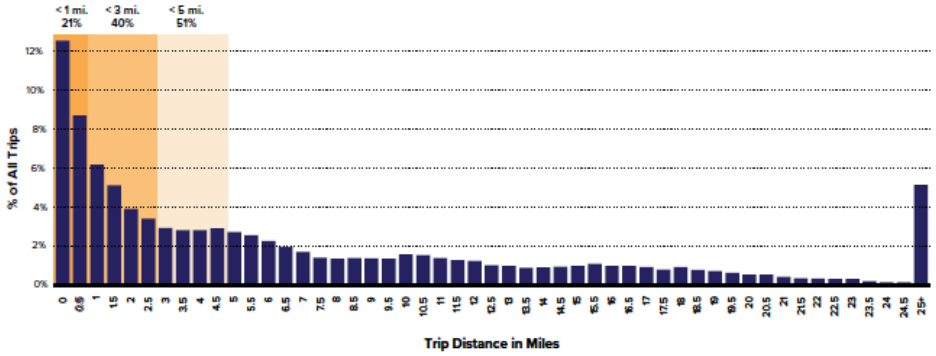


Figure 20. ***Distribution of Trip Distances traveling to the Study Area***

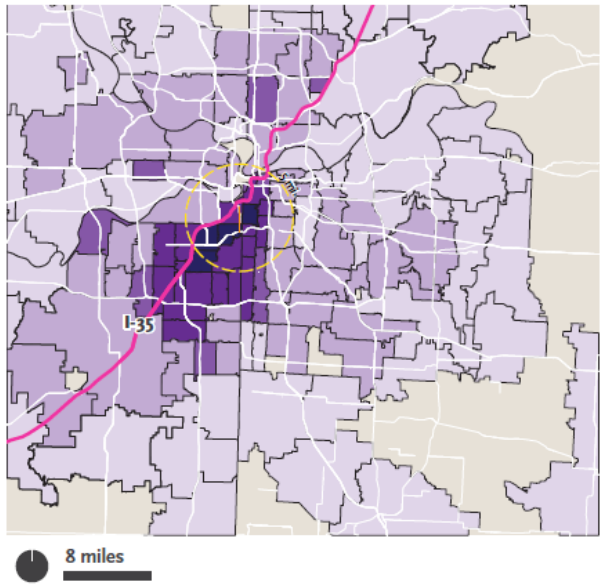


Figure 24. ***Origin of University of Kansas Health System Employees***

This data includes all employees of all health system locations (not just 39th and Rainbow)

Legend

Rainbow Corridor

I-35

Employees per Square Mile

2 or Fewer

>2 - 10

>10-15

>15-30

>30

Source: The University of Kansas Health System

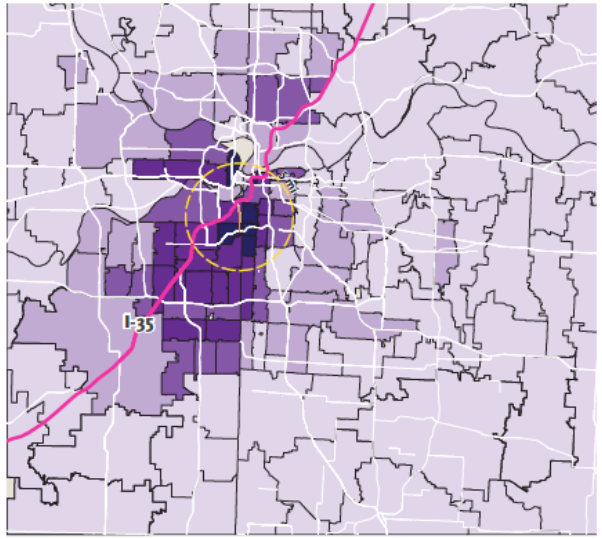


Figure 25. ***Origin of University of Kansas Health System Patients***

This data includes all patients to all health system locations (not just 39th and Rainbow)

