



NextRail KC Streetcar Expansion

SYSTEM OVERVIEW

NOVEMBER 7, 2013



ACKNOWLEDGEMENTS

The project team would like to thank the citizens and stakeholders of Kansas City, Missouri for joining the project team in its exploration of the expansion of fixed rail transit in Kansas City. City Hall's active leadership, from both elected officials and city staff, has enlivened the planning process and met the excitement of stakeholders. The project team's analysis and recommendation would not have been possible without the guidance and assistance of the advisory committee, steering committee, and technical committee.

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EXECUTIVE SUMMARY

The time has come. The idea of streetcars is now the reality of streetcars. Beginning with the initial investment in infrastructure stretching from the River Market to Union Station, a foundation is being laid to establish a 21st Century fixed rail transit system to eventually serve all of Kansas City. Charged by the City of Kansas City, Missouri to examine potential corridors to extend beyond the Downtown Streetcar Starter Line, this report reflects the first level of analysis of where best this capital investment should occur.

To best determine which of the eight corridors under study are most suited for more in-depth evaluation requires a data driven process. Input has been provided by a wide range of Kansas City constituents – an Advisory Committee of corridor stakeholders, a Steering Committee of public officials, a Technical Committee of experts, and a broad cross-section of the public – resulting in feedback from “all voices” in the community. This invaluable contribution has occurred through a vigorous community participation process ranging from old-fashioned hands-on interactive engagement to a targeted variety of new technologies intended to reach those not typically heard from using conventional methods.

Goals were established, including increasing population and economic density in the urban core, connecting existing activity centers, and providing efficient, reliable transit service. Further, a foundational goal has been to ensure that this work could be used to secure both federal and state funding for the construction of the next streetcar.

A vast collection of data points were evaluated in getting to this point in the planning process. Feasibility factors, specifically cost, funding potential and community support, were analyzed for each corridor. Separately, the NextRail Committees found consensus on weighting the matrix of quality of life criteria. These broader categories – Economic Development and Neighborhood Revitalization (50%), Land Use, Demographics and Social Equity (25%), and Transportation and Mobility Improvements (25%) – were each comprised of a series of impact measures. When compiled, these criteria define a level of priority for determining which corridors would be best to study further and in the long-term could be future segments of an expanded Kansas City Streetcar system. This report lays this information out in detail, including

providing additional back up data in the Appendices. After being provided direction by the Committees and City Council, the project team will undertake the next steps of this process, which will be primarily two-fold. First, recognizing that limited resources require prioritization, and a more detailed analyses of the corridors will determine preferred alignments by evaluating their commensurate lengths/termini, constructability constraints and overall costs. This will define where and how much infrastructure investment will have the highest rate of return for the community as a whole. Second, the initial work on funding strategies will be assessed to determine the breadth of funding necessary for the system’s corridor extension, and what configuration will maximize the ability to secure federal and state funding. This combined local and federal/state funding figure will determine exactly how much can be built in the next phase.

In total, this report provides a solid overview of each of the eight corridor’s positive attributes, as well as areas that could be strengthened; all being informed by neighborhood narratives. The goal, however, has been to prioritize which corridors are best suited for detailed analysis. Thus, based upon the recommendation from the Advisory Committee and subsequent input from the joint Technical/Steering Committee on this initial recommendation, the following corridors are being forwarded to the City Council for endorsement:

- Independence Avenue
- Linwood Boulevard/31st Street
- Main Street Plus

It is also being recommended that for the combined alignment of 18th Street/Southwest Boulevard, that an enhanced non-fixed rail transit service analysis be conducted.

Even though the number of initial corridors has been prioritized for detail analysis, it is important to note that all of the corridors have benefited from the study. Specifically, essential aspects of each one have come to light that will inform the greater city planning process and future allocation of resources. As evidenced in this initial analysis – as it was a century ago – in order for all of Kansas City to thrive, there must be a resilient form of connectivity for all people. That’s what a streetcar system can do. This is just the next step.



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CORRIDOR SUMMARIES

EIGHT CORRIDOR SUMMARIES

Many potential alignment options were explored before narrowing to fifteen alignment options on eight corridors. These fifteen alignment options were fully evaluated for feasibility and potential impact. The best performing alignment options for each corridor are used for prioritization and comparison on the following analyses. Summaries for additional alignment options can be found in the appendix.

EVALUATION MATRIX

The evaluation matrix compares the eight potential streetcar corridors in three important categories: cost, potential for federal funding, and impact. Together with an assessment of community support, these three categories provide a high level comparison of the feasibility and impacts of each corridor. These measures are stand-alone. For example, cost and potential for federal funding do not affect the impact score.

STREETCAR EXPANSION CORRIDORS EVALUATION MATRIX	TRANSIT CENTERED		WALKABLE CENTERED		TRANSIT & WALKABLE CENTERED		TRANSIT & WALKABLE CENTERED		TRANSIT & WALKABLE CENTERED	
	TRANSIT CENTERED	TRANSIT & WALKABLE CENTERED	WALKABLE CENTERED	TRANSIT & WALKABLE CENTERED						
COST (IN 2018 DOLLARS)*										
TOTAL COST IN 2018 DOLLARS*	\$1.0M	\$1.5M	\$2.0M	\$2.5M	\$3.0M	\$3.5M	\$4.0M	\$4.5M	\$5.0M	\$5.5M
PER MILE	\$100,000	\$150,000	\$200,000	\$250,000	\$300,000	\$350,000	\$400,000	\$450,000	\$500,000	\$550,000
PER 100' FT	\$10,000	\$15,000	\$20,000	\$25,000	\$30,000	\$35,000	\$40,000	\$45,000	\$50,000	\$55,000
*Estimated costs based on 2018 dollars. Costs are estimates only and do not include land acquisition or other associated costs.										
POTENTIAL FOR FEDERAL FUNDING										
FEDERAL FUNDING	\$1.0M	\$1.5M	\$2.0M	\$2.5M	\$3.0M	\$3.5M	\$4.0M	\$4.5M	\$5.0M	\$5.5M
PER MILE	\$100,000	\$150,000	\$200,000	\$250,000	\$300,000	\$350,000	\$400,000	\$450,000	\$500,000	\$550,000
PER 100' FT	\$10,000	\$15,000	\$20,000	\$25,000	\$30,000	\$35,000	\$40,000	\$45,000	\$50,000	\$55,000
IMPACTS										
TRANSIT CENTERED	100%	85%	40%	55%	45%	45%	81	75	51	51
WALKABLE CENTERED	100%	5	20	7	10	10	99	41	21	21
TRANSIT & WALKABLE CENTERED	100%	75	30	14	5	5	22	19	11	11
TRANSIT & WALKABLE CENTERED	100%	5	20	7	10	10	99	41	21	21

IMPACT SUMMARY

This summary provides greater detail on the impact score by comparing each potential streetcar corridor by all of the individual measures that represent the impact of the streetcar. For each impact measure, the corridors were rated using a scale established by the Federal Transit Administration's New Starts criteria, categorized as follows: low, medium-low, medium, medium-high, high. This rating scale corresponds to a score from one to five. For example, a low rating in a category provides a score of 1, while a high rating provides a score of 5. All of the individual measures were then weighted based upon community priorities, as reviewed and adopted by the Mayorally-appointed advisory committee for this project. These priorities break down as follows: Economic Development and Neighborhood Revitalization (50%), Transportation and Mobility (25%), Land

Use, Demographics, and Social Equity (25%). The weighted scores are then added to provide a total out of 100 possible points.

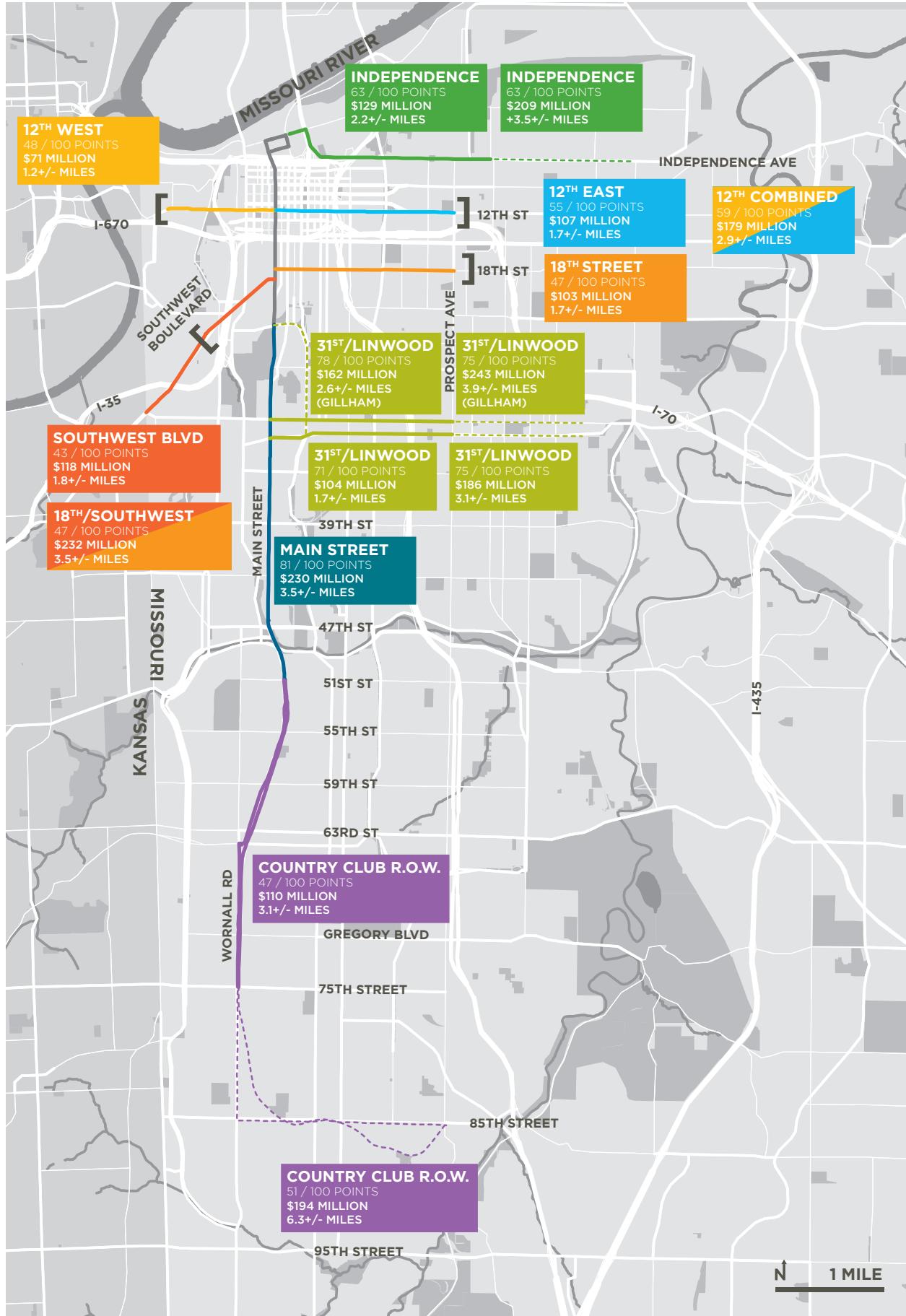


CORRIDOR SUMMARIES

The corridor summary pages include detailed information on each corridor, including the cost, potential for federal funding, and impact measures summarized above. In addition, the corridor summaries provide detailed information on alignment alternatives, engineering constraints, and community support. The corridor summaries also include a narrative that summarizes community conversations throughout the process, focusing upon community aspirations for the future of each corridor, and how the streetcar can play a role in that future.



Many potential alignment options were explored, before narrowing to the fifteen alignment options on the eight corridors. These fifteen alignment options were fully evaluated for feasibility and potential impact. The best performing alignment options for each corridor are used herein for prioritization and comparison on the following tables. Summaries for the additional alignment options can be found in the appendix.



STREETCAR EXPANSION CORRIDORS

EVALUATION MATRIX

INDEPENDENCE AVENUE
(2.2+/- MI) 12TH STREET WEST
(1.2+/- MI)

COST (IN 2019 DOLLARS)*

TOTAL COST IN 2019 DOLLARS**	\$129 MILLION	\$71 MILLION
PER ROUTE-MILE	\$60 M	\$60 M
COST PER RIDER***	\$5.94	\$23.54
PROJECTED DAILY BOARDINGS	1,880	210

*SEE PAGE 77 FOR ESCALATION METHODOLOGY

** COST REFLECTS ORDER-OF-MAGNITUDE ESTIMATE FOR THE PURPOSE OF COMPARISON AND ARE SUBJECT TO CHANGE

***EQUAL TO THE SUM OF THE ANNUALIZED CAPITAL COST AND ANNUAL OPERATING COST DIVIDED BY THE PRELIMINARY ESTIMATES OF ANNUAL RIDERSHIP FOR EACH CORRIDOR.

POTENTIAL FOR FEDERAL FUNDING

ANTICIPATED FEDERAL FUNDING	FAIR	LOW
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IMPACTS

POINTS POSSIBLE

100	63.2	48.0 [†]
NEIGHBORHOOD REVITALIZATION AND ECONOMIC DEVELOPMENT	50	31.2
TRANSPORTATION AND MOBILITY	25	16.8
LAND USE, DEMOGRAPHICS, AND SOCIAL EQUITY	25	15.2

[†] ROUTES SCORE HIGHER COMBINED THAN INDIVIDUALLY. SEE ALTERNATIVE CORRIDOR ALIGNMENTS ON PAGE 188.

12TH STREET EAST (1.7+/- MI)	18TH STREET (1.7+/- MI)	SOUTHWEST BOULEVARD (1.8+/- MI)	MAIN STREET (3.5+/- MI)	31ST STREET/LINWOOD (3.1+/- MI)	COUNTRY CLUB R.O.W. (6.3+/- MI) <i>SINGLE TRACK</i>
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\$107 MILLION	\$103 MILLION	\$118 MILLION	\$230 MILLION	\$186 MILLION	\$194 MILLION
\$63 M	\$60 M	\$65 M	\$67 M	\$60 M	\$31 M
\$23.70	\$27.65	\$66.79	\$7.60	\$5.51	\$16.96
640	350	220	3,300	3,020	790

LOW	LOW	LOW	GOOD	GOOD	LOW
-----	-----	-----	------	------	-----

54.8 [†]	47.0 [†]	43.2 [†]	81.2	75.2	50.5
26.8	26.2	21.6	39.4	42.8	26.5
14.2	9.4	8.2	23.2	19.0	15.0
13.8	11.4	13.4	18.6	13.4	9.0



IMPACTS SUMMARY		POSSIBLE POINTS	INDEPENDENCE AVENUE	12TH STREET WEST
IMPACT SCORE	100	63.2	48.0	
NEIGHBORHOOD REVITALIZATION AND ECONOMIC DEVELOPMENT	50	31.2	26.0	
DEVELOPMENT CAPACITY	12	LOW	LOW	LOW
TRANSIT-INDUCED DEVELOPMENT POTENTIAL	12	MEDIUM	LOW	LOW
LOCAL AND NATIONAL DEVELOPER INTEREST	8	MEDIUM	HIGH	HIGH
PROPERTY VALUE AND OCCUPANCY IMPACTS	8	HIGH	HIGH	HIGH
HISTORIC BUILDINGS	5	HIGH	MEDIUM	MEDIUM
TRANSIT-SUPPORTIVE LAND USE POLICY AND PLANS	5	HIGH	MEDIUM	MEDIUM
TRANSPORTATION AND MOBILITY	25	16.8	12.4	
RIDERSHIP POTENTIAL	6	MEDIUM	LOW	LOW
ABILITY TO ENHANCE EXISTING SERVICE	6	MEDIUM	HIGH	HIGH
OPERATIONAL EFFICIENCY AND COST SAVINGS	4	HIGH	LOW	LOW
AIR QUALITY, SAFETY, AND TRAVEL TIME	4	MEDIUM	LOW	LOW
WALKABILITY AND BIKEABILITY	5	HIGH	HIGH	HIGH
LAND USE, DEMOGRAPHICS, AND SOCIAL EQUITY	25	15.2	9.6	
POPULATION DENSITY	7	HIGH	LOW	LOW
TOTAL EMPLOYMENT	7	LOW	LOW	LOW
TRANSIT-DEPENDENT POPULATION / ACCESS TO EMPLOYMENT	5	HIGH	LOW	LOW
AFFORDABLE HOUSING	3	HIGH	HIGH	HIGH
EXISTING LAND USE AND ZONING	3	MEDIUM	MEDIUM	MEDIUM

CORRIDORS ARE SCORED USING A FIVE-CATEGORY SYSTEM BUT HAVE BEEN CONDENSED INTO THREE CATEGORIES FOR SIMPLICITY. SEE CORRIDOR SUMMARY SHEETS FOR DETAILED SCORING.

12TH STREET EAST	18TH STREET	SOUTHWEST BOULEVARD	MAIN STREET	31ST STREET/ LINWOOD	COUNTRY CLUB R.O.W.
54.8	47.0	43.2	81.2	75.2	50.5
26.8	26.2	21.6	39.4	42.8	26.5
LOW	LOW	LOW	MEDIUM	HIGH	MEDIUM
LOW	LOW	LOW	HIGH	HIGH	LOW
MEDIUM	MEDIUM	LOW	HIGH	MEDIUM	MEDIUM
HIGH	MEDIUM	LOW	MEDIUM	HIGH	LOW
MEDIUM	HIGH	LOW	HIGH	LOW	HIGH
MEDIUM	MEDIUM	MEDIUM	HIGH	HIGH	LOW

14.2 9.4 8.2 23.2 19.0 15.0

LOW	LOW	LOW	HIGH	HIGH	MEDIUM
MEIDUM	LOW	LOW	HIGH	HIGH	MEDIUM
LOW	LOW	LOW	HIGH	HIGH	MEDIUM
LOW	LOW	LOW	HIGH	HIGH	MEDIUM
HIGH	MEDIUM	MEDIUM	HIGH	MEDIUM	MEDIUM

13.8 11.4 13.4 18.6 13.4 9.0

MEDIUM	LOW	MEDIUM	HIGH	MEDIUM	MEDIUM
LOW	LOW	LOW	HIGH	LOW	LOW
HIGH	MEDIUM	MEDIUM	MEDIUM	MEDIUM	LOW
HIGH	HIGH	HIGH	LOW	HIGH	LOW
LOW	LOW	MEDIUM	MEDIUM	MEDIUM	MEDIUM

INDEPENDENCE AVENUE

WHAT WE ARE HEARING ON INDEPENDENCE AVENUE:

- A streetcar can help achieve the Truman Plaza Area Plan and neighborhood objectives, such as crime prevention through environmental design.
- Streetcar-related improvements can improve appearance and increase activity on the corridor.
- There are concerns about how a streetcar line would be financed and how construction would work.
- Streetcars help promote existing and encourage new small business by increasing pedestrian traffic.
- There is a desire to better connect the Northeast with the rest of the city.



The Northeast neighborhood was Kansas City's first suburb. Today it is the most ethnically diverse community in the region. Walking down Independence Avenue, one is transported through Mexico, Somalia, Vietnam, Ethiopia and the Middle East. A streetcar on Independence Avenue would connect the old Northeast to Downtown, and enhance its cultural amenities by showcasing and bringing together its diversity.

A streetcar expansion on Independence Avenue is an important physical and symbolic connection. As a community in constant flux and changes in composition that has seen a recent surge of young professionals moving out of Downtown Kansas City, there is a diversity of uses and commercial activity along Independence Avenue ("We are not a food desert"). However, there are still vacancies in storefronts, vacant lots, and abandoned homes. To the west are strong institutional anchors like the River Market and the Kansas City University of Medicine and Biosciences. To the east are large industrial tracts around the Blue River, big box developments adjacent to the Kansas City Terminal Railway and a proposal for an international food distributor at Hardesty.

Moving from west to east there are historic neighborhoods that the community wants to preserve, the international community that would benefit from a stronger connection to Downtown by a significant public investment, and the larger commercial and industrial areas that need to be revitalized. Overall, there is a desire to support small business growth and protect the affordability and diversity of the community while encouraging new growth and economic development.



COST IN 2019 DOLLARS

OVERALL

\$129 MILLION

PER MILE
\$60 MILLION
(2.2+/- MILES)

PER RIDER
\$5.94
(1,880 DAILY BOARDINGS)

ENGINEERING CONSTRAINTS

- OVERHEAD CLEARANCE AT THE HEART OF AMERICA BRIDGE
- OVERHEAD CLEARANCE AT THE KC TERMINAL RAILWAY

FEDERAL FUNDING POTENTIAL

ANTICIPATED FEDERAL FUNDING:
FAIR

COMMUNITY SUPPORT

- STRONG COMMUNITY SUPPORT ALONG THE CORRIDOR
- LIVELY MINDMIXER DISCUSSIONS
- COLUMBUS PARK ALIGNMENT BROADLY SUPPORTED
- NUMEROUS LETTERS OF SUPPORT

IMPACT SCORE

63

NEIGHBORHOOD REVITALIZATION AND ECONOMIC DEVELOPMENT

DEVELOPMENT CAPACITY

4.8 OUT OF 12

TRANSIT-INDUCED DEVELOPMENT POTENTIAL

7.2 OUT OF 12

LOCAL AND NATIONAL DEVELOPER INTEREST

4.8 OUT OF 8

PROPERTY VALUE AND OCCUPANCY IMPACTS

6.4 OUT OF 8

HISTORIC BUILDINGS

4.0 OUT OF 5

TRANSIT-SUPPORTIVE LAND USE POLICY AND PLANS

4.0 OUT OF 5

TRANSPORTATION AND MOBILITY

RIDERSHIP POTENTIAL

3.6 OUT OF 6

ABILITY TO ENHANCE EXISTING SERVICE

3.6 OUT OF 6

OPERATIONAL EFFICIENCY AND COST SAVINGS

3.2 OUT OF 4

AIR QUALITY, SAFETY, AND TRAVEL TIME

2.4 OUT OF 4

WALKABILITY AND BIKEABILITY

4.0 OUT OF 5

LAND USE, DEMOGRAPHICS, AND SOCIAL EQUITY

POPULATION DENSITY

5.6 OUT OF 7

TOTAL EMPLOYMENT

1.4 OUT OF 7

TRANSIT-DEPENDENT POPULATION / ACCESS TO EMPLOYMENT

4.0 OUT OF 5

AFFORDABLE HOUSING

2.4 OUT OF 3

EXISTING LAND USE AND ZONING

1.8 OUT OF 3

EACH MEASURE IS GIVEN A SCORE OUT OF FIVE POSSIBLE POINTS AND MULTIPLIED BY THAT MEASURE'S WEIGHT



12th STREET WEST

WHAT WE ARE HEARING ON 12TH STREET WEST:

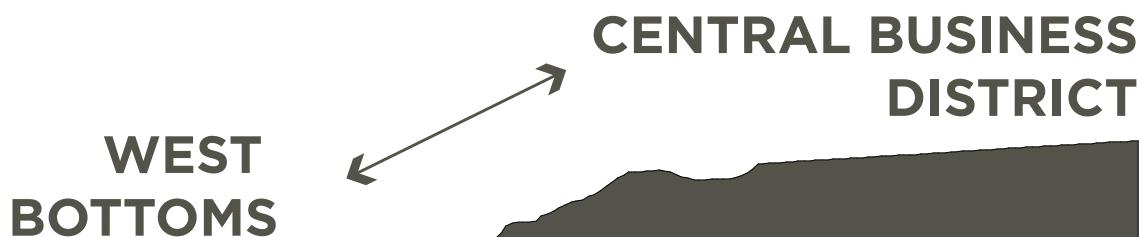
- A streetcar could eventually connect to Kemper Arena or the American Royal.
- The state line is an arbitrary end point; a streetcar should eventually go to Kansas.
- The viaduct limits the development potential on long segments of the route.
- Whether a streetcar is a good investment for the West Bottoms depends on what it will become in the future.



The neighborhoods located west of the Downtown Streetcar starter line represent a tale of two communities: one at the top of the bluff and one at the bottom. While the east part of the corridor includes Downtown's densest residential neighborhood on Quality Hill, the West Bottoms still has very few residents. The West Bottoms has seen a surge of mixed-use activity and a growing residential population evolve among its traditional industrial uses. It is the gritty mix of historic industrial building stock, artisans, and eclectic retail that makes the area so attractive to new residents and businesses and exciting for visitors.

A streetcar to the West Bottoms would accelerate and unlock the potential of the changing neighborhood by increasing demand, but without a clear future either to Kemper Arena and/or to Kansas City, KS, there is some hesitation among stakeholders about the need for a streetcar right now in the West Bottoms with so many other infrastructure priorities.

The bluffs, highways, and railroads all pose significant physical barriers to connecting Downtown to the West Bottoms, which the streetcar could help to overcome. At only two miles, the concept of a streetcar line from the West Bottoms to an end point on 12th Street East are all reasonable ideas, but the immediate need for such a significant investment depends on the current and future stakeholders' vision of what the West Bottoms should become.





COST

OVERALL

\$71 MILLION

PER MILE
\$60 MILLION
(1.2+/- MILES)

PER RIDER
\$23.54
(210 DAILY BOARDINGS)

ENGINEERING CONSTRAINTS

- BOTH STRUCTURES ON THE ROUTE HAVE MORE THAN SUFFICIENT CAPACITY FOR A STREETCAR VEHICLE

FEDERAL FUNDING POTENTIAL

ANTICIPATED FEDERAL FUNDING:

LOW

COMMUNITY SUPPORT

- SUPPORTIVE OF A SYSTEM, BUT UNCERTAIN OF NEED FOR A ROUTE TO WEST BOTTOMS NOW
- WEST BOTTOMS MUST ADDRESS OTHER PRIORITIES BEFORE A STREETCAR
- COMBINED WITH 12TH STREET EAST THERE ARE 6 LETTERS OF SUPPORT

IMPACT SCORE

48

NEIGHBORHOOD REVITALIZATION AND ECONOMIC DEVELOPMENT

DEVELOPMENT CAPACITY

2.4 OUT OF 12

TRANSIT-INDUCED DEVELOPMENT POTENTIAL

4.8 OUT OF 12

LOCAL AND NATIONAL DEVELOPER INTEREST

6.4 OUT OF 8

PROPERTY VALUE AND OCCUPANCY IMPACTS

6.4 OUT OF 8

HISTORIC BUILDINGS

3.0 OUT OF 5

TRANSIT-SUPPORTIVE LAND USE POLICY AND PLANS

3.0 OUT OF 5

TRANSPORTATION AND MOBILITY

RIDERSHIP POTENTIAL

1.2 OUT OF 6

ABILITY TO ENHANCE EXISTING SERVICE

4.8 OUT OF 6

OPERATIONAL EFFICIENCY AND COST SAVINGS

1.6 OUT OF 4

AIR QUALITY, SAFETY, AND TRAVEL TIME

0.8 OUT OF 4

WALKABILITY AND BIKEABILITY

4.0 OUT OF 5

LAND USE, DEMOGRAPHICS, AND SOCIAL EQUITY

POPULATION DENSITY

1.4 OUT OF 7

TOTAL EMPLOYMENT

1.4 OUT OF 7

TRANSIT-DEPENDENT POPULATION / ACCESS TO EMPLOYMENT

2.0 OUT OF 5

AFFORDABLE HOUSING

3.0 OUT OF 3

EXISTING LAND USE AND ZONING

1.8 OUT OF 3

EACH MEASURE IS GIVEN A SCORE OUT OF FIVE POSSIBLE POINTS AND MULTIPLIED BY THAT MEASURE'S WEIGHT



12th STREET EAST

WHAT WE ARE HEARING ON 12TH STREET EAST:

- A streetcar could provide increased efficiency and reliability over current bus service on 12th Street.
- There is support for coordination with north-south transit including: Troost and Prospect MAX, future north-south streetcar, and east side circulator concept.
- There are concerns about financing and an equitable distribution of transit spending.
- There are concerns about streetcar operations and affordability for users.



The east side of Kansas City was once an integral part of Downtown Kansas City and the region during the height of streetcars. In the early 20th century, Kansas City was a predominantly east-west City and 12th Street was a key connection between Kansas City and Independence. Located only 2 minutes by car from the center of Downtown Kansas City, 12th Street East is physically and psychologically separated from Downtown by US 71 and decades of disinvestment.

A streetcar on 12th Street would grow Downtown and connect destinations from the Convention District to the Historic 12th and Vine Jazz District. In between, this enhanced connection to Downtown would encourage new development, jump start the East Village project, serve the City's government district, and link an acutely transit-dependent community to economic opportunity. Currently most bus lines in the City travel north-south, and these lines are ready to act as feeder lines to a new streetcar on this and other east-west corridors under study.

12th Street East has also initiated the concept of a streetcar loop that would connect 12th Street to 18th Street and then tie back into Downtown. While this fits with the vision of growing Downtown eastward, another alternative of connecting the West Bottoms to the East side has also emerged for consideration.





COST IN 2019 DOLLARS

OVERALL

\$107 MILLION

PER MILE
\$63 MILLION
(1.7+/- MILES)

PER RIDER
\$23.70
(640 DAILY BOARDINGS)

ENGINEERING CONSTRAINTS

- OVERHEAD CLEARANCE AT NEAR MAIN STREET IS UNDER 16'
- OVERHEAD CLEARANCE AT US-71 HIGHWAY IS UNDER 14'

FEDERAL FUNDING POTENTIAL

ANTICIPATED FEDERAL FUNDING:

LOW

COMMUNITY SUPPORT

- STRONG SUPPORT FROM ADVISORY COMMITTEE MEMBERS WITH LIMITED TURNOUT TO PUBLIC MEETINGS
- BIGGEST ADVOCATE FOR A DOWNTOWN STREETCAR LOOP SYSTEM
- COMBINED WITH 12TH STREET WEST THERE ARE 6 LETTERS OF SUPPORT

IMPACT SCORE

55

NEIGHBORHOOD REVITALIZATION AND ECONOMIC DEVELOPMENT

DEVELOPMENT CAPACITY

4.8 OUT OF 12

TRANSIT-INDUCED DEVELOPMENT POTENTIAL

4.8 OUT OF 12

LOCAL AND NATIONAL DEVELOPER INTEREST

4.8 OUT OF 8

PROPERTY VALUE AND OCCUPANCY IMPACTS

6.4 OUT OF 8

HISTORIC BUILDINGS

3.0 OUT OF 5

TRANSIT-SUPPORTIVE LAND USE POLICY AND PLANS

3.0 OUT OF 5

TRANSPORTATION AND MOBILITY

RIDERSHIP POTENTIAL

2.4 OUT OF 6

ABILITY TO ENHANCE EXISTING SERVICE

3.6 OUT OF 6

OPERATIONAL EFFICIENCY AND COST SAVINGS

1.6 OUT OF 4

AIR QUALITY, SAFETY, AND TRAVEL TIME

1.6 OUT OF 4

WALKABILITY AND BIKEABILITY

5.0 OUT OF 5

LAND USE, DEMOGRAPHICS, AND SOCIAL EQUITY

POPULATION DENSITY

4.2 OUT OF 7

TOTAL EMPLOYMENT

1.4 OUT OF 7

TRANSIT-DEPENDENT POPULATION / ACCESS TO EMPLOYMENT

4.0 OUT OF 5

AFFORDABLE HOUSING

3.0 OUT OF 3

EXISTING LAND USE AND ZONING

1.2 OUT OF 3

EACH MEASURE IS GIVEN A SCORE OUT OF FIVE POSSIBLE POINTS AND MULTIPLIED BY THAT MEASURE'S WEIGHT



18th STREET

WHAT WE ARE HEARING ON 18TH STREET:

- A streetcar on 18th Street provides the opportunity to reconnect neighborhoods and overcome physical and psychological barriers between 18th and Vine and the Crossroads Arts District
- A streetcar on 18th Street could enhance the underserved east-west transit routes in the City.
- The streetcar can help destinations on 18th Street thrive by introducing new investment and residents.



When people think of 18th Street they think of 18th and Vine, the historic center of the City's Jazz and African-American business community. The 18th and Vine Jazz District represents a significant public investment that to this day remains disconnected from the rest of Downtown.

A streetcar on 18th Street would reconnect this isolated but significant district to the Crossroads Arts District and grow Downtown to the east. With a gap of vacant, industrial and institutional uses, as well as the physical barrier of US 71, a streetcar could revitalize the in-betweens of the corridor's two primary activity centers.

With a low population density and a high transit dependent population, a streetcar will attract new residents, businesses and activity, jumpstarting reinvestment in the area while providing a much needed east-west transit service that could seamlessly link into the existing north-south bus routes, including the Troost MAX and new Prospect MAX service.

With multiple major visitor destinations, the 18th Street community recognizes the benefit of connecting the 18th and Vine District and additional employment and educational resources (MCC's Pioneer Campus and Lincoln College Preparatory High School) farther east to Southwest Boulevard to the west as a strong incentive for visitor and tourist traffic.





COST IN 2019 DOLLARS

OVERALL

\$103 MILLION

PER MILE
\$60 MILLION
(1.7+/- MILES)

PER RIDER
\$27.65
(350 DAILY BOARDINGS)

ENGINEERING CONSTRAINTS

- AT GRADE RAIL CROSSING NEAR GRAND

FEDERAL FUNDING POTENTIAL

ANTICIPATED FEDERAL FUNDING:

LOW

COMMUNITY SUPPORT

- STRONG SUPPORT FROM 18TH AND VINE JAZZ DISTRICT STAKEHOLDERS
- SUPPORT FOR A COMBINED ROUTE WITH SOUTHWEST BOULEVARD
- 9 LETTERS OF SUPPORT

IMPACT SCORE

47

NEIGHBORHOOD REVITALIZATION AND ECONOMIC DEVELOPMENT

DEVELOPMENT CAPACITY

4.8 OUT OF 12

TRANSIT-INDUCED DEVELOPMENT POTENTIAL

4.8 OUT OF 12

LOCAL AND NATIONAL DEVELOPER INTEREST

4.8 OUT OF 8

PROPERTY VALUE AND OCCUPANCY IMPACTS

4.8 OUT OF 8

HISTORIC BUILDINGS

4.0 OUT OF 5

TRANSIT-SUPPORTIVE LAND USE POLICY AND PLANS

3.0 OUT OF 5

TRANSPORTATION AND MOBILITY

RIDERSHIP POTENTIAL

2.4 OUT OF 6

ABILITY TO ENHANCE EXISTING SERVICE

2.4 OUT OF 6

OPERATIONAL EFFICIENCY AND COST SAVINGS

0.8 OUT OF 4

AIR QUALITY, SAFETY, AND TRAVEL TIME

0.8 OUT OF 4

WALKABILITY AND BIKEABILITY

3.0 OUT OF 5

LAND USE, DEMOGRAPHICS, AND SOCIAL EQUITY

POPULATION DENSITY

2.8 OUT OF 7

TOTAL EMPLOYMENT

1.4 OUT OF 7

TRANSIT-DEPENDENT POPULATION / ACCESS TO EMPLOYMENT

3.0 OUT OF 5

AFFORDABLE HOUSING

3.0 OUT OF 3

EXISTING LAND USE AND ZONING

1.2 OUT OF 3

EACH MEASURE IS GIVEN A SCORE OUT OF FIVE POSSIBLE POINTS AND MULTIPLIED BY THAT MEASURE'S WEIGHT



SOUTHWEST BOULEVARD

WHAT WE ARE HEARING ON SOUTHWEST BOULEVARD:

- A streetcar could help connect the Crossroads neighborhood with the Westside neighborhood.
- The streetcar can connect Southwest Boulevard's diverse local businesses directly to residents, visitors, and workers Downtown.
- A streetcar on Southwest Boulevard could one day connect to KU Medical Center and Rosedale in Kansas City, KS.



Considered the heart of the Hispanic community in Kansas City, Southwest Boulevard has become an increasingly more diverse neighborhood with recent reinvestment the Westside and the expansion of the Crossroads Arts District. The streetcar is seen as an important economic development tool that will connect the Westside and overcome many of the physical and psychological barriers that currently isolate the corridor. With its proximity to both Downtown and the West Bottoms, a streetcar to the Westside could change perceptions of the corridor and connect residents, employees, and visitors Downtown to Southwest Boulevard's many offerings.

There are significant development opportunities on Southwest Boulevard closer to State Line that would increase the residential density of the corridor and better connect the north and south halves of the Westside while maintaining the unique mix of light industrial, residential and local & ethnic businesses.

Many small businesses are concerned about a potential tax to fund a streetcar expansion, but understand the potential benefits of connecting to the starter line and further to 18th & Vine to the east and KU Medical Center to the west. With virtually no transit service along the corridor, linking these major activity centers with a streetcar could create a new transportation link and a stronger commercial corridor. Overall, there is a desire to support small business growth and protect the affordability and diversity of the community while encouraging new growth and economic development.



COST IN 2019 DOLLARS

OVERALL

\$118 MILLION

PER MILE
\$65 MILLION
(1.8+/- MILES)

PER RIDER
\$66.79
(220 DAILY BOARDINGS)

ENGINEERING CONSTRAINTS

- OVERHEAD CLEARANCE UNDER 16' AT I-35 AND RAILROAD
- AT GRADE RAIL SPUR AT LIBERTY STREET

FEDERAL FUNDING POTENTIAL

ANTICIPATED FEDERAL FUNDING:
LOW

COMMUNITY SUPPORT

- MILD PUBLIC ENGAGEMENT WITH CONCERN ABOUT TAX BURDEN OF RESIDENTS AND BUSINESS OWNERS
- SUPPORT FOR A COMBINED ROUTE WITH 18TH STREET
- 0 LETTERS OF SUPPORT

IMPACT SCORE

43

NEIGHBORHOOD REVITALIZATION AND ECONOMIC DEVELOPMENT

DEVELOPMENT CAPACITY

4.8 OUT OF 12

TRANSIT-INDUCED DEVELOPMENT POTENTIAL

4.8 OUT OF 12

LOCAL AND NATIONAL DEVELOPER INTEREST

1.6 OUT OF 8

PROPERTY VALUE AND OCCUPANCY IMPACTS

6.4 OUT OF 8

HISTORIC BUILDINGS

1.0 OUT OF 5

TRANSIT-SUPPORTIVE LAND USE POLICY AND PLANS

3.0 OUT OF 5

TRANSPORTATION AND MOBILITY

RIDERSHIP POTENTIAL

1.2 OUT OF 6

ABILITY TO ENHANCE EXISTING SERVICE

2.4 OUT OF 6

OPERATIONAL EFFICIENCY AND COST SAVINGS

0.8 OUT OF 4

AIR QUALITY, SAFETY, AND TRAVEL TIME

0.8 OUT OF 4

WALKABILITY AND BIKEABILITY

3.0 OUT OF 5

LAND USE, DEMOGRAPHICS, AND SOCIAL EQUITY

POPULATION DENSITY

4.2 OUT OF 7

TOTAL EMPLOYMENT

1.4 OUT OF 7

TRANSIT-DEPENDENT POPULATION / ACCESS TO EMPLOYMENT

3.0 OUT OF 5

AFFORDABLE HOUSING

3.0 OUT OF 3

EXISTING LAND USE AND ZONING

1.8 OUT OF 3

EACH MEASURE IS GIVEN A SCORE OUT OF FIVE POSSIBLE POINTS AND MULTIPLIED BY THAT MEASURE'S WEIGHT



MAIN STREET

WHAT WE ARE HEARING ON MAIN STREET:

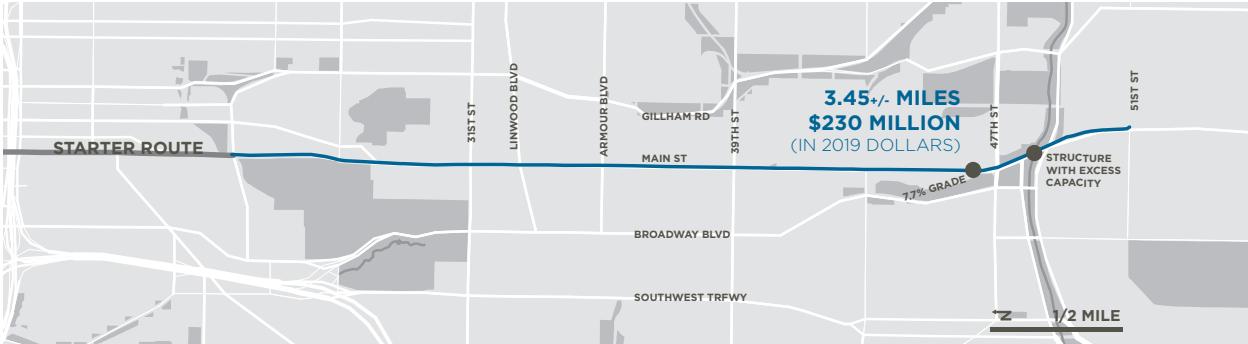
- Many stakeholders have suggested that Main Street from Crown Center to UMKC is the first logical choice for expansion, and prefer to build Main Street before corridors on which they live, work, or own property.
- Many stakeholders recognize the importance of travelling east and west as well as north and south along Main Street.
- While some have expressed a desire to connect directly to destinations including Westport, Art Museums, St. Luke's and others, most people prefer a route that is as simple and direct as possible.
- A streetcar on Main Street can better connect UMKC, Rockhurst, Kansas City Art Institute, and other educational institutions to the rest of the city and to a potential Downtown Arts Campus, enriching the quality of urban life for students while encouraging greater activity throughout the corridor.
- There are concerns about how neighborhoods and existing communities can be protected as development pressure builds as a result of a streetcar.

As the continuation of the Downtown Streetcar starter line, a majority of stakeholders both on Main Street and across the City see this corridor as the most logical and reasonable extension. Continuing south on Main Street, the corridor connects many of the City's key cultural attractions (Nelson-Atkins Art Museum and Kemper Modern Art Museum), links its two primary employment centers (Downtown and the Country Club Plaza), and would operate on the region's primary commercial corridor.

Extending the current terminus at Union Station to 51st and Brookside Boulevard would connect the City's major educational institutions (University of Missouri Kansas City and Rockhurst University) to the entire City and draw the campuses to Downtown. A streetcar expansion would encourage infill development and revitalization of commercial and residential properties adjacent to the corridor.

While the corridor has seen recent development that is more automobile-oriented, a new streetcar would strengthen the demand for higher densities, a broader mix of uses and building on recent streetscape improvements an even more vibrant pedestrian experience. Instead of a pass through from Downtown to south Kansas City, a streetcar will make Main Street itself a destination and a spine for future streetcar expansions.





COST IN 2019 DOLLARS

OVERALL

\$230 MILLION

PER MILE

\$67 MILLION
(3.45+/- MILES)

PER RIDER

\$7.60
(3,300 DAILY BOARDINGS)

ENGINEERING CONSTRAINTS

- STEEP GRADE NORTH OF 47TH STREET (BUT WITHIN VEHICLE TOLERANCES)
- BRIDGE AT BRUSH CREEK HAS CAPACITY FOR A STREETCAR

FEDERAL FUNDING POTENTIAL

ANTICIPATED FEDERAL FUNDING:
GOOD

COMMUNITY SUPPORT

- CONSIDERED BY MANY THE LOGICAL NEXT ROUTE
- SUPPORT FROM BOTH UMKC AND UMKC STUDENT BODY GOVERNMENT
- SOME STAKEHOLDERS HAVE FATIGUE FROM PAST STUDIES SO 0 LETTERS OF SUPPORT

IMPACT SCORE

81

NEIGHBORHOOD REVITALIZATION AND ECONOMIC DEVELOPMENT

DEVELOPMENT CAPACITY

7.2 OUT OF 12

TRANSIT-INDUCED DEVELOPMENT POTENTIAL

12 OUT OF 12

LOCAL AND NATIONAL DEVELOPER INTEREST

6.4 OUT OF 8

PROPERTY VALUE AND OCCUPANCY IMPACTS

4.8 OUT OF 8

HISTORIC BUILDINGS

5.0 OUT OF 5

TRANSIT-SUPPORTIVE LAND USE POLICY AND PLANS

4.0 OUT OF 5

TRANSPORTATION AND MOBILITY

RIDERSHIP POTENTIAL

6.0 OUT OF 6

ABILITY TO ENHANCE EXISTING SERVICE

6.0 OUT OF 6

OPERATIONAL EFFICIENCY AND COST SAVINGS

4.0 OUT OF 4

AIR QUALITY, SAFETY, AND TRAVEL TIME

3.2 OUT OF 4

WALKABILITY AND BIKEABILITY

4.0 OUT OF 5

LAND USE, DEMOGRAPHICS, AND SOCIAL EQUITY

POPULATION DENSITY

5.6 OUT OF 7

TOTAL EMPLOYMENT

7.0 OUT OF 7

TRANSIT-DEPENDENT POPULATION / ACCESS TO EMPLOYMENT

3.0 OUT OF 5

AFFORDABLE HOUSING

1.2 OUT OF 3

EXISTING LAND USE AND ZONING

1.8 OUT OF 3

EACH MEASURE IS GIVEN A SCORE OUT OF FIVE POSSIBLE POINTS AND MULTIPLIED BY THAT MEASURE'S WEIGHT



31st STREET/LINWOOD BOULEVARD

WHAT WE ARE HEARING ON FOR 31ST ST OR LINWOOD BOULEVARD:

- The corridor needs frequent, dependable transportation on nights and weekends.
- One day, people would like to ride a streetcar as far east as the stadiums.
- A streetcar along this corridor could drive the redevelopment of vacant commercial property along the corridor.
- A streetcar could encourage residents who have left to come back to the neighborhoods located along the route.
- There is both near-term and long-term redevelopment potential on this corridor.

Even though 31st Street and Linwood Boulevard are only a block apart from each other, the character of each route is dramatically different. 31st Street is a more intimate commercial corridor that becomes increasingly more vacant east of US 71. While there is significant commercial activity at the western end of Linwood Boulevard, this route is much more residential in nature with a broader, more automobile-oriented experience with the occasional commercial node.

A streetcar on either street would move east-west across every major north-south bus route creating terrific linkages across the City. A streetcar on 31st Street could catalyze recent redevelopments at Union Hill, Martini Corner, and Troost and farther east serve a significant residential population.

A streetcar on this corridor would connect major employment areas (Midtown and the VA Medical Center) at the ends of the corridor to a significant and heavily transit-dependent community in the core. A potential route alternative that connects Children's Mercy, Truman Medical Center, and Crown Center along Gillham to 31st Street or Linwood would also connect another major employer into this corridor. A streetcar on 31st/Linwood has the potential to generate significant in-fill development on parcels zoned for high-density residential uses.





COST IN 2019 DOLLARS

OVERALL

\$186 MILLION

PER MILE

\$60 MILLION
(3.1+/- MILES)

PER RIDER

\$5.51
(3,020 DAILY
BOARDINGS)

*COST ASSUMES DISTANCE ON 31ST ST

ENGINEERING CONSTRAINTS

- ROUTE PREDICATED ON MAIN STREET EXPANSION
- BRIDGES OVER US-71 HAVE EXCESS CAPACITY FOR STREETCAR VEHICLES

FEDERAL FUNDING POTENTIAL

ANTICIPATED FEDERAL FUNDING:

GOOD

COMMUNITY SUPPORT

- MINIMAL SUPPORT FROM NEIGHBORHOODS
- INVOLVED COMMUNITY MEMBERS STRONGLY BELIEVE IN TRANSFORMATIVE POWER OF A STREETCAR
- PREFERRED ROUTE TO CONNECT AS FAR EAST AS POSSIBLE
- 1 LETTER OF SUPPORT

IMPACT SCORE

75

NEIGHBORHOOD REVITALIZATION AND ECONOMIC DEVELOPMENT

DEVELOPMENT CAPACITY

12 OUT OF 12

TRANSIT-INDUCED DEVELOPMENT POTENTIAL

12 OUT OF 12

LOCAL AND NATIONAL DEVELOPER INTEREST

4.8 OUT OF 8

PROPERTY VALUE AND OCCUPANCY IMPACTS

8.0 OUT OF 8

HISTORIC BUILDINGS

2.0 OUT OF 5

TRANSIT-SUPPORTIVE LAND USE POLICY AND PLANS

4.0 OUT OF 5

TRANSPORTATION AND MOBILITY

RIDERSHIP POTENTIAL

4.8 OUT OF 6

ABILITY TO ENHANCE EXISTING SERVICE

4.8 OUT OF 6

OPERATIONAL EFFICIENCY AND COST SAVINGS

3.2 OUT OF 4

AIR QUALITY, SAFETY, AND TRAVEL TIME

3.2 OUT OF 4

WALKABILITY AND BIKEABILITY

3.0 OUT OF 5

LAND USE, DEMOGRAPHICS, AND SOCIAL EQUITY

POPULATION DENSITY

4.2 OUT OF 7

TOTAL EMPLOYMENT

1.4 OUT OF 7

TRANSIT-DEPENDENT POPULATION / ACCESS TO EMPLOYMENT

3.0 OUT OF 5

AFFORDABLE HOUSING

3.0 OUT OF 3

EXISTING LAND USE AND ZONING

1.8 OUT OF 3

EACH MEASURE IS GIVEN A SCORE OUT OF FIVE POSSIBLE POINTS AND MULTIPLIED BY THAT MEASURE'S WEIGHT



COUNTRY CLUB RIGHT OF WAY

WHAT WE ARE HEARING ON THE COUNTRY CLUB RIGHT OF WAY:

- A streetcar running in the right of way should be designed to preserve the trail
- Parking is important to business owners in Brookside and Waldo and should be preserved or expanded.
- Provided that technical difficulties can be resolved, there is preference for an alignment in the existing right of way.
- There are concerns about the financing and construction impacts of a streetcar in the Country Club Right of Way corridor.



The Country Club right-of-way (CCROW), formerly the Dodson Industrial line, was the last streetcar route in service in Kansas City. The ROW has been preserved with the intent of reusing it for transit service since it was purchased by the KCATA. It is the site of one of the Nation's first rails to trails program and the Harry Wiggins Trolley Trail currently functions as a linear park connecting the entire community. Many of the vibrant communities that thrive to this day were originally streetcar suburbs of the JC Nichols Company's Country Club District.

A streetcar on the CCROW would connect the City's most stable and consistently dense residential neighborhoods to its two largest employment Centers (Country Club Plaza and Downtown), predicated on the extension of the streetcar on the Main Street corridor first. While there is limited development opportunities on the corridor until south of Gregory Boulevard, development pressure brought on by the streetcar could force previously unforeseen solutions to the parking and build-out challenges of Brookside.

In Waldo and farther south in the Marlborough community, there is significant opportunity for the revitalization of existing underutilized parcels and the infill of vacant parcels. Wornall Road south of 75th Street becomes primarily automobile-oriented with some light industrial uses and dead-end streets cut off by the ROW. The community sees a dramatic potential to transform this portion of its commercial corridor to more pedestrian-friendly uses as it becomes a hybrid trail-oriented and transit-oriented district. While concerns persist around financing of the line, a streetcar along the CCROW could extend the corridor's stability farther south, encourage reinvestment, and stand ready for further expansion south to the Bannister Mall site and other regional economic development opportunities, which is located near the proposed terminus at 85th and Prospect.



COST IN 2019 DOLLARS

OVERALL

\$194 MILLION*

PER MILE

\$31 MILLION
(3.3+/- MILES)

PER RIDER

\$16.96
(790 DAILY BOARDINGS)
*COST ASSUMES SINGLE-TRACKED
DISTANCE ON RIGHT-OF-WAY

ENGINEERING CONSTRAINTS

- PREDICATED ON CONSTRUCTION OF MAIN STREET LINE
- GRADE ISSUES (WITHIN TOLERANCE) AT 56TH STREET AND AT MAIN STREET

FEDERAL FUNDING POTENTIAL

ANTICIPATED FEDERAL FUNDING:

LOW

COMMUNITY SUPPORT

- STRONG COMMUNITY SUPPORT
- HOME, BUSINESS, AND PROPERTY OWNERS CONCERNED ABOUT NOISE AND SAFETY ISSUES FROM STREETCAR
- BUSINESS OWNERS CONCERNED ABOUT PARKING COMPLICATIONS
- 3 LETTERS OF SUPPORT

IMPACT SCORE

51

NEIGHBORHOOD REVITALIZATION AND ECONOMIC DEVELOPMENT

DEVELOPMENT CAPACITY

7.2 OUT OF 12

TRANSIT-INDUCED DEVELOPMENT POTENTIAL

4.8 OUT OF 12

LOCAL AND NATIONAL DEVELOPER INTEREST

4.8 OUT OF 8

PROPERTY VALUE AND OCCUPANCY IMPACTS

3.2 OUT OF 8

HISTORIC BUILDINGS

4.5 OUT OF 5

TRANSIT-SUPPORTIVE LAND USE POLICY AND PLANS

2.0 OUT OF 5

TRANSPORTATION AND MOBILITY

RIDERSHIP POTENTIAL

3.6 OUT OF 6

ABILITY TO ENHANCE EXISTING SERVICE

3.6 OUT OF 6

OPERATIONAL EFFICIENCY AND COST SAVINGS

2.4 OUT OF 4

AIR QUALITY, SAFETY, AND TRAVEL TIME

2.4 OUT OF 4

WALKABILITY AND BIKEABILITY

3.0 OUT OF 5

LAND USE, DEMOGRAPHICS, AND SOCIAL EQUITY

POPULATION DENSITY

4.2 OUT OF 7

EMPLOYMENT DENSITY

1.4 OUT OF 7

TRANSIT-DEPENDENT POPULATION / ACCESS TO EMPLOYMENT

1.0 OUT OF 5

TOTAL EMPLOYMENT

0.6 OUT OF 3

EXISTING LAND USE AND ZONING

1.8 OUT OF 3

EACH MEASURE IS GIVEN A SCORE OUT OF FIVE POSSIBLE POINTS AND MULTIPLIED BY THAT MEASURE'S WEIGHT



APPROACH

1 PURPOSE

WHAT IS THIS PROJECT?

NextRail KC is a project initiated by the City of Kansas City, Missouri, in coordination with the Mid-America Regional Council (MARC), the Kansas City Area Transportation Authority (KCATA), and Jackson County to evaluate the potential impacts, feasibility, and cost of streetcar extensions in eight designated corridors. This project will prioritize future rail-transit investments, develop a long-term plan for an integrated streetcar system, and most importantly craft a path to implementation.

Throughout the NextRail KC planning process, community stakeholders have characterized the potential of the streetcar system in the following ways:



STREETCAR EXPANSION IS AN OPPORTUNITY TO RECONNECT OUR CITY AND REINTRODUCE AN AMENITY THAT IMPROVES EVERYONE'S QUALITY OF LIFE.



STREETCAR EXPANSION IS A STRATEGIC INVESTMENT IN THE FUTURE OF KANSAS CITY, SUPPORTING UNIQUE AND THRIVING NEIGHBORHOODS AND STRENGTHENING THE URBAN CORE.



STREETCAR CAN ENCOURAGE NEW DEVELOPMENT, IMPROVE ACCESS TO JOBS AND SERVICES, ATTRACT RESIDENTS AND BUSINESSES, AND INCREASE TRANSPORTATION OPTIONS.

GOALS

The City is pursuing the following major goals for expansion of the Downtown Kansas City Streetcar starter line:



Increase population & economic density in the urban core



Support existing residential and commercial activity



Develop under-utilized or vacant properties



Connect existing activity centers



Provide efficient, reliable, and effective transit service



Secure federal and state funding for rail-transit expansion



2 PROJECT OVERVIEW



PRIORITIZING WHILE PLANNING FOR A LONG TERM SYSTEM

No streetcar extension can move forward without a viable financing strategy, community support, and an understanding of all of the constraints and opportunities. This project will help determine where these conditions for success are in place, and prioritize alignments that can most readily move forward to implementation and best achieve the City's objectives. In addition to prioritization, this project will work to develop a long-term strategic approach for the successful implementation of the entire streetcar system.

CRAFTING A PATH TO IMPLEMENTATION

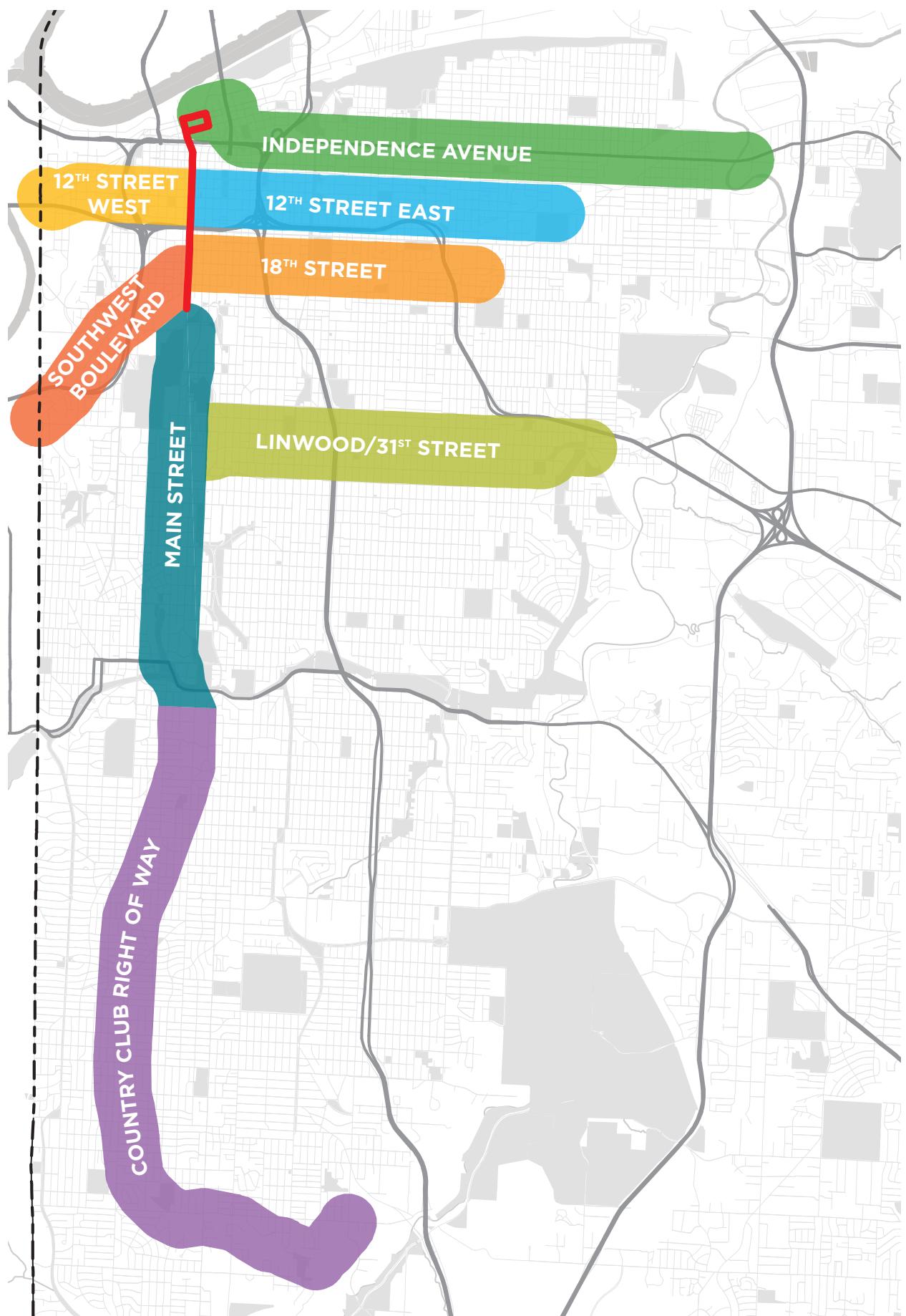
Next Rail KC will develop a strategy for implementation of the streetcar system, including step-by-step recommendations for the implementation of the highest priority extensions. The final plan will include recommendations for the design, financing, construction, operation, and maintenance of the most viable streetcar extensions.

EIGHT UNIQUE CORRIDORS

Next Rail KC is evaluating potential streetcar extensions on eight unique corridors. This initial analysis evaluates the feasibility and impact of all eight corridors as well as potential end points, routing alternatives, parallel alignments, and connecting alignments.

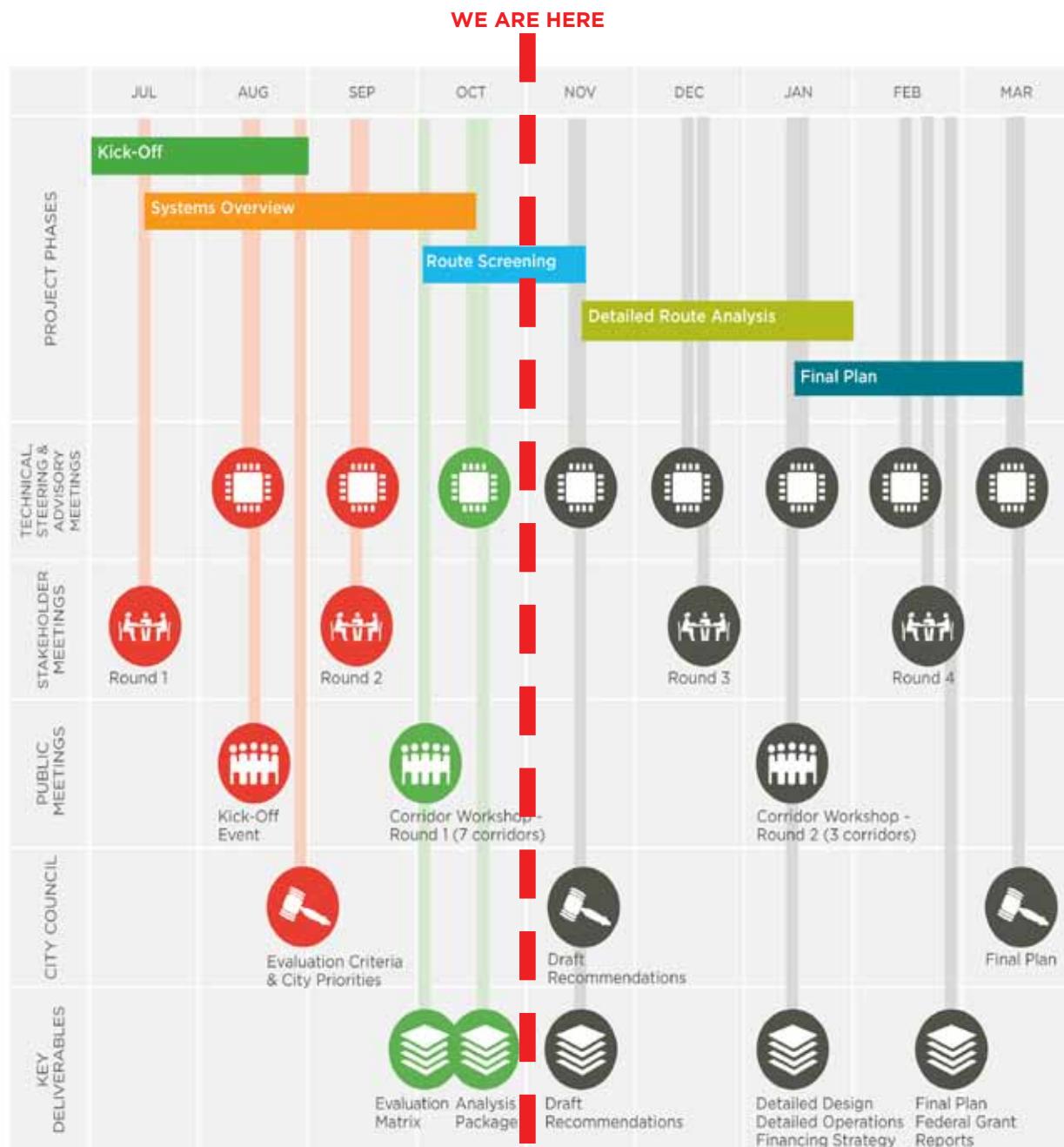
Following this initial analysis, up to four corridors will be further refined with more detailed study, based on additional engineering, design, financing strategies, and community dialogue.

- NextRail KC will expand upon the Downtown Streetcar starter line to develop a plan for a city-wide streetcar system.
- NextRail KC is studying eight unique corridors.
- Up to four corridors will be selected for more detailed analysis.
- NextRail KC will prioritize corridors with both the greatest potential benefits and the clearest path to implementation.
- This study will identify where conditions for success are in place: a viable financing strategy, community support, and an understanding of constraints and opportunities.



3 PROCESS

NextRail KC has five phases to be completed over a ten-month planning period ending in March 2014. This initial analysis report represents the culmination of the System Overview phase, and summarizes the study and community conversations that will inform a screening of potential corridors for more detailed study.





KICK-OFF:

This phase focuses on raising public awareness of the project, initiating a dynamic community-based engagement strategy, and engaging all stakeholders in the planning process.

SYSTEM OVERVIEW:

This phase begins the evaluation of each corridor based on community support, engineering studies, potential impact to the neighborhoods and financial constraints, thereby laying the groundwork for a community-based and data-driven decision making process.

ROUTE SCREENING:

This phase will narrow the analysis to specific corridors based on an evaluation criteria developed with the public and exploring a long-range strategy to implement the overall vision of a city-wide streetcar system.

DETAILED ROUTE ANALYSIS:

This phase will continue the study of the selected corridors refining the preliminary studies for engineering, construction and transit (i.e. bus routes) integration, including the identification of potential funding sources.

FINAL PLAN:

This phase will take all of the community input and data collected throughout the planning process and synthesize it into a final proposal for streetcar implementation. The plan will enable the City to apply for federal transit funding as well as continue the efforts of transforming stakeholders into advocates for streetcar implementation along each corridor and city-wide.



COMMUNITY ENGAGEMENT

With the importance of community input in mind, the NextRail KC project team undertook a range of wide-reaching and face-to-face strategies to spur community dialogue about how streetcar could play a role in the future of the eight identified corridors. Community engagement and support is critical to the successful implementation of streetcar extensions. New streetcar service will have real impacts on residents, businesses, and property owners along the proposed routes. Streetcars also represent a significant catalyst for change. Where and how extensions are implemented will influence the development, character, and vitality along future streetcar corridors. The route screening process brings important decisions that cannot be answered through technical analysis alone. To a large extent, the selection of future streetcar extensions depends on the goals and aspirations of stakeholders along the proposed routes and citywide.



Stakeholder Outreach: The NextRail KC team hit the streets to discuss streetcar expansion with hundreds of businesses, residents, visitors, and transit riders up and down all eight of the project corridors.



Kickoff: The August 8 Kickoff at Union Station included an introduction to the project by Mayor Sly James and City Councilmembers Jim Glover, Russ Johnson and Jermaine Reed, an overview of the goals and the process by the project team and an interactive community engagement exercise for stakeholders of the corridors being studied.

Corridor Workshops: Between September 26 and October 10, NextRail KC invited community stakeholders to corridor workshops for each of the eight Corridors under study. Stakeholders came out to share their vision for a streetcar in their neighborhood, and review some of the initial analysis for each corridor. Input gathered at these eight corridor workshops directly shaped the community narrative that is part of this initial report.



Online Engagement: More than 712 unique visitors shared and commented on more than 108 ideas online about priorities, concerns, and opportunities related to streetcar expansion, as well as discuss their project priorities and specific alignment decisions in each corridor.



Advisory and Steering Committees: Throughout the project a Mayor appointed Advisory Committee composed of community representatives from each corridor has provided guidance, review and community perspective for the project team. A Steering Committee composed of City and agency leaders has provided high-level guidance on project decisions.

WHAT WE'RE HEARING CITYWIDE

- The most important thing a streetcar can do is connect my neighborhood to the City and attract new development
- A streetcar must increase transit ridership and complement the existing bus service
- How we pay for the streetcar system must be fair and equitable



ONLINE COMMENTS FROM IDEAS.NEXTTRAILKC.COM

New development does not just mean extra development, but also a new approach that supports many of the other items on this list. Effective transit-oriented development finds value in density, walkability, and mixed uses. Following through on these things are a big part of what will attract new residents and businesses, improve access to employment and services, provide amenities for neighborhoods, and reduce auto trips.

LEANDRA B

It makes perfect sense for the street car to run from Columbus park eastward along Independence to Hardesty because the adjacent neighborhoods are densely populated along the entire route. This route will better connect the 40,000 plus Northeast District residents to the employment centers in and around downtown. In addition, Independence Avenue is one of the largest commercial corridors in the downtown area (long underutilized) and the street car will be a catalyst for badly needed re-development. The revitalization of this vital commercial corridor will benefit all of downtown and the surrounding residential communities.

**ERIC
BELLAMAGANYA**

...An east-west spur supporting two unique neighborhoods - 18th & Vine and the Westside - makes sense. Both neighborhoods would flourish and reach their development potential with the streetcar bringing convention visitors and tourists to areas they may not explore on their own for various reasons. The route to 18th & Vine is not particularly aesthetic nor to the newcomer does it project safe passage. The streetcar would ameliorate those fears or concerns. Investors would be more apt to look east to 18th/Vine area - hopefully enabling financial independence and weaning from public dollars...

LYNDA C1

Relaxing the number of parking spots required for new (and existing businesses) along the streetcar route will promote new development, encourage streetcar utilization, and improve the experience for pedestrians.

STEPHEN H

Increase the reach of the streetcar with bike facilities and bike share stations. This would connect the streetcar lines to other activity centers and neighborhoods not served by streetcar. B-Cycle stations at or near streetcar stops could make streetcar transit possible for thousands of more Kansas Citians by bridging the first and last mile of travel.

ERIC BUNCH

With a streetcar running through your neighborhood, you can assume that means more people will be walking to and from the line. An increase of people on the street means an increase of vigilance in these neighborhoods, which will deter all kinds of crime. I'll bet if someone completed a study of crime in a neighborhood pre and post fixed-route transit, the crime rates will have dropped.

MITCHEL L

One of the biggest complaints I hear from non-transit riders when discussing it with them is that the system and routes are too complicated and convoluted for the casual rider to pick up. Staying on Main is as simple as it gets, offers many development opportunities and avoids getting bogged down in meanders through Westport.

