

# KANSAS CITY REGIONAL TIGER APPLICATION

**PROJECT TYPE:**

Multimodal  
(bicycle, freight, pedestrian,  
roadway, transit)

**LOCATION:**

Kansas City metropolitan area  
Kansas Congressional District 3  
Missouri Congressional Districts 5 & 6

**AREA:**

Urban

**REQUESTED AMOUNT:**

\$87,761,000

**DUNS NUMBER:**

07-303-6311

**CENTRAL CONTRACTOR****REGISTRATION:**

CAGE Code: 3K9J8

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CITY OF FOUNTAINS  
HEART OF THE NATION



KANSAS CITY  
MISSOURI



**KANSAS CITY REGIONAL TIGER APPLICATION**  
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# I. PROJECT DESCRIPTION

The Kansas City region has come together in an unprecedented way to advance a sustainable, economically prosperous regional future and the Kansas City Regional TIGER Application reflects this multifaceted regional partnership and shared community vision.

The Kansas City Regional TIGER Application aims to promote regionwide economic prosperity by improving and enhancing the core transportation systems necessary to drive local, regional and national success. This regional initiative attempts to achieve these outcomes through a set of projects within two systems-based approaches: one a national model of urban reinvestment promoting multimodal access to opportunity; and a second, equally important approach focused on national freight mobility and economic competitiveness. Together, in the spirit of the American Recovery and Reinvestment Act and the TIGER program, these strategies will improve the movement of people *and* goods in the pursuit of a sustainable, economically prosperous regional and national future.

## REGIONAL VISION:

Greater Kansas City is a sustainable region that increases the vitality of our society, economy and environment for current and future residents.

*Mid-America Regional Council  
Board of Directors, 2008*

**TABLE 1. Regional Application Benefits Summary**

Long-Term Outcomes	Benefit
State of Good Repair	Rehabilitates infrastructure in 150-block Green Impact Zone, along major regional transit lines, and on one of the nation's priority freight corridors.
Economic Competitiveness	Expands multimodal access to regional employment destinations and major centers of opportunity. Ensures continued movement of freight with greater efficiency.
Livability	Constructs 55 miles of bike lanes, 19 miles of shared-use trails, 135 miles of signed bike routes, three transit centers, and dozens of transit enhancements along major urban corridors.
Sustainability	Reduces 24 million vehicle miles traveled annually and approximately 68,500 metric tons of greenhouse gas emissions annually, improves air quality, and reduces dependence on foreign oil.
Safety	Reduces over 100 crashes, two fatalities and \$13 million in crash-related costs annually.
Job Creation & Economic Stimulus	Creates 3,719 construction jobs and \$242 million in gross domestic product nationally and an estimated 2,455 long-term jobs regionally.
Innovation	Leverages green technology, green-construction methodology and public-private partnerships.
Regional Partnership	Includes two states, three transit providers, seven cities, and private business as regional partners. This application has the support of its seven primary partners and more than 30 public and private agencies and offices in the region.

FIGURE 1. Map of Kansas City Regional TIGER Application Projects

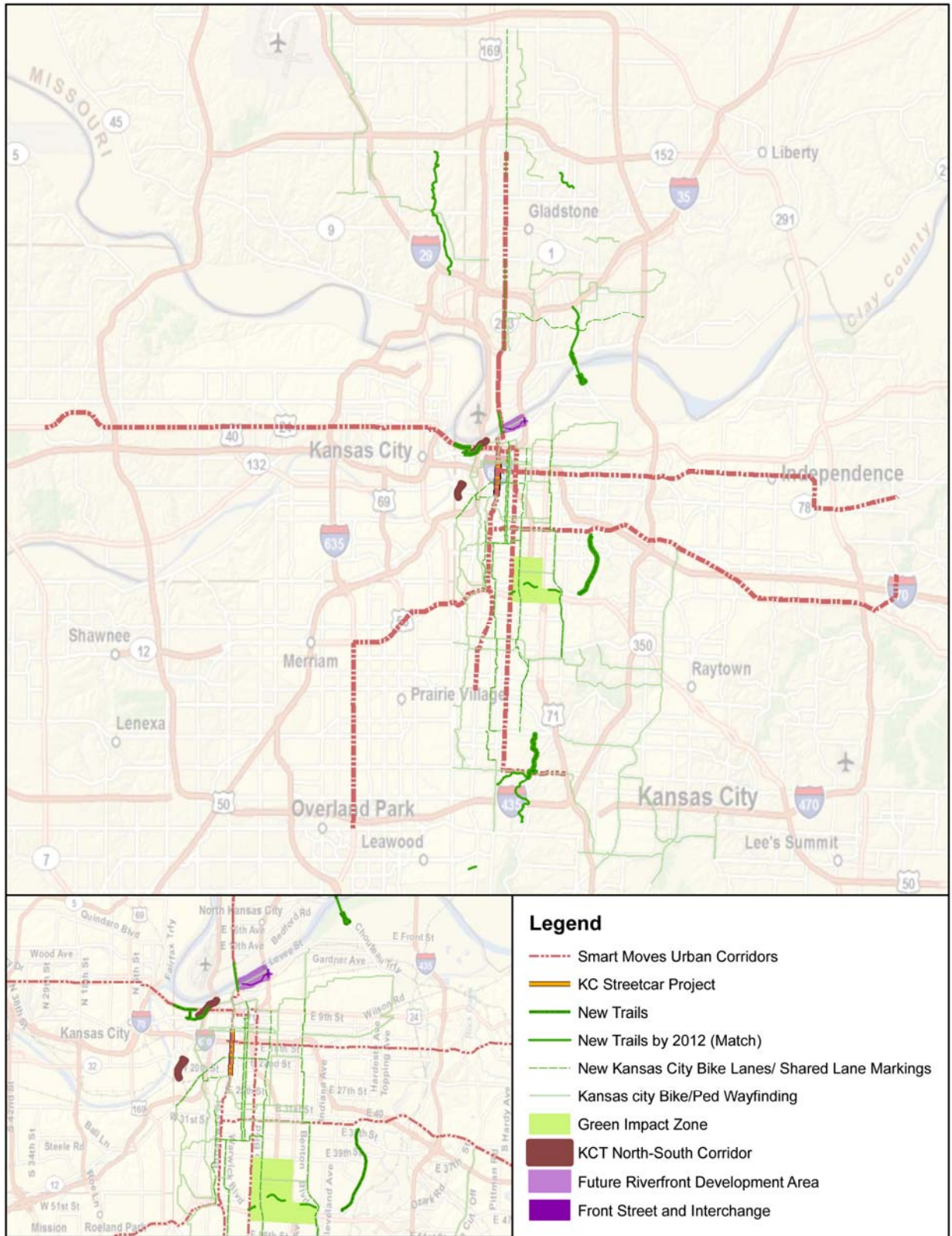


TABLE 2. Kansas City Regional TIGER Application Federal Request Summary (millions)		
<b>Metropolitan Mobility &amp; Access to Opportunity</b>		
Green Impact Zone Improvements	\$ 26.200	29.5%
Transit Capital Improvements	\$ 22.251	25.1%
Streetcar	\$ 6.000	6.8%
Bicycle/Pedestrian Improvements	\$ 12.100	13.6%
SUBTOTAL	\$ 66.551	75.0%
<b>Freight Mobility &amp; Economic Competitiveness</b>		
North-South Corridor	\$ 18.160	20.5%
Front Street	\$ 3.600	4.1%
SUBTOTAL	\$ 21.760	24.5%
Program Administration	\$ 0.450	0.5%
<b>FEDERAL TIGER REQUEST TOTAL</b>	<b>\$ 88.761</b>	<b>100%</b>

## A. Metropolitan Mobility and Access to Opportunity

Over the last 50 years, the Kansas City region has continued to grow outward in a way that has dispersed people and jobs over an ever-increasing area. This outward expansion has, in turn, limited our ability to provide transportation, housing and lifestyle choices in an economical fashion and has, in part, contributed to disinvestment in the urban core and inner ring suburbs. Efforts are underway to refocus development along key corridors and in activity nodes, in both suburban and urban locations, to be supported and linked by more effective transit services. These corridors connect to areas of economic opportunity which are linked to the region's significant intermodal freight capacity.

The Kansas City Regional TIGER Application strives to address this regional growth dynamic directly by leveraging the region's strongest assets. The emphasis on access to opportunity and urban reinvestment is based on the premise that focused reinvestment through the Green Impact Zone (located in Kansas City, Mo.) coupled with regional multimodal transportation strategies can be leveraged to better connect people and jobs regionwide, and do so in a way that promotes true livability, sustainability and a rising quality of life for all. The regional application aims to demonstrate how focused investments in our urban core through the Green Impact Zone and supporting transportation connections will lead to revitalized neighborhoods and expanded economic opportunity regionwide, ultimately providing a national model of place-based, interdisciplinary planning and coordination.

Following are descriptions of three underlying strategies in support of metropolitan mobility and access to opportunity.