Legend

Rainbow Corridor

I-35

Patients per Square Mile

100 or Fewer

>100 - 250

>250-500

>500-1,000

>1,000

Source: The University of Kansas Health System

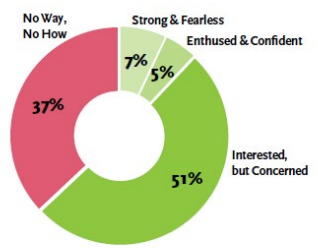


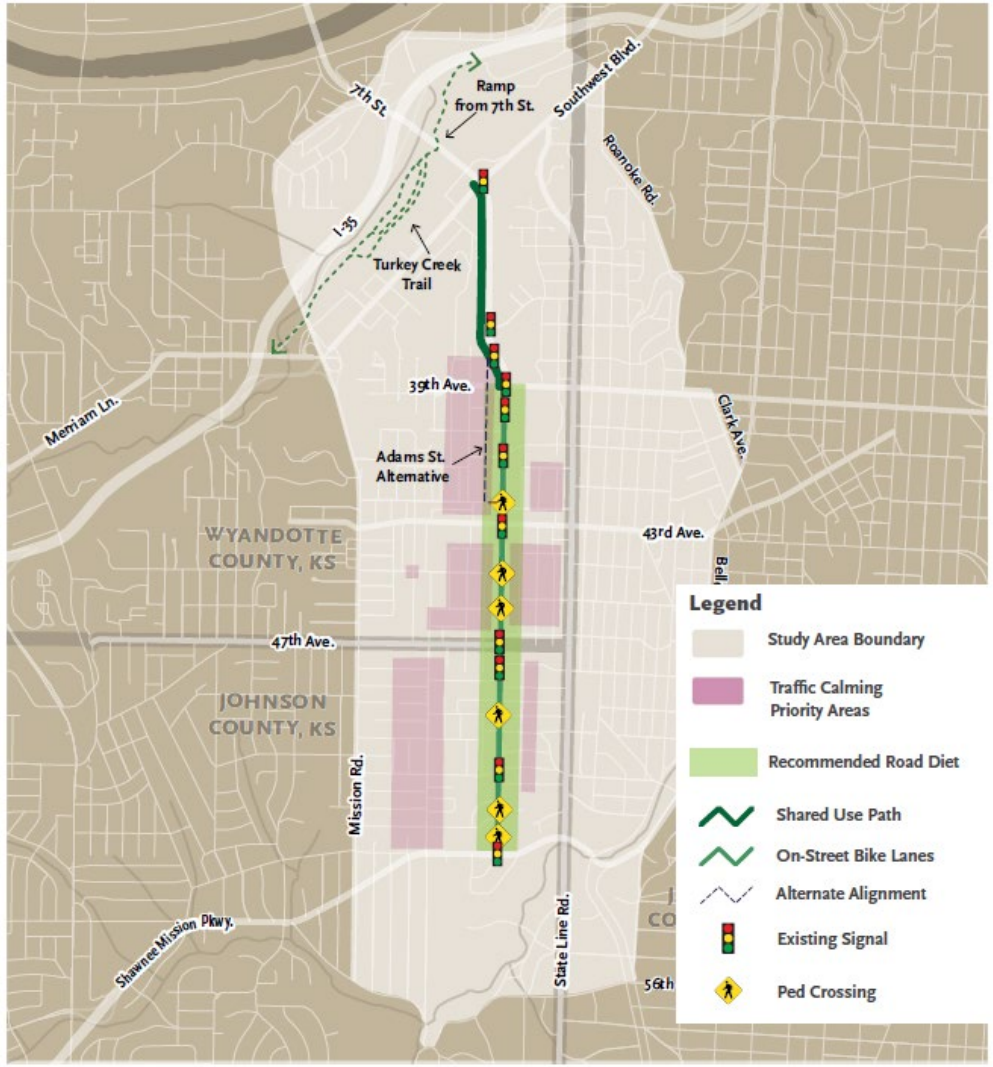
Figure 27. ***Four Types of Cyclists***

Research from Jennifer Dill of Portland State University shows that most people have an interest in bicycling but are concerned about their safety or comfort while bicycling. Read more about the Types of Cyclists by Jennifer Dill.

Figure 28. ***Bicyclists on Rainbow Boulevard***

Two bicyclists at the 39th and Rainbow intersection, despite the lack of dedicated facilities

Professional Recommendations



Recommended Program of Projects

Based on community engagement results, project goals, and technical analysis, the following program of projects is recommended for Rainbow Boulevard:

- Rainbow Road Reconfiguration ("Road Diet")
- Shared Use Path (Southwest Boulevard to Adams St.)
- On-Street Bicycle Facilities (Adams St. to Shawnee Mission Pkwy)
- Olathe Boulevard Realignment
- New Pedestrian Crossings
- Neighborhood Traffic Calming
- Turkey Creek Trail Connection

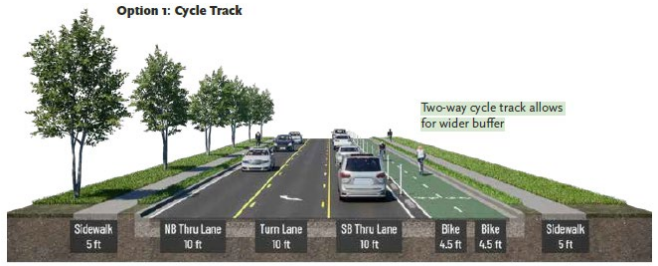


Figure 57. *On-Street Bicycle Facilities South of 39th Avenue*

Professional Recommendations (JoCo Cities)

Bicycle Facility Recommendations

Why Rainbow?

During the engagement process, some individuals asked whether considering an alternative corridor for bicycle travel would be beneficial. The study area has a handful of north-south alternatives that could be considered for bicycle travel. These corridors include State Line Road and a combination of Rainbow, Adams, Booth, and Belinder.

Our screening found that Rainbow was still the most suitable corridor for bicyclists, based on the following criteria:

- **Removes a Barrier**: Implementing a road diet and adding mid-block crossings to Rainbow would remove a substantial barrier within the study area and make pedestrian traffic more safe, comfortable, and convenient.
- **Direct Connection**: Rainbow connects the most destinations and is the most straightforward north-south route in the study area.
- **Right of Way Width**: Rainbow has sufficient ROW width to accommodate a shared use path or on-street bicycle facilities.
- **Pavement Width**: Rainbow has sufficient pavement width to accommodate dedicated bicycle facilities.
- **Traffic Volumes**: Rainbow's traffic volumes are compatible with a 3-lane road diet section.
- **Low-Stress Bike Facility Potential**: The addition of a bicycle facility on Rainbow would create a lower stress bicycling facility than the existing roadway, or the existing roadway is already low-stress (as is the case with some alternatives to Rainbow).
- **Bike-Friendly Terrain**: Topography on Rainbow is gentler than alternatives like State Line Road.
- **Placemaking**: Rainbow offers the most opportunity to create a unique street that benefits adjacent land uses and future development and supports sustainability and public health.
- **Crash Reduction**: This alternative for Rainbow could result in fewer crashes by implementing a 4-to-3 road diet, which can reduce crashes by up to 47%.