JAMES R14

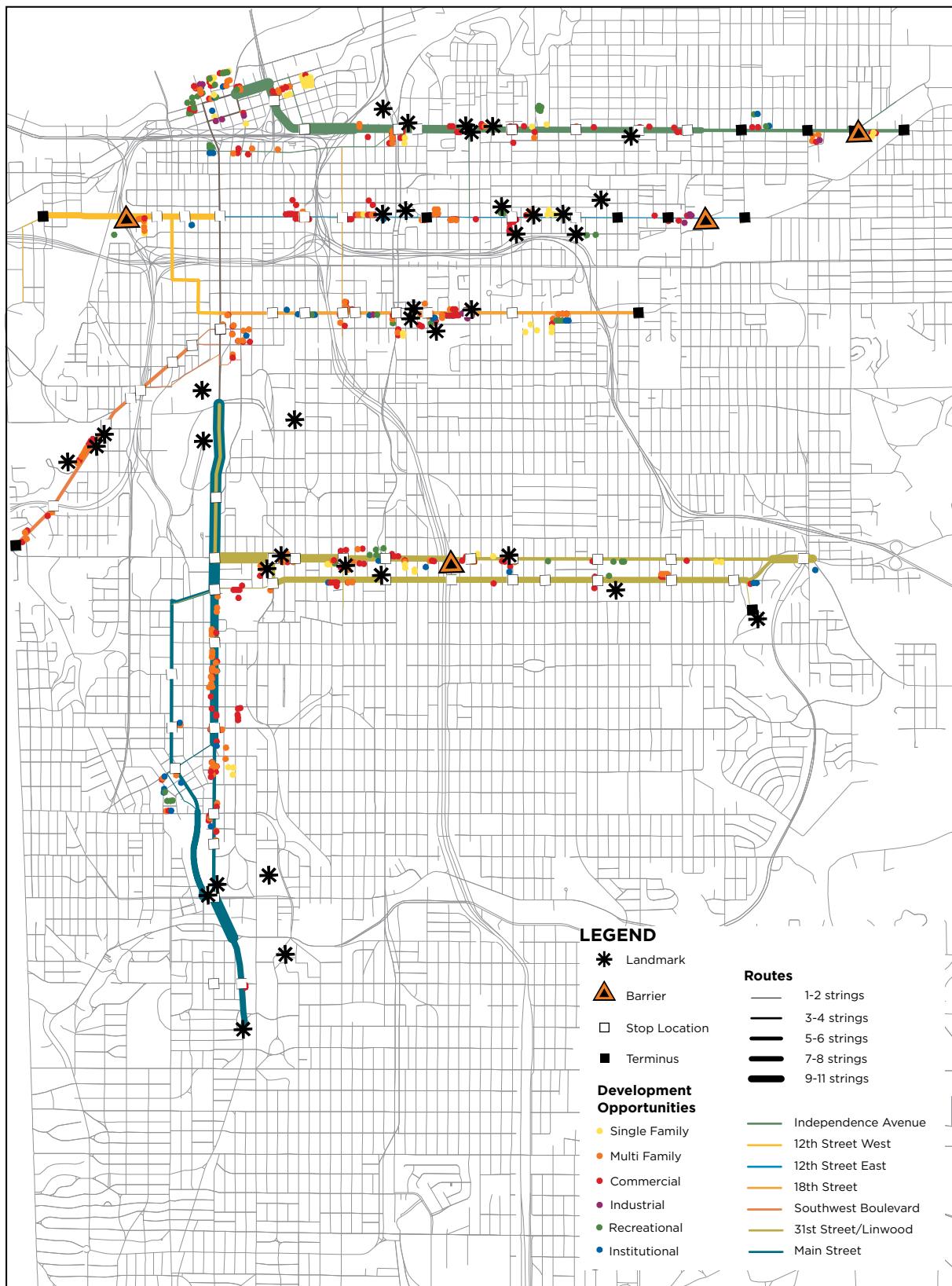
This line [31st/Linwood] would also get near to the Beacon Hill redevelopment, a hot pocket of the city. Plus, Gillham Road in this area is far more redevelopment potential than along Main with a park, Crown Center and the Federal Reserve. It fits the #1 goal of driving new development and new business moreso than staying on Main.

KEVIN C2

INTERACTIVE MODEL FEEDBACK

August 8, 2013

*Generated from user inputs; does not reflect
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its staff, or its consultant team.*



4 ALIGNMENTS

The Systems Overview phase includes a high level analysis of the potential alignment options in each of the eight corridors. Beginning with the August 8th Kickoff event, community stakeholders participated in an interactive exercise to identify preferred alignments in each of the corridors. More than 150 potential alignments were initially suggested. Through the course of the Systems Overview phase of the project these 150 alignments have been screened and refined to 15 potential routes. The best performing alignments for each corridor have been selected for the purpose of identifying priorities for detailed analysis. A summary of key alignment decisions can be found in the appendix.

Community stakeholders identify more than 150 possible alignments between the eight study corridors.

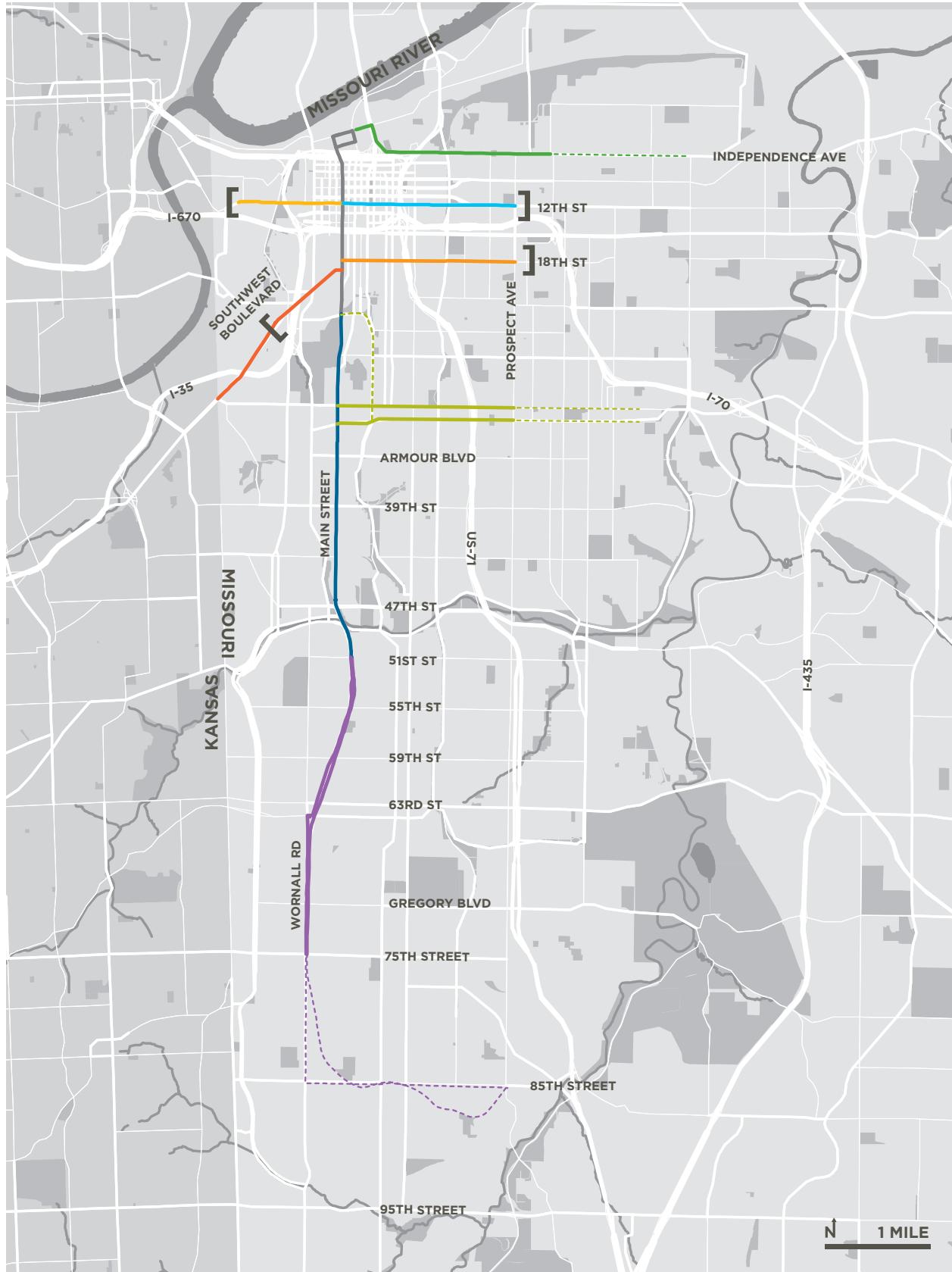
The project team screens and narrows the potential alignments based on community preferences and known engineering and operational constraints.

Remaining alignment options are evaluated in more detail, including field surveys, engineering analysis, operational considerations, and potential property impacts.

Alignment options were narrowed to 15 options that are fully evaluated for feasibility and potential impact. The best performing alignment options for each corridor are used for prioritization.

Alignment decisions that do not impact corridor evaluation are identified for more detailed analysis in the coming months. Some alignment options are recommended for future study.





SYSTEMS OVERVIEW STREETCAR EXPANSION PROJECT



5 EVALUATION CRITERIA

In order to realize the potential of a city-wide streetcar system, the NextRail KC project worked to identify and prioritize corridors with the strongest community support, highest financial feasibility, fewest engineering constraints, greatest potential impact, and clearest path to implementation. This analysis provides an overview of the merits and challenges of building a streetcar on each corridor. Considerations for each corridor are organized into specific evaluation criteria, and grouped into two major categories: **Feasibility** and **Impacts**.

EVALUATING FEASIBILITY

How do we get it built?

Feasibility measures focus on how we get potential streetcar extensions built. Criteria include:

Cost

Cost is based on a number of factors including the length of the route, engineering constraints, and environmental issues. This analysis presents cost information in three ways: total cost, cost per mile, and cost per annual rider.

Federal Funding Potential

The NextRail KC process will develop a recommended financing plan that includes a mix of local, state, federal, and other creative funding sources. For the purpose of comparing the potential for federal funding in each corridor, this analysis evaluates the potential performance of each corridor according to the Federal Transit Administration's New Starts program. While New Starts is only one of many potential funding sources for streetcar extensions, its scoring criteria are considered a reasonable proxy for competitiveness for a variety of federal funding sources.

Community Support

Community Support is a qualitative assessment of input from community members along the proposed corridors. Recognizing that community support is critical to successful implementation of streetcar extensions, the project team has evaluated support, opposition, and specific opportunities and concerns for each corridor.

EVALUATING IMPACTS

What happens when we build it?

This report provides a score based on the weighted rating of measurable impacts of a streetcar. A mayor-appointed advisory committee recommended that the benefits be generally group and weighted in the following manner:

- Economic Development & Neighborhood Revitalization: 50%
- Transportation & Mobility: 25%
- Land Use, Demographics, & Social Equity: 25%

Neighborhood Revitalization & Economic Development

- Development Capacity: What is the available space for new development?
- Transit-Induced Development Potential: What is the demand for new development in each corridor given a streetcar in this corridor?
- Local and National Developer Interest: What have developers from Kansas City and from out of town said in interviews with our economists about the potential to develop in each of these corridors given the presence of a streetcar?
- Property Value and Occupancy Impacts: Given available space and vacancy rates, what will happen to the level of occupancy and the value of properties with additional streetcar-induced development pressure?
- Historic Buildings: How many historic properties are present in the corridor?

Transit Supportive Land Use Policy and Plans: Are there tools in place to ensure that economic development that follows will maximize the potential of the streetcar?

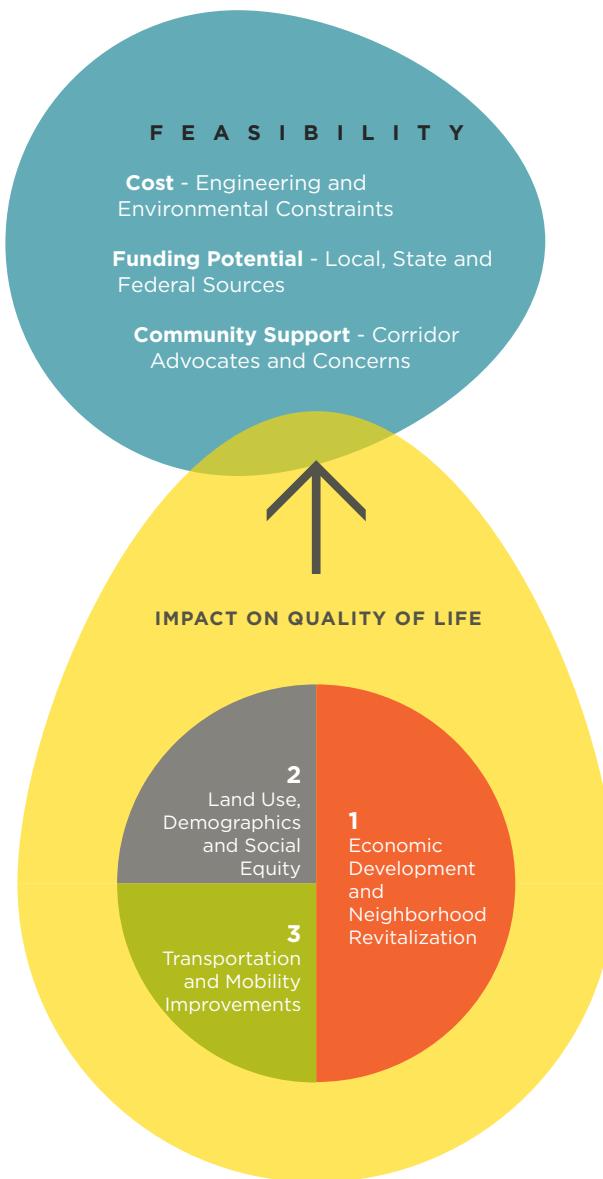
Transportation and Mobility

- Ridership Potential: How many people are projected to ride this streetcar? This is an initial estimate based on existing bus ridership and the expected improvement in level of service, and it has been adjusted for corridors with little existing transit service. This will be more formally modeled in the detailed analysis
- Ability to Enhance and Complement Existing/Planned Transit Service: What are the transit plans in this corridor, and how can a streetcar help fulfill or add to these transit plans? Will service actually improve as a result of a streetcar in this corridor?
- Operational Efficiency and Cost Savings: How will the existing transit system be able to save money or expand service as a result of added streetcar service?
- Air Quality, Safety, and Travel Time: As a streetcar encourages a shift in driving behavior and decreases automobile traffic, what are the quantified economic benefits to air quality, traffic safety, and travel time?
- Walkability and Bikeability: What existing and planned pedestrian and bicycle networks and infrastructure are there in the corridor, and how does a streetcar enhance the places pedestrians and cyclists can go?

Land Use, Demographics, and Social Equity

- Population Density: How many residents would benefit if a streetcar were built today?
- Employment Density: How many employees would benefit if a streetcar were built today?
- Transit Dependent Population / Access to Employment: What portion of transit dependent populations live in this area, and to what employment centers and other economic opportunities will they now be connected?
- Affordable Housing: What affordable housing units exist in the area, and what tools are in place to ensure that current and future residents have a mixture of housing options at affordable prices as development pressure encourages new growth?
- Existing Land Use and Zoning: What are the planned land uses and existing use, density, and form constraints on properties in the corridor? Does a streetcar support the future planned land uses?

- Data-driven process
- Variety of measures to evaluate how well each corridor achieves different project objectives
- Criteria are weighed based on community feedback about the most important goals for the project
- All weighting options consistent with federal funding criteria



ANALYSIS

Feasibility

1 ENGINEERING AND ENVIRONMENTAL

This study is using a multi-tier process to screen, evaluate, and prioritize the development of streetcar service, which is:

1. An initial screening process to narrow a long list of potential corridors into a short list of alignments.
2. A Tier 1 (Initial Analysis) evaluation to determine a short-list of alignments in more detail.
3. A Tier 2 (Detailed Analysis) determination to identify the most effective lines/segments to be pursued within prioritized corridors.

At the beginning of the study, the City of Kansas City, Missouri identified 8 potential streetcar corridors that included many of the City's major arterials (see Figure 1.1). This document presents the results of the Tier 1 screening process. Some corridors contained significant engineering constraints, and potential workarounds were identified in this screening process. As a result, these corridors were rated low in categories where such constraints exist.

SCREENING CRITERIA

Screening Process

The Tier 1 screening process used seven criteria (see Table 1.1):

Grade: Kansas City has a number of steep grades that could inhibit streetcar operation, or make streetcar operation too expensive. While modern streetcars can climb grades as much as 9% for short distances (approximately 700-800 feet), sustained grades over 7% are generally discouraged, particularly in climates where snow and ice are regular occurrences. Thus, corridors with grades between 7% and 9% will be carried forward to Tier 2 only if they pass all other screening criteria.

Street Geometry/Railroad Crossings: This criterion identifies whether street geometry would inhibit streetcar operation, or require significant capital investments that make operation infeasible. These include major modifications to interchanges,

TABLE 1.1 TIER 1 SCREENING CRITERIA AND MEASURES

CRITERIA	SCREENING MEASURE
GRADES	Grades greater than 9% are fatally flawed. Tentative pass: Grades between 7% and 9% over sustained lengths only if corridor passes all other screening criteria
STREET GEOMETRY	Required turns greater than 90 degrees or with segments that cannot be negotiated by a modern streetcar
RAILROAD CROSSING	At-grade freight railroad crossing. Crossing of two tracks requires difficult FFA/RR approval and are not typically allowed without expensive additional signalization or grade separation.
BRIDGES/STRUCTURES	Load rating is at or exceeding capacity. Historic structures evaluated on a case-by-case basis.
VERTICAL CLEARANCES	Bridges or skywalks less than 14'0" of overhead clearance require significant engineering interventions. Tentative pass: Clearances between 14'0" and 16'0"
UTILITY IMPACTS	More than two major utilities within the corridor present a significant constraint Tentative pass: If utilities appear to be out of the way of preliminary streetcar lane selection
LANE GEOMETRY	Curb-to-curb width must provide adequate space for 11-foot lane widths for shared streetcar lane and 10 feet for automobiles.

exclusive right-of-way needs, or other types of transit infrastructure that would be required (such as bridges, underpasses, etc.). At-grade railroad crossings with a streetcar are generally not viewed favorably by the operating railroad. Should any alignments with at-grade railroad crossing be



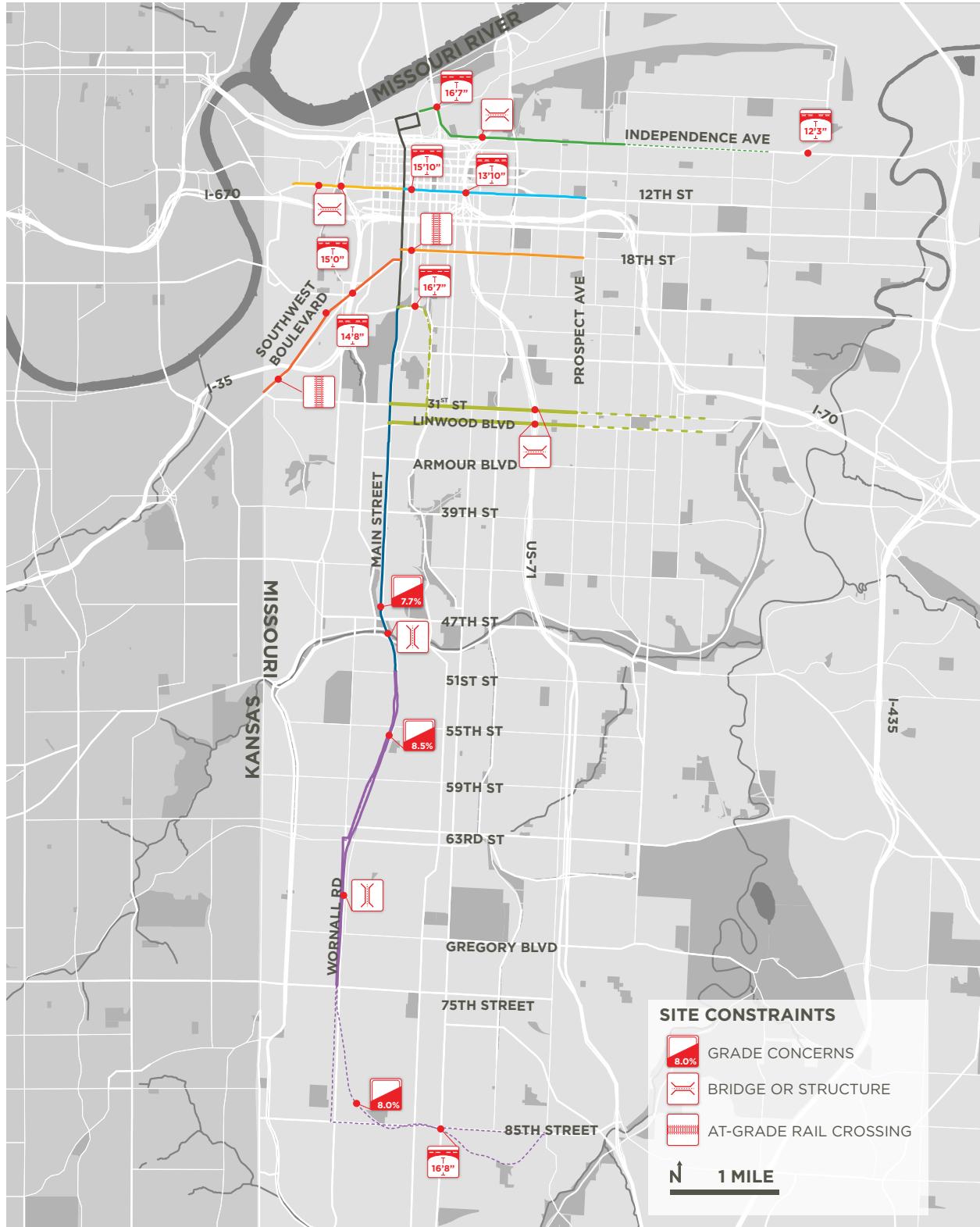


FIGURE 1.1 ALIGNMENTS MAP WITH VARIOUS ENGINEERING CONSTRAINTS

considered beyond this screening phase, a more detailed study should be conducted which may include meetings with the operating railroad.

Bridges/Structures: Adding a streetcar line to a bridge can potentially add dead load to a structure to accommodate the track slab and rail. Bridges need to have enough capacity for this additional weight in order to allow for a streetcar route. If a bridge is listed as a historic structure, then additional coordination and measures will be necessary to accommodate the State Historic Preservation Office (SHPO) and local community concerns in order to address any issues and concerns regarding the installation of track or overhead power supply infrastructure.

Vertical Clearances: There are a number of bridges with low clearance in and around Kansas City. Low bridges (less than 16') can be a problem for the overhead catenary system (OCS) used to power streetcar vehicles. If the overhead obstruction doesn't provide adequate room for the pantograph to function properly, a streetcar route will not be able to operate on the route beyond the low-clearance point without modifications. There is potential to modify either the existing roadway to improve the clearance, or the overhead structure could be improved, but both options would add considerable cost to the project or may not be feasible for a number of other reasons.

Utility Impacts: Another potential cost in a corridor is utility relocation. Nearly all roadways in Kansas City have both public and private utilities within their right-of-way. Some have major utilities that will require coordination and, possibly, may incur additional relocation costs and time requirements to the project.

Lane Geometry: Another major concern with a streetcar corridor is providing enough space in the lane for the vehicle to operate. Streetcars require a minimum horizontal offset from centerline to operate safely at proposed design speeds. A reduced lane width may result in slower design speeds or a reduction in parking if parking exists. Insufficient lane widths may also require the purchase of additional right-of-way, which could prove very costly and/or require additional time to acquire.



BRIDGE ON MAIN STREET OVER BRUSH CREEK



SKY BRIDGE ON 12TH STREET



NARROW STREET WIDTHS IN NEIGHBORHOODS



GRADE

Kansas City has a number of steep grades that could inhibit streetcar operation, or make streetcar operation too expensive. While modern streetcars can climb grades as much as 9% for short distances (approximately 700-800 feet), sustained grades over 7% are generally discouraged, particularly in climates where snow and ice are regular occurrences. Thus, corridors with grades between 7% and 9% will be carried forward to Tier 2 only if they pass all other screening criteria.

Methodology

To conduct the Tier 1 Grade Screening a vehicle was driven along each potential route and grades were measured. The locations of readings and number of readings taken varied and were based on engineering judgment in order to best determine the grades of each street. Depending on the quality of the roadway, some readings were taken on the curb and others taken on the street. The number of readings taken sometimes depended on the length of the block being evaluated and other times depended on the apparent change of grade of the roadway. The following rating scale was used for grade screening:

RATING	GRADE
HIGH	Grades less than 7.0% No restrictions in vehicle type or operation
MEDIUM-HIGH	Grades between 7.0% and 9.0% Potential to limit some vehicle options and reduce service life of vehicles and infrastructure
LOW	Grades over 9.0% Modern streetcar vehicles cannot operate on grades greater than 9.0%

Findings

Overall, there are grade issues at three locations that span two corridors (see Figure 1.2 and Table 1.2). However, none have grades that exceed 9% would preclude streetcar service:

- **Main Street:** An average 7.7% grade for 875 feet located near the south end of this corridor between 44th Street and 45th Street.
- **Country Club Right-of-Way:** Off-Street: An average 8.5% grade for 300 feet located on the north end of corridor between East 55 Terrace and East 56th Street. There is also a maximum grade of 8.0% for 100 feet located on the south end of the corridor near the trail crossing at 85th Street.



FIGURE 1.2A GRADE ON MAIN STREET BETWEEN 45TH AND 47TH



FIGURE 1.2B GRADE ON COUNTRY CLUB AT 55TH TERRACE



FIGURE 1.2C GRADE ON RIGHT OF WAY AT MAIN

TABLE 1.2 GRADE ASSESSMENT

CORRIDOR	GRADE ASSESSMENT	RATING
INDEPENDENCE AVENUE: RIVER MARKET TO BENTON	No significant steep grades.	HIGH
INDEPENDENCE AVENUE: RIVER MARKET TO HARDESTY	No significant steep grades.	HIGH
12TH STREET: WEST BOTTOMS TO MAIN	No significant steep grades.	HIGH
12TH STREET: MAIN TO PROSPECT	No significant steep grades.	HIGH
12TH STREET: WEST BOTTOMS TO PROSPECT	No significant steep grades.	HIGH
18TH STREET: MAIN TO PROSPECT	No significant steep grades.	HIGH
SOUTHWEST BOULEVARD: MAIN TO STATE LINE	No significant steep grades.	HIGH
18TH ST-SOUTHWEST BOULEVARD: SUMMIT TO PROSPECT	No significant steep grades.	HIGH
MAIN STREET: PERSHING RD. TO 51ST ST	An average of 7.1% grade for 875 located near the south end of the corridor between 47th and 45th St	MEDIUM-HIGH
31ST STREET: TO PROSPECT VIA PERSHING/ GILLHAM	No significant steep grades.	HIGH
31ST STREET: TO PROSPECT VIA MAIN	No significant steep grades.	HIGH
31ST STREET: TO VA HOSPITAL VIA PERSHING/ GILLHAM	No significant steep grades.	HIGH
31ST STREET: TO VA HOSPITAL VIA MAIN	No significant steep grades.	HIGH
LINWOOD BOULEVARD: TO PROSPECT VIA PERSHING/ GILLHAM	No significant steep grades.	HIGH
LINWOOD BOULEVARD: TO PROSPECT VIA MAIN	No significant steep grades.	HIGH
LINWOOD BOULEVARD: TO VA HOSPITAL VIA PERSHING/ GILLHAM	No significant steep grades.	HIGH
LINWOOD BOULEVARD: TO VA HOSPITAL VIA MAIN	No significant steep grades.	HIGH
COUNTRY CLUB RIGHT OF WAY: ON-STREET	No significant steep grades.	HIGH
COUNTRY CLUB RIGHT OF WAY: OFF-STREET	An average 8.5% grade for 300 feet located on the north end of corridor between East 55 Terrace and East 56th Street. There is also a maximum grade of 8.0% for 100 feet located on the south end of the corridor near the trail crossing at Main Street.	MEDIUM-HIGH



STREET GEOMETRY/RAILROAD CROSSINGS

This criterion identifies whether street geometry would degrade the functionality of the streetcar operation, or require significant capital investments that make operation feasible. Considerations primarily include geometric features of the existing roadways that would potentially slow the streetcars' operating speed (such as turning vehicles, cars parking, etc.) as well as the effects a streetcar may have on auto capacity in a corridor. At-grade railroad crossings with a streetcar are generally not viewed favorably by the operating railroad. Should any alignments with at-grade railroad crossing be considered beyond this screening phase, a more detailed study should be conducted which may include meetings with the operating railroads.

Methodology

Tier 1 screening for Street Geometry/Railroad Crossing Screening was conducted by driving a vehicle along each potential route visually looking for the number of travel lanes on each potential corridor. The number of lanes was recorded for each corridor and verified with aerial photography. Based on these observations, a typical section was developed for each corridor that represents the overall potential street configuration of the corridor. A potential alignment was developed and geometric concerns were noted where right-of-way appears to be encroached upon, and where the alignment requires movements that are not in sync with current geometry.

Each corridor was rated per the scale to the right. If multiple street configurations were found within the same corridor an engineering judgment was made to determine the overall rating.

Findings

Overall, and as summarized in Table 1.3, the majority of the corridors have minimal limitations with respect to street geometry (see also Figure 1.1). Over half of the corridors will require little to no change in parking and have no at-grade railroad crossings. Some alignments have tight turning radii at connections to the starter line and/or other extensions.

RATING	STREET GEOMETRY CHARACTERISTICS
HIGH	Streetcar potential alignment fits well within corridor with few potential changes to existing lane configuration or parking. No at-grade railroad crossings.
MEDIUM-HIGH	Streetcar potential alignment fits well within corridor with some potential changes to existing lane configuration or parking. No at-grade railroad crossings.
MEDIUM	Streetcar potential alignment fits well within corridor with many potential changes to existing lane configuration or parking. May require at-grade railroad crossings.
MEDIUM-LOW	Streetcar potential alignment fits poorly within corridor with potential major changes to existing lane configuration or parking. May require at-grade railroad crossings.
LOW	Streetcar potential alignment fits poorly within corridor with potential major changes to existing lane configuration or parking. Potential need to purchase additional right-of-way. May require at-grade railroad crossings.



TABLE 1.3 STREET GEOMETRY AND RAILROAD CROSSING ASSESSMENT

CORRIDOR	STREET GEOMETRY ASSESSMENT	RATING
INDEPENDENCE AVENUE: RIVER MARKET TO BENTON	Generally fits well within current lane configuration. There is little or no impact to parking. No at-grade railroad crossings	HIGH
INDEPENDENCE AVENUE: RIVER MARKET TO HARDESTY	Generally fits well within current lane configuration. There is little or no impact to parking. No at-grade railroad crossings.	HIGH
12TH STREET: WEST BOTTOMS TO MAIN	Potential alignment would require a streetcar-only lane from Broadway Boulevard to Woodland Avenue. This would reduce the current number of lanes for automobile traffic by one. The switches from double-track to single-track and single-track to double-track require a transit only phase. There is little likelihood that parking will be affected. There are no at-grade railroad crossings.	MEDIUM
12TH STREET: MAIN TO PROSPECT	Potential alignment would require a streetcar-only lane from Broadway Boulevard to Woodland Avenue. This would reduce the current number of lanes for automobile traffic by one. The switches from double-track to single-track and single-track to double-track require a transit only phase. There is little likelihood that parking will be affected. There are no at-grade railroad crossings.	MEDIUM
12TH STREET: WEST BOTTOMS TO PROSPECT	Potential alignment would require a streetcar-only lane from Broadway Boulevard to Woodland Avenue. This would reduce the current number of lanes for automobile traffic by one. The switches from double-track to single-track and single-track to double-track require a transit only phase. There is little likelihood that parking will be affected. There are no at-grade railroad crossings.	MEDIUM
18TH STREET: MAIN TO PROSPECT	This corridor follows existing lane configuration well with the exception of the tie-in to the starter line where significant curb and gutter reconstruction may be required. There is little or no impact to parking. There is at-grade railroad crossing that looks abandoned between Walnut Street and Grand Boulevard on 18th Street.	MEDIUM-HIGH
SOUTHWEST BOULEVARD: MAIN TO STATE LINE	This corridor follows existing lane configuration well with the exception of the tie-in to the starter line where significant curb and gutter reconstruction may be required. There is little or no impact to parking. There is an at-grade railroad crossing on the west end of the project where an industry spur line crosses Southwest Boulevard.	MEDIUM
18TH ST-SOUTHWEST BOULEVARD: SUMMIT TO PROSPECT	This corridor follows existing lane configuration well with the exception of the tie-in to the starter line where significant curb and gutter reconstruction may be required. There is little or no impact to parking. There is an at-grade railroad crossing on the west end of the project where an industry spur line crosses Southwest Boulevard and there is at-grade railroad crossing that looks abandoned between Walnut Street and Grand Boulevard on 18th Street..	MEDIUM
MAIN STREET: PERSHING RD. TO 51ST ST	Main Street generally fits well within current lane configuration. There is little or no impact to parking. There are no at-grade railroad crossings.	HIGH
31ST STREET: TO PROSPECT VIA PERSHING/ GILLHAM	Tie-ins to 31st Street may require some curb and gutter adjustments or a transit-only phase at intersections. There is little or no impact to parking. There are no at-grade railroad crossings.	MEDIUM-HIGH
31ST STREET: TO PROSPECT VIA MAIN	Tie-ins to 31st Street may require some curb and gutter adjustments or a transit-only phase at intersections. There is little or no impact to parking. There are no at-grade railroad crossings.	MEDIUM-HIGH



TABLE 1.3 (CONTINUED) STREET GEOMETRY AND RAILROAD CROSSING ASSESSMENT

CORRIDOR	STREET GEOMETRY ASSESSMENT	RATING
31ST STREET: TO VA HOSPITAL VIA MAIN	Tie-ins to 31st Street may require some curb and gutter adjustments or a transit-only phase at intersections. There is little or no impact to parking. There are no at-grade railroad crossings.	MEDIUM-HIGH
31ST STREET: TO VA HOSPITAL VIA MAIN	Tie-ins to 31st Street may require some curb and gutter adjustments or a transit-only phase at intersections. There is little or no impact to parking. There are no at-grade railroad crossings.	MEDIUM-HIGH
LINWOOD BOULEVARD: TO PROSPECT VIA PERSHING/ GILLHAM	Tie-ins to Linwood Boulevard may require some curb and gutter adjustments or a transit-only phase at intersections. There is little or no impact to parking. There are no at-grade railroad crossings.	MEDIUM-HIGH
LINWOOD BOULEVARD: TO PROSPECT VIA MAIN	Tie-ins to Linwood Boulevard may require some curb and gutter adjustments or a transit-only phase at intersections. There is little or no impact to parking. There are no at-grade railroad crossings.	MEDIUM-HIGH
LINWOOD BOULEVARD: TO VA HOSPITAL VIA PERSHING/ GILLHAM	Tie-ins to Linwood Boulevard may require some curb and gutter adjustments or a transit-only phase at intersections. There is little or no impact to parking. There are no at-grade railroad crossings.	MEDIUM-HIGH
LINWOOD BOULEVARD: TO VA HOSPITAL VIA MAIN	Tie-ins to Linwood Boulevard may require some curb and gutter adjustments or a transit-only phase at intersections. There is little or no impact to parking. There are no at-grade railroad crossings.	MEDIUM-HIGH
COUNTRY CLUB RIGHT OF WAY: ON-STREET	There are a couple of locations along this alignment where 90 degree curves require curb and gutter rework and adjustments to existing lane configurations. Parking impacts are minimal. There is an at-grade railroad crossing on 85th Street that will be a barrier to any potential expansion east along 85th Street in the future.	MEDIUM-HIGH
COUNTRY CLUB RIGHT OF WAY: OFF-STREET	There are a number of locations along this alignment where 90 degree curves require curb and gutter rework and adjustments to existing lane configurations. Geometric constraints on the current trail could limit design speeds of the streetcar alignment. There are four parking lots (two at West Gregory Boulevard & two at West 74 Terrace) that may need to be removed or reworked to accommodate the streetcar line. There are no parking issues on the Trolley Track Trail. There is an at-grade railroad crossing on 85th Street that will be a barrier to any potential expansion east along 85th Street in the future.	MEDIUM-LOW

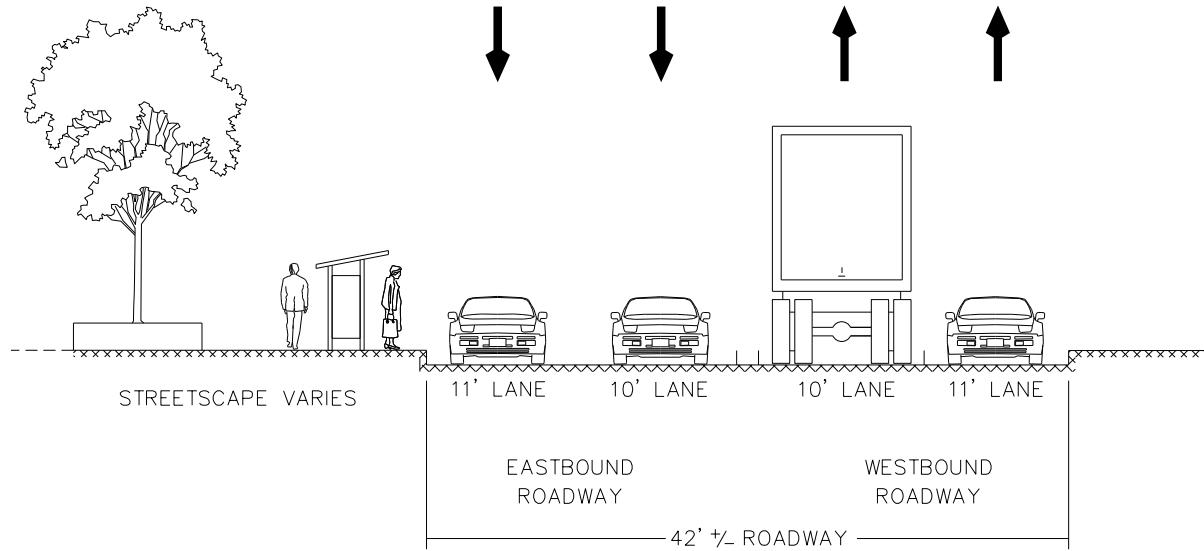


FIGURE 1.3A TYPICAL EXISTING 4-LANE SECTION (COURTESY HDR)

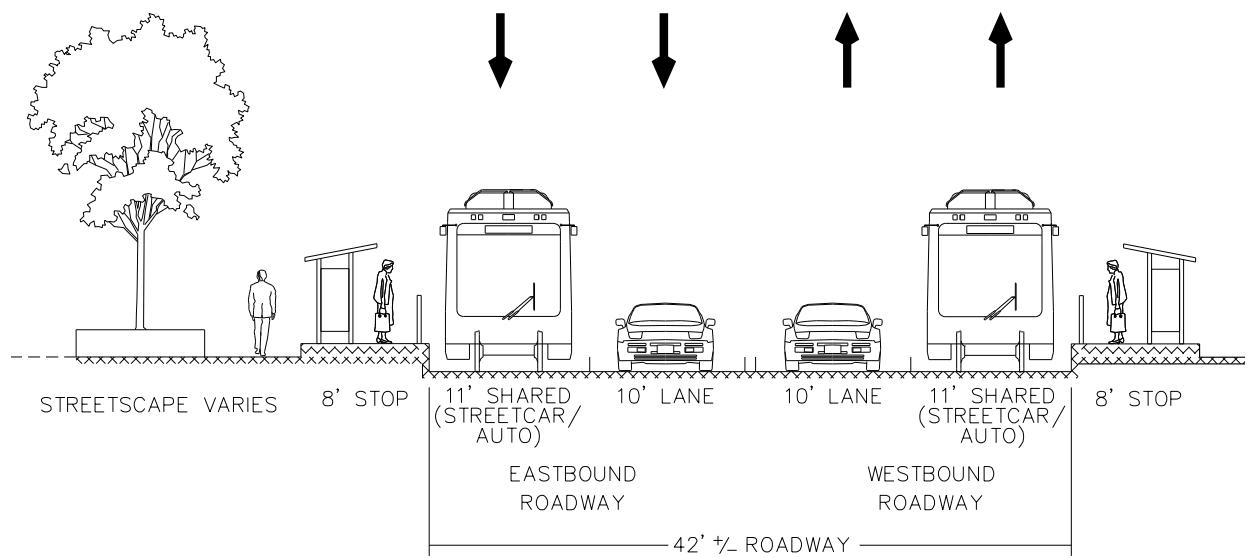


FIGURE 1.3B TYPICAL PROPOSED 4-LANE SECTION (COURTESY HDR)



BRIDGES/STRUCTURES

Adding a streetcar line to a bridge can potentially add dead load to a structure to accommodate the track slab and rail. Bridges need to have enough capacity for this additional weight in order to allow for a streetcar route. If a bridge is listed as a historic structure, additional coordination and measures will need to be taken to accommodate the State Historic Preservation Office (SHPO) and local community and address any issues or concerns they may have with installing track or overhead power supply infrastructure.

Methodology

The loading capacity of bridge structures was examined. Bridge numbers, capacity ratings, and historical register status were taken from the Missouri Department of Transportation's Structure Inventory Reports and KCMO National Bridge Inventory - Structure Inventory and Appraisal Reports.

Each corridor was rated per the scale below. If more than one deficiency was found, the lowest rating was used to score the entire corridor.

RATING	BRIDGES/STRUCTURES
HIGH	Structure/bridge has excess capacity and is not a historic structure.
MEDIUM-HIGH	Structure/bridge is at capacity and/or is a historic structure
LOW	Structure/bridge is over capacity and/or is a historic structure



FIGURE 1.4A 31ST STREET BRIDGE OVER HWY 71

Findings

Approximately half of the routes did not require an alignment to travel over a bridge/structure. Many of the remaining routes will travel across bridges/structures with excess capacity. At the printing of this report, the project team is working with the City of Kansas City to acquire bridge reports from the for the bridges listed below. The bridges with unknown conditions will be assumed a worst-case scenario and ranked medium until we receive the reports. If a route with a missing report is selected, the report will need to be obtained to confirm that there is enough capacity for a streetcar route. The most significant issues were:

- 12th Street -West Bottoms to Main/Prospect: 12th Street Viaduct over Beardsley Road and adjacent rail yard is noted in the bridge report as possibly eligible for becoming a historic structure, but currently isn't.
- Country Club Right-of-Way – On-Street/Off-Street: Need information for Trolley Track Trail over West 69th Street.



FIGURE 1.4B 12TH STREET VIADUCT



FIGURE 1.4C COUNTRY CLUB R.O.W. BRIDGE

TABLE 1.4 BRIDGES/STRUCTURES

CORRIDOR	BRIDGE/STRUCTURE ASSESSMENT	RATING
INDEPENDENCE AVENUE: RIVER MARKET TO BENTON	Independence Avenue over I-29 has excess capacity	HIGH
INDEPENDENCE AVENUE: RIVER MARKET TO HARDESTY	Independence Avenue over I-29 has excess capacity	HIGH
12TH STREET: WEST BOTTOMS TO MAIN	12th Street over I-35 has excess capacity; 12th Street Viaduct over Beardsley Road and adjacent rail yard has excess capacity.	HIGH
12TH STREET: MAIN TO PROSPECT	No bridges/structures	HIGH
12TH STREET: WEST BOTTOMS TO PROSPECT	12th Street over I-35 has excess capacity; 12th Street Viaduct over Beardsley Road and adjacent rail yard has excess capacity.	HIGH
18TH STREET: MAIN TO PROSPECT	No bridges/structures	HIGH
SOUTHWEST BOULEVARD: MAIN TO STATE LINE	No bridges/structures	HIGH
18TH ST-SOUTHWEST BOULEVARD: SUMMIT TO PROSPECT	No bridges/structures	HIGH
MAIN STREET: PERSHING RD. TO 51ST ST	Main Street/Brookside Boulevard over Brush Creek has excess capacity.	HIGH
31ST STREET: TO PROSPECT VIA PERSHING/ GILLHAM	31st Street over US-71 has excess capacity	HIGH
31ST STREET: TO PROSPECT VIA MAIN	31st Street over US-71 has excess capacity	HIGH
31ST STREET: TO VA HOSPITAL VIA PERSHING/ GILLHAM	31st Street over US-71 has excess capacity	HIGH
31ST STREET: TO VA HOSPITAL VIA MAIN	31st Street over US-71 has excess capacity	HIGH
LINWOOD BOULEVARD: TO PROSPECT VIA PERSHING/ GILLHAM	Linwood Boulevard over US-71 has excess capacity	HIGH
LINWOOD BOULEVARD: TO PROSPECT VIA MAIN	Linwood Boulevard over US-71 has excess capacity	HIGH
LINWOOD BOULEVARD: TO VA HOSPITAL VIA PERSHING/ GILLHAM	Linwood Boulevard over US-71 has excess capacity	HIGH
LINWOOD BOULEVARD: TO VA HOSPITAL VIA MAIN	Linwood Boulevard over US-71 has excess capacity	HIGH
COUNTRY CLUB RIGHT OF WAY: ON-STREET	No bridges/structures	HIGH
COUNTRY CLUB RIGHT OF WAY: OFF-STREET	Need information for Trolley Track Trail over West 69th Street.	MEDIUM



VERTICAL CLEARANCES

There are a number of bridges with low clearance in and around Kansas City. Low bridges (less than 16') can be a problem for the overhead catenary system (OCS) used to power streetcar vehicles. If the overhead obstruction doesn't provide adequate room for the pantograph to function properly a streetcar route will not be able to operate on the route beyond the low clearance point without modifications. There is potential to modify either the existing roadway on which the streetcar will operate to improve the clearance, or the overhead structure could be improved, but both options would add considerable cost to the project or may not be feasible for a number of other reasons.

Methodology

Overpasses were measured with a laser from the apparent lowest clearance point that was feasible to measure safely in traffic. All heights 18 feet and lower were recorded.

Each corridor was rated per the scale below. If more than one deficiency was found, the lowest rating was used to score the entire corridor.

RATING	VERTICAL CLEARANCES
HIGH	Route has no clearances under 18'-0"
MEDIUM-HIGH	Route has minimum clearances between 16'-0" and 18'-0"
MEDIUM	Route has minimum clearances between 14'-0" and 16'-0"
MEDIUM-LOW	Route has minimum clearances under 14'-0"

Findings

Low overpasses were found on half of the proposed streetcar corridors. None of these issues are expected to preclude streetcar service, but many likely impact capital costs. Nearly half of the corridors received a High rating. Two corridors could receive High ratings if their routes are adjusted slightly to avoid the low clearance points. The most significant issues were:

- Independence Avenue - River Market to Benton: There is a 16'-7" clearance on 3rd Street under the Heart of America Bridge.
- Independence Avenue - River Market to Hardesty: There is a 16'-7" clearance on 3rd Street under the Heart of America Bridge.
- 12th Street - West Bottoms to Prospect: There is a 15'-10" clearance on 12th Street near Main Street intersection and a 13'-10" clearance on 12th Street under US-71.
- 12th Street - East (Main to Prospect): There is a 15'-10" clearance on 12th Street near Main Street intersection and a 13'-10" clearance on 12th Street under US-71.
- Southwest Boulevard - There is a 14'-8" clearance on Southwest Boulevard under the railroad bridge and a 15'-7" clearance on Southwest Boulevard under I-35.
- Southwest-18th St. - There is a 15'-7" clearance on Southwest Boulevard under I-35.
- 31st Street - To Prospect Via Gillham/Pershing: There is a 16'-0" clearance on Pershing Road under a skyway.
- 31st Street - To VA Hospital Via Gillham/Pershing: There is a 16'-0" clearance on Pershing Road under a skyway.
- Linwood Boulevard - To Prospect Via Gillham/Pershing: There is a 16'-0" clearance on Pershing Road under a skyway.
- Linwood Boulevard - To VA Hospital Via Gillham/Pershing: There is a 16'-0" clearance on Pershing Road under a skyway.
- Country Club Right-of-Way - There is a 16'-8" clearance on West 85th Street at Troost Avenue.

TABLE 1.5 VERTICAL CLEARANCES

CORRIDOR	VERTICAL CLEARANCE ASSESSMENT	RATING
INDEPENDENCE AVENUE: RIVER MARKET TO BENTON	16'-7" clearance on 3rd Street under the Heart of America Bridge.	MEDIUM-HIGH
INDEPENDENCE AVENUE: RIVER MARKET TO HARDESTY	16'-7" clearance on 3rd Street under the Heart of America Bridge.	MEDIUM-HIGH
12TH STREET: WEST BOTTOMS TO MAIN	No low clearances.	HIGH
12TH STREET: MAIN TO PROSPECT	There is a 15'-10" clearance on 12th Street near Main Street intersection and a 13'-10" clearance on 12th Street under US-71.	LOW-MEDIUM
12TH STREET: WEST BOTTOMS TO PROSPECT	There is a 15'-10" clearance on 12th Street near Main Street intersection and a 13'-10" clearance on 12th Street under US-71.	LOW-MEDIUM
18TH STREET: MAIN TO PROSPECT	No low clearances.	HIGH
SOUTHWEST BOULEVARD: MAIN TO STATE LINE	14'-8" clearance on Southwest Boulevard under the railroad bridge; 15'-7" clearance on Southwest Boulevard under I-35	MEDIUM
18TH ST-SOUTHWEST BOULEVARD SUMMIT TO PROSPECT	15'-7" clearance on Southwest Boulevard under I-35	MEDIUM
MAIN STREET: PERSHING RD. TO 51ST ST	No low clearances.	HIGH
31ST STREET: TO PROSPECT VIA PERSHING/ GILLHAM	16'-0" clearance on Pershing Road under a skyway.	MEDIUM-HIGH
31ST STREET: TO PROSPECT VIA MAIN	No low clearances.	HIGH
31ST STREET: TO VA HOSPITAL VIA PERSHING/ GILLHAM	16'-0" clearance on Pershing Road under a skyway.	MEDIUM-HIGH
31ST STREET: TO VA HOSPITAL VIA MAIN	No low clearances.	HIGH
LINWOOD BOULEVARD: TO PROSPECT VIA PERSHING/ GILLHAM	16'-0" clearance on Pershing Road under a skyway.	MEDIUM-HIGH
LINWOOD BOULEVARD: TO PROSPECT VIA MAIN	No low clearances.	HIGH
LINWOOD BOULEVARD: TO VA HOSPITAL VIA PERSHING/ GILLHAM	16'-0" clearance on Pershing Road under a skyway.	MEDIUM-HIGH
LINWOOD BOULEVARD: TO VA HOSPITAL VIA MAIN	No low clearances.	HIGH
COUNTRY CLUB RIGHT OF WAY: ON-STREET	16'-8" clearance on West 85th Street at Troost Avenue.	MEDIUM-HIGH
COUNTRY CLUB RIGHT OF WAY: OFF-STREET	No low clearances.	HIGH





FIGURE 1.5A 16'-7" CLEARANCE ON 3RD STREET UNDER THE HEART OF AMERICA BRIDGE



FIGURE 1.5B 15'-10" CLEARANCE ON 12TH STREET NEAR MAIN STREET INTERSECTION



FIGURE 1.5C 13'-10" CLEARANCE ON 12TH STREET UNDER US-71



FIGURE 1.5D 14'-8" CLEARANCE ON SOUTHWEST BOULEVARD UNDER THE RAILROAD BRIDGE



FIGURE 1.5E 15'-7" CLEARANCE ON SOUTHWEST BOULEVARD UNDER I-35



FIGURE 1.5F 16'-0" CLEARANCE ON PERSHING ROAD UNDER A SKYWAY



FIGURE 1.5G 16'-8" CLEARANCE ON WEST 85TH STREET AT TROOST AVENUE



UTILITY IMPACTS

Another potential cost in a corridor is utility relocation. Nearly all roadways in Kansas City have both public and private utilities within their right-of-way. Some have major utilities that will require coordination and, possibly, additional relocation costs that could add cost and time requirements to the project.

Methodology

Local utilities were contacted and a summary report of utility locations was created based on information provided. All utilities of size greater than 24" were recorded. Each corridor is rated based on the number of major utilities within the corridor.

Each corridor was rated per the scale below. The lowest rating for any individual corridor segment was used to score the entire corridor.

RATING	UTILITY IMPACTS
HIGH	No known major utilities located within the corridor.
MEDIUM-HIGH	One known major utility located within the corridor.
MEDIUM	Two known major utilities located within the corridor.
MEDIUM-LOW	More than two known major utilities located within the corridor.

Findings

Major utilities can add cost and coordination time to a project. A larger number of utilities in a corridor need to be accounted for when making a selection of route. The most significant issues were:

- Independence Avenue – River Market to Benton: Sanitary sewer line present.
- Independence Avenue – River Market to Hardesty: Sanitary sewer line present.
- 12th Street – West Bottoms to Prospect: Sanitary sewer line present.
- 12th Street – East (Main to Prospect): Sanitary sewer line present.
- 12th Street – West (West Bottoms to Main): Sanitary sewer line present.
- Southwest Boulevard – Water and gas present.
- Southwest 18th St. - Water and gas present.
- Main Street - Sanitary sewer line present.
- 31st St – To Prospect Via Gillham/Pershing: Sanitary sewer line present.
- 31st St – To Prospect Via Main: Sanitary sewer line present.
- 31st Street – To VA Hospital Via Gillham/Pershing: Sanitary sewer line present.
- 31st Street – To VA Hospital Via Main: Sanitary sewer line present.
- Linwood Boulevard – To Prospect Via Gillham/Pershing: Sanitary sewer line present.
- Linwood Boulevard – To Prospect Via Main: Sanitary sewer line present.
- Linwood Boulevard – To VA Hospital Via Gillham/Pershing: Sanitary sewer line present.
- Linwood Boulevard – To VA Hospital Via Main Street : Sanitary sewer line present



TABLE 1.6 UTILITY IMPACTS

CORRIDOR	UTILITY IMPACT ASSESSMENT	RATING
INDEPENDENCE AVENUE: RIVER MARKET TO BENTON	Sanitary Sewer	MEDIUM-HIGH
INDEPENDENCE AVENUE: RIVER MARKET TO HARDESTY	Sanitary Sewer	MEDIUM-HIGH
12TH STREET: WEST BOTTOMS TO MAIN	Sanitary Sewer	MEDIUM-HIGH
12TH STREET: MAIN TO PROSPECT	Sanitary Sewer	MEDIUM-HIGH
12TH STREET: WEST BOTTOMS TO PROSPECT	Sanitary Sewer	MEDIUM-HIGH
18TH STREET: MAIN TO PROSPECT	No major utilities.	HIGH
SOUTHWEST BOULEVARD: MAIN TO STATE LINE	Water and Gas	MEDIUM
18TH ST-SOUTHWEST BOULEVARD: SUMMIT TO PROSPECT	Water and Gas	MEDIUM
MAIN STREET: PERSHING RD. TO 51ST ST	Sanitary Sewer	MEDIUM-HIGH
31ST STREET: TO PROSPECT VIA PERSHING/ GILLHAM	Sanitary Sewer	MEDIUM-HIGH
31ST STREET: TO PROSPECT VIA MAIN	Sanitary Sewer	MEDIUM-HIGH
31ST STREET: TO VA HOSPITAL VIA PERSHING/ GILLHAM	Sanitary Sewer	MEDIUM-HIGH
31ST STREET: TO VA HOSPITAL VIA MAIN	Sanitary Sewer	MEDIUM-HIGH
LINWOOD BOULEVARD: TO PROSPECT VIA PERSHING/ GILLHAM	Sanitary Sewer	MEDIUM-HIGH
LINWOOD BOULEVARD: TO PROSPECT VIA MAIN	Sanitary Sewer	MEDIUM-HIGH
LINWOOD BOULEVARD: TO VA HOSPITAL VIA PERSHING/ GILLHAM	Sanitary Sewer	MEDIUM-HIGH
LINWOOD BOULEVARD: TO VA HOSPITAL VIA MAIN	Sanitary Sewer	MEDIUM-HIGH
COUNTRY CLUB RIGHT OF WAY: ON-STREET	No major utilities.	HIGH
COUNTRY CLUB RIGHT OF WAY: OFF-STREET	No major utilities.	HIGH



LANE GEOMETRY

A major concern with a streetcar corridor is providing enough space in the lane for the vehicle to operate. Streetcars require a minimum horizontal offset from centerline to operate safely at proposed design speeds. A reduced lane width may result in slower design speeds being required or a reduction in parking if parking exists. Insufficient lane widths may also lead to a need to purchase additional right-of-way which could prove very costly and/or require additional time to acquire.

Methodology

Tier 1 screening of Street Geometry/Railroad Crossing Screening was conducted by driving a vehicle along each potential route visually looking for the number of travel lanes on each potential corridor. The number of lanes and width of lanes was recorded for each corridor and verified with aerials. Based on these observations, a typical section was developed for each corridor that represented the overall potential street configuration of the corridor.

Each corridor was rated per the scale below. If more than one deficiency was found, the lowest rating was used to score the entire corridor.

Findings

Sufficient lane width is needed for a streetcar to operate. Corridors with tighter lane widths may require reduced streetcar operating speed or reduction in the number of lanes of traffic. No corridors were found to have deficient lane widths. Half the corridors were able to support the preferred minimum width of 11 feet, while others were able to support the absolute minimum 10 feet. The most significant issues were as follows:

- 12th Street - West Bottoms to Prospect: 10 foot streetcar lane from Michigan Avenue to Prospect Boulevard.
- 12th Street - East (Main to Prospect): 10 foot streetcar lane from Michigan Avenue to Prospect Boulevard.
- 18th Street: 10 foot streetcar lane from Main Street to Cherry Street and from The Paseo to Woodland Avenue.
- Southwest - 18th St: 10 foot streetcar lane from Main Street to Cherry Street and from The Paseo to Woodland Avenue.
- Main Street: 10 foot streetcar lane from 34th Street to 47th Street.
- Country Club Right-of-Way - On-Street: 10 foot streetcar lane from Meyer Boulevard to 85th Street.

RATING	LANE GEOMETRIES
HIGH	12 foot or wider streetcar lane possible.
MEDIUM-HIGH	11 foot to 12 foot streetcar lane possible
MEDIUM	10 foot to 11 foot streetcar lane possible
MEDIUM-LOW	Under 10 foot streetcar lane possible



TABLE 1.7 LANE GEOMETRIES

CORRIDOR	LANE GEOMETRY ASSESSMENT	RATING
INDEPENDENCE AVENUE: RIVER MARKET TO BENTON	11 foot to 12+ foot lanes possible through corridor. Minimum width is 11 feet.	MEDIUM-HIGH
INDEPENDENCE AVENUE: RIVER MARKET TO HARDESTY	11 foot to 12+ foot lanes possible through corridor. Minimum width is 11 feet.	MEDIUM-HIGH
12TH STREET: WEST BOTTOMS TO MAIN	11 foot to 12+ foot lanes possible through corridor. Minimum width is 11 feet.	MEDIUM-HIGH
12TH STREET: MAIN TO PROSPECT	10 foot to 12 foot lanes possible through corridor. Minimum width is 10 feet.	MEDIUM
12TH STREET: WEST BOTTOMS TO PROSPECT	10 foot to 12+ foot lanes possible through corridor. Minimum width is 10 feet.	MEDIUM
18TH STREET: MAIN TO PROSPECT	10 foot to 12+ foot lanes possible through corridor. Minimum width is 10 feet.	MEDIUM
SOUTHWEST BOULEVARD: MAIN TO STATE LINE	10 foot to 12+ foot lanes possible through corridor. Minimum width is 10 feet.	MEDIUM-HIGH
18TH ST-SOUTHWEST BOULEVARD: SUMMIT TO PROSPECT	10 foot to 12+ foot lanes possible through corridor. Minimum width is 10 feet.	MEDIUM
MAIN STREET: PERSHING RD. TO 51ST ST	10 foot to 11 foot lanes possible through corridor. Minimum width is 10 feet.	MEDIUM
31ST STREET: TO PROSPECT VIA PERSHING/ GILLHAM	11 foot to 12+ foot lanes possible through corridor. Minimum width is 11 feet.	MEDIUM-HIGH
31ST STREET: TO PROSPECT VIA MAIN	11 foot to 12+ foot lanes possible through corridor. Minimum width is 11 feet.	MEDIUM-HIGH
31ST STREET: TO VA HOSPITAL VIA PERSHING/ GILLHAM	11 foot to 12+ foot lanes possible through corridor. Minimum width is 11 feet.	MEDIUM-HIGH
31ST STREET: TO VA HOSPITAL VIA MAIN	11 foot to 12+ foot lanes possible through corridor. Minimum width is 11 feet.	MEDIUM-HIGH
LINWOOD BOULEVARD: TO PROSPECT VIA PERSHING/ GILLHAM	11 foot to 12+ foot lanes possible through corridor. Minimum width is 11 feet.	MEDIUM-HIGH
LINWOOD BOULEVARD: TO PROSPECT VIA MAIN	11 foot to 12+ foot lanes possible through corridor. Minimum width is 11 feet.	MEDIUM-HIGH
LINWOOD BOULEVARD: TO VA HOSPITAL VIA PERSHING/ GILLHAM	11 foot to 12+ foot lanes possible through corridor. Minimum width is 11 feet.	MEDIUM-HIGH
LINWOOD BOULEVARD: TO VA HOSPITAL VIA MAIN	11 foot to 12+ foot lanes possible through corridor. Minimum width is 11 feet.	MEDIUM-HIGH
COUNTRY CLUB RIGHT OF WAY: ON-STREET	No major utilities. 10 foot to 12+ foot lanes possible through corridor. Minimum width is 10 feet.	MEDIUM
COUNTRY CLUB RIGHT OF WAY: OFF-STREET	10 foot to 12+ foot lane possible through corridor. Minimum width is 10 feet.	MEDIUM



ENVIRONMENTAL CONSIDERATIONS

Purpose

The project team conducted preliminary environmental screening analysis for the eight corridors to be included in the systems overview initial analysis of the alternative routes. Environmental screening desktop reviews of environmental database records were conducted for each of the 15 alternative streetcar alignments. An Environmental Data Resources (EDR) Database search was conducted of state, tribal, and federal environmental databases. Site visits and other historical research components of a Phase I Environmental Site Assessment (ESA) were not conducted as part of these preliminary screening level environmental desktop reviews.

The purpose of the database reviews was to identify records indicating historical and current sites with the potential to have contaminated the soil or groundwater within and adjacent to potential construction footprints of proposed alternative streetcar corridors.

Only one component of the American Society for Testing and Materials (ASTM) E 1527-05 Standard for Phase I Environmental Site Assessments was included as part of this review. Therefore, the preliminary results of this review do not fully meet the Phase I ESA standard or provide for analysis sufficient to provide any legal protections. Furthermore, this desktop review did not include any assessment of other potential environmental risk components such as controlled substances, corporate environmental compliance, radon, methane, asbestos, lead paint, mold, wetlands, or vapor intrusion.

This Executive Summary summarizes the results of the environmental reviews and evaluates the relative “risk avoidance” of each proposed alternative streetcar corridor based solely on the screening level database results. The detailed analysis phase of the project will investigate potential environmental constraints in greater detail.

Background

Land use practices, both current and historical, may have contaminated the subsurface near the selected streetcar corridor extension routes. Mobility of the groundwater may spread the contamination under the streets and into excavations made for the construction of the streetcar alignment. During construction, the presence of contaminated soils and groundwater may significantly impact construction logistics and costs and safety to construction workers. Examples where contaminated soils and/



or groundwater may be encountered include the excavation and disposal of contaminated soils or removal of contaminated groundwater encountered during dewatering operations or utility line construction activities. It is anticipated that construction activities associated with the implementation of the streetcar system expansion may include excavation up to ten feet in depth in some areas. Therefore, locating the selected alignment along routes that minimize the number of potential soil and groundwater contamination risks due to land use is prudent practice.

Approach

Government databases were searched in accordance with ASTM Standard E 1527-05 Sections 8.2.1 and 8.2.2. The search area limits provided to EDR for the database search included all 15 proposed alternative streetcar corridor alignments. A Radius Report (See Appendix 2) containing lists the Federal, state and tribal databases, a description of the databases, and the most recent reported release date of each database. The results of the database search identified facilities and locations within the study areas with a record of past releases, storage tanks, chemical use and storage, environmental compliance or non-compliance, past/current environmental clean-ups, and other industrial activities.

Ranking of Database Record Hits

The project team classified each database record by a ranking from 0 through 3 indicating the relative severity of risk of groundwater or soil contamination based on the source database and type of record. Rank “0” indicates a de minimus risk; rank “3” indicates the relative highest risk. Each of the database records with rank greater than “0” was considered a “Hit.”

Integration of Distance Considerations

Next, the relative overall risk of contamination, "high," "medium" and "low" was assigned based on a combination of database listing rank as outlined above and the distance of the listing to the center line of the route. Based on the assumption that the probability of construction site contamination diminishes with distance, "Hits" were assigned to each of the 15 proposed corridor alternatives based on proximity relative to distance from each corridor. The relative distances were based on three concentric "buffer zones" as follows:

- Buffer A included "Hits" deemed to be adjacent to the proposed alternative streetcar corridor.
- Buffer B included "Hits" deemed to be within a block of the proposed alternative streetcar corridor.
- Buffer C included "Hits" deemed to be a risk at distances up to a quarter mile away.

Due to overlap among the buffer zones, "Hits" were often assigned to multiple corridors.

Database "Hits" with rank of "1" and located in buffer "A" of a given proposed alternative route were assigned an overall "high" risk for that route. Database "Hits" in buffer "A" with a rank of "2" or in buffer "B" with a rank of "1" were assigned a "medium" risk for the route. Database "Hits" in buffer "A" with a rank of "3" or in buffer "B" with a rank of "2" or in buffer "C" with a rank of "1" were assigned a relative overall risk of "low" with respect to that route.

Overall Risk Evaluation

The project team counted and classified the number of database "Hits" for each corridor in each class based on both rank and distance from the center line of the proposed route. The results were evaluated for "risk avoidance" which is simply rating the corridors with the least number of risks as having the highest level of risk avoidance as shown in Table 1.8.



Conclusion

As shown in the Table 1.8, the corridors with the highest risk avoidance rating consisted of the W. 12th Street and Country Club Trolley Corridors. These corridors appear to have the lowest relative environmental risk based on the preliminary screening study analysis results. The corridor with the lowest risk avoidance (highest risk) relative rating was the 31st St via Gillham corridor alternative.



TABLE 1.8 AVOIDANCE OF ENVIRONMENTAL RISK

CORRIDOR	SMALL RISKS	MODERATE RISKS	HIGH RISKS	TOTAL RESULT	AVOIDANCE RATING
INDEPENDENCE AVENUE	128	180	47	355	MEDIUM
12TH STREET WEST	120	58	10	188	HIGH
12TH STREET EAST	116	145	29	290	MEDIUM-HIGH
18TH STREET	165	214	39	418	MEDIUM-LOW
SOUTHWEST BOULEVARD	139	121	29	289	MEDIUM-HIGH
MAIN STREET	150	213	34	397	MEDIUM
31ST STREET	160	232	32	424	MEDIUM-LOW
31ST STREET VIA GILLHAM	209	246	38	493	LOW
LINWOOD BOULEVARD VIA GILLHAM	258	97	29	384	MEDIUM
LINWOOD BOULEVARD	172	87	27	286	MEDIUM-HIGH
COUNTRY CLUB IN-R.O.W.	173	48	4	225	HIGH
COUNTRY CLUB ON-STREET	149	113	38	300	MEDIUM-HIGH

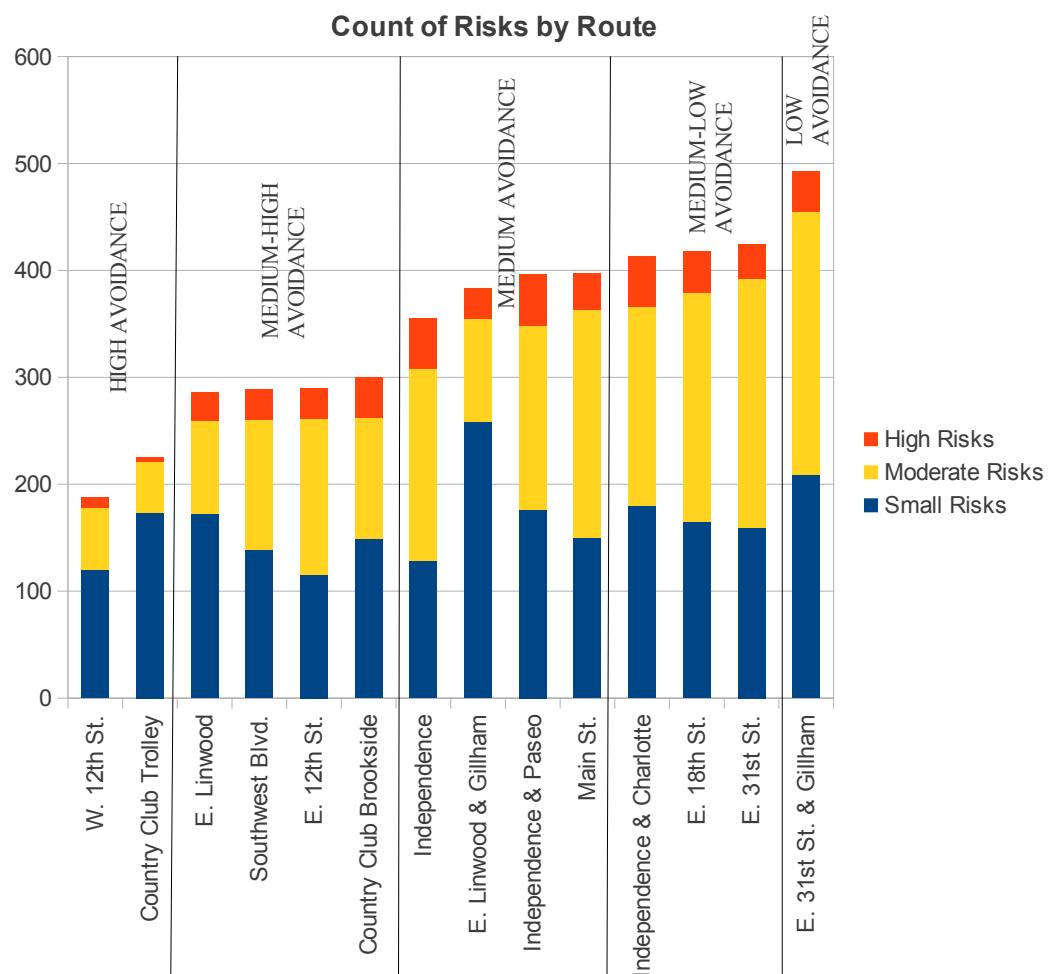


FIGURE 1.6 AVOIDANCE OF ENVIRONMENTAL RISK

UNIQUE ENVIRONMENTAL CONSIDERATIONS FOR THE COUNTRY CLUB RIGHT OF WAY

The Country Club Right of Way (CCROW) is a 6.2 mile facility running from 43rd and Main Streets to 85th Street and Prospect Avenue owned and controlled entirely by the Kansas City Area Transportation Authority (KCATA). The CCROW is generally 100 feet in width, although several sections are limited to 50 feet wide. The CCROW was used for streetcar service until 1957 before being discontinued. The CCROW generally is adjacent to Brookside Boulevard and Wornall Road, as well as several residential and commercial districts. The portion of the CCROW from Brush Creek to 85th Street and Woodland Avenue currently contains the Trolley Track Trail, an eight foot wide crushed limestone recreational trail. KCATA has also leased portions of the CCROW to adjacent property owners and businesses for parking.

The potential environmental impacts are based on an initial screening if a double track streetcar line were constructed on the portion of the CCROW from 51st & Brookside to 85th and Prospect. The evaluation also assumes that a 10-foot wide recreational trail would be constructed within the CCROW. This would require a cross section of up to 95 feet. If the CCROW is selected based on the initial screening, a more detailed evaluation of these factors will be completed based on a refined alignment and footprint.

Potential Property Impacts

There are approximately 6,900 parcels within the CCROW study area and there are approximately 1,300 structures within 300 feet of the centerline of the CCROW. About 90 of the parcels and 15 of the structures (about 1.2%) could be impacted by the project. These impacts could be mitigated by reducing the width of the rail line/trail by reducing the offset between the rail line and the trail, or designing single-track sections where necessary.

Potential Noise Impacts

Of the 1,300 structures in the CCROW study area 66 structures were determined to be closer to the CCROW than the adjacent roadway. Noise generated by streetcar operations is likely to be less than the noise levels from traffic on arterial roadways, thus it is anticipated that the vast majority of structures would receive no significant adverse effect from noise.

Detailed noise analyses are required, and will be conducted in a detailed analysis, to determine whether noise generated by a streetcar operation would have adverse effects on any of the structures.

Potential Parking Impacts

Several areas of the CCROW are used for parking for commercial and institutional uses. The largest parking areas are in the Waldo commercial/entertainment district (approximately 100 spaces) and the Brookside commercial/entertainment district (approximately 150 spaces).

The rail line/trail would likely require the removal of most of this parking. Possible mitigation measures could include reducing the width required for the rail line/trail and/or replacing the parking with surface or structured parking at other locations.