### *i. Focused Urban Reinvestment – Green Impact Zone*

The Green Impact Zone is a 150-block area in Kansas City's urban core that has been devastated over the years by high rates of poverty and violence, high levels of unemployment and crime, and high concentrations of

On July 13, President Obama cited the Green Impact Zone in a news conference on the White House's new vision for urban and metropolitan policy. He referred to Kansas City's initiative that "focuses on transforming a low-income community into a national model of sustainability by weatherizing homes and building a green local transit system."

vacant and abandoned properties. For these reasons, local and regional leaders have endorsed the strategy of targeting resources to this area in an effort to jump-start its economic recovery.

While historically underserved, the Green Impact Zone includes some substantial assets, including several strong neighborhood groups; educational facilities; community, cultural and health centers; and proximity to important regional institutions and major roadways. To build on these assets and develop others, the zone is pursuing a multifaceted investment strategy around sustainability, public safety, stabilization, housing conditions, access to jobs and services and economic vitality.

The Green Impact Zone Transportation Project will enhance quality of life in the Green Impact Zone by improving critical infrastructure including streets and sidewalks, replacing the Troost Avenue Bridge over Brush Creek, and providing better access to regional opportunities through expanded transit and pedestrian facilities. In doing so, the Green Impact Zone investments will create an estimated 231 jobs and \$7.996 million in new earnings.

Partners in the Green Impact Zone are striving to create a national model that demonstrates how integrated, place-based investments, centered on principles of sustainability, can transform a community. Efforts include a comprehensive strategy to align regional capacities, city programs and neighborhood leadership.

- A detailed project description is in **Appendix A: Green Impact Zone Transportation Project** [www.marc.org/Recovery/assets/tiger/APPENDIX A Green Impact Zone.pdf](http://www.marc.org/Recovery/assets/tiger/APPENDIX_A_Green_Impact_Zone.pdf).

### *ii. Smart Moves Regional Transit Network*

Urban revitalization and reinvestment as outlined for the Green Impact Zone and other supporting efforts across the region will be critical to our success, but if these places are not connected and accessible to regionwide opportunities, their impact will be limited. Historically auto-oriented, the Kansas City region is working diligently to provide viable alternatives to the single-occupant automobile, and expanding transit is a top priority. Expanded transit service creates an opportunity to provide the public affordable, clean transportation alternatives, and to better connect neighborhoods to economic opportunities regionwide. For these reasons, in recent years the region's transit operators have jointly developed the Smart Moves Regional Transit Vision. Smart Moves is metropolitan Kansas City's vision for expanded and enhanced regional transit services.

The regional transit program included in the Regional Kansas City TIGER Application will target transit investments in support of the urban corridor network identified in Smart Moves. These investments will include replacing two aging transit centers in the State Avenue corridor in Kansas; rehabilitation of two park-and-ride lots; a new transit center in the Metcalf Avenue/Shawnee Mission Parkway corridor in Kansas; and approximately 80 bus-stop and related pedestrian improvements in the urban corridor network. This network focuses on high-demand/high-capacity urban transit corridors which present

TABLE 3. Green Impact Zone TIGER Investments (millions)	
Sidewalks / Streetscape / Transit Improvements	\$8.10
Street Rehabilitation	\$6.00
Traffic Signal Upgrades	\$2.20
Traffic Signal Interconnect	\$1.90
Troost Bridge Replacement	\$8.00
<b>TOTAL</b>	<b>\$26.20</b>

TABLE 4. Regional Transit TIGER Investments (millions)	
State Avenue Transit Improvements	\$10.34
Metcalf Avenue/Shawnee Mission Parkway Transit Improvements	\$10.51
North Oak Transit Improvements	\$0.60
Eastern Corridor Transit Improvements	\$0.80
Kansas City Downtown Streetcar	\$6.00
Green Impact Zone Transit Improvements	(TABLE 3)
<b>TOTAL</b>	<b>\$28.25</b>

opportunities for revitalization, reinvestment, and increased levels of population and employment density. The urban corridor network as defined builds on the success of the cost-effective bus rapid transit (BRT) service introduced on Main Street (Metro Area Express, MAX) in 2005. The region's second BRT corridor, Troost Avenue, is fully funded and currently under construction.

The proposed TIGER investments will help expand this network of urban corridor transit services in ways that support existing investments and bus operations, while setting the stage for more extensive investment and higher-level operations. The urban corridor network and the more expansive Smart Moves Regional Transit Vision will serve to better connect urban neighborhoods — like the Green Impact Zone and downtown — to the rest of the region, opening up tremendous economic opportunity, enhanced access to jobs, lower-cost transportation alternatives, and a more energy-efficient and sustainable environment.

The proposed Kansas City Downtown Streetcar project will build on initial design work conducted through the North/South Corridor Alternatives Analysis and will continue into preliminary engineering. TIGER funds will be used for preliminary engineering and final design related to the bridge modifications necessary to accommodate the streetcar and for construction activities in support of the bridge modifications. These investments will contribute to the foundation for a more dynamic and intensive regional transit system, including integration of fixed-guideway and modern streetcar operations in the urban core and commuter rail services connecting outlying communities.

- A detailed project description is in **Appendix B: Regional Transit Corridors** [www.marc.org/Recovery/assets/tiger/APPENDIX\\_B\\_Regional\\_Transit\\_Corridors.pdf](http://www.marc.org/Recovery/assets/tiger/APPENDIX_B_Regional_Transit_Corridors.pdf).
- A detailed project description is in **Appendix C: Kansas City Downtown Streetcar** [www.marc.org/Recovery/assets/tiger/APPENDIX\\_B\\_Regional\\_Transit\\_Corridors.pdf](http://www.marc.org/Recovery/assets/tiger/APPENDIX_B_Regional_Transit_Corridors.pdf).

### *iii. Regional Bicycle and Pedestrian Network*

Bicycle- and pedestrian-friendly cities are vibrant, healthy, active and highly desirable places to live, learn, work and play. Traffic congestion is reduced, air quality is improved, businesses experience increased vitality and the health and well-being of residents is significant. Cities like Portland, Ore.; Minneapolis, Minn.; Chicago, Ill.; and Boulder, Colo., are leading the way with investments in biking, walking and transit, and reporting significant modal shifts as a result of these investments.

In Greater Kansas City only 0.4 percent of all trips are made by bicycle and 3.9 percent by walking. These statistics are not surprising, however, as Kansas City's limited bicycle and pedestrian infrastructure discourages residents and employees from using these alternative modes of transportation.

Transforming transportation in the Kansas City region to include significant bicycling and walking infrastructure is a bold, new approach that can also have a major impact on the local economy. In a metro with the most freeway miles per capita in the country, a significant opportunity is present to transform the auto-centric transportation system into one that promotes walking, biking and transit, providing residents with mobility options they currently lack.

Elected officials, staff and community advocates are working together to change perceptions as well as

TABLE 5. Bicycle/Pedestrian TIGER Investments (millions)	
Shared-Use Trails	\$4.800
On-Road Bicycle Facilities	\$2.250
Signage	\$0.820
Bicycle Parking	\$0.200
Pedestrian Improvements	\$2.055
Bike Share KC – rental bike system	\$0.500
Safe Routes to School – children's walking program	\$0.500
Travel Smart KC – wellness and active lifestyle program	\$0.250
Project Revolve KC – bicycle mechanic training center and shop	\$0.725
<b>TOTAL</b>	<b>\$12.100</b>

reality. In May 2007, Kansas City, Mo., Mayor Mark Funkhouser set forth the goal of achieving platinum designation from the League of American Bicyclists as a bike-friendly city by 2020. At the same time the Kansas City city council established the citizen-led Bicycle Pedestrian Advisory Committee, which recently developed an annual action plan for transforming Kansas City into a bikeable and walkable city. In 2008, the British Broadcasting Company (BBC radio) aired a 30-minute international broadcast about Kansas City's desire to go from "worst to first" as a bicycle-friendly city, highlighting the challenges it faces as well as the determination of the city to get there.

Kansas City has taken the first steps needed to create a bike- and pedestrian-friendly community. Bike, trail and walkability plans are in place. Yet a critical mass of infrastructure investments, as well as programs that support the five E's, (engineering, education, encouragement, enforcement and evaluation) are needed before real results can be achieved.

The funding requested in this TIGER application will provide additional resources needed to get Kansas City residents out of their cars and using people-powered modes of transportation. Investments include constructing significant links of the region's greenway system, a system-wide application of on-road bike facilities, much-needed pedestrian improvements, and investments supporting the national Safe Routes to School initiative.

- A detailed project description is in **Appendix D: Bicycle/Pedestrian Investments** [www.marc.org/Recovery/assets/tiger/APPENDIX\\_D\\_Bicycle\\_Pedestrian.pdf](http://www.marc.org/Recovery/assets/tiger/APPENDIX_D_Bicycle_Pedestrian.pdf).