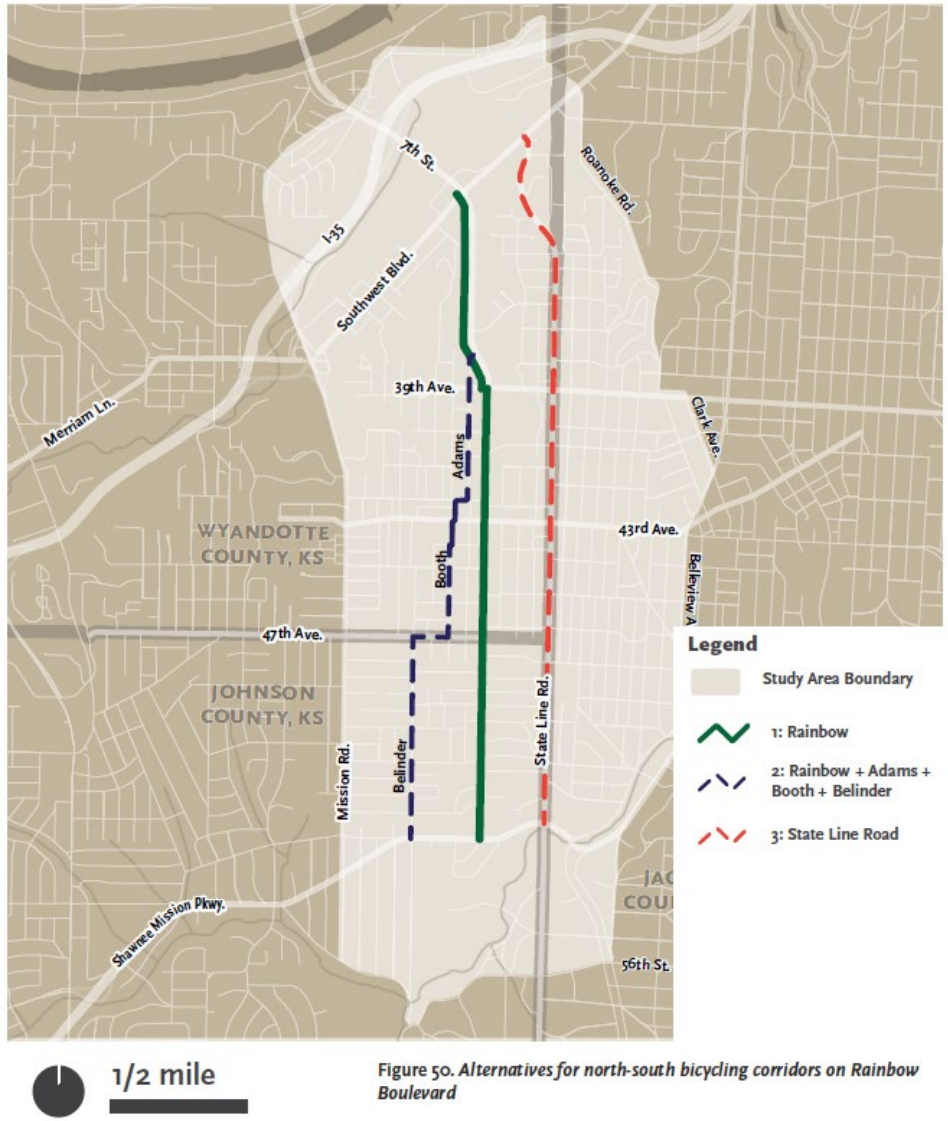


Figure 50. *Alternatives for north-south bicycling corridors on Rainbow Boulevard*

Table 5. *Alternative North-South Corridor Screening Results*

	1: Rainbow Shared Use Path + Road Diet	2: Rainbow Shared Use Path + Adams, Booth, and Belinder	3: State Line Road
Removes Barrier	✓	✗	✗
Direct Connection	✓	–	–
Right of Way Width	✓	–	–
Pavement Width	✓	–	–
Traffic Volume Supports Road Diet	✓	✓	–
Low-Stress Bicycle Facility Potential	✓	✓	–
Bicycle Friendly Terrain	–	–	–
Placemaking	✓	–	✗
Crash Reduction	✓	–	–

Impact of Road Diet on Personal Vehicles

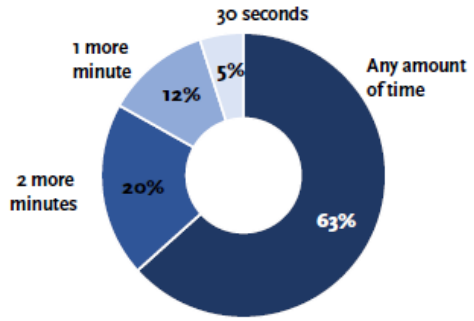


Figure 43. *Travel Time Trade-off Preferences of Online Poll Participants ("How Much Additional Travel Time would you be willing to spend on Rainbow in exchange for improvements?")*

Table 4. *Level of Service Definitions*

Level of Service	Seconds of Delay per Vehicle
A	10 or less
B	>10 -20
C	> 20-35
D	> 35-55
E	> 55-80
F	> 80

Table 3. *Travel Time Changes Due to a Road Diet on Rainbow Boulevard*

Northbound Travel (seconds)

Segment	AM	Noon	PM
Shawnee Mission Parkway	-5.9	-27.6	-37.4
50th St	-0.1	-1.6	-0.2
47th Place	1.2	4.6	-0.6
47th Ave	0.5	5.1	-4.3
43rd Ave	22	-0.5	43.2
Olathe Blvd	5.2	2.3	11.5
Marty Ave	0.3	4.4	-1.3
39th Ave	-0.7	1.4	-3
Adams St	-4.5	-2.2	-0.4
36th Ave	-5.4	9.1	-1.5
	-2.1	-3.1	4.2
Southwest Boulevard	-9.7	-9.4	-12.7
Total Change	**0.8**	**-17.5**	**-2.5**

Southbound Travel (seconds)