Road Crossings

The CCROW has about 35 at-grade crossings with public roadways. Most of these are crossings of local residential streets, although the CCROW crosses several arterial roadways such as 63rd Street, Meyer Boulevard, Gregory Boulevard, 75th Street, 85th Street and Holmes Road. Detailed traffic analyses are necessary to determine the proper approach to these grade crossings. Installation of traffic control provisions would likely be necessary at some locations. Other grade crossings might be closed. Whether the crossings were controlled or closed, traffic impacts may result.

Visual and Aesthetic Impacts

The CCROW is primarily grass-covered and heavily treed. Many of the trees were planted by the KCATA, the City, and neighborhood groups and are of various species. The rail line/trail would likely require the removal of many of the existing trees, possibly resulting in a negative effect on the aesthetics of the areas along the CCROW.

Possible mitigation measures including relocating and replanting trees on the CCROW such that they are compatible with the rail/trail use. In addition, other appropriate landscaping measures can be employed.

Undermined Areas

A portion of the CCROW between Troost Avenue and Woodland Avenue experienced a collapse into an abandoned limestone mine several years ago causing KCATA to close the portion of the recreational trail east of Troost. Although the extent of the undermined area is not known for certain, a geotechnical investigation performed by the KCATA in 2012 found discontinuities in the limestone forming the roof of the mine which makes the area prone to sinkholes.

The conclusion of the geotechnical investigation was that this portion of the CCROW should not continue in the trail use.



While this may not be viewed as an environmental issue, the abandoned mine voids would have to be filled or bridged to allow the operation of a streetcar and could lead to environmental impacts.

Floodplain

As shown in Figure 1.4, portions of the Southwest Boulevard and Country Club corridors are transected by 100-year and 500-year floodplain areas. These areas are defined as:

- 100-Year Floodplain: The part of the drainage basin which is within the one percent annual chance of flooding, which can include a regulatory floodway. The 100-year floodplain is also referred to as a Special Flood Hazard Area (SFHA). Development in the 100-year floodplain should be limited.
- 500-Year Floodplain: The part of the drainage basin which is within the 0.2 percent annual chance of flooding. Development in the 500-year floodplain should be limited.

Development in the 500-year floodplain does not require any permitting. However, any development taking place within the 100-year floodplain will require a Floodplain Development Permit from the City. In addition, direct effects to the streams associated with those floodplains may require a Section 404 Permit from the US Army Corps of Engineers.

Potential City Park Impacts

The CCROW from 43rd & Main to 85th & Prospect travels adjacent to four city-owned parks: Brush Creek Greenway (at Brookside Blvd. & Ward Parkway), Countryside Park (between 52nd and 54th Streets), Brookside Park (between 56th and 57th Streets), and Legacy East Park (south side of the trail near the east terminus). These publicly-owned parks are considered Section 4(f) properties. If part of a Section 4(f) property is being converted from a recreational use to a transportation use (through acquisition or other impacts), the Federal Transit Administration (FTA) can make a determination that the effects on the 4(f) property are de minimis (minimal), meaning that the project would not adversely affect the activities, features, or attributes of the park, after taking into account any measures to minimize harm (such as avoidance, minimization, mitigation or enhancement measures). Mitigation measures could include replacement or relocation of the trail and any other impacted activities, features, or attributes of the park.

Potential impacts to the city parks will be studied further in the next phase.



Country Club R.O.W. Conclusions

Based on these specific environmental factors, the CCROW would receive a combined overall environmental rating of Low. These factors would need to be analyzed in a detailed Environmental Assessment (EA) to determine the significance of the environmental impact. The EA process could result in a Finding of No Significant Impact (FONSI), requiring no further evaluation. However, any one of these environmental factors has the potential to move the environmental clearance from an EA to an Environmental Impact Statement (EIS) if potential significant impacts are identified. This would have the potential to add to the cost and timeline of the environmental clearance phase. An EIS requires that a substantial technical analysis and public review process be conducted to evaluate project alternatives; identify potential social, economic and environmental impacts of the project; and determine measures to avoid or mitigate these impacts.

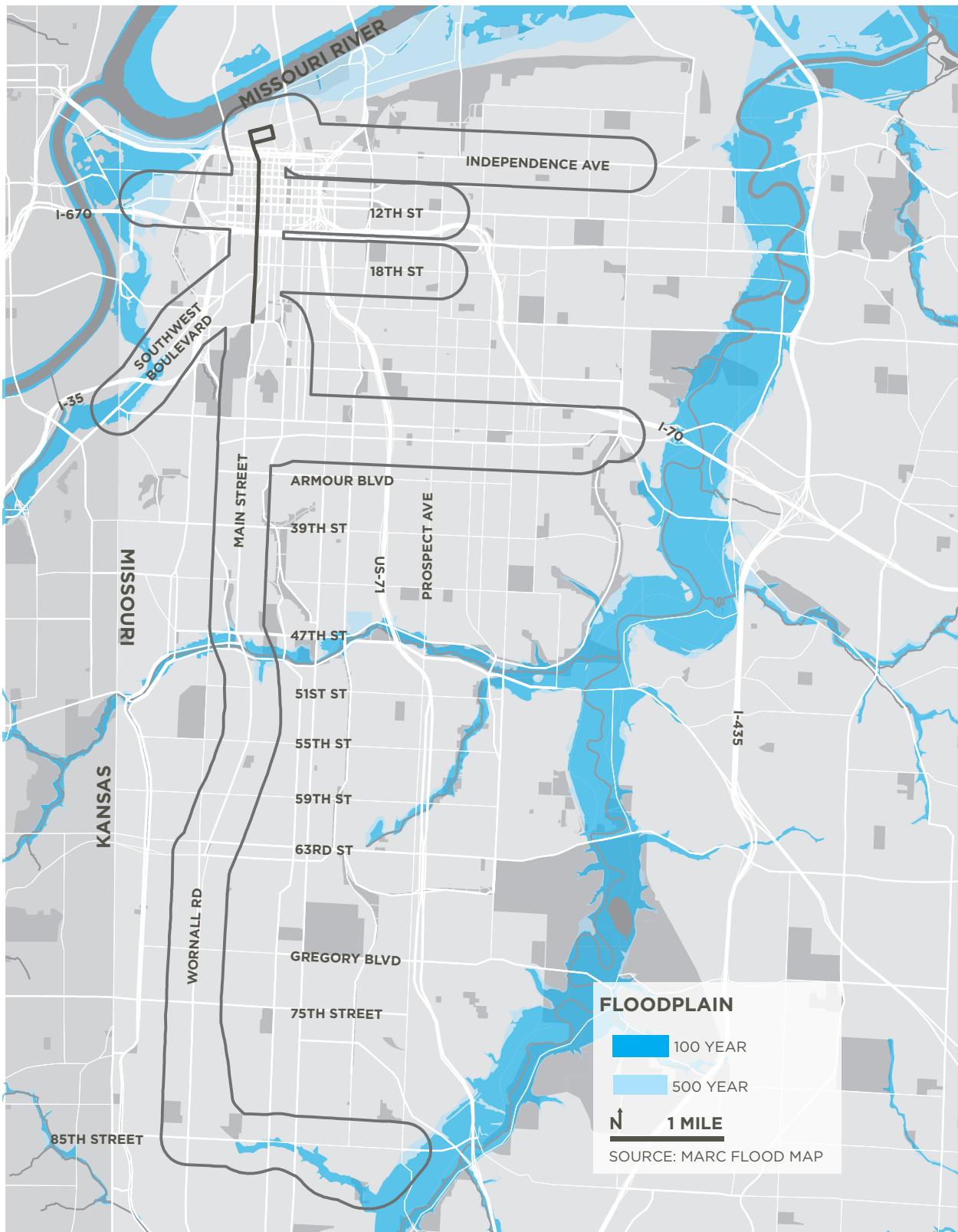


FIGURE 1.7 FLOODPLAINS THAT IMPACT STREETCAR CORRIDORS

2 CAPITAL COSTS

The first question in response to any major infrastructure project is “how much will it cost?” As the details of a project are refined, cost estimates become more accurate and reliable. In this early study, order-of-magnitude cost estimates are provided to serve as a basis for comparison between corridors. This section of the report outlines the major factors that impact the costs and construction of a streetcar route on various alignments.

CAPITAL COSTS

This section provides an estimate of the capital costs related to the construction of the streetcar based on per mile costs of a typical streetcar system. This includes engineering, utilities, structures, stations, traction power and communication systems, vehicles, fare collection equipment, rights-of-way, professional services, and contingencies. These costs are intended to establish an “order of magnitude” cost, not a detailed estimate. The estimate assumes that only improvements absolutely necessary to construct the streetcar will be built, betterments such as streetscape, street lighting, communication systems, elaborate stations, etc. are not included in the cost. The costs were estimated in both the current year (2013) as well as in the year of expenditure (YoE), and are based on historic cost data of similar streetcar projects. Corridor length is shown in both route miles (total length of corridor) and track miles (total length of track in the corridor).

Methodology

The capital cost estimates include items related to vehicles, engineering, and construction to establish a base cost. This base cost is structured around engineering experience with similar projects including the Kansas City Downtown Streetcar project. Additionally, the level of design is still pre-conceptual, most of the items in the cost estimates are represented as allowances, which in effect act as a “place-holder” until further analysis and design identify quantifiable items needed to develop a more accurate cost estimate.

Order of magnitude capital costs were developed in three general steps:

1. A baseline cost of \$27 million per track mile was applied to each route assuming a typical cost for a streetcar route.
2. Allowances were then applied for each of the project components (Grade, Street Geometry/Railroad Crossings, Structures/Bridges, Vertical Clearances, Utility Impacts, and Lane Geometry) based on the ratings shown in the corridor summary table.
3. The costs were then escalated with a 3% inflation rate to the assumed mid year of construction, 2019. This escalation value was not established using any scientific method or publications, and should be reviewed by the City for concurrence. It is however a reasonable estimate of the possible inflation that could be expected given the constant fluctuation in the economy and cost of material, fuel and labor. The purpose of an escalation factor is to account for anticipated inflation and the increase in the cost of construction, materials and labor over time. The escalation factor is used to take the current year estimate and project it to a future base year or year of expenditure (YoE). For the purpose of this study, the YoE is the year in which the midpoint of construction is anticipated. Based on the City's comment of design starting in 2017, HDR assumed the mid year of construction to be in 2019.



TABLE 2.1 ORDER OF MAGNITUDE COST SUMMARY

CORRIDOR	ROUTE MILES	COST PER ROUTE MILE	HEADWAY (MINUTES)	TOTAL COST IN 2019
INDEPENDENCE AVENUE RIVER MARKET TO BENTON	3.51	\$36,800,000	15	\$129,248,449
INDEPENDENCE AVENUE RIVER MARKET TO HARDESTY	3.51	\$59,600,000	15	\$209,060,855
12TH STREET COMBINED WEST BOTTOMS TO PROSPECT	2.88	\$62,300,000	15	\$179,431,930
12TH STREET EAST (MAIN TO PROSPECT)	1.71	\$62,600,000	15	\$107,012,157
12TH STREET WEST (WEST BOTTOMS TO MAIN)	1.17	\$60,700,000	15	\$71,053,362
18TH STREET	1.71	\$60,100,000	15	\$102,848,691
SOUTHWEST BOULEVARD	1.82	\$64,900,000	15	\$118,071,909
SOUTHWEST / 18TH STREET	3.53	\$65,700,000	15	\$232,032,907
MAIN STREET	3.45	\$66,600,000	10	\$229,662,126
31ST STREET TO PROSPECT VIA GILLHAM/PERSHING	2.55	\$60,100,000	15	\$153,370,855
31ST STREET TO PROSPECT VIA MAIN	1.74	\$60,100,000	15	\$104,653,054
31ST STREET TO VA HOSPITAL VIA GILLHAM/PERSHING	3.9	\$60,100,000	15	\$234,567,190
31ST STREET TO VA HOSPITAL VIA MAIN	3.09	\$60,100,000	15	\$185,849,389
LINWOOD BOULEVARD TO PROSPECT VIA GILLHAM/PERSHING	2.7	\$60,100,000	15	\$162,392,670
LINWOOD BOULEVARD TO PROSPECT VIA MAIN	1.75	\$60,100,000	15	\$105,254,508
LINWOOD BOULEVARD TO VA HOSPITAL VIA GILLHAM/PERSHING	4.05	\$60,100,000	15	\$243,589,005
LINWOOD BOULEVARD TO VA HOSPITAL VIA MAIN	3.1	\$60,100,000	15	\$186,450,844
COUNTRY CLUB RIGHT OF WAY ON-STREET	6.32	\$54,300,000	20	\$343,214,368
COUNTRY CLUB RIGHT OF WAY OFF-STREET	6.35	\$26,280,000	20	\$194,454,518
COUNTRY CLUB RIGHT OF WAY ON-STREET TO 75TH STREET	3.07	\$54,300,000	20	\$166,719,368
COUNTRY CLUB RIGHT OF WAY OFF-STREET TO 75TH STREET	3.14	\$27,200,000	20	\$99,831,530

Findings

The Order of Magnitude costs are shown in the Table 2.1. There are a few locations that engineering obstacles were found that could add significant costs to the project and were not able to accurately account for these costs without further engineering:

- 12th Street – East (Main to Prospect): There is a 13'-10" clearance on 12th Street under US-71. Vertical clearances less than 14' are not physically possible by the vehicle. The overpass would need to be raised (constructing a new bridge) or undercut (retaining the structure). Should this alignment move forward, a more detailed study of the low clearances will be required and cost identified.
- 12th Street – West Bottoms to Prospect: There is a 13'-10" clearance on 12th Street under US-71. Vertical clearances less than 14' are not physically possible by the vehicle. The overpass would need to be raised (constructing a new bridge) or undercut (retaining the structure). Should this alignment move forward, a more detailed study of the low clearances will be required and cost identified.
- Country Club Right of Way – Off-street: At this time it is not known whether a single-track or double-track corridor is more feasible in the Country Club Right-of-Way. For the Order of Magnitude Cost Summary, double-track was assumed. Single-tracking the corridor will not cut costs in half due to added infrastructure and design considerations, such as signaling and passing sidings, which will add costs that double-tracking does not require.
- Country Club Right of Way – Off-street to 75th Street: At this time it is not known whether a single-track or double-track corridor is more feasible in the Country Club Right-of-Way. For the Order of Magnitude Cost Summary, double-track was assumed. Single-tracking the corridor will not cut costs in half due to added infrastructure and design considerations, such as signaling and passing sidings, which will add costs that double-tracking does not require. Also, with the corridor not being located within a street there is a need for further analysis of at-grade highway crossings and how they may affect traffic operations and costs associated with this corridor.



3 FUNDING POTENTIAL

The project team, working in close coordination with City officials and community stakeholders, will develop a recommended financing plan that builds upon the success of the Downtown Kansas City Streetcar starter line. This plan will involve a mix of locally-derived, alternative funding sources, Federal, state and foundation grants and low-cost loans, tax credits, creative strategic collaborations, advertising sales and other new revenue.

Beginning with early discussions of the downtown starter line, the City has consistently stated its belief that in order to be viable under local conditions, the local component of the finance plan must be targeted. City planners and civic leaders generally accept the proposition that the starter line will provide both beneficial transit effects, and, just as importantly, a sense of permanence that will lead to significant investment and reinvestment in the vicinity of the streetcar system. The project team, as well as stakeholders and civic leaders, understand that early expansions of the streetcar system beyond the starter line will similarly need to be funded substantially by newly created local revenue. Finally, all parties acknowledge that aggressive efforts must be undertaken – at the appropriate time – to secure Federal, state and foundation financial participation, in order to support a significant portion of the capital and operating costs of the expanded streetcar system.

A detailed financial analysis of the various expansion routes is premature at this point in the study process. Preliminary analysis, however, indicates that no expansion route has the current proximate commercial density or economic activity sufficient to generate new local revenue to support payment of the capital and/or operating costs attributable to such a route at the same proportion that the Downtown TDD generates for the starter line. Therefore, any final proposed financing plan will need to include an even greater proportion of financial support from non-

local sources than was received for the starter line. Based on the experience of other similar systems in other cities – and Kansas City's recent award of a \$20 Million TIGER federal grant – the project team believes there is a reasonable basis to be cautiously optimistic that expansion routes that meet the appropriate criteria would receive favorable consideration for additional, substantial Federal financial assistance

There is an obvious need for substantial non-local funding, especially considering the City's preferred (and appropriately conservative) approach to financing models, that they not include any potential local revenue that might be generated by new development in the vicinity of an expansion route. Thus, it is the view of the project team that any differential in local revenue generation between expansion routes being studied is not material, with the exception perhaps of the potential expansion route from Crown Center south to or beyond UMKC. As such, none of the expansion routes being studied should be considered more favorably than any other on the basis of its ability to generate new local revenue to partially support the capital and operating costs of such an expansion route.

Finally, it is important to note that the project team also recognizes that any recommended financing plan for expansion routes must comport with certain provisions of an existing agreement among the City, the Kansas City Downtown Streetcar Transportation Development District and the Kansas City Streetcar Authority, Inc.



4 COMMUNITY SUPPORT

The eight corridors under study have had as diverse a response to the proposed streetcar as the corridors themselves. While there has been general support and limited pockets of opposition across the eight corridors, it is interesting to note the change in conversation from will we build the streetcar to how do we build the next streetcar.



INDEPENDENCE AVENUE

The Independence Avenue Corridor has a strong base of support for a streetcar expansion. Both the more recent young professionals who have begun to move in and reinvest in the area and the existing community understand and believe in the power of the streetcar to tip the scales of recent and ongoing economic development. While outreach has been extensive, the Old Northeast is the most diverse neighborhood in the City, and this great asset presented a unique challenge for the project team's outreach efforts. There is a large segment of the population that has historically been very difficult to engage due to cultural and language barriers, and these groups have been largely underrepresented in public meetings, but not due to a lack of trying. Efforts to reach out to audiences that do not traditionally attend meetings included door-to-door outreach, interviews on busses and at transit stations, attendance at community events and more. Overall, there has been a large turnout from stakeholders on Independence Avenue that is overwhelmingly supportive. There has been some opposition to the proposed streetcar, but no organized opposition has arisen either from a particular community or organization. Many businesses have also raised concerns about the potential negative impact of a future construction phase of the project.



12TH STREET WEST

The 12th Street West Corridor is generally supportive of a streetcar from Downtown to the West Bottoms. There has been a lot of change in the West Bottoms in the last few years due in large part to these same stakeholders who have been advocating for a mixed-use West Bottoms. While this gritty mix of industrial, residential, and commercial is ripe for a streetcar to continue this revitalization and connect this economic activity to Downtown, the stakeholders of this corridor feel there is not an immediate need for a streetcar to the West Bottoms. Instead, there is a general belief that there are higher priorities for the neighborhood. As the middle point between two downtowns, the West Bottoms showed interest in a larger study that incorporated Kansas City, Kansas through the West Bottoms to Downtown Kansas City, Missouri as opposed to being a termini in the West Bottoms. There were some questions about 12th Street being the best route to maximize impact in the West Bottoms as the viaduct lands in the middle of the District and would have at that point even more limited potential for stops and therefore new development before reaching Kansas. While the immediate need for a streetcar to the West Bottoms was not clear, these same stakeholders, and corridor's Advisory Committee members were very supportive of a citywide streetcar system.

18TH STREET

The 18th Street Corridor has a very specific pocket of support in the 18th & Vine Jazz District. This activity center has seen significant investment by the City over the past few decades, but still remains isolated from the rest of Downtown. The stakeholders of this area have been very supportive of the streetcar as a means to reconnect to the City. With the majority of the residential population, which is supportive, at the far west of the corridor, there has been a much more aggressive discussion about a streetcar from Main Street to 18th & Vine and potentially farther east to Prospect, but more importantly support for a combined route with Southwest Boulevard.



12TH STREET EAST

The 12th Street East Corridor has received healthy support at a smaller scale compared to the other corridors. However, there are several community leaders that have stepped up and been ardent supporters of the streetcar and its transformative power to grow Downtown east along 12th Street, arguably the heart of the Central Business District. The East side of Kansas City has seen limited investment over the last several decades, and many of those communities along the corridor feel disconnected from the decision making in City Hall. While the Advisory Committee members on 12th Street East have been very active in this planning process, coordinating with other east side corridor stakeholders and 12th Street West stakeholders, outside of the organizations they represent there is virtually no organized support. Community outreach on this corridor has been extensive, and the average person has been generally positive about the idea of a streetcar on 12th street while raising the same questions about financing, cost and compatibility with bus service like stakeholders on other corridors.



SOUTHWEST BOULEVARD

The Southwest Boulevard Corridor has significant support from its Advisory Committee members, and mixed levels of support from other stakeholder groups. Southwest Boulevard is characterized by the Hispanic community, but is in transition as the Crossroads District expands West. On the far west side of the corridor, light and medium industrial uses still thrive with access to the highway and railroads. These diverse stakeholder groups exhibit different levels of support. The eastern portion of Southwest Boulevard has already shown their support by voting to fund the Downtown Streetcar starter line, the Hispanic small business community is concerned about the tax burden for paying for a streetcar extension, and the industrial uses farther west see benefits for their workers mobility, but are concerned about conflicts with their transportation logistics. While the community leaders of the corridor saw the potential of a streetcar strengthening their neighborhoods through changes in use, reinvestment and greater residential densities, the average small business owner and stakeholder was ambivalent. With that said, this community is historically difficult to reach out to both because of the language barrier and persistent reticence to attend a community meeting. However, the Southwest Boulevard corridor Workshop was one of the best attended with 47 people.



31ST STREET/LINWOOD BOULEVARD

The 31st Street/Linwood Boulevard Corridor has received minimal support and no opposition to a streetcar expansion. As a corridor with high transit dependence and even higher economic development impact potential (underutilized and vacant parcels, but limited existing activity), the leaders of the community see great benefits from such a large infrastructure investment. However, many of the corridor stakeholders are lukewarm about the expansion with limited awareness of the project or belief that it will move forward to implementation. While the corridor workshops had a lower attendance than other community meetings, it had one of the more vibrant and in-depth discussions about the power of the streetcar to transform the neighborhood.



MAIN STREET

The Main Street Corridor has shown a general acceptance that their route is a logical and most practical next extension of the Downtown Streetcar starter line. For this reason, the support for Main Street has been less energetic than other corridors that perhaps see a need to be strong advocates to ensure their corridor advances in this planning process. This is evident in no letters of support being filed with the project team, average attendance at their corridor workshops, but also no organized opposition. In fact, most of the stakeholders on other corridors recognized the prudence of the Main Street Corridor moving forward and some discussion has focused on who will advance with Main Street. Most of the discussions on this corridor have focused not on whether the corridor will advance to detailed analysis, but when it will occur and how it will look and operate. Many of the advanced engineering and design questions that have come from the Main Street Corridor are decisions that will be made in future project phases, but illustrate the stakeholders anticipation of future conversations. The University of Missouri Kansas City (formerly known as the "Streetcar University") has been a strong supporter as they see great benefits in connecting their students to Downtown and the rest of the City via streetcar.

COUNTRY CLUB RIGHT OF WAY

The Country Club Right of Way Corridor (CCROW) has seen some of the most pro-active support of any other corridor being studied. A true grassroots advocacy for the project has emerged with the support of other transit advocacy groups and community leaders. Similar to Independence Avenue, the CCROW Corridor has high levels of support and an equally high level of opposition from certain individuals. The Corridor has multiple letters of support, some of which are from organizations that are south of the corridor that may see no immediate impact, but recognize the potential for rail-based transit in their communities in the future. The Corridor is characterized by a range of support where support increases as one goes further south. The northern most neighborhoods, many of which have existing development pressure from the Country Club Plaza, see limited value and a high cost for a streetcar expansion. Moving to Brookside, there is no opposition, but real concern about a streetcar's impact on businesses and their parking supply. Farther south in Waldo and Marlborough, there is strong support for a streetcar to not only connect them to Downtown, but to transform the neighborhoods and attract new development and reinvestment. Across the entire Corridor, all stakeholders do not want to see the removal of the Trolley Track Trail and virtually all support is contingent on the trail staying as well as all safety and aesthetic issues addressed to their satisfaction.



ANALYSIS

Impacts

5 CITYWIDE GOALS

Community support across the 8 corridors under study has been synthesized to provide a broad overview of the input and sentiment collected during the initial analysis. Additional information about each corridor and the public workshops in Appendix 5.



INDEPENDENCE AVENUE

The Northeast neighborhood was Kansas City's first suburb. Today it is the most ethnically diverse community in the region. Walking down Independence Avenue, one is transported through Mexico, Somalia, Vietnam, Ethiopia and the Middle East. A streetcar on Independence Avenue would connect the old Northeast to Downtown, and enhance its cultural amenities by showcasing and bringing together its diversity.

A streetcar expansion on Independence Avenue is an important physical and symbolic connection. As a community in constant flux and changes in composition that has seen a recent surge of young professionals moving out of Downtown Kansas City, there is a diversity of uses and commercial activity along Independence Avenue ("We are not a food desert"). However, there are still vacancies in storefronts, vacant lots, and abandoned homes. To the west are strong institutional anchors like the River Market and the Kansas City University of Medicine and Biosciences. To the east are large industrial tracts around the Blue River, big box developments adjacent to the Kansas City Terminal Railway and a proposal for an international food distributor at Hardesty.

Moving from west to east there are historic neighborhoods that the community wants to preserve, the international community that would benefit from a stronger connection to Downtown by a significant public investment, and the larger commercial and industrial areas that need to be revitalized. Overall, there is a desire to support small business growth and protect the affordability and diversity of the community while encouraging new growth and economic development.



12TH STREET WEST

The neighborhoods located west of the Downtown Streetcar starter line represent a tale of two communities: one at the top of the bluff and one at the bottom. While the east part of the corridor includes Downtown's densest residential neighborhood on Quality Hill, the West Bottoms still has very few residents. The West Bottoms has seen a surge of mixed-use activity and a growing residential population evolve among its traditional industrial uses. It is the gritty mix of historic industrial building stock, artisans, and eclectic retail that makes the area so attractive to new residents and businesses and exciting for visitors.

A streetcar to the West Bottoms would accelerate and unlock the potential of the changing neighborhood by increasing demand, but without a clear future either to Kemper Arena and/or to Kansas City, KS, there is some hesitation among stakeholders about the need for a streetcar right now in the West Bottoms with so many other infrastructure priorities.

The bluffs, highways, and railroads all pose significant physical barriers to connecting Downtown to the West Bottoms, which the streetcar could help to overcome. At only two miles, the concept of a streetcar line from the West Bottoms to an end point on 12th Street East are all reasonable ideas, but the immediate need for such a significant investment depends on the current and future stakeholders' vision of what the West Bottoms should become.





12TH STREET EAST

The east side of Kansas City was once an integral part of Downtown Kansas City and the region during the height of streetcars. In the early 20th century, Kansas City was a predominantly east-west City and 12th Street was a key connection between Kansas City and Independence. Located only 2 minutes by car from the center of Downtown Kansas City, 12th Street East is physically and psychologically separated from Downtown by US 71 and decades of disinvestment.

A streetcar on 12th Street would grow Downtown and connect destinations from the Convention District to the Historic 12th and Vine Jazz District. In between, this enhanced connection to Downtown would encourage new development, jump start the East Village project, serve the City's government district, and link an acutely transit-dependent community to economic opportunity. Currently most bus lines in the City travel north-south, and these lines are ready to act as feeder lines to a new streetcar on this and other east-west corridors under study.

12th Street East has also initiated the concept of a streetcar loop that would connect 12th Street to 18th Street and then tie back into Downtown. While this fits with the vision of growing Downtown eastward, another alternative of connecting the West Bottoms to the East side has also emerged for consideration.

18TH STREET

When people think of 18th Street they think of 18th and Vine, the historic center of the City's Jazz and African-American business community. The 18th and Vine Jazz District represents a significant public investment that to this day remains disconnected from the rest of Downtown.

A streetcar on 18th Street would reconnect this isolated but significant district to the Crossroads Arts District and grow Downtown to the east. With a gap of vacant, industrial and institutional uses, as well as the physical barrier of US 71, a streetcar could revitalize the in-betweens of the corridor's two primary activity centers.

With a low population density and a high transit dependent population, a streetcar will attract new residents, businesses and activity, jump starting reinvestment in the area while providing a much needed east-west transit service that could seamlessly link into the existing north-south bus routes, including the Troost MAX and new Prospect MAX service.

With multiple major visitor destinations, the 18th Street community recognizes the benefit of connecting the 18th and Vine District and additional employment and educational resources (MCC's Pioneer Campus and Lincoln College Preparatory High School) farther east to Southwest Boulevard to the west as a strong incentive for visitor and tourist traffic.





SOUTHWEST BOULEVARD

Considered the heart of the Hispanic community in Kansas City, Southwest Boulevard has become an increasingly more diverse neighborhood with recent reinvestment the Westside and the expansion of the Crossroads Arts District. The streetcar is seen as an important economic development tool that will connect the Westside and overcome many of the physical and psychological barriers that currently isolate the corridor. With its proximity to both Downtown and the West Bottoms, a streetcar to the Westside could change perceptions of the corridor and connect residents, employees, and visitors Downtown to Southwest Boulevard's many offerings.

There are significant development opportunities on Southwest Boulevard closer to State Line that would increase the residential density of the corridor and better connect the north and south halves of the Westside while maintaining the unique mix of light industrial, residential and local & ethnic businesses.

Many small businesses are concerned about a potential tax to fund a streetcar expansion, but understand the potential benefits of connecting to the starter line and further to 18th & Vine to the east and KU Medical Center to the west. With virtually no transit service along the corridor, linking these major activity centers with a streetcar could create a new transportation link and a stronger commercial corridor. Overall, there is a desire to support small business growth and protect the affordability and diversity of the community while encouraging new growth and economic development.

MAIN STREET

As the continuation of the Downtown Streetcar starter line, a majority of stakeholders both on Main Street and across the City see this corridor as the most logical and reasonable extension. Continuing south on Main Street, the corridor connects many of the City's key cultural attractions (Nelson-Atkins Art Museum and Kemper Modern Art Museum), links its two primary employment centers (Downtown and the Country Club Plaza), and would operate on the region's primary commercial corridor.

Extending the current terminus at Union Station to 51st and Brookside Boulevard would connect the City's major educational institutions (University of Missouri Kansas City and Rockhurst University) to the entire City and draw the campuses to Downtown. A streetcar expansion would encourage infill development and revitalization of commercial and residential properties adjacent to the corridor.

While the corridor has seen recent development that is more automobile-oriented, a new streetcar would strengthen the demand for higher densities, a broader mix of uses and building on recent streetscape improvements an even more vibrant pedestrian experience. Instead of a pass through from Downtown to south Kansas City, a streetcar will make Main Street itself a destination and a spine for future streetcar expansions.

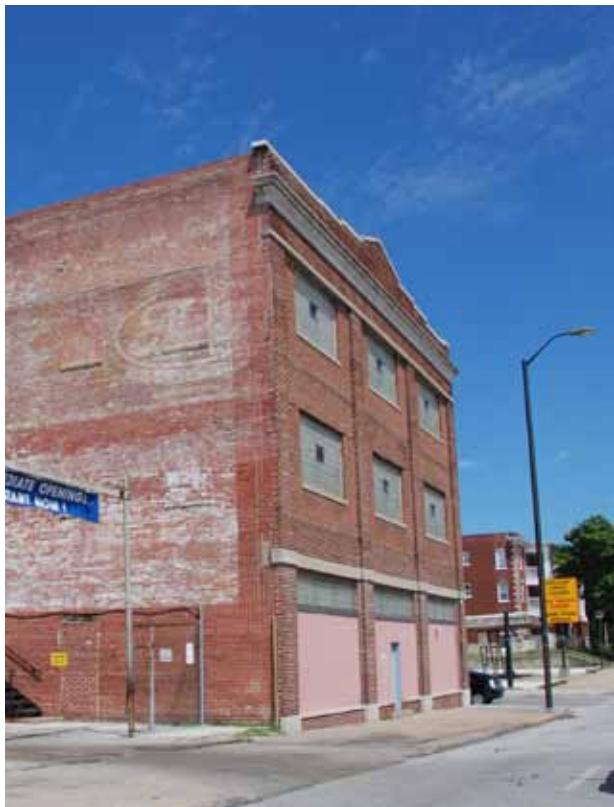


31ST STREET/LINWOOD BOULEVARD

Even though 31st Street and Linwood Boulevard are only a block apart from each other, the character of each route is dramatically different. 31st Street is a more intimate commercial corridor that becomes increasingly more vacant east of US 71. While there is significant commercial activity at the western end of Linwood Boulevard, this route is much more residential in nature with a broader, more automobile-oriented experience with the occasional commercial node.

A streetcar on either street would move east-west across every major north-south bus route creating terrific linkages across the City. A streetcar on 31st Street could catalyze recent redevelopments at Union Hill, Martini Corner, and Troost and farther east serve a significant residential population.

A streetcar on this corridor would connect major employment areas (Midtown and the VA Medical Center) at the ends of the corridor to a significant and heavily transit-dependent community in the core. A potential route alternative that connects Children's Mercy, Truman Medical Center, and Crown Center along Gillham to 31st Street or Linwood would also connect another major employer into this corridor. A streetcar on 31st/Linwood has the potential to generate significant in-fill development on parcels zoned for high-density residential uses.



COUNTRY CLUB RIGHT OF WAY

The Country Club right-of-way (CCROW), formerly the Dodson Industrial line, was the last streetcar route in service in Kansas City. The ROW has been preserved with the intent of reusing it for transit service since it was purchased by the KCATA. It is the site of one of the Nation's first rails to trails program and the Harry Wiggins Trolley Trail currently functions as a linear park connecting the entire community. Many of the vibrant communities that thrive to this day were originally streetcar suburbs of the JC Nichols Company's Country Club District.

A streetcar on the CCROW would connect the City's most stable and consistently dense residential neighborhoods to its two largest employment Centers (Country Club Plaza and Downtown), predicated on the extension of the streetcar on the Main Street corridor first. While there is limited development opportunities on the corridor until south of Gregory Boulevard, development pressure brought on by the streetcar could force previously unforeseen solutions to the parking and build-out challenges of Brookside.

In Waldo and farther south in the Marlborough community, there is significant opportunity for the revitalization of existing underutilized parcels and the infill of vacant parcels. Wornall Road south of 75th Street becomes primarily automobile-oriented with some light industrial uses and dead-end streets cut off by the ROW. The community sees a dramatic potential to transform this portion of its commercial corridor to more pedestrian-friendly uses as it becomes a hybrid trail-oriented and transit-oriented district. While concerns persist around financing of the line, a streetcar along the CCROW could extend the corridor's stability farther south, encourage reinvestment, and stand ready for further expansion south to the Bannister Mall site and other regional economic development opportunities, which is located near the proposed terminus at 85th and Prospect.





6 ECONOMIC DEVELOPMENT AND NEIGHBORHOOD REVITALIZATION

During the past decade, there has been a resurging interest in modern streetcar systems. This revival has been driven by two primary factors. First, streetcar construction costs are comparatively lower than other forms of rail transit (i.e. light or commuter rail). Second, streetcars are relatively easy to integrate into the existing urban fabric. Additionally, streetcars have been credited with delivering economic benefits to cities.

ECONOMIC BENEFITS DUE TO STREETCAR

Based on research related to streetcars and transit-oriented development, a well-maintained and functioning transit system may help achieve the following economic benefits:

- Time savings for transit users and reduced transportation and business costs;
- An annual savings of \$9,515 on average, and up to \$793 per month, to users of public transportation;
- Greater development density that improves the environmental footprint of the urban area and can create more robust business environments;
- Greater demand for commercial floor-space and correspondingly higher commercial property values;
- Higher residential property values due to the locational and environmental benefits of transit-oriented development;
- Improved access to labor with more diverse skills, which can lead to increases in business productivity;
- Easy access to key destinations and attractions, which can support the local tourism industry;
- Reduced local expenditures on foreign-produced fuel and increased expenditures on locally produced goods; and
- A city population that is healthier, walks more, and has fewer health problems.

Experience of Other Streetcar Cities

Of these benefits, many cities find the economic development potential of a streetcar particularly compelling. Portland, Oregon is lauded as the preeminent streetcar success story because its system has contributed more to those communities than simply providing a new mobility option.

In Portland, studies¹ estimate that between 1997 and 2004, the blocks adjacent to the streetcar attracted more square feet of development and at denser levels than had been attracted to the same locations before the streetcar. Within two blocks of the alignment, 5.4 million square feet of office, institutional, retail, and hotel construction have been developed. In addition, 55 percent of all central business district development since 1997 has occurred within 1-block of a streetcar, and properties located closest to the streetcar line more closely approach the zoned density potential than properties situated farther away.

Streetcars were quite common a hundred years ago, but the resurgence in this mode is relatively new. As a result, systematic research linking streetcar investment to economic development is relatively limited. One study did find significant property value increases related to the Tampa, Seattle, and Portland streetcar investments, and communities across the country offer a considerable amount of anecdotal evidence that streetcars and other fixed-rail modes help spur economic development.



¹ "Portland Streetcar Development Oriented Transit" by The Office of Transportation and Portland Streetcar, Inc., April 2008



Factors Making Streetcar Investment a Unique Economic Development Tool

When streetcar investment is part of a larger effort to encourage economic development, indications are that it can promote that development. Additionally, several important points do seem to be validated by widespread evidence.

First, streetcars run on fixed guideway systems built into the existing roadways. This suggests permanence, which is reassuring to developers. As a result, the fixed routes of streetcar systems induce or at least encourage more extensive and intensive development. A fixed guideway system is also visible - potential riders can physically view where the streetcar is headed. This is reassuring to potential riders who may be visiting or otherwise unfamiliar with the route details.

Second, streetcars offer a powerful connection between vacant and underutilized districts that are located near the downtown but not easily walkable. When streetcar systems were built in Tampa, Portland, and Seattle, underutilized properties that were just far enough away to not be walkable to downtown were then viewed as potential redevelopment areas for developers who wanted to connect existing districts and create new ones. Despite the actual distance between these districts remaining unchanged, the perception of distance changed. Many places along the streetcar lines became connected, and each district seemed less distant than before. The value of the streetcar is its ability to connect districts that might not otherwise feel connected.

Third, streetcar systems that link major activity centers (i.e. employment, shopping, and recreation) generally experience higher levels of ridership. For example, Memphis streetcar ridership has grown significantly since the mid-1990s, when the system had approximately 500,000 riders annually on its Main Street line. In 1997, the Riverfront Loop was added, enabling riders to visit the Tennessee Welcome Center, the grounds of the Pyramid Arena, and Mud Island Riverpark, among other attractions. After the Riverfront Loop was built, annual ridership increased to more than 900,000.

Fourth, the “newness” of a streetcar itself may be appealing to some developers and potential riders. Unlike bus rapid bus transit (BRT) systems, for example, streetcars are typically introduced as an entirely new mode. Most BRT systems replace an on-street bus system with vehicles that are also buses. The “newness” of a streetcar has been cited as an important factor to induce transit-oriented development, where a significant change from existing obsolete land uses is required.

While streetcar systems have been associated with increased economic development and property value increases, the magnitude of this development varies from system to system. In a recent study, the property value premium in the vicinity of fixed guideway systems in Philadelphia, Boston, Portland, San Diego, Chicago, Dallas, and Santa Clara County ranged from 6.4 percent to more than 40 percent. Since December 2007, when the Seattle streetcar started operating, the value increases in Seattle along the line for all properties ranged between 50 percent and 85 percent (Seattle City Council 2009). Anecdotally, real estate development professionals in Kansas City are already witnessing an increase in the prices they can obtain for properties located along the alignment for the Downtown Kansas City Streetcar starter line.

Despite the variation in economic development and property value premiums, streetcars do appear to concentrate economic development. If a municipality is attempting to redevelop certain neighborhoods, a streetcar may help focus development in that area of the city. When asked, businesses often suggest that the existence of a streetcar is a selling point when considering expansion. The connectivity to the urban core is important to businesses, even when they are located on the periphery of a historic downtown.

Based on the experience of other cities with streetcar systems, the fixed rail aspect of a streetcar stimulates economic development along its line and in its vicinity. Although it is not certain exactly how much development will occur near a new streetcar system, the experiences of other cities provides strong evidence that economic development can be substantial.

NextRail KC Potential Impact on Economic Development

The NextRail KC project team studied eight proposed extensions of the Downtown Kansas City Streetcar starter line. This section outlines the results of the economic development and neighborhood revitalization screening criteria utilized in this analysis. Table 6.1 summarizes the results of each screening criteria for all of the alternatives under study. It is important to note that these rankings are based on relative scores, not absolute measures. Each quantitative measure is evaluated as either low, medium-low, medium, medium-high, or high with varying definitions based on the particular screening criteria. Detail related to the categories of economic development impacts evaluated and their specific screening criteria are provided in the following section, but Table 6.1 offers a summary of the team's findings.

Economic Development and Neighborhood Revitalization Criteria

Economic Development and Neighborhood Revitalization looked at six criteria: development capacity, induced development potential, local/national developer interest, property value and occupancy impacts, supportive land use policy and plans, and historic buildings.

These criteria evaluated each corridor using quantitative data and qualitative methods to compare and contrast the corridors with one another. Based on these analyses and results, a rating of low, medium-low, medium, medium-high, or high was given to each of the alignments. As explained in the previous section, these ratings are based on relative scores, not absolute measures.

TABLE 6.1 ECONOMIC DEVELOPMENT EVALUATION

CORRIDOR	DEVELOPMENT CAPACITY	INDUCED DEVELOPMENT POTENTIAL	DEVELOPER INTEREST	PROPERTY VALUE IMPACTS	OCCUPANCY IMPACTS
INDEPENDENCE AVENUE: TO BENTON	MEDIUM-LOW	MEDIUM	MEDIUM	MEDIUM-HIGH	MEDIUM
INDEPENDENCE AVENUE: TO HARDESTY	MEDIUM	MEDIUM	MEDIUM	MEDIUM-HIGH	MEDIUM
12TH STREET WEST: WEST BOTTOMS TO MAIN	LOW	MEDIUM-LOW	MEDIUM-HIGH	MEDIUM	MEDIUM-HIGH
12TH STREET EAST: MAIN TO PROSPECT	MEDIUM-LOW	MEDIUM	MEDIUM	MEDIUM-HIGH	MEDIUM-HIGH
12TH STREET COMBINED: WEST BOTTOMS TO PROSPECT	MEDIUM-LOW	MEDIUM	MEDIUM-HIGH	HIGH	MEDIUM-HIGH
18TH STREET: TO PROSPECT	MEDIUM-LOW	MEDIUM-LOW	MEDIUM	MEDIUM-HIGH	MEDIUM-LOW
SOUTHWEST BOULEVARD: TO STATE LINE	MEDIUM-LOW	MEDIUM	LOW	MEDIUM-HIGH	MEDIUM
18TH STREET--SOUTHWEST BOULEVARD: SUMMIT TO PROSPECT	MEDIUM-LOW	MEDIUM	LOW	MEDIUM	MEDIUM
MAIN STREET: TO 51ST ST	MEDIUM	MEDIUM-HIGH	MEDIUM-HIGH	LOW	MEDIUM-HIGH
31ST STREET: TO PROSPECT VIA MAIN	MEDIUM	MEDIUM-HIGH	MEDIUM	MEDIUM-HIGH	HIGH
31ST STREET: TO VA HOSPITAL VIA MAIN	MEDIUM-HIGH	HIGH	MEDIUM	MEDIUM-HIGH	HIGH
31ST STREET: TO PROSPECT VIA GILLHAM	MEDIUM	MEDIUM-HIGH	MEDIUM	MEDIUM-HIGH	HIGH
31ST STREET: TO VA HOSPITAL VIA GILLHAM	HIGH	HIGH	MEDIUM	MEDIUM-HIGH	HIGH
COUNTRY CLUB R.O.W.: TO 75TH ST	LOW	LOW	MEDIUM	LOW	MEDIUM-LOW
COUNTRY CLUB R.O.W.: TO 85TH AND PROSPECT	MEDIUM	MEDIUM-LOW	MEDIUM	LOW	MEDIUM-LOW



DEVELOPMENT CAPACITY

Development capacity is a measure that looks at the total amount of space available for new development or redevelopment in each corridor. While new development is generally well-defined, redevelopment refers to the potential for infill or improving properties that are already in existence. Areas with more vacant or underutilized space will score higher than areas that do not have high vacancies. This is because this measure considers the physical space that is available for development. An area that is already densely developed will have less overall capacity than an area that has open space or room for redevelopment.

Methodology

Short-term and long-term economic development capacity was evaluated for each corridor using the assessor data for parcels within $\frac{1}{4}$ mile of each proposed alignment as a starting point. This data gives a basic overview of the amount of completely vacant space as well as the existing mix of uses. The assessor data is supplemented with City water use data, Census data, employment market data, existing and planned development density/zoning information, existing and proposed land use in the area, and input from local development experts.

The amount of land available in each study area is based on vacant land by use type, as well as underutilized parcels based on vacancy rates and City water use data while also considering currently planned projects. For development purposes, surface parking lots are considered as developable space. The total capacity estimate builds on current parcels using existing average building heights and planned zoning for each area. The full development capacity is simply the amount of space available, and does not speak to the likelihood of this space actually being developed. Parcels that are in the Kansas City's Downtown Streetcar Transportation Development District (TDD) are excluded from the analysis unless they are closer to the new streetcar line under the proposed alternative. For example, parcels that are $\frac{1}{2}$ mile away from the starter line may be part of the TDD and are expected to experience some impacts related to their proximity to the new streetcar. However, parcels within $\frac{1}{8}$ mile of the alignment are likely to see greater benefits due to their proximity. Thus, parcels that are part of the TDD but are made better off by increasing their proximity to the proposed extension are included in the analysis. While these parcels are included in the analysis, they are weighted less heavily than parcels that are not

impacted by the starter line to avoid double counting. It is assumed that all parcels in the TDD are receiving some economic benefit from the starter line.

The rating scale was based on the total amount of square footage that would be available for development in each corridor, with priority given to higher availability within $\frac{1}{8}$ mile of the alignment than between $\frac{1}{8}$ and $\frac{1}{4}$ mile. To indicate this priority, vacant property within $\frac{1}{8}$ mile but not part of the starter line TDD was multiplied by two, underutilized property within $\frac{1}{8}$ mile but not part of the starter line TDD was multiplied by 1.5, and vacant and underutilized property between $\frac{1}{8}$ and $\frac{1}{4}$ mile but not part of the starter line TDD were multiplied by one. Vacant parcels that were more than $\frac{1}{4}$ mile from the starter line but are within $\frac{1}{8}$ mile of the proposed extension are weighted by 0.5 and underutilized in the same distance by 0.25; vacant parcels now within $\frac{1}{4}$ mile are weighted by 0.25 and underutilized in this area by 0.125. These values were then summed and divided by 6.65 to determine the weighted development capacity. It should be noted that the actual development capacity in each area is higher than the value in the weighting; the weights are intended to indicate the relative importance of capacity closer to the proposed alignment. The lower weights on the properties that are part of the starter line TDD reflect the presence of the starter line reducing the available development capacity. Table 6.2A shows the general ranking criteria.

TABLE 6.2A DEVELOPMENT CAPACITY CATEGORIES

RATING	DEVELOPMENT CAPACITY
LOW	Less than 1 million square feet
MEDIUM-LOW	1 to 2 million square feet
MEDIUM	2 to 4 million square feet
MEDIUM-HIGH	4 to 5 million square feet
HIGH	More than 5 million square feet

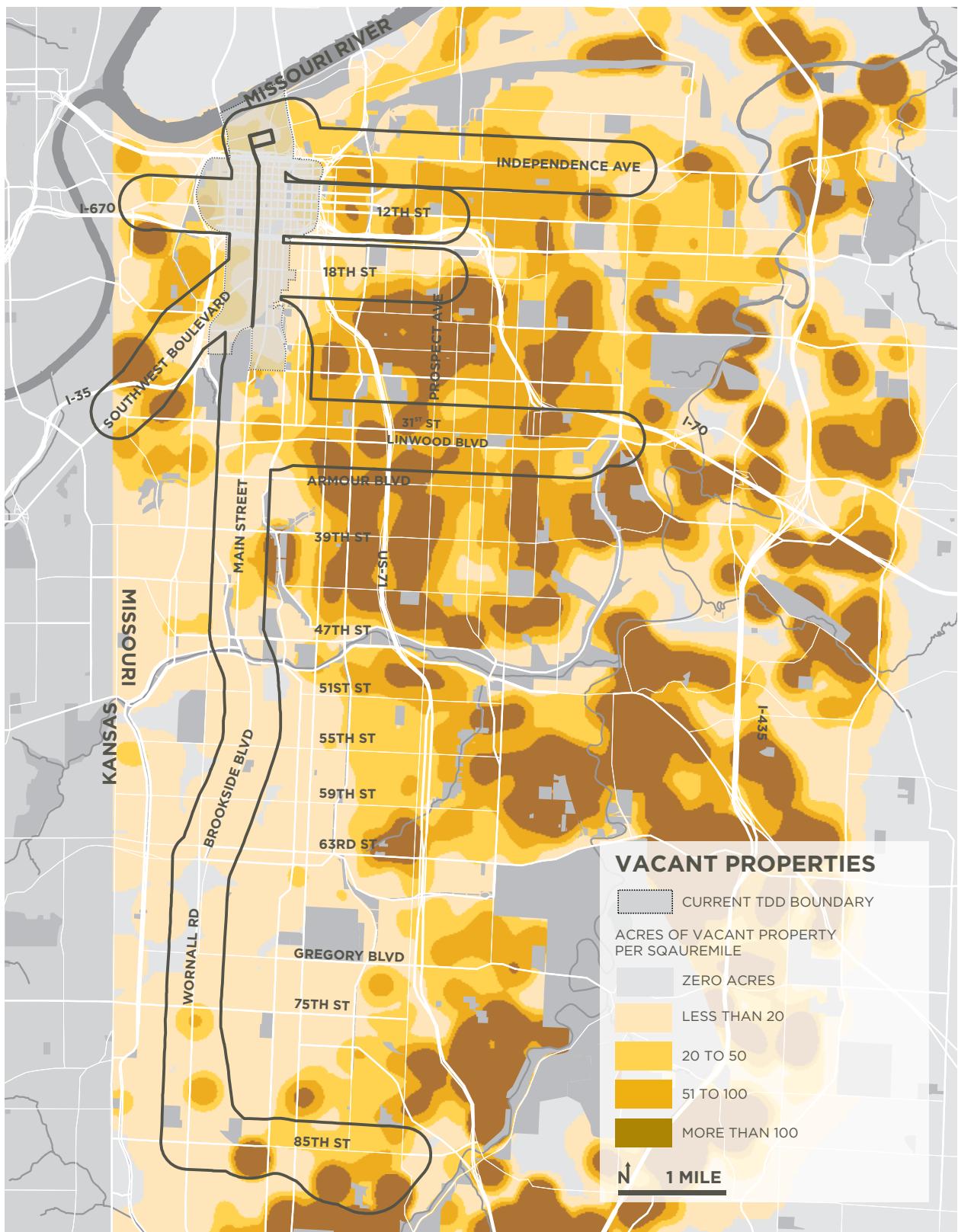


FIGURE 6.2 CONCENTRATION OF VACANT PROPERTIES IN STREETCAR CORRIDORS
 (NOTE: DEVELOPMENT CAPACITY MEASURE ASSESSES AGGREGATE CAPACITY, NOT AVERAGE CAPACITY)

Findings

Overall, every corridor had vacant space available for development. Within $\frac{1}{2}$ mile of the proposed alignments, vacant space ranged from 6 to 20 percent of the total land, ranging from one million to 14 million square feet of capacity within $\frac{1}{8}$ mile and 500,000 to 11 million square feet between $\frac{1}{8}$ and $\frac{1}{4}$ mile. The analysis also examined underutilized buildings, which ranged from less than one percent to 13 percent of building square feet, or 20,000 to two million square feet. Table 6.2B summarizes the overall findings for development capacity.

The corridors that scored better, such as 31st/Linwood to the VA Hospital had large amounts of both land classified as vacant, surface parking lots, and buildings that are currently underutilized. They also encompass longer lengths than some of the other corridors. The only corridors that scored "low" are 12th Street from West Bottoms to Main and the shortened Country Club Right of Way to 75th Street. The 12th Street extension scored low because the majority of the available land is within the starter line TDD or along the viaduct, limiting economic development potential. It is also the shortest route, limiting the total development capacity. The shorter Country Club lines scored low due to lack of both vacant and underutilized land.

TABLE 6.2B DEVELOPMENT CAPACITY RATINGS

CORRIDOR	DEVELOPMENT CAPACITY
INDEPENDENCE AVENUE: TO BENTON	MEDIUM-LOW
INDEPENDENCE AVENUE: TO HARDESTY	MEDIUM
12TH STREET WEST: WEST BOTTOMS TO MAIN	LOW
12TH STREET EAST: MAIN TO PROSPECT	MEDIUM-LOW
12TH STREET COMBINED: WEST BOTTOMS TO PROSPECT	MEDIUM-LOW
18TH STREET: TO PROSPECT	MEDIUM-LOW
SOUTHWEST BOULEVARD: TO STATE LINE	MEDIUM-LOW
18TH STREET--SOUTHWEST BOULEVARD: SUMMIT TO PROSPECT	MEDIUM-LOW
MAIN STREET: TO 51ST STREET	MEDIUM
31ST STREET/LINWOOD BOULEVARD: TO PROSPECT VIA MAIN	MEDIUM
31ST STREET/LINWOOD BOULEVARD: TO VA HOSPITAL VIA MAIN	MEDIUM-HIGH
31ST STREET/LINWOOD BOULEVARD: TO PROSPECT VIA GILLHAM	MEDIUM
31ST STREET/LINWOOD BOULEVARD: TO VA HOSPITAL VIA GILLHAM	HIGH
COUNTRY CLUB R.O.W.: TO 75TH STREET	LOW
COUNTRY CLUB R.O.W.: TO 85TH AND PROSPECT	MEDIUM



TRANSIT-INDUCED DEVELOPMENT POTENTIAL

While development capacity examines the total amount of space that could be built out in any of the corridors, induced development potential examines the likelihood of development occurring in each area due to the presence of the streetcar. This criterion includes some components of development readiness - is there development going on and are there supportive measures in place, are there existing plans to build in these areas, etc. The factors described in the introduction to this chapter are reflected in the assessments of the extensions from the perspective of induced development potential.

Methodology

The induced development potential is based on a combination of two measures: the first measure considers the amount of underutilized space within each corridor, its share of overall land, policies, and zoning that support development. As with development capacity, characteristics indicating readiness within $\frac{1}{8}$ mile of the alignment are rated more highly than that between $\frac{1}{8}$ and $\frac{1}{4}$ mile. So, if a corridor has land that is ready for development but it is close to $\frac{1}{4}$ mile from the alignment rather than on the same block of the alignment, the streetcar is less likely to have an influence in encouraging development in that particular area. The induced development potential also only looks at parcels where the proximity to the actual streetcar is improved over what it was with just the starter line. The rankings for this criteria are generated based on a combination of the current share of underutilized and vacant land, weighted to favor greater land availability in closer proximity to the corridor, and the development capacity discussed previously. The share of square footage ranges from one percent to 12 percent. Table 6.3A outlines how the rankings are categorized.



Findings

None of the corridors show particular issue with respect to streetcar-related development occurring. The corridors along 31st/Linwood show the most promise, as well as the combined 12th Street from West Bottoms to Prospect. Overall results for all corridors are shown in Table 6.3B.

TABLE 6.3B TRANSIT-INDUCED DEVELOPMENT POTENTIAL FINDINGS

CORRIDOR	INDUCED DEVELOPMENT POTENTIAL
INDEPENDENCE AVENUE: TO BENTON	MEDIUM
INDEPENDENCE AVENUE: TO HARDESTY	MEDIUM
12TH STREET WEST: WEST BOTTOMS TO MAIN	MEDIUM-LOW
12TH STREET EAST: MAIN TO PROSPECT	MEDIUM
12TH STREET COMBINED: WEST BOTTOMS TO PROSPECT	MEDIUM
18TH STREET: TO PROSPECT	MEDIUM-LOW
SOUTHWEST BOULEVARD: TO STATE LINE	MEDIUM
18TH STREET--SOUTHWEST BOULEVARD: SUMMIT TO PROSPECT	MEDIUM
MAIN STREET: TO 51ST STREET	MEDIUM-HIGH
31ST STREET/LINWOOD BOULEVARD: TO PROSPECT VIA MAIN	MEDIUM-HIGH
31ST STREET/LINWOOD BOULEVARD: TO VA HOSPITAL VIA MAIN	HIGH
31ST STREET/LINWOOD BOULEVARD: TO PROSPECT VIA GILLHAM	MEDIUM-HIGH
31ST STREET/LINWOOD BOULEVARD: TO VA HOSPITAL VIA GILLHAM	HIGH
COUNTRY CLUB R.O.W.: TO 75TH STREET	LOW
COUNTRY CLUB R.O.W.: TO 85TH AND PROSPECT	MEDIUM-LOW



READINESS FOR DEVELOPMENT

The project team heard from the Advisory Committee and other community members that they felt that some corridors were more ready for development than others. While the “transit-induced development potential” rating assesses the likelihood that a property will redevelop given its proximity to the actual streetcar alignment, the project team wished to accommodate the intuition of the Advisory Committee and others that some corridors had already been primed for development by recent development. This measure accounts for 50% of the “transit-induced development potential” rating reported in the score sheet and corridor summaries.

Methodology

In order to assess a corridor’s readiness for development, the project team measured the number of permits per mile of each corridor’s length. Readiness for development is understood as a matter of perception. Therefore, the number of permits is used rather than the total value of permits because this more closely reflects the number of people who are willing to make an investment in the corridor. The following categories were used to rate the corridors’ readiness for development:

RATING	READINESS FOR DEVELOPMENT
LOW	FEWER THAN 300 PERMITS PER MILE
MEDIUM-LOW	300 TO 500 PERMITS PER MILE
MEDIUM	500 TO 600 PERMITS PER MILE
MEDIUM-HIGH	600 TO 700 PERMITS PER MILE
HIGH	MORE THAN 700 PERMITS PER MILE

Findings

A map showing the relative value of these permits can be found in Figure 6.3, and the findings from this analysis are shown in Table 6.4. Main Street and shorter segments of 31st and Linwood show the most readiness for new development with the highest amounts of new construction since 2000.

TABLE 6.4 READINESS FOR DEVELOPMENT

CORRIDOR	READINESS FOR DEVELOPMENT
INDEPENDENCE TO BENTON	MEDIUM
INDEPENDENCE TO HARDESTY	MEDIUM-LOW
12TH STREET WEST WEST BOTTOMS TO MAIN	LOW
12TH STREET EAST MAIN TO PROSPECT	LOW
12TH STREET COMBINED WEST BOTTOMS TO PROSPECT	LOW
18TH STREET MAIN TO PROSPECT	MEDIUM-LOW
SOUTHWEST BOULEVARD MAIN TO STATE LINE	LOW
18TH AND SOUTHWEST BOULEVARD SUMMIT TO PROSPECT	MEDIUM-LOW
MAIN STREET TO 51ST STREET	HIGH
31ST STREET/LINWOOD BOULEVARD TO PROSPECT VIA MAIN	HIGH
31ST STREET/LINWOOD BOULEVARD TO VA HOSPITAL VIA MAIN	MEDIUM-HIGH
31ST STREET/LINWOOD BOULEVARD TO PROSPECT VIA GILLHAM	MEDIUM-HIGH
31ST STREET/LINWOOD BOULEVARD TO VA HOSPITAL VIA GILLHAM	MEDIUM-LOW
COUNTRY CLUB R.O.W. TO 75TH STREET	HIGH
COUNTRY CLUB R.O.W. TO 85TH STREET AND PROSPECT	MEDIUM-LOW

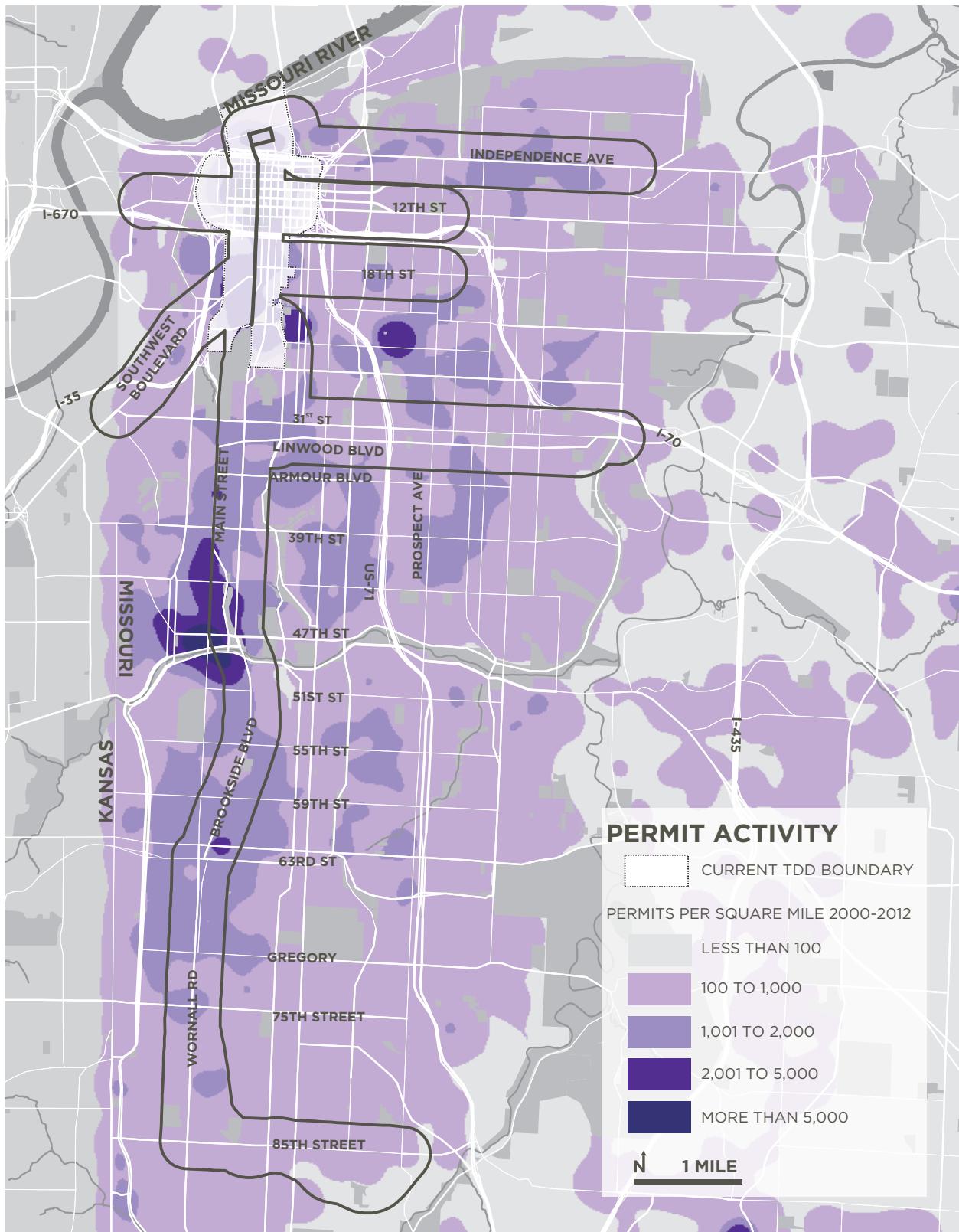


FIGURE 6.3 RECENT DEVELOPMENT ACTIVITY



LOCAL/NATIONAL DEVELOPER INTEREST

Through interviews and data information collection, the project team attempted to gauge the level of development interest expressed by real estate professionals.

Methodology

To better understand the level of interest for development in the real estate community, the team examined current trends and evaluated discussions held with local development experts. A qualitative assessment was completed for each of the corridors within the study area using the information provided by local experts. Discussions indicated a favoring of certain corridors for interest in development, even in the absence of the streetcar. The presence of the streetcar would serve to enhance this interest.

Findings

Discussions with local experts showed much greater interest in particular corridors, including the West Bottoms area, Main Street South, and the Country Club Right of Way, with the thought that the Country Club Right of Way would connect to the new employment centers in southern Kansas City. However, many of the most promising development opportunities (i.e. Cerner) in the Country Club Right of Way were located beyond the extent of the proposed study. Independence Avenue and 31st/Linwood were also frequently discussed. The overall results are shown in the table below.



TABLE 6.5 DEVELOPER INTEREST

CORRIDOR	DEVELOPER INTEREST
INDEPENDENCE AVENUE: TO BENTON	MEDIUM
INDEPENDENCE AVENUE: TO HARDESTY	MEDIUM
12TH STREET WEST: WEST BOTTOMS TO MAIN	MEDIUM-HIGH
12TH STREET EAST: MAIN TO PROSPECT	MEDIUM
12TH STREET COMBINED: WEST BOTTOMS TO PROSPECT	MEDIUM-HIGH
18TH STREET: TO PROSPECT	MEDIUM
SOUTHWEST BOULEVARD: TO STATE LINE	LOW
18TH STREET--SOUTHWEST BOULEVARD: SUMMIT TO PROSPECT	LOW
MAIN STREET: TO 51ST ST	MEDIUM-HIGH
31ST STREET: TO PROSPECT VIA MAIN	MEDIUM
31ST STREET: TO VA HOSPITAL VIA MAIN	MEDIUM
31ST STREET: TO PROSPECT VIA GILLHAM	MEDIUM
31ST STREET: TO VA HOSPITAL VIA GILLHAM	MEDIUM
COUNTRY CLUB R.O.W.: TO 75TH STREET	MEDIUM
COUNTRY CLUB R.O.W.: TO 85TH AND PROSPECT	MEDIUM



PROPERTY VALUE IMPACTS

As described earlier in this section, one of the benefits of a fixed-rail system is the enhancement to the value of properties in the surrounding area. This is due, in part, to the permanence of a streetcar system and the improved mobility it offers pedestrians.

Methodology

Using the information in the assessor data on current property values within $\frac{1}{8}$ and $\frac{1}{4}$ mile of each of the proposed alignments, an assessment was done of the potential increase in property value due to development investment. Parcels that have an improved proximity to the streetcar are included in the analysis, though at a much lower rate than parcels that are not included in the starter line TDD. The ranking is based on the overall increase over the current property value. Thus, areas that already have a high total property value may not fare as well as corridors that do not currently have as much value, but are expected to benefit from the presence of the streetcar. Parcels within the starter line TDD that are in closer proximity to the extension than the starter line are included, but only the potential incremental impact due to the closer proximity is considered. Again, more weight is placed on the value within $\frac{1}{8}$ mile than within $\frac{1}{4}$ mile as the properties closest to the alignment will see the largest impact, based on the experience of other streetcar systems nationwide. Table 6.6A shows the overall criteria rankings.

TABLE 6.6A PROPERTY VALUE IMPACT CATEGORIES

RATING	PROPERTY VALUE IMPACTS
LOW	Less than 10% increase
MEDIUM-LOW	10 to 15% increase
MEDIUM	15 to 25% increase
MEDIUM-HIGH	25 to 30% increase
HIGH	More than 30% increase

Findings

The analysis shows that the areas likely to see the largest percent increase in property values are along Independence Avenue and 31st/Linwood to the VA Hospital via Gillham. These areas show promising induced development as well as total property values that are slightly lower than other areas today, leading to the largest increases of all corridors. A full summary of the results can be seen in Table 6.6B

TABLE 6.6B PROPERTY VALUE IMPACT FINDINGS

CORRIDOR	PROPERTY VALUE IMPACTS
INDEPENDENCE AVENUE: TO BENTON	MEDIUM-HIGH
INDEPENDENCE AVENUE: TO HARDESTY	MEDIUM-HIGH
12TH STREET WEST: WEST BOTTOMS TO MAIN	MEDIUM
12TH STREET EAST: MAIN TO PROSPECT	MEDIUM-HIGH
12TH STREET COMBINED: WEST BOTTOMS TO PROSPECT	HIGH
18TH STREET: TO PROSPECT	MEDIUM-HIGH
SOUTHWEST BOULEVARD: TO STATE LINE	MEDIUM-HIGH
18TH STREET--SOUTHWEST BOULEVARD: SUMMIT TO PROSPECT	MEDIUM
MAIN STREET: TO 51ST STREET	LOW
31ST STREET: TO PROSPECT VIA MAIN	MEDIUM-HIGH
31ST STREET: TO VA HOSPITAL VIA MAIN	MEDIUM-HIGH
31ST STREET: TO PROSPECT VIA GILLHAM	MEDIUM-HIGH
31ST STREET: TO VA HOSPITAL VIA GILLHAM	MEDIUM-HIGH
COUNTRY CLUB R.O.W.: TO 75TH STREET	LOW
COUNTRY CLUB R.O.W.: TO 85TH AND PROSPECT	LOW



OCCUPANCY IMPACTS

It is generally accepted that occupied storefronts and housing units are preferred to vacant space in a neighborhood. Not only does the neighborhood seem more vibrant when space is occupied, but the perception of safety is affected by the existence of people and visibly utilized space. Streetcar induced development promotes new residents and businesses in a neighborhood, helping to fill existing vacant space. Neighborhoods with occupied buildings and storefronts promote the livability of those places.

Methodology

Occupancy impacts were qualitatively estimated based on the current population and employment densities in each corridor, the existing building capacity, and the induced development potential. Areas with lower current densities and higher vacancies and induced development potential tended to score higher, as the occupancy impacts would have a much larger impact than areas that currently have high densities and lower vacancies. The latter areas have fewer perception issues to overcome, and thus the impacts would not be as large.

Findings

Overall, the areas that scored best on occupancy impacts were all of the 31st/Linwood alternatives, all of the 12th Street alternatives, and Southwest Boulevard and the Southwest/18th combination. All of the corridors could expect to see some gain from occupancy impacts, but some are greater than others. Areas that currently have a lot of vacant land and low population and employment density have a greater potential for occupancy impacts. Results are shown in the table to the right.

TABLE 6.7 OCCUPANCY IMPACT FINDINGS

CORRIDOR	OCCUPANCY IMPACTS
INDEPENDENCE AVENUE: TO BENTON	MEDIUM
INDEPENDENCE AVENUE: TO HARDESTY	MEDIUM
12TH STREET WEST: WEST BOTTOMS TO MAIN	MEDIUM-HIGH
12TH STREET EAST: MAIN TO PROSPECT	MEDIUM-HIGH
12TH STREET COMBINED: WEST BOTTOMS TO PROSPECT	MEDIUM-HIGH
18TH STREET: TO PROSPECT	MEDIUM-LOW
SOUTHWEST BOULEVARD: TO STATE LINE	MEDIUM
18TH STREET--SOUTHWEST BOULEVARD: SUMMIT TO PROSPECT	MEDIUM
MAIN STREET: TO 51ST STREET	MEDIUM-HIGH
31ST STREET/LINWOOD BOULEVARD: TO PROSPECT VIA MAIN	HIGH
31ST STREET/LINWOOD BOULEVARD: TO VA HOSPITAL VIA MAIN	HIGH
31ST STREET/LINWOOD BOULEVARD: TO PROSPECT VIA GILLHAM	HIGH
31ST STREET/LINWOOD BOULEVARD: TO VA HOSPITAL VIA GILLHAM	HIGH
COUNTRY CLUB R.O.W.: TO 75TH STREET	MEDIUM-LOW
COUNTRY CLUB R.O.W.: TO 85TH AND PROSPECT	MEDIUM-LOW



THE PROPOSED ALIGNMENTS AND THE POTENTIAL FOR DEVELOPMENT OF HISTORIC RESOURCES

A reconnaissance survey of historic resources found along each of the eight corridors was conducted in order to identify potential opportunities to redevelop historic properties. The full historical report can be found in Appendix 4. The potential for development along these corridors takes into consideration the range of historic properties, the condition of these buildings, demographic data, neighborhood density, and proximity to residential neighborhoods, commercial/industrial sites, and parks and boulevards. The qualitative ranking of these alignments, from the least desirable to the most desirable are listed in Table 6.8.