## **B. National Freight Mobility and Economic Competitiveness**

Freight and goods movement is another fundamental transportation service that is often overlooked. The nation's 113 million households, 7.5 million business establishments, and 88,000 government units are part of an enormous economy and infrastructure that demands the movement of freight.<sup>1</sup> Efficient movement of freight is critical to our nation's economy, environment and public safety. It is well documented that moving freight by rail results in significant public benefits – reduced highway congestion, cleaner air, increased safety and increased mobility. The freight industry is also a significant source of employment. The U.S. Department of Transportation (USDOT) estimates that the demand for freight-rail transportation will increase 88 percent by 2035.<sup>2</sup> To meet this demand, an investment of \$148 billion (in 2007 dollars) is required to keep pace with economic growth and meet USDOT's forecast demand.<sup>3</sup>

TABLE 6. Freight / Economic Development TIGER Investments (millions)	
Kansas City Terminal Railway – North-South Corridor Project	\$18.16
Port Authority of Kansas City – Front Street and Interchange Project	\$3.60
<b>TOTAL</b>	<b>\$21.76</b>

In addition to significant national impacts, freight-rail transportation is the foundation of the Kansas City area's local economy. Located in the heart of the NAFTA corridor, Kansas City is the largest rail center in the U.S. by tonnage. It is the second largest by train volumes, and provides direct connections to Canada, Mexico and East and West Coast ports.

Looking forward, Kansas City plans to leverage this competitive advantage for both regional and national benefit. Included in the Kansas City Regional TIGER Application are two investments in support of this objective, one focused on addressing national freight-rail needs through a public and private partnership, and the second focused on regional economic opportunities through brownfield restoration and enhanced connectivity.

<sup>1</sup> *Freight Facts and Figures 2007*, FHWA, [http://ops.fhwa.dot.gov/freight/freight\\_analysis/nat\\_freight\\_stats/docs/07factsfigures/intro1.htm](http://ops.fhwa.dot.gov/freight/freight_analysis/nat_freight_stats/docs/07factsfigures/intro1.htm)

<sup>2</sup> National Rail Freight Infrastructure Capacity and Investment Study; Association of American Railroads; September 2007; p. 1-1

<sup>3</sup> Ibid. p. ES-1

### *i. Kansas City Terminal Railway North-South Corridor*

The Kansas City Terminal Railway Company's North-South Corridor is a primary corridor<sup>4</sup> within the nation's rail system. As such, rail traffic volume in this corridor is expected to significantly increase, as is the investment to expand capacity.<sup>5</sup> This corridor received a level of service (LOS) grade of "F" for volume-to-capacity ratio.<sup>6</sup> Grade F corridors are defined as those (i) operating above capacity (ii) with train flows that are unstable and (iii) with congestion and service delays that are persistent and substantial.<sup>7</sup> Without infrastructure improvements, the resulting level of congestion will affect nearly every region in the country and will disrupt the national rail network.<sup>8</sup> If the rail network fails to meet the demand, more freight will shift to trucks. The result could be higher costs for shippers, consumers and taxpayers, increased spending on construction and maintenance of highways, and negative environmental and air quality impacts.<sup>9</sup> It can cost \$10 million and well over a decade to add a lane to a mile of urban highway, compared to \$1 million to \$2 million and relatively little time for a typical mile of rail main line.<sup>10</sup>

The goal of the North-South Corridor Project is to stabilize and improve this critical rail corridor to ensure that the movement of freight along the nation's rail network is safe, more efficient, achieved without undue interruptions or delays, and meets demand for capacity. A 3,200-foot section of track will be redesigned to raise the lower tracks above the 100-year flood elevation; provide for sub-grade embankment needed to add a future third main-line track at the lower section; rebuild two lower main-line tracks; replace the incline track's lower retaining wall, which is currently in failing condition; and design a drainage system for the entire project to ensure future preservation. In addition, the main lines will be realigned and upgraded with an innovative central traffic-control system to allow the entire corridor's speed to increase from 10 to 20 mph. These improvements will allow an additional 12 to 14 trains per day, each of which may contain up to 120 cars per train, to move through the corridor. The final design for this project is completed and construction documents are pending. Train operations will continue uninterrupted during the entire course of construction.

- A detailed project description is in **Appendix E: North-South Corridor Project** [www.marc.org/Recovery/assets/tiger/APPENDIX\\_E\\_North-South\\_Corridor.pdf](http://www.marc.org/Recovery/assets/tiger/APPENDIX_E_North-South_Corridor.pdf).

### *ii. Port Authority of Kansas City – Front Street and Interchange*

The Riverfront Economic Development Initiative (REDI) area located in the heart of metropolitan Kansas City and abutting the Missouri River has been underused and burdened with contamination for over a century. Starting in the early 1990s, the Port Authority of Kansas City began planning to reconnect Kansas City with its riverfront by ridding the area of debris and remediating contamination from industrial dumping. After more than a decade of planning, spending \$17 million to clean and remediate the REDI area, and investing more than \$40 million in infrastructure, the Port Authority is on the cusp of reconnecting the city to its river legacy.

Building the last large piece of infrastructure, Front Street, opens the door to the REDI area for sustainable, mixed-use development along the river, with great opportunity for additional job creation and expanded economic opportunity. Front Street will provide the key infrastructure to allow the REDI area to realize its potential for development by accentuating its proximity to the Central Business District, the River Market and the Northeast Industrial District (NEID). The development firm Forest City has projected 1,182 residential units, 520,000 square feet of office, and 91,400 square feet of retail will be added because of a new Front Street, with a build-out of 12 years.

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<sup>4</sup> Ibid. p. 4-1

<sup>5</sup> Ibid. p. ES-1

<sup>6</sup> Ibid. p. 5-5

<sup>7</sup> Ibid. p. 4-8

<sup>8</sup> Ibid. p. 5-6

<sup>9</sup> *Freight Rail Transportation: Long-Term Issues*; Congressional Budget Office Paper; January 2006; p. 1

<sup>10</sup> Public-Private Partnerships for Freight Rail Infrastructure Projects; AAR Policy and Economics Report; February 2005; p. 3

In recognition of the fact that the REDI area has been neglected by Kansas City since the 19<sup>th</sup> century, Front Street is being designed as *the* greenest street in the city. The shortened street will be lit by LED lights, saving energy and reducing greenhouse gases, using pervious pavement in the parking area and bioswales designed to capture stormwater runoff from the roads to prevent road oils and debris from entering the Missouri River, and the bike/pedestrian path further encourages human-powered transportation. Completing the Front Street Extension will allow the Port Authority to move ahead with the installation of alternative energy generators in the REDI area to support the power consumption used there.

- A detailed project description is in **Appendix F: Front Street and Interchange Project** [www.marc.org/Recovery/assets/tiger/APPENDIX\\_F\\_Front\\_Street\\_Interchange.pdf](http://www.marc.org/Recovery/assets/tiger/APPENDIX_F_Front_Street_Interchange.pdf).

## C. Project Parties

The Kansas City Regional TIGER Application is a multijurisdictional effort built on local, regional, state and national partnerships. The Kansas City Regional TIGER Application leverages a range of local, state, federal and private-sector funds as match to investments requested through TIGER to advance shared regional objectives. (See Appendix G: Letters and Resolutions of Support at [www.marc.org/Recovery/assets/tiger/supportletters.pdf](http://www.marc.org/Recovery/assets/tiger/supportletters.pdf).)

APPLICATION PARTNERS		
Mid-America Regional Council   City of Kansas City, Mo.   Johnson County, Kan. Kansas City Area Transportation Authority   Kansas City Terminal Railway Company Port Authority of Kansas City, Mo.   Unified Government of Wyandotte County		
APPLICATION SUPPORTERS*		
<b>Legislators</b> U.S. Congressman Emanuel Cleaver II (MO) U.S. Congressman Dennis Moore (KS) U.S. Congressman Sam Graves (MO) U.S. Senator Kit Bond (MO) U.S. Senator Pat Roberts (KS)	<b>Freight/Railroad</b> Kansas City Southern Union Pacific Railroad BNSF Railway DM&E Railroad Kansas City SmartPort Kansas City Industrial Council	<b>Community Organizations</b> Bridging The Gap Brush Creek Community Partners Health Care Foundation of Greater Kansas City Kansas City Bicycle Club Kansas City Design Center Missouri Bicycle & Pedestrian Federation MORE? (Metro Organization for Racial and Economic Equity) Regional Transit Alliance Revolve, Inc. Share the Road Safety Task Force
<b>State Governments</b> Kansas Department of Transportation Missouri Department of Transportation	<b>Local Business</b> Central Industrial District Association Greater Kansas City Chamber of Commerce Kansas City Area Development Council Kansas City Kansas Area Chamber of Commerce River Market Community Association	
<b>Local Governments</b> City of Edwardsville, Kan. City of Gladstone, Mo. City of Independence, Mo. City of Mission, Kan. City of North Kansas City, Mo. City of Overland Park, Kan. Jackson County, Mo.		