Segment	AM	Noon	PM
Southwest Boulevard	-2.5	4.2	-1.9
	-0.4	0.5	0.4
36th Ave	0.2	-2.9	-1.2
Adams St	3.7	21.6	6.9
39th Ave	-1.1	2.5	6.2
Marty Ave	-1.4	0.7	-0.3
Olathe Blvd	-3.0	6.7	25.2
43rd Ave	31.5	-1.9	81.4
47th Ave	-3.3	5.5	1.4
47th Place	-2.2	-0.6	-6.8
50th St	5.7	1.4	-1.5
Shawnee Mission Parkway	-1.7	0.7	-1.0
Total Change	**25.5**	**38.4**	**108.8**

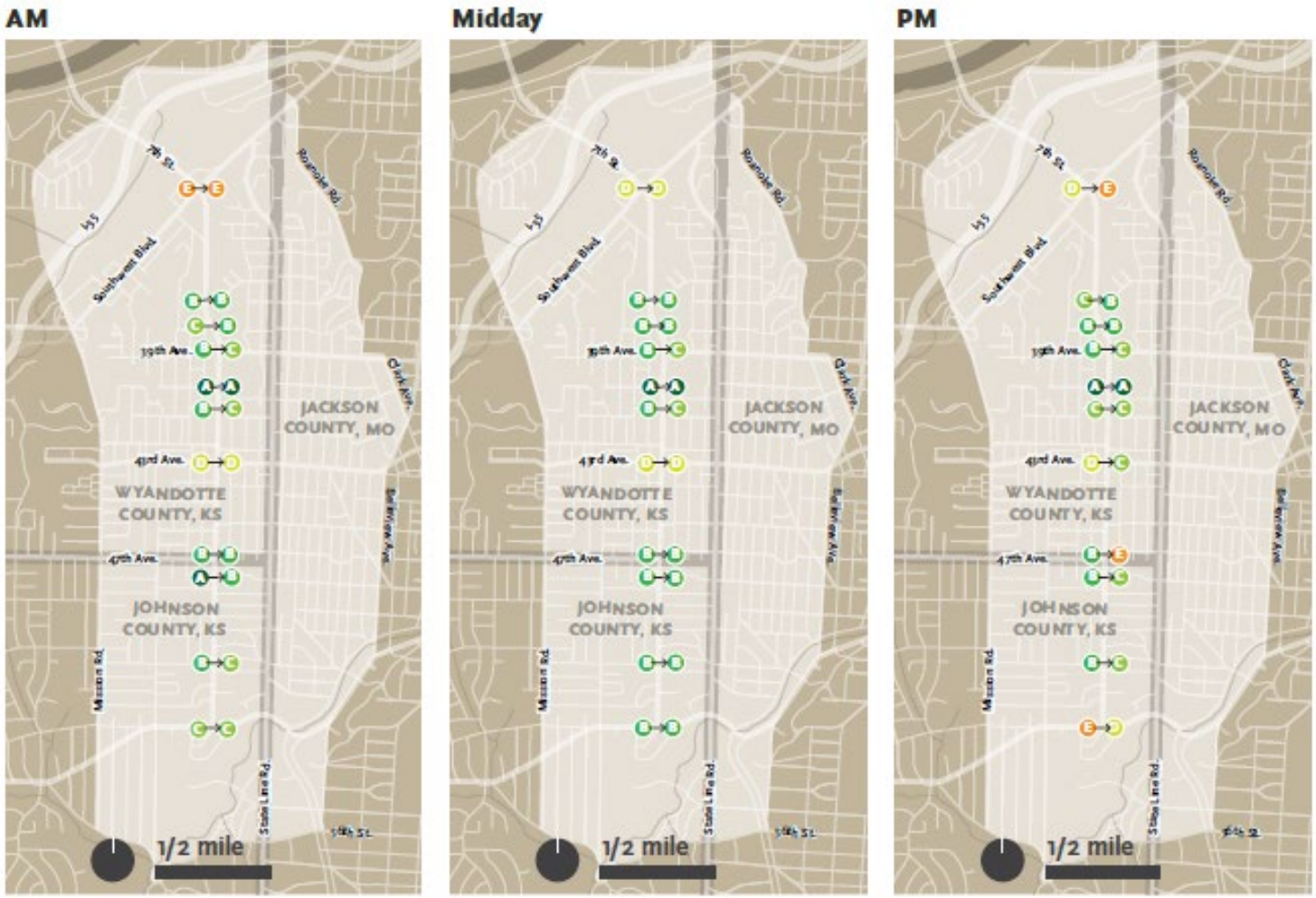


Figure 49. *Change in Level of Service at AM, Midday, and PM Periods Due to a Road Diet on Rainbow Boulevard*

Supporting Recommendations

Speed Limit Reductions

Fast vehicle speeds were a top concern listed by stakeholders. The project team conducted a speed study in three different zones along the corridor and used the ***FHWA USLIMITS2*** tool to understand an appropriate speed limit for these zones. Based on the crash history, number of driveways and access points/driveways, land use context, and existing observed speed data, lower speed limits on the corridor would be justified. According to results from USLIMITS2, the appropriate speed limit on Rainbow Boulevard is 30 mph from Southwest Boulevard to Adams Street and 25 mph from Adams Street to Shawnee Mission Parkway. Speed limit reductions are usually implemented in 5 mph increments to avoid creating excessive enforcement issues. Speed limit reductions are a low-cost safety countermeasure that could be implemented prior to a road diet and revisited with further studies after a road diet is implemented.

USLIMITS2: USLIMITS2 is a free tool from the Federal Highway Administration designed to set appropriate speed limits based on a variety of inputs, including observed speeds.