TABLE 6.8 POTENTIAL FOR DEVELOPMENT OF HISTORIC RESOURCES

CORRIDOR	RATING
INDEPENDENCE AVENUE: RIVER MARKET TO BENTON	MEDIUM-HIGH
INDEPENDENCE AVENUE: RIVER MARKET TO HARDESTY	MEDIUM-HIGH
12TH STREET: WEST BOTTOMS TO MAIN	MEDIUM
12TH STREET: MAIN TO PROSPECT	MEDIUM
12TH STREET: WEST BOTTOMS TO PROSPECT	MEDIUM-HIGH
18TH STREET: MAIN TO PROSPECT	MEDIUM-HIGH
SOUTHWEST BOULEVARD: MAIN TO STATE LINE	LOW
18TH ST --SOUTHWEST BOULEVARD: SUMMIT TO PROSPECT	MEDIUM
MAIN STREET: PERSHING RD. TO 51ST ST	HIGH
31ST STREET/LINWOOD BOULEVARD TO PROSPECT VIA MAIN	MEDIUM
31ST STREET/LINWOOD BOULEVARD: TO PROSPECT VIA PERSHING/ GILLHAM	MEDIUM-LOW
31ST STREET/LINWOOD BOULEVARD : TO VA HOSPITAL VIA MAIN	MEDIUM-LOW
31ST STREET/LINWOOD BOULEVARD: TO VA HOSPITAL VIA PERSHING/ GILLHAM	MEDIUM-LOW
COUNTRY CLUB RIGHT OF WAY: 51ST STREET TO 85TH STREET	MEDIUM-HIGH
COUNTRY CLUB RIGHT OF WAY: 51ST STREET TO 75TH STREET	HIGH



7 TRANSPORTATION AND MOBILITY



An important consideration for extending streetcar lines beyond the downtown area is how well these services can augment the current and future transit system in Kansas City. The streetcar system is not being planned in a vacuum, and must be developed in coordination with other transit systems and modes.



The Systems Overview phase of the project provides an initial high-level analysis of the following factors for each of the eight corridors. A more detailed analysis will be completed during the Detailed Screening Selection phase for selected corridors based on more refined alignments and potential stop locations.

The Federal Transit Authority (FTA) New and Small Starts Evaluation and Rating Process Final Policy Guidance, August 2013, provides specific direction for evaluating potential New and Small Starts projects. This evaluation includes the following transportation and mobility factors:

- Mobility Improvements
- Congestion Relief
- Cost Efficiency

Other evaluation factors considered for the NextRail evaluation process include:

- Walkability and bikeability
- Ability to enhance and complement existing transit service

MARKET ASSESSMENT AND RIDERSHIP POTENTIAL

For the initial analysis of potential streetcar corridors ridership potential was assessed using a two-step process that involved a market assessment using demographic information and other descriptive information on each corridor, and a technique using existing bus route ridership. This section documents the market and ridership assessment.

Methodology

1. Market Assessment

- a. Population and employment data was compiled for each of the corridors.
- b. The demographic information was augmented with a compilation of major attractions and trip generators that may attract non-work trips, including trips made by non-residents, including visitors and tourists. Because a streetcar line in any of the corridors would connect with the Downtown Kansas City starter line, it is assumed that most of these non-home based trips will originate in the Downtown/Crown Center area and the hotels and visitor areas (e.g., Power & Light District).
- c. Based on the Market Assessment a qualitative assessment of each corridor was compiled.

2. Current Bus Route Ridership

- a. Ridership by route and by stop was compiled for each of the corridors using

KCATA automatic passenger counting (APC) data. This information was used as a base to develop estimates for the streetcar service.

- b. The streetcar routes will have enhanced service compared to current bus service (excepting MAX on Main Street). Current ridership was factored using elasticity factors for service frequency and service span which were applied to the differential for these service attributes.
- c. Some transit analysts believe there is an intrinsic value potential riders place on rail service versus bus service. This is a qualitative value however. Because the ridership estimates in Systems Overview will be used for a comparative evaluation, this factor was not applied.
- d. Presumably an investment in rail transit will have a catalytic effect on development which would result in more ridership in the future. There may also be pending or planned development that should be included in the analysis. The potential related to new development was not accounted for in the Systems Overview analysis.

The Detailed Screening Selection (Tier 2) ridership analysis will employ a more rigorous process intended to meet FTA expectations for ridership forecasting.

Corridor Market Assessments

The market assessments were based on the following data:

- Population data from the 2010 Census
- Employment data from MARC's 2011 forecast
- Current bus ridership from KCATA's APC counts. Existing transit routes are illustrated in Figure 1 on the following page
- Information on trip generators and corridor attractions developed by HNTB

Ridership Projections

The previously described methodology for projecting ridership for a streetcar line was applied in each of the corridors. Ridership on existing bus routes was provided by KCATA from their APC data base. APC data is a compilation of total boardings by stop location. This information is equivalent to "unlinked" trips; unlinked trips count a single (linked) trip made with a transfer as two or more trips. It should be noted that FTA criteria use linked trips to measure ridership.

Conceptual streetcar operating plans were developed for each corridor to provide input to the ridership projection process. These operating

TABLE 7.1 INDEPENDENCE AVENUE TRANSIT MARKET ASSESSMENT



The Independence Avenue Corridor is 3.5 miles from downtown to Hardesty Avenue. The following is a summary of the market potential for a rail transit line in the corridor.

DEMOGRAPHIC EVALUATION

TOTAL POPULATION: 12,300

Population density in the corridor is high with most of the corridor in the range of 5,000 to 10,000 persons per square mile. There are several tracts in the area north of Independence Avenue east of Indiana Avenue with densities exceeding 10,000 per square mile, among the highest densities in the City.

Auto ownership in the corridor is higher than other urban corridors in the City. There is a concentration of low auto ownership at the western edge of the Corridor.

TOTAL EMPLOYMENT: 3,200

Employment density in the corridor is typical for the City's urban corridors.

There are no large employment centers in the corridor.

RATING: MEDIUM-HIGH

DEVELOPMENT AND TRIP GENERATORS

DEVELOPMENT IN THE CORRIDOR CAN BE CONSIDERED TRANSIT-SUPPORTIVE

Land uses are mixed with locally-oriented commercial uses along Independence Avenue and residential areas behind the commercial areas.

The corridor is walkable with a grid pattern and continuous sidewalks.

MAJOR TRIP GENERATORS

Kansas City University of Medicine and Biosciences

NEIGHBORHOOD TRIP GENERATORS

Hardesty Node/Price Chopper

Prospect Node

Northeast Community Center

Northeast Jr. High School

TOURISM/VISITOR ATTRACTIONS

RATING: MEDIUM

Kansas City Museum-located approximately 0.7 miles north of Independence Avenue at 3218 Gladstone Boulevard

There are no other significant visitor attractions in the corridor.

RATING: LOW

CURRENT TRANSIT SERVICE

Route 24 Independence has a high-level of service and serves about 1,527 daily weekday passenger trips within the corridor. In addition, Route 30 Northeast is a medium service route operating 4 blocks north of Independence Avenue. Route 121 Cleveland - Antioch operates north/south as a crosstown in the corridor.

RATING: HIGH

INDEPENDENCE AVENUE MARKET ASSESSMENT RATING: MEDIUM



TABLE 7.2 12TH STREET WEST MARKET ASSESSMENT



The 12th Street West corridor is 1.0 miles from downtown to Liberty Street. The following is a summary of the market potential for a rail transit line in the corridor.

DEMOGRAPHIC EVALUATION

TOTAL POPULATION: 40

Population in the corridor has grown or has been maintained from 2000 to 2010.

Auto ownership in the corridor is somewhat higher than other urban corridors in the City

TOTAL EMPLOYMENT: 1,000

Employment density in the corridor is somewhat higher than the city's other urban corridors.

There are no large employment centers in the corridor.

RATING: LOW

DEVELOPMENT AND TRIP GENERATORS

DEVELOPMENT IN THE CORRIDOR IS NOT TRANSIT-SUPPORTIVE

Land uses are primarily light industrial and commercial.

The Corridor is walkable with a grid pattern and typically continuous sidewalks.

MAJOR TRIP GENERATORS

Convention Center District

American Royal/Kemper Arena (not within 1/4 mile)

RATING: LOW

TOURISM/VISITOR ATTRACTIONS

There are no significant visitor attractions in the corridor.

RATING: LOW

CURRENT TRANSIT SERVICE

Route 109 9th Street has a low-level of service and serves about 40 trips within the corridor.

RATING: LOW

12TH STREET WEST MARKET ASSESSMENT RATING: LOW

TABLE 7.3 12TH STREET EAST CORRIDOR TRANSIT MARKET ASSESSMENT

The 12th Street East corridor is 1.7 miles from downtown to Prospect Avenue. The following is a summary of the market potential for a rail transit line in the corridor.

DEMOGRAPHIC EVALUATION

TOTAL POPULATION: 3,400

Population density in the corridor west of Prospect is in the range of 5,000 to 10,000 persons per square mile. A portion of the corridor south of 12th Street has densities under 5,000 per square mile.

Auto ownership in the corridor is somewhat lower than other urban corridors in the City.

TOTAL EMPLOYMENT: 2,000

Employment density in the corridor is lower than the City's other urban corridors.

There are no large employment centers in the corridor.

RATING: MEDIUM-LOW

DEVELOPMENT AND TRIP GENERATORS

DEVELOPMENT IN THE CORRIDOR CAN BE CONSIDERED TRANSIT-SUPPORTIVE

Land uses are mixed with locally-oriented commercial uses along 12th Street, particularly at intersections with other arterial streets.

The corridor is walkable with a grid pattern and continuous sidewalks.

MAJOR TRIP GENERATORS

Government District

NEIGHBORHOOD TRIP GENERATORS

12th and Brooklyn Commercial Node

RATING: LOW

TOURISM/VISITOR ATTRACTIONS

There are no significant visitor attractions in the corridor.

RATING: LOW

CURRENT TRANSIT SERVICE

Route 12 12th Street has a medium-level of service and serves about 350 daily trips within the Corridor.

RATING: MEDIUM

12TH STREET EAST MARKET ASSESSMENT RATING: MEDIUM-LOW



TABLE 7.4 18TH STREET TRANSIT MARKET ASSESSMENT



The 18th Street corridor is 1.7 miles from downtown to Prospect Avenue. The following is a summary of the market potential for a rail transit line in the corridor.

DEMOGRAPHIC EVALUATION

TOTAL POPULATION: 2,100

Population density in the corridor is lower than 5,000 persons per square mile, lower than most urban corridors.

Auto ownership in the corridor is somewhat higher than other urban corridors in the City.

TOTAL EMPLOYMENT: 4,700

Employment density in the corridor is lower than the City's other urban corridors.

There are no large employment centers in the corridor.

RATING: MEDIUM-LOW

DEVELOPMENT AND TRIP GENERATORS

DEVELOPMENT IN THE CORRIDOR CAN BE CONSIDERED TRANSIT-SUPPORTIVE

Land uses are mixed with a predominance of light industrial and commercial on the west end.

The corridor is walkable with a grid pattern and typically continuous sidewalks.

MAJOR TRIP GENERATORS

18th and Vine District
Pioneer Community College

NEIGHBORHOOD TRIP GENERATORS

Gregg/Klice Community Center
Kipp Endeavor Academy

RATING: MEDIUM-HIGH

TOURISM/VISITOR ATTRACTIONS

18th & Vine Jazz District
Negro Leagues Baseball Museum
American Jazz Hall of Fame

RATING: MEDIUM-HIGH

CURRENT TRANSIT SERVICE

Route 108 Indiana has a medium-level of service and serves about 240 trips within the Corridor.

RATING: LOW

18TH STREET MARKET ASSESSMENT RATING: MEDIUM-LOW

TABLE 7.5 SOUTHWEST BOULEVARD MARKET ASSESSMENT



The Southwest Boulevard corridor is 1.8 miles from Main Street to 31st Street. The following is a summary of the market potential for a rail transit line in the corridor.

DEMOGRAPHIC EVALUATION

TOTAL POPULATION: 2,800

Population in the corridor has grown or has been maintained from 2000 to 2010.

Population density in the corridor is lower than 2,500 persons per square mile, lower than most urban corridors.

Auto ownership in the corridor is somewhat higher than other urban corridors in the City.

TOTAL EMPLOYMENT: 5,500

Employment density in the corridor is higher than the City's other urban corridors.

There are no large employment centers in the corridor.

RATING: LOW

DEVELOPMENT AND TRIP GENERATORS

DEVELOPMENT IN THE CORRIDOR IS NOT TRANSIT-SUPPORTIVE

Land uses are primarily light industrial and commercial south and west of Summit. The Eastern portion of the Corridor has a mix of uses.

The Corridor is walkable with a grid pattern and typically continuous sidewalks.

MAJOR TRIP GENERATORS

Crossroads Art District

Boulevard Brewery

The Roasterie

NEIGHBORHOOD TRIP GENERATORS

Westside Restaurants

Our Lady of Guadalupe School

RATING: LOW

TOURISM/VISITOR ATTRACTIONS

Boulevard Brewery

RATING: LOW

CURRENT TRANSIT SERVICE

Route 123 23rd Street has a low-level of service and serves about 20 trips within the Corridor.

RATING: LOW

SOUTHWEST BOULEVARD MARKET ASSESSMENT RATING: LOW



TABLE 7.6 MAIN STREET CORRIDOR MARKET ASSESSMENT



The Main Street corridor is 3.4 miles from Pershing Road to the vicinity of 51st and Brookside (UMKC). The following is a summary of the market potential for a rail transit line in the corridor.

DEMOGRAPHIC EVALUATION

TOTAL POPULATION: 10,500

Population density in the corridor is high with the portion south of Armour Boulevard in the range of 5,000 to 10,000 persons per square mile. There are several tracts in the corridor with densities exceeding 10,000 per square mile, among the highest densities in the City. Population density north of Armour is lower, reflecting the mixed use character of the neighborhoods.

Auto ownership in the corridor is higher than other urban corridors in the City.

TOTAL EMPLOYMENT: 30,500

Employment density in the corridor is significantly higher than the City's other urban corridors. Concentrations of employment are particularly high on the south end of the corridor in the vicinity of the Country Club Plaza.

There are several large employment centers in the corridor, including the Plaza, the American Century area at 45th and Main and Crown Center.

RATING: HIGH

DEVELOPMENT AND TRIP GENERATORS

DEVELOPMENT IN THE CORRIDOR IS TRANSIT-SUPPORTIVE

Land uses are mixed with locally and regionally-oriented commercial uses along Main Street and residential areas behind the commercial areas.

The Corridor is walkable with a grid pattern and typically continuous sidewalks.

MAJOR TRIP GENERATORS

Liberty Memorial/WW I Museum
Westport District
Kemper Art Museum
Kansas City Art Institute
Country Club Plaza District
UMKC
St. Luke's Hospital

NEIGHBORHOOD TRIP GENERATORS

Plaza Library
St. Paul's Episcopal Day School
Foreign Language Academy

RATING: HIGH

TOURISM/VISITOR ATTRACTIONS

Country Club Plaza
Nelson-Atkins Museum of Art
Several major hotels are within walking distance of Main Street

RATING: HIGH

CURRENT TRANSIT SERVICE

Main Street MAX has a high-level of service and serves about 3,200 weekday passenger trips within the corridor. In addition, Route 47 Broadway is a medium service route operating 4 blocks west on Broadway. Route 47 also intersects with Main Street MAX on 47th Street. In addition, routes 39 39th Street and 31 - 31st Street are major crosstown routes intersection with Main Street MAX.

RATING: MEDIUM-HIGH

MAIN STREET MARKET ASSESSMENT RATING: HIGH

TABLE 7.7 31ST STREET/LINWOOD BOULEVARD TRANSIT MARKET ASSESSMENT

The 31st Street corridor is 3.7 miles from Main Street to Van Brunt. The following is a summary of the market potential for a rail transit line in the corridor.

DEMOGRAPHIC EVALUATION

TOTAL POPULATION: 9,000

Population density in the corridor varies. About half the corridor has densities in the range of 5,000 to 10,000 persons per square mile, but the remainder of the corridor has densities under 5,000 per square mile. A section on the west end of the corridor includes Troost Park, which has very low population density.

Auto ownership in the corridor is somewhat lower than other urban corridors in the City.

TOTAL EMPLOYMENT: 14,800

Employment density in the corridor is low overall, but nodes of high employment density anchor the route at the eastern and western endpoints.

Major employment centers include the V.A. Hospital and Hospital Hill

RATING: MEDIUM

DEVELOPMENT AND TRIP GENERATORS

DEVELOPMENT IN THE CORRIDOR IS SOMEWHAT TRANSIT-SUPPORTIVE

Land uses are predominantly residential with some commercial at major intersections.

The corridor is walkable with a grid pattern and typically continuous sidewalks.

MAJOR TRIP GENERATORS

Veterans' Administration Hospital
Midtown Marketplace
Hospital Hill

NEIGHBORHOOD TRIP GENERATORS

Martini Corner
Central High School
Kansas City Public Library: L.H. Bluford Branch
Faxon Elementary School
Benton Community Garden

RATING: MEDIUM

TOURISM/VISITOR ATTRACTIONS

There are no significant visitor attractions in the corridor.

RATING: LOW

CURRENT TRANSIT SERVICE

Route 31 31st Street has a high-level of service within the Corridor. In addition, Linwood Link is a low service route operating on Linwood one block south of 31st Street. Total ridership in the Corridor is about 2,600 trips. Several of KCATA's major north/south routes connect with routes 31 and 32 in the Corridor

RATING: MEDIUM-HIGH

31ST STREET MARKET ASSESSMENT RATING: MEDIUM



TABLE 7.8 COUNTRY CLUB RIGHT OF WAY MARKET ASSESSMENT

The Country Club corridor is 6.3 miles from 51st Street to the vicinity of 85th & Prospect. The following is a summary of the market potential for a rail transit line in the corridor.

DEMOGRAPHIC EVALUATION

TOTAL POPULATION: 16,000

Population in the corridor has grown or has been maintained from 2000 to 2010.

Population density in the corridor is high north of 75th Street in the range of 5,000 to 10,000 persons per square mile. The south portion of the corridor is under 5,000 persons per square mile.

Auto ownership in the corridor is substantially higher than other urban corridors in the City. **TOTAL EMPLOYMENT: 11,000**

Employment density in the corridor is lower than the City's other urban corridors.

There are no large employment centers in the corridor.

RATING: MEDIUM-HIGH

DEVELOPMENT AND TRIP GENERATORS

DEVELOPMENT IN THE CORRIDOR IS TRANSIT-SUPPORTIVE

Land uses are mixed with locally - oriented commercial uses along Wornall Road and residential areas behind the commercial areas.

The corridor is walkable with a grid pattern and typically continuous sidewalks.

MAJOR TRIP GENERATORS

Brookside Commercial District
Waldo Commercial District

NEIGHBORHOOD TRIP GENERATORS

Southwest High School
Border Star Montessori
Crestwood Shops
St. Theresa's Academy
Hale Cook Elementary School
Center High School

RATING: MEDIUM

TOURISM/VISITOR ATTRACTIONS

There are no significant visitor attractions in the corridor.

RATING: LOW

CURRENT TRANSIT SERVICE

Main Street MAX has a medium-level of service south of the Plaza and serves about 600 weekday passenger trips within the Corridor. In addition, Route 57 Wornall is a medium service route operating 4 blocks west of Brookside on Wornall. Route 57 also operates south of 75th Street along Wornall. Route 57 services about 160 passengers per day.

RATING: MEDIUM

COUNTRY CLUB RIGHT OF WAY MARKET ASSESSMENT RATING: MEDIUM

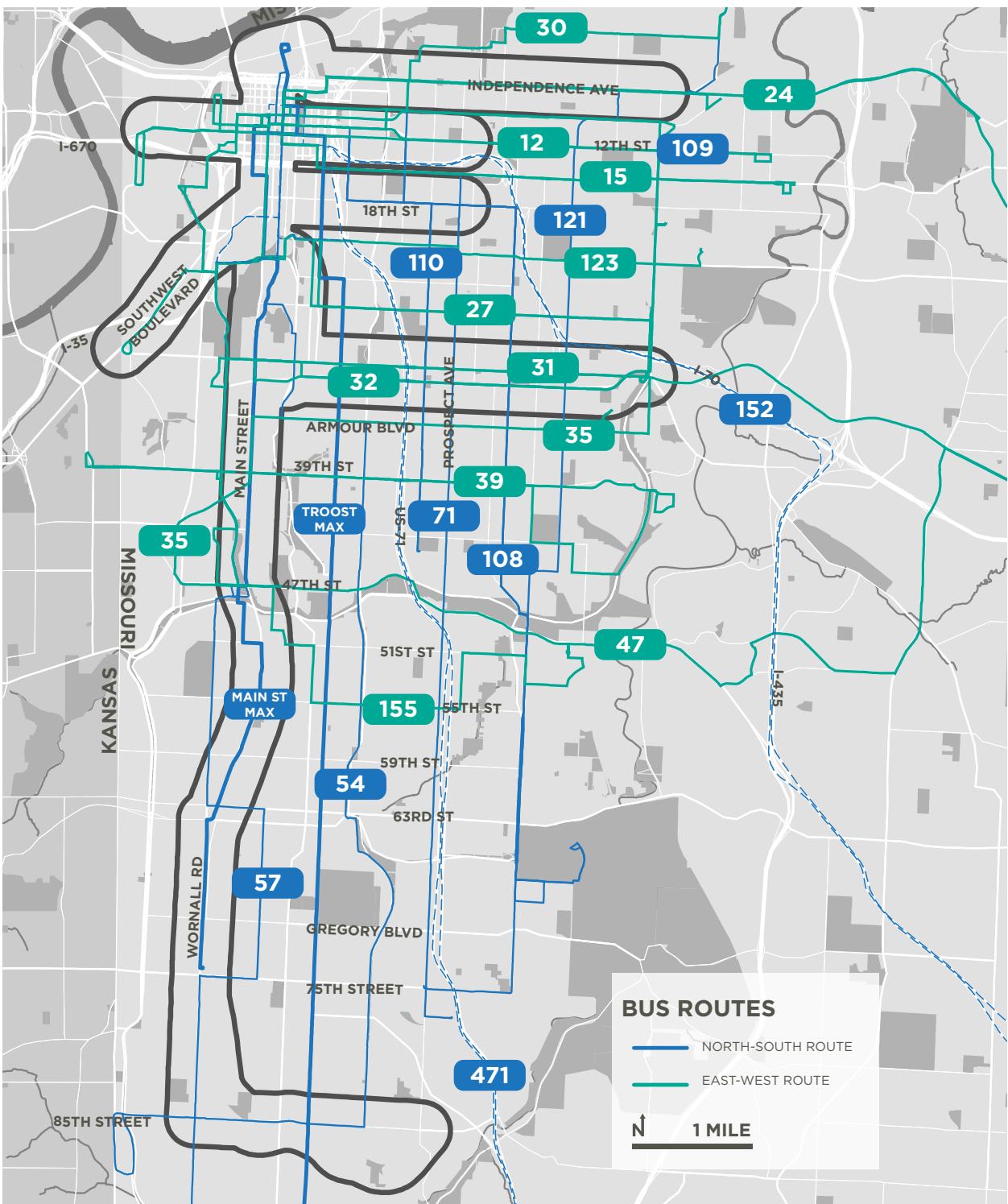


FIGURE 7.1 EXISTING BUS ROUTES



TABLE 7.9 BASELINE RIDERSHIP POTENTIAL

CORRIDOR	TRAVEL TIME-- MINUTES FROM TERMINUS TO DOWNTOWN		RIDERSHIP (DAILY BOARDINGS)		RIDERSHIP POTENTIAL RATING
	CURRENT BUS	STREETCAR	CURRENT BUS	STREETCAR	
INDEPENDENCE	21	16	1,527	1,880	MEDIUM
12TH WEST	9	6	150	210	LOW
12TH EAST	10	8	467	640	MEDIUM-LOW
18TH STREET	16	13	255	350	MEDIUM-LOW
SOUTHWEST	8	6	14	220	LOW
BOULEVARD	18	17	2,595	3,020	MEDIUM-HIGH
31ST/LINWOOD	15	12	3,091	3,300	HIGH
MAIN STREET	10	9	760	790	MEDIUM

plans include service frequency, service span and running time, which were compared to current bus service to establish service variables that the elasticity factors were applied to. These operating plans are documented in a technical memorandum entitled "Streetcar Operating Plans" in Appendix 2.

Table 7.9 shows the results of the ridership projection process. The table also shows the comparative rankings for the corridors. It should be noted that no attempt was made to project ridership into the future. Thus, the ridership projections reflect the current year.

Current bus service in three of the corridors is very limited, and/or does not reflect the likely streetcar line configuration, thus manual adjustments to the calculated ridership were made to account for the difference in bus and streetcar service. The corridors are:

- 18th Street – Route 108 does not operate west of Troost, thus manual estimates for ridership between Troost and Main Street were added to the calculated ridership.
- Southwest Boulevard – Route 123 has very limited service, limited span (no service after 7:30 PM) and does not operate north of 25th Street. Manual estimates to account for the limited service and for ridership between 25th Street and Main Street were added to the calculated ridership.
- West 12th Street - Route 109 has a limited span (no service after 7:00 PM) and does not operate north of 12th Street in the West Bottoms. Manual estimates to account for the limited span and for ridership north of 12th Street were added to the calculated ridership.

ABILITY TO ENHANCE AND COMPLEMENT THE EXISTING AND PLANNED TRANSIT SYSTEM

Conceptual Streetcar Operating Plans

The ability of a streetcar to enhance the City's transit system is an important consideration. To assess the impact of a potential streetcar from a transit network perspective and determine whether the streetcar investment could enhance the current system, conceptual operating plans were developed for each corridor. These conceptual streetcar operating plans were used to:

- Provide a basis for operating and capital cost estimates in the corridor
- Provide input to the ridership estimation process
- Provide a basis for assessing benefits and impacts of streetcar operations

For the Systems Overview the operating plans are very conceptual, but include operating speeds, span of service and frequency. General route alignments were determined as part of a separate task.

General Concept for Operating Plans

It is assumed that a substantial investment in rail transit in a corridor will be followed by a commensurate investment in transit operations. Thus, it is assumed that peak period headways will have a maximum of 15 (20 minutes on CCROW only) minutes, but no less than current bus service levels. The span of service will be similar to the anticipated downtown streetcar operating plan with service from 6 AM to at least midnight, seven days per week. Table 7.10 summarizes the streetcar operating plans.

Operating Cost

Streetcar operating cost was calculated based on the operating plans from the previous section and a unit cost of \$150 per hour for streetcar O&M costs. This unit cost, reflecting 2013 costs, is similar to the operating cost used for the Downtown starter line. All costs for the System Overview analysis are expressed in 2019 dollars, the potential opening year for the streetcar extensions. Table 7.11 shows estimates

TABLE 7.10 STREETCAR OPERATING PLANS

CORRIDOR	TERMINUS	LENGTH (MI)	SERVICE FREQUENCY (MINUTES)			PEAK VEHICLES	OPERATING SPEED (MPH)
			PEAK	MIDDAY	NIGHT		
INDEPENDENCE	HARDESTY	3.5	15	15	30	3	13.3
INDEPENDENCE	PROSPECT	2.2	15	15	30	2	11.7
12TH WEST	STATE LINE	1.0	15	15	30	1	10.0
12TH EAST	PROSPECT	1.7	15	15	30	2	13.6
18TH ST	PROSPECT	1.7	15	15	30	2	12.8
SOUTHWEST	31ST STREET	1.8	15	15	30	1	18.0
BOULEVARD	VAN BRUNT	4.6	15	15	30	3	17.8
31ST/LINWOOD	PROSPECT	1.8	15	15	30	2	13.5
31ST/LINWOOD	51ST STREET	3.5	10	10	30	3	17.5
MAIN ST	75TH STREET	3.1	20	20	30	2	20.7
COUNTRY CLUB	85TH & PROSPECT	6.3	20	20	30	3	20.0

TABLE 7.11 STREETCAR OPERATING COSTS

CORRIDOR	TERMINUS	ANNUAL OPERATING COST (2019\$)	CHANGE IN ANNUAL OPERATING COST (2019\$)*
INDEPENDENCE	HARDESTY	\$3,204,000	\$1,076,000
INDEPENDENCE	PROSPECT	\$2,288,000	\$909,000
12TH WEST	STATE LINE	\$1,242,000	\$661,000
12TH EAST	PROSPECT	\$1,962,000	\$1,113,000
18TH ST	PROSPECT	\$1,962,000	\$1,962,000
SOUTHWEST	31ST STREET	\$1,242,000	\$1,242,000
BOULEVARD	VAN BRUNT	\$3,204,000	\$1,036,000
31ST/LINWOOD	PROSPECT	\$1,962,000	\$543,000
31ST/LINWOOD	51ST STREET	\$3,008,000	\$916,000
MAIN ST	75TH STREET	\$2,288,000	\$691,000
COUNTRY CLUB	85TH & PROSPECT	\$3,531,000	\$1,934,000

*STREETCAR OPERATING COSTS LESS EXISTING BUS SERVICE THAT CAN BE DISCONTINUED



of annual operating costs for each corridor.

Transit bus operating costs were calculated for the current service based on current service operating plans and a unit cost of \$110 per hour.

Table 7.11 shows the estimated incremental transit operating cost. In some corridors, streetcar service would likely replace portions of the existing bus service. In other corridors the streetcar service would be entirely additional, thus there would be a more significant change in operating cost. The assumptions regarding future service plans are documented in the following sections

Establishing streetcar service would result in a net addition to the system wide (bus and rail) operating cost because streetcars cost more to operate on an hourly basis, and streetcar service levels are likely to be higher than the current bus service levels.

Impacts on Existing Transit Service

The following section generally describes how the streetcar service would integrate with the current bus transit system.

Independence Avenue

KCATA Route 24 operates on Independence Avenue from Downtown Kansas City to Winner Road with select trips extended east to the City of Independence.

- There is no reason to operate both bus service and streetcar service on Independence Avenue west of Hardesty.
- Thus, it is assumed Route 24 would be reconfigured to operate as a feeder to the eastern terminus of the streetcar line at Hardesty.
- The streetcar is likely to have higher service levels than current bus service:
 - Service will be more frequent
 - Service is anticipated to have reduced travel times due to wider station spacing and transit priority measures
- Discontinuing bus service west of Hardesty would result in a significant reduction in KCATA operating expense.
- Creating a feeder route east of Hardesty will require existing passengers to transfer from bus to streetcar creating passenger inconvenience.
- Creating a feeder route east of Hardesty may result in some operating inefficiency, particularly in low service periods.

Quality Hill just west of downtown Kansas City to Hardesty, then south on Hardesty to a transit center at 31st and Van Brunt.

- Because so much of the route is east of Prospect it is likely that some type of bus service would be operated along 12th Street west of Prospect.
- Thus, it is assumed Route 12 would be maintained in some manner.
- The streetcar is likely to have higher service levels than current bus service:
 - Service will be more frequent
 - Service is anticipated to have reduced travel times due to wider station spacing and transit priority measures
- Maintaining bus service west of Prospect would result in a significant net increase in operating expense, bus and streetcar.

If a streetcar was extended across 12th Street in the Downtown area it would potentially create an effective east-west circulator connecting Quality Hill and the convention center area to the governmental employment area and the core of Downtown, including the Power and Light District. This alignment could create an effective connector for the Main Street streetcar as well as KCATA bus routes operating on Main and Grand.

12th Street West

KCATA Route 109 9th Street operates on 12th Street through downtown to the West Bottoms at 16th and Genesee.

- There is no reason to operate both bus service and streetcar service to the West Bottoms via 12th Street.
- Thus, it is assumed the portion of Route 109 west of downtown would be discontinued.
- The streetcar is likely to have higher service levels than current bus service into the West Bottoms
- Discontinuing service on Route 109 west of downtown would result in a reduction in KCATA operating expense.

The operating plan for 12th Street West assumes an alignment from the West Bottoms to Main Street. A more effective alignment may be to have the streetcar line continue east from Main Street to a location east of Main, such as 12th and Prospect.

If a streetcar was extended across 12th Street in the downtown area it would potentially create an effective east-west circulator connecting Quality Hill and the convention center area to the governmental employment area and the core of downtown, including the Power and Light District. This alignment could create an effective connector for the Main Street streetcar as well as KCATA bus routes operating on Main and Grand.

18th Street

KCATA Route 108 Indiana operates on 18th Street from Troost Avenue east to Indiana Avenue then south on Indiana and Swope Parkway to the Kansas City Zoo.

- Because a streetcar on 18th Street would provide a service that is not duplicative of existing bus service it is likely that bus service would be continued on Route 108 Indiana.
- Thus, it is assumed Route 108 would be maintained as is.
- The streetcar is likely to have higher service levels than current bus service on 18th Street:
 - Service will be more frequent
 - Service is anticipated to have reduced travel times due to wider station spacing and transit priority measures
- Maintaining bus service on Route 108 would result in a significant net increase in operating expense, bus and streetcar.

The operating plan for 18th Street assumes an alignment from 18th and Main and Prospect via 18th Street. A more effective alignment may be to have the streetcar line continue west from Main Street

to a location west of Broadway along Southwest Boulevard.

Southwest Boulevard

KCATA Route 123 23rd Street operates on Southwest Boulevard from 31st Street to 25th Street then east on Pershing through Crown Center, then east on 22nd and 23rd Street. Southwest Boulevard Between 25th Street and Main Street is not currently served by a KCATA bus route.

- Because a streetcar on Southwest Boulevard would provide a service that is not duplicative with existing bus service it is likely that bus service would be continued on Route 123.
- Thus, it is assumed Route 123 would be maintained as is.
- The streetcar is likely to have higher service levels than current bus service on Southwest Boulevard:
 - Service will be more frequent
 - Service is anticipated to have reduced travel times due to wider station spacing and transit priority measures
- Maintaining bus service on Route 123 would result in a net increase in operating expense, bus and streetcar.

The operating plan for Southwest Boulevard assumes an alignment from 31st to 19th and Main Street. A spur alignment from 31st Street to Main Street is not considered a viable configuration. A more effective alignment may be to have the streetcar line continue east from Main Street to a location east of Main, such as 18th & Vine.

31st Street/Linwood Boulevard

KCATA Route 31 31st Street operates on 31st Street from Blue Ridge Crossing (Blue Ridge Boulevard and Route 40) west to Van Brunt, then continuing west to Main Street, terminating at Penn Valley Community College at 31st and Pennsylvania.

- There is no reason to operate both bus service and streetcar service on 31st Street west of Van Brunt.
- Thus, it is assumed Route 31 would be reconfigured to operate as a feeder to the eastern terminus of the streetcar line at Van Brunt.
- The streetcar is likely to have higher service levels than current bus service:
 - Service will be more frequent
 - Service is anticipated to have reduced travel times due to wider station spacing and transit priority measures
- Discontinuing bus service west of Van Brunt would result in a significant reduction in KCATA operating expense.



- Creating a feeder route east of Van Brunt will require existing passengers to transfer from bus to streetcar resulting in passenger inconvenience.
- Creating a feeder route east of Van Brunt may result in some operating inefficiency, particularly in low service periods.

The operating plan assumes an alignment from 31st and Van Brunt to 31st and Main Street. With this configuration the 31st Street line would operate as a transfer line to a streetcar line on Main Street.

Main Street

KCATA operates Main Street MAX on Main Street from 74th Terrace and Broadway in Waldo to the River Market via Wornall Road, Brookside Boulevard and Main Street.

- There is no reason to operate both bus service and streetcar service on Main Street between the Plaza and downtown.
- Thus, it is assumed Main Street MAX would be reconfigured to operate as a feeder to the southern terminus of the streetcar line at 51st and Brookside.
- MAX currently has high service levels. The streetcar is not likely to have higher service levels than current bus service. Streetcar service is estimated to have slightly reduced travel times due to a more direct route alignment.
- Discontinuing MAX service north of the Plaza would result in a significant reduction in KCATA operating expense.
- Creating a feeder route south of the Plaza will require existing passengers to transfer from bus to streetcar.

The operating plan for Main Street assumes an alignment from Pershing and Main (the terminus of the initial downtown streetcar segment) via Main Street to 47th Street, then continuing south on Main/Brookside to 51st and Brookside Boulevard. With this configuration the streetcar on Main Street would operate as an extension of the downtown segment.

It is likely that bus service south of 51st Street now provided by MAX would be reconfigured to operate as a feeder to the streetcar line. Because the Plaza is a significant destination, bus service would likely be continued north from 51st along Main Street and into the Plaza area, similar to the current routing of Main Street MAX.

Discontinuing bus service north of the Plaza would result in a significant reduction in KCATA operating cost.

Country Club

KCATA operates Main Street MAX from 74th Terrace in Waldo north on Wornall Road and Brookside Boulevard to 51st Street, then north though the Plaza to downtown. In addition Route 57 Wornall operates 4 blocks west of Brookside on Wornall. Route 57 also operates south of 75th Street along Wornall to Red Bridge.

- There is no reason to operate both bus service and streetcar service on Wornall and Brookside between Waldo and the Plaza.
- Thus, it is assumed MAX would be discontinued.
- MAX currently has medium service levels. The streetcar is likely to have higher service levels than current bus service. Streetcar service is estimated to have slightly reduced travel times due to wider stop spacing.
 - It is assumed that streetcar service south of the Plaza will operate at a lower level of service compared to Main Street north of the Plaza.
- Discontinuing MAX service south of the Plaza would result in a significant reduction in KCATA operating expense.

The operating plan for the Country Club Corridor assumes a streetcar will continue south on Brookside Boulevard from 51st and Brookside to Waldo. With this configuration the streetcar on Brookside/Wornall would operate as an extension of the downtown Main Street segments.

Discontinuing bus service south of the Plaza would result in a significant reduction in KCATA operating cost.

Ability to Enhance Existing/Planned Transit Service

Based on the assessment of Impacts on existing transit service each corridor was evaluated for the ability that streetcar service would enhance the existing transit system, and the future transit system. This assessment is shown on Table 7.13.

Operational Efficiency

FTA includes cost effectiveness as a criterion in evaluating fixed-guideway projects for New Starts funding. Generally, the FTA measure uses annualized capital costs and annual operation and maintenance costs as a ratio to total passengers on the project.

For the initial analysis a measure of operation efficiency was used reflecting O & M costs as a ratio to total passengers. Capital costs were not used for this analysis because it is assumed capital costs would be of a similar magnitude for each corridor. Using the ridership and net operating cost information developed for each corridor the ratio of total net cost to total passengers was calculated to define a rating for each corridor. Table 7.12 below shows the ratings.

TABLE 7.12 OPERATIONAL EFFICIENCY

CORRIDOR	NET O&M COST PER RIDER	RATING
INDEPENDENCE	\$1.60	MEDIUM-HIGH
12TH EAST	\$4.86	MEDIUM-LOW
18TH STREET	\$9.61	LOW
31ST/LINWOOD	\$0.96	HIGH
MAIN	\$0.78	HIGH
COUNTRY CLUB TO 75TH	\$2.03	MEDIUM-HIGH
COUNTRY CLUB TO 85TH	\$4.06	MEDIUM
SOUTHWEST	\$15.76	LOW
BOULEVARD	\$4.50	MEDIUM



TABLE 7.13 ABILITY TO ENHANCE EXISTING OR PLANNED TRANSIT SERVICE

CORRIDOR	SERVICE ENHANCEMENT CONSIDERATIONS	RATING
INDEPENDENCE AVENUE	Independence Avenue is a major transit corridor, but there is only one crosstown that connects through the corridor. Rail service would be somewhat more attractive than bus service. The corridor is a “Major Fixed Route” corridor in Smart Moves.	MEDIUM
12TH STREET EAST	12th Street is a secondary transit corridor. There are few opportunities for connectivity outside the CBD. The corridor is not designated as a primary corridor in Smart Moves. If a streetcar was extended across 12th Street in the downtown area it would potentially create an effective east-west circulator connecting activity centers with the core of downtown. This alignment could create an effective connector for the Main Street streetcar as well as KCATA bus routes operating on Main and Grand.	MEDIUM
12TH STREET WEST	12th Street West is not a significant transit corridor; there are no opportunities for connectivity. A future extension into Kansas would improve this rating. The corridor is not designated as a primary corridor in Smart Moves. If a streetcar was extended across 12th Street in the downtown area it would potentially create an effective east-west circulator connecting activity centers with the core of downtown. This alignment could create an effective connector for the Main Street streetcar as well as KCATA bus routes operating on Main and Grand.	MEDIUM
SOUTHWEST BOULEVARD	Southwest Boulevard is not a significant transit corridor. There are few opportunities for connectivity outside the CBD. Service to Westside neighborhoods would be improved with the streetcar. The corridor is not designated as a primary corridor in Smart Moves.	MEDIUM-LOW
18TH STREET	18th Street is not a significant transit corridor. There are opportunities for connectivity with north-south routes. The corridor is not designated as a primary corridor in Smart Moves	MEDIUM-LOW
MAIN STREET	Main Street is a major transit corridor with multiple connections. MAX is currently a key part of the region’s transit system. Main Street south has been identified by multiple transit studies as a potential “spine” for the region’s transit system. The City’s FOCUS Plan specifically identified as a priority for fixed guideway transit.	HIGH
31ST STREET/ LINWOOD BOULEVARD	31st Street is a major transit corridor with multiple connections. Route 31 is currently a key part of the region’s transit system, and would be enhanced with streetcar. The Corridor is identified as a “Urban Corridor” in Smart Moves and has been identified as a good candidate for fixed guideway transit in prior studies.	MEDIUM-HIGH
COUNTRY CLUB RIGHT-OF-WAY	Although a major transit corridor, streetcar would not significantly improve the transit system south of the Plaza. The Corridor is identified as a “Urban Corridor” in Smart Moves.	MEDIUM

AIR QUALITY, SAFETY, AND TRAVEL TIME BENEFITS

Understanding the potential transportation and mobility implications of the proposed extensions is another critical element of the overall assessment conducted by the team. The following measures were used to analyze the relative improvement likely to be generated by the streetcar in terms of air quality, safety and travel time.

This section outlines the scoring for each corridor in regards to these three criteria. As these three categories rely on distance traveled as a basis for calculation, they have been normalized to a per-mile basis to prevent corridors from being hindered or aided by their length.

Methodology

These three criteria are driven by the removal of automobiles from the roadway. Air quality measures the emissions reductions from traveling a shorter distance in greenhouse-gas-emitting automobiles; safety is based on the accident rates applied to auto miles traveled, with consideration for the addition of potential accidents due to the presence of the streetcar in the roadway; travel time or congestion benefits in this case are calculated as the savings to remaining roadway network users.

Air quality is measured for each corridor as the reduction in greenhouse gas emissions including Sulfur Dioxide, Particulate Matter 2.5, Volatile Organic Compounds, Nitrogen Oxides, and Carbon Dioxide. The emissions are calculated on a per-mile basis and multiplied by the total number of vehicle miles diverted due to users switching from auto to streetcar. To prevent bias due to corridor length, these values have been normalized to a value-per-mile for all options.

Safety benefits result from the removal of vehicles from the roadway; fewer vehicles generally means fewer accidents. Accident rates are calculated using the number of vehicle-miles traveled based on national average rates and the value of a statistical life based on US Department of Transportation guidance on the economic value of a statistical life. Because the streetcar operates in traffic, its presence creates its own safety concerns that must be considered. The net impacts of both factors generate the overall safety benefits. These impacts will vary based on the ridership and average trip length. Again, to prevent bias, the benefits have been normalized across all alternatives.

Congestion benefits, as calculated for this analysis, reflect the time savings to users remaining on the

roadways due to the removal of vehicles. More congested corridors will see higher benefits. The analysis takes into consideration the level of service on each corridor and the number of vehicles that will be removed from the roadway due to streetcar ridership. To prevent bias, the benefits have been normalized.

Findings

The overall findings for the air quality, safety and congestion impacts are shown in Table 7.15. The greatest impacts can be seen on the Linwood/31st corridor while the lowest impacts are on the Southwest Boulevard and 18th Street alternatives as well as 12th Street West



TABLE 7.14 AIR QUALITY, SAFETY, AND TRAVEL TIME BENEFIT SCALE

RATING	AIR QUALITY	SAFETY	TRAVEL TIME
LOW	< \$10,000	< \$100,000	< \$10,000
MEDIUM-LOW	\$10,000 - \$20,000	\$100,000 - \$250,000	\$10,000 - \$20,000
MEDIUM	\$20,000 - \$40,000	\$250,000 - \$500,000	\$20,000 - \$100,000
MEDIUM-HIGH	\$40,000 - \$50,000	\$500,000 - \$1,000,000	\$100,000 - \$200,000
HIGH	> \$50,000	> \$1,000,000	> \$200,000

TABLE 7.15 AIR QUALITY, SAFETY, AND TRAVEL TIME BENEFIT RATINGS

CORRIDOR	AIR QUALITY	SAFETY	TRAVEL TIME
INDEPENDENCE AVENUE: RIVER MARKET TO BENTON	MEDIUM	HIGH	MEDIUM-LOW
INDEPENDENCE AVENUE: RIVER MARKET TO HARDESTY	MEDIUM	HIGH	LOW
12TH STREET: WEST BOTTOMS TO MAIN	LOW	MEDIUM-LOW	LOW
12TH STREET: MAIN TO PROSPECT	MEDIUM-LOW	MEDIUM	LOW
12TH STREET: WEST BOTTOMS TO PROSPECT	MEDIUM-LOW	MEDIUM	LOW
18TH STREET: MAIN TO PROSPECT	LOW	MEDIUM-LOW	LOW
SOUTHWEST BOULEVARD: MAIN TO STATE LINE	LOW	LOW	LOW
18TH ST --SOUTHWEST BOULEVARD: SUMMIT TO PROSPECT	LOW	MEDIUM-LOW	LOW
MAIN STREET: PERSHING RD. TO 51ST ST	HIGH	HIGH	MEDIUM
31ST STREET/LINWOOD BOULEVARD: TO PROSPECT VIA PERSHING/ GILLHAM	MEDIUM-HIGH	HIGH	HIGH
31ST STREET/LINWOOD BOULEVARD: TO PROSPECT VIA MAIN	MEDIUM-HIGH	HIGH	HIGH
31ST STREET/LINWOOD BOULEVARD: TO VA HOSPITAL VIA PERSHING/	MEDIUM-HIGH	HIGH	MEDIUM-HIGH
31ST STREET/LINWOOD BOULEVARD: TO VA HOSPITAL VIA MAIN	MEDIUM-HIGH	HIGH	MEDIUM-HIGH
COUNTRY CLUB RIGHT OF WAY: ON-STREET	MEDIUM-LOW	MEDIUM	MEDIUM
COUNTRY CLUB RIGHT OF WAY: OFF-STREET	MEDIUM-LOW	MEDIUM	MEDIUM

WALKABILITY AND BIKEABILITY

Existing Corridor Walkability Assessment

The potential streetcar extension corridors were evaluated based on established walkability criteria. The Kansas City Walkability Plan (LSA Associates, Inc, adopted March 2003) set forth five pedestrian levels of service (LOS) criteria that apply at the citywide, community, neighborhood, and project level. The following are the five criteria with a brief description:

Directness: Considers the distance from origin to destination, with the highest scores representing the shortest and most direct route. Priority is given to a complete urban grid.

Continuity: Measures the completeness of a sidewalk network, with preference to corridors with accessible sidewalks on both sides of the street that have a consistent width and are in good condition.

Street Crossings: Considers the number of lanes required to cross by a pedestrian, with highest scores representing the least number of lanes to cross and/or inclusion of pedestrian refuge medians. Additional consideration for accommodations required for a safe roadway crossings, such as pedestrian countdown signals, crossing signage, ADA compliant ramps, lighting, clear sight lines, and pavement crosswalk markings.

Visual Interest and Amenities: Aesthetic considerations of a corridor; scale, attractiveness, design quality, aesthetic lighting, pedestrian-friendly land uses, and maintenance. Highest scores are represented by well-maintained corridors with robust streetscape enhancements, active street-level building frontage, and opportunities for protection from the elements.

Security: Presence of characteristics that convey a sense of safety and security for the pedestrian. Priority is given to corridors with pedestrian lighting, clear visual line of sight, and sidewalk separation from vehicular traffic by on-street parking or a landscape buffer.

Table 7.16 summarizes the criteria for each corridor.

Independence Avenue

Directness: The corridor primarily falls within a tight urban grid that provides direct connections to the surrounding neighborhoods. The western portion of the corridor interfaces with the interstate loop system which degrades the clarity of the sidewalk network and limits alternative routes.

Continuity: The sidewalk network is continuous

TABLE 7.16 WALKABILITY EVALUATION SUMMARY

CORRIDOR	RATING
INDEPENDENCE AVENUE: TO BENTON	MEDIUM-HIGH
INDEPENDENCE AVENUE: TO HARDESTY	MEDIUM-HIGH
12TH ST WEST: WEST BOTTOMS TO MAIN	MEDIUM-HIGH
12TH ST EAST: MAIN TO PROSPECT	HIGH
12TH ST COMBINED: WEST BOTTOMS TO PROSPECT	MEDIUM-HIGH
18TH ST: TO PROSPECT	MEDIUM-HIGH
SOUTHWEST BOULEVARD: TO STATE LINE	MEDIUM
18TH ST--SOUTHWEST BOULEVARD: SUMMIT TO PROSPECT	MEDIUM-HIGH
MAIN STREET: TO 51ST STREET	MEDIUM-HIGH
31ST STREET: MAIN TO PROSPECT	MEDIUM
31ST STREET: MAIN TO VA HOSPITAL	MEDIUM
31ST STREET: GILLHAM TO PROSPECT	MEDIUM-HIGH
31ST STREET: GILLHAM TO VA HOSPITAL	MEDIUM
LINWOOD BOULEVARD: MAIN TO PROSPECT	MEDIUM-HIGH
LINWOOD BOULEVARD: MAIN TO VA HOSPITAL	MEDIUM-HIGH
LINWOOD BOULEVARD: GILLHAM TO PROSPECT	MEDIUM-HIGH
LINWOOD BOULEVARD: GILLHAM TO VA HOSPITAL	MEDIUM-HIGH
COUNTRY CLUB R.O.W.: TO 75TH ST (ON STREET)	HIGH
COUNTRY CLUB R.O.W.: TO 75TH ST (IN R.O.W.)	MEDIUM-HIGH
COUNTRY CLUB R.O.W.: TO 85TH AND PROSPECT (ON STREET)	HIGH
COUNTRY CLUB R.O.W.: TO 85TH AND PROSPECT (IN R.O.W.)	MEDIUM-HIGH



and in good condition throughout much of the corridor. Exceptions to this are those segments along Cherry in Columbus Park where the sidewalk network is incomplete.

Street Crossings: Street crossings in the corridor generally fall within the fair rating, with accessible ramps, crosswalk markings (although most are faded), and pedestrian signals at major intersections. Segments that pass over the interstate loop are lacking the most in street crossing features.

Visual Interest and Amenities: The corridor has an above average, well-maintained streetscape character along Independence Avenue from Paseo to Benton. The segment along Cherry in Columbus Park runs parallel to the interstate loop and has minimal building frontage. Other portions of the corridor have fragmented building frontage, diminishing the visual interest for pedestrians.

Security: The majority of the corridor rated fair to good with an “eyes on the street” presence, sidewalk separation from vehicular traffic, and additional pedestrian-oriented lighting. Segments near the interstate provide limited relief from vehicular traffic.

Overall, Independence Avenue achieved a corridor walkability rating of Medium-High. Those portions of the corridor adjacent and over the interstate loop had the biggest negative impact on the score, while the portion between Paseo and Benton had a positive impact due to streetscape enhancements, active street edges, and pedestrian focus.

12th Street East

Directness: The majority of the corridor falls within a tight urban grid with direct connections to the adjacent neighborhoods.

Continuity: The sidewalk network is continuous and in good condition throughout much of the corridor.

Street Crossings: Street crossings in the corridor generally fall within the good rating, with accessible ramps, crosswalk markings, and pedestrian signals at major intersections. Portions of the corridor from Charlotte to Paseo either lack crosswalks or are heavily faded, hampering safe crossings.

Visual Interest and Amenities: Portions of the corridor within the Central Business District (CBD) and from Paseo to Brooklyn have an enhanced streetscape character coupled with active building frontages along the street edge. However, between

Charlotte and Virginia the corridor lacks streetscape amenities and vacant lots and parking dominate the street edge. This segment of the corridor also traverses under Interstate 70, resulting in an uninviting pedestrian experience.

Security: The corridor scored fair to good throughout with an “eyes on the street” presence, sidewalk separation from vehicular traffic, and portions with additional pedestrian-oriented lighting. The segment that traverses under Interstate 70 lacks elements that promote a safe and secure walkable environment.

Overall, the eastern 12th Street extension corridor achieved a corridor walkability rating of High. With the exception of the portions surrounding Interstate 70, this corridor is walkable, with enhanced streetscape, active street edges, and a pedestrian focus.

12th Street West

Directness: The segment of the corridor within the Central Business District (CBD) provides direct connections to the adjacent neighborhoods. The western portion of the corridor, a bridge connecting the CBD to the West Bottoms, is a direct connection but lacks alternative routes.

Continuity: The sidewalk network is recently improved and continuous throughout the corridor. **Street Crossings:** Street crossings in the corridor are well-marked, provide pedestrian crossing signals, and have clear sight lines.

Visual Interest and Amenities: The segment of the corridor within the Central Business District (CBD) has a rich streetscape character with decorative lighting, street trees and decorative paving. Building frontage occurs throughout most of this segment. The bridge connection to the West Bottoms is a detrimental pedestrian experience, providing only minimal pedestrian accommodations.

Security: This corridor is scored well for security except for the bridge connection to the West Bottoms, which lacks pedestrian separation from vehicles and “eyes on the street”.

Overall, the western 12th Street extension corridor achieved a corridor walkability rating of Medium-High. The corridor scored well within the CBD but is hindered by the bridge connection to the West Bottoms.

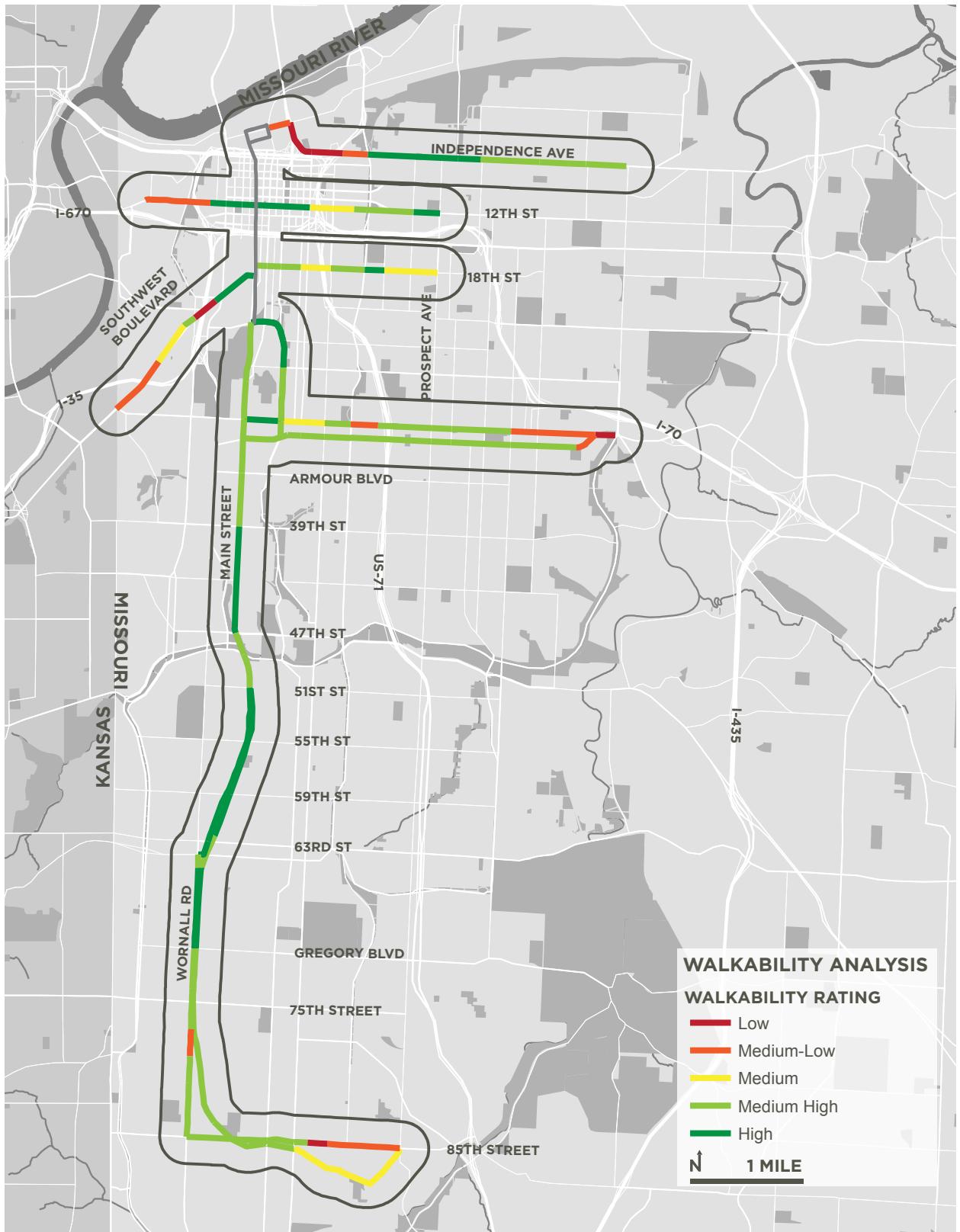


FIGURE 7.2 EXISTING WALKABILITY ANALYSIS



12TH Street Combined

West Bottoms to Prospect

The combined route of 12th Street east and west of Main Street was assessed a walkability rating of Medium-High. Refer to the previous individual descriptions east and west of Main Street for additional rating details.

18th Street

Directness: The corridor is characterized within an urban grid with direct connections to the surrounding neighborhoods.

Continuity: The majority of the sidewalk network is continuous but the condition of the sidewalk varies throughout the corridor. The ratings of fair and good in the ratings summary generally reflect this condition disparity.

Street Crossings: Street crossings in the corridor west of Woodland scored well, but segments east of Woodland generally lacked sufficient pavement markings, ADA ramps, and/or pedestrian signals.

Visual Interest and Amenities: The corridor lacks pedestrian amenities and visual interest that promote a walkable environment. West of the Paseo, the corridor is lined with surface parking lots, an electrical substation, and inconsistent active building edges. From Paseo to Woodland, the 18th and Vine District has an above average, well-maintained streetscape character. East of Woodland, the corridor is again characterized by underutilized and industrial properties with a limited presence along the street edge which degrades the pedestrian experience.

Security: Largely due to a lack of visual interest

and amenities (with the exception of the 18th and Vine District), the corridor lacks sufficient lighting and “eyes on the street” required to provide a safe and secure pedestrian experience. Portions of the corridor also lack sidewalk separation from the roadway, exposing pedestrians to vehicular traffic.

Overall, the eastern 18th Street corridor was assessed a walkability rating of Medium-High. Although the corridor provides direct connections, the inconsistency of the sidewalk conditions and lack of a pedestrian-friendly environment negatively impact its walkability rating.

Southwest Boulevard

Directness: Southwest Boulevard is a corridor that bisects the urban grid of Crossroads and Westside neighborhoods. The corridor provides opportunities for direct connections to the surrounding neighborhoods, but barriers such as Interstate 35 and railroad underpasses limit the directness and provision of alternate routes.

Continuity: The sidewalk network continuity, much like the directness category, is hampered by barriers along the corridor. Under Interstate 35 the sidewalk network is disjointed and confusing. Further west beyond 25th Street, the sidewalk network is somewhat continuous, but portions of the network are in disrepair.

Street Crossings: Portions of the corridor have good street crossing features, while others such as the area under I-35 and areas west of 27th Street lack sufficient accommodations to facilitate safe pedestrian crossings.

TABLE 7.17A INDEPENDENCE AVENUE PEDESTRIAN LEVEL OF SERVICE

SEGMENT	DIRECTNESS	CONTINUITY	STREET CROSSINGS	VISUAL INTEREST & AMENITIES	SECURITY	RATING
3RD ST, GRAND TO CHERRY	GOOD	FAIR	FAIR	POOR	POOR	MEDIUM-LOW
CHERRY TO CHARLOTTE	POOR	POOR	POOR	POOR	FAIR	LOW
CHARLOTTE TO FOREST	POOR	POOR	POOR	POOR	POOR	LOW
FOREST TO PASEO	FAIR	POOR	FAIR	POOR	FAIR	MEDIUM-LOW
PASEO TO CHESTNUT	GOOD	GOOD	GOOD	GOOD	GOOD	HIGH
CHESTNUT TO BENTON	GOOD	GOOD	GOOD	GOOD	GOOD	HIGH
BENTON TO NORTON	GOOD	GOOD	FAIR	FAIR	FAIR	MEDIUM-HIGH
NORTON TO CYPRESS	GOOD	GOOD	FAIR	POOR	FAIR	MEDIUM
CYPRESS TO VAN BRUNT	GOOD	GOOD	FAIR	FAIR	FAIR	MEDIUM-HIGH
VAN BRUNT TO HARDESTY	GOOD	GOOD	FAIR	FAIR	FAIR	MEDIUM-HIGH
OVERALL ALIGNMENT						MEDIUM-HIGH

Visual Interest and Amenities: The corridor has good pedestrian amenities and visual interest with active street frontages for portions of the Crossroads neighborhood and the segment from Summit west to 25th Street. As in the other categories, the segment beneath I-35 lacks features that promote a safe, walkable pedestrian environment. The portion of the corridor west of 25th Street features primarily commercial/industrial building or green space frontages that address the street edge but don't promote pedestrian activity.

Security: Portions of the corridor with active building frontages provide "eyes on the street" presence to improve the perception of security, but the majority of the corridor features sidewalks directly adjacent to the roadway providing little relief from traffic exposure. Pedestrian-specific lighting is also lacking throughout. Therefore, the security rating ranges from fair to poor for the corridor.

Overall, the Southwest Boulevard corridor was assessed a walkability rating of Medium. The corridor is hampered by the presence of two underpass conditions and a lack of active street edges and streetscape amenities, all which contribute to a less secure, less walkable pedestrian environment.

18th Street / Southwest Boulevard Combined

The combined route of Southwest Boulevard and 18th Street was assessed a walkability rating of Medium-High. Refer to the previous descriptions of the segments east and west of Main Street for additional rating details.

31st Street

Directness: The corridor falls within a tight urban grid with direct connections to the surrounding neighborhoods. The eastern portion of the corridor (from Linwood to Van Brunt) lacks a complete sidewalk network.

Continuity: The majority of the sidewalk network is continuous (with the exception of Linwood to Van Brunt) but the condition of the sidewalk varies throughout the corridor. The segments from Paseo to Woodland and Jackson to Linwood have sidewalks in disrepair and/or breaks in the network.

Street Crossings: Street crossings in the corridor are generally rated as fair, generally providing only minimal crossing features such as pavement markings, pedestrian signals, and ADA accommodations.

Visual Interest and Amenities: The corridor

lacks pedestrian amenities and visual interest that promote a walkable environment. Portions of the corridor are lined with vacant lots and surface parking. The corridor lacks consistent streetscape amenities, degrading the pedestrian experience.

Security: Largely due to a lack of visual interest and amenities, the corridor lacks sufficient lighting and "eyes on the street" required to provide a safe and secure pedestrian experience. Portions of the corridor also lack sidewalk separation from the roadway, exposing pedestrians to vehicular traffic.

Overall, the 31st Street corridor was primarily assessed a walkability rating of Medium, with the option to Prospect via Pershing/Gillham rated at Medium-High due to improved sidewalk continuity and street crossings. Although the corridor provides direct connections, the inconsistency of the sidewalk conditions and lack of a pedestrian-friendly environment negatively impact its walkability rating.

Linwood Boulevard

Directness: The corridor falls within a tight urban grid with direct connections to the surrounding neighborhoods.

Continuity: The sidewalk network is continuous and in good condition throughout much of the corridor.

Street Crossings: Street crossings in the corridor generally fall within the fair rating, with accessible ramps, crosswalk markings, and pedestrian signals at major intersections. But Linwood consists of primarily 5 lanes without a pedestrian refuge which would better facilitate pedestrian crossings of an arterial of this width.

Visual Interest and Amenities: The corridor is primarily rated as fair with regard to visual interest and amenities. The portion from Gillham to Troost is hindered by a lack of consistent active street edge and a few vacant lots. However, segments of the corridor have frontage of significant multi-family mid-rise residential buildings. The corridor also lacks pedestrian amenities but the boulevard designation provides a parkway streetscape character that promotes a walkable environment.

Security: The majority of the corridor rated fair to good with an "eyes on the street" presence, and a sidewalk separation from vehicular traffic.

Overall, Linwood Boulevard achieved a corridor walkability rating of Medium-High. Although portions of the corridor lack a consistent built edge and the width of the roadway present a challenge for pedestrian crossings, the corridor's boulevard



TABLE 7.17B 12TH STREET WEST PEDESTRIAN LEVEL OF SERVICE

SEGMENT	DIRECTNESS	CONTINUITY	STREET CROSSINGS	VISUAL INTEREST & AMENITIES	SECURITY	RATING
MAIN TO WYANDOTTE	GOOD	GOOD	GOOD	GOOD	GOOD	HIGH
WYANDOTTE TO BROADWAY	GOOD	GOOD	GOOD	GOOD	GOOD	HIGH
BROADWAY TO PENNSYLVANIA	GOOD	GOOD	GOOD	GOOD	GOOD	HIGH
PENNSYLVANIA TO LIBERTY	FAIR	FAIR	GOOD	POOR	POOR	MEDIUM-LOW
OVERALL ALIGNMENT						MEDIUM-HIGH

TABLE 7.17C 12TH STREET EAST PEDESTRIAN LEVEL OF SERVICE

SEGMENT	DIRECTNESS	CONTINUITY	STREET CROSSINGS	VISUAL INTEREST & AMENITIES	SECURITY	RATING
MAIN ST TO CHARLOTTE	GOOD	GOOD	GOOD	GOOD	GOOD	HIGH
CHARLOTTE TO TROOST	GOOD	GOOD	FAIR	POOR	POOR	MEDIUM
TROOST TO VIRGINIA	GOOD	GOOD	POOR	POOR	FAIR	MEDIUM
VIRGINIA TO PASEO	GOOD	GOOD	FAIR	FAIR	GOOD	MEDIUM-HIGH
PASEO TO BROOKLYN	FAIR	GOOD	GOOD	GOOD	FAIR	MEDIUM-HIGH
BROOKLYN TO PROSPECT	GOOD	GOOD	GOOD	GOOD	GOOD	HIGH
OVERALL ALIGNMENT						HIGH

TABLE 7.17D 12TH STREET EAST PEDESTRIAN LEVEL OF SERVICE

SEGMENT	DIRECTNESS	CONTINUITY	STREET CROSSINGS	VISUAL INTEREST & AMENITIES	SECURITY	RATING
MAIN TO WYANDOTTE	GOOD	GOOD	GOOD	GOOD	GOOD	HIGH
WYANDOTTE TO BROADWAY	GOOD	GOOD	GOOD	GOOD	GOOD	HIGH
BROADWAY TO PENNSYLVANIA	GOOD	GOOD	GOOD	GOOD	GOOD	HIGH
PENNSYLVANIA TO LIBERTY	FAIR	FAIR	GOOD	POOR	POOR	MEDIUM-LOW
MAIN ST TO CHARLOTTE	GOOD	GOOD	GOOD	GOOD	GOOD	HIGH
CHARLOTTE TO TROOST	GOOD	GOOD	FAIR	POOR	POOR	MEDIUM
TROOST TO VIRGINIA	GOOD	GOOD	POOR	POOR	FAIR	MEDIUM
VIRGINIA TO PASEO	GOOD	GOOD	FAIR	FAIR	GOOD	MEDIUM-HIGH
PASEO TO BROOKLYN	FAIR	GOOD	GOOD	GOOD	FAIR	MEDIUM-HIGH
BROOKLYN TO PROSPECT	GOOD	GOOD	GOOD	GOOD	GOOD	HIGH
OVERALL ALIGNMENT						MEDIUM-HIGH

character and sidewalk network completeness promote a pedestrian-friendly, walkable environment.

Main Street

Directness: The corridor primarily falls within an urban grid although portions of the grid have been eroded due to large developments. The sidewalk network provides direct connections to the surrounding neighborhoods.

Continuity: The sidewalk network is continuous and in good condition throughout much of the corridor. The segment from Pershing to Grand lacks a continuous sidewalk along the western side of the corridor.

Street Crossings: Street crossings in the corridor generally fall within the fair rating, with accessible ramps, crosswalk markings, and pedestrian signals at major intersections. But Main Street ranges between 6 and 7 lanes without a pedestrian refuge which would better facilitate pedestrian crossings of an arterial of this width.

Visual Interest and Amenities: The corridor ranges from a fair to good rating with regard to visual interest and amenities. Portions of the corridor run adjacent to park land while others have active building frontage. A recent streetscape enhancement from approximately Armour to 43rd Street provides amenities and additional pedestrian lighting. However, the segment from Grand to Armour lacks a consistent urban street edge that would otherwise contribute to a pedestrian-friendly environment.

Security: The majority of the corridor rated fair to good with an “eyes on the street” presence, sidewalk separation from vehicular traffic, and additional pedestrian-oriented lighting.

Overall, Main Street achieved a corridor walkability rating of Medium-High. Although portions of the corridor lack a consistent built edge and the width of the roadway present a challenge for pedestrian crossings, recent investments in streetscape improvements contribute to a walkable environment.

Country Club Right of Way (in Right of Way)

Directness: The corridor right-of-way is mostly characterized as falling within a grid network, although a few of the neighborhood connections are curvilinear but still well-connected. The trail thus provides some direct connections to the surrounding neighborhoods, except for portions of the corridor that stray from the street network

and provide limited connectivity and sidewalk alternatives.

Continuity: The trail alignment has good continuity and is in good condition with minimal maintenance problems throughout the corridor.

Street Crossings: Street crossings in the corridor vary from fair to good. Largely due to the trail crossings occurring separate from roadway intersections, there appears to be an emphasis on pavement markings and pedestrian crossing signage. Street crossings also primarily occur mid-block on minor streets, and at major intersections with adequate accommodations.

Visual Interest and Amenities: The northern end of the corridor is lined with residential neighborhoods along the Trolley Track Trail. The trail, although portions fall along the rear of residential lots, is well-maintained in a park-like setting with pedestrian amenities. South of Gregory to 77th, the trail falls within a constrained right-of-way adjacent to parking lots and commercial retail. South of 77th the trail right-of-way strays from the street grid, lined by residential neighborhoods to the east and the back of commercial, industrial, and residential uses to the west. Near 85th Street to the proposed terminus, the trail varies in experience, from a wooded naturalistic corridor to adjacent to the street to alongside heavy industrial properties.

Security: The primary concern related to the trail right-of-way regarding security is isolation of the user. Although segments of the trail have additional lighting to facilitate street crossings and provide more visibility of the surroundings, portions of the corridor fall in remote wooded areas. This separation from the street grid can be disorienting and uncomfortable for pedestrians. For this reason those segments of the corridor received a poor rating with regard to security.