*\*Based on letters received as of September 14, 2009*

## D. Grant Funds and Sources and Uses of Project Funds

TABLE 7. Kansas City Regional TIGER Application Sources & Uses of Funds (millions)				
Use of Funds	TIGER Request	Local Match	Total Project Cost	% Local Match
<b>GREEN IMPACT ZONE INVESTMENTS</b>				
Sidewalks/Streetscape/Transit Improvements	\$ 8.100	\$ 1.000	\$ 9.100	
Street Rehabilitation	\$ 6.000		\$ 6.000	
Traffic Signal Upgrade	\$ 2.200		\$ 2.200	
Traffic Signal Interconnect	\$ 1.900		\$ 1.900	
Troost Bridge	\$ 8.000	\$ 5.400	\$ 13.400	
<b>SUBTOTAL</b>	<b>\$ 26.200</b>	<b>\$ 6.400</b>	<b>\$ 32.600</b>	<b>20%</b>
<b>REGIONAL TRANSIT INVESTMENTS</b>				
State Avenue Transit Improvements	\$ 10.337	\$ 0.579	\$ 10.916	
Metcalf Avenue / Shawnee Mission Parkway Transit Improvements	\$ 10.514	\$ 1.000	\$ 11.514	
North Oak Transit Stop & Access Improvements	\$ 0.600		\$ 0.600	
Eastern Corridor Transit Stop & Access Improvements	\$ 0.800		\$ 0.800	
Streetcar: Central Corridor Improvements	\$ 6.000		\$ 6.000	
Green Impact Zone Transit ( <i>see above</i> )			-	
<b>SUBTOTAL</b>	<b>\$ 28.251</b>	<b>\$ 1.579</b>	<b>\$ 29.830</b>	<b>5%</b>
<b>BICYCLE/PEDESTRIAN INVESTMENTS</b>				
Shared-Use Trails	\$ 4.800	\$ 4.248	\$ 9.048	
On-Road Bicycle Facilities	\$ 2.250		\$ 2.250	
Signage	\$ 0.820		\$ 0.820	
Bicycle Parking	\$ 0.200		\$ 0.200	
Pedestrian Improvements	\$ 2.055		\$ 2.055	
Smart Bikes KC	\$ 0.500		\$ 0.500	
Safe Routes to School	\$ 0.500		\$ 0.500	
Travel Smart KC	\$ 0.250		\$ 0.250	
Project Revolve KC	\$ 0.725		\$ 0.725	
<b>SUBTOTAL</b>	<b>\$ 12.100</b>	<b>\$ 4.248</b>	<b>\$ 16.348</b>	<b>26%</b>
<b>FREIGHT / ECONOMIC DEVELOPMENT INVESTMENTS</b>				
Terminal Railway – North-South Corridor	\$ 18.160	\$ 4.540	\$ 22.700	
Port Authority – Front Street and Interchange	\$ 3.600	\$ 11.880	\$ 15.480	
<b>SUBTOTAL</b>	<b>\$ 21.760</b>	<b>\$ 16.420</b>	<b>\$ 38.180</b>	<b>43%</b>
Program Administration	\$ 0.450		\$ 0.450	
<b>TOTAL</b>	<b>\$ 88.761</b>	<b>\$ 28.647</b>	<b>\$ 117.408</b>	<b>24%</b>
<b>TOTAL Kansas</b>	<b>\$ 20.957</b>			
<b>TOTAL Missouri</b>	<b>\$ 67.804</b>			

## E. Grant Structure

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As the agency responsible for the regional grant submission, MARC will serve as the lead agency for the Kansas City Regional TIGER Grant. As lead agency, MARC, working with all implementing partner agencies, will be responsible for facilitating and coordinating TIGER implementation and monitoring progress and impact over time.

Lead agency responsibilities may also include coordinating funding distribution, administering contracts, ARRA/TIGER accountability and reporting, and contract compliance. MARC may use a variety of mechanisms such as subcontracts, facilitating direct contracts between U.S. DOT modal agencies and implementing partner agencies, or other mechanisms that meet federal requirements to assign funding to specific grant projects depending on the specific grant format or related guidelines.

LEAD AGENCY:	Mid-America Regional Council (MARC)
USE OF PROJECT FUNDS:	Program administration
TIGER REQUEST:	\$0.45 million

### *Green Impact Zone*

IMPLEMENTING PARTNER:	City of Kansas City, Mo.
TIGER REQUEST:	\$26.2 million
LOCAL MATCH:	\$6.4 million
SOURCE OF MATCH:	City of Kansas City, Mo., city funds

### *Regional Transit Investments*

TOTAL TIGER REQUEST:	\$28.251 million
TOTAL LOCAL MATCH:	\$1.579 million

IMPLEMENTING PARTNER:	Johnson County Transit (Kansas investment)
TIGER REQUEST:	\$10.514 million
LOCAL MATCH:	\$1.0 million
SOURCE OF MATCH:	City of Mission, Kan., real property donation

IMPLEMENTING PARTNER:	Kansas City Area Transportation Authority (Kansas & Missouri investment)
USE OF PROJECT FUNDS:	Design and construct State Avenue (Kansas), North Oak, Eastern Corridor, and streetcar transit improvements (Missouri). <i>See Appendices B and C for detailed costs.</i>
TIGER REQUEST:	\$17.737 million
LOCAL MATCH:	\$0.579 million

### *Bicycle and Pedestrian Investments*

IMPLEMENTING PARTNER:	City of Kansas City, Mo.
USE OF PROJECT FUNDS:	Bicycle and pedestrian improvements. <i>See Appendix D for detailed costs.</i>
TIGER REQUEST:	\$12.1 million
LOCAL MATCH:	\$4.248 million

### *Freight/ Economic Development Investments*

TOTAL TIGER REQUEST:	\$21.760 million
TOTAL LOCAL MATCH:	\$16.420 million

IMPLEMENTING PARTNER:	Kansas City Terminal Railway Company
USE OF PROJECT FUNDS:	North-South Corridor improvements. <i>See Appendix E for detailed costs.</i>
TIGER REQUEST:	\$18.160 million
LOCAL MATCH:	\$4.540 million
SOURCE OF MATCH:	Kansas City Terminal Railway Company funds

IMPLEMENTING PARTNER:	Port Authority of Kansas City
USE OF PROJECT FUNDS:	Front Street and Interchange project. <i>See Appendix F for detailed costs.</i>
TIGER REQUEST:	\$3.6 million
LOCAL MATCH:	\$11.88 million
SOURCE OF MATCH:	Port Authority of Kansas City and Kansas City, Mo., funds (Front Street and diamond interchange)

## II. SELECTION CRITERIA | PRIMARY

### A. Long-Term Outcomes

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#### *iii. State of Good Repair*

##### **Consistent with efforts to maintain transportation systems in a state of good repair**

The Kansas City Regional TIGER Application directly addresses the state of good repair TIGER objective through focusing investments on critical existing assets that are in need of repair. Without improvement and repair, these facilities will be unable to contribute to a robust regional economy, and will directly threaten both regional and national transportation assets that are critical to the movement of people and goods.

Included in the application are investments that will directly address the state of good repair objective:

- Maintenance and enhancement of existing infrastructure in the Green Impact Zone, including the Troost Bridge.
- Renovation of transit passenger facilities and upgrade of amenities serving existing major transit corridors.
- Repair and enhancement of the North-South Rail Corridor, which is a vital link in the national freight network.

- Bicycle and pedestrian accommodations that decrease the burden on the roadway network.

**Rehabilitate projects that threaten future economic growth due to poor condition**

One component of overall quality of life relates directly to the quality of the built and physical environments. Dilapidated infrastructure by itself can foster a perception of disinterest and decline which, in turn, discourages opportunity for new investment and economic development. The Kansas City Regional TIGER Application directly addresses this challenge by proposing a multimodal urban reinvestment strategy to enhance basic infrastructure as a significant step in turning around the Green Impact Zone neighborhood in Kansas City, Mo., and other areas in need, thus encouraging new economic activity that otherwise would not occur.

Greater Kansas City also serves as a critical crossroad for national freight and goods movement, and the local economy is heavily reliant on this sector to support job growth and provide stability. The North-South Corridor Project addresses a unique national freight bottleneck and, without this proposed investment, existing and new economic opportunities are significantly threatened.

Approximately 48,000 trains use the North-South Corridor each year. If the facility becomes unusable, it would take 13,440,000 on-road trucks to transport the equivalent amount of freight.

**STATE OF GOOD REPAIR BENEFITS:**

- Rehabilitates and enhances infrastructure in 150-block Green Impact Zone
- Rehabilitates and enhances aging transit infrastructure along the region's primary urban transit corridors.
- Rehabilitates and enhances vital corridor on nation's freight railroad network
- Encourages efficient movement of goods on national rail network
- Stabilizes vital railroad infrastructure to ensure uninterrupted service

**Project is appropriately capitalized; optimizes long-term cost structure**

Each investment included in the Kansas City Regional TIGER Application is defined in the context of local asset management programs, maintenance budgets and existing operations resources to ensure investments are needed, timely, effective, and that local, state, and federal resources are efficiently used.