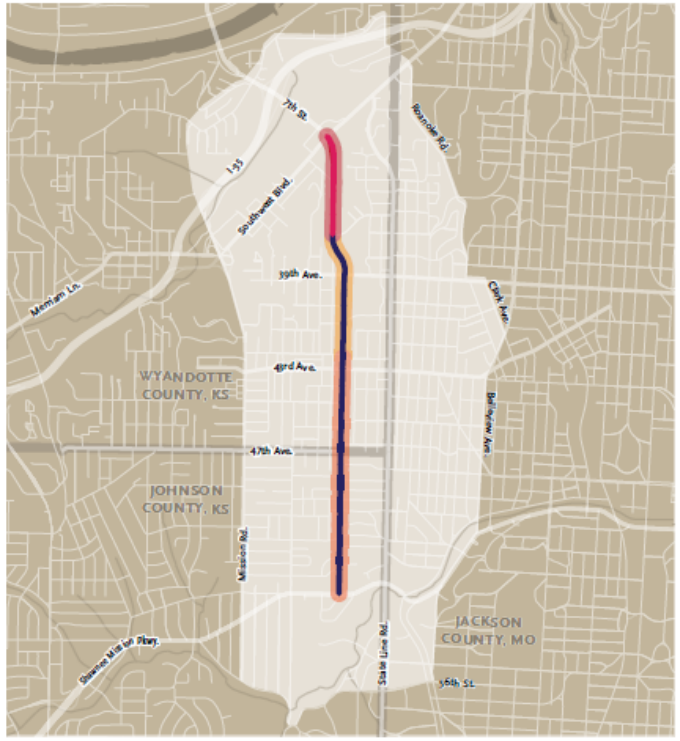


Figure 71. ***Speed Limit Reduction Recommendations on Rainbow Boulevard***

Neighborhood Traffic Calming

Public meeting participants said that reducing impacts to local residential streets should be a top design consideration. Some people expressed concerns about "cut-through" traffic, or traffic that would divert off of Rainbow on to local residential streets. The street network within the study area does not provide many direct paths for automobiles to divert off of Rainbow, and Rainbow would still likely be the quickest route for most motorists. However, this project recommends including traffic calming measures on local residential streets. Traffic circle islands and chicanes are popular traffic calming tools that have been used in the Kansas City region to slow traffic. They also provide opportunities for green infrastructure and stormwater capture. These devices should be deployed after consultation with neighborhood residents after road diet implementation.

Turkey Creek Trail Connection

The US Army Corps of Engineers recently completed improvements to Turkey Creek that will reduce flooding in the area, and a nature trail has been constructed as a part of these improvements. Rainbow Boulevard becomes 7th Street north of Southwest Boulevard, bridging over railroad tracks and Turkey Creek before the I-35 interchange. A switchback bicycle and pedestrian ramp has been proposed to connect this bridge to the Turkey Creek trail. This structure would provide trail access to a major employment and population center in the region.

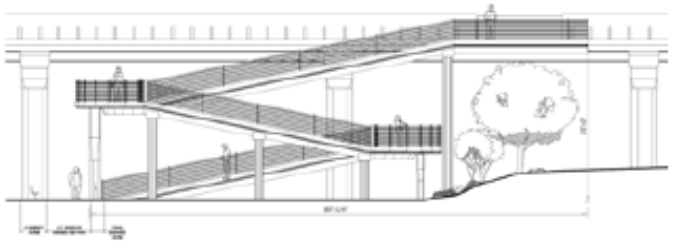


Figure 70. ***Conceptual Drawings for the Turkey Creek Trail Connection at 7th Street***
Images: Turkey Creek Corridor Enhancement Plan

Figure 81. *Rainbow Project Locations*

Cost Estimate

Legend

- Turkey Creek Access
- SW Blvd to 39th Ave
- 39th Ave to 43rd Ave
- 43rd Ave to Shawnee Mission Pkwy
- Potential Demonstration Project (47th to SMP)
- Olathe Blvd Realignment
- Traffic Calming Priority Areas

These estimates assume that construction costs will increase an average of 5% per year, for a total escalation of 22% to 2028 dollar terms. A 25% contingency is also included in these costs. Costs such as utility relocation, stormwater inlets, new driveways, or full-depth pavement replacement are not included in these estimates.

Approximately 77% of these costs are in Wyandotte County, and 23% are in Johnson County. 35% of the costs are in USDOT Disadvantaged Tracts, and 77% are in MARC Environmental Justice tracts.

Project Costs by Community

#	Project/Item	2028$ Costs	WyCo %	JoCo %	Westwood	Mission Woods	Westwood Hills	Unified Government
A	Turkey Creek Trail Connection*	$ 1,976,000	100%	0%	$ -	$ -	$ -	$ 1,976,000
B	Southwest Blvd to 39th	$ 2,468,000	100%	0%	$ -	$ -	$ -	$ 2,468,000
C	39th to 43rd	$ 1,794,000	100%	0%	$ -	$ -	$ -	$ 1,794,000
D	43rd to Shawnee Mission Parkway	$ 4,086,000	36%	64%	$ 1,639,940.34	$ 509,711	$ 465,388	$ 1,470,960
E	Olathe Boulevard Realignment	$ 1,810,000	100%	0%	$ -	$ -	$ -	$ 1,810,000
	ADA Ramps and Spot Sidewalk Replacement Allowance*	$ 800,000	69%	31%	$ 155,525.42	$ 48,339	$ 44,136	$ 552,000
	Neighborhood Traffic Calming Allowance*	$ 550,000	69%	31%	$ 106,923.73	$ 33,233	$ 30,343	$ 379,500
	Streetlight Allowance*	$ 954,000	69%	31%	$ 185,464.07	$ 57,644	$ 52,632	$ 658,260
	Landscape / Green Infrastructure Allowance*	$ 550,000	69%	31%	$ 106,923.73	$ 33,233	$ 30,343	$ 379,500
	Right-of-Way Allowance*	$ 200,000	69%	31%	$ 38,881.36	$ 12,085	$ 11,034	$ 138,000
	Total ROW + Construction Cost	$ 15,188,000			$ 2,233,658.64	$ 694,245.25	$ 633,876.10	$ 11,626,220.00
	Maximum Federal Share (80%)	$ 12,150,400			$ 1,786,926.92	$ 555,396.20	$ 507,100.88	$ 9,300,976.00
	Survey, Engineering, and other Soft Costs (15%)	$ 2,279,000			$ 335,048.80	$ 104,136.79	$ 95,081.42	$ 1,743,933.00
	Non-Federal Match + Survey/Engineering/Soft Costs	**$ 5,316,600**			**$ 781,781**	**$ 242,986**	**$ 221,857**	**$ 4,069,177**