Overall, the Country Club Right-of-Way trail alignment achieved a corridor walkability rating of Medium-High. Although portions of the corridor were hampered by a disconnected and isolated alignment from the urban grid, the presence of the dedicated right-of-way as a trail greenway provides a walkable, pedestrian-oriented environment that provides necessary connections to adjacent neighborhoods and commercial activity centers.

Country Club Right of Way (On Street)

Directness: The corridor is mostly characterized as falling within a grid network, although a few of the neighborhood connections are curvilinear but still



TABLE 7.17E 18TH STREET PEDESTRIAN LEVEL OF SERVICE

SEGMENT	DIRECTNESS	CONTINUITY	STREET CROSSINGS	VISUAL INTEREST & AMENITIES	SECURITY	RATING
MAIN TO GRAND	GOOD	GOOD	GOOD	POOR	FAIR	MEDIUM-HIGH
GRAND TO OAK	GOOD	GOOD	GOOD	FAIR	FAIR	MEDIUM-HIGH
OAK TO HOLMES	GOOD	FAIR	FAIR	FAIR	FAIR	MEDIUM
HOLMES TO TROOST	GOOD	FAIR	GOOD	POOR	POOR	MEDIUM
TROOST TO PASEO	GOOD	GOOD	FAIR	POOR	FAIR	MEDIUM
PASEO TO WOODLAND	GOOD	GOOD	GOOD	GOOD	GOOD	HIGH
WOODLAND TO PROSPECT	GOOD	FAIR	FAIR	POOR	FAIR	MEDIUM
OVERALL ALIGNMENT						MEDIUM-HIGH

TABLE 7.17F SOUTHWEST BOULEVARD PEDESTRIAN LEVEL OF SERVICE

SEGMENT	DIRECTNESS	CONTINUITY	STREET CROSSINGS	VISUAL INTEREST & AMENITIES	SECURITY	RATING
MAIN TO WASHINGTON	GOOD	GOOD	GOOD	GOOD	FAIR	HIGH
WASHINGTON TO SUMMIT	FAIR	POOR	POOR	POOR	POOR	LOW
SUMMIT TO 25TH	GOOD	GOOD	FAIR	GOOD	FAIR	MEDIUM-HIGH
25TH TO 27TH	FAIR	FAIR	FAIR	FAIR	FAIR	MEDIUM
27TH TO 31ST/STATE LINE	FAIR	FAIR	POOR	FAIR	POOR	MEDIUM-LOW
OVERALL ALIGNMENT						MEDIUM

TABLE 7.17G 18TH AND SOUTHWEST BOULEVARD PEDESTRIAN LEVEL OF SERVICE

SEGMENT	DIRECTNESS	CONTINUITY	STREET CROSSINGS	VISUAL INTEREST & AMENITIES	SECURITY	RATING
MAIN TO WASHINGTON	GOOD	GOOD	GOOD	GOOD	FAIR	HIGH
WASHINGTON TO SUMMIT	FAIR	POOR	POOR	POOR	POOR	LOW
MAIN TO GRAND	GOOD	GOOD	GOOD	POOR	FAIR	MEDIUM-HIGH
GRAND TO OAK	GOOD	GOOD	GOOD	FAIR	FAIR	MEDIUM-HIGH
OAK TO HOLMES	GOOD	FAIR	FAIR	FAIR	FAIR	MEDIUM
HOLMES TO TROOST	GOOD	FAIR	GOOD	POOR	POOR	MEDIUM
TROOST TO PASEO	GOOD	GOOD	FAIR	POOR	FAIR	MEDIUM
PASEO TO WOODLAND	GOOD	GOOD	GOOD	GOOD	GOOD	HIGH
WOODLAND TO PROSPECT	GOOD	FAIR	FAIR	POOR	FAIR	MEDIUM
OVERALL ALIGNMENT						MEDIUM-HIGH

well-connected. The sidewalk network thus provides direct connections to the surrounding neighborhoods, except for the end of the corridor where breaks exist in the sidewalk network with limited alternatives.

Continuity: For the first half of the corridor the sidewalk network is continuous and in good condition. From 77th to the terminus, the network contains some gaps and some areas where the sidewalks are in disrepair. There have been some recent repairs but the result is a variety of sidewalk conditions, reducing the effectiveness of the network.

Street Crossings: Street crossings in the corridor are generally rated as fair. Crossings on minor streets consist of accessible ramps but lack pavement markings. Major intersections provide accessible ramps, pavement markings, and pedestrian signals, but typically require pedestrians to cross five traffic lanes without a pedestrian refuge.

Visual Interest and Amenities: The northern end of the corridor is lined with residential neighborhoods and parallels the Trolley Track trail. Brookside Boulevard is lined with street trees and landscape parkways, with ample pedestrian amenities. Wornall Road, from Gregory south to 85th, is lined with lower density commercial retail and surface parking lots in addition to segments of the trail. Along 85th Street from Troost to Prospect the corridor has a diminished visual interest for pedestrians, with some vacant lots and minimal building frontages.

Security: Consistent with the visual interest category, the corridor is more secure along the northern segments of the corridor and that perception erodes as the corridor continues toward the proposed terminus. Primary reasons for this erosion are lack of pedestrian separation from the street, diminished presence of “eyes on the street,” and lack of sufficient pedestrian-oriented lighting.

Overall, the Country Club Right-of-Way on-street alignment achieved a corridor walkability rating of Medium-High. The corridor was rated highest for the northern portion of the corridor along Brookside Boulevard, scored fair for the segment along Wornall Road despite the lack of consistent streetscape amenities and building frontages, and fared the worst along the eastern end of 85th Street due to a lack of complete sidewalk network and pedestrian-focused development.

TABLE 7.17H MAIN STREET PEDESTRIAN LEVEL OF SERVICE

SEGMENT	DIRECTNESS	CONTINUITY	STREET CROSSINGS	VISUAL INTEREST & AMENITIES	SECURITY	RATING
PERSHING TO GRAND	FAIR	FAIR	FAIR	GOOD	FAIR	MEDIUM
GRAND TO 31ST	FAIR	GOOD	FAIR	FAIR	FAIR	MEDIUM
31ST TO LINWOOD	GOOD	GOOD	FAIR	FAIR	FAIR	MEDIUM-HIGH
LINWOOD TO ARMOUR	GOOD	GOOD	FAIR	FAIR	FAIR	MEDIUM-HIGH
ARMOUR TO 39TH	GOOD	GOOD	FAIR	GOOD	FAIR	MEDIUM-HIGH
39TH TO 47TH	GOOD	GOOD	FAIR	GOOD	GOOD	HIGH
CLEAVER II TO VOLKER	FAIR	GOOD	FAIR	FAIR	GOOD	MEDIUM-HIGH
BROOKSIDE, VOLKER TO 51ST	GOOD	GOOD	FAIR	GOOD	FAIR	MEDIUM-HIGH
OVERALL ALIGNMENT						MEDIUM-HIGH



TABLE 7.17I 31ST STREET TO PROSPECT VIA MAIN PEDESTRIAN LEVEL OF SERVICE

SEGMENT	DIRECTNESS	CONTINUITY	STREET CROSSINGS	VISUAL INTEREST & AMENITIES	SECURITY	RATING
MAIN, PERSHING TO GRAND	FAIR	FAIR	FAIR	GOOD	FAIR	MEDIUM
MAIN, GRAND TO 31ST	FAIR	GOOD	FAIR	FAIR	FAIR	MEDIUM
MAIN TO GILLHAM	GOOD	GOOD	GOOD	FAIR	GOOD	HIGH
GILLHAM TO TROOST	GOOD	FAIR	FAIR	POOR	FAIR	MEDIUM
TROOST TO PASEO	GOOD	FAIR	FAIR	FAIR	FAIR	MEDIUM
PASEO TO WOODLAND	GOOD	POOR	FAIR	POOR	POOR	MEDIUM-LOW
WOODLAND TO GARFIELD	GOOD	GOOD	FAIR	POOR	FAIR	MEDIUM
GARFIELD TO PROSPECT	GOOD	FAIR	FAIR	POOR	FAIR	MEDIUM
OVERALL ALIGNMENT						MEDIUM

TABLE 7.17J 31ST STREET TO PROSPECT VIA GILLHAM PEDESTRIAN LEVEL OF SERVICE

SEGMENT	DIRECTNESS	CONTINUITY	STREET CROSSINGS	VISUAL INTEREST & AMENITIES	SECURITY	RATING
PERSHING, MAIN TO 25TH	FAIR	GOOD	GOOD	GOOD	GOOD	HIGH
GILLHAM, 25TH TO 27TH	GOOD	GOOD	GOOD	GOOD	FAIR	HIGH
GILLHAM, 27TH TO 31ST	GOOD	GOOD	FAIR	FAIR	FAIR	MEDIUM-HIGH
GILLHAM TO TROOST	GOOD	FAIR	FAIR	POOR	FAIR	MEDIUM
TROOST TO PASEO	GOOD	FAIR	FAIR	FAIR	FAIR	MEDIUM
PASEO TO WOODLAND	GOOD	POOR	FAIR	POOR	POOR	MEDIUM-LOW
WOODLAND TO GARFIELD	GOOD	GOOD	FAIR	POOR	FAIR	MEDIUM
GARFIELD TO PROSPECT	GOOD	FAIR	FAIR	POOR	FAIR	MEDIUM
OVERALL ALIGNMENT						MEDIUM-HIGH

TABLE 7.17F 31ST ST TO VAN BRUNT VIA MAIN PEDESTRIAN LEVEL OF SERVICE

SEGMENT	DIRECTNESS	CONTINUITY	STREET CROSSINGS	VISUAL INTEREST & AMENITIES	SECURITY	RATING
MAIN, PERSHING TO GRAND	FAIR	FAIR	FAIR	GOOD	FAIR	MEDIUM
MAIN, GRAND TO 31ST	FAIR	GOOD	FAIR	FAIR	FAIR	MEDIUM
MAIN TO GILLHAM	GOOD	GOOD	GOOD	FAIR	GOOD	HIGH
GILLHAM TO TROOST	GOOD	FAIR	FAIR	POOR	FAIR	MEDIUM
TROOST TO PASEO	GOOD	FAIR	FAIR	FAIR	FAIR	MEDIUM
PASEO TO WOODLAND	GOOD	POOR	FAIR	POOR	POOR	MEDIUM-LOW
WOODLAND TO GARFIELD	GOOD	GOOD	FAIR	POOR	FAIR	MEDIUM
GARFIELD TO PROSPECT	GOOD	FAIR	FAIR	POOR	FAIR	MEDIUM
PROSPECT TO BENTON	GOOD	GOOD	FAIR	POOR	FAIR	MEDIUM
BENTON TO CLEVELAND	GOOD	FAIR	FAIR	FAIR	FAIR	MEDIUM
CLEVELAND TO JACKSON	FAIR	FAIR	FAIR	POOR	FAIR	MEDIUM-LOW
JACKSON TO LINWOOD	FAIR	POOR	POOR	POOR	FAIR	LOW
LINWOOD TO VAN BRUNT	POOR	POOR	POOR	POOR	FAIR	LOW
OVERALL ALIGNMENT						MEDIUM

TABLE 7.17G 31ST ST TO VAN BRUNT VIA GILLHAM PEDESTRIAN LEVEL OF SERVICE

SEGMENT	DIRECTNESS	CONTINUITY	STREET CROSSINGS	VISUAL INTEREST & AMENITIES	SECURITY	RATING
PERSHING, MAIN TO 25TH	FAIR	GOOD	GOOD	GOOD	GOOD	HIGH
GILLHAM, 25TH TO 27TH	GOOD	GOOD	GOOD	GOOD	FAIR	HIGH
GILLHAM, 27TH TO 31ST	GOOD	GOOD	FAIR	FAIR	FAIR	MEDIUM-HIGH
GILLHAM TO TROOST	GOOD	FAIR	FAIR	POOR	FAIR	MEDIUM
TROOST TO PASEO	GOOD	FAIR	FAIR	FAIR	FAIR	MEDIUM
PASEO TO WOODLAND	GOOD	POOR	FAIR	POOR	POOR	MEDIUM-LOW
WOODLAND TO GARFIELD	GOOD	GOOD	FAIR	POOR	FAIR	MEDIUM
GARFIELD TO PROSPECT	GOOD	FAIR	FAIR	POOR	FAIR	MEDIUM
PROSPECT TO BENTON	GOOD	GOOD	FAIR	POOR	FAIR	MEDIUM
BENTON TO CLEVELAND	GOOD	FAIR	FAIR	FAIR	FAIR	MEDIUM
CLEVELAND TO JACKSON	FAIR	FAIR	FAIR	POOR	FAIR	MEDIUM-LOW
JACKSON TO LINWOOD	FAIR	POOR	POOR	POOR	FAIR	LOW
LINWOOD TO VAN BRUNT	POOR	POOR	POOR	POOR	FAIR	LOW
OVERALL ALIGNMENT						MEDIUM

TABLE 6.17H LINWOOD BOULEVARD TO PROSPECT VIA MAIN PEDESTRIAN LEVEL OF SERVICE

SEGMENT	DIRECTNESS	CONTINUITY	STREET CROSSINGS	VISUAL INTEREST & AMENITIES	SECURITY	RATING
MAIN, PERSHING TO GRAND	FAIR	FAIR	FAIR	GOOD	FAIR	MEDIUM
MAIN, GRAND TO 31ST	FAIR	GOOD	FAIR	FAIR	FAIR	MEDIUM
MAIN TO GILLHAM	GOOD	GOOD	FAIR	FAIR	GOOD	MEDIUM-HIGH
GILLHAM TO CHARLOTTE	GOOD	GOOD	FAIR	POOR	FAIR	MEDIUM
CHARLOTTE TO TROOST	GOOD	GOOD	FAIR	POOR	FAIR	MEDIUM
TROOST TO PASEO	GOOD	GOOD	GOOD	FAIR	FAIR	MEDIUM-HIGH
PASEO TO WOODLAND	GOOD	GOOD	FAIR	FAIR	FAIR	MEDIUM-HIGH
WOODLAND TO PROSPECT	GOOD	GOOD	FAIR	FAIR	FAIR	MEDIUM-HIGH
OVERALL ALIGNMENT						MEDIUM-HIGH

**TABLE 7.17I LINWOOD BOULEVARD TO PROSPECT VIA GILLHAM PEDESTRIAN LEVEL OF SERVICE**

SEGMENT	DIRECTNESS	CONTINUITY	STREET CROSSINGS	VISUAL INTEREST & AMENITIES	SECURITY	RATING
PERSHING, MAIN TO 25TH	FAIR	GOOD	GOOD	GOOD	GOOD	HIGH
GILLHAM, 25TH TO 27TH	GOOD	GOOD	GOOD	GOOD	FAIR	HIGH
GILLHAM, 27TH TO 31ST	GOOD	GOOD	FAIR	FAIR	FAIR	MEDIUM-HIGH
GILLHAM, 31ST TO LINWOOD	GOOD	GOOD	FAIR	FAIR	FAIR	MEDIUM-HIGH
GILLHAM TO CHARLOTTE	GOOD	GOOD	FAIR	POOR	FAIR	MEDIUM
CHARLOTTE TO TROOST	GOOD	GOOD	FAIR	POOR	FAIR	MEDIUM
TROOST TO PASEO	GOOD	GOOD	GOOD	FAIR	FAIR	MEDIUM-HIGH
PASEO TO WOODLAND	GOOD	GOOD	FAIR	FAIR	FAIR	MEDIUM-HIGH
WOODLAND TO PROSPECT	GOOD	GOOD	FAIR	FAIR	FAIR	MEDIUM-HIGH
OVERALL ALIGNMENT						MEDIUM-HIGH



TABLE 7.17J LINWOOD BOULEVARD TO VAN BRUNT VIA MAIN PEDESTRIAN LEVEL OF

SEGMENT	DIRECTNESS	CONTINUITY	STREET CROSSINGS	VISUAL INTEREST & AMENITIES	SECURITY	RATING
MAIN, PERSHING TO GRAND	FAIR	FAIR	FAIR	GOOD	FAIR	MEDIUM
MAIN, GRAND TO 31ST	FAIR	GOOD	FAIR	FAIR	FAIR	MEDIUM
MAIN TO GILLHAM	GOOD	GOOD	FAIR	FAIR	GOOD	MEDIUM-HIGH
GILLHAM TO CHARLOTTE	GOOD	GOOD	FAIR	POOR	FAIR	MEDIUM
CHARLOTTE TO TROOST	GOOD	GOOD	FAIR	POOR	FAIR	MEDIUM
TROOST TO PASEO	GOOD	GOOD	GOOD	FAIR	FAIR	MEDIUM-HIGH
PASEO TO WOODLAND	GOOD	GOOD	FAIR	FAIR	FAIR	MEDIUM-HIGH
WOODLAND TO PROSPECT	GOOD	GOOD	FAIR	FAIR	FAIR	MEDIUM-HIGH
PROSPECT TO BENTON	GOOD	GOOD	FAIR	FAIR	FAIR	MEDIUM-HIGH
BENTON TO CLEVELAND	GOOD	GOOD	FAIR	GOOD	FAIR	MEDIUM-HIGH
CLEVELAND TO CHELSEA	GOOD	GOOD	FAIR	FAIR	FAIR	MEDIUM-HIGH
CHELSEA TO 31ST	FAIR	FAIR	POOR	POOR	FAIR	MEDIUM-LOW
OVERALL ALIGNMENT						MEDIUM-HIGH

TABLE 7.17K LINWOOD BOULEVARD TO VAN BRUNT VIA GILLHAM PEDESTRIAN LEVEL OF

SEGMENT	DIRECTNESS	CONTINUITY	STREET CROSSINGS	VISUAL INTEREST & AMENITIES	SECURITY	RATING
PERSHING, MAIN TO 25TH	FAIR	GOOD	GOOD	GOOD	GOOD	HIGH
GILLHAM, 25TH TO 27TH	GOOD	GOOD	GOOD	GOOD	FAIR	HIGH
GILLHAM, 27TH TO 31ST	GOOD	GOOD	FAIR	FAIR	FAIR	MEDIUM-HIGH
GILLHAM, 31ST TO LINWOOD	GOOD	GOOD	FAIR	FAIR	FAIR	MEDIUM-HIGH
GILLHAM TO CHARLOTTE	GOOD	GOOD	FAIR	POOR	FAIR	MEDIUM
CHARLOTTE TO TROOST	GOOD	GOOD	FAIR	POOR	FAIR	MEDIUM
TROOST TO PASEO	GOOD	GOOD	GOOD	FAIR	FAIR	MEDIUM-HIGH
PASEO TO WOODLAND	GOOD	GOOD	FAIR	FAIR	FAIR	MEDIUM-HIGH
WOODLAND TO PROSPECT	GOOD	GOOD	FAIR	FAIR	FAIR	MEDIUM-HIGH
PROSPECT TO BENTON	GOOD	GOOD	FAIR	FAIR	FAIR	MEDIUM-HIGH
BENTON TO CLEVELAND	GOOD	GOOD	FAIR	GOOD	FAIR	MEDIUM-HIGH
CLEVELAND TO CHELSEA	GOOD	GOOD	FAIR	FAIR	FAIR	MEDIUM-HIGH
CHELSEA TO 31ST	FAIR	FAIR	POOR	POOR	FAIR	MEDIUM-LOW
OVERALL ALIGNMENT						MEDIUM-HIGH

**TABLE 7.17L COUNTRY CLUB RIGHT OF WAY TO 75TH (IN RIGHT-OF-WAY)
PEDESTRIAN LEVEL OF SERVICE**

SEGMENT	DIRECTNESS	CONTINUITY	STREET CROSSINGS	VISUAL INTEREST & AMENITIES	SECURITY	RATING
BROOKSIDE BOULEVARD, 51ST TO 59TH	GOOD	GOOD	FAIR	GOOD	GOOD	HIGH
59TH TO 62ND TERR	GOOD	GOOD	GOOD	GOOD	FAIR	HIGH
62ND TERR TO 65TH	FAIR	GOOD	FAIR	GOOD	FAIR	MEDIUM-HIGH
WORNALL, 65TH TO GREGORY	GOOD	GOOD	FAIR	GOOD	GOOD	HIGH
WORNALL, GREGORY TO 74TH ST	GOOD	GOOD	GOOD	FAIR	FAIR	MEDIUM-HIGH
WORNALL, 74TH ST TO 75TH ST	GOOD	GOOD	FAIR	GOOD	FAIR	MEDIUM-HIGH
OVERALL ALIGNMENT						HIGH

**TABLE 7.17M COUNTRY CLUB RIGHT OF WAY TO 85TH (IN RIGHT-OF-WAY)
PEDESTRIAN LEVEL OF SERVICE**

SEGMENT	DIRECTNESS	CONTINUITY	STREET CROSSINGS	VISUAL INTEREST & AMENITIES	SECURITY	RATING
BROOKSIDE BOULEVARD, 51ST TO 59TH	GOOD	GOOD	FAIR	GOOD	GOOD	HIGH
59TH TO 62ND TERR	GOOD	GOOD	GOOD	GOOD	FAIR	HIGH
62ND TERR TO 65TH	FAIR	GOOD	FAIR	GOOD	FAIR	MEDIUM-HIGH
WORNALL, 65TH TO GREGORY	GOOD	GOOD	FAIR	GOOD	GOOD	HIGH
WORNALL, GREGORY TO 74TH ST	GOOD	GOOD	GOOD	FAIR	FAIR	MEDIUM-HIGH
WORNALL, 74TH ST TO 75TH ST	GOOD	GOOD	FAIR	GOOD	FAIR	MEDIUM-HIGH
WORNALL, 75TH TO 77TH ST	GOOD	GOOD	FAIR	FAIR	FAIR	MEDIUM-HIGH
77TH TO MAIN	FAIR	GOOD	GOOD	FAIR	FAIR	MEDIUM-HIGH
MAIN TO HOLMES	FAIR	GOOD	GOOD	FAIR	POOR	MEDIUM
85TH ST, HOLMES TO TROOST	GOOD	GOOD	FAIR	FAIR	FAIR	MEDIUM-HIGH
TROOST TO PROSPECT	POOR	GOOD	GOOD	FAIR	POOR	MEDIUM
OVERALL ALIGNMENT						MEDIUM-HIGH



**TABLE 7.17N COUNTRY CLUB RIGHT OF WAY TO 75TH (ON STREET)
PEDESTRIAN LEVEL OF SERVICE**

SEGMENT	DIRECTNESS	CONTINUITY	STREET CROSSINGS	VISUAL INTEREST & AMENITIES	SECURITY	RATING
BROOKSIDE BOULEVARD, 51ST TO 59TH	GOOD	GOOD	FAIR	GOOD	GOOD	HIGH
BROOKSIDE BOULEVARD, 59TH TO 63RD ST.	GOOD	GOOD	FAIR	GOOD	GOOD	HIGH
BROOKSIDE BOULEVARD, 63RD ST, TO MEYER; & MEYER, BROOKSIDE BOULEVARD TO WORNALL RD	GOOD	GOOD	FAIR	GOOD	GOOD	HIGH
WORNALL RD, MEYER TO 65TH	GOOD	GOOD	FAIR	FAIR	FAIR	MEDIUM-HIGH
WORNALL, 65TH TO GREGORY	GOOD	GOOD	FAIR	GOOD	GOOD	HIGH
WORNALL, GREGORY TO 74TH ST	GOOD	GOOD	GOOD	FAIR	FAIR	MEDIUM-HIGH
WORNALL, 74TH ST TO 75TH ST	GOOD	GOOD	FAIR	GOOD	FAIR	MEDIUM-HIGH

**TABLE 7.17O COUNTRY CLUB RIGHT OF WAY TO 85TH (ON STREET)
PEDESTRIAN LEVEL OF SERVICE**

SEGMENT	DIRECTNESS	CONTINUITY	STREET CROSSINGS	VISUAL INTEREST & AMENITIES	SECURITY	RATING
BROOKSIDE BOULEVARD, 51ST TO 59TH	GOOD	GOOD	FAIR	GOOD	GOOD	HIGH
BROOKSIDE BOULEVARD, 59TH TO 63RD ST.	GOOD	GOOD	FAIR	GOOD	GOOD	HIGH
BROOKSIDE BOULEVARD, 63RD ST, TO MEYER; & MEYER, BROOKSIDE BOULEVARD TO WORNALL RD	GOOD	GOOD	FAIR	GOOD	GOOD	HIGH
WORNALL RD, MEYER TO 65TH	GOOD	GOOD	FAIR	FAIR	FAIR	MEDIUM-HIGH
WORNALL, 65TH TO GREGORY	GOOD	GOOD	FAIR	GOOD	GOOD	HIGH
WORNALL, GREGORY TO 74TH ST	GOOD	GOOD	GOOD	FAIR	FAIR	MEDIUM-HIGH
WORNALL, 74TH ST TO 75TH ST	GOOD	GOOD	FAIR	GOOD	FAIR	MEDIUM-HIGH
WORNALL, 75TH TO 77TH ST	GOOD	GOOD	FAIR	FAIR	FAIR	MEDIUM-HIGH
WORNALL RD, 77TH TO 79TH	GOOD	FAIR	FAIR	POOR	POOR	MEDIUM-LOW
WORNALL RD, 79TH TO 81ST	GOOD	GOOD	FAIR	FAIR	FAIR	MEDIUM-HIGH
WORNALL RD, 81ST TO 85TH	GOOD	GOOD	FAIR	FAIR	FAIR	MEDIUM-HIGH
85TH ST, WORNALL TO SLEEPY HOLLOW	GOOD	FAIR	FAIR	GOOD	GOOD	MEDIUM-HIGH
85TH ST, SLEEPY HOLLOW TO HOLMES	GOOD	FAIR	FAIR	FAIR	FAIR	MEDIUM
85TH ST, HOLMES TO TROOST	GOOD	GOOD	FAIR	FAIR	FAIR	MEDIUM-HIGH
85TH ST, TROOST TO TRACY	GOOD	GOOD	FAIR	POOR	FAIR	MEDIUM
85TH ST, TRACY TO FLORA	POOR	POOR	POOR	POOR	POOR	LOW
85TH ST, FLORA TO PROSPECT	FAIR	FAIR	FAIR	POOR	FAIR	MEDIUM-LOW

EXISTING NEIGHBORHOOD CONNECTIVITY ASSESSMENT

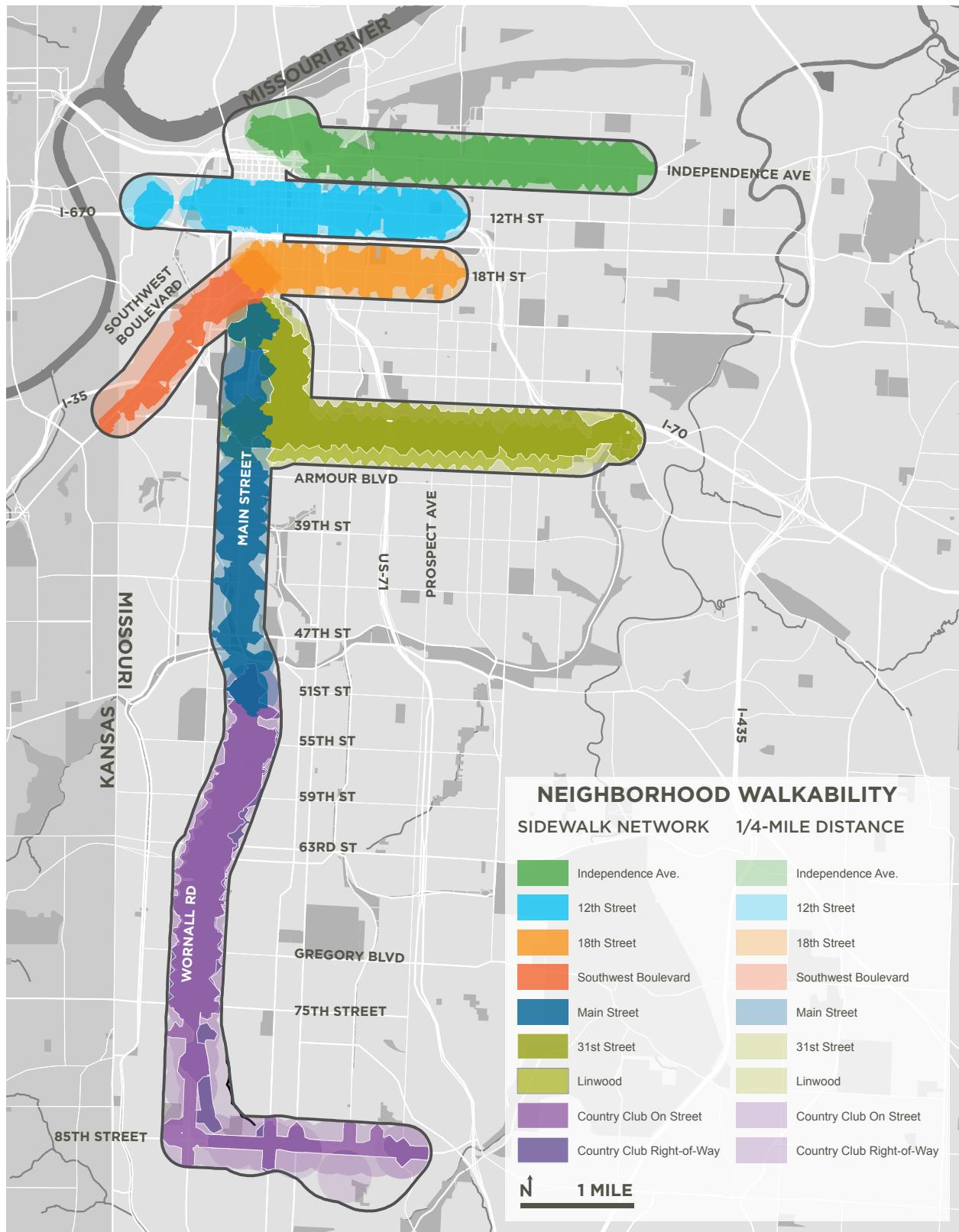
The potential streetcar extension corridors were evaluated as a corridor assessment related to walkability. However, it is also beneficial to consider the connectivity of the corridor to the surrounding neighborhood. This connectivity is a function of the development patterns (i.e. grid, block size, street continuity) as well as a measure of the completeness of the sidewalk network. It is reasonable to conclude that a neighborhood developed in a tight urban grid with a robust sidewalk network will have excellent pedestrian connectivity. A connected neighborhood facilitates walkability and enhances access to transit corridors.

For this analysis, a study area buffer was defined as a five-minute walk radius ($\frac{1}{4}$ mile) from each intersection along the streetcar corridor. As potential station locations are identified this study area can be reduced to encompass a $\frac{1}{4}$ mile buffer from those locations. This will result in a more refined analysis of neighborhood connectivity. This combined land area catchment for the study area buffer was recorded to capture an “as the crow flies” theoretical walking distance. Through Geographic Information Systems (GIS) software analysis, the sidewalk network within the study area was evaluated to determine the actual walking distance within the buffer and this area was recorded. The final measure of neighborhood connectivity, called a connectivity ratio, was determined by dividing the actual walking area by the theoretical walking area. The higher the ratio, the better the connectivity of the neighborhood and the more complete the sidewalk network.

TABLE 7.18 EXISTING NEIGHBORHOOD CONNECTIVITY SUMMARY

CORRIDOR	CONNECTIVITY RATIO	RATING
INDEPENDENCE: RIVER MARKET TO BENTON	0.91	HIGH
INDEPENDENCE: RIVER MARKET TO HARDESTY	0.77	MEDIUM
12TH STREET WEST: WEST BOTTOMS TO MAIN	0.69	MEDIUM-LOW
12TH STREET EAST: MAIN TO PROSPECT	0.84	HIGH
12TH STREET COMBINED: WEST BOTTOMS TO PROSPECT	0.80	MEDIUM-HIGH
18TH STREET: MAIN TO PROSPECT	0.77	MEDIUM
SOUTHWEST BOULEVARD: MAIN TO STATE LINE	0.59	LOW
18TH STREET/SOUTHWEST BOULEVARD: SUMMIT TO PROSPECT	0.76	MEDIUM
31ST STREET: MAIN TO VAN BRUNT	0.72	MEDIUM-LOW
31ST STREET: MAIN TO PROSPECT	0.78	MEDIUM
31ST STREET: GILLHAM TO VAN BRUNT	0.80	MEDIUM-HIGH
31ST STREET: GILLHAM TO PROSPECT	0.81	MEDIUM-HIGH
LINWOOD BOULEVARD: MAIN TO 31ST	0.81	MEDIUM-HIGH
LINWOOD BOULEVARD: MAIN TO PROSPECT	0.76	MEDIUM
LINWOOD BOULEVARD: GILLHAM TO 31ST	0.76	MEDIUM
LINWOOD BOULEVARD: GILLHAM TO PROSPECT	0.81	MEDIUM-HIGH
MAIN STREET: UNION STATION TO UMKC AT 51ST ST	0.79	MEDIUM-HIGH
COUNTRY CLUB: IN R.O.W. TO 75TH STREET	0.80	MEDIUM-HIGH
COUNTRY CLUB: IN R.O.W. TO 85TH STREET	0.80	MEDIUM-HIGH
COUNTRY CLUB: ON STREET TO 75TH	0.62	LOW
COUNTRY CLUB: ON STREET TO 85TH AND PROSPECT	0.60	LOW





POTENTIAL TO IMPROVE CORRIDOR WALKABILITY

Streetcars, as with most alternative transportation options, increase the walkability of a corridor and neighborhood by providing mode choices and facilitating connections to activity centers and destinations. But it's a two-way street: the success of a streetcar line also relies on the walkability of the corridor.

A streetcar investment in a corridor can improve walkability in a variety of ways:

- Provide traffic calming – balancing the transportation modes of the corridor heightens awareness of all corridor users make it safer for pedestrian traffic and street crossings.
- Extending a pedestrian's walkable range for local trips by acting as a pedestrian accelerator – a streetcar provides an opportunity for access to short trips that may be just beyond a person's walking tolerance (factors include physical ability, weather, ability to carry goods, desire for physical exertion).
- Link a corridor divided by barriers – streetcars can provide an opportunity for safe and efficient passage across bridges or underpasses that have limited pedestrian walkability.
- Spurring additional development in the corridor – as investments are made, the pedestrian environment is also enhanced with active ground floor uses and improved streetscapes.
- Increased eyes on the street – activity in the corridor throughout the day will promote increased safety.

Below the table shows a qualitative assessment of each of the proposed streetcar extension corridors and their potential to improve corridor walkability.

Independence Avenue

River Market to Hardesty - (Medium-High)

River Market to Benton - (Medium-High)

Good neighborhood connectivity, especially east of Paseo; bridge over interstate loop has minimal pedestrian accommodations, creating a barrier. Streetcar could improve connections of the corridor to the Downtown Loop, River Market, and Columbus Park.

12th Street (West)

West Bottoms to Main - (Medium-High)

The corridor is not well-connected to the neighborhoods, primarily due to the bridge over I-35 connecting the Downtown Loop to the West Bottoms. Though the bridge has pedestrian

features (sidewalk, pedestrian lighting, ADA accommodations) the addition of streetcar could greatly improve this connection. The West Bottoms district is currently adding sidewalks to improve walkability, but the sidewalk network remains largely disjointed.

(East) Main to Prospect - (Medium)

Good neighborhood connectivity, underpass at I-70 presents a minor barrier to walkability. Streetcar could have a moderate impact to improving walkability in the corridor.

(Combined) West Bottoms to Prospect - (High)

This corridor is hampered by two interstate crossings (one overpass, one underpass) that have minimal to moderate pedestrian accommodations. The western portion of the corridor has limited neighborhood connections as well. The addition of streetcar could greatly improve connectivity to major destinations and neighborhood centers.

18th Street - (Medium)

The corridor has moderate existing walkability and neighborhood connectivity, with a minor barrier of an underpass of 71 Highway (although pedestrian accommodations are present). Streetcar could certainly facilitate connections of the Crossroads District to the 18th and Vine District, destinations that might otherwise lie beyond a pedestrian's acceptable walkable range.

Southwest Boulevard - (Medium-Low)

East of Washington, the corridor is connected and walkable. West of Washington, pedestrians encounter the underpass of I-35 (a barrier with minimal pedestrian features) as well as a corridor with poor existing walkability and a lack of neighborhood connections. Streetcar can improve the walkability of the corridor, but the corridor must have better sidewalk connections to promote a pedestrian environment.

18th Street / Southwest Boulevard, Summit to Prospect - (Medium)

This combined corridor links the Westside neighborhood with the Crossroads and 18th and Vine Districts. Between the Westside neighborhood and Crossroads District pedestrians encounter the underpass of I-35 (a barrier with minimal pedestrian features) and minimal neighborhood connections. Between the Crossroads and 18th and Vine Districts pedestrians encounter a minor barrier of the 71 Highway underpass (although pedestrian accommodations are present). Streetcar can improve the walkability of the corridor by linking these neighborhoods and districts.



TABLE 7.19 POTENTIAL TO IMPROVE WALKABILITY

CORRIDOR	SERVICE ENHANCEMENT CONSIDERATIONS	RATING
INDEPENDENCE AVENUE	Streetcar could improve connections of the corridor to the Downtown Loop, River Market, and Columbus Park over the interstate loop.	MEDIUM-HIGH
12TH WEST	Streetcar could improve connection between Downtown Loop and West Bottoms.	MEDIUM-HIGH
12TH EAST	Streetcar could have a moderate impact to improving walkability in the corridor.	MEDIUM
12TH COMBINED	Streetcar can greatly improve the walkability of the corridor, connecting destinations and neighborhoods beyond the interstate loop.	HIGH
SOUTHWEST BOULEVARD	Streetcar can improve the walkability of the corridor, but the corridor must have better sidewalk connections to promote a pedestrian environment.	MEDIUM-LOW
18TH STREET	Streetcar could facilitate connections of the Crossroads District to the 18th and Vine District, destinations that might otherwise lie beyond a pedestrian's acceptable walkable range.	MEDIUM
COMBINED 18TH STREET	Streetcar can moderately improve walkability by linking neighborhoods and districts along the corridor.	MEDIUM
31ST	Adding streetcar service to the corridor would have a moderate impact on improving walkability, primarily by extending a pedestrian's access along the corridor.	MEDIUM-LOW
LINWOOD	Adding streetcar service to the corridor would have a moderate impact on improving walkability, primarily by extending a pedestrian's access along the corridor.	MEDIUM-LOW
MAIN STREET	With a lack of barriers and a good walking environment, the addition of streetcar would only moderately improve the walkability of the corridor, primarily as a pedestrian accelerator to extend the range of pedestrian access along the corridor.	MEDIUM
COUNTRY CLUB RIGHT-OF-WAY	The addition of streetcar within the street or along the trail right-of-way would minimally improve the walkability of the corridor, but would greatly extend pedestrian access from adjacent neighborhoods to multiple destinations such as the Country Club Plaza, UMKC, and Brookside and Waldo shopping districts.	MEDIUM-HIGH

Main Street - (Medium)

The Main Street corridor is walkable and has good connections to the surrounding neighborhoods with areas of active ground level uses and multiple destinations. With a lack of barriers and a good walking environment, the addition of streetcar would only moderately improve the walkability of the corridor, primarily as a pedestrian accelerator to extend the range of pedestrian access along the corridor.

31st Street

Main to Van Brunt - (Medium-Low)

Main to Prospect - (Medium-Low)

Gillham to Van Brunt - (Medium-Low)

Gillham to Prospect - (Medium-Low)

The 31st Street corridor is well-connected to the surrounding neighborhoods and provides a walkable environment. The corridor is hampered by a bridge overpass at 71 Highway, although the bridge features some pedestrian accommodations. Adding streetcar service to the corridor would have a moderate impact on improving walkability, primarily by extending a pedestrian's access along the corridor.



Linwood Boulevard

Main to 31st - (Medium-Low)

Main to Prospect - (Medium-Low)

Gillham to 31st - (Medium-Low)

Gillham to Prospect - (Medium-Low)

The Linwood Boulevard corridor is well-connected to the surrounding neighborhoods and provides a walkable environment with a generous landscaped parkway. The corridor contains a bridge overpass at 71 Highway, but bridge features pedestrian accommodations including landscaped separation from vehicular traffic. Adding streetcar service to the corridor would have a moderate impact on improving walkability, primarily by extending a pedestrian's access along the corridor.

Country Club

Trolley Track Trail Right-of-Way - (Medium-High)

Brookside Boulevard. (on-street) - (Medium-High)

The Country Club alignment corridor(s) have good existing walkability with a number of neighborhoods and neighborhood centers. The addition of streetcar within the street or along the trail right-of-way would minimally improve the walkability of the corridor, but would greatly extend pedestrian access from adjacent neighborhoods to multiple destinations such as the Country Club Plaza, UMKC, and Brookside and Waldo shopping districts.



CORRIDOR BICYCLE ANALYSIS

The potential streetcar extension corridors were evaluated based on potential conflicts and opportunities with the region's bicycle network. Data from the City of Kansas City, Missouri's Bike KC site was used as a basis for the assessment. The following are the criteria used in the evaluation:

Existing bicycle facilities - Infrastructure such as the presence bicycle parking, rental, and repair shops within a corridor can be used as a measure of its bicycle friendliness. Existing bicycle parking and bike repair locations in and around the study corridors were identified (as reported by city staff on KCMO's Bike KC website). Bike rental locations (as defined by the B-Cycle bike-sharing system) were also recorded as a measure of bike connection opportunities.

Avoidance of bicycle conflicts with rail infrastructure - Each corridor was evaluated for potential conflicts with streetcar rail infrastructure. Corridors designated for on-street bicycle accommodations were identified. If the right-of-way or street configuration was determined to have the

capacity to accommodate bicycle and rail traffic in parallel, only minimal conflicts are anticipated. However, in areas with a constrained right-of-way and street configuration, an increased expectation of conflicts should be expected.

Opportunities for bike and rail system connections

- Bicycle and rail connection opportunities primarily fall into two categories:

- Bike and trail routes that intersect with the streetcar corridor, allowing connections with the larger trail system network
- Bike and trail routes that run parallel with the streetcar corridor on adjacent streets, minimizing conflicts with the rail infrastructure and allowing access to surrounding neighborhoods and the larger trail system network.

Table 7.20 summarizes the corridors for bikeability and opportunities to improve connections. The corridors were evaluated for walkability and bikeability. The evaluation identifies opportunities to improve connectivity. The table below summarizes the findings.



TABLE 7.20 BICYCLE ASSESSMENT

CORRIDOR	EXISTING BICYCLE FACILITIES	AVOIDANCE OF BICYCLE CONFLICTS WITH RAIL INFRASTRUCTURE	OPPORTUNITIES FOR BIKE AND RAIL SYSTEM CONNECTIONS	RATING
INDEPENDENCE AVENUE: RIVER MARKET TO BENTON	LOW	MEDIUM	LOW	LOW
INDEPENDENCE AVENUE: RIVER MARKET TO HARDESTY	LOW	MEDIUM	LOW	LOW
12TH STREET WEST: WEST BOTTOMS TO MAIN	HIGH	MEDIUM	MEDIUM-HIGH	MEDIUM-HIGH
12TH STREET EAST: MAIN TO PROSPECT	HIGH	LOW	MEDIUM-HIGH	MEDIUM-HIGH
12TH STREET COMBINED: WEST BOTTOMS TO PROSPECT	HIGH	MEDIUM-LOW	MEDIUM-HIGH	MEDIUM-HIGH
18TH STREET: MAIN TO PROSPECT	MEDIUM-LOW	MEDIUM	MEDIUM	MEDIUM
SOUTHWEST BOULEVARD: MAIN TO STATE LINE	MEDIUM-LOW	MEDIUM-LOW	LOW	LOW
18TH STREET/SOUTHWEST BOULEVARD: SUMMIT TO PROSPECT	MEDIUM-LOW	MEDIUM-LOW	MEDIUM	MEDIUM-LOW
31ST STREET: MAIN TO VAN BRUNT	LOW	HIGH	MEDIUM	MEDIUM
31ST STREET: MAIN TO PROSPECT	LOW	HIGH	MEDIUM-LOW	MEDIUM-LOW
31ST STREET: GILLHAM TO VAN BRUNT	MEDIUM	HIGH	MEDIUM	MEDIUM-HIGH
31ST STREET: GILLHAM TO PROSPECT	MEDIUM	HIGH	MEDIUM	MEDIUM-HIGH
LINWOOD BOULEVARD: MAIN TO 31ST	LOW	HIGH	MEDIUM-LOW	MEDIUM
LINWOOD BOULEVARD: MAIN TO PROSPECT	LOW	HIGH	LOW	MEDIUM-LOW
LINWOOD BOULEVARD: GILLHAM TO 31ST	MEDIUM	HIGH	MEDIUM-LOW	MEDIUM
LINWOOD BOULEVARD: GILLHAM TO PROSPECT	MEDIUM	HIGH	MEDIUM-LOW	MEDIUM
MAIN STREET: UNION STATION TO UMKC AT 51ST STREET	MEDIUM-HIGH	HIGH	HIGH	HIGH
COUNTRY CLUB: IN R.O.W. TO 75TH STREET	MEDIUM	LOW	LOW	LOW
COUNTRY CLUB: IN R.O.W. TO 85TH STREET	MEDIUM	LOW	MEDIUM-LOW	MEDIUM-LOW
COUNTRY CLUB: ON STREET TO 75TH	MEDIUM	HIGH	HIGH	HIGH
COUNTRY CLUB: ON STREET TO 85TH AND PROSPECT	MEDIUM	MEDIUM-HIGH	HIGH	MEDIUM-HIGH



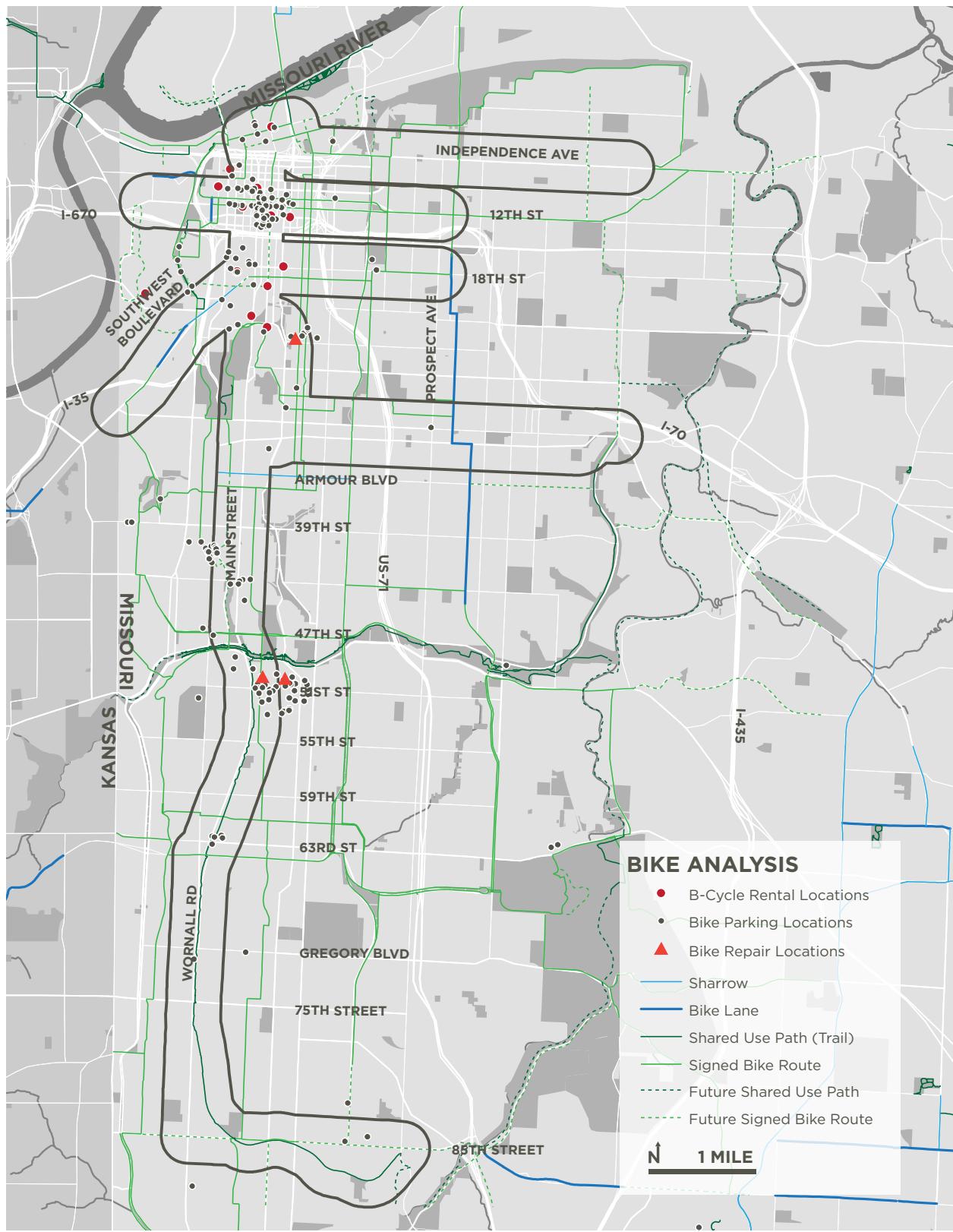


FIGURE 7.4 CORRIDOR BIKE EVALUATION

TABLE 7.21 SUMMARY OF WALKABILITY AND BIKE CONNECTIVITY

CORRIDOR	EXISTING CORRIDOR WALKABILITY ASSESSMENT	EXISTING NEIGHBORHOOD CONNECTIVITY ASSESSMENT	POTENTIAL TO IMPROVE WALKABILITY	BICYCLE ASSESSMENT	SUMMARY RATING
INDEPENDENCE AVENUE: RIVER MARKET TO BENTON	MEDIUM-HIGH	HIGH	MEDIUM-HIGH	LOW	MEDIUM-HIGH
INDEPENDENCE AVENUE: RIVER MARKET TO HARDESTY	MEDIUM-HIGH	MEDIUM	MEDIUM-HIGH	LOW	MEDIUM
12TH STREET WEST: WEST BOTTOMS TO MAIN	MEDIUM-HIGH	MEDIUM-LOW	MEDIUM-HIGH	MEDIUM-HIGH	MEDIUM-HIGH
12TH STREET EAST: MAIN TO PROSPECT	HIGH	HIGH	MEDIUM	MEDIUM-HIGH	HIGH
12TH STREET COMBINED: WEST BOTTOMS TO PROSPECT	MEDIUM-HIGH	MEDIUM-HIGH	HIGH	MEDIUM-HIGH	HIGH
18TH STREET: MAIN TO PROSPECT	MEDIUM-HIGH	MEDIUM	MEDIUM	MEDIUM	MEDIUM
SOUTHWEST BOULEVARD: MAIN TO STATE LINE	MEDIUM	LOW	MEDIUM-LOW	LOW	LOW
18TH STREET/SOUTHWEST BOULEVARD: SUMMIT TO PROSPECT	MEDIUM-HIGH	MEDIUM	MEDIUM	MEDIUM-LOW	MEDIUM
31ST STREET: MAIN TO VAN BRUNT	MEDIUM	MEDIUM-HIGH	MEDIUM-LOW	MEDIUM	MEDIUM
31ST STREET: MAIN TO PROSPECT	MEDIUM	MEDIUM	MEDIUM-LOW	MEDIUM-LOW	MEDIUM-LOW
31ST STREET: GILLHAM TO VAN BRUNT	MEDIUM	MEDIUM-HIGH	MEDIUM-LOW	MEDIUM-HIGH	MEDIUM
31ST STREET: GILLHAM TO PROSPECT	MEDIUM-HIGH	MEDIUM-HIGH	MEDIUM-LOW	MEDIUM-HIGH	MEDIUM-HIGH
LINWOOD BOULEVARD: MAIN TO 31ST	MEDIUM-HIGH	MEDIUM	MEDIUM-LOW	MEDIUM	MEDIUM
LINWOOD BOULEVARD: MAIN TO PROSPECT	MEDIUM-HIGH	MEDIUM	MEDIUM-LOW	MEDIUM-LOW	MEDIUM
LINWOOD BOULEVARD: GILLHAM TO 31ST	MEDIUM-HIGH	MEDIUM-HIGH	MEDIUM-LOW	MEDIUM	MEDIUM
LINWOOD BOULEVARD: GILLHAM TO PROSPECT	MEDIUM-HIGH	MEDIUM-HIGH	MEDIUM-LOW	MEDIUM	MEDIUM
MAIN STREET: UNION STATION TO UMKC AT 51ST STREET	MEDIUM-HIGH	MEDIUM-LOW	MEDIUM	HIGH	MEDIUM-HIGH
COUNTRY CLUB: IN R.O.W. TO 75TH STREET	HIGH	MEDIUM-HIGH	MEDIUM-HIGH	LOW	MEDIUM-HIGH
COUNTRY CLUB: IN R.O.W. TO 85TH	MEDIUM-HIGH	LOW	MEDIUM-HIGH	MEDIUM-LOW	MEDIUM
COUNTRY CLUB: ON-STREET TO 75TH STREET	HIGH	MEDIUM-HIGH	MEDIUM-HIGH	HIGH	HIGH
COUNTRY CLUB: ON-STREET TO 85TH	MEDIUM-HIGH	LOW	MEDIUM-HIGH	MEDIUM-HIGH	MEDIUM



TRAFFIC

The high level traffic analysis of motorist mobility for the Systems Overview was performed on the eight streetcar corridors. This section discusses the approach and Systems Overview traffic analysis conclusions. The criterion is the avoidance of impacts on traffic flow

Initial Screening Approach

Instead of assigning a level of service to the corridors, a more general volume-to-capacity (V/C) ratio was calculated. This was completed by dividing the corridors into segments between major cross streets. The segments are approximately $\frac{1}{2}$ mile in length. Daily traffic volumes were obtained from either MoDOT traffic counts from 2011 or using the KCMO 2007 TransCAD model for each segment. Once the existing volume was identified and checked for reasonableness with adjacent roadway segments the lane configuration of each segment was identified using aerial imagery. A Minnesota DOT study of arterial capacity was utilized to assign a volume to capacity score to each segment. In addition to the V/C ratios, current problem intersections were identified on each of the corridors to help in the analysis of how streetcar would affect each corridor.

For the future 2040 level of service (LOS), the annual percentage growth between the KCMO 2007 TransCAD model and the KCMO 2040 TransCAD model was calculated. The annual growth rate was applied to the existing volumes to obtain 2040 traffic volumes. The same LOS thresholds for arterial streets were applied as in the existing analysis.

To determine how the streetcar would affect the traffic on each corridor the headway of the transit vehicles, distance between the stations, and

dwell time at stations was determined from the preliminary operating plans. This data was then combined to define the reduction in capacity a lane will experience from being a “mixed-traffic” lane with streetcar and vehicular traffic. Based upon the above information it was found that the streetcar may reduce capacity by approximately 600 vehicles per day on a roadway that has streetcar operation. This reduction in capacity was used to calculate the before and after streetcar implementation V/C ratios for each corridor. The V/C ratio is a measure of congestion and was used to compare each corridor.

Additionally the V/C ratios found earlier were used in conjunction with BPR Curves to calculate the travel time change on the corridors. This travel time change is the expected change in travel time to the average road user throughout the day. Some vehicles on each corridor will experience little delay and others may be stopped at a station for the duration of the Streetcar dwell time.

For the purposes of this analysis it was assumed that all on-street parking would be converted into permanent protected parking with bulb outs. Although there are many different ways to handle on-street parking in conjunction with the streetcar the most conservative is to permanently take a lane.

Preliminary Conclusions

Systems Overview conclusions are that the impacts of the streetcar on vehicular traffic flow is minimal on overall traffic operations of the corridor where there are two-lanes in each direction with one lane operating with mixed traffic. Rating results of the impact of streetcar on vehicular traffic flow is shown in Table 7.22. A “High” rating indicates that there is little impact on vehicular traffic due to the implementation of streetcar.

TABLE 7.22 IMPACTS ON TRAFFIC FLOW

CORRIDOR	RATING
INDEPENDENCE AVENUE: RIVER MARKET TO BENTON	HIGH
INDEPENDENCE AVENUE: RIVER MARKET TO HARDESTY	MEDIUM-HIGH
12TH STREET WEST: WEST BOTTOMS TO MAIN	HIGH
12TH STREET EAST: MAIN TO PROSPECT	HIGH
12TH STREET COMBINED: WEST BOTTOMS TO PROSPECT	HIGH
18TH STREET: MAIN STREET TO PROSPECT	HIGH
SOUTHWEST BOULEVARD: MAIN STREET TO STATE LINE	HIGH
18TH/SOUTHWEST BOULEVARD: SUMMIT TO PROSPECT	HIGH
31ST STREET:	
31ST STREET: MAIN TO VAN BRUNT	MEDIUM
31ST STREET: MAIN TO PROSPECT	MEDIUM-HIGH
31ST STREET: GILLHAM TO VAN BRUNT	MEDIUM-HIGH
31ST STREET: GILLHAM TO PROSPECT	MEDIUM-HIGH
LINWOOD BOULEVARD: MAIN TO VAN BRUNT	MEDIUM-HIGH
LINWOOD BOULEVARD: MAIN TO PROSPECT	MEDIUM-HIGH
LINWOOD BOULEVARD: GILLHAM TO VAN BRUNT	MEDIUM-HIGH
LINWOOD BOULEVARD: GILLHAM TO PROSPECT	MEDIUM-HIGH
MAIN STREET: UNION STATION TO UMKC AT 51ST STREET	MEDIUM-HIGH
COUNTRY CLUB: IN R.O.W. TO 75TH	MEDIUM-LOW
COUNTRY CLUB: IN R.O.W. TO 85TH AND PROSPECT	MEDIUM-LOW
COUNTRY CLUB: ON STREET TO 75TH	MEDIUM
COUNTRY CLUB: ON STREET TO 85TH AND PROSPECT	MEDIUM



8 LAND USE, DEMOGRAPHICS AND SOCIAL EQUITY

The mutual impacts between land use and transit are critical to consider when evaluating potential streetcar extensions. The project team evaluated a range of factors to measure how streetcar extensions impact the neighborhoods and activity centers along the proposed routes.

The Federal Transportation Administration (FTA) New and Small Starts Evaluation and Rating Process Final Policy Guidance, August 2013, provides specific direction for evaluating potential New and Small Starts projects. This evaluation includes the following land use and demographic factors:

- Population Density
- Total Employment
- Transit Dependent Households
- Access to Employment
- Affordable Housing

The New and Small Starts program is extremely competitive, with numerous projects from across the nation seeking funds. Therefore, the extent to which a project can demonstrate commitment to transit supportive land uses and policies can be critical to the awarding of Federal funding support. Other land use evaluation factors considered for the NextRail evaluation process include:

- Transit-supportive land use and activity centers
- Transit supportive plans and policies

The Systems Overview phase of the project provides an initial high-level analysis of these factors for each potential corridor. A more detailed analysis will be completed during the next phase for selected corridors based on more refined alignments and potential stop locations.



POPULATION DENSITIES AND TOTAL EMPLOYMENT

Population densities and corridor employment are a critical factor in determining the success of transit investments, especially urban rail systems. FTA provides guidance on transit-supportive population density and total employment breakpoints based on the Institute of Transportation Engineers (ITE) A Toolbox for Alleviating Traffic Congestion, which provides minimum density thresholds for light-rail and frequent bus service. ITE suggests several minimum density levels for correspondingly intense transit investments:

- A minimum level of local bus service (20 daily bus trips in each direction or one bus per hour) is often provided in residential areas averaging population densities of 3,000 to 4,000 people

per square mile. This level of bus service is suitable for non-residential concentrations of activities in the range of 5 to 8 million square feet or 10,000 to 16,000 employees (assumes 500 square feet per employee), occasionally lower.

- An intermediate level of local bus service (40 daily bus trips in each direction or one bus every 1/2 hour) is often provided in residential areas averaging 7 dwelling units per acre (5,000 to 6,000 people per square mile) and for nonresidential concentrations of activities from 8 to 20 million square feet (16,000 to 40,000 employees).
- A frequent level of local transit service (frequent bus or light rail) (120 daily trips in each direction or a frequency of ten minutes) is often provided in residential areas averaging 9 to 15 dwellings

TABLE 8.1 POPULATION DENSITY

CORRIDOR	POPULATION DENSITY (PER MI ²)	RATING
INDEPENDENCE AVENUE: TO BENTON	6,827	MEDIUM-HIGH
INDEPENDENCE AVENUE: TO HARDESTY	7,346	HIGH
12TH STREET WEST: WEST BOTTOMS TO MAIN	111	LOW
12TH STREET EAST: MAIN TO PROSPECT	4,988	MEDIUM
12TH STREET COMBINED: WEST BOTTOMS TO PROSPECT	3,299	MEDIUM
18TH STREET: TO PROSPECT	2,667	MEDIUM-LOW
SOUTHWEST BLVD: TO STATE LINE	3,425	MEDIUM
18TH ST--SOUTHWEST BLVD: SUMMIT TO PROSPECT	2,840	MEDIUM-LOW
MAIN STREET: TO 51ST ST	6,237	MEDIUM-HIGH
31ST STREET/LINWOOD BOULEVARD: TO PROSPECT VIA MAIN	3,128	MEDIUM
31ST STREET/LINWOOD BOULEVARD: TO VA HOSPITAL VIA MAIN	3,308	MEDIUM
31ST STREET/LINWOOD BOULEVARD: TO PROSPECT VIA GILLHAM	3,728	MEDIUM
31ST STREET/LINWOOD BOULEVARD: TO VA HOSPITAL VIA GILLHAM	3,668	MEDIUM
COUNTRY CLUB R.O.W.: TO 75TH ST	5,588	MEDIUM-HIGH
COUNTRY CLUB R.O.W.: TO 85TH AND PROSPECT	4,789	MEDIUM

COMPARATIVE BREAKS:

7,000 or more (HIGH)
5,000-6,999 (MEDIUM-HIGH)
3,000-4,999 (MEDIUM)
1,000-2,999 (MEDIUM-LOW)
Less than 1,000 (LOW)

FTA CRITERIA BREAKS:

15,000 or more (HIGH)
9,600-15,000 (MEDIUM-HIGH)
5,760-9,599 (MEDIUM)
2,561-5,759 (MEDIUM-LOW)
Less than 2,560 (LOW)

TABLE 8.2 TOTAL CORRIDOR EMPLOYMENT

CORRIDOR	TOTAL EMPLOYMENT	RATING
INDEPENDENCE: TO BENTON	2,206	LOW
INDEPENDENCE: TO HARDESTY	3,159	LOW
12TH STREET WEST: WEST BOTTOMS TO MAIN	967	LOW
12TH STREET EAST: MAIN TO PROSPECT	2,000	LOW
12TH STREET COMBINED: WEST BOTTOMS TO PROSPECT	2,967	LOW
18TH STREET: TO PROSPECT	4,693	LOW
SOUTHWEST BLVD: TO STATE LINE	5,472	LOW
18TH ST--SOUTHWEST BLVD: SUMMIT TO PROSPECT	5,764	LOW
MAIN STREET: TO 51ST ST	30,485	HIGH
31ST STREET/LINWOOD BOULEVARD: TO PROSPECT VIA MAIN	11,679	LOW
31ST STREET/LINWOOD BOULEVARD: TO VA HOSPITAL VIA MAIN	13,796	LOW
31ST STREET/LINWOOD BOULEVARD: TO PROSPECT VIA GILLHAM	15,497	MEDIUM-LOW
31ST STREET/LINWOOD BOULEVARD: TO VA HOSPITAL VIA GILLHAM	17,614	MEDIUM-LOW
COUNTRY CLUB R.O.W.: TO 75TH ST	7,566	LOW
COUNTRY CLUB R.O.W.: TO 85TH AND PROSPECT	10,940	LOW

COMPARATIVE BREAKS:

30,000 or more (HIGH)
25,000-29,999 (MEDIUM-HIGH)
20,000-24,999 (MEDIUM)
15,000-19,999 (MEDIUM-LOW)
Less than 15,000 (LOW)

FTA CRITERIA BREAKS:

220,000 or more (HIGH)
140,000-219,000 (MEDIUM-HIGH)
70,000-139,999 (MEDIUM)
40,000-69,999 (MEDIUM-LOW)
Less than 40,000 (LOW)

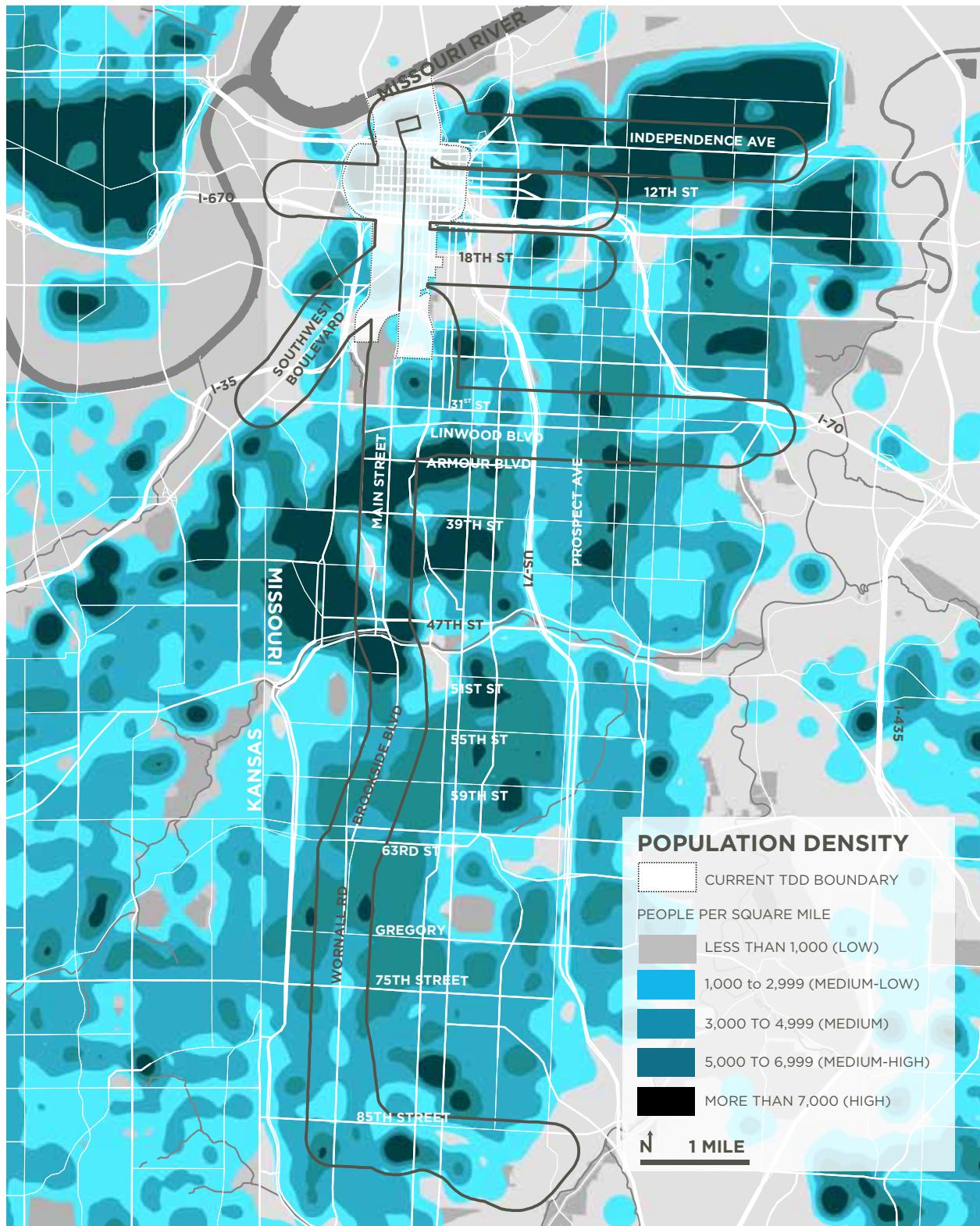


FIGURE 8.1 CORRIDOR POPULATION DENSITY



per acre (8,000 to 10,000 people per square mile) and for non-residential concentrations of activities from 20 to 50 million square feet (40,000 to 100,000 employees).

- Commuter rail service, with its high speed, relatively infrequent service and greater station spacing is suitable for lower density residential areas, however, the volumes required are only likely in corridors leading to non-residential concentrations of 100 million square feet (200,000 employees) or more, found only in the nation's largest cities.

It should be noted that this initial analysis evaluates population densities and total employment at a corridor-level, in this case, $\frac{1}{4}$ -mile from the potential line. FTA New and Small Starts guidance evaluates population density and total employment for $\frac{1}{2}$ -mile of stop locations. This analysis will be refined based on potential stop locations for selected corridors during the detailed analysis.

Population densities were assessed for each corridor based on 2010 data from the U.S. Census Bureau. For the purposes of this analysis, population densities are provided per square mile. The FTA New and Small Starts Evaluation and Rating Process Final Policy Guidance, 2013, set the population density median breakpoint at the frequent level of transit service. For the initial analysis, the corridors were ranked relative to one another based on natural breaks. In the detailed evaluation, the selected corridors will be assessed using the FTA breakpoints in anticipation of applying for New and Small Starts funding. Table 7.1 provides a summary of population density per corridor. Figure 7.1 shows population densities by block group.

Independence Avenue has the highest average population densities, followed Main Street South, Country Club and 12th Street East. Independence Avenue is the only corridor within the FTA's median breakpoint. However, Main Street and Country Club are very close with 12th Street East not far behind. As illustrated in Figure 1, there are a number of block groups along both Independence Avenue and Main Street South that are in excess of 10,000 people per square mile. At one time, before a majority of streetcar service was phased out, the urban core had significantly higher population densities. However, within the past 15 years, downtown has seen a significant resurgence in urban housing, particularly within the River Market, Downtown Loop, and Crossroads neighborhoods reversing the trend of disinvestment in the urban core. Unfortunately, this level of reinvestment has yet to fully reach other downtown neighborhoods. A major goal

of the Greater Downtown Area Plan is to double the downtown population by providing a diverse range of housing options and enhancing the unique character of downtown neighborhoods to attract and retain residents. The streetcar has the potential to further accelerate this investment in some neighborhoods while spurring new reinvestment in other neighborhoods. This potential discussed in more detail in the Economic Development and Neighborhood Revitalization section.

Employment densities and total overall employment were assessed for each corridor based on 2011 employment data from the Mid-American Regional Council (MARC). For the initial analysis, the corridors were ranked relative to one another based on natural breaks. For the detailed evaluation, selected corridors will be assessed using the FTA breakpoints in anticipation of applying for New or Small Starts funding. Table 7.2 provides a summary of total employment per corridor. Figure 7.2 shows employment densities by tract. Main Street South has the highest total employment of any corridor, followed closely by 31st and Linwood. Main Street South provides a direct connection to most of the major employment centers in this region of the City of Kansas City including, Crown Center, The Plaza and 45th & Main. It should be noted that the assessment is for a $\frac{1}{4}$ -mile of the corridor excluding the existing Streetcar Transportation Development District. For the purposes of this initial analysis, 31st and Gillham and Linwood were assessed as separate alignments. It should be noted that both lines are within $\frac{1}{4}$ -mile so the numbers are very similar. The potential Gillham alignment option increases total employment for either 31st or Linwood by providing a more direct connection to Hospital Hill. Main Street South has by far the highest concentration of employment outside of the Downtown Loop.