**Sustainable source of revenue for long-term operations**

Each element of the project was evaluated based on the viability of long-term financial support. Key sources of long-term funding for operations are as follows:

- *Green Impact Zone* – property tax and 1 percent Kansas City, Mo., sales tax
- *Regional Transit* – focused investments along existing service corridors already funded for service and maintenance through a 7/8 percent sales tax in Kansas City, Mo., and property and other tax receipts in Johnson and Wyandotte counties in Kansas, and Gladstone, Independence and North Kansas City in Missouri
- *Bicycle and Pedestrian* – property tax and 1 percent Kansas City, Mo., sales tax
- *North-South Corridor* – operated and maintained by Kansas City Terminal Railway Company
- *Front Street* – property tax and 1 percent Kansas City, Mo., sales tax

**ii. Economic Competitiveness**

**NATIONAL IMPACTS**

The combination of metropolitan mobility and national freight mobility elements that constitute the Kansas City Regional TIGER Application will enhance both national and economic competitiveness.

To estimate the economic impact of the Kansas City area TIGER projects on the nation, MARC used its REMI (Regional Economic Models, Inc.) model. MARC has used the REMI model since 1991 to help answer detailed

questions about the local economy. In general, REMI is a flexible forecasting and policy analysis tool. It has been used to generate detailed economic forecasts and evaluate the value of potential economic development projects in the area.

The Kansas City Regional TIGER Application is projected to create 3,719 jobs, and to add \$242 million in gross domestic product nationally between 2010 and 2030.

TABLE 8: National Economic Impacts		
Category	Units	2010–2030
Total employment	Thousands (jobs)	3,719
Total employment as % of nation	Percent	0.002
Gross domestic product	Millions of fixed (2000) dollars	242
Personal income as % of nation	Percent	0.001

Source: Regional Economic Models, Inc. (REMI)

## REGIONAL IMPACTS

In addition to the national impacts cited above, when the projects are complete, the Kansas City region will be served by significantly more robust transit, bicycle, pedestrian and roadway facilities which will create and connect communities of opportunity through safe, efficient, green transportation alternatives. It also will secure continued operations and improve the efficiency of national rail freight movement by eliminating a major bottleneck impacting the Class I railroads that operate in the Kansas City area. The set of projects will create 2,455 permanent jobs regionally and provide related transportation benefits totaling \$710 million.

Table 9: Regional Economic Impacts		
Project Element	Discounted Present Value of Regional Transportation Benefits (7%) (\$ thousands)	Long-Term Jobs Created
Green Impact Zone	\$156,193	231
Regional Transit	\$58,187	260
Regional Bicycle & Pedestrian	\$353,648	178
North-South Corridor	\$120,300	36
Front Street	\$21,999	1,750
<b>TOTAL</b>	<b>\$710,327</b>	<b>2,455</b>

## GREEN IMPACT ZONE

At the heart of the Green Impact Zone Transportation Project is the opportunity to help transform one of the most distressed neighborhoods in the Kansas City region by upgrading its roadway, transit and other transportation infrastructure, and by providing improved transit connections to regional employment centers. The result will be a national model of urban transportation achieved through integrated, place-based investment, which can be applied to similar neighborhoods across urban America.

The 150-square-block Green Impact Zone in Kansas City, Mo., is the focal point of an innovative regional effort to coordinate American Recovery and Reinvestment Act funding through multiple federal funding programs ranging from home weatherization and energy efficiency, to job training, to highway infrastructure grant funds.

The primary impacts of this element on economic competitiveness will be through reduced travel times, fuel consumption, emissions and crashes.

#### REGIONAL TRANSIT

The Urban Corridors Transit Project will enhance regional economic competitiveness by better connecting growing employment centers in suburban neighborhoods with workers in urban core neighborhoods through a network of high-capacity transit routes, and an eventual downtown streetcar transit spine. The primary impacts of this element on economic competitiveness will be through reduced fuel consumption, emissions and crashes.

#### REGIONAL BICYCLE AND PEDESTRIAN

The primary impacts of the Bicycle/Pedestrian Project on economic competitiveness will be through improvements to mobility, safety and public health, as well as emissions reductions.

#### NORTH-SOUTH CORRIDOR

The North-South Corridor Project will improve national economic competitiveness by eliminating a key freight rail bottleneck impacting national freight operations. The primary impacts of this element on economic competitiveness will be through improved railroad operations efficiency, efficient movement of freight, reduced delays in freight movement, as well as reduced fuel consumption, emissions and traffic crashes.

#### FRONT STREET AND INTERCHANGE

The Front Street and Interchange Project improvements will impact regional economic competitiveness through improved mobility, reduced fuel consumption, emissions and crashes and, most significantly, the creation of 1,750 permanent office and retail jobs.

### *iii. Livability*

The Kansas City Regional TIGER Application focuses on improving livability by expanding the most accessible modes of transportation for segments of the population that most need multiple travel options. Improvements such as expanded bicycle and pedestrian facilities and enhanced bus stations and transit centers — and the strengthened connection between them — will allow for safer, more convenient travel within cities and throughout the region. Livability is also achieved by strengthening the region's urban core neighborhoods through future streetcar service in the densest corridor of our region, and improving access to and the redevelopment potential of the riverfront area between two urban neighborhoods.

Included in the application are investments that will benefit livability:

- Enhanced regional high-capacity transit passenger facilities.
- Pedestrian improvements (trails, sidewalks, intersection safety improvements), including ADA compliance

#### LIVABILITY BENEFITS:

- New facilities to increase affordable transportation alternatives
- New connections between pedestrian, bicycle and transit infrastructure
- Improves mobility for disadvantaged segments of the population
- Strengthens and complements investments in the urban core
- Promotes the connection between land use and transportation

- Bicycle trails, on-street bike lanes, and bike racks/lockers
- Kansas City downtown streetcar
- Front Street and Interchange

#### **Enhance user mobility through creation of more options**

With the expansion and enhancement of bicycle and pedestrian infrastructure within the region, residents will have not only additional travel options but will be able to better connect to transit service not otherwise accessible or safe to reach. Transit amenities will enhance user mobility in the short term and, as service is able to expand in the future, transit will become a more viable and dependable travel option for additional choice riders who require the convenience of frequent, higher-capacity service.

#### **Improve existing transportation choices by enhancing connectivity**

Connection between transportation modes is critical and will be achieved through the expansion and enhancement of bicycle and pedestrian facility improvements, particularly in areas of need — such as the Green Impact Zone — and where there is existing transit service. The future streetcar project and the Front Street interchange also will include accommodations for pedestrian and bicycle travel.

#### **Improve accessibility for economically disadvantaged populations, non-drivers, senior citizens and persons with disabilities**

Projects that support livability are focused in the Kansas City region's most highly populated and employment-rich areas. The Kansas City Regional TIGER Application will strongly benefit populations often left behind due to poor accessibility to opportunities. All of the application's projects tie into the urban core of the Kansas City region, where the most economically disadvantaged persons live. The focus on affordable alternative transportation improvements will serve all residents.

#### **Coordination of transportation and land-use planning and encouraged community participation**

Transit projects in this application are derived from studies based on the Smart Moves Regional Transit Vision. These projects focus on improving the urban corridor network and local community-based networks outlined in the *Smart Moves* plan. Pedestrian and bicycle improvements, particularly those in Kansas City, implement several plans including Bike KC, Trails KC and the Kansas City Walkability Plan. The Kansas City streetcar study has been underway in various forms for many years. Studies for rail in downtown Kansas City have been done in coordination with the city of Kansas City, Mo. All supporting plans have involved extensive and rigorous public participation components.

### ***iv. Sustainability***

The projects in the Kansas City Regional TIGER Application promote environmental sustainability in the region by reducing annual vehicle miles traveled. This decrease will in turn greatly reduce the region's fuel consumption and harmful carbon dioxide (CO<sub>2</sub>) emissions. Projects that support sustainability are components of inherently energy-efficient networks — networks that make use of existing infrastructure investments in the region.

Included in the application are investments that will benefit sustainability:

- Enhanced regional high-capacity transit amenities.
- Pedestrian improvements (trails, sidewalks, intersection safety improvements), including Americans with Disabilities Act compliance
- Bicycle trails, on-street bike lanes, and bike racks/ lockers

**SUSTAINABILITY BENEFITS:**

- Annual vehicle miles traveled reduction of over 23,000,000 miles
- Reduction in over 68,500 metric tons per year of greenhouse gas emissions
- Over \$2.2 million per year in vehicle emissions cost savings

- Kansas City downtown streetcar
- Front Street and Interchange
- North-South Corridor Project – improved freight network providing more efficient freight movements
- Pervious pavements, bioswales, LED lighting

### **Improve energy efficiency; reduce dependence on oil; reduce greenhouse gas emissions**

GREEN IMPACT ZONE IMPROVEMENTS – It is estimated that transit improvements would result in annual vehicle emission cost savings of over \$1.2 million, present value. The total estimated reduction in CO2 for all street improvements is approximately 3,393 tons per year. Fuel savings are estimated at 386,000 gallons per year.