Funding Outlook

This program of projects would be eligible and potentially competitive for several funding sources, including Federal, State, and Local programs.

While Federal funding can sometimes complicate project implementation by adding certain requirements and administrative procedures, a project of this size could easily justify that added effort.

The Mid-America Regional Council (MARC) allocates Federal funding for projects through its committee structure. Although they require an intensive grant application and screening process and are typically highly competitive, Federal discretionary programs such as the RAISE program, Safe Streets and Roads for All, and Reconnecting Communities offer opportunities for major funding.

State and local programs can help provide required matching funds required for Federal projects. Typically, Federal projects can only cover a maximum of 80% of project costs, although there are certain exceptions for projects located within Historically Disadvantaged Census Tracts for certain programs. For this program of projects, a combination of Federal sub-allocated funding, KDOT, and local funding sources could realistically provide sufficient funding for the proposed program of projects.

Table 7. *Potential Funding Sources*

Category	Name	Typical Range / Max Award	Competition / Difficulty
Federal - Suballocated (MARC Programs)	Surface Transportation Block Grant (STBG)	Total $30 M in KS	Moderate
	STBG Set-Aside (Transportation Alternatives)	Max $1.5 M Total $4.5 M in KS	Moderate
	Congestion Mitigation and Air Quality (CMAQ)	Total $5.6 M in KS	Moderate
	Carbon Reduction Program (CRP)	Total $8 M in KS	Moderate
Federal Discretionary	Community Project Funding ("Earmarks")	$500k- $4 M	Moderate
	Rebuilding America's Infrastructure with Sustainability and Equity (RAISE)	Max $25 M	High
	Safe Streets and Roads for All - Demonstration Grant	Max $10 M	Moderate
	Safe Streets and Roads for All - Implementation Grant	Max $25 M	High
	Reconnecting Communities & Neighborhoods	Min $5 M	High
KDOT (or KDOT Allocated)	Connecting Link Improvement Program	Max $1.5 M	Moderate
	Highway Safety Improvement Program - VRU Set Aside (Future)	TBD	Moderate
	Cost Share Program	Max $1 M	Lower
	Build Kansas Fund	TBD	Moderate
Local	Johnson County County Assistance Road System (CARS)	Likely $1-2 M per project	Lower
	Street Maintenance/Preservation Funds	Varies (Unified Government is around ~ $12 M/year citywide)	Lower

Timeline

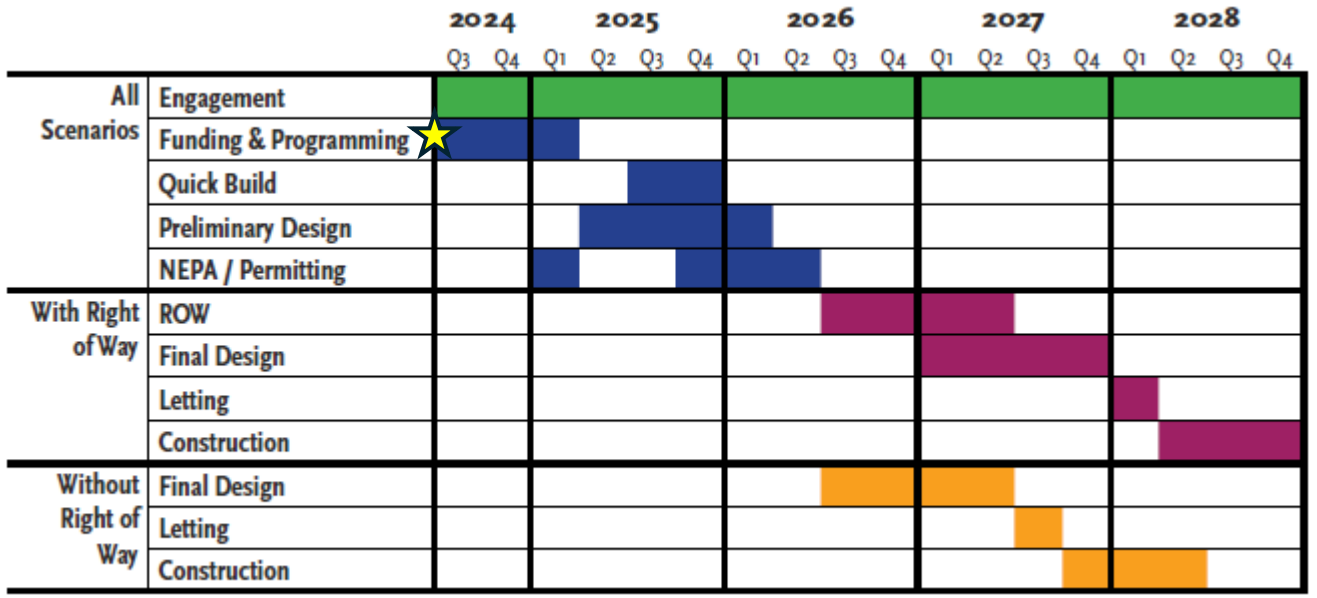
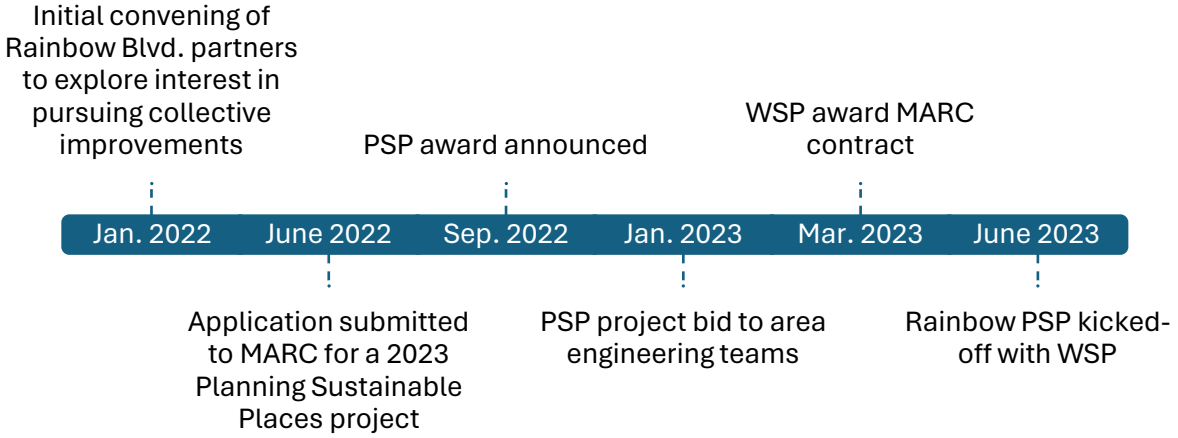