The FTA New and Small Starts Evaluation and Rating Process Final Policy Guidance, 2013, set the total employment median breakpoint well above the frequent level of transit service and near the minimum for Commuter rail service. The FTA breakpoints for employment, especially on the higher end, only occur in the nation's largest cities and create a disadvantage for mid-sized cities like Kansas City. These breakpoints also tend to favor larger high-capacity transit investments such as light rail and commuter rail projects that are more likely to be developed in these large cities.

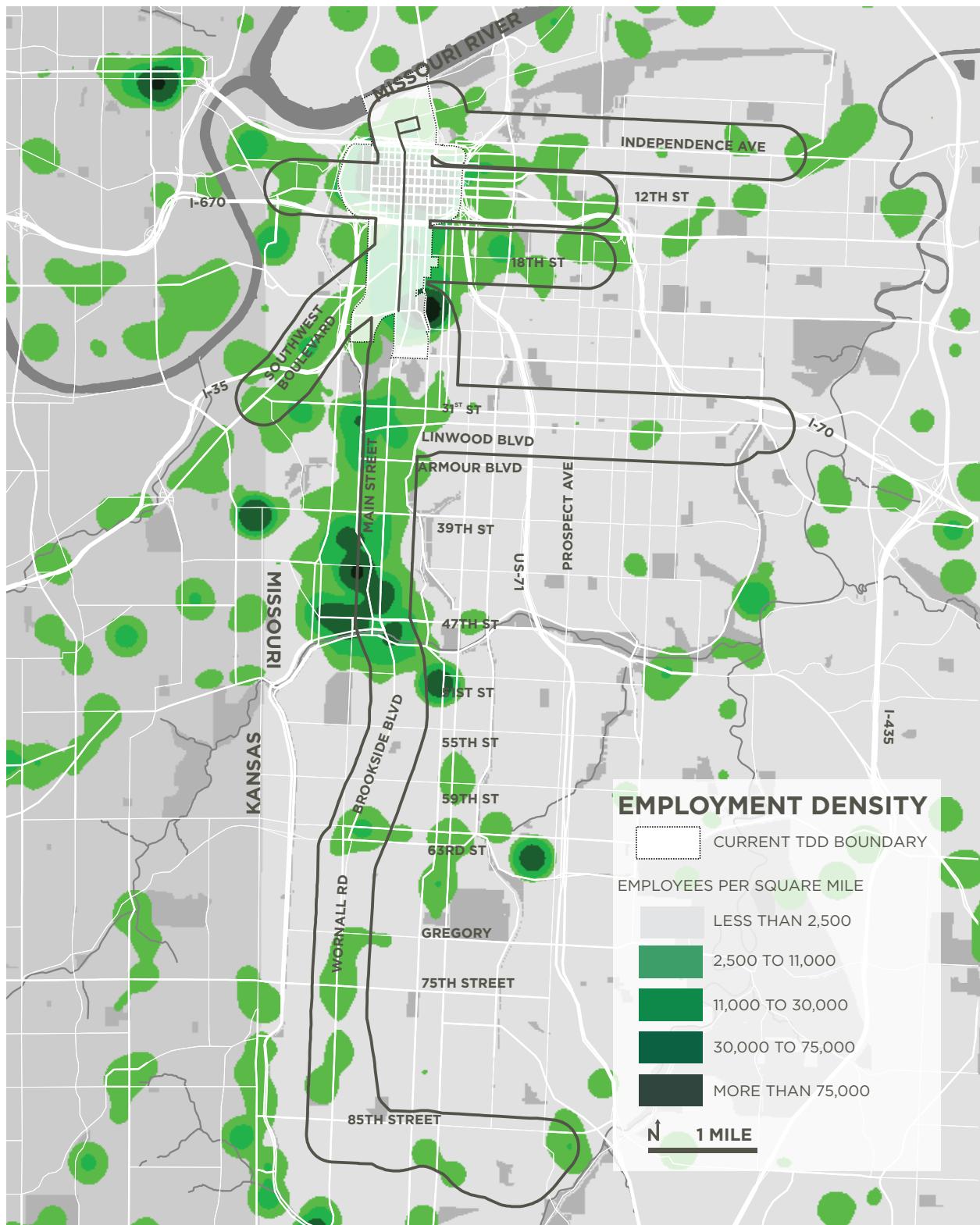


FIGURE 8.2 CORRIDOR EMPLOYMENT DENSITY



TRANSIT-DEPENDENT HOUSEHOLDS

For some, the choice of not owning a vehicle is a preference or lifestyle choice. In some communities, vehicle ownership may be very expensive or inconvenient and there may be ample viable transportation alternatives including transit, walking or biking. However, a majority of zero-car households face economic constraints that make financing, licensing, insurance, and maintenance difficult. For this reason, Transit-dependent population, as measured by the percentage of zero-car households, is an important factor for evaluating potential future transit investments. Due to the importance of this criterion when evaluating potential ridership, FTA gives a weight of two trips for one every trip made by a transit dependent person. Transit dependent population was assessed for each corridor based on the percentage of zero car households according to 2010 data from the U.S. Census Bureau. Table 7.3 provides a summary of the percentage of zero-car households per corridor. Figure 7.3 shows the percentage of transit dependent population by block group.

The 31st and Linwood corridor has the highest percentage of transit-dependent households, followed by 12th Street East and Independence Avenue from the River Market to Benton. 12th Street West and 18th Street follow closely behind. Overall, all of the corridors have a substantial number of transit-dependent households with the exception of the Country Club corridor. However, as illustrated in Figure 7.3, the Country Club corridor has several block groups with a percentage of transit dependent households between 16 to 30 percent, mostly south of 75th Street. Independence Avenue and 31st and Linwood corridors have block groups with the percentage of transit-dependent households in excess of 50 percent. Not coincidentally, these corridors have high existing transit ridership.

TABLE 8.3 TRANSIT DEPENDENT POPULATION BY AVERAGE PERCENT OF STUDY CORRIDOR

CORRIDOR	PERCENT TRANSIT-DEPENDENT POPULATION	RATING
INDEPENDENCE AVENUE: TO BENTON	27%	MEDIUM-HIGH
INDEPENDENCE AVENUE: TO HARDESTY	20%	MEDIUM
12TH STREET WEST: WEST BOTTOMS TO MAIN	18%	MEDIUM
12TH STREET EAST: MAIN TO PROSPECT	38%	HIGH
12TH STREET COMBINED: WEST BOTTOMS TO PROSPECT	32%	HIGH
18TH STREET: TO PROSPECT	17%	MEDIUM-LOW
SOUTHWEST BOULEVARD: TO STATE LINE	15%	MEDIUM-LOW
18TH STREET--SOUTHWEST BOULEVARD: SUMMIT TO PROSPECT	25%	MEDIUM-HIGH
MAIN STREET: TO 51ST ST	21%	MEDIUM
31ST STREET/LINWOOD BOULEVARD: TO PROSPECT VIA MAIN	30%	HIGH
31ST STREET/LINWOOD BOULEVARD: TO VA HOSPITAL VIA MAIN	26%	MEDIUM-HIGH
31ST STREET/LINWOOD BOULEVARD: TO PROSPECT VIA GILLHAM	31%	HIGH
31ST STREET/LINWOOD BOULEVARD: TO VA HOSPITAL VIA GILLHAM	27%	MEDIUM-HIGH
COUNTRY CLUB R.O.W.: TO 75TH ST	4%	LOW
COUNTRY CLUB R.O.W.: TO 85TH AND PROSPECT	7%	LOW

COMPARATIVE BREAKS:

- 30% or more (HIGH)
- 24%-29% (MEDIUM-HIGH)
- 18%-23% (MEDIUM)
- 12%-17% (MEDIUM-LOW)
- 11% or less (LOW)

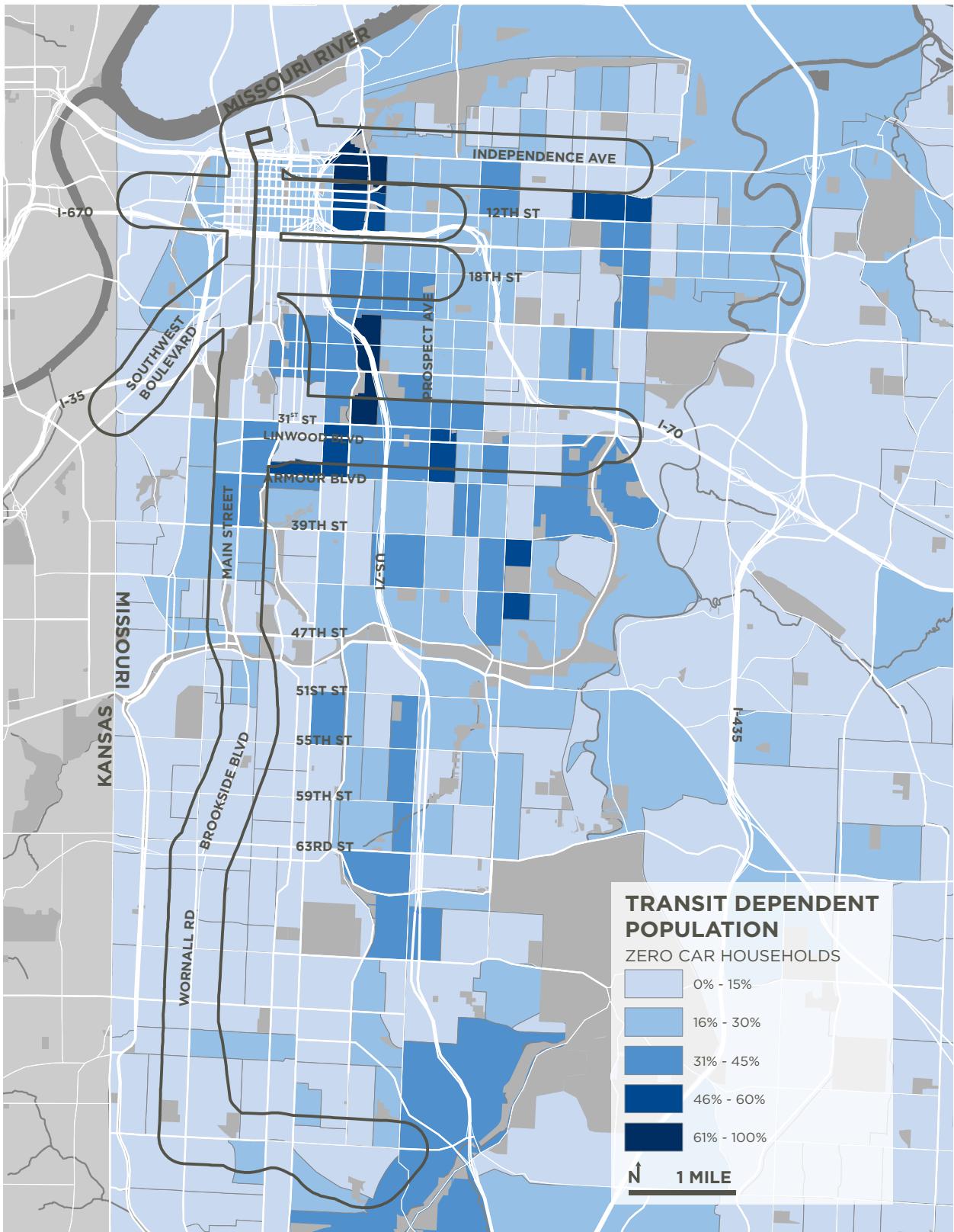


FIGURE 8.3 TRANSIT DEPENDENT POPULATION BY AVERAGE PERCENT OF STUDY CORRIDOR



ACCESS TO EMPLOYMENT

Zero-vehicle households are at structural disadvantage in competing for jobs. According to a 2011 report by the Brookings Institution, approximately 7.5 million households in the nation's largest metropolitan areas do not have access to an automobile. This report also notes that the U.S. has built 655,000 roadway lane miles of highways since the 1980s, enabling development farther out and increasing distances between destinations making it even more difficult to serve people with transit. (Transit Access and Zero-Vehicle Households, Adie Tomer, Brookings Institution Metropolitan Policy Program, 2011). Even within the Kansas City urban core, housing and jobs tend to be disconnected. Although the downtown has recently seen a tremendous surge in housing, rents within the Downtown Loop with the highest job concentrations are significantly higher than a majority of surrounding neighborhoods. The correlation between zero-car households and jobs reinforces the need for transit service.

Access to employment was analyzed for each corridor based on an assessment of the potential of streetcar to connect high concentrations of transit-dependent households to significant concentrations of employment. It should be noted that all of the

alignments connect to the Starter Line which provides service between the River Market, Downtown Loop and Crown Center. The Downtown Loop has the highest concentration of jobs in the region. However, some of the corridors fare better in providing direct connections between high transit-dependent population and jobs within those corridors. Table 7.3 provides a rating of how each corridor connects high concentrations of transit dependents to high concentrations of employment. The rating is based on two factors:

1. The length of the furthest point on a route to the employment centers by weighted average with total employment
2. The total transit dependent population along the corridor

A ratio of the number of zero car households to the total employment miles for each potential corridor was the final rating system. This rating assumes that the Main Street South Corridor is constructed and operation so that other corridors may reach all employment centers. Note, a potential connection to the Hospital Hill (approximately 5,900 employees) from 31st or Linwood was considered during the process. However, there would be some engineering and cost considerations with this segment.

TABLE 8.4 ACCESS TO EMPLOYMENT

CORRIDOR	TRANSIT-DEPENDENT POPULATION PER WEIGHTED EMPLOYMENT-MILES	RATING
INDEPENDENCE AVENUE: TO BENTON	3.1	MEDIUM
INDEPENDENCE AVENUE: TO HARDESTY	3.3	MEDIUM
12TH ST WEST: WEST BOTTOMS TO MAIN	0.8	LOW
12TH STREET EAST: MAIN TO PROSPECT	3.4	MEDIUM
12TH STREET COMBINED: WEST BOTTOMS TO PROSPECT	3.1	MEDIUM
18TH STREET: TO PROSPECT	3.7	MEDIUM
SOUTHWEST BOULEVARD: TO STATE LINE	3.2	MEDIUM
18TH STREET / SOUTHWEST BOULEVARD: SUMMIT TO PROSPECT	3.5	MEDIUM
MAIN STREET: TO 51ST ST	5.9	HIGH
31ST STREET/LINWOOD BOULEVARD: TO PROSPECT VIA MAIN	2.8	LOW-MEDIUM
31ST STREET/LINWOOD BOULEVARD: TO VA HOSPITAL VIA MAIN	2.7	LOW-MEDIUM
COUNTRY CLUB R.O.W.: TO 75TH ST	0.5	LOW
COUNTRY CLUB R.O.W.: TO 85TH AND PROSPECT	0.9	LOW

5 OR MORE (HIGH)
4-5 (MEDIUM-HIGH)
3-4 (MEDIUM)
2-3 (MEDIUM-LOW)
LESS THAN 2 (LOW)

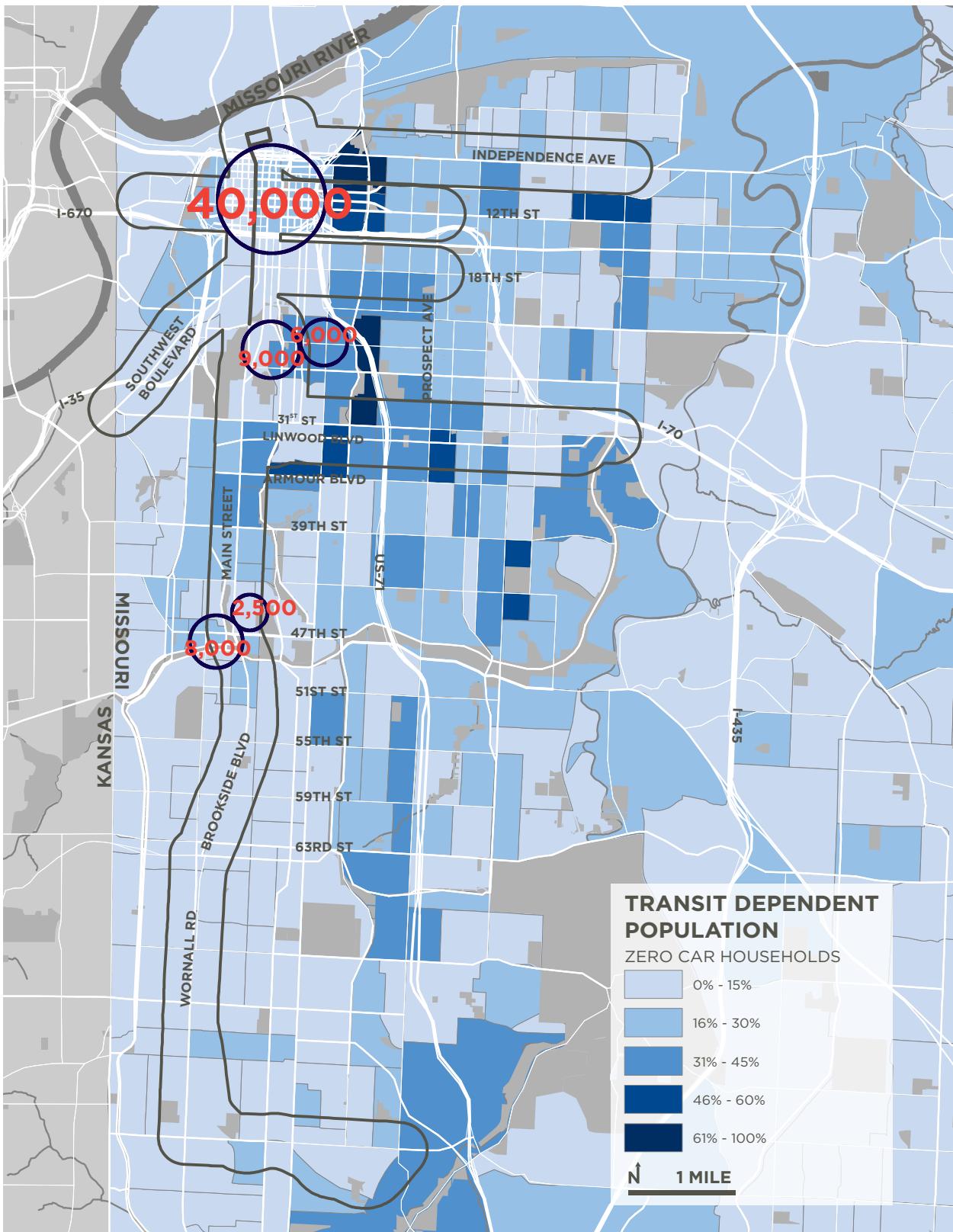


FIGURE 8.4 TRANSIT DEPENDENT POPULATION AND MAJOR EMPLOYMENT CENTERS



AFFORDABLE HOUSING

As noted in the Economic Development and Neighborhood Revitalization chapter, Streetcar can be a significant economic development catalyst. A key benefit of new economic development is the ability to attract new residents, businesses and subsequent reinvestment and revitalization. This influx of new population and reinvestment has the potential to raise property values and rents within the area. However, a potential downside is gentrification. As noted in the transit dependent housing section, streetcar also has the ability to serve transit dependent populations, particularly those that may have economic constraints. For this reason, FTA chose to include affordable housing to ensure that neighborhoods served by potential transit investments have the necessary mix of housing options in place to serve existing and future residents.

For New and Small Starts evaluation, FTA measures this criterion based restricted units to renters with incomes below 60 percent of the area median income and/or owners with incomes below the area median within each corridor. For the initial evaluation, an assessment was completed for each corridor based on the National Housing Preservation Database. This database includes an address-level inventory of federally assisted rental housing. For the detailed analysis of selected corridors, to the extent that the data is available, an assessment of “legally binding affordable restricted housing” will be completed for areas within ½-mile of potential stops. A legally binding affordability restriction is a lien, deed of trust or other legal instrument attached to a property or housing structure that restricts the cost



of housing units to be affordable to households at specified income levels for a defined period of time and requires that households at these income levels occupy these units. This includes, but is not limited to, state or federally supported public housing as well as housing owned by organizations dedicated to providing affordable housing.

12th Street East has the highest ratio of affordable housing compared to the county followed closely by 18th Street, Southwest Boulevard and 12th Street West. All of these corridors rate “High” with Independence Avenue as “Medium-High”. Main Street South and Country Club rate as “Medium-Low” and “Low” respectively.

TABLE 8.6 RATIO OF AFFORDABLE HOUSING COMPARED TO THE COUNTY

CORRIDOR	AFFORDABLE HOUSING UNITS	TOTAL HOUSING UNITS	RATIO OF AFFORDABLE HOUSING IN CORRIDOR	RATING	SCORE
INDEPENDENCE AVENUE	2,592	15,228	2.50	MEDIUM-HIGH	4
12TH STREET WEST	960	4,077	3.46	HIGH	5
12TH STREET EAST	3,025	9,740	4.56	HIGH	5
18TH STREET	880	3,098	4.17	HIGH	5
SOUTHWEST BOULEVARD	639	2,322	4.04	HIGH	5
31ST STREET / LINWOOD BOULEVARD	2,586	13,477	2.82	HIGH	5
MAIN STREET SOUTH	1,181	15,255	1.14	MEDIUM-LOW	2
COUNTRY CLUB RIGHT OF WAY	1,053	20,218	0.76	LOW	1

Total Affordable Units in County:

2,1253

Total Housing Units in County:

312,105

Percentage of Affordable Housing Units in County:

7%

EXISTING LAND USE AND ACTIVITY CENTERS

This category provides an assessment of the readiness of each corridor to streetcar service based on transit-supportive land uses and activity centers. Land uses are transit-supportive if they provide the right mix of uses and densities to support frequent or higher-capacity transit service. This category also assesses the presence of specific high trip generators or activity centers such as major attractions or destinations.

EXISTING LAND USE

Existing land use was assessed for parcels within $\frac{1}{4}$ -mile of each corridor. The land use mix should be complementary to encourage trips via walking or bicycling. If users have access to most of their daily activities along a single corridor, there will be fewer occasions when they have to transfer between transit routes or depend on the automobile. Ideally, a high-capacity transit corridor will connect a wide range of uses including, but not limited to: high-density residential, employment, services, shopping and entertainment within a short walk (less than one-quarter mile) of stops/stations. Auto-oriented single-use developments such as drive-through restaurants or banks, gas stations or car sale lots should be discouraged close to transit stops/stations because they interrupt a walkable environment. Existing generalized land use categories were assigned a rating (Low to High) based on their ability to support high-capacity transit service:

- Low
 - Residential densities less than 5.8 units per acre
 - Industrial, manufacturing, warehousing and wholesale uses
 - Open Space
- Medium-Low
 - Residential densities up to 5.8 units per acre
- Medium
 - Residential densities up to 8.7 units per acre
 - Office including professional, administrative and corporate office uses
 - Large-scale commercial development targeted in areas along arterials with highway access.
 - Institutional is public and quasi-public uses; schools, churches, and government owned facilities
 - Parks are public or private land reserved for parks and parkways
- Medium-High
 - Residential densities up to 17.4 units per acre
 - Neighborhood-scale mixed use
- High
 - Residential densities are up to 29 units per acre or greater
 - High-intensity office and employment
 - High-intensity mixed-use



TABLE 8.7 EXISTING LAND USE SUMMARY WITHIN 0.25-MILE OF CORRIDOR

CORRIDOR	LOW	MEDIUM-LOW	MEDIUM	MEDIUM-HIGH	HIGH	RATING
INDEPENDENCE AVENUE: TO BENTON	29%	24%	47%	0%	0%	MEDIUM-LOW
INDEPENDENCE AVENUE: TO HARDESTY	25%	38%	37%	0%	0%	MEDIUM-LOW
12TH STREET WEST: WEST BOTTOMS TO MAIN	81%	0%	19%	0%	0%	LOW
12TH STREET EAST: MAIN TO PROSPECT	38%	11%	51%	0%	0%	MEDIUM-LOW
12TH STREET COMBINED: WEST BOTTOMS TO PROSPECT	45%	8%	46%	0%	0%	MEDIUM-LOW
18TH STREET: TO PROSPECT	54%	3%	42%	0%	0%	MEDIUM-LOW
SOUTHWEST BOULEVARD: TO STATE LINE	67%	13%	20%	0%	0%	MEDIUM-LOW
18TH STREET / SOUTHWEST BOULEVARD: SUMMIT TO PROSPECT	52%	6%	41%	0%	0%	MEDIUM-LOW
MAIN STREET: TO 51ST ST	20%	10%	68%	0%	1%	MEDIUM-LOW
31ST STREET/LINWOOD BOULEVARD: TO PROSPECT VIA MAIN	33%	22%	45%	0%	0%	MEDIUM-LOW
31ST STREET/LINWOOD BOULEVARD: TO VA HOSPITAL VIA MAIN	29%	32%	39%	0%	0%	MEDIUM-LOW
31ST STREET/LINWOOD BOULEVARD: TO PROSPECT VIA GILLHAM	22%	20%	57%	0%	1%	MEDIUM-LOW
31ST STREET/LINWOOD BOULEVARD: TO VA HOSPITAL VIA GILLHAM	21%	30%	48%	0%	1%	MEDIUM-LOW
COUNTRY CLUB R.O.W.: TO 75TH ST	10%	67%	23%	0%	0%	MEDIUM-LOW

Table 7.7 provides a summary breakdown by percent based on the low to high rating of existing land use of the corridor.

Among the eight corridors, Independence Avenue has the most consistent medium-to-high residential densities within ¼-mile of the potential alignment. Uses fronting Independence Avenue include a diverse mix of institutional, commercial-retail, services with some professional office. Buildings typically make up a majority of the street frontage; however, there are pockets of auto-oriented uses with parking lots fronting the street, particularly on the eastern portion of the corridor. East of Hardesty, the corridor is primarily comprised of industrial uses.

The 12th Street East corridor is primarily made up of large-scale office, medium density residential, commercial and institutional uses. Within the Downtown Loop, 12th Street East connects through the heart of the Government District. Directly east of the Downtown Loop, the corridor is comprised of

older industrial uses and vacant lots. East of Paseo Boulevard, the corridor is primarily medium-density residential with a significant commercial-retail node at Brooklyn Avenue.

Within the Downtown Loop, the 12th Street West corridor runs through the north-edge of the Convention District with hotels, parks and open space and the south edge of Quality Hill with a mix of high-intensity office and residential uses. West of the Downtown Loop, 12th Street West connects to the West Bottoms District which is primarily comprised of older industrial and warehouse uses and includes Kemper Arena and the American Royal. Some of these older structures are in the process of being converted to mixed-use, office and residential as well as special uses such as galleries and event space.

Within the Crossroads District, 18th Street is comprised of an eclectic mix of professional office and commercial-retail uses including restaurants and entertainment venues. This segment also has

significant pockets of surface parking and vacant lots. Directly east of US 71, the corridor is primarily industrial in nature with large pockets of vacant or underutilized properties. The Kansas City Area Transportation Authority (KCATA) is the largest use within this area. East of Paseo Boulevard, 18th Street is a mix of medium-to-high density residential, retail, office and entertainment uses which comprise the Historic 18 & Vine Jazz District. East of Brooklyn, the corridor is primarily industrial in character; however, there is a large institutional anchor, Pioneer Community College, at Prospect Avenue.

Between Main Street and Summit, Southwest Boulevard transects a vibrant mixed-use area that includes high-density residential, office and commercial-retail uses which are comprised of small shops and restaurants. East of Summit, the corridor is primarily industrial in character. Over time, development has been limited on the north side of the corridor due to numerous rail lines. Although this segment of the corridor is primarily industrial, other uses have developed over time including a mix of businesses, services and restaurants. The corridor is home to the Boulevard Brewery and The Roasterie Coffee.

31st Street is a mix of low-to-medium density residential, commercial-retail and institutional uses. Linwood Boulevard is primarily low-to-medium density residential with small pockets of commercial-retail and institutional uses. Along 31st Street, a majority of uses tend to front the street. On Linwood Boulevard, uses tend to be set back further from the street in the character of a typical boulevard. Both corridors have significant pockets of vacant or underutilized land. During the initial screening, a potential Gillham connection is

being considered to provide a direct connection to Hospital Hill.

The Main Street South corridor is made up of a diverse mix of land uses including institutional, parks and open space, commercial-retail, large and small-scale office and medium-to-high density residential uses. The frontage of a majority of Main Street South is primarily commercial-retail. Except at major intersections and development nodes, these commercial uses are typically one-half block in depth. A majority of the residential areas are within one block of the corridor and maintain fairly typical urban densities over $\frac{1}{4}$ -mile on either side the corridor. Along the corridor, a majority of uses tend front the street, however, there are pockets of auto-oriented uses throughout the corridor with surface parking. Outside of the Downtown Loop, Main Street South has the highest intensity office and retail-commercial areas among the either corridors. Significant mixed-use development nodes within $\frac{1}{4}$ -mile of the corridor include Crown Center, Midtown Crossing, Westport and the Country Club Plaza which has the highest intensity office development outside of the Downtown Loop. The potential terminus of the corridor is anchored by the University of Missouri-Kansas City (UMKC) campus.

The Country Club corridor is primarily made up of a mixture of low-to-medium density residential and institutional uses with significant mixed-use commercial nodes at 63rd Street and 75th Street. South of 85th Street and the Country Club Right-of-Way/Brookside Boulevard is primarily low-density residential with pockets of commercial and light industrial uses. The Dodson Industrial District is on the southern terminus of the corridor.



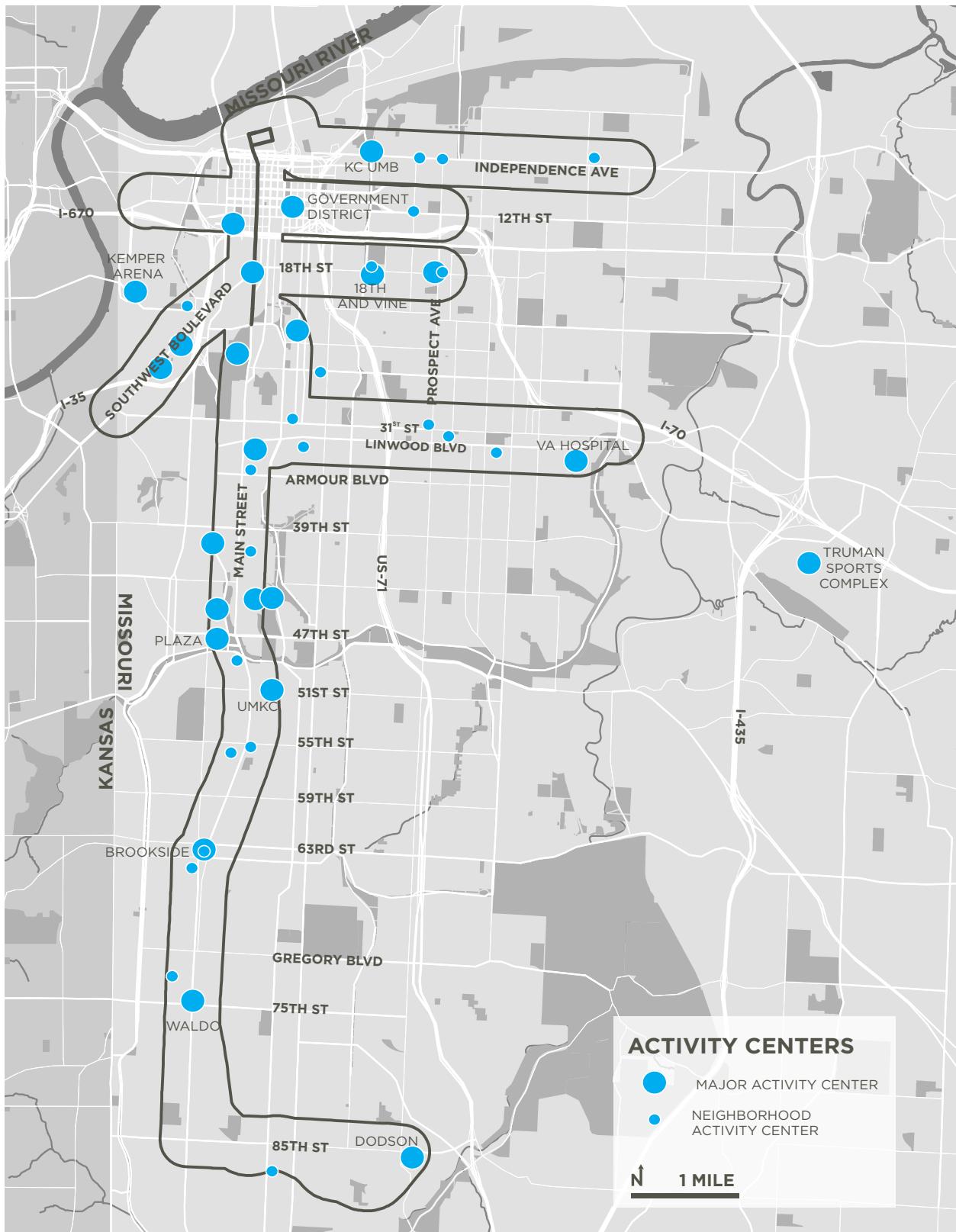


FIGURE 8.5 ACTIVITY CENTERS

ACTIVITY CENTERS

Activity centers generating consistent all-day trips are a necessary component of a successful urban rail system. For the purposes of this analysis, activity centers were identified within $\frac{1}{4}$ -mile of each corridor and categorized as “major” or “neighborhood”. Major activity centers are city-wide destinations, significant districts or attractions generating a high number of trips while neighborhood activity centers are local destinations generating a smaller number of trips.

In general, major activity centers attract higher ridership; however, neighborhood activity centers are important because they have the ability to attract more frequent local trips. It was also recognized that some corridors have a higher number of activity centers due to their length. Therefore, part of the assessment also considered number of activity centers per route mile.

Table 7.8 provides a summary of the activity center assessment. Descriptions of these activity centers are provided on the following pages.

The Independence Avenue corridor is within $\frac{1}{4}$ -mile within one major activity center: the Kansas City University of Medicine and Biosciences located on the eastern end of the corridor. The University currently has approximately 1,033 students. Neighborhood activity centers include the Northeast Community Center, Northeast Jr. High School, a commercial node at Prospect and commercial node at Hardesty.

The 12th Street East corridor is within $\frac{1}{4}$ -mile of one major activity center: the Government District, which has downtown's highest concentration of employment. The Government District includes City Hall, Jackson County Courthouse, Fletcher Daniels State Office Building, the U.S District Court and various federal agencies. There is one neighborhood activity center east of the Downtown Loop, the 12th and Brooklyn commercial node.

The 12th Street West corridor is within $\frac{1}{4}$ -mile of three major activity centers: the Bartle Hall Convention Center, Kauffman Center for the Performing Arts on the eastern-end of the Downtown Loop and the American Royal/Kemper Arena in the West Bottoms.

The 18th Street corridor is within $\frac{1}{4}$ -mile of two major activity centers: the 18th and Vine Jazz District and Pioneer Community College. Neighborhood activity centers include the Gregg\Klice Community Center and the Kipp Endeavor Academy.

The Southwest Boulevard corridor is within $\frac{1}{4}$ -mile of three major activity centers: the Crossroads Arts District, Boulevard Brewery, and the Westside Restaurants. The Crossroads has a monthly first Friday event that attracts a large number of visitors. The Boulevard Brewery offers tours of the brewery that attracts visitors. There is only one neighborhood activity center, Our Lady of Gaudalupe School.

The 31st Street and Linwood corridors are within $\frac{1}{4}$ -mile of two major activity centers: Midtown Marketplace and Veterans' Hospital. The Gillham option would connect additional major activity centers in the area known as Hospital Hill. Hospital Hill includes the University of Missouri-Kansas City School of Medicine, Children's Mercy Hospital and Truman Medical Center. Neighborhood activity centers include Martini Corner, Central High School, L.H. Bluford Branch of the Kansas City Public Library, Faxon Elementary School, and Benton Community Garden.

The Main Street South corridor is within $\frac{1}{4}$ -mile of eight major activity centers: the Liberty Memorial, Midtown Marketplace, Westport, Kemper Art Museum, Kansas City Art Institute, St. Luke's Hospital, Country Club Plaza and UMKC. The Country Club Plaza has over 150 shops and restaurants, and holds special events like the Plaza Art Fair that attracts a large number of visitors throughout the year. UMKC currently has an enrollment of approximately 15,000 students and approximately 3,900 faculty members. Neighborhood activity centers include the Plaza Library, St. Paul's Episcopal Day School, and the Foreign Language Academy.

The Country Club corridor is within $\frac{1}{4}$ -mile of two major activity centers: the Brookside Shopping District, the Waldo Shopping District. Neighborhood activity centers include Southwest High School, Border Star Montessori, Crestwood Shops, St. Theresa's Academy, Hale Cook Elementary School, and Center High School. The corridor also has the potential to connect to Oxford on the Blue, a 350-acre mixed-use campus that will be anchored by biotech research facilities.



TABLE 8.8 ACTIVITY CENTERS

CORRIDOR	CORRIDOR LENGTH (MILES)	MAJOR ACTIVITY CENTERS	MAJOR ACTIVITY CENTERS PER MILE	NEIGHBORHOOD ACTIVITY CENTERS	NEIGHBORHOOD ACTIVITY CENTERS PER MILE	RATING
INDEPENDENCE AVENUE: TO BENTON	2.2	1	0.5	2	0.9	MEDIUM
INDEPENDENCE AVENUE: TO HARDESTY	3.5	1	0.3	4	1.1	MEDIUM
12TH STREET WEST: WEST BOTTOMS TO MAIN	1.0	3	3.0	0	0.0	MEDIUM-HIGH
12TH STREET EAST: MAIN TO PROSPECT	1.7	1	0.6	1	0.6	MEDIUM-LOW
12TH STREET COMBINED: WEST BOTTOMS TO PROSPECT	2.7	4	1.5	1	0.4	MEDIUM-HIGH
18TH STREET: TO PROSPECT	2.4	2	0.8	2	0.8	MEDIUM-LOW
SOUTHWEST BOULEVARD: TO STATE LINE	1.8	3	1.7	1	0.6	MEDIUM-HIGH
18TH STREET / SOUTHWEST BOULEVARD: SUMMIT TO PROSPECT	2.5	4	1.6	3	1.2	MEDIUM-HIGH
MAIN STREET: TO 51ST ST	5.0	8	1.6	3	0.6	MEDIUM-HIGH
31ST STREET/LINWOOD BOULEVARD: TO PROSPECT VIA MAIN	2.8	1	0.4	3	1.1	MEDIUM
31ST STREET/LINWOOD BOULEVARD: TO VA HOSPITAL VIA MAIN	4.4	2	0.5	5	1.1	MEDIUM
31ST STREET/LINWOOD BOULEVARD: TO PROSPECT VIA GILLHAM	2.7	2	0.7	3	1.1	MEDIUM
31ST STREET/LINWOOD BOULEVARD: TO VA HOSPITAL VIA GILLHAM	4.3	3	0.7	5	1.2	MEDIUM
COUNTRY CLUB R.O.W.: TO 75TH ST	3.1	2	0.7	5	1.6	MEDIUM-HIGH
COUNTRY CLUB R.O.W.: TO 85TH AND PROSPECT	6.2	2	0.3	6	1.0	MEDIUM



TRANSIT SUPPORTIVE PLANS AND POLICIES

Urban rail systems are catalysts for economic development, however, like any infrastructure investment, there needs to be the supportive plans, policies and zoning in place to ensure that the investment is fully maximized. To assess the existing readiness of each corridor to maximize an urban rail investment the following factors were assessed:

- Area and Corridor Plans
- Future Land Use
- Existing Zoning

Area and Corridor Plans

FOCUS (Forging Our Comprehensive Urban Strategy), Kansas City's Comprehensive Plan, supports high-capacity transit investments including light rail. FOCUS provided the framework for the transit oriented development guidelines (TODs) and pedestrian oriented development guidelines (PODs) to support these investments. FOCUS supports compact and mixed-use patterns, particularly along transit corridors. FOCUS also recommended implementation of flexible or reduced parking standards and actively promotes higher density development along existing or proposed transit corridors.

While FOCUS provides a broader policy framework, the City has a set of area plans with more detailed recommendations for neighborhoods, corridors and subareas. These plans have been reviewed to assess the readiness of existing recommendations and policies to support future high-capacity transit investments each corridor. Based on this review, a high-level qualitative assessment was provided for several categories including:

1. Mix of Uses: Compact mixed-use development is encouraged along future urban rail transit corridors to maximize efficient transit operations and to help facilitate convenient pedestrian and bicycle connections. Mixed-use development can be vertical (within a single building) or horizontal (within a collection of buildings).

2. Density: Development densities along urban rail corridors should support future transit service aspirations. Increased densities along transit corridors maximize the amount of people with walking access to transit services. At a minimum, transit corridors should average eight (8) units per acre. High-capacity and frequency urban rail transit corridors will ideally support greater densities, especially within one-quarter mile of future transit stops/stations.

3. Design: The physical location of buildings can encourage transit use, allow for efficient transit operations, encourage pedestrian activity and greatly enhance an overall "sense of place." Along key transit corridors, buildings should be oriented toward the primary street and have minimal setbacks to maximize visibility and reduce walking distances. Large surface parking lots that separate buildings from the street make walking less convenient and therefore should be located behind or beside buildings and/or internal to the site. Public plazas and private courtyards should be sited in such a way as to create a cohesive walkable environment in combination with the public sidewalk network. Space should be allocated for future transit stops, as appropriate, in locations convenient for transit operations (e.g. with minimal need for time-consuming deviations from major arterial streets), with safe and convenient pedestrian connections to adjacent buildings.

4. Corridor Specificity: This measure identifies whether any plans, policies or initiatives recommend high-capacity transit (light rail, streetcar, etc.) service in the corridor.



TABLE 8.9 TRANSIT SUPPORTIVE PLANS AND POLICIES

CORRIDOR	APPLICABLE PLANS	MIX OF USES	DENSITY	DESIGN	CORRIDOR-SPECIFIC	RATING
INDEPENDENCE AVENUE	GDAP, Truman Plaza, Independence Avenue Urban Vision Study	Y	Y	Y	Y	HIGH
12TH STREET WEST	GDAP	Y	Y	Y	N	MEDIUM-HIGH
12TH STREET EAST	GDAP	Y	Y	Y	N	MEDIUM-HIGH
18TH STREET	GDAP, Vine Street District Economic Development Plan	Y	Y	Y	N	MEDIUM-HIGH
SOUTHWEST BOULEVARD	GDAP	Y	Y	Y	N	MEDIUM-HIGH
31ST & LINWOOD	Heart of the City	Y	Y	Y	Y	HIGH
MAIN STREET SOUTH	Midtown/Plaza, Main Street corridor Land Use and Development Plan, Main street Streetscape Plan, Central Business Corridor Transit Plan	Y	Y	Y	Y	HIGH
COUNTRY CLUB RIGHT OF WAY	Country Club Area Plan, 63rd Street Corridor Plan, Waldo Area Plan	N	N	N	Y	MEDIUM-LOW

A qualitative assessment of the applicable plans of record for each corridor we completed for each of these categories. The assessment of each plan is provided in Table 7.9 as a “Yes” or “No” in terms of meeting the category criteria.

The Greater Downtown Area Plan, adopted in 2010, covers Independence Avenue, 12th Street East, 12th Street West, Southwest Boulevard and portions of 18th Street. This plan’s transit supportive policies addressed mix of uses, density and design. Specific examples in the plan include the following:

- Encourage a variety of uses and housing types and prices. Goal of doubling the residential population.
- Create an environment that is designed for cycling and walking, with adequate facilities and attractive street conditions.
- Reduce parking requirements to be comparable with conventional development.
- Ensure that transit stops and stations that are convenient, comfortable and secure.
- Proactively apply incentives to encourage Transit Oriented Development (TOD).
- Encourage higher densities and strategic infill consistent with the recommendations of the Land Use Plan and the building height map.
- Discourage the creation of new surface parking lots that result from the demolition of an existing building.
- Encourage non-automobile parking in new developments to make downtown more bike, scooter and motorcycle friendly.
- Examine the possibility of counting street

parking to satisfy a portion of off-street parking requirements.

The Heart of the City Area Plan, adopted in 2011, covers 31st Street and Linwood Boulevard. This plan provides specific guidance for future transit investments targeted along three key transit corridors: Linwood, Truman and Prospect. The Plan specifically identifies Linwood Boulevard as a future high-capacity transit corridor. Transit-supportive goals and policies for these corridors include:

- Encourage a variety of uses and housing types.
- Compact, higher density of housing and activity than typical development.
- Include a transit stop or station that is a center of activity. Ensure that transit stops are convenient, comfortable and secure.
- Easily accessible via all modes of transportation.
- Create an environment that is designed for cycling and walking.
- Provides a public place of activity.
- Provides transit supportive uses (those that cater to convenience goods and service needs of residents, employees, and transit stop users).
- Emphasize pedestrian access to buildings, placing parking lots behind buildings and buildings near the street.
- Reduce parking requirements. Proactively apply incentives for TOD.
- Avoid Transit “Adjacent” Development - Development near transit that is not oriented to or connected to transit and has the same parking ratio, roadway design, density,

mix of uses and auto usage as any other development.

This plan also provides specific guidance to transit investments on these corridors. Specific examples include:

- The top priority for (transit) improvements is Prospect Avenue.
- Focus density (land use), pedestrian improvements, bike routes and trails, and streetscape/gateway improvements on these corridors.
- Implement enhanced transit service (such as Bus Rapid Transit or Light Rail) on the Primary Corridors.
- Prioritize Bus Rapid Transit (BRT) on Prospect Avenue.
- Implement improvements to bus stops (benches, shelters, etc.) along these corridors.
- Prioritize improvements to the Linwood/Prospect and Linwood/Van Brunt (which are also Pedestrian Zones).
- Consider and encourage the inclusion of light rail on Linwood Boulevard (from Prospect Avenue to the Central Business Corridor) in any future planning for light rail (or other fixed guideway transit).
- Establish Transit Oriented Design requirements for development along the Primary Transit Corridors.
- Coordinate trails and bike routes with transit.
- Ensure that future trail and bike routes connect



to the transit system, particularly the Primary Transit Corridors).

The Main Street Corridor and Land Use Plan, adopted in 2003, provide specific recommendations for transit improvements including the following:

- Construction Disruption: Construction disruption to residents and businesses shall be kept to an absolute minimum and managed in a manner that will result in uninterrupted trade for corridor businesses.
- Parking: Future multi-modal transit improvements should result in no net loss in parking until such time that it actually reduces automobile traffic. Any replacement parking must be constructed in a neighborhood-friendly way.
- Access to all businesses is imperative, including large truck access for particular business locations. The capability to make left-hand turns is critical, while resolving safety and access issues.
- Pedestrian Traffic: Any future multi-modal transit improvement should maintain and enhance pedestrian traffic on Main Street.
- Strong connections to neighboring residential areas and business districts should be incorporated into the project.
- Improvements to Main Street shall be designed to enhance the safety, security and ease of transit use.
- Any planning process designed to improve



the City's transit system on Main Street shall include representatives from the corridor's residential, commercial and institutional actors.

- Main Street shall be an important route for any future improvement to the City's transit system. Any improvement must be sensitive to maintaining and enhancing the historic development patterns on Main Street and the adjoining residential neighborhoods.
- The City, in partnership with KCATA and others will work to upgrade traffic signal systems for the Corridor that will increase the efficiency and safety of motorists, pedestrians and bicyclists. This endeavor should be accelerated in locations where development projects or the implementation of fixed guideway transit cause traffic signals to be altered.
- Mixed use development at the nodes shall be designed to support pedestrian oriented activities and increased transit use on Main Street. These areas shall be planned to encourage a diversity of activity, safety for pedestrians and smaller scale elements and storefronts at the street level to encourage diversity of activity.



The City is currently in the process of updating the Midtown/Plaza Area Plan and the Swope Area Plan. These plans are scheduled to be complete in early 2014. It should be noted that during the plan process, the concept of a Streetcar extension on Main from Crown Center to UMKC will be considered.



The Country Club Area Plan, last updated in 1980, does not have any specific transit-supportive land use policies. However, the plan clearly identifies the Trolley Track Trail Right-of-Way has the preferred alignment for streetcars similar to the system that originally used the right-of-way. The plan notes that use of the right-of-way would be less disruptive to the area and it would require minimal space as well as allowing other uses in the right-of-way such as "jogging and bicycle paths". Other plans of record for the Country Club Corridor include the 63rd Street Corridor Plan, adopted in 2002, and the Waldo Area Plan, adopted in 1999. Although lacking in specifics related to high-capacity transit, these plans note the need to integrate these systems into the neighborhood. The Waldo Area Plan specifically states that light rail along Country Club right-of-way would be a positive development implications for the Waldo area. Light rail transit would attract and retain retail commercial uses along Wornall Road and 75th Street, and would attract infill residential development to the east and west of Wornall Road.

FUTURE LAND USE

Future land use was assessed for parcels within ¼-mile of each potential alignment. The future land use dataset is a compilation of future land use plans from adopted area and corridor plans of record for each corridor. Future land use categories were assigned a rating (Low to High) based on their ability to support high-capacity transit service:

- Low
 - Agricultural
 - Residential densities less than 5.8 units per acre
 - Industrial, manufacturing, warehousing and wholesale uses
 - Open Space
- Medium-Low
 - Residential densities up to 5.8 units per acre
- Medium
 - Residential densities up to 8.7 units per acre
 - Office including professional, administrative and corporate office uses
 - Large-scale commercial development targeted in areas along arterials with highway access.
 - Institutional is public and quasi-public uses; schools, churches, and government owned facilities
 - Parks are public or private land reserved for parks and parkways
- Medium-High
 - Residential densities up to 17.4 units per acre
 - Mixed-use neighborhood with businesses on the lower portion of the building and residential above
 - Mixed-use community with high-intensity retail sales and services with mix of businesses and residential uses designed to enhance the pedestrian environment
 - Downtown Mixed-Use: Office, commercial, custom manufacturing, light industrial, public, public, institutional and residential development generally at lower intensities than Downtown Core
- High
 - Residential densities are up to 29 units per acre or greater. This includes Downtown residential
 - Downtown Core: high-intensity office and employment. Hub for business, communications, office, government, retail, cultural, educational, visitor accommodations and entertainment



TABLE 8.10 FUTURE LAND USE SUMMARY

CORRIDOR	LOW	MEDIUM-LOW	MEDIUM	MEDIUM-HIGH	HIGH	RATING
INDEPENDENCE AVENUE: TO BENTON	8%	9%	38%	43%	2%	MEDIUM
INDEPENDENCE AVENUE: TO HARDESTY	8%	6%	54%	31%	1%	MEDIUM
12TH STREET WEST: WEST BOTTOMS TO MAIN	13%	0%	8%	79%	0%	MEDIUM-HIGH
12TH STREET EAST: MAIN TO PROSPECT	20%	12%	23%	35%	10%	MEDIUM
12TH STREET COMBINED: WEST BOTTOMS TO PROSPECT	17%	8%	18%	50%	7%	MEDIUM
18TH STREET: TO PROSPECT	24%	7%	14%	49%	4%	MEDIUM
SOUTHWEST BOULEVARD: TO STATE LINE	34%	22%	2%	41%	2%	MEDIUM
18TH STREET / SOUTHWEST BOULEVARD: SUMMIT TO PROSPECT	21%	13%	12%	50%	4%	MEDIUM
MAIN STREET: TO 51ST ST	3%	6%	45%	39%	6%	MEDIUM-HIGH
31ST STREET/LINWOOD BOULEVARD: TO PROSPECT VIA MAIN	0%	28%	34%	28%	9%	MEDIUM
31ST STREET/LINWOOD BOULEVARD: TO VA HOSPITAL VIA MAIN	9%	38%	30%	18%	5%	MEDIUM
31ST STREET/LINWOOD BOULEVARD: TO PROSPECT VIA GILLHAM	3%	22%	29%	22%	23%	MEDIUM
31ST STREET/LINWOOD BOULEVARD: TO VA HOSPITAL VIA GILLHAM	7%	33%	28%	17%	15%	MEDIUM-HIGH
COUNTRY CLUB R.O.W.: TO 75TH ST	3%	66%	17%	13%	1%	MEDIUM-LOW
COUNTRY CLUB R.O.W.: TO 85TH AND PROSPECT	8%	64%	18%	10%	1%	MEDIUM-LOW

Table 7.10 provides a summary breakdown of future land use by percent of the corridor. Below is a description of future land use.

The Greater Downtown Area Plan clearly had an emphasis on increasing density within downtown neighborhoods, especially along key transit corridors. This is reflective in the Downtown Core and Downtown Mixed Use designations. The highest concentration of future land use densities are within the Downtown Loop benefiting the 12th Street East and West Corridors. The next highest future land use densities are in downtown neighborhoods surrounding the loop including the River Market, West Bottoms, Crossroads and the East Side. For the most part, the future land use plans for the remaining corridors are generally consistent with existing land use patterns. The Heart of the City Area Plan does emphasize higher densities through infill development on vacant or underutilized lots.

ZONING

The City updated their zoning code in 2010 which became effective in early 2011 to modernize outdated uses and concepts, reduce inconsistency among classifications and ensure that districts encourage desirable development patterns including provisions for mixed-use pedestrian-oriented development to promote bicycle, walking and transit use.

Zoning was assessed for parcels within ¼-mile of each potential alignment. Zoning Districts were assigned a rating (Low to High) based on their ability to support high-capacity transit service:

- Low
 - Agricultural (R-80)
 - Heavy Business/Commercial (B4-2 and B4-5)
 - Light Industry (M1-5)
 - Heavy Industry (M3-5)
 - Residential Low Density One Family Dwellings (R-10)
- Medium-Low
 - Low density, residential medium density, one family dwellings (R-7.5)
- Medium
 - Neighborhood Retail business, Planned Business Center (B1-1)
 - Planned Business Center (B2-2)
 - Office (O-3)
 - Medium density, one family dwellings (R-6)
 - Low Apartments/Admin/Office (R-1.5)
 - Two-Family Dwelling Units (R-5)
- Medium-High
 - Neighborhood Business/Pedestrian Oriented Overlay (B-1-P/O)
 - Local Retail Business (B3-2)
 - Local Retail Business/Two-Family Dwelling Units, High density Residential, Low Density Apartments (B3-2/R-2.5)
 - Local Retail Business/Two Family (R-1.5/B3-2)
 - Urban Redevelopment (URD)
 - Master Planned Development (MPD)
 - Downtown Mixed-Use (DX-15)
- High
 - Residential/Business (R1.5/B4-5)
 - Low Apartments/Admin/Office (R-1.5)
 - High Apartments/Office (R-0.5)
 - Downtown Core (DC-15)

In 2012, in anticipation of the construction of the Streetcar Starter Line, the City added two sections pertaining to the Downtown Streetcar Area, as follows: Section 88-810-522 Downtown Streetcar Area. The area of the city zoned DC (Downtown Core) or DX (Downtown Mixed-Use) and included within the following boundaries: Wyandotte Street on the west, KC Terminal RR tracks on the south, Grand Boulevard on the east, East Missouri Avenue on the south, Locust Lane and Locust Street on the east, and East 2nd Street and West 2nd Street (extended) on the north. Section 88-420-04-L. Downtown Streetcar Area. Uses within the Downtown Streetcar Area are not required to provide off-street parking.

It is anticipated that similar provisions would be made for future extensions, however, specific provisions for parking and other transit-supportive policies would need to be tailored to the needs of each area depending on the corridor.



TABLE 8.11 ZONING SUMMARY

CORRIDOR	LOW	MEDIUM-LOW	MEDIUM	MEDIUM-HIGH	HIGH	RATING
INDEPENDENCE AVENUE: TO BENTON	23%	3%	19%	25%	30%	MEDIUM
INDEPENDENCE AVENUE: TO HARDESTY	17%	2%	11%	51%	18%	MEDIUM-HIGH
12TH STREET WEST: WEST BOTTOMS TO MAIN	82%	0%	2%	3%	14%	MEDIUM-LOW
12TH STREET EAST: MAIN TO PROSPECT	44%	0%	0%	9%	46%	MEDIUM
12TH STREET COMBINED: WEST BOTTOMS TO PROSPECT	57%	0%	1%	7%	35%	MEDIUM
18TH STREET: TO PROSPECT	66%	0%	0%	19%	15%	MEDIUM-LOW
SOUTHWEST BOULEVARD: TO STATE LINE	60%	0%	20%	13%	7%	MEDIUM-LOW
18TH STREET / SOUTHWEST BOULEVARD: SUMMIT TO PROSPECT	63%	0%	6%	17%	14%	MEDIUM-LOW
MAIN STREET: TO 51ST ST	15%	0%	20%	30%	36%	MEDIUM-HIGH
31ST STREET/LINWOOD BOULEVARD: TO PROSPECT VIA MAIN	19%	0%	2%	36%	43%	MEDIUM-HIGH
31ST STREET/LINWOOD BOULEVARD: TO VA HOSPITAL VIA MAIN	12%	0%	7%	50%	32%	MEDIUM-HIGH
31ST STREET/LINWOOD BOULEVARD: TO PROSPECT VIA GILLHAM	25%	0%	1%	39%	35%	MEDIUM-HIGH
31ST STREET/LINWOOD BOULEVARD: TO VA HOSPITAL VIA GILLHAM	17%	0%	7%	47%	30%	MEDIUM-HIGH
COUNTRY CLUB R.O.W.: TO 75TH ST	7%	2%	73%	14%	4%	MEDIUM
COUNTRY CLUB R.O.W.: TO 85TH AND PROSPECT	8%	64%	18%	10%	1%	MEDIUM-LOW

9 HISTORICAL CONTEXT

An overview of Kansas City's mass transit system and the historic lines associated with NextRail KC proposed alignments.

MASS TRANSIT COMPANIES IN KANSAS CITY¹

Spanning the years from 1869, when Nehemiah Holmes inaugurated the first railway line, to 1957 which marked the end of the streetcar era, Kansas City has employed every available form of mass transit including horse and mule-drawn cars, to cable lines, electric traction, and trackless trolleys. Over the years the physical development of the urban mass-transit system has been "perhaps more varied than is the case with transportation systems operating in other cities of size comparable with that of Kansas City, since it has experienced almost every vicissitude possible in the development of a traction company."²

Throughout the eighty-eight year period, well over 100 separate franchises and grants for the operation of a variety of urban mass transit systems, including The Kansas City Railway Company, The Grand Avenue Railway Company, and The Corrigan Consolidated Street Railway Company (MSRy), had been awarded by the city. At the end of the 19th century, Kansas City "boasted of having the third largest cable system in the county." It was reported that the Metropolitan Street Railway Company (incorporated on July 19, 1886), who monopolized the metropolitan area's transit system, was worth \$8.5 million at the time, with 128 miles of cable and electric track; 200 cars carried approximately 85,000 passengers daily.³

1 This historic context is, in part, based on the Section 106 Technical Report for the KC Downtown Streetcar Project, HPP 106 Project No. 213-JA-12, City of Kansas City, Missouri, August 2012, authored by Architectural & Historical Research, LLC. Much additional data has been added to this narrative, while any discrepancies were corrected.

2 Bion J. Arnold, Report to Hon. William C. Hook, Circuit Judge, on the Value of the Properties of the Metropolitan Street Railway System of Kansas City, Missouri (Kansas City: n. p., 1912), 32. Bion Joseph Arnold (1861-1930), a pioneer in electrical engineering, was a consultant in various cities and among his outstanding accomplishments was the electrification of Grand Central Station.

3 Edward A. Conrad, *Kansas City Streetcars: From Hay-burners to Streamliners* (Blue Springs: HeartlandRails Publishing Company, 2011), 95-97.

Despite the Metropolitan Street Railway Company's ostensible power, they experienced several episodes of heated and bitter political controversy and public outcry over the extension of its franchises, the lack of response to the public's needs, and failure to expand their service into an ever-sprawling city.⁴ The Metropolitan Street Railway Company, who had taken control of all but a handful of the streetcar companies in Kansas City (fifteen companies had been absorbed in nineteen years), had "lapsed into a deplorable state both financially and physically."⁵

At the turn of the 19th century, over the course of 10 years, the MSRy was making great strides as they were in the process of taking up horse, steam dummy and cable lines throughout the metropolitan area and converting them to electric lines. Some of the original private investors of the conglomerate included Charles Francis Adams, Jr., Nathaniel Thayer, Jr., Charles Merriam and Charles Fessenden Morse. These individuals had strong ties to railroads and the meatpacking industry; Adams was the great-grandson of U. S. President John Adams. The Kansas City Railway & Light Company was the holding company of record.⁶

Arguably, the most decisive years in the Metropolitan Railway's history occurred in 1911-1914, when the company went into receivership and the court ordered an independent appraisal of the company's property. The Kansas City Railway and Light Company, the Metropolitan's holding company, who

4 In the first of many fights for franchise expansions, The Kansas City Star championed the extension of the streetcar line. On one occasion, it was stated that, "the proper growth of a city depends more upon its street railway facilities than upon anything else in its municipal life." (*Street Railway's and the Growth of a City*, The Kansas City Star, 25 June 1909, 10.) However, historians point to developers and builders constructing cheap residences along streetcar lines to the south and more especially to the east. See Sherry Lamb Schirmer and Richard McKinzie, *At the River's Bend* (Woodland Hills, CA: Windsor Publications, Inc., 1982), 99.

5 *Kansas City Railway Gains Public Favor*, Electric Railway Journal 68 (September 30, 1916), 667.

6 Edward A. Conrad, *Kansas City Streetcars: From Hay-burners to Streamliners*, 95-97, 177-180.



petitioned the receivership, prevented the complete disintegration of the entire system.⁷ Mayor Jost's draft of the new franchise "repealed the 300-400 previous franchises" and revoked the provisions of the groundbreaking Peace Agreement of 1903.⁸ In 1916, the Metropolitan was reorganized and emerged as Kansas City Railways. The Kansas City Railways was succeeded by the Kansas City Public Service Company, in 1925 in a foreclosure sale.⁹ KCPS was granted a new franchise with provisions for bus and streetcar operation. During the nascent period, much infrastructure was built, 46 miles of track was rebuilt and the fleet of 744 streetcars was modernized.¹⁰ Unfortunately, ridership had

⁷ A. Theodore Brown and Lyle W. Dorsett, *KC: A History of Kansas City, Missouri* (Boulder, Colorado: Pruett Publishing Company, 1978), 106. See also, *Electric Railway Journal*, September 30, 1916.

⁸ Delos F. Wilcox, *Municipal Franchises: A Description of the Terms and Conditions upon which Private Corporations enjoy Special Privileges in the Streets of American Cities* (New York: The Engineering News Publishing Company, 1911), 310-323. The Peace Agreement was an ordinance between the city and the street railway companies. Generally speaking, the Peace Agreement mandated that the Metropolitan would upgrade and expand their lines, receive new franchises and an extension of existing franchises. The City, in return, would get a percentage of gross earnings. See also Conrad, *Kansas City Streetcars*, 105-106.

⁹ Roy Ellis, *A Civic History of Kansas City, Missouri* (Springfield, Missouri: Columbia University, 1930), 101, 115; Terence W. Cassidy, "Kansas City," *Motor Coach Age*, November-December, 1975, 5; Cydney E. Millstein, "Historic Mill Creek Viaduct, Kansas City, Missouri: Historical and Descriptive Data, Photographs and Plans," May 22, 1996, 6.

¹⁰ Edward A. Conrad, *Kansas City Streetcars: From Hayburners to Streamliners*, 213. Conrad points out that during this period of rebuilding, mushroom beds were removed from the upper portion of the 8th Street Tunnel.

peaked in 1922 and the years up through WWII saw a continuous decrease in patrons. Abandonment of lines began in 1917 and continued through the 1930s. And, of course, the stock market crash of 1929 had a damaging effect on streetcar systems as a whole.

Following WWII, when Kansas Citians and the rest of the nation began their love affair with the automobile, the support of public transportation, again, declined. Patronage fell from 136 million in 1946, to 66 million in 1954, reflecting both a post-war auto and gasoline production boom and the "dispersed nature of the expanded Kansas City metropolitan area in the postwar period."¹¹ In June 1957, five months after the Kansas City Public Service Company's streetcar franchise had expired, the last car lines (Country Club-Dodson and Rockhill), and two trolley bus lines were converted to motorbus. Soon thereafter, the corporate name of the Kansas City Public Service Company was changed to Kansas City Transit, Inc. Patronage continued to dwindle and by January 1969, the Kansas City Area Transportation Authority (KCATA) acquired the majority of Kansas City Transit's assets.¹²

HISTORIC TRANSIT LINES ASSOCIATED WITH NEXTRAIL PROPOSED ALIGNMENTS

Two of the earliest street transport systems in Kansas City were the Jackson County Horse Railroad Company, servicing the West Bottoms to State Line by 1869; and the Kansas City & Westport Horse Railroad Company with established routes throughout Kansas City reaching Linwood Boulevard by 1871. Most Kansas City horse car lines

¹¹ Millstein, *Historic Mill Creek Viaduct, Kansas City, Missouri*, 9.

¹² Ibid, 9.

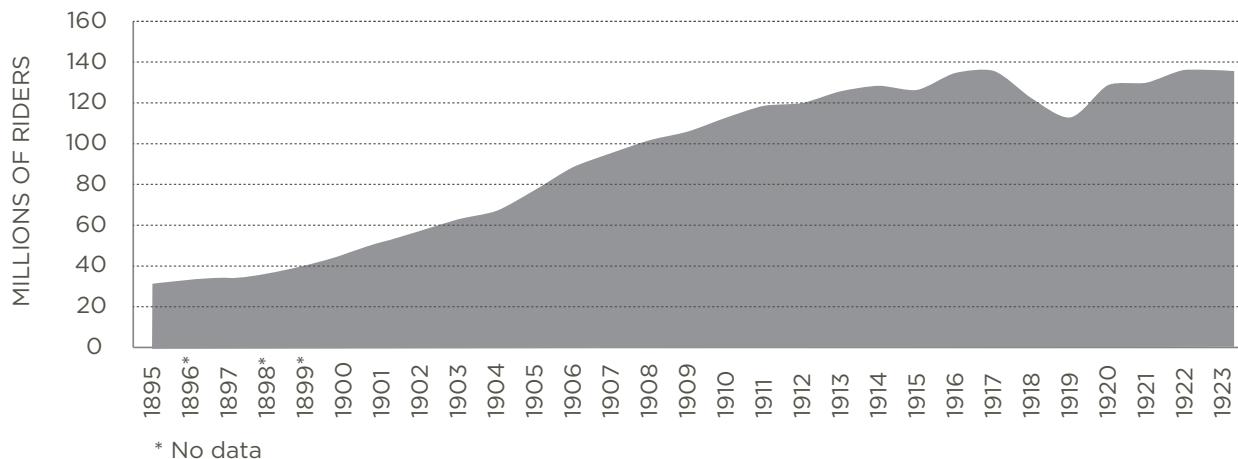


FIGURE 9.1 KANSAS CITY STREETCAR RIDERSHIP 1895-1923

were narrow gauge, 3' to 6'. Rails often consisted of iron straps nailed to wooden stringers set in unpaved streets. These horse lines operated for nearly two decades before cable lines eventually replaced them.

During the mid-1880s, cable lines began replacing the outdated horse lines. The Kansas City Cable Railway Company started laying track eastward on Independence Avenue to Woodland Avenue in 1886. The Metropolitan Street Railway Company (MSRy) took on their most ambitious project, laying a double track from the West Bottoms to an inclined trestle along 12th Street from Hickory Street to the eastern city limits. This cable line began operating in April 1888. Additionally, MSRy's service, eastward along 18th Street reached Cleveland Avenue (the eastern city limits) that same year. The MSRy's Rosedale Line was an upgrade of Southwest Boulevard's horse car route in 1888 with double tracking along the boulevard from 19th and Main to State Line. Of the lines in this study, the Southwest Boulevard route from 19th and Main, extending to Edith Avenue in Rosedale, Kansas, was the first to be electrified in late April 1896.

Serious work of converting the cable system to an electric streetcar began in 1899 with the Independence Avenue line when it was completed east to Hardesty by April 1904. The 12th Street line, traveling east, was converted and running by January 25, 1906. This route remained the busiest line in the city. However, the western leg of the 12th Street line did not operate until the new 12th Street Trafficway Viaduct was completed in 1915.

MSRy completed the conversion of 18th Street, east to Cleveland on October 30, 1900. Two years later, in January 1902, single-track car service along 31st Street, between Main and Indiana, went into operation. However, this line was replaced with double-track cars in 1911; and by 1917 the line was completed to Raytown Road (Hardesty).

In 1911, Metropolitan Street Railway Company decided to tackle the difficult grade on Main Street, between 24th and 27th streets, to extend and connect to the southbound lines. It was not until 1919, with the project completed, when streetcars could finally use the new Main Street route.

In 1920 Kansas City Railways recommended a plan that called to drastically eliminate movement through downtown intersections, reduce the amount of cars that were not functioning at or near capacity and reroute various lines. This plan was

stated to save the city approximately \$620,000 annually. Whether or not this plan was implemented in part or totally, ridership was at its historical peak in 1922 with 136,076,541 riders. By 1927 the Kansas City Public Service Company's new franchise did not provide for any additional lines in the city as the system was considered to be overbuilt.

Independence Avenue was the first line to introduce the trolley bus, which was more economic to run than either the streetcar or bus. By 1948, "seven trolley bus lines had replaced existing streetcar lines," and "in the early months of 1954, the first of these lines was replaced with motorbuses. All [streetcar] lines were gone by 1959."¹³

THE DODSON LINE

Originally operated as a steam-powered, dummy freight line, the Dodson Line ran from on an eight mile track from 85th and Prospect Avenue to 40th and Summit streets.¹⁴ The small-scale team railroad was called a dummy line because its engine was hidden behind the familiar siding of a horse car in order to prevent frightening horses that passed the line on its intercity route. This historic railway was the only facility for transferring freight cars to and from the Westport Industrial District. In 1907, the MSRy took over the dummy line and electrified it, maintaining and improving the freight terminals and incorporating the rail line with its passenger-carrying electric system. Passenger and freight cars used the same tracks of the 8-mile route, diverging at the edge of the terminal yards until the last of Kansas City street cars ran on June 23, 1957.

13 Conrad, 219.

14 The Dodson Line has its roots in the Kansas City and Clinton Branch of the Tebo and Neosho Railroad Company (1870). It later took the title of the Kansas City, Memphis and Mobile Railroad Company and in 1880 it was sold to the Kansas City Southern Railway Company. The property was next acquired by the Kansas City and Southeastern Railways Company and then by the Kansas City and Westport Belt Railway Company incorporated on July 16, 1897. The Dodson line was operated by the KC&WBR, which leased cars and purchased power from the Metropolitan Street Railway Company from 1907. Under the terms of the franchise of July 7, 1914, the Kansas City & Westport Belt was merged with the Kansas City Railways Company; thus the Dodson line became the property of the KCR Company. See Report . . . On the Value of the . . . Metropolitan Street Railway System, 126-127; *The Dodson Line*, The Railwayan 6 (January 1923), 11; *Community Freight Service*, Electric Railway Journal 58 (1921), 242.