REgional transit IMPROVEMENTS – The transit projects presented in the Kansas City Regional TIGER Application focus on converting single-occupancy vehicle trips to passengers trips. With this conversion comes a decrease in the amount of annual vehicle miles traveled (VMT) and, therefore, carbon dioxide emissions. It is estimated that the urban corridor projects will save over 10.5 million VMT and result in over \$175,000 in vehicle-emission cost savings, based on using CO2 cost of \$33 per ton. Streetcar improvements could potentially create a cost savings of \$1.8 million annually for work-related trips.

Bicycle and Pedestrian – Bicycle and pedestrian improvements assume reduction in annual VMT by diverting auto trips to biking or walking trips, thus significantly reducing overall VMT, consumption of fuel, and CO2. VMT reduction is estimated to be 13.5 million miles, saving over 785,000 gallons of gas and reducing CO2 by over 7,000 metric tons per year.

NORTH-SOUTH CORRIDOR – Removes 120,000 trucks from U.S. highways annually, resulting in fuel savings of 1.54 billion gallons. Every ton-mile of freight that moves by rail instead of by highway reduces greenhouse gas emissions by 66 percent<sup>11</sup> Heavy-duty trucks account for 77.8 percent of greenhouse gas emissions; freight railroads account for 8.7 percent of greenhouse gas emissions.<sup>12</sup>

### **Maintain, protect or enhance environment**

Most transit, bicycle and pedestrian improvements make use of existing infrastructure and, therefore, have minimal impact on the environment. Bicycle improvements — such as extensions to shared-use trails — are proposed in greenways that are protected by stream setback ordinances which ensure that all development, including trails, does not negatively impact riparian corridors.

The Front Street Interchange Project proposes to include environmental mitigation measures such as pervious surfacing and bioswales, as well as LED street lighting along the trails and roadway.

The North-South Corridor Project is proposed in existing right-of-way and will have minimal environmental impact. Additionally, the project will employ best-management practices with respect to stormwater management on the site. Runoff from the site as well as off-site flow will be collected and conveyed to detention areas. Release from detention areas will be metered at a rate that will not impact the overburdened storm sewer system in Kansas City, Mo.

<sup>11</sup> <http://www.aar.org/Resources/Educational%20Materials%20for%20Teachers.aspx>; Educational Materials for Teachers Presentation

<sup>12</sup> <http://www.fhwa.dot.gov/environment/freightag/chapter2.htm>; 2.4 National Freight Transportation Emissions Table 2-12

## v. Safety

### Ability to reduce number, rate and consequences of crashes, injuries and fatalities

Using a multimodal investment approach, the Kansas City Regional TIGER Application will directly reduce the number, rate, severity and cost of surface transportation crashes in the Kansas City region.

Included in the application are investments that will benefit safety, including:

- Maintenance of existing infrastructure
- Expanded and enhanced transit amenities
- Regional bicycle and pedestrian amenities
- Rehabilitated and improved freight facilities

#### SAFETY BENEFITS:

- Reduces over 100 crashes and two fatalities annually
- Reduces 24 million vehicle miles traveled annually
- Reduces over \$13 million in costs to communities from fewer crashes and fatalities

### GREEN IMPACT ZONE

The Green Impact Zone Transportation Project will address safety of motor vehicles and pedestrians. The integration of pedestrian accommodations — sidewalks, crosswalks, enhanced bus stops, and improved signs — will help promote safe pedestrian movements. Additionally, enhancing the walkability of the neighborhood as a whole will promote higher levels of walking and bicycling activity, thus reducing vehicle use and related automobile incidents. The new Troost Bridge will also provide designated pedestrian paths and in turn help to provide safe, dedicated transportation facilities for nonmotorized users.

### REGIONAL TRANSIT INVESTMENTS

The Urban Corridors Transit Project is forecast to reduce the annual vehicle miles traveled (VMT) by 10,606,929 miles through increased transit ridership. Using the Missouri urban arterial crash rate per VMT, the project will result in 40 fewer automobile crashes annually, saving \$1,379,157 in crash-related costs.

### REGIONAL BICYCLE AND PEDESTRIAN INVESTMENTS

The Bicycle/Pedestrian Project will improve the safety of area bicyclists and pedestrians through dedicated facility improvements, enhanced connectivity, better signs, and greater levels of accommodation. These investments will encourage more people to use alternative forms of transportation and reduce costs to the community incurred by crashes with motor vehicles. These investments are projected to reduce annual VMT by 13.5 million miles as people divert auto trips to biking and/or walking trips.

Between 2000 and 2006, Kansas City, Mo., averaged over 271 pedestrian injuries per year and 524 bicyclist injuries per year. Between 2000 and 2008, there were 128 pedestrian deaths and eight bicyclist deaths in the region. The National Safety Council estimates the cost of a bicycle/pedestrian injury at \$53,000 per incident and a fatality at \$3.8 million per incident.<sup>13</sup>

- Federal Highway Administration crash-reduction factor statistics show that upgrading pedestrian facilities — with improvements such as zebra crosswalks, pedestrian signals, raised medians, refuge islands — decreases pedestrian injuries and fatalities.

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<sup>13</sup> <http://www.walkinginfo.org/faqs/answer.cfm?id=42>

- Improved bicycle facilities, such as bike lanes and shared-use trails, provide separate, safe bicycle accommodations while raising driver awareness of a bicyclist's equal right to use the road. Both of these factors improve safety and reduce bicycle injuries and fatalities.

**TABLE 10. Bike/Ped Crash Statistics –Annual Projected Safety Improvement Cost Savings**

Pedestrian	Total	Annual Rate	Reduction (%)	Reduction (#)	Savings
Fatalities	128	14.2	15%	2.1	\$ 8,192,000
Injuries	1,896	270.9	15%	40.6	\$ 2,149,251

Bicycle	Total	Annual Rate	Reduction (%)	Reduction (#)	Savings
Fatalities	8	0.9	15%	0.1	\$ 512,000
Injuries	524	74.9	15%	11.2	\$ 593,991

*Data from "Destination: Safe" Coalition, Mid-America Regional Council, 2001–2008*

## NORTH-SOUTH CORRIDOR

The North-South Corridor Project will reduce the number of highway truck crashes by transferring cargo normally shipped by trucks to rail. A diversion of truck cargo to rail can be expected with these corridor improvements because the corridor is primarily a coal and grain route — commodities already moved predominantly by rail. To calculate diversion in annual trucks, the increase in trains along the corridor was multiplied by 280 trucks per train for 360 operating days. The final number of diverted trucks was assumed to be 10 percent of this total.

Over a 20-year span, more than 120,000 trucks will be diverted to rail. Reduction of highway truck crashes as a result of diverting 120,000 trucks is estimated at \$76.2 million.

The North-South Corridor includes track dedicated to the Strategic Rail Corridor Network (STRACNET) as established by the Department of Defense (DOD) and the Federal Railroad Administration. As such, this corridor is part of a national security program that ensures the readiness capability of the national railroad network to support defense deployment and peacetime needs. Rail transportation is extremely important to the DOD because heavy and tracked vehicles will deploy by rail to seaports of embarkation. STRACNET is an interconnected and continuous rail line network consisting of over 38,000 miles of track service to 170 defense installations.<sup>14</sup>

## **B. Job Creation and Economic Stimulus**

The total amount of funds that will be expended on construction and construction-related activities by all of the entities participating in the Kansas City Regional TIGER application is \$131,160,000, of which \$88,761,000 is requested through the TIGER program.

As discussed in the Economic Competitiveness section above, the Kansas City Regional TIGER application is projected to create 3,719 short-term construction jobs and 2,455 permanent jobs. The application will also result in over 50 acres of highly valued urban-core property being put back on the public tax rolls, supporting expanded private- and public-sector economic development. Detailed information regarding job estimates is provided in the project appendices.

<sup>14</sup> Transportation Engineering Agency; Department of Defense; <http://www.tea.army.mil/DODProg/RND/default.htm>

A total of \$77.8 million (87.7 percent) in TIGER funds spent for the project will be invested directly into areas of economic distress as defined by current U.S. DOT guidance in Jackson County, Mo., and Wyandotte County, Kan. A total of \$26.2 million (29.5 percent) will be invested directly into the Green Impact Zone, an area of acute economic distress in Jackson County, Mo. A total of \$10.9 million will be invested directly in regional transit investments in Clay County, Mo., and Johnson County, Kan. While these counties are not currently economically distressed themselves, the investments will directly benefit areas of economic distress by improving transit access to jobs and other opportunities from Jackson County, Mo., and Wyandotte County, Kan., thus improving the connection between areas of economic distress and areas of economic prosperity.

Best practices in hiring and procurement will be used to ensure good job creation. MARC and its project partners will use disadvantaged business enterprises (DBE) as outlined by the federal regulations. The project partners will work with the community-based job creation center in the Green Impact Zone. Project bid processes will not discriminate, ensuring equal opportunity for all.