Figure 82. *Example project development scenarios*

Process & Schedule



Next Steps

Funding and Programming: The Federal funding and allocation process administered by the Mid-America Regional Council helps to allocate funding such as STBG, STBG Set-Aside, CMAQ, and CRP funds. As local agencies apply for funding, projects are evaluated, scored, and recommended to various committees that provide recommendations and final approval for project funding. This process typically takes several months. Once that process is complete, project sponsors will have an understanding of the amount of funding allocated to their project(s). This allows project sponsors to understand which projects they can afford, the amount of matching funding required, and the timeline when funds will be available. Once funding is secured, ***Local Public Agencies (LPAs)*** should begin coordinating with KDOT's Bureau of Local Projects to begin the Discovery Phase of the project by submitting a Project Programming Request Form.

Quick-Build Demonstration: Quick-build or demonstration projects are a low-cost way to implement a road diet or roadway reconfiguration in order to prove their effectiveness at calming traffic and improving safety and operations. For example, the City of Westwood and the Unified Government implemented a roadway reconfiguration on 47th Avenue/Street using a quick-build approach. Following a quick build project, the street was upgraded with new, more permanent improvements including pedestrian refuge islands and new curb ramps and sidewalks.

The section of Rainbow from Shawnee Mission Parkway to 47th Avenue would serve as an ideal quick-build project that could be implemented earlier on in the process to serve as a proof of concept for the Rainbow Boulevard Road Diet.

Local Public Agencies (LPA): A public agency (i.e. City, County, or other non-State government entity) sponsoring a Federal-Aid (federally funded) project

The Kansas Department of Transportation's Bureau of Local Projects (KDOT BLP) assists Local Public Agencies (LPAs) in project development for Federally-funded projects. As the owner of Rainbow Boulevard, KDOT will be involved in decisions about the facility as it is designed.

A detailed LPA Project Development Manual can be found on KDOT's Authentication & Resource Tracking (KART) web portal.

Figure 84. *Demonstration Project (Left - photo by Laura Fox) and Permanent Installations on 47th Street/Avenue*

Discovery and Preliminary Design: Once funding is secured, preliminary engineering can begin. Project sponsors should meet with KDOT's Bureau of Local Projects to discuss the project scope, limits, and any complex details. An engineering consultant should be competitively selected in accordance with KDOT rules. An engineering survey is also needed to support design. Discovery and preliminary engineering may dictate further evaluation of the concepts within this study and their safety and operational impacts. Preliminary plans (30%) are followed by field check plans (50-60%), produced prior to right of way plans (if applicable).

Ongoing Engagement

Although this feasibility study has concluded, ongoing community and stakeholder engagement should continue as the corridor advances through project development. Preliminary and final engineering should include continued public engagement opportunities. As more details are decided through preliminary and final engineering, project partners should seek the input of individual property owners and tenants, while still respecting the goals and the will of the general public that were identified through this study.

Environmental Review and Permitting: The National Environmental Policy Act (NEPA) requires Federally-funded projects to adhere to certain standards and processes. KDOT will determine the environmental class of the project, depending on the scale, complexity, and anticipated impacts of the project. Because these projects are mostly within existing developed Right of Way, they are likely to be classified as Categorical Exclusions (CATX). KDOT's Environmental Services Section (ESS) will draft a Preliminary Memo when the project is programmed to begin coordination with various review agencies. Review agencies will provide their review letters to KDOT ESS. KDOT ESS will compile those responses and provide a Final Memo, indicating which permits and actions need to be taken by the LPAs. The LPA is responsible for obtaining permits.