MASS TRANSPORTATION AND ITS EFFECT ON THE GROWTH OF KANSAS CITY

Historians and journalists who have written about the relationship of mass transportation to the growth and development of America's cities offer varied opinions. For example, urban historian and architect Dolores Hayden in her book *Building Suburbia* concludes that the transition to the electric streetcar changed the aesthetics of the urban streetscape with its numerous poles, wires and related contraptions. This, in turn, forced many from the urban centers of America and created "streetcar suburb housing" in concentric rings around the city's core.¹⁵ Similarly, in Kansas City, historians Sherry Lamb Schirmer and Richard McKenzie point to mass transit development coupled with the real estate boom of the 1880s in generating an impulsive flight to the suburbs where builders constructed shoddy residences near or on streetcar lines, "to the south and more especially to the east."¹⁶

Of a similar tone, yet with a somewhat positive spin, contemporary journals and periodicals claim that as the streetcar system kept spreading over a wide swath of the metropolitan area, people were more inclined to move ahead of the line, so to speak. Developers built subdivisions and individual homes on speculation and with close streetcar connections many were induced to find their way to the suburbs. As described in *Manufacturer and Jobber*:

Many a man has been able to purchase a home cheaply in a new portion of the city that was touched by the extension of a division where otherwise if he did not have the proper transportation facilities at his disposal he would still be paying rent and the real estate in that section would still be looked upon as only being available for farming purposes.¹⁷

What is known is that Kansas City, by 1940 (17 years before the demise of the streetcar) "occupied by far

15 Dolores Hayden. *Building Suburbia: Green Fields and Urban Growth, 1820-2000*. (New York: Vintage Books, A Division of Random House, 2003), 75-76. Hayden reports that in Europe, owners of streetcar companies were "forbidden" to participate in land speculation, unlike America, where "land subdivision . . . was seen by businessmen as related to the electric trolley business, like 'two pockets in the same man's trousers.' " 93.

16 Sherry Lamb Schirmer and Richard McKenzie. *At the River's Bend: An Illustrated History of Kansas City, Independence and Jackson County*, 99.

17 *Street Railway Facilities*. *Manufacturer and Jobber* (December 28, 1907), 731.

the greatest area of any urban center in America in its population classification."¹⁸ Kansas City Public Service Company, who owned the mass transit franchise, served a population of approximately ½ million people spread out over "an area of nearly 100 square miles."¹⁹ St. Louis, Cleveland and Boston, for example, with double the population, respectively, were all dispersed over similar sized land. For that reason alone, Kansas City operated "522 miles of track, trolley lines and motor bus routes, a total substantially equal to that in most cities possessing twice her population and, therefore, twice the potential number or patrons." The large area served (including building outside the city limits), "with its low density of population may make for good living conditions, but it also presents difficult transportation conditions . . . long hauls and lowest revenue per mile of operation."²⁰

18 *How Mass Transportation is Conducted in Greater Kansas City, the Heart of America*. *Mass Transportation* 36 (November 1940), 286.

19 *Ibid.*

20 *Ibid.*

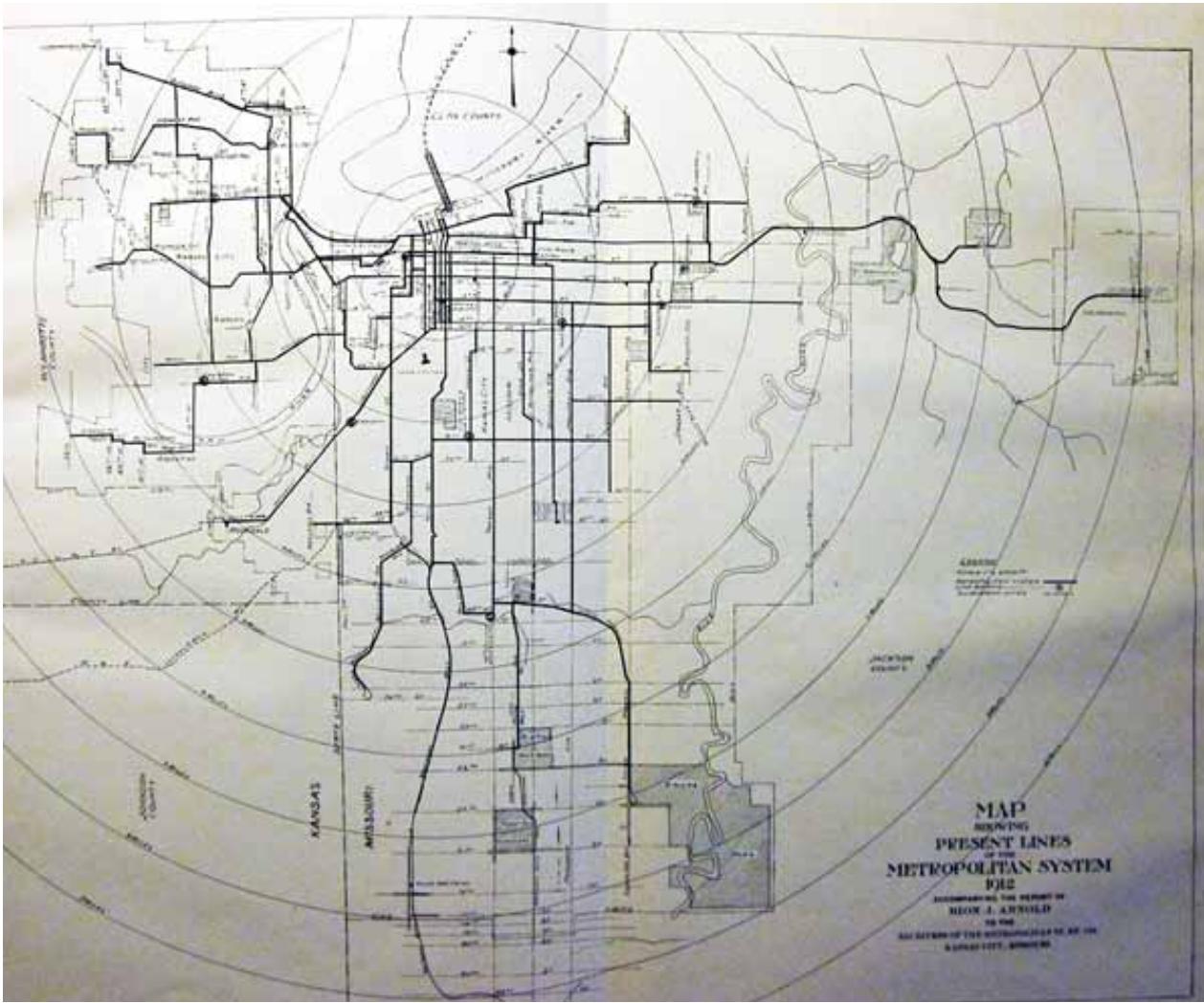


FIGURE 9.2 MAP OF THE METROPOLITAN RAILWAY SYSTEM IN KANSAS CITY, 1912

Source: Bion J. Arnold, Report to Hon. William C. Hook, Circuit Judge, on the Value of the Properties of the Metropolitan Street Railway System of Kansas City, Missouri (Kansas City: n. p., 1)



APPENDIX

APPENDIX 1: ALTERNATIVE CORRIDOR ALIGNMENTS



INDEPENDENCE AVENUE: LONG ALTERNATIVE



COST IN 2019 DOLLARS

OVERALL

\$209 MILLION

PER MILE
\$60 MILLION
(3.5+/- MILES)

PER ANNUAL RIDER
\$305
(685,547 TRIPS)

ENGINEERING CONSTRAINTS

- OVERHEAD CLEARANCE AT THE HEART OF AMERICA BRIDGE
- OVERHEAD CLEARANCE AT THE KC TERMINAL RAILWAY

FEDERAL FUNDING POTENTIAL

ANTICIPATED NEW STARTS RATING:
GOOD

COMMUNITY SUPPORT

- STRONG COMMUNITY SUPPORT ALONG THE CORRIDOR
- LIVELY MINDMIXER DISCUSSIONS
- COLUMBUS PARK ALIGNMENT BROADLY SUPPORTED
- FIVE LETTERS OF SUPPORT

IMPACT SCORE

63

NEIGHBORHOOD REVITALIZATION AND ECONOMIC DEVELOPMENT

DEVELOPMENT CAPACITY

7.2 OUT OF 12

TRANSIT-INDUCED DEVELOPMENT POTENTIAL

7.2 OUT OF 12

LOCAL AND NATIONAL DEVELOPER INTEREST

4.8 OUT OF 8

PROPERTY VALUE AND OCCUPANCY IMPACTS

4.8 OUT OF 8

HISTORIC BUILDINGS

4.0 OUT OF 5

TRANSIT-SUPPORTIVE LAND USE POLICY AND PLANS

4.0 OUT OF 5

TRANSPORTATION AND MOBILITY

RIDERSHIP POTENTIAL

3.6 OUT OF 6

ABILITY TO ENHANCE EXISTING SERVICE

3.6 OUT OF 6

OPERATIONAL EFFICIENCY AND COST SAVINGS

3.2 OUT OF 4

AIR QUALITY, SAFETY, AND TRAVEL TIME

2.4 OUT OF 4

WALKABILITY AND BIKEABILITY

3.0 OUT OF 5

LAND USE, DEMOGRAPHICS, AND SOCIAL EQUITY

POPULATION DENSITY

7.0 OUT OF 7

EMPLOYMENT DENSITY

1.4 OUT OF 7

TRANSIT-DEPENDENT POPULATION / ACCESS TO EMPLOYMENT

3.0 OUT OF 5

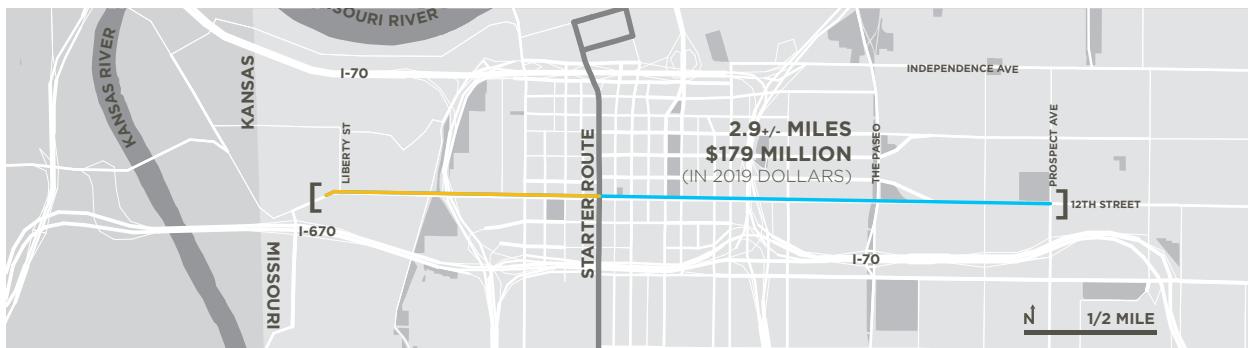
AFFORDABLE HOUSING

2.4 OUT OF 3

EXISTING LAND USE AND ZONING

1.8 OUT OF 3

COMBINED 12TH STREET EAST AND WEST



COST IN 2019 DOLLARS

OVERALL

\$179 MILLION

PER MILE
\$62 MILLION
(2.9+/- MILES)

ENGINEERING CONSTRAINTS

- OVERHEAD CLEARANCE AT NEAR MAIN STREET IS UNDER 16'
- OVERHEAD CLEARANCE AT US-71 HIGHWAY IS UNDER 14'

FEDERAL FUNDING POTENTIAL

ANTICIPATED NEW STARTS RATING:

FAIR

COMMUNITY SUPPORT

- STRONG SUPPORT FROM ADVISORY COMMITTEE MEMBERS
- BIGGEST ADVOCATE FOR A DOWNTOWN STREETCAR LOOP SYSTEM
- DECADES OF DISINVESTMENT HAS CREATED SKEPTICISM ABOUT THE BENEFITS OF A STREETCAR

IMPACT SCORE

59

NEIGHBORHOOD REVITALIZATION AND ECONOMIC DEVELOPMENT

DEVELOPMENT CAPACITY

4.8 OUT OF 12

TRANSIT-INDUCED DEVELOPMENT POTENTIAL

4.8 OUT OF 12

LOCAL AND NATIONAL DEVELOPER INTEREST

6.4 OUT OF 8

PROPERTY VALUE AND OCCUPANCY IMPACTS

8.0 OUT OF 8

HISTORIC BUILDINGS

4.0 OUT OF 5

TRANSIT-SUPPORTIVE LAND USE POLICY AND PLANS

3.0 OUT OF 5

TRANSPORTATION AND MOBILITY

RIDERSHIP POTENTIAL

2.4 OUT OF 6

ABILITY TO ENHANCE EXISTING SERVICE

3.6 OUT OF 6

OPERATIONAL EFFICIENCY AND COST SAVINGS

1.6 OUT OF 4

AIR QUALITY, SAFETY, AND TRAVEL TIME

1.6 OUT OF 4

WALKABILITY AND BIKEABILITY

5.0 OUT OF 5

LAND USE, DEMOGRAPHICS, AND SOCIAL EQUITY

POPULATION DENSITY

4.2 OUT OF 7

EMPLOYMENT DENSITY

1.4 OUT OF 7

TRANSIT-DEPENDENT POPULATION / ACCESS TO EMPLOYMENT

4.0 OUT OF 5

AFFORDABLE HOUSING

3.0 OUT OF 3

EXISTING LAND USE AND ZONING

1.2 OUT OF 3

EACH MEASURE IS GIVEN A SCORE OUT OF FIVE POSSIBLE POINTS AND MULTIPLIED BY THAT MEASURE'S WEIGHT



COMBINED SOUTHWEST BOULEVARD-18TH STREET



COST IN 2019 DOLLARS

OVERALL

\$232 MILLION

PER MILE
\$66 MILLION
(3.5 +/- MILES)

ENGINEERING CONSTRAINTS

- OVERHEAD CLEARANCE UNDER 16' AT I-35 AND RAILROAD
- RAIL SPUR AT GRAND

FEDERAL FUNDING POTENTIAL

ANTICIPATED NEW STARTS RATING:
FAIR

COMMUNITY SUPPORT

- CONCERN ABOUT TAX BURDEN OF RESIDENTS AND BUSINESS OWNERS
- SUPPORT FOR A COMBINED ROUTE WITH 18TH STREET

IMPACT SCORE

47

NEIGHBORHOOD REVITALIZATION AND ECONOMIC DEVELOPMENT

DEVELOPMENT CAPACITY

4.8 OUT OF 12

TRANSIT-INDUCED DEVELOPMENT POTENTIAL

7.2 OUT OF 12

LOCAL AND NATIONAL DEVELOPER INTEREST

1.6 OUT OF 8

PROPERTY VALUE AND OCCUPANCY IMPACTS

4.8 OUT OF 8

HISTORIC BUILDINGS

3.0 OUT OF 5

TRANSIT-SUPPORTIVE LAND USE POLICY AND PLANS

3.0 OUT OF 5

TRANSPORTATION AND MOBILITY

RIDERSHIP POTENTIAL

2.4 OUT OF 6

ABILITY TO ENHANCE EXISTING SERVICE

2.4 OUT OF 6

OPERATIONAL EFFICIENCY AND COST SAVINGS

0.8 OUT OF 4

AIR QUALITY, SAFETY, AND TRAVEL TIME

0.8 OUT OF 4

WALKABILITY AND BIKEABILITY

3.0 OUT OF 5

LAND USE, DEMOGRAPHICS, AND SOCIAL EQUITY

POPULATION DENSITY

2.8 OUT OF 7

EMPLOYMENT DENSITY

1.4 OUT OF 7

TRANSIT-DEPENDENT POPULATION / ACCESS TO EMPLOYMENT

4.0 OUT OF 5

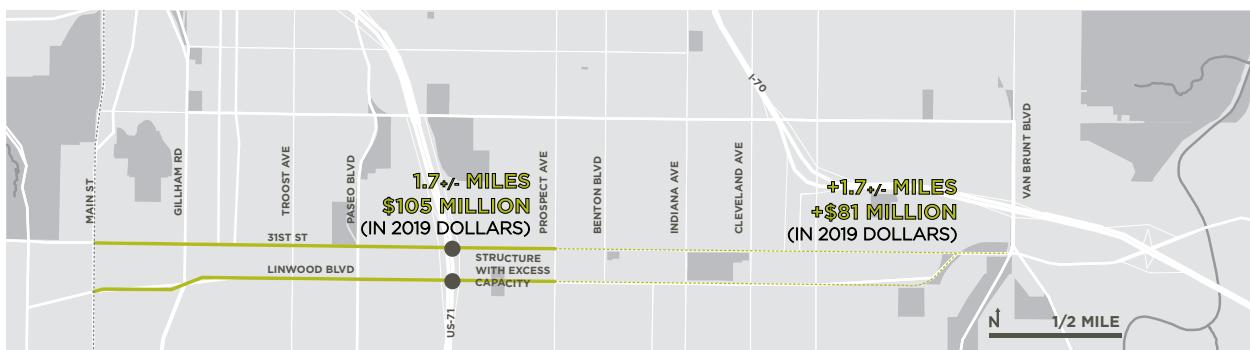
AFFORDABLE HOUSING

3.0 OUT OF 3

EXISTING LAND USE AND ZONING

1.8 OUT OF 3

31ST/LINWOOD VIA MAIN (SHORT ALTERNATIVE)



COST IN 2019 DOLLARS

OVERALL

\$105 MILLION*

PER MILE
\$60 MILLION
(1.7+/- MILES)

PER ANNUAL RIDER
\$96
(1,098,723 TRIPS)

*COST ASSUMES DISTANCE ON 31ST ST

ENGINEERING CONSTRAINTS

- ROUTE PREDICATED ON MAIN STREET EXPANSION
- BRIDGES OVER US-71 HAVE EXCESS CAPACITY FOR STREETCAR VEHICLES

FEDERAL FUNDING POTENTIAL

ANTICIPATED NEW STARTS RATING:
BEST

COMMUNITY SUPPORT

- MINIMAL SUPPORT FROM NEIGHBORHOODS
- INVOLVED COMMUNITY MEMBERS STRONGLY BELIEVE IN TRANSFORMATIVE POWER OF A STREETCAR
- PREFERRED ROUTE TO CONNECT AS FAR EAST AS POSSIBLE

IMPACT SCORE

71

NEIGHBORHOOD REVITALIZATION AND ECONOMIC DEVELOPMENT

DEVELOPMENT CAPACITY

7.2 OUT OF 12

TRANSIT-INDUCED DEVELOPMENT POTENTIAL

12 OUT OF 12

LOCAL AND NATIONAL DEVELOPER INTEREST

4.8 OUT OF 8

PROPERTY VALUE AND OCCUPANCY IMPACTS

6.4 OUT OF 8

HISTORIC BUILDINGS

3.0 OUT OF 5

TRANSIT-SUPPORTIVE LAND USE POLICY AND PLANS

4.0 OUT OF 5

TRANSPORTATION AND MOBILITY

RIDERSHIP POTENTIAL

4.8 OUT OF 6

ABILITY TO ENHANCE EXISTING SERVICE

4.8 OUT OF 6

OPERATIONAL EFFICIENCY AND COST SAVINGS

3.2 OUT OF 4

AIR QUALITY, SAFETY, AND TRAVEL TIME

4.0 OUT OF 4

WALKABILITY AND BIKEABILITY

2.0 OUT OF 5

LAND USE, DEMOGRAPHICS, AND SOCIAL EQUITY

POPULATION DENSITY

4.2 OUT OF 7

EMPLOYMENT DENSITY

1.4 OUT OF 7

TRANSIT-DEPENDENT POPULATION / ACCESS TO EMPLOYMENT

4.0 OUT OF 5

AFFORDABLE HOUSING

3.0 OUT OF 3

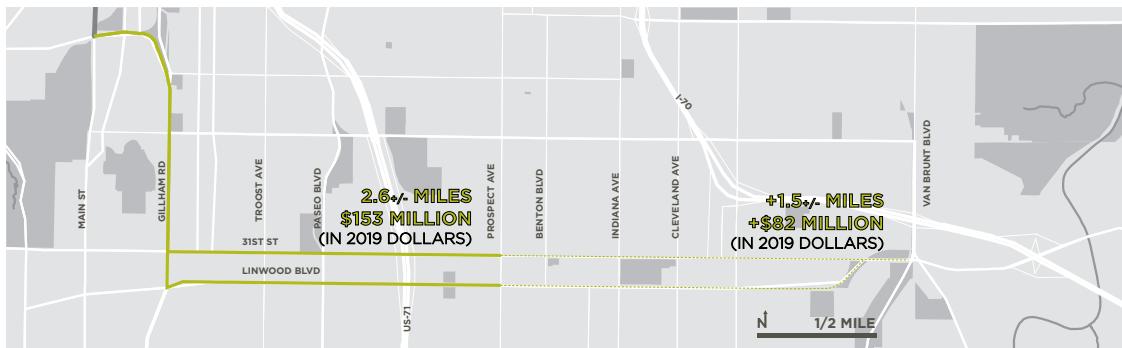
EXISTING LAND USE AND ZONING

1.8 OUT OF 3

EACH MEASURE IS GIVEN A SCORE OUT OF FIVE POSSIBLE POINTS AND MULTIPLIED BY THAT MEASURE'S WEIGHT



31ST/LINWOOD VIA GILLHAM (SHORT ALTERNATIVE)



COST IN 2019 DOLLARS

OVERALL

\$162 MILLION*

PER MILE

\$60 MILLION
(2.6+/- MILES)

PER ANNUAL RIDER

\$147
(1,098,723 TRIPS)

*COST ASSUMES DISTANCE ON 31ST ST

ENGINEERING CONSTRAINTS

- ROUTE PREDICATED ON MAIN STREET EXPANSION
- BRIDGES OVER US-71 HAVE EXCESS CAPACITY FOR STREETCAR VEHICLES

FEDERAL FUNDING POTENTIAL

ANTICIPATED NEW STARTS RATING:
BEST

COMMUNITY SUPPORT

- MINIMAL SUPPORT FROM NEIGHBORHOODS
- INVOLVED COMMUNITY MEMBERS STRONGLY BELIEVE IN TRANSFORMATIVE POWER OF A STREETCAR
- PREFERRED ROUTE TO CONNECT AS FAR EAST AS POSSIBLE

IMPACT SCORE

78

NEIGHBORHOOD REVITALIZATION AND ECONOMIC DEVELOPMENT

DEVELOPMENT CAPACITY

9.6 OUT OF 12

TRANSIT-INDUCED DEVELOPMENT POTENTIAL

12 OUT OF 12

LOCAL AND NATIONAL DEVELOPER INTEREST

4.8 OUT OF 8

PROPERTY VALUE AND OCCUPANCY IMPACTS

8.0 OUT OF 8

HISTORIC BUILDINGS

2.0 OUT OF 5

TRANSIT-SUPPORTIVE LAND USE POLICY AND PLANS

4.0 OUT OF 5

TRANSPORTATION AND MOBILITY

RIDERSHIP POTENTIAL

4.8 OUT OF 6

ABILITY TO ENHANCE EXISTING SERVICE

4.8 OUT OF 6

OPERATIONAL EFFICIENCY AND COST SAVINGS

3.2 OUT OF 4

AIR QUALITY, SAFETY, AND TRAVEL TIME

4.0 OUT OF 4

WALKABILITY AND BIKEABILITY

4.0 OUT OF 5

LAND USE, DEMOGRAPHICS, AND SOCIAL EQUITY

POPULATION DENSITY

4.2 OUT OF 7

EMPLOYMENT DENSITY

2.8 OUT OF 7

TRANSIT-DEPENDENT POPULATION / ACCESS TO EMPLOYMENT

5.0 OUT OF 5

AFFORDABLE HOUSING

3.0 OUT OF 3

EXISTING LAND USE AND ZONING

1.8 OUT OF 3

31ST/LINWOOD VIA GILLHAM (LONG ALTERNATIVE)



COST IN 2019 DOLLARS

OVERALL

\$244 MILLION*

PER MILE
\$60 MILLION
(4.0+/- MILES)

PER ANNUAL RIDER
\$222
(1,098,723 TRIPS)

*COST ASSUMES DISTANCE ON 31ST ST

ENGINEERING CONSTRAINTS

- ROUTE PREDICATED ON MAIN STREET EXPANSION
- BRIDGES OVER US-71 HAVE EXCESS CAPACITY FOR STREETCAR VEHICLES

FEDERAL FUNDING POTENTIAL

ANTICIPATED NEW STARTS RATING:
BEST

COMMUNITY SUPPORT

- MINIMAL SUPPORT FROM NEIGHBORHOODS
- INVOLVED COMMUNITY MEMBERS STRONGLY BELIEVE IN TRANSFORMATIVE POWER OF A STREETCAR
- PREFERRED ROUTE TO CONNECT AS FAR EAST AS POSSIBLE

IMPACT SCORE

75

NEIGHBORHOOD REVITALIZATION AND ECONOMIC DEVELOPMENT

DEVELOPMENT CAPACITY

12 OUT OF 12

TRANSIT-INDUCED DEVELOPMENT POTENTIAL

9.6 OUT OF 12

LOCAL AND NATIONAL DEVELOPER INTEREST

4.8 OUT OF 8

PROPERTY VALUE AND OCCUPANCY IMPACTS

8.0 OUT OF 8

HISTORIC BUILDINGS

2.0 OUT OF 5

TRANSIT-SUPPORTIVE LAND USE POLICY AND PLANS

4.0 OUT OF 5

TRANSPORTATION AND MOBILITY

RIDERSHIP POTENTIAL

4.8 OUT OF 6

ABILITY TO ENHANCE EXISTING SERVICE

4.8 OUT OF 6

OPERATIONAL EFFICIENCY AND COST SAVINGS

3.2 OUT OF 4

AIR QUALITY, SAFETY, AND TRAVEL TIME

3.2 OUT OF 4

WALKABILITY AND BIKEABILITY

3.0 OUT OF 5

LAND USE, DEMOGRAPHICS, AND SOCIAL EQUITY

POPULATION DENSITY

4.2 OUT OF 7

EMPLOYMENT DENSITY

2.8 OUT OF 7

TRANSIT-DEPENDENT POPULATION / ACCESS TO EMPLOYMENT

4.0 OUT OF 5

AFFORDABLE HOUSING

3.0 OUT OF 3

EXISTING LAND USE AND ZONING

1.8 OUT OF 3

EACH MEASURE IS GIVEN A SCORE OUT OF FIVE POSSIBLE POINTS AND MULTIPLIED BY THAT MEASURE'S WEIGHT



COUNTRY CLUB RIGHT OF WAY (SHORT ALTERNATIVE)



COST IN 2019 DOLLARS

OVERALL

\$100 MILLION*

PER MILE
\$32 MILLION
(3.1+/- SINGLE TRACK
MILES)

PER ANNUAL RIDER
\$265
(346,750 TRIPS)
*COST ASSUMES DISTANCE ON RIGHT
OF WAY

ENGINEERING CONSTRAINTS

- PREDICATED ON CONSTRUCTION OF MAIN STREET LINE
- GRADE ISSUES (WITHIN TOLERANCE) AT 56TH STREET AND AT MAIN STREET

FEDERAL FUNDING POTENTIAL

ANTICIPATED NEW STARTS RATING:

LOW

COMMUNITY SUPPORT

- STRONG COMMUNITY SUPPORT (77 WORKSHOP PARTICIPANTS, 3 SUPPORT LETTERS)
- HOME, BUSINESS, AND PROPERTY OWNERS CONCERNED ABOUT NOISE AND SAFETY ISSUES FROM STREETCAR
- BUSINESS OWNERS CONCERNED ABOUT PARKING COMPLICATIONS

IMPACT SCORE

47

NEIGHBORHOOD REVITALIZATION AND ECONOMIC DEVELOPMENT

DEVELOPMENT CAPACITY

2.4 OUT OF 12

TRANSIT-INDUCED DEVELOPMENT POTENTIAL

2.4 OUT OF 12

LOCAL AND NATIONAL DEVELOPER INTEREST

4.8 OUT OF 8

PROPERTY VALUE AND OCCUPANCY IMPACTS

3.2 OUT OF 8

HISTORIC BUILDINGS

4.5 OUT OF 5

TRANSIT-SUPPORTIVE LAND USE POLICY AND PLANS

2.0 OUT OF 5

TRANSPORTATION AND MOBILITY

RIDERSHIP POTENTIAL

3.6 OUT OF 6

ABILITY TO ENHANCE EXISTING SERVICE

3.6 OUT OF 6

OPERATIONAL EFFICIENCY AND COST SAVINGS

2.4 OUT OF 4

AIR QUALITY, SAFETY, AND TRAVEL TIME

2.4 OUT OF 4

WALKABILITY AND BIKEABILITY

4.0 OUT OF 5

LAND USE, DEMOGRAPHICS, AND SOCIAL EQUITY

POPULATION DENSITY

4.2 OUT OF 7

EMPLOYMENT DENSITY

1.4 OUT OF 7

TRANSIT-DEPENDENT POPULATION / ACCESS TO EMPLOYMENT

1.0 OUT OF 5

AFFORDABLE HOUSING

0.6 OUT OF 3

EXISTING LAND USE AND ZONING

1.8 OUT OF 3



EACH MEASURE IS GIVEN A SCORE OUT OF FIVE POSSIBLE POINTS AND MULTIPLIED BY THAT MEASURE'S WEIGHT

Independence Avenue: Benton			
Cost	\$ 129,248,449		
	Per Route-Mile	2.17	\$ 59,561,497
	Per Rider	\$	5.94
Anticipated Federal Funding			FAIR
Impact Score	Out of	Rating	
	100		63
Neighborhood Revitalization and Economic Development			31
Development capacity	12	2	4.8
Transit-induced development potential	12	3	7.2
Local and National Developer Interest	8	3	4.8
Property value and occupancy impacts	8	4	6.4
Historic buildings	5	4	4
Transit supportive land use policy and plans	5	4	4
Transportation and Mobility			17
Ridership Potential	6	3	3.6
Ability to enhance and complement existing/planned transit service	6	3	3.6
Operational efficiency and cost savings	4	4	3.2
Air quality, safety, and travel time	4	3	2.4
Walkability and bikeability	5	4	4
Land Use, Demographics, and Social Equity			15
Population Density	7	4	5.6
Total Employment	7	1	1.4
Transit-dependent population / Access to employment	5	4	4
Affordable housing	3	4	2.4
Existing land use and zoning	3	3	1.8

Independence Avenue: Hardesty		12th West		12th East		12th Combined		18th Street	
\$ 209,060,855		\$ 71,053,362		\$ 107,012,157		\$ 179,431,930		\$ 102,848,691	
Rating	Score	Rating	Score	Rating	Score	Rating	Score	Rating	Score
	63		48		55		59		47
	32		26		27		31		26
3	7.2	1	2.4	2	4.8	2	4.8	2	4.8
3	7.2	2	4.8	2	4.8	2	4.8	2	4.8
3	4.8	4	6.4	3	4.8	4	6.4	3	4.8
3	4.8	4	6.4	4	6.4	5	8	3	4.8
4	4	3	3	3	3	4	4	4	4
4	4	3	3	3	3	3	3	3	3
	16		12		14		14		9
3	3.6	1	1.2	2	2.4	2	2.4	2	2.4
3	3.6	4	4.8	3	3.6	3	3.6	2	2.4
4	3.2	2	1.6	2	1.6	2	1.6	1	0.8
3	2.4	1	0.8	2	1.6	2	1.6	1	0.8
3	3	4	4	5	5	5	5	3	3
	16		10		14		14		11
5	7	1	1.4	3	4.2	3	4.2	2	2.8
1	1.4	1	1.4	1	1.4	1	1.4	1	1.4
3	3	2	2	4	4	4	4	3	3
4	2.4	5	3	5	3	5	3	5	3
3	1.8	3	1.8	2	1.2	2	1.2	2	1.2



Southwest Boulevard

Cost	\$ 118,071,909		
Per Route-Mile	1.82	\$ 64,874,675	
Per Rider	\$	66.79	
Anticipated Federal Funding		LOW	
	Out of	Rating	Score
Impact Score	100		43
Neighborhood Revitalization and Economic Development	50		22
Development capacity	12	2	4.8
Transit-induced development potential	12	2	4.8
Local and National Developer Interest	8	1	1.6
Property value and occupancy impacts	8	4	6.4
Historic buildings	5	1	1
Transit supportive land use policy and plans	5	3	3
Transportation and Mobility	25		8
Ridership Potential	6	1	1.2
Ability to enhance and complement existing/planned transit service	6	2	2.4
Operational efficiency and cost savings	4	1	0.8
Air quality, safety, and travel time	4	1	0.8
Walkability and bikeability	5	3	3
Land Use, Demographics, and Social Equity	25		13
Population Density	7	3	4.2
Total Employment	7	1	1.4
Transit-dependent population	2.5	2	1
Access to employment	2.5	3	1.5
Transit-dependent population / Access to employment	5	3	3
Affordable housing	3	5	3
Existing land use and zoning	3	3	1.8

18th Southwest Combo		Main Street		31st/Linwood: Main to Prospect		31st/Linwood: Main to V.A. Hospital		31st/Linwood: Gillham to Prospect	
\$ 232,032,907		\$ 229,662,126		\$ 104,653,054		\$ 203,893,019		\$ 153,370,855	
3.53	\$ 65,731,702	3.45	\$ 66,568,732	1.74	\$ 60,145,433	3.09	\$ 65,984,796	2.55	\$ 60,145,433
			\$ 7.60			\$ 5.51			
LOW		GOOD		GOOD		GOOD		GOOD	
Rating	Score	Rating	Score	Rating	Score	Rating	Score	Rating	Score
	47		81		71		75		78
	24		39		37		43		40
2	4.8	3	7.2	3	7.2	5	12	4	9.6
3	7.2	5	12	5	12	5	12	5	12
1	1.6	4	6.4	3	4.8	3	4.8	3	4.8
3	4.8	3	4.8	4	6.4	5	8	5	8
3	3	5	5	3	3	2	2	2	2
3	3	4	4	4	4	4	4	4	4
	9		23		19		19		21
2	2.4	5	6	4	4.8	4	4.8	4	4.8
2	2.4	5	6	4	4.8	4	4.8	4	4.8
1	0.8	5	4	4	3.2	4	3.2	4	3.2
1	0.8	4	3.2	5	4	4	3.2	5	4
3	3	4	4	2	2	3	3	4	4
	13		19		14		13		17
2	2.8	4	5.6	3	4.2	3	4.2	3	4.2
1	1.4	5	7	1	1.4	1	1.4	2	2.8
4	2	3	1.5	5	2.5	4	2	5	2.5
3	1.5	3	1.5	2	1	2	1	4	2
4	4	3	3	4	4	3	3	5	5
5	3	2	1.2	5	3	5	3	5	3
3	1.8	3	1.8	3	1.8	3	1.8	3	1.8



Cost

Per Route-Mile

Per Rider

Anticipated Federal Funding

Impact Score

Neighborhood Revitalization and Economic Development

Development capacity

Transit-induced development potential

Local and National Developer Interest

Property value and occupancy impacts

Historic buildings

Transit supportive land use policy and plans

Transportation and Mobility

Ridership Potential

Ability to enhance and complement existing/planned transit service

Operational efficiency and cost savings

Air quality, safety, and travel time

Walkability and bikeability

Land Use, Demographics, and Social Equity

Population Density

Total Employment

Transit-dependent population

Access to employment

Transit-dependent population / Access to employment

Affordable housing

Existing land use and zoning

31st/Linwood: Gillham to V.A. Hospital		Country Club ROW Short		Country Club ROW Long	
\$ 234,567,190		\$ 99,831,530		\$ 194,454,518	
3.90	\$ 60,145,433	3.07	\$ 32,518,414	6.32	\$ 30,768,120
				\$	9.83
GOOD		LOW		LOW	
Out of	Rating	Score	Rating	Score	Rating
100	75		47		51
50	40		19		27
12	5	12	1	2.4	3
12	4	9.6	1	2.4	2
8	3	4.8	3	4.8	3
8	5	8	2	3.2	2
5	2	2	4.5	4.5	4.5
5	4	4	2	2	2
25	19		17		15
6	4	4.8	3	3.6	3
6	4	4.8	3	3.6	3
4	4	3.2	3	2.4	3
4	4	3.2	3	2.4	3
5	3	3	5	5	3
25	16		10		9
7	3	4.2	4	5.6	3
7	2	2.8	1	1.4	1
2.5	4	2	1	0.5	1
2.5	4	2	1	0.5	1
5	4	4	1	1	1
3	5	3	1	0.6	1
3	3	1.8	3	1.8	3



APPENDIX 2: DETAILED METHODOLOGY

I. PURPOSE

The KCMO Streetcar Phase II Environmental Study Team defined fourteen (14) alternative streetcar corridors based on meetings with the City of Kansas City, Missouri regarding extension of the existing plans for streetcar service along Main Street in the center of downtown Kansas City, Missouri. Environmental Advisors and Engineers, Inc. (EAE) was requested to provide preliminary environmental screening analysis for the corridors to be included in the overall comparative analysis of the alternative routes.

Environmental screening desktop reviews of environmental database records were conducted for each of the proposed alternative streetcar corridors. An Environmental Data Resources (EDR) Database search was conducted of state, tribal, and federal environmental databases. The environmental database research is a standard scope of work item for commercial real estate transactions. Site visits, and other historical research components of a Phase I Environmental Site Assessment (ESA) were not conducted as part of these preliminary screening level environmental desktop reviews.

The purpose of the database reviews was to identify records indicating historical and current sites with the potential to have contaminated the soil or groundwater within and adjacent to potential construction footprints of proposed alternative streetcar corridors.

Only one component of the American Society for Testing and Materials (ASTM)E 1527-05 Standard for Phase I Environmental Site Assessments was included as part of this review. Therefore, the preliminary results of this review do not fully meet the Phase I

ESA standard or provide for analysis sufficient to provide any legal protections. Furthermore, this desktop review did not include any assessment of other potential environmental risk components such as controlled substances, corporate environmental compliance, radon, methane, asbestos, lead paint, mold, wetlands, or vapor intrusion.

This Executive Summary summarizes the results of the environmental desktop reviews and evaluates the relative “risk avoidance” of each proposed alternative streetcar corridor based solely on the limited screening level database results.

Background

Land use practices, both current and historical, may have contaminated the subsurface near the selected streetcar corridor extension alternative routes. Mobility of the groundwater may spread the contamination under the streets and into excavations made for the construction of the streetcar alignment. During construction, the presence of contaminated soils and groundwater may significantly impact construction logistics and costs and safety to construction workers. Examples where contaminated soils and/or groundwater may be encountered include the excavation and disposal of contaminated soils or removal of contaminated groundwater encountered during dewatering operations or utility line construction activities. It is anticipated that construction activities associated with the implementation of the streetcar system expansion may include excavation up to ten feet in depth in some areas. Therefore, locating the selected alignment along routes that minimize the number of potential soil and groundwater contamination risks due to land use is prudent practice.



II. APPROACH

EAE provided the study area definitions to Environmental Data Resources, Inc. (EDR), a national environmental database research firm. Government databases were searched in accordance with ASTM Standard E 1572-05 Sections 8.2.1 and 8.2.2. The search area limits provided to EDR for the database search included all fourteen proposed alternative streetcar corridors. Attachment 1 shows the locations of the fourteen proposed alternative streetcar corridors. EDR provided a Radius Report containing U.S. Environmental Protection Agency (EPA), State, and Tribal environmental database information in accordance with ASTM defined search distances. EDR's Radius Report lists the Federal, State and Tribal databases, a description of the databases, and the most recent reported release date of each database. The results of the database search identified facilities and locations within the study areas with a record of past releases, storage tanks, chemical use and storage, environmental compliance or non-compliance, past/current environmental clean-ups, and other industrial activities.

Ranking of Database Record Hits

EAE classified each EDR database record by a ranking from 0 through 3 indicating the relative severity of risk of groundwater or soil contamination based on the source database and type of record. Rank "0" indicates a de minimus risk; rank "3" indicates the relative highest risk. Each of the database records with rank greater than "0" was considered a "Hit."

Integration of Distance Considerations

Next, the relative overall risk of contamination, "high," "medium" and "low" was assigned based on a combination of database listing rank as outlined above and the distance of the listing to the center line of the route. Based on the assumption that the probability of construction site contamination diminishes with distance, "Hits" were assigned to each of the fourteen proposed alternative streetcar

corridors based on proximity relative to distance from each corridor. The relative distances were based on three concentric "buffer zones" as follows:

- Buffer A included "Hits" deemed to be adjacent to the proposed alternative streetcar corridor.
- Buffer B included "Hits" deemed to be within a block of the proposed alternative streetcar corridor.
- Buffer C included "Hits" deemed to be a risk at distances up to a quarter mile away.

Due to overlap among the buffer zones, "Hits" were often assigned to multiple corridors.

Database "Hits" with rank of "1" and located in buffer "A" of a given proposed alternative route were assigned an overall "high" risk for that route. Database "Hits" in buffer "A" with a rank of "2" or in buffer "B" with a rank of "1" were assigned a "medium" risk for the route. Database "Hits" in buffer "A" with a rank of "3" or in buffer "B" with a rank of "2" or in buffer "C" with a rank of "1" were assigned a relative overall risk of "low" with respect to that route.

V. Overall Risk Evaluation

EAE counted and classified the number of database "Hits" for each corridor in each class based on both database record rank and distance from the center line of the proposed route. The results were evaluated for "risk avoidance" which is simply rating the corridors with the least number of risks as having the highest level of risk avoidance as shown in the table and graphic on the next page.

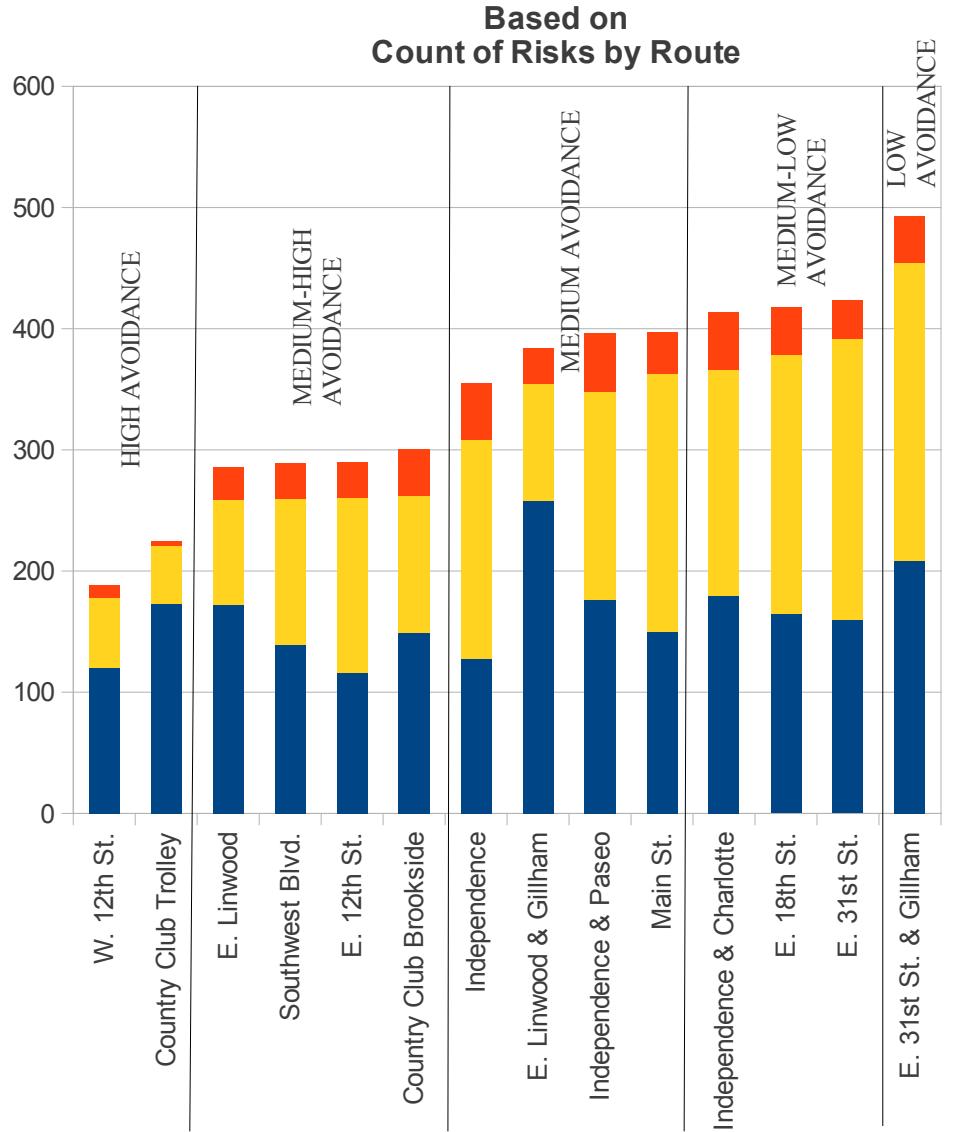
III. CONCLUSION

As shown in the table above, the corridors with the highest risk avoid relative rating consisted of the W. 12th Street and Country Club Trolley Corridors. These corridors appear to have the lowest relative environmental risk based on the preliminary screening study analysis results. The corridor with the lowest risk avoidance (highest risk) relative rating was the E 31st St & Gillham Corridor.

Avoidance of Environmental Risk

Corridor	Small Risks	Moderate Risks	High Risks	Total Result	Avoidance Rating
W. 12th St.	120	58	10	188	High
Country Club Trolley	173	48	4	225	High
E. Linwood	172	87	27	286	Medium-High
Southwest Blvd.	139	121	29	289	Medium-High
E. 12th St.	116	145	29	290	Medium-High
Country Club Brookside	149	113	38	300	Medium-High
Independence	128	180	47	355	Medium
E. Linwood & Gillham	258	97	29	384	Medium
Independence & Paseo	176	172	48	396	Medium
Main St.	150	213	34	397	Medium
Independence & Charlotte	180	186	47	413	Medium-Low
E. 18th St.	165	214	39	418	Medium-Low
E. 31st St.	160	232	32	424	Medium-Low
E. 31st St. & Gillham	209	246	38	493	Low

RISK AVOIDANCE Based on Count of Risks by Route

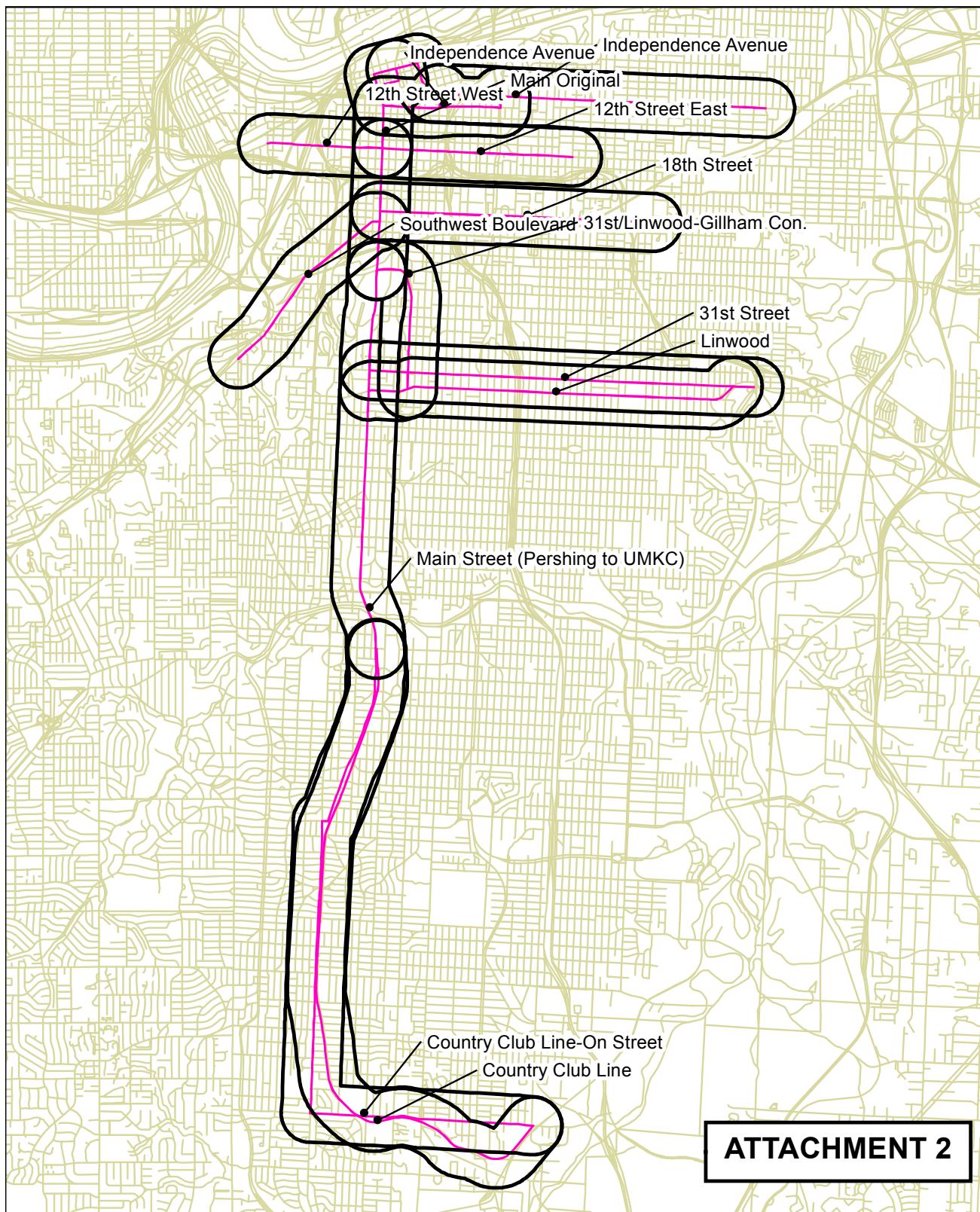


ATTACHMENT 1

STATE	DATABASE	DATABASE FULL NAME	RANK
US	2020 CORRECTIVE ACTION	2020 Corrective Action Program List	1
US	LIENS 2	CERCLA Lien Information	1
US	CERCLIS	Comprehensive Environmental Response, Compensation, and Liability Information System	1
US	CORRACTS	Corrective Action Report	1
US	ERNS	Emergency Response Notification System	1
MO	SPILLS	Environmental Response Tracking Database	1
US	FUDS	Formerly Used Defense Sites	1
KS	INST CONTROL	Institutional Controls Information	1
MO	LAST	Leaking Aboveground Storage Tanks	1
MO	LUST	Leaking Underground Storage Tanks	1
MO	HWS	Registry of Confirmed Abandoned or Uncontrolled Hazardous Waste Disposal Sites	1
MO	VCP	Sites Participating in the Voluntary Cleanup Program	1
MO	AUL	Sites with Controls	1
US	INST CONTROL	Sites with Institutional Controls	1
US	BROWNFIELDS	A Listing of Brownfields Sites	1
MO	BROWNFIELDS	Brownfields Site List	1
MO	RRC	Certified Hazardous Waste Resource Recovery Facilities	1
MO	DRYCLEANERS	Drycleaners in Missouri Listing	1
US	CERCLIS-NFRAP	CERCLIS No Further Remedial Action Planned	2
US	EDR DRY CLEANERS	EDR Exclusive Historic Dry Cleaners	2
US	EDR GAS STATIONS	EDR Exclusive Historic Gas Stations	2
US	EDR MGP	EDR Proprietary Manufactured Gas Plants	2
US	MINES	Mines Master Index File	2
US	PADS	PCB Activity Database System	2
US	RCRA-LQG	RCRA - Large Quantity Generators	2
US	RCRA-TSDF	RCRA - Treatment, Storage and Disposal	2
MO	SWRCY	Solid Waste Recycling Facilities	2
MO	AST	Aboveground Petroleum Storage Tanks	3
US	RCRA-SQG	RCRA - Small Quantity Generators	3
US	FTTS	FIFRA/ TSCA Tracking System -	3

ATTACHMENT 1

STATE	DATABASE	DATABASE FULL NAME	RANK
MO	UST	Petroleum Storage Tanks	3
US	RADINFO	Radiation Information Database	3
US	SSTS	Section 7 Tracking Systems	3
MO	SMARS	Site Management and Reporting System	3
US	SCRD DRYCLEANERS	State Coalition for Remediation of Drycleaners Listing	3
US	TRIS	Toxic Chemical Release Inventory System	3
US	TSCA	Toxic Substances Control Act	3
US	PRP	Potentially Responsible Parties	3
MO	CDL	Environmental Emergency Response System	3
US	DOT OPS	Incident and Accident Data	3
US	RCRA-CESQG	RCRA - Conditionally Exempt Small Quantity Generators	3
US	RCRA-NLR	RCRA - Non Generators	3
US	RAATS	RCRA Administrative Action Tracking System	3
US	AIRS (AFS)	Aerometric Information Retrieval System Facility Subsystem (AFS)	0
US	CDL	Clandestine Drug Labs	0
CA	HAZNET	Facility and Manifest Data	0
US	FINDS	Facility Index System/Facility Registry System	0
US	HIST FTTS	FTFRA/TSCA Tracking System Administrative Case Listing	0
US	FINANCIAL ASSURANCE	Financial Assurance Information	0
MO	FINANCIAL ASSURANCE 1	Financial Assurance Information Listing	0
US	ICIS	Integrated Compliance Information System	0
US	MLTS	Material Licensing Tracking System	0
MO	AIRS	Permit Facility Listing	0
MO	NPDES	Permitted Facility Listing	0
KS	TIER 2	Tier 2 Information Listing	0



Legend

- 1320-feet Buffers
- Centerline
- Prop. Corridors

**Proposed Streetcar
Corridor Buffer Zones
Kansas City, Missouri**

0 2,500 5,000 10,000 Feet





PARKING CONSTRAINTS

There are three basic approaches to handling curb parking on roadways the streetcar will use:

- Discontinue curb parking altogether.
- Create protected bays for curb parking allowing the streetcar to operate in the second lane. Curb-running streetcar is incompatible with time-restricted curb parking, as exists on many urban roadways in Kansas City. On Main Street this would result in removing a lane from peak period operation. This is similar to the off-peak condition on Main Street, except with streetcar operations in the second lane the parking would be allowed in all time periods.
- Configure the streetcar as median-running which has implications for stations and traffic – median-running does not lend itself to mixed traffic operation.

To illustrate the concept applied to Main Street in Midtown, which has three lanes in each direction, but curb parking permitted in the off-peak direction and during off-peak hours, results in either the elimination of curb parking or reducing the number of traffic lanes to two in each direction, at least in mid-block sections.

- Eliminate curb parking and utilize the full six lanes for some combination of vehicular traffic and streetcar. The parking lane could become:
 - A dedicated transit lane/right turn lane, or
 - An additional through lane
 - For median-running streetcar this would allow center lanes to be streetcar only
- Create a permanent on-street parking lane.
 - Reconfigure current parking lane
 - Reduces number of vehicular traffic and streetcar lanes in peak hour
 - Creates wider traffic lanes by using 8' parking lane
 - Create bulb-outs at intersections
 - Protects parking
 - Creates streetcar boarding areas
 - Allow room for right turn lanes at major intersections if capacity is needed.

RIDERSHIP FORECASTING

HNTB has the lead on this task. The following is the scope language in our proposal.

- Ridership potential - To assess the critical component of ridership potential, the Consultant will undertake a two-phase process to evaluate ridership in an objective manner. The first phase will be undertaken as part of the "Task 2: Systems Overview." The second phase will be conducted as part of "Task 4: Detailed Alignment Analysis."
- For the Phase 1 screening Consultant will use two objective measures. The first will be a market assessment conducted using population and employment data available from MARC. The market assessment will not rely entirely on work trips since the streetcar is expected to attract significant ridership from other types of trips such as shopping and recreation trips. Non-home based trips, particularly those made by tourists and other visitors will also be included in the analysis. This will be based on an analysis of commercial activity and the presence of attractions that draw non-work trips.
- The second part will be based on ridership information from KCATA bus transit routes. KCATA operates service in each of the corridors identified as candidates. Ridership potential for a streetcar is, in part, manifested in the existing ridership on KCATA routes. KCATA has detailed ridership data that is available by stop, time of day and day of week. This information will be compiled, factored by service levels and presented for use in the corridor evaluation.

Market Assessment

- HNTB has compiled population and employment data for each of the corridors.
- The demographic information needs to be augmented with a compilation of major attractions and trip generators that may attract non-work trips, including trips made by non-residents, including visitors and tourists. Because a streetcar line in any of the corridors would connect with the downtown starter line, it is assumed that these non-home based trips will originate in the downtown/ Crown Center area and the hotels and visitor areas (e.g., Power & Light District).
- Based on the Market Assessment HNTB will prepare a qualitative assessment of each corridor.

Current Bus Route Ridership

- HNTB has compiled ridership by route and by stop for each of the corridors. This information will be used for a base to develop estimates for the streetcar service.
- Factor for improved service plan. The streetcar routes will have enhanced service compared to current bus service (exception is MAX on Main Street). Current ridership will be factored using elasticity factors for service frequency and service span which will be applied to the differential for these service attributes.
- Factor for rail service versus bus service. Many believe there is an intrinsic value potential riders place on rail service versus bus service. This is a qualitative value however. Because the ridership estimates in Phase 1 will be used for a comparative evaluation, this factor will not be applied.

- Factor for future development potential. Presumably an investment in rail transit will have a catalytic effect on development which would result in more ridership in the future. Or, there may be pending or planned development that should be included in the analysis. For example, a corridor may have a planned development for 1,000 new housing units which will generate increased employment based and other trips. A two-step process is proposed:

- Using existing plans and other forecasts of development potential developed during Phase 1, increased trip-making will be estimated using trip-making rates from available sources (e.g., ITE or ULI).
- A transit mode split factor will be assumed based on current experience or “planning factors” developed by the team.
- The results of the new development ridership analysis will be added to the ridership estimates from current bus ridership.



Background

Kansas City is not alone with its renewed interest in streetcars and light rail. Cities across the country are rediscovering these modes of transportation as place-making tools and mobility options to support a desire for increased economic development, pedestrian activity, and sustainable growth. Unlike more intensive rail technologies such as heavy rail, these modes are viable in cities large and small, and their unique benefits are being successfully demonstrated in places ranging in size from Kenosha, WI, to Seattle, WA. Dozens of cities are actively engaged in streetcar and light rail planning, design, or construction.

The purpose of this economic development analysis is to assess the potential development impacts of the proposed streetcar / light rail extension projects. This document presents the overall methodology for estimating these potential development benefits in terms of square footage by land use type (e.g., residential, commercial), as well as the estimated number of residents and employees due to the streetcar extensions.

Summary of Overall Approach

The methodology to estimate induced economic development due to the implementation of the streetcar / light rail extensions in Kansas City involves a risk analysis framework, a set of key development assumptions and data, and land use growth by category (residential and commercial) assumptions. Based on the experience of streetcar projects in other cities, it will be assumed that development will begin at the same time that construction of the streetcar begins. The full build-out period for related development is assumed to be 20 years.

The amount and characteristics of streetcar-related development will be projected using a two-step process:

- Calculate the space available for development, including reuse of existing buildings as well as development of vacant space.
- Project the amount of available space that would actually be developed due to the presence of streetcar.

Framework for Development Projection

The economic development analysis will provide estimates of the growth attributable to the proposed streetcar / light rail project along each

proposed alignment. Development impacts are projected in terms of the following:

- Square Footage of Development – The amount of vacant and redevelopable space available will be estimated, and the projected amount of development of these spaces that may occur as a result of the streetcar service will be calculated.
- Increases in Jobs and Population – The analysis will capture residential and commercial development potential and convert these estimates into likely job and population increases.
- Property Value Increases – The estimate of development likely to be generated by each of the streetcar extensions and the inherent increases in property value due to the presence of a transit system will be used to estimate the likely increase in property value for the extension areas. These property value increases can then be used to develop a value capture strategy to explore potential development-based funding sources for the project.

For each of the extensions, varying assumptions will be made related to vacancy rates, building height restrictions, and other relevant factors. These assumptions form the basis for estimating the development potential available in each extension area. Additionally, development impacts are likely to be greatest closest to the streetcar line, with nearly all impacts occurring within $\frac{1}{4}$ mile of the streetcar route. Therefore, the potential development parcels will be categorized into a “high impact” area, which contains parcels within two to three blocks (approximately $\frac{1}{8}$ mile) of the alignments, and a “low impact” section, which contains parcels generally between $\frac{1}{8}$ mile and $\frac{1}{4}$ mile from the alignments.

Data Sources Used for Analysis

The following recent studies and data were used as the basis to develop the assumptions for this analysis:

- City of Kansas City Tax Assessor Database – Provides a parcel-by-parcel analysis of the land in Kansas City, including land use type, size of parcel, address and other information.
- Jackson County Tax Assessor Database – – Provides a parcel-by-parcel analysis of the land in Jackson County, including land use type, size of parcel, address and other information.



- Cassidy Turley Annual Market Report Kansas City, Missouri - Kansas 2013.
- Cassidy Turley Medical Office Market Snapshot, Kansas City, Missouri-Kansas Q3 2011
- Cassidy Turley Industrial Market Research Industrial, Kansas City, Missouri-Kansas Q3 2011
- Cassidy Turley Office Market Research , Kansas City, Missouri-Kansas Q3 2011
- CBRE MarketView, Kansas City Office, Q2 2008
- Cassidy Turley U.S. Industrial Trends Report, Q2 2013
- Cassidy Turley U.S. Multifamily Forecast Report, Summer 2013
- Cassidy Turley U.S. Office Trends Report, Q2 2013

At a broader level, the development impacts experienced in other cities that have implemented streetcar or light rail projects are being reviewed to better understand the range of impacts that can be expected due to rail investments. Many cities have experienced significant development due to streetcar investments, and the team is reviewing these experiences to glean important information related to the likelihood of significant development along the various streetcar extension alignments.

Factors of relevance when comparing streetcar systems include, but are not limited to:

- Length of streetcar alignment
- Type of system - modern versus historical streetcar
- Characteristics of streetcar alignment neighborhood
- Size of community
- Fare structure

Recognizing that market conditions vary significantly from place to place, the development assumptions used as input to the analysis are also being vetted with a group of development experts, including local and regional representatives from both the public and the private sectors. The assumptions to be used in the analysis and the conclusions will reflect the feedback received from the group.

Assumptions that are being discussed with the economic development professionals include:

- Vacancy rates by extension area
- Absorption rates by extension area
- Assumed number of floors for new building development and/or Floor-to-Area Ratio (FAR)
- Qualitative information related to likelihood of development along streetcar extensions and identification of drivers that will support development efforts
- Reasonableness of assumption that existing land use along each extension will remain in place over 20-year time period
- Impact of parking on development along extensions

The information collected through existing studies, tax assessor data, market reports and interviews with development experts is used to estimate the economic development capacity and projections due to each streetcar extension.

Existing Land Use in Study Area and Estimation of Development Potential by Extension

Prior to determining the type and amount of future development that may be generated by the streetcar / light rail extensions proposed in Kansas City, it is important to consider the existing land use in each of the neighborhoods through which the streetcar will operate. Data from the Tax Assessor's Database will be used to determine all of the parcels that fall within a ¼-mile radius of the proposed streetcar alignment. The share of current use by type and area, based on parcel size will be assembled. Vacant parcels and underutilized surface parking lots will be identified through the data and discussions with the City and development experts. To further frame the existing development picture in the extension areas, taxable property value by area and use type will be assembled.

Space Available for Development

The City of Kansas City Tax Assessor's Database, in combination with additional information from Jackson County, will be the primary data source

for determining the amount of space available for development and redevelopment. Data from this database is being combined with input from the City of Kansas City on the existing vacant and developable parcels in the study area to identify all of the parcels within a $\frac{1}{4}$ -mile radius of the proposed streetcar alignments.

Two different categories of development are considered in the analysis – development of currently existing but underutilized buildings, and development of currently vacant or underutilized land, such as surface parking lots. The parcels with existing but underutilized buildings will be broken down by current use (residential and commercial), and the currently vacant/underutilized parcels will be divided by the percentage of development by type that would likely occur in the future, based on the current mix in each area as well as information obtained through third party sources and development interviews. Types of development considered include residential and commercial. Existing vacant land is being divided into residential, commercial/industrial and other vacant in the Tax Assessor's Database. These land use types will be aggregated to all vacant, however, and then divided among potential future uses. This method will be employed because the current tax assessor category for vacant is not necessarily representative of the future use of vacant land. The reasonableness of this assumption will be discussed with the City and economic development experts.

Development in each extension area will vary in concentration and use. The economic development analysis incorporates these factors into the assumptions and approach used for the study.

Underutilized Buildings

The Tax Assessor's Database contains only the size of the parcel footprint. To estimate the total amount of vacant space available for redevelopment in underutilized buildings, the estimated number of floors is critical. Based on visual inspection, the number of floors in the existing buildings located

along the extension areas was identified and documented by parcel to the extent possible. This information will then be used to estimate building square footage on non-vacant parcels. To determine the square footage that is potentially vacant and redevelopable, vacancy rates are incorporated into the estimation. Risk ranges are being utilized for both of these factors, varying by area within the city and based on information from studies and other data.

Vacant Land

The approach to estimate currently vacant land is similar to that of existing underutilized buildings, except that vacancy rates are not relevant since there are no buildings on the parcels. The Tax Assessor's Database and City of Kansas City input will be used to determine the parcels that are relevant for the analysis because they lie within $\frac{1}{4}$ mile of the proposed extensions. The land will then be broken down into usage categories. Because the land is currently vacant, assumptions are going to be made about the most likely type of future development as a percentage of total land – residential or commercial. Each of the extension areas are likely to develop differently, and this is reflected in the estimation.

Once these shares are calculated for each of the extension areas, information related to number of floors is applied to determine the likely total square footage of building space available on these vacant parcels.

Square Footage, Employees and Residents
Current and projected square footage by use will be estimated for each of the extension areas. Based on the likely development in those extension areas, estimates on the number of residents and employees generated by the streetcar extension will be made. Because the square footage per employee required for different industries and land use designation (e.g., retail versus office) varies, different factors will be applied to the square footage by use estimates. HDR utilizes industry accepted standards to calculate the likely number of employees or residents generated by new development.



APPENDIX 3: KEY ALIGNMENT DECISIONS



INDEPENDENCE AVENUE



Key Decisions:

- *Admiral Boulevard or Columbus Park* - Community feedback thus far has indicated sizeable support for both options. An Admiral Boulevard option would connect to the starter route within the north downtown loop, and link some of the largest development opportunities in the downtown core. A Columbus Park alignment would connect a downtown neighborhood that is today separated from the River Market, Downtown Loop, and Pendleton Heights by highways. A Columbus Park route could also coordinate with a future extension to North Kansas City. With connection to three potential streetcar lines, Columbus Park could become one of the transit-connected neighborhoods in the City. There are several options for alignments within Columbus Park.
- *Terminus* - Potential termini have been suggested at Prospect, Chestnut, Cleveland, and Hardesty / KC Terminal Railway. Longer routes generally have higher cost, but also provide more opportunity for community transformation. Termini decisions could impact future connections along north/south corridors. For this reason consideration of other east/west routes is also relevant when evaluating termini on Independence Avenue.

For Future Study:

- *East Side Circulator* - The project team received a number of suggestions for an East Side Circulator that would connect two or more of the proposed east/west routes. A circulator presents some unique operational challenges, and decisions about which north/south streets could connect east/west routes will have an impact on potential future north/south extensions. The project team believes that north/south options, including potential circulator routes are appropriate for future study.
- *Extension to Armco Redevelopment Site* - The project team believes that the distance of the Kansas City Terminal Railway crossing from the starter route, and the cost and engineering challenges associated with getting a streetcar through the crossing, makes this crossing not viable for an initial extension. However, stakeholders have highlighted the potential of the former Armco plant as a redevelopment opportunity, especially when linked by streetcar. Study of an additional extension to this site may be appropriate in the future.

12TH STREET WEST



Key Decisions:

- *Originate from Main St or combine with 12th St East - A 12th Street corridor that combines segments west of main and east of main may perform better than routes originating from Main Street in terms of transit operations and near-term development potential. However, a significant portion of a route centered on Main Street would traverse downtown districts already well-connected by transit and benefitting from the downtown starter route.*

For Future Study:

- *Connection to Kemper / American Royal* - Because a terminus at Kemper / American Royal diverges significantly from the 12th Street corridor, because the long term future of the Kemper / American Royal site is unclear, and because Kansas City, KS is also a potential future connection via this corridor, the project team believes that consideration of a terminus at this location is not appropriate for an initial extension, but could be considered as part of a future study.
 - *Connection to Kansas City, KS* - Community feedback identified connection to Kansas City, KS as a potential extension of a 12th Street streetcar route. Because of the length of the connection, challenges of crossing a river, and jurisdictional challenges, the project team believes that an extension to Kansas City, KS is appropriate for future study, but not as part of the initial extension.



12TH STREET EAST



Key Decisions:

- *Originate from Main St or combine with 12th St West* - A 12th Street corridor that combines segments west of main and east of main may perform better than routes originating from Main Street in terms of transit operations and near-term development potential. However, a significant portion of a route centered on Main Street would traverse downtown districts already well-connected by transit and benefitting from the downtown starter route.
- *Terminus* - Potential termini have been suggested at Brooklyn, and KC Terminal Railway. Most existing activity is west of Brooklyn, but segments east of Brooklyn provide significant potential for reinvestment and redevelopment. Longer routes generally have higher cost, but also provide more opportunity for community transformation. Termini decisions could impact future connections along north/south corridors. For this reason consideration of other east/west routes is also relevant when evaluating termini on 12th Street.

For Future Study:

- *East Side Circulator* - The project team received a number of suggestions for an East Side Circulator that would connect two or more of the proposed east/west routes. A circulator presents some unique operational challenges, and decisions about which north/south streets could connect east/west routes will have an impact on potential future north/south extensions. The project team believes that north/south options, including potential circulator routes are appropriate for future study.
- *Truman Road Corridor* - The project team has received suggestions to consider Truman Road corridor instead of 12th Street or 18th Street. Because this corridor is not one of the corridors identified for study as part of this analysis, the project team recommends exploring a potential extension on Truman Road for future study. However, the project team will consider viability of alternative routes like Truman Road as part of its evaluation of the eight identified corridors.

18TH STREET



Key Decisions:

- *Originate from Main St or combine with Southwest Boulevard* - An 18th St / Southwest Blvd corridor that combines segments west of main and east of main may perform better than routes originating from Main Street in terms of transit operations and near-term development potential. However, a significant portion of a route centered on Main Street would traverse downtown districts already well-connected by transit and benefitting from the downtown starter route.
- *Terminus* - Potential termini have been suggested at Vine, Prospect, and Cleveland. Longer routes generally have higher cost, but also provide more opportunity for community transformation. Termini decisions could impact future connections along north/south corridors. For this reason consideration of other east/west routes is also relevant when evaluating termini on 18th Street. 18th Street is the corridor with the simplest and least-expensive crossing of the KC Terminal Railway.

For Future Study:

- *East Side Circulator* - The project team received a number of suggestions for an East Side Circulator that would connect two or more of the proposed east/west routes. A circulator presents some unique operational challenges, and decisions about which north/south streets could connect east/west routes will have an impact on potential future north/south extensions. The project team believes that north/south options, including potential circulator routes are appropriate for future study.
- *Truman Road Corridor* - The project team has received suggestions to consider Truman Road corridor instead of 12th Street or 18th Street. Because this corridor is not one of the corridors identified for study as part of this analysis, the project team recommends exploring a potential extension on Truman Road for future study. However, the project team will consider viability of alternative routes like Truman Road as part of its evaluation of the eight identified corridors.