**TABLE 11. TIGER Direct On-Project Construction Jobs Created or Sustained by Quarter**

Quarter	Green Impact Zone	Regional Transit	Bicycle / Pedestrian	North-South Corridor	Front Street & Interchange	Total	Streetcar Construction	Total with Streetcar Construction
3Q2009	-	-	-	50	63	113	-	113
4Q2009	-	-	-	50	63	113	-	113
1Q2010	70	76	44	50	63	303	17	320
2Q2010	132	152	80	50	63	477	23	500
3Q2010	380	228	239	50	-	897	23	920
4Q2010	225	304	145	50	-	724	65	789
1Q2011	101	380	65	50	-	596	209	805
2Q2011	101	456	65	50	-	672	89	761
3Q2011	70	532	44	-	-	646	89	735
4Q2011	70	608	43	-	-	721	203	924
1Q2012	-	684	-	-	-	684	479	1,163
2Q2012	-	-	-	-	-	-	603	603
3Q2012	-	-	-	-	-	-	123	123
<b>TOTAL</b>	<b>1,149</b>	<b>3,420</b>	<b>725</b>	<b>400</b>	<b>252</b>	<b>5,946</b>	<b>1,923</b>	<b>7,869</b>

### III. SELECTION CRITERIA | SECONDARY

#### A. Innovation

The Kansas City Regional TIGER application set out to define innovative, collaborative solutions for addressing the region's transportation problems. Included in the application are innovative strategies and green technologies:

- Waste reduction strategies:
  - New concrete recycling practices, intended to keep waste out of local landfills
  - Bioswale storm sewers
- Communication and data management strategies:
  - Transit technology using global positioning systems to provide real-time traveler information
  - State-of-the-art radio frequency identification to support Kansas City asset management system
- Energy efficiency strategies:
  - Solar-powered lighting of bus stations
  - LED street lighting on Front Street and Interchange

#### INNOVATION BENEFITS:

- Innovative technology
  - Waste reduction
  - Communication
  - Energy efficiency
- Innovative regional partnership
- Innovative process: advancing livability on a regional scale

Included in the application are innovations that demonstrate a variety of new approaches:

- **MULTIJURISDICTIONAL PARTNERSHIP:** The Kansas City Regional TIGER Application partnership spans two states, three transit providers, five counties, seven municipalities, and includes private businesses. This partnership provides the foundation for regionally coordinated solutions that, otherwise, would be impossible to advance.
- **LIVABILITY AND SUSTAINABILITY:** The Kansas City Regional TIGER Application has embraced President Obama's message of placed-based planning and interdisciplinary coordination and applied it to defining regional transportation solutions. This application represents a regional approach to placed-based planning and livability at a local and regional scale.

#### GREEN IMPACT ZONE INVESTMENT

The true innovation for the Green Impact Zone is the belief that through focused, coordinated investment, an aging, rundown urban neighborhood can be reborn. Within this program is a set of innovative proposals that include intelligent transportation systems, wet-weather solutions, alternate-paving systems, asset management, waste-stream reductions, and nonmotorized solutions for congestion management — all working to achieve the program objectives.

All of these investments, coupled with supporting energy efficiency and housing initiatives, will combine to yield a green neighborhood that helps demonstrate the viability of sustainable, coordinated planning. A successful Green Impact Zone ultimately could serve as a national model for innovative, sustainable urban reinvestment.

#### REGIONAL TRANSIT INVESTMENT

A central component of the Urban Corridors Transit Project, as described in Smart Moves, is real-time passenger information that uses global positioning systems and automatic vehicle locator technology to display at transit stations real-time estimates on when the next transit vehicle will arrive based on its current location. Transit signal priority (TSP) is a technology that improves transit schedule reliability by using technology on vehicles that communicate with traffic signals to shorten red signals or lengthen green signals. Real-time signs and TSP are both included in the bus rapid transit service proposed for Metcalf Avenue/Shawnee Mission Parkway and State Avenue, and likely will be included in the future development of the region's remaining urban corridors. These innovative technologies support the long-term outcomes of state of good repair and sustainability by improving existing transit service conditions, and by lowering greenhouse gas emissions through attracting riders to the service due to increased reliability and reduced perceived waiting time.

#### NORTH/SOUTH CORRIDOR

The Kansas City Terminal Railway Company recently upgraded its traffic management and control system, which centralizes data onto a single, enterprise-wide platform and allows train dispatchers to control train traffic from

multiscreen workstations. This capability enables dispatchers to better forecast traffic demand and respond accordingly. As such, delays are prevented at a critical rail nexus which can have far-reaching impacts on the nation's rail system.

Delivery of the North/South Corridor Project is noteworthy due to its unique interaction among five competing Class I railroads, and coordinating their respective operations throughout the course of construction. This project will be phased to ensure train traffic moves through the corridor uninterrupted during the entire course of construction.

Reducing and recycling construction and demolition materials conserves landfill space, reduces the environmental impact of producing new materials, creates jobs, and can reduce overall building project expenses through avoided purchase/disposal costs.<sup>15</sup> The construction management plan for the North/South Corridor Project incorporates key tasks associated with sustainable construction practices, including recycling construction debris and using recycled materials when technically feasible.

## B. Partnership

The Kansas City Regional TIGER Application is a multijurisdictional, multi-agency effort built on local, regional, state and national partnerships. The Kansas City Regional TIGER Application leverages a range of local, state, federal and private-sector funds as match to investments requested through TIGER to advance shared regional objectives. (See Appendix G: Letters and Resolutions of Support at [www.marc.org/Recovery/assets/tiger/supportletters.pdf](http://www.marc.org/Recovery/assets/tiger/supportletters.pdf).)

APPLICATION PARTNERS		
Mid-America Regional Council   City of Kansas City, Mo.   Johnson County, Kan. Kansas City Area Transportation Authority   Kansas City Terminal Railway Company Port Authority of Kansas City, Mo.   Unified Government of Wyandotte County		
APPLICATION SUPPORTERS*		
<p><b>Legislators</b>                      U.S. Congressman Emanuel Cleaver II (MO)                      U.S. Congressman Dennis Moore (KS)                      U.S. Congressman Sam Graves (MO)                      U.S. Senator Kit Bond (MO)                      U.S. Senator Pat Roberts (KS)</p> <p><b>State Governments</b>                      Kansas Department of Transportation                      Missouri Department of Transportation</p> <p><b>Local Governments</b>                      City of Edwardsville, Kan.                      City of Gladstone, Mo.                      City of Independence, Mo.                      City of Mission, Kan.                      City of North Kansas City, Mo.                      City of Overland Park, Kan.                      Jackson County, Mo.</p>	<p><b>Freight/Railroad</b>                      Kansas City Southern                      Union Pacific Railroad                      BNSF Railway                      DM&amp;E Railroad                      Kansas City SmartPort                      Kansas City Industrial Council</p> <p><b>Local Business</b>                      Central Industrial District Association                      Greater Kansas City Chamber of Commerce                      Kansas City Area Development Council                      Kansas City Kansas Area Chamber of Commerce                      River Market Community Association</p>	<p><b>Community Organizations</b>                      Bridging The Gap                      Brush Creek Community Partners                      Health Care Foundation of Greater Kansas City                      Kansas City Bicycle Club                      Kansas City Design Center                      Missouri Bicycle &amp; Pedestrian Federation                      MORE<sup>2</sup> (Metro Organization for Racial and Economic Equity)                      Regional Transit Alliance                      Revolve, Inc.                      Share the Road Safety Task Force</p>

*\*Based on letters received as of September 14, 2009*

<sup>15</sup> <http://www.epa.gov/Region8/recycling/cd.html>

### *i. Stakeholder Collaboration and Investment*

The regional application is built on a multifaceted partnership consisting of local, regional and statewide partners.

Together the regional partnership has leveraged and committed \$23.8 million in public and private investment to support and match the investments outlined and proposed in this application.

### *ii. Disciplinary Integration*

In addition to traditional transportation stakeholders, the Mid-America Regional Council, on behalf of the TIGER partners, has met with regional representatives from the U.S. Department of Housing and Urban Development (HUD) and the U.S. Environmental Protection Agency (EPA) to investigate possibilities for advancing a more robust multiagency partnership, in keeping with the Sustainable Communities Partnership formed on June 16, 2009,<sup>16</sup> between HUD, EPA and the U.S. Department of Transportation.

Meaningful multidisciplinary integration has begun to show promise locally, as demonstrated by the coordinated work underway in revitalizing the Green Impact Zone.<sup>17</sup> This effort has partnered with local environmental, public utility, housing and transportation agencies to coordinate planning and investment.

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<sup>16</sup> <http://www.epa.gov/smartgrowth/pdf/dot-hud-epa-partnership-agreement.pdf>

<sup>17</sup> <http://www.kansascity.com/115/story/1419433.html>

## IV. EVALUATION OF EXPECTED PROJECT COSTS AND BENEFITS

When the projects are complete, the Kansas City region will be served by significantly more robust transit, bicycle, pedestrian and roadway facilities, which will create and connect communities of opportunity through safe, efficient, green transportation alternatives. It also will improve the efficient movement of rail freight nationally by eliminating a major bottleneck impacting the Class I railroads that operate in the Kansas City area. The set of projects will create 3,719 short term jobs nationally and 2,455 long-term jobs regionally, and will provide related benefits totaling \$710 million, resulting in a cumulative benefit-to-cost ratio of 6.04. Through the construction of the downtown streetcar line, this regional benefit has the potential to grow to nearly \$2 billion with a resulting benefit-to-cost ratio of 18.80.