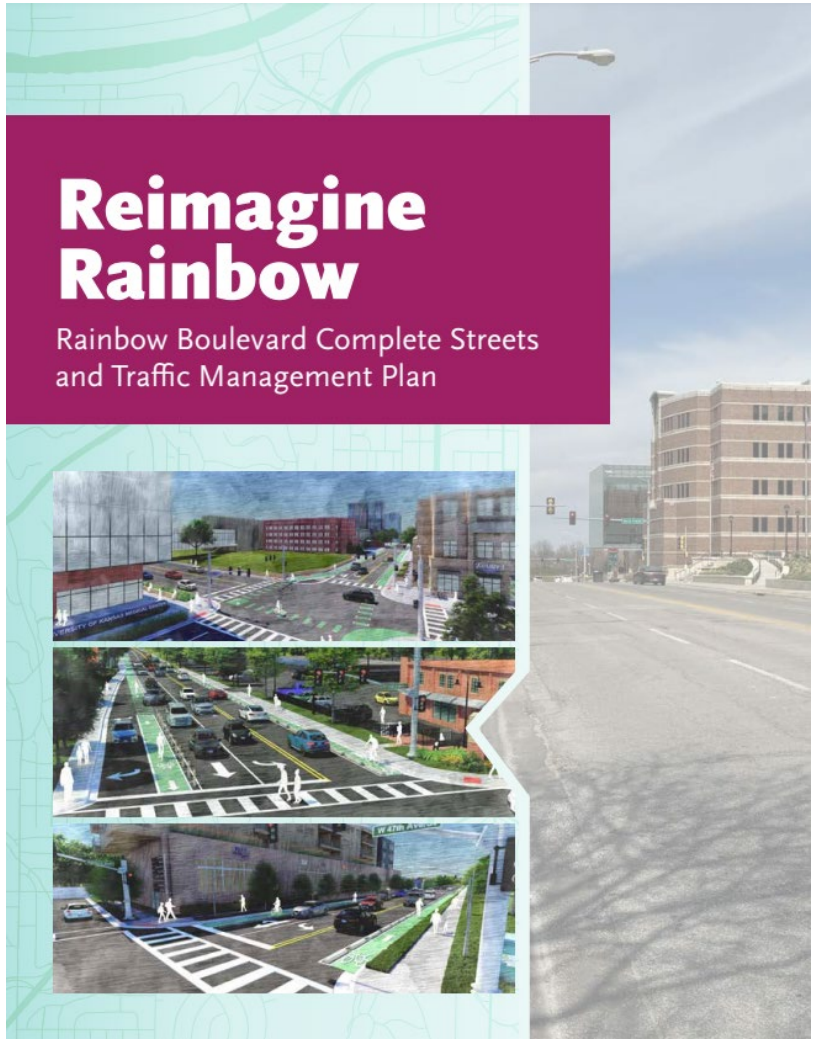
Right of Way: While this project will work mostly within existing right of way, there may be a need to acquire partial tracts of temporary or permanent easements or right of way to complete certain projects, depending on the results of preliminary design. LPAs must follow specific rules when acquiring right of way. Title reports, legal descriptions, right of way plans, and property valuation are required in order to begin negotiation with property owners and acquiring property.

Final Design: The final design stage includes development of a set of office check plans (90% plans), final plans (100% plans), and the final plans, specification, and estimate (PS&E).

Advertising, Letting, and Construction: Once the final PS&E is complete, KDOT will advertise the project for bid on its portal for one month. The contract is awarded to the lowest responsible and responsive bidder. After a contract is executed, a pre-construction meeting is held, and a Notice to Proceed is issued. During construction, the LPA, KDOT, and/or a consultant share responsibilities for construction engineering, inspection, and oversight.

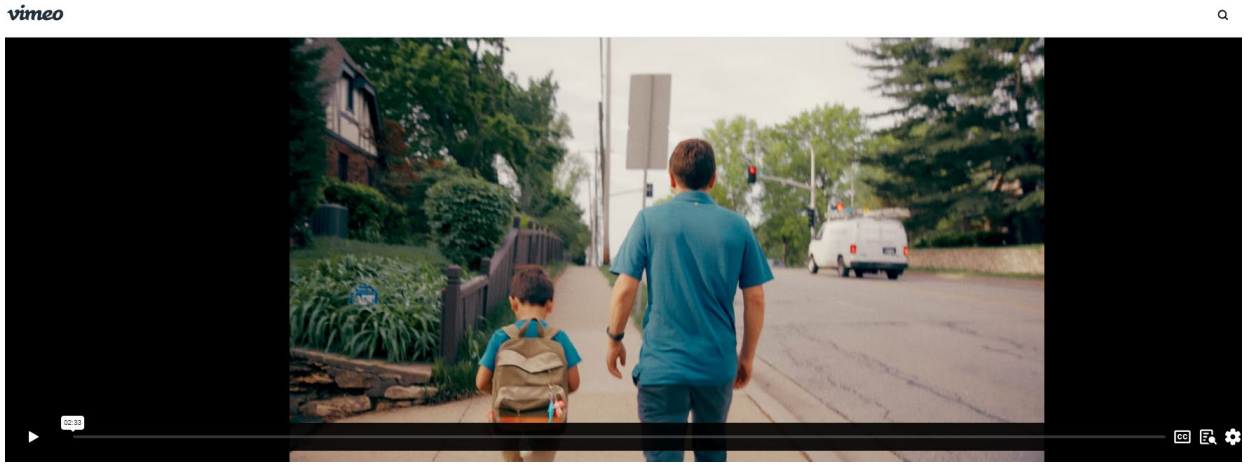
Alternative Delivery: Alternative delivery methods, such as design-build or construction manager at risk, can help save time and costs over design-bid-build delivery. Alternative delivery methods may be appropriate for certain projects in this program. However, further design, definition of the scope of work, and an understanding of environmental and permitting considerations would be required for alternative delivery. There is currently no defined design-build process for KDOT local projects, and additional consultation with KDOT will be needed if project partners desire to pursue alternative delivery. Project sponsors should consider using an owner's representative to help manage the process.

Additional Information



Click on the report to read the full document

Click on the video for a short project narrative



Click on the project website to review all the community engagement