TABLE 12. Kansas City Regional TIGER Application Benefit-Cost Summary			
Project Element	Present Value of Cost (\$ millions)	Discounted Present Value of Regional Transportation Benefits (\$ millions)*	Benefit-Cost Ratio
Green Impact Zone	32.6	\$156	4.79
Regional Transit Capital	26.7	\$58	2.17
Regional Bicycle & Pedestrian	30	\$354	11.79
North-South Corridor	22.7	\$120	5.30
Front Street and Interchange	5.48	\$22	4.01
<b>TOTAL</b>	<b>117.48</b>	<b>\$710</b>	<b>6.04</b>
Streetcar (with construction)	68.3	\$1,284	18.80
<b>TOTAL with Streetcar</b>	<b>185.78</b>	<b>\$1,994</b>	<b>10.73</b>

\* 7 percent discount rate

# V. PROJECT READINESS

## A. Project Schedule

TABLE 13: Kansas City Regional TIGER Application Project Schedule Summary (by quarters)														
PROJECT	KEY MILESTONES	2009		2010				2011				2012		
		3	4	1	2	3	4	1	2	3	4	1	2	3
Green Impact Zone	NEPA Completed	X												
	Final Design Completed			X										
	Project Letting				X									
	Project Completed								X					
Regional Transit	REGIONAL TRANSIT CAPITAL INVESTMENTS													
	NEPA Completed		X											
	Final Designs Completed				X									
	Project Lettings Completed							X						
	Projects Completed												X	
	KANSAS CITY DOWNTOWN STREETCAR													
	NEPA Completed				X									
	Final Design Completed <sup>1</sup>						X							
	Project Letting						X							
	Project Completed													X
Bicycle / Pedestrian Projects	NEPA Completed			X										
	Final Designs Completed				X									
	Project Lettings Completed						X							
	Projects Completed											X		
North-South Corridor (Rail)	NEPA Completed		X											
	Final Design Completed					X								
	Project Letting						X							
	Project Completed											X		
Front Street & Interchange	NEPA Completed	X												
	Final Design Completed	X												
	Project Letting	X												
	Project Completed				X									

X= Completed

NOTES:

- Schedule assumes TIGER award notification and federal funding availability by Jan. 2010
- This a summary only - details are found in the appendices for each project

<sup>1</sup> Streetcar is likely to follow a design-build approach with procurement starting in second half of 2010 if project funding is available.

## B. Environmental Approvals

All necessary environmental approvals have been granted or requests initiated and will be completed in time to meet grant deadlines. See Environmental Readiness summary chart.

TABLE 14: Kansas City Regional TIGER Application Project Environmental Readiness Summary					
Project	Element	Environmental / NEPA Status			
		Initiated	NEPA Classification	Status	Anticipated Completion Date
Green Impact Zone	Troost Bridge	X	CE-2	Completed	N/A
	Sidewalks	X	CE - Anticipated	In Progress	4 <sup>th</sup> qtr 2009
	Street Rehabilitation	X	CE - Anticipated	In Progress	4 <sup>th</sup> qtr 2009
	Traffic Signals	X	CE - Anticipated	In Progress	4 <sup>th</sup> qtr 2009
	Traffic Signal Interconnect	X	CE - Anticipated	In Progress	4 <sup>th</sup> qtr 2009
Regional Transit	REGIONAL TRANSIT CAPITAL INVESTMENTS				
	In-Right-of-Way Improvements	X	Undocumented CE	N/A	N/A
	State Avenue Transit Centers	X	CE - Anticipated	In Progress	4 <sup>th</sup> qtr 2009
	Mission Transit Center	X	CE - Anticipated	In Progress	4 <sup>th</sup> qtr 2009
	KANSAS CITY DOWNTOWN STREETCAR				
	Project Development/Engineering/Final Design	X	CE for Design	In Progress	With TIGER approval
	Bridge Improvements	X	CE - Anticipated	In Progress	2 <sup>nd</sup> qtr 2010
Bicycle / Pedestrian Projects	On-Street Bicycle	X	CE - Anticipated	In Progress	1st qtr. 2010
	Shared-Use Trail – Chouteau Bridge	X	CE	Completed	4/14/2009
	Shared-Use Trail – Riverfront Heritage	X	CE - Anticipated	In Progress	1st qtr 2010
	Shared-Use Trail – Indian Creek / Trolley Track	X	CE - Anticipated	In Progress	1st qtr 2010
	Shared-Use Trail – Van Brunt	X	CE - Anticipated	In Progress	1st qtr. 2010
	Pedestrian Improvements	X	CE - Anticipated	In Progress	1st qtr. 2010
North-South Corridor (Rail)	Phase I	X	CE - Anticipated	In Progress	4 <sup>th</sup> qtr 2009
	Phase II	X	CE - Anticipated	In Progress	4 <sup>th</sup> qtr 2009
Front Street & Interchange	General Schedule	X	CE - Anticipated	In Progress	4 <sup>th</sup> qtr 2009

## C. Legislative Approvals

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No further legislative approvals are needed to advance the projects as proposed.

## D. State and Local Planning

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All proposed projects are supported by adopted local comprehensive plans and the Kansas City region's long-range transportation plan.

## E. Technical Feasibility

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All proposed projects were evaluated and selected based on their technical feasibility and effectiveness. All proposed projects are technically feasible as outlined in the grant application.

## F. Financial Feasibility

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The regional application proposes a financial package that is viable and complete. Each element has been identified based on funding assumptions as outlined.

## G. Confidential Business Information

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No confidential business information is contained in this document.

# VI. ADDITIONAL INFORMATION

All application documents are posted online at [www.marc.org/recovery/tiger](http://www.marc.org/recovery/tiger).

- **Appendix A: Green Impact Zone Transportation Project**  
[www.marc.org/Recovery/assets/tiger/APPENDIX\\_A\\_Green\\_Impact\\_Zone.pdf](http://www.marc.org/Recovery/assets/tiger/APPENDIX_A_Green_Impact_Zone.pdf)
  - Supporting documents [www.kcmo.org/pubworks.nsf/web/Tiger\\_GIZ](http://www.kcmo.org/pubworks.nsf/web/Tiger_GIZ)
  - Green Impact Zone Web site [www.marc.org/greenimpactzone](http://www.marc.org/greenimpactzone)
- **Appendix B: Regional Transit Corridors**  
[www.marc.org/Recovery/assets/tiger/APPENDIX\\_B\\_Regional\\_Transit\\_Corridors.pdf](http://www.marc.org/Recovery/assets/tiger/APPENDIX_B_Regional_Transit_Corridors.pdf)
- **Appendix C: Kansas City Downtown Streetcar**  
[www.marc.org/Recovery/assets/tiger/APPENDIX\\_C\\_Downtown\\_Streetcar.pdf](http://www.marc.org/Recovery/assets/tiger/APPENDIX_C_Downtown_Streetcar.pdf)
  - Supporting documents [www.kcata.org/about\\_kcata/entries/tiger](http://www.kcata.org/about_kcata/entries/tiger)
- **Appendix D: KC Bicycle/Pedestrian Project**  
[www.marc.org/Recovery/assets/tiger/APPENDIX\\_D\\_Bicycle\\_Pedestrian.pdf](http://www.marc.org/Recovery/assets/tiger/APPENDIX_D_Bicycle_Pedestrian.pdf)
  - Supporting documents [www.kcmo.org/pubworks.nsf/web/Tiger\\_BikePed](http://www.kcmo.org/pubworks.nsf/web/Tiger_BikePed)
- **Appendix E: North-South Corridor Reconstruction**  
[www.marc.org/Recovery/assets/tiger/APPENDIX\\_E\\_North-South\\_Corridor.pdf](http://www.marc.org/Recovery/assets/tiger/APPENDIX_E_North-South_Corridor.pdf)
- **Appendix F: Front Street and Interchange Project**  
[www.marc.org/Recovery/assets/tiger/APPENDIX\\_F\\_Front\\_Street\\_Interchange.pdf](http://www.marc.org/Recovery/assets/tiger/APPENDIX_F_Front_Street_Interchange.pdf)
- **Letters and Resolutions of Support** [www.marc.org/Recovery/assets/tiger/supportletters.pdf](http://www.marc.org/Recovery/assets/tiger/supportletters.pdf)
- **MARC Certification of Federal Wage Rate Requirement** [www.marc.org/Recovery/assets/tiger/fedwagerate.pdf](http://www.marc.org/Recovery/assets/tiger/fedwagerate.pdf)
- **Mid-America Regional Council Certification Under Section 1511 of ARRA**  
[www.marc.org/Recovery/assets/tiger/1511certification.pdf](http://www.marc.org/Recovery/assets/tiger/1511certification.pdf)