SOUTHWEST BOULEVARD



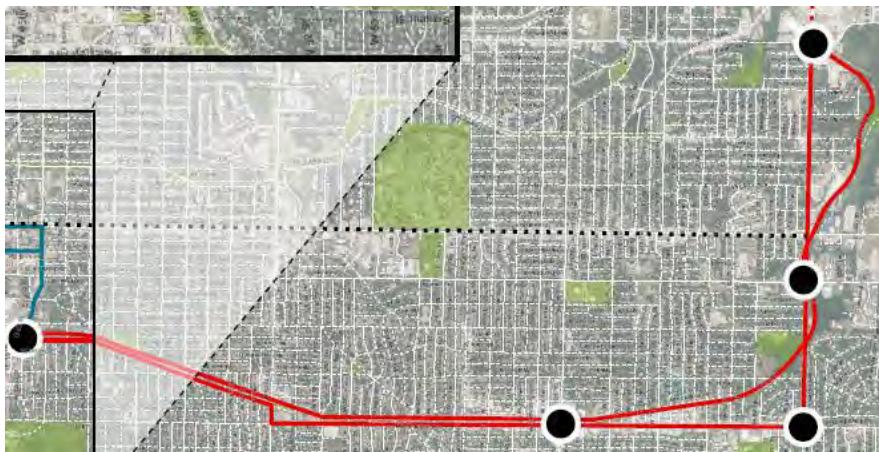
Key Decisions:

- *Originate from Main St or combine with 18th Street* - An 18th St / Southwest Blvd corridor that combines segments west of main and east of main may perform better than routes originating from Main Street in terms of transit operations and near-term development potential. However, a significant portion of a route centered on Main Street would traverse downtown districts already well-connected by transit and benefitting from the downtown starter route.
- *Terminus* - Potential termini have been suggested at Summit, and 27th/28th. Longer routes generally have higher cost, but also provide more opportunity for community transformation.

For Future Study:

- *Link to KU Medical Center* - The project team has received suggestions to extend the Southwest Boulevard route to the KU Medical Center / 39th Street activity center. This terminus would provide a major employer and commercial destination as a strong western anchor to the route. Because of the length of the connection, grade challenges, and jurisdictional challenges, the project team believes that an extension to 39th Street / KU Medical Center is appropriate for future study, but not as part of the initial extension. However, the project team will conduct high level ridership estimates for connection to 39th St / KU Medical center to provide information about the future potential of this route as a viable streetcar corridor.

COUNTRY CLUB RIGHT-OF-WAY



Key Decisions:

- *On-Street or Off-Street Right-of-Way* - The Country Club Right-of-Way exists to serve transit, and has been preserved for potential accommodation of transit in the future. A key decision for this study is whether and under what conditions this right-of-way should be used for a possible streetcar alignment. Dedicated off-street provides advantages, including opportunities to operate at higher speeds, and avoid traffic conflicts. However, operating out of the street requires special treatment at crossings, and cannot use existing traffic signal infrastructure that is still in place. Operating in dedicated right-of-way would also require careful coordination with the existing bike/ped trail, and consideration of noise and vibration impacts to nearby residences. Finally, portions of the right-of-way are today used for parking and other uses that would need to be reconfigured to accommodate a streetcar.

Over the length of the Country Club Right-of-Way corridor, a streetcar could operate exclusively within the street, exclusively within dedicated right-of-way, or in some combination

- *Terminus* - Potential termini have been suggested at 75th and Wornall, 85th and Wornall, 85th and Holmes, and 85th and Prospect. Longer routes generally have higher cost, but also provide more opportunity for community transformation.

For Future Study:

- 1) **Country Club Right of Way**
 - o Alignment
 - Use Right of Way
 - Use Brookside, Wornall, and 85th Street
 - Combine both
 - o Terminus
 - 75th and Wornall
 - 85th and Wornall
 - 85th and Holmes
 - 85th and Prospect
 - Bannister Mall Redevelopment/Oxford on the Blue



31ST STREET / LINWOOD BOULEVARD



Key Decisions:

- *Hospital Hill Alignment* - A number of community participants have suggested that a 31st St / Linwood alignment originate near the end of the downtown starter line and travel through Hospital Hill down Gillham as an alternative to connecting directly to Main Street at 13th St or Linwood Blvd. This route would connect key employment centers at Hallmark and Truman Medical Center, as well as the multi-family residential and commercial activity along Gillham. However, it would require a longer and more circuitous route, and create inconveniences for travellers seeking to go south on Main.
- *31st or Linwood? 31st & Linwood?* - Community participants have recommended several different options for alignment within this corridor. 1) A streetcar route exclusively on 31st St. 2) A streetcar exclusively on Linwood Blvd. 3) A streetcar route that is located on 31st St for a portion of the route and Linwood Blvd for a portion of the route. 4) A couplet system where the streetcar travels in one direction on 31st St and a different direction on Linwood Blvd. At the Kickoff event, 31st street was generally preferred west of Highway 71 while Linwood Blvd was preferred east of Highway 71. Options that combine streets can directly serve a greater area but have tradeoffs related to directness and rider usability.
- *Terminus* - Potential termini have been suggested at Prospect, Indiana/Cleveland, and the VA Hospital area. Longer routes generally have higher cost, but also provide more opportunity for community transformation. Termini decisions could impact future connections along north/south corridors. For this reason consideration of other east/west routes is also relevant when evaluating termini on 31st/Linwood.

For Future Study:

- *Truman Sports Complex* - The project team has received suggestions to extend the 31st Street / Linwood Route to the Truman Sports Complex. Because of the length of this destination from the starter route, and challenges related to crossing rivers and highway near the Sports Complex, the project team recommends that an extension to the Truman Sports Complex be considered for future study, rather than part of the Phase 2 extension.

MAIN STREET



Key Decisions:

Westport Connection - While the majority of community participants have indicated support for a route that travels directly down Main Street, some have suggested connecting directly to Westport and continuing south via Broadway/J.C. Nichols Pkwy, or other variants. A Main Street route is more direct, while a Westport connection would tie this important activity center to the Plaza and Downtown. A Westport connection could also provide a method to avoid challenging operational and traffic conditions associated with the 47th and Main intersection.

Terminus Loop - The most direct route for the Main Street Alignment is to continue directly down Main Street and Brookside Boulevard, terminating at the doorstep to UMKC. However, a terminus loop (similar but slightly larger than the terminus loop of the starter route in the River Market) could directly connect some combination including the heart of the Plaza, UMKC, Rockhurst, and the Nelson-Atkins museum. There are variety of loop alignments of different lengths, each with particular engineering and operational challenges.



APPENDIX 4: HISTORY



Preface

Over the past decade streetcar lines have taken off in cities across the country. Learning from early adopters like Portland, Oregon, places like Seattle, Dallas, Houston, Cincinnati, Minneapolis, Tacoma, Denver and St. Louis have implemented successful projects that have transformed their cities.

While streetcars are a significant public investment that represents increased transportation options, their real impact is the positive influence on neighborhoods. Streetcars are a long-term commitment to a corridor, and private development has been proven to follow them with reinvestment. Streetcars reconnect people to jobs, housing, services and entertainment.

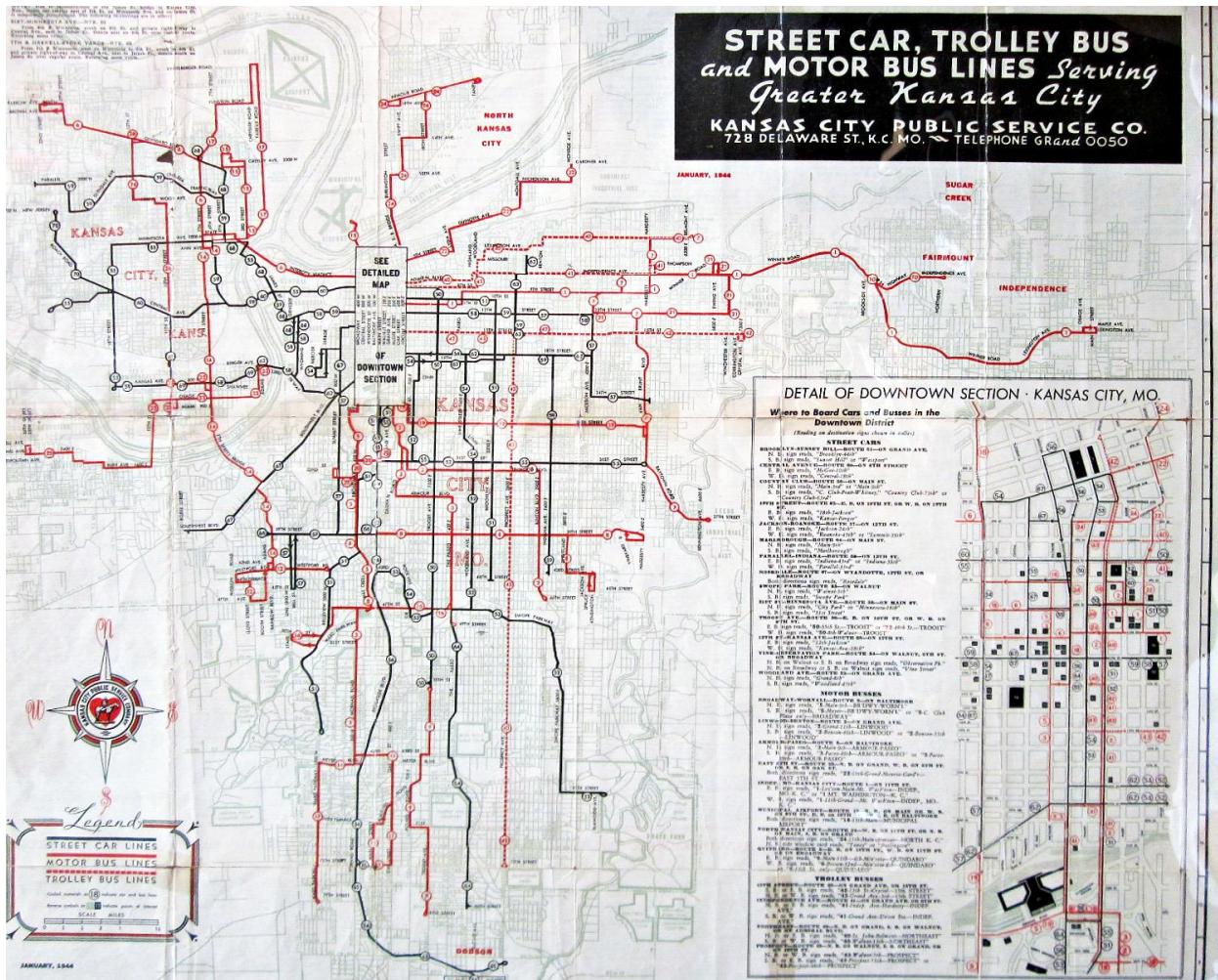
Through a community-based and data-driven process, the City of Kansas City, Missouri and its project team will develop a plan for the expansion of the Downtown Streetcar starter line into a citywide network that creates new connections between people and places and catalyzes the revitalization of our neighborhoods.

This Historic Context, prepared by Architectural & Historical Research, LLC (AHR, LLC), provides an overview of mass transit history and a preliminary examination of existing and potential historic resources along the corridors including National Register of Historic Places and local historic listings (individual and districts), in Kansas City, Missouri. This portion of the study focuses on architectural, structural and cultural landscape resources that have been identified to better understand the relationship of mass transit to the development of Kansas City's neighborhoods within and adjacent to the eight identified alignments.

As a link to Kansas City's Starter Rail, portions of the general history of mass transit were excerpted from the "KC Downtown Streetcar Project, Section 106 Technical Report, HPP106 Project Number 213-JA-12, August 2012", authored by AHR, LLC. Information regarding the context of mass transit in Kansas City as it relates to the eight identified streetcar alignments including Independence Boulevard, 12th Street East, 12th Street West, 18th Street, Linwood/31st Street, Main Street, Southwest Boulevard and Country Club Right-of Way, were added to the narrative. At the close of this project, an additional, more in-depth analysis on the corridors selected for the Detailed Alignment Analysis phase will be prepared.

I. Introduction

Spanning the years from 1869, when Nehemiah Holmes inaugurated the first railway line, to 1957 which marked the end of the streetcar era, Kansas City has employed every available form of mass transit including horse and mule-drawn cars, to cable lines, electric traction, and trackless trolleys. Over the years the physical development of the urban mass-transit system has been “perhaps more varied than is the case with transportation systems operating in other cities of size comparable with that of Kansas City, since it has experienced almost every vicissitude possible in the development of a traction company.”¹



Map illustrating the Street Car, Trolley Bus and Motor Bus Lines Serving the Greater Kansas City Area, 1944. Source: Special Collections, Missouri Valley Room, Kansas City Public Library, Kansas City, MO

Throughout the eighty-eight year period, well over 100 separate franchises and grants for the operation of a variety of urban mass transit systems, including The Kansas City Railway Company, The Grand Avenue Railway Company, and The Corrigan Consolidated Street Railway Company (MSRy), had been awarded by the city. At the end of the 19th century, Kansas City “boasted of having the third largest cable system in the county.” It was reported that the Metropolitan Street Railway Company (MSRy; incorporated on July 19, 1886), who monopolized the metropolitan area’s transit system, was worth \$8.5

¹ Bion J. Arnold, *Report to Hon. William C. Hook, Circuit Judge, on the Value of the Properties of the Metropolitan Street Railway System of Kansas City, Missouri* (Kansas City: n. p., 1912), 32.



million at the time, with 128 miles of cable and electric track; 200 cars carried approximately 85,000 passengers daily.²

Despite the Metropolitan Street Railway Company's ostensible power, they experienced several episodes of heated and bitter political controversy and public outcry over the extension of its franchises, the lack of response to the public's needs, and failure to expand their service into an ever-sprawling city.³ The Metropolitan Street Railway Company, who had taken control of all but a handful of the streetcar companies in Kansas City (fifteen companies had been absorbed in nineteen years), had "lapsed into a deplorable state both financially and physically."⁴

At the turn of the 19th century, over the course of 10 years, the MS Ry was making great strides as they were in the process of taking up horse, steam dummy and cable lines throughout the metropolitan area and converting them to electric lines. Some of the original private investors of the conglomerate included Charles Francis Adams, Jr., Nathaniel Thayer, Jr., Charles Merriam and Charles Fessenden Morse. These individuals had strong ties to railroads and the meatpacking industry; Adams was the great-grandson of U. S. President John Adams. The Kansas City Railway & Light Company was the holding company of record.⁵

Arguably, the most decisive years in the Metropolitan Railway's history occurred in 1911-1914, when the company fell into receivership and the court ordered an independent appraisal of the company's property. The Kansas City Railway and Light Company, the Metropolitan's holding company, who petitioned the receivership, prevented the complete disintegration of the entire system.⁶ Mayor Jost's draft of the new franchise "repealed the 300-400 previous franchises" and revoked the provisions of the groundbreaking Peace Agreement of 1903.⁷ In 1916, the Metropolitan was reorganized and emerged as Kansas City Railways. In 1925, the Kansas City Public Service Company (KCPS), in a foreclosure sale, succeeded Kansas City Railways.⁸ KCPS was granted a new franchise with provisions for bus and streetcar operation. During the nascent period of this new company, much infrastructure was implemented, 46 miles of track was rebuilt and the fleet of 744 streetcars was modernized.⁹

² Edward A. Conrad, *Kansas City Streetcars: From Hayburners to Streamliners* (Blue Springs: HeartlandRails Publishing Company, 2011), 95-97. Conrad's book focuses on the work of the late Terence Cassidy, a streetcar enthusiast who amassed an impressive collection of primary and secondary materials on the history of Kansas City's streetcars. Cassidy, who had started a book on the subject, passed away in 1992 from an automobile accident.

³ In the first of many fights for franchise expansions, *The Kansas City Star* championed the extension of the streetcar line. On one occasion, it was stated that, "the proper growth of a city depends more upon its street railway facilities than upon anything else in its municipal life." ("Street Railway's and the Growth of a City," *The Kansas City Star*, 25 June 1909, 10.) However, historians point to developers and builders constructing cheap residences along streetcar lines to the south and more especially to the east. See Sherry Lamb Schirmer and Richard McKinzie, *At the River's Bend* (Woodland Hills, CA: Windsor Publications, Inc., 1982), 99.

⁴ "Kansas City Railway Gains Public Favor." *Electric Railway Journal* 68 (September 30, 1916), 667.

⁵ Edward A. Conrad, *Kansas City Streetcars: From Hayburners to Streamliners*, 95-97, 177-180.

⁶ A. Theodore Brown and Lyle W. Dorsett, *KC: A History of Kansas City, Missouri* (Boulder, Colorado: Pruett Publishing Company, 1978), 106. See also, *Electric Railway Journal*, 30 September 1916.

⁷ Delos F. Wilcox, *Municipal Franchises: A Description of the Terms and Conditions upon which Private Corporations enjoy Special Privileges in the Streets of American Cities* (New York: The Engineering News Publishing Company, 1911), 310-323. The Peace Agreement was an ordinance between the city and the street railway companies. Generally speaking, the Peace Agreement mandated that the Metropolitan would upgrade and expand their lines, receive new franchises and an extension of existing franchises. The City, in return, would get a percentage of gross earnings. See also Conrad, *Kansas City Streetcars*, 105-106.

⁸ Roy Ellis, *A Civic History of Kansas City, Missouri* (Springfield, Missouri: Columbia University, 1930), 101, 115; Terence W. Cassidy, "Kansas City," *Motor Coach Age*, November-December, 1975, 5; Cydney E. Millstein, "Historic Mill Creek Viaduct, Kansas City, Missouri: Historical and Descriptive Data, Photographs and Plans," May 22, 1996, 6.

⁹ Edward A. Conrad, *Kansas City Streetcars: From Hayburners to Streamliners*, 213. Conrad points out that during this period of rebuilding, mushroom beds were removed from the upper portion of the 8th Street Tunnel.

Unfortunately, ridership had peaked in 1922 and the years up through WWII saw a continuous decrease in patrons. Abandonment of lines began in 1917 and continued through the 1930s. And, of course, the stock market crash of 1929 had a damaging effect on streetcar systems as a whole.

Following WWII, when Kansas Citians and the rest of the nation began their love affair with the automobile, the support of public transportation, again, declined. Patronage fell from 136 million in 1946, to 66 million in 1954, reflecting both a post-war auto and gasoline production boom and the “dispersed nature of the expanded Kansas City metropolitan area in the postwar period.”¹⁰

With regard to the nationwide decline in streetcar ridership, it has been stated that General Motors “caused the demise of America’s streetcar system and without GM’s interference streetcars would be alive and well today.”¹¹ Bradford Snell, a persuasive antitrust attorney for the United States Senate and a scholar for the Brookings Institution, fueled the conspiracy theory and in 1974 testified to a Senate inquiry that GM destroyed electric traction. Years earlier, in 1946, Edwin J. Quinby, a naval lieutenant commander, began writing about GM and the end of the streetcar; it was Snell, however that generated the most clamor about the GM and its power over mass transit.

Since Snell’s testimony, noted historians, particularly George Hilton, have debunked the myth surrounding GM’s total extermination of the nation’s streetcar systems. Hilton was the former chair of the president’s task force on transportation policy and author of *The Electric Interurban Railways in America*.

Along with Hilton, Cliff Slater, author of “General Motors and the Demise of Streetcars,” completely discredits the conspiracy theory and instead soundly proves that the growth of the motor bus, with their improvements in speed, handling and comfort, made buses less costly and more comfortable than the streetcar. Furthermore, confirms Slater, buses were much safer and could handle widespread service “since they did not have the expense of stringing overhead electric lines or laying rail.”¹² The motorbus initially caused the decline in ridership in England, as well. In the U.S., riders were taking the bus more often than streetcars, a trend which began in the 1940s and carried through the 1960s.¹³ The streetcar, asserts Slater, simply became outmoded over a 30-year period.

In Kansas City, in June 1957, five months after the Kansas City Public Service Company’s streetcar franchise had expired, the last car lines (Country Club-Dodson and Rockhill), and two trolley bus lines were converted to motorbus. Soon thereafter, the corporate name of the Kansas City Public Service Company was changed to Kansas City Transit, Inc. Patronage continued to dwindle and by January 1969, the Kansas City Area Transportation Authority (KCATA) acquired the majority of Kansas City Transit’s assets.¹⁴

¹⁰ Millstein, “Historic Mill Creek Viaduct, Kansas City, Missouri,” 9.

¹¹ Cliff Slater, “General Motors and the Demise of Streetcars.” *Transportation Quarterly* 51 (Summer 1997), 45.

¹² *Ibid.*

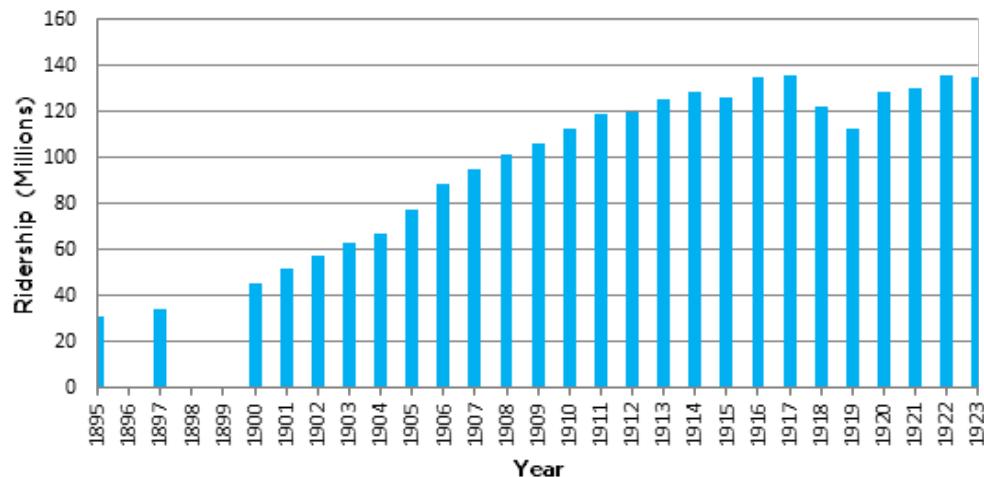
¹³ *Ibid.* 53. Slater also points out that streetcars were replaced all over the world by buses during the same period as that of the U.S.

¹⁴ Millstein, 9.



Kansas City Streetcar Ridership: 1895-1923

Metropolitan Street Railways (1895-1915), Kansas City Railways (1916-1923)



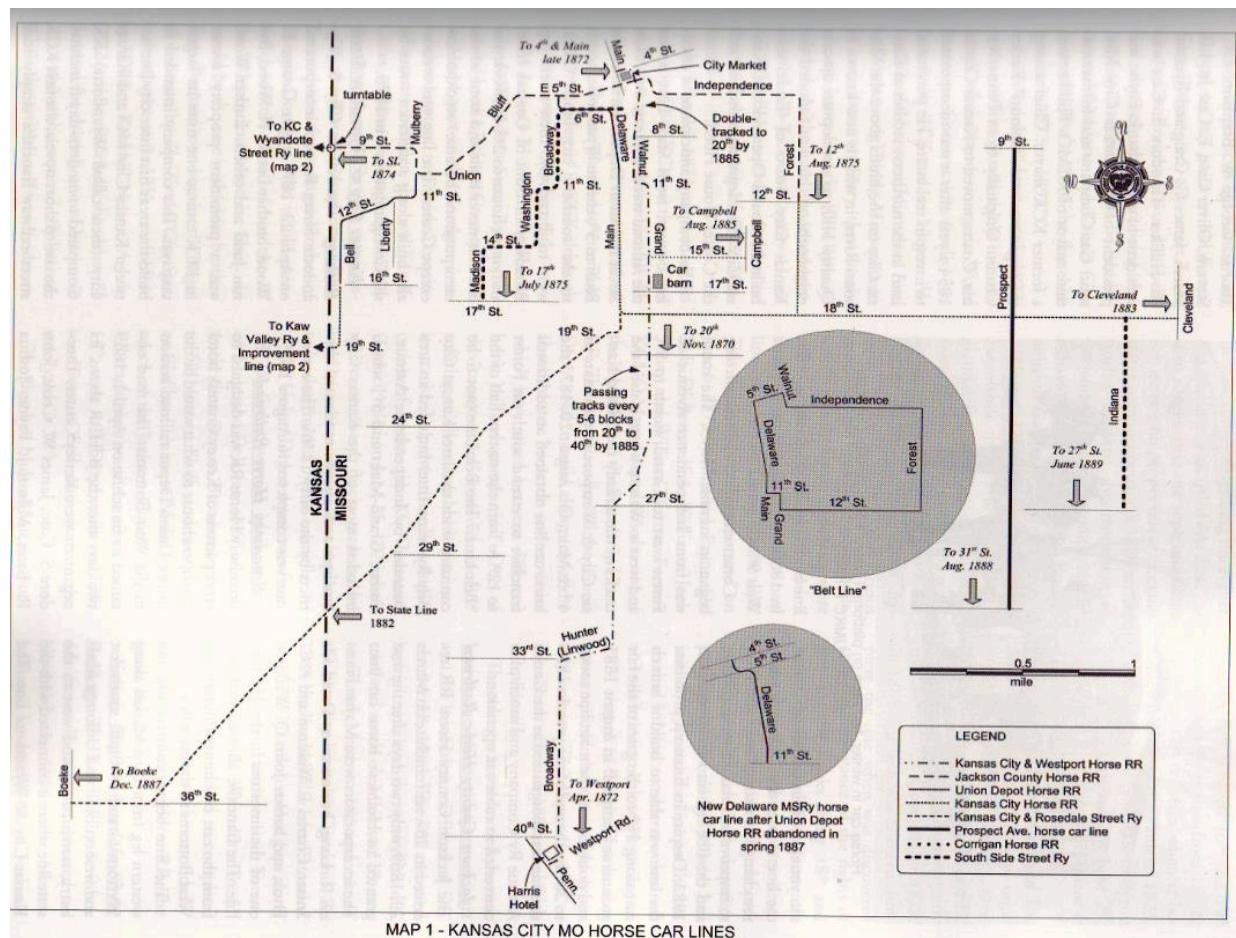
Year	Ridership
1895	31,280,309
1896	N/A
1897	34,144,189
1898	N/A
1899	N/A
1900	45,490,377
1901	51,641,823
1902	57,148,083
1903	62,881,081
1904	66,995,933
1905	77,223,357
1906	88,296,480
1907	95,369,484
1908	101,633,684
1909	105,793,718
1910	112,601,683
1911	118,547,520
1912	119,907,328
1913	125,592,512
1914	128,310,928
1915	126,307,209
1916	134,526,915
1917	135,720,452
1918	122,109,936
1919	112,711,463
1920	128,597,309
1921	129,824,858
1922	136,076,541
1923	135,097,194

II. Getting Around Kansas City: Horse Car Companies, Cable and Electric Traction

Horse Car Companies

According to Roy Ellis in his book *A Civic History of Kansas City, Missouri*, "these early horse car lines were regarded as civic assets of supreme importance . . . and were the subject of much boastful pride on the part of the citizens of the town."¹⁵ Ellis described the general characteristics of the system as crude and rough. Along with horse and mule power, the cars were guided by a wooden turntable for turning cars around. It was not unusual that passengers walked alongside the cars in steep terrain. In the winter months, straw was strewn on the floors of the cars to warm customer's feet.¹⁶

Edward A. Conrad in his book *Kansas City Streetcars* describes in great detail how the horse car lines functioned with iron strap rails nailed to wooden stringers atop unpaved streets. The earliest cars were of wood construction, approximately 15 feet in length with hardly enough room for 14 people. While horses pulled cars in the beginning of this era of mass transportation, mules later became the choice to pull the cars as they were "better suited" for the heat of Kansas City's summers and lived longer than horses.¹⁷



Kansas City Horse Car Lines. Source: Edward A. Conrad. *Kansas City Streetcars: From Hayburners to Streamliners* (Blue Springs, MO: Heartland Rails, 2011).

¹⁵ Ellis, *A Civic History of Kansas City*, 102.

¹⁶ *Ibid.*, 103.

¹⁷ Edward A. Conrad. *Kansas City Streetcars: From Hayburners to Streamliners*, 17.

Horse car lines in Kansas City, such as the ones described below, were common throughout the United States. Widespread adoption of these systems took place during the Civil War years. Although the horse trolleys quickly became popular, city governments had strong incentives to replace the horse-drawn systems with that of cable traction.

Because of several factors including the slowness of travel (four to six miles per hour), pavement cleaning (a horse dropped more than ten pounds of fecal material a day and drenched the pavement with urine), and fear of disease (the Great Epizootic, a respiratory and lymphatic disease of horses), horse trolley systems gave way to cable lines.

The following are just two examples of the many horse car companies that offered service in Kansas City. These companies ran along or adjacent to the current proposed streetcar alignments for NextRailKC.

Kansas City and Westport Horse Railroad Company. Organized in 1869 by Nehemiah Holmes, one of the city's pre-Civil War real estate promoters, the Kansas City and Westport Horse Railroad Company extended from the corner of 4th and Main Street east to Walnut Street, south to 11th Street east to Grand Avenue and south to 16th Street where the company's barn was located. This continuous line consisted of three horse and mule cars, each seating twelve passengers; one car would start from 16th and Grand while another car ran south from 4th and Main. By 1871, the line reached the Town of Westport (by means of Linwood and Broadway) and a new barn was constructed at 23rd Street and Grand Avenue. Never a financially successful venture, the Kansas City and Westport Horse Railroad Company was sold in 1874 and reorganized as the Westport and Kansas City Horse Railroad Company. In 1880, Walton H. Holmes, son of Nehemiah, managed the new enterprise. In 1886 it was sold to the Grand Avenue Cable Company (see below) and converted to a cable line.¹⁸

Jackson County Horse Railroad Company. Also organized in 1869, this railway company constructed the bulk of its line in the West Bottoms to State Line. A portion of their line, however, ran from the corner of 4th and Main Streets, to 5th and Grand Avenue southwest to 12th Street to the state line. It also included a portion of the Union Depot Street Railroad Company, which was purchased in 1874-75. The eastern leg of this early horse line had a route along Independence Avenue and Forest, west to Grand, and then finally to Walnut, where it "used the tracks of the already completed Kansas City & Westport to terminate at 4th and Main Streets."¹⁹ This railway line, which implemented a Belt Line along Forest to 12th Street, was taken over by the Corrigan Consolidated Street Railway Company in 1884.²⁰

¹⁸ "Horse Cars," *The Kansas City Journal Post*, February 18, 1923, n. p.; Theodore S. Case, ed., *History of Kansas City, Missouri* (Syracuse, NY: D. Mason and Company, 1888), 406-407; *A Civic History of Kansas City*, 101-104; *The Kansas City Times*, June 8, 1911, n. p. This last source outlines the various mass transit franchises in Kansas City from 1869-1903.

¹⁹ Edward A. Conrad. *Kansas City Streetcars: From Hayburners to Streamliners*, 20.

²⁰ *Ibid.* The Corrigan Consolidated Street Railway Company was incorporated on July 16, 1884, and was conveyed to the Metropolitan Street Railway Company on July 24, 1886.



MvSC, Kansas City Public Library, Kansas City, Missouri

The Jackson County Horse Railroad Line on Union Avenue, c. 1880, at the north end of the Union Depot.
Source: Missouri Valley Room, Special Collections, Kansas City Public Library, Kansas City, MO

Cable Railway Systems

Kansas City was the forth city in the nation to adopt a cable railway system, which grew to be the third largest in the country. From 1885 to 1900, the cable car was Kansas City's principal means of transportation and by 1888, there were six cable companies in operation, over 80 miles of track, employing over 1,200 men and representing an overall investment of approximately \$10,000,000. Consequently, Kansas City's streets experienced an extraordinary boom in cable development and implementation, which in turn, changed the general character of the landscape and ultimately, helped to induce the city's expansion.

Numerous schemes for the development and improvement of the city were founded with remarkable rapidity. Real estate men saw their opportunity, and with the "sagacity peculiar to their class," seized upon it. They saw that ultimately cable lines, annihilating distance and removing time, would penetrate to the exteriors of the city and additions were laid off as fast as they could be surveyed and the plats filed. "The problem of rapid transit through the city, across the ravines and over the elevation was solved . . . The prosperity of the city was greatly advanced."²¹

The cable system in Kansas City functioned very similar to the original cable street railway line conceived by Andrew S. Hallidie in 1873. Passenger cars were propelled by an endless wire cable that moved continuously, passing at some point through an engine house around a driving drum. The cable was placed in a conduit between the rails. Certain cars were provided with a "grip", which controlled speed.

Often a grip car was coupled with a passenger car; frequently, however, the gripping apparatus was situated in the forward section of the passenger car. Hallidie's grip design originally featured a screw-

²¹Theodore S. Case, ed., *History of Kansas City, Missouri*, 410. See footnote 18 for full citation.



operated mechanism operated by a hand wheel. Subsequently, the “grip” was later designed to resemble a brake handle and constituted the basic change from Hallidie’s hand wheel device.²²



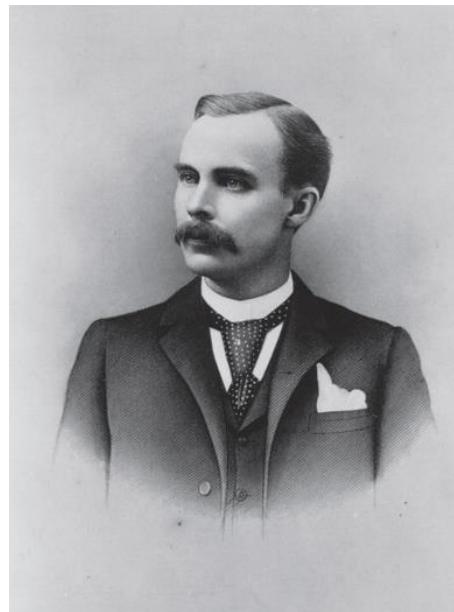
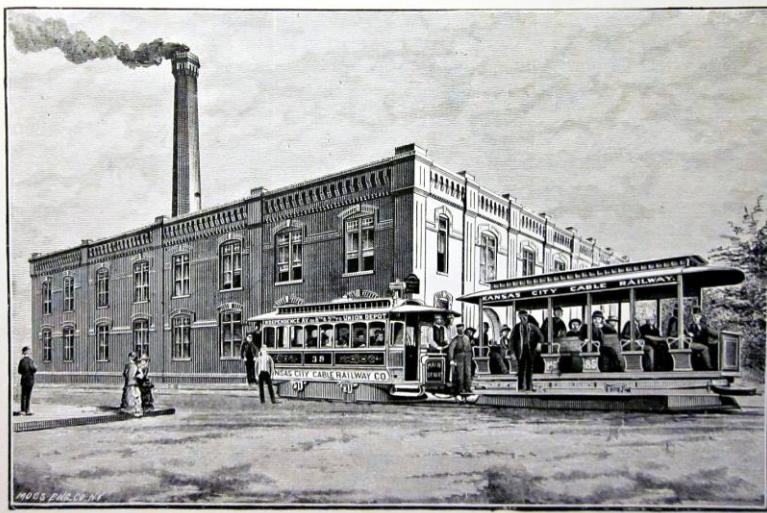
The Twelfth Street Trestle (Cable Line), 1913. Looking east toward Downtown Kansas City.
Source: Missouri Valley Room, Special Collections, Kansas City Public Library, Kansas City, MO.

The Kansas City Cable Railway Company.

Robert Gillham (1854-1899), the pioneer of the cable line in Kansas City, Missouri, was responsible for organizing The Kansas City Cable Railway Company (KCCRy), Kansas City's first cable traction enterprise. With the construction of Gillham's KCCRy, Kansas City was the forth city in the United States to build a cable car line.

New Jersey native Gillham, an engineer by training, moved to Kansas City in 1878, and immediately proposed a plan to connect the city's central business district on the bluffs, via a wrought-iron trestle, with the commercial section 200 feet below in the West Bottoms. He applied for a franchise in 1881, but initially was rejected due to opposition of local horse and mule-car operators.

²² William D. Middleton, *The Time of the Trolley: The Street Railway from Horsecar to Light Rail* (San Marino, CA: Golden West Books, 1987), 35-51.



Kansas City Cable Railway, Kansas City, Missouri and Robert Gillam

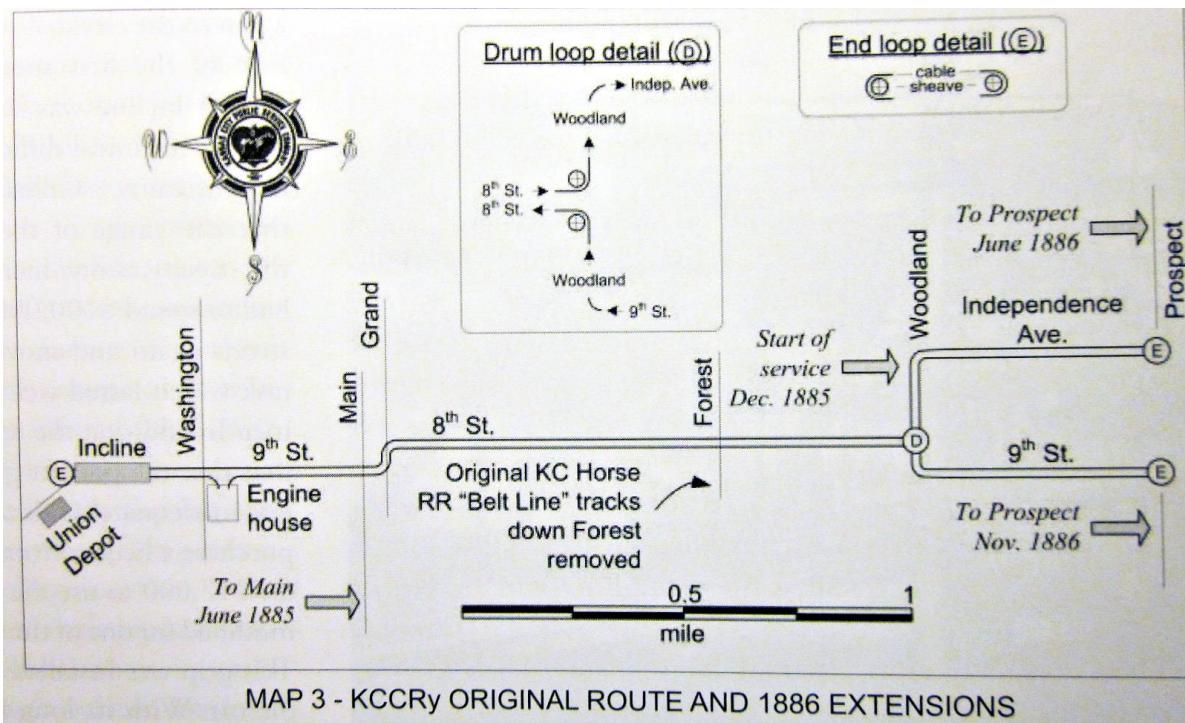
Source: Missouri Valley Room, Special Collections, Kansas City Public Library, Kansas City, MO

On April 20, 1882, along with financiers George J. Keating and William J. Smith, Gillham procured a franchise for the construction of his cable line. One year later, on July 5, 1883, the Kansas City Cable Railway Company was organized and construction of the emerging line began. The inauguration in June 1885 of the company's original route, named the Ninth Street line, marked a new era in Kansas City's history. The route, extending from 8th and Woodland Avenue to the Union Depot on Union Avenue, used Grand Avenue (now Boulevard) for the transition from 8th to 9th Streets. Known as "Dead Man's Curve", this turn produced an "extremely difficult pull curve . . . impossible to turn in partial release in either direction without running the most severe hazard of losing the grip on a major grade."²³ Local accounts reported that many a passenger was thrown out of a car on this treacherous turn.²⁴

²³George W. Hilton, *The Cable Car in America* (San Diego: Howell-North, 1982), 255. Hilton states that "Dead Man's Curve" located in Kansas City was "one of the two notable in the country." See also *Report...on the Value of the...Metropolitan Street Railway System*, 101-102; *History of Kansas City, Missouri*, 407-411. The Kansas City Cable Railway Company financed and constructed the Ninth Street Incline that carried the Ninth Street line west to Union Depot. Affectionately referred to as the "Big-Dipper", the Ninth Street Incline, at a grade of 18 1/2 percent, was opened to the public on June 15, 1885. It was shut down on April 6, 1904.

²⁴*The Kansas City Star*, May 13, 1947, n. p. Hilton reports that Kansas City's "Dead Man's Curve" was "a continual source of mild accidents; in 1897, for example . . . H.W. Evans, returning from a dentist's office, was still so imperfectly in control of his faculties from anesthesia that he failed to take a firm grip at the curve, and was pitched into Grand Avenue."





MAP 3 - KCCRy ORIGINAL ROUTE AND 1886 EXTENSIONS

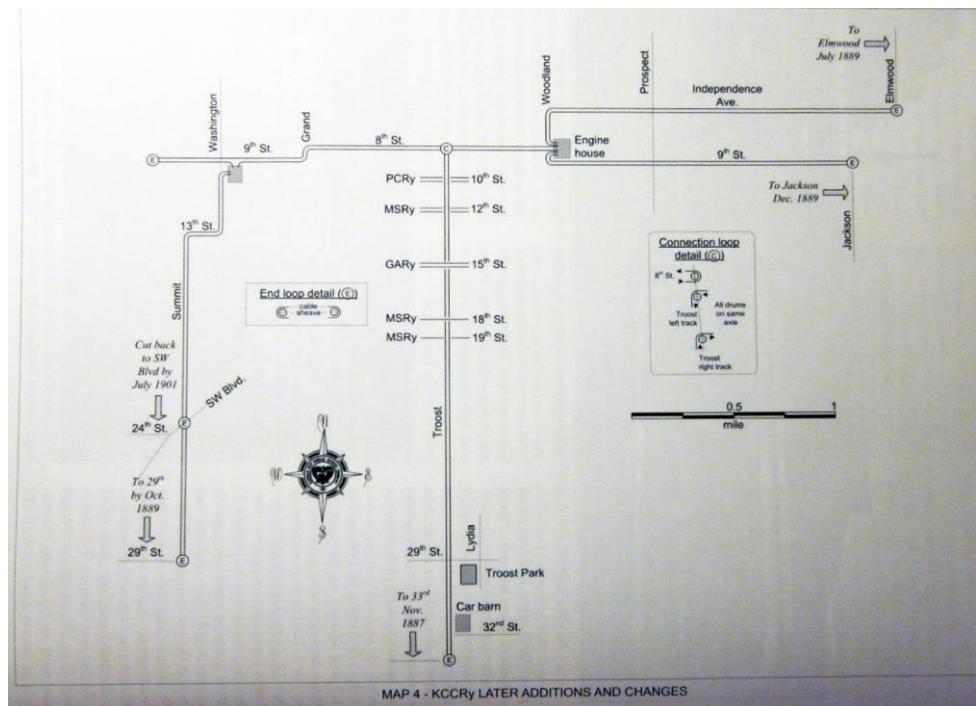
Kansas City Cable Railway, Original Route and 1886 Extensions. Source: Edward A. Conrad. Kansas City

Streetcars: From Hayburners to Streamliners, 2011.

A series of extensions of the KCCR's Ninth Street Line were constructed in 1886, 1887 and 1889, thereby connecting the east and southwest sections of the city. Financially, the KCCR was, at the time of its operation, the most successful company in Kansas City, returning "about 30% in its first year."²⁵ In 1895, when it was acquired by the Metropolitan Railway Company the KCCR had a capital stock worth over 1 1/2 million dollars.²⁶

²⁵Hilton, *The Cable Car in America*, 257. In April 1885, while he was supervising repairs in the 9th and Washington Street powerhouse during construction of the Ninth Street Line, Gillham suffered a severe accident. Although he eventually recovered from a fractured skull, his involvement was curtailed and he really never realized much financial success from his pet project. Clift Wise, a young engineer, completed Gillham's work on the line's extensions. Smith sold out his interest in 1894 for \$852,000. Subsequently, Gillham invested in and promoted several rival, local cable companies. Additionally, he was involved in the Omaha cable system, The Denver Cable Railway, the Montague Street Cable Railway, Brooklyn, New York, and the Cleveland Cable Railway.

²⁶Report. . . On the Value of the . . .Metropolitan Street Railway System, 101; See also the *Metropolitan Street Railway Company, Annual Report*, June 15, 1896. Discussions of the Kansas City Cable Railway can be found in *The Street Railway Journal* 4 (January, 1888) and 6 (February 1890).



Kansas City Cable Railway, Later Additions and Changes. Source: Edward A. Conrad. *Kansas City Streetcars: From Hayburners to Streamliners*, 2011.

The Grand Avenue Railway Company

Succeeding the Westport & Kansas City Horse Railway Company (see above), the Grand Avenue Railway Company was incorporated on March 27, 1886. Walton H. Holmes, who headed the Westport line, reformed his company after receiving a franchise in January 1886 to convert his existing line to cable.

The original route was the company's main line which ran from 3rd and Walnut Streets, north on Walnut to 1st, then to the corner of 1st Street and Grand Avenue on the banks of the Missouri River, south on Grand to 3rd, to Walnut Street to 13th Street, back to Grand Avenue, then Main Street to 39th Street in Westport. A branch of this line, the Fifteenth Street line, extended from 15th Street (Truman Road) and Grand Avenue, east to Kensington Avenue. Both lines were completed in 1887. A powerhouse at 15th and Grand was also the location of the company's offices.

A steam "dummy" line was placed on a single track from Hunter (Linwood Boulevard) and Main Streets to Broadway, then south to 39th Street and west to Rosedale Avenue. An additional line, constructed in 1888, was operated on Holmes Street. On May 21, 1895, The Grand Avenue Railway Company was acquired by deed by the Metropolitan Street Railway Company.²⁷

²⁷Hilton, *The Cable Car in America*, 271-276; *History of Kansas City, Missouri*, 412-413; Report. . . On The Value of the . . .Metropolitan Street Railway System, 102-104. The current Downtown Streetcar route closely parallels the Grand Avenue Railway Company's historic route.





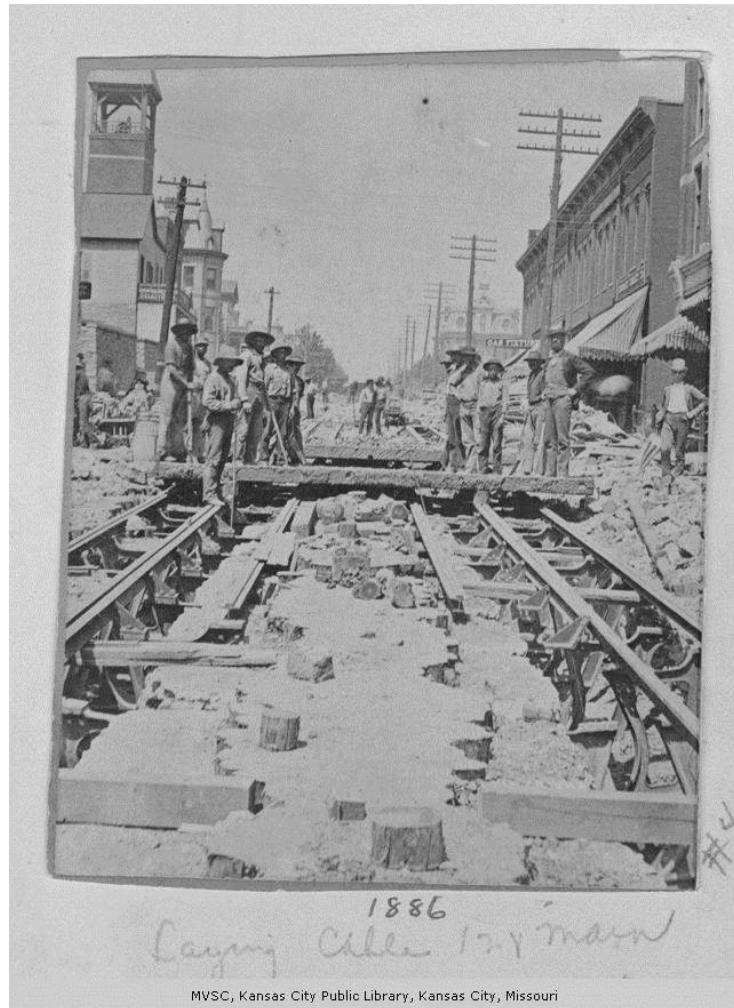
Grand Avenue Railway cable car making loop near 1st and Grand, 1887

Source: Missouri Valley Room Special Collections, Kansas City Public Library

The Metropolitan Street Railway Company

Incorporated on July 19, 1886, The Metropolitan Street Railway Company had its beginning in the purchase of the Corrigan Consolidated Street Railway Company, a horse line that was a consolidation, in 1884, of several subsidiary companies. Two of the six lines operated by Corrigan at the time of its acquisition by the Metropolitan were located, in part, in the center of the city: The 5th Street Line and the 12th Street Line. During a two-year period, from 1887 through 1888, the Metropolitan Company took advantage of the ordinances permitting cable construction acquired in the purchase of the Corrigan line and subsequently, rebuilt portions of the 5th and 12th street lines.²⁸

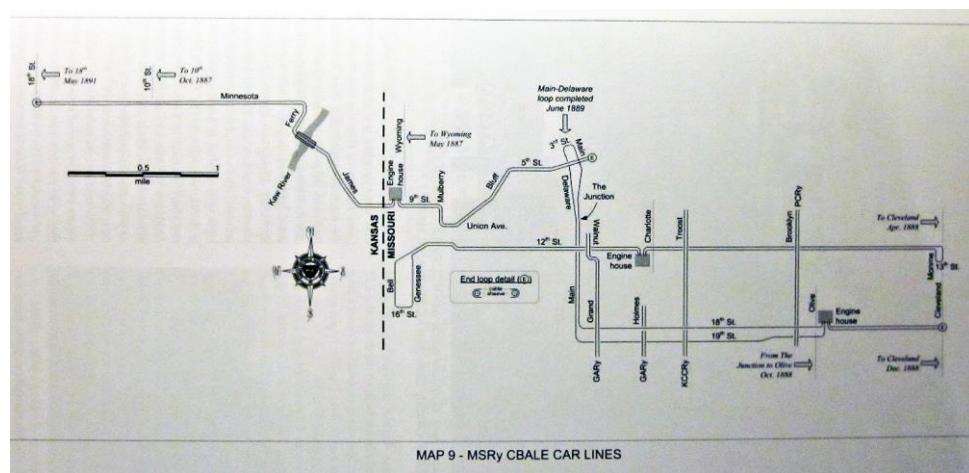
²⁸ The history of the Metropolitan Street Railway Company is covered in several sources including: *Report. . . On The Value of the. . . Metropolitan Street Railway System*, 32-34, 97-106 (this comprehensive report includes a chart illustrating the company's acquisitions); *The Cable Car in America*, 265-270; *History of Kansas City, Missouri*, 413-414; *KC: A History of Kansas City, Missouri*, 105-107; and in *The Metropolitan Street Railway Company's Annual Reports*. The consolidation of Kansas City's mass transit lines was continually reported in various issues of *The Street Railway Journal*, as early as April 1895. A lengthy article covering the general operations of the MSRC appeared in "System of the Metropolitan Street Railway Company of Kansas City," *Street Railway Journal*, 14 (February 1898), 67-72.



Laying cable at 12th and Main Street, looking west, 1886. Source: Missouri Valley Room, Special Collections, Kansas City Public Library, Kansas City, Missouri.

As mentioned above, the Metropolitan Street Railway Company had assumed control of fifteen mass transit companies by 1905. In doing so, it monopolized the entire metropolitan area, including Kansas City, Missouri; Kansas City, Kansas; Rosedale and Independence.





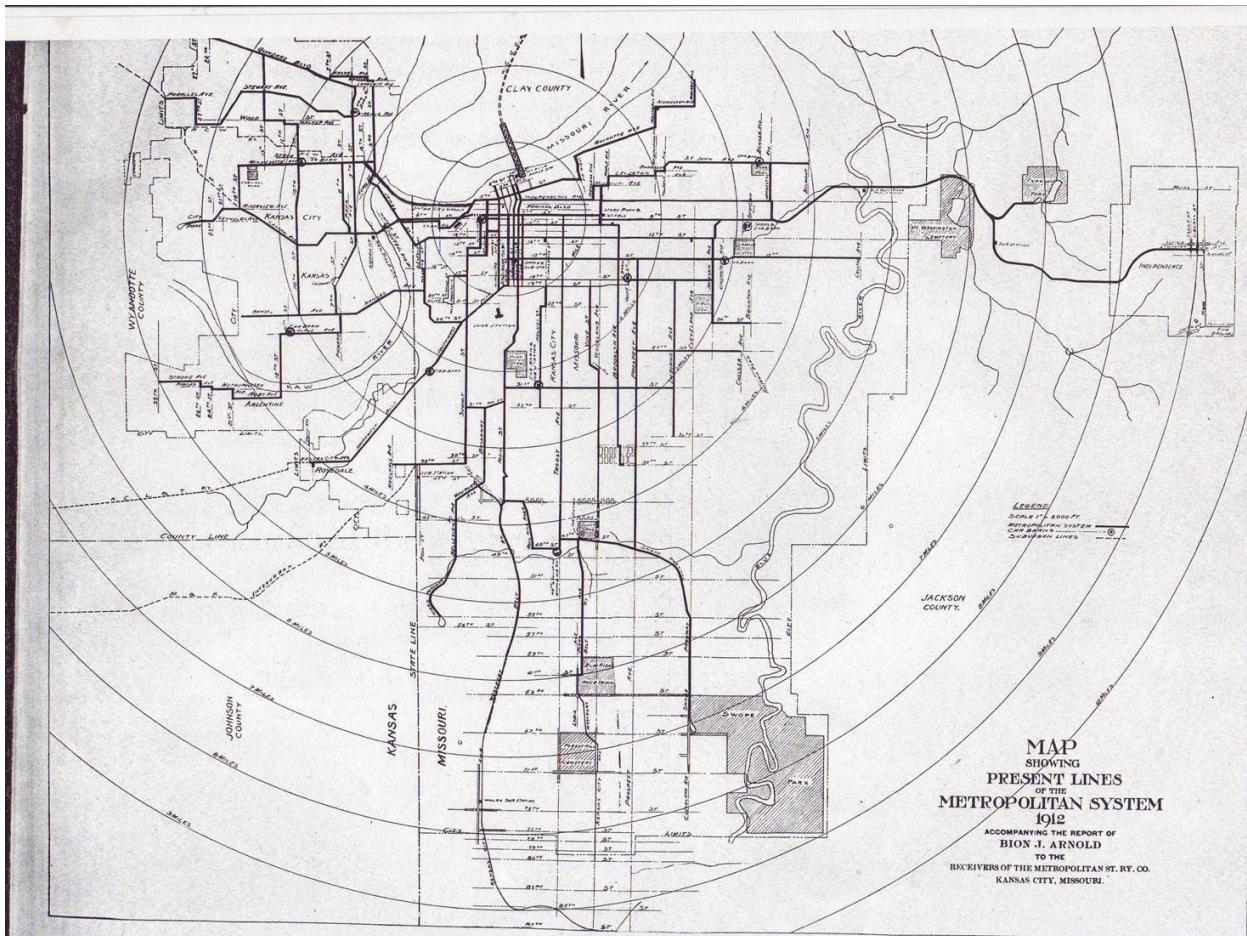
*Metropolitan Street Railway Company, Cable Car Lines. Source: Edward A. Conrad. *Kansas City Streetcars: From Hayburners to Streamliners*, 2011.*

Electric Traction

By 1908, all lines of the Metropolitan Street Railway, except the western section of the 12th Street Line, had been converted to electricity. At the time of the conversion, the Metropolitan operated over 200 miles of single track and maintained 600 cars.²⁹ Most of the principal car types that were used by the Metropolitan were universal throughout the United States. As described in William D. Middleton's *Time of the Trolley*, they included the closed car (the most common type), the open car, the center-entrance car, the convertible car, and the streamlined PCC (developed during the Presidents' Conference Committee during the 1930s).

Kansas City's adoption of the overhead system of current collection was also typical of the rest of the country. This type of system, as characterized by Middleton, employed a trolley pole which was held against an overhead wire by means of spring tension in a swiveling trolley base; power was generated, in the early years, by power houses and later, by substations. Single and double iron tracks featuring various forms of welded or cast joints were commonly used and were set on conventional wooden railroad ties, often supported by steel ties or concrete supports.

²⁹ Carrie Westlake Whitney, *Kansas City, Missouri: Its History and Its People, 1808-1908*, I (Chicago: The S. J. Clarke Publishing Company, 1908), 272-273. The harrowing 12th Street trestle, which carried the westernmost section of the Metropolitan's 12th Street cable line, was the location of the last fragment of Kansas City's entire cable network. The final train ran on October 13, 1913.



The Metropolitan Street Railway System in the Kansas City Metropolitan Area, 1912. Source: Edward A. Conrad. Kansas City Streetcars: From Hayburners to Streamliners, 2011.

It is interesting to note that many years prior to the total electrification of the city's mass transit lines---and even before the introduction of cable traction to Kansas City---John C. Henry, an uncelebrated telegraph operator, was experimenting with the use of over-head cable. Because Kansas City, like other cities across the nation, was in the height of the cable craze, Henry never had the chance to convince the public that his invention had merit. The story of Henry and his legacy to Kansas City can be found in Appendix B.

III. The Original Parks and Boulevard Plan for Kansas City and Its Relation to Public Transportation

Perhaps the most complete example of a comprehensive city plan was the 1893 program for a park and boulevard system for Kansas City, Missouri. Largely envisioned by the brilliant landscape architect George Edward Kessler (1862-1923), the 1893 report fused all of Kessler's prior experience with the Romantic Park movement and the ideals of the City Beautiful. In a nutshell, it preserved the major topographic features of the landscape and joined them together as a continuous open space system with boulevards and parkways. The plan also proposed civic beautification, replacing slums with formal sunken gardens, fountains, pergolas and flowerbeds. Thus, the park and boulevard system of Kansas

City integrated one of the principal goals of the City Beautiful . . . "the monumental and scenic restructuring of the center of the city."³⁰

It is clear that an extensive system throughout the urban core and beyond was well in place by the time that the groundbreaking 1893 report was published, long before the initial park system was designed and constructed. By 1894, Kansas City boasted of the third largest cable system in the country and by 1908, nearly all 200 miles of track had been converted to electricity. A 1925 *Tuttle-Ayers-Woodward Company Atlas of Kansas City, Missouri and Environs* illustrates the exact location of these lines, including multiple tracks in place on all of the proposed alignments that are currently being studied for the expansion of the starter streetcar line. It cannot be ignored that mass transit in Kansas City was a necessary and well-used means of transportation and its location, in many instances, spurred commercial and residential development.

In a letter authored by August Meyer, president of the Park and Boulevard Commissioners, and Adriance Van Brunt, Secretary of the same, to the City Council, Kansas City, the viability of mass transit and incorporated roads in helping to develop not only the boundaries of the park districts, but also the placement of streetcar lines as connections to the entire proposed system, as a holistic view of the city was discussed:

The principal and handsomest streets of the City, and those having the most satisfactory grades, are now occupied by street-car lines, and a rational connection of existing lines . . . will do much towards reconciling our citizens to the abandoning of the best thoroughfares to street-car lines.³¹

Furthermore, the park commissioners, in the seminal 1893 Parks and Boulevards Report, acknowledged the existence of streetcar lines throughout the city and their importance to the growth of the area. To wit:

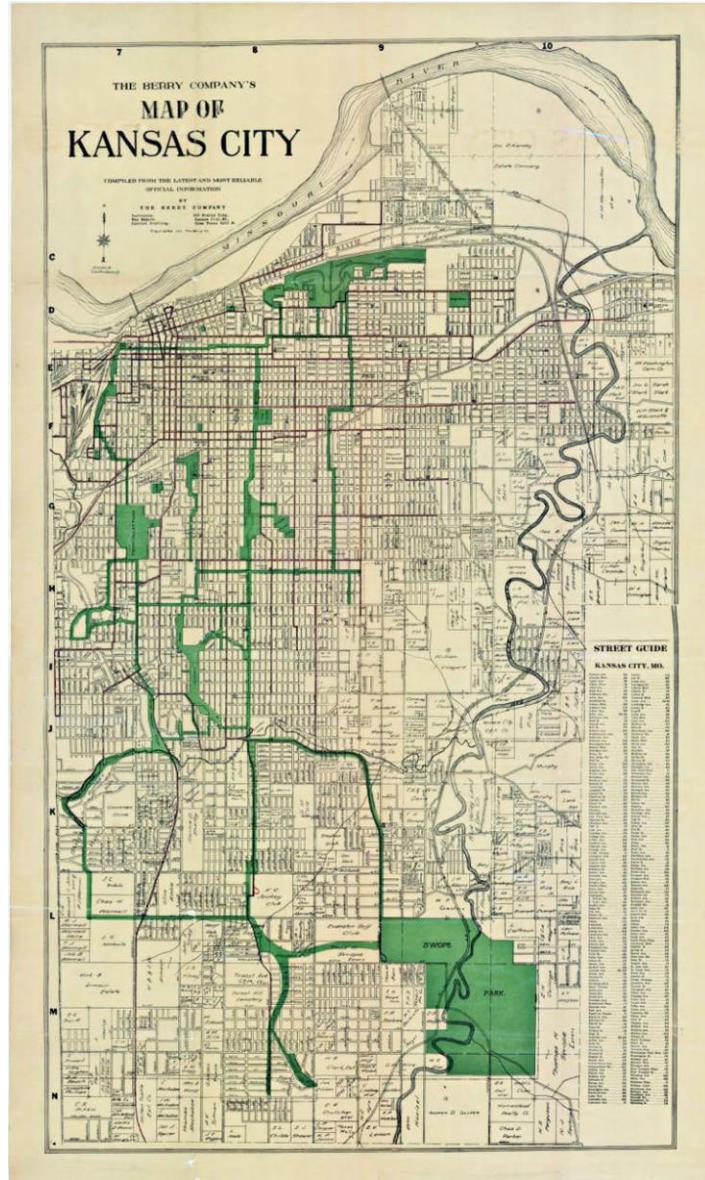
From the natural base line of retail business on Main Street, this business does now and will continue to spread to the streets to the east and west parallel to Main Street, and will also follow certain cross streets to the west and east probably those which are now occupied by street-car lines and which have already assumed the character of principal avenues...Eighteenth and Nineteenth streets, which have good grades and to which cable lines have also given the character of main thoroughfares and business avenues . . .³²

Prior to the design and construction of Kansas City's parks and boulevards system, Meyer, Van Brunt and Kessler, among others, acknowledged the importance of public transportation and in some instances, modified the plans for the system to encompass existing lines throughout Kansas City.

³⁰ As quoted in Tourbier and Walmsley, Inc., Architectural & Historical Research, Kansas City, Missouri and Theis Doolittle Associates, Inc., Kansas City, Missouri, "Landscape Architectural/Historic Survey of Parks and Boulevard, 1893-1940, Kansas City, Missouri," Board of Parks and Recreation Commissioners, Kansas City, Missouri, and Department of Natural Resources, Jefferson City, Missouri, Vol. I, 31.

³¹ Letter to the Honorable City Council (Kansas City, Missouri) from August Meyer and Adriance Van Brunt, 13 October 1892, 11. No. 1250, Reel 59, Frederick Law Olmsted Papers, Library of Congress, Washington, D.C.

³² *Report of the Board of Park Commissioners of Kansas City, Missouri, Embracing Recommendations for the Establishment of a Park and Boulevard System for Kansas City. Resolution of October 12, 1893.* (Kansas City: Hudson-Kimberly Publishing Company, 1893), 28. In the Engineer's Section of the report, authored by George E. Kessler, various streetcar lines are mentioned and that the tracks for these lines should be incorporated into the proposed park and boulevard system. See for instance, page 62.



Map of Kansas City, 1911 (copyright). The pattern of public transportation, as illustrated, parallels that of the park and boulevard system.



IV. Streetcar and City Growth Along the Proposed Alignments

A Summary of Related Independent and Consolidated lines, Neighborhoods and Architectural/Historic Resources

Two of the earliest street transport systems in Kansas City, as noted above, were the Jackson County Horse Railroad Company, servicing the West Bottoms to State Line by 1869; and the Kansas City & Westport Horse Railroad Company with established routes throughout Kansas City reaching Linwood Boulevard by 1871. Most Kansas City horse car lines were narrow gauge, 3' to 6'. Rails often consisted of iron straps nailed to wooden stringers set in unpaved streets. These horse lines operated for nearly two decades before cable lines eventually replaced them.

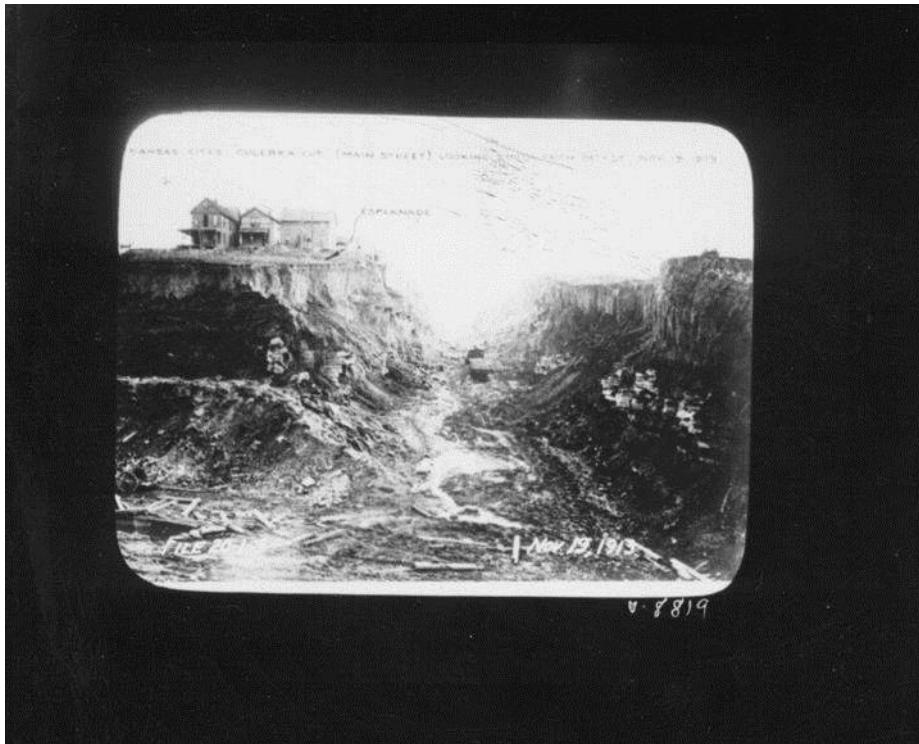
During the mid-1880s, cable lines began replacing the outdated horse lines. The Kansas City Cable Railway Company started laying track eastward on Independence Avenue to Woodland Avenue in 1886.³³ The Metropolitan Street Railway Company (MSRy) took on their most ambitious project, laying a double track from the West Bottoms to an inclined trestle along 12th Street from Hickory Street to the eastern city limits. This cable line began operating in April 1888. Additionally, MSRy's service, eastward along 18th Street reached Cleveland Avenue (the eastern city limits) that same year. The MSRy's Rosedale Line was an upgrade of Southwest Boulevard's horse car route in 1888 with double tracking along the boulevard from 19th and Main to State Line. Of the lines in this study, the Southwest Boulevard route from 19th and Main, extending to Edith Avenue in Rosedale, Kansas, was the first to be electrified in late April 1896.

Serious work of converting the cable system to an electric streetcar began in 1899 with the Independence Avenue line when it was completed east to Hardesty by April 1904. The 12th Street line, traveling east, was converted and running by January 25, 1906. This route remained the busiest line in the city. However, the western leg of the 12th Street line did not operate until the new 12th Street Trafficway Viaduct was completed in 1915.

MSRy completed the conversion of 18th Street, east to Cleveland on October 30, 1900. Two years later, in January 1902, single-track car service along 31st Street, between Main and Indiana, went into operation. However, this line was replaced with double-track cars in 1911; and by 1917 the line was completed to Raytown Road (Hardesty).

In 1911, Metropolitan Street Railway Company decided to tackle the difficult grade on Main Street, between 24th and 27th streets, to extend and connect to the southbound lines. It was not until 1919, with the project completed, when streetcars could finally use the new Main Street route.

³³ Robert Gillham (1854-1899), the pioneer of the cable line in Kansas City, Missouri, established The Kansas City Cable Railway Company, Kansas City's first cable traction enterprise, in 1883. Gillham also engineered the 9th Street Incline and the 8th Street Tunnel.



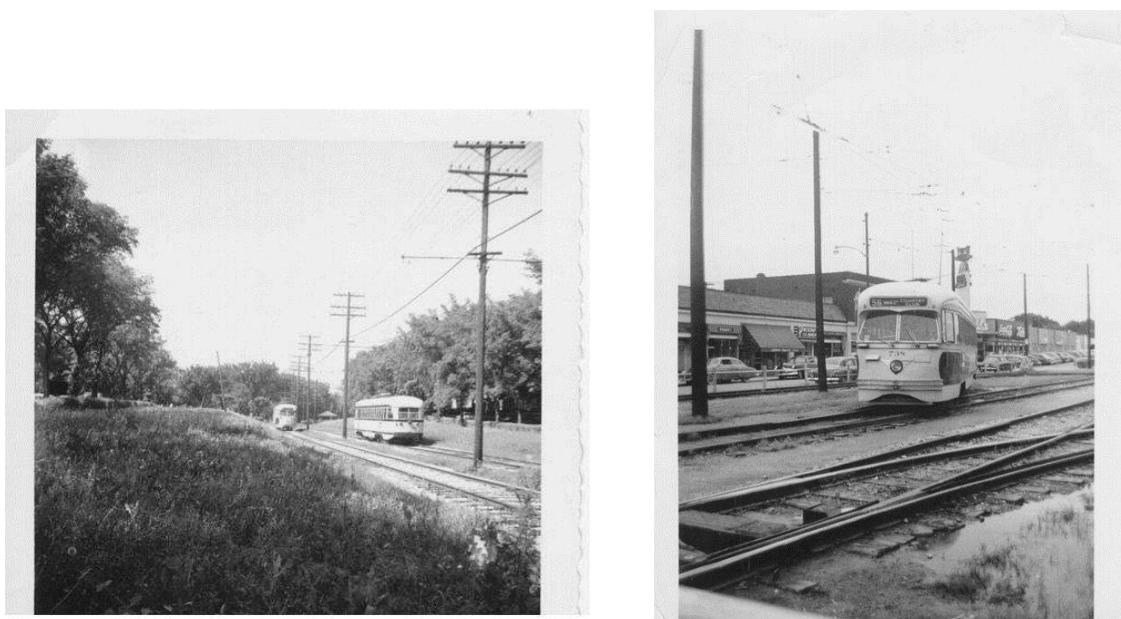
South along Main Street from 24th Street, November 19, 1913. Source: Missouri Valley Room, Special Collections, Kansas City Public Library, Kansas City, MO.

The MS Ry, during the peak of operations, also took over a freight line that ran through Westport to Dodson, Missouri. Originally operated as a steam-powered, dummy freight line, the Dodson Line ran from an eight mile track from 85th and Prospect Avenue to 40th and Summit streets.³⁴ The small-scale team railroad was called a dummy line because its engine was hidden behind the familiar siding of a horse car in order to prevent frightening horses that passed the line on its intercity route. This historic railway was the only facility for transferring freight cars to and from the Westport industrial district. In 1907, the Metropolitan Street Railway Company took over the dummy line and electrified it, maintaining and improving the freight terminals and incorporating the rail line with its passenger-carrying electric system. Passenger and freight cars used the same tracks of the 8-mile route, diverging at the edge of the terminal yards until the last of Kansas City street cars ran on June 23, 1957.

At one time the Dodson Line "gave promise of furnishing the most direct service to the south side of the city." Shortly after the line was electrified, the line was "double-tracked, following the right-of-way to 59th Street," adjacent to the comparatively undeveloped Country Club residential district. The historic Dodson line was later incorporated into the Country Club Line, which operated one of Kansas City's most picturesque streetcar routes along the private right-of-way. This historic remnant of the Country Club Line, owned by the KCATA, remains intact. A portion of this route was converted into a pedestrian/bicycle trail.

³⁴ The Dodson Line has its roots in the Kansas City and Clinton Branch of the Tebo and Neosho Railroad Company (1870). It later took the title of the Kansas City, Memphis and Mobile Railroad Company and in 1880 it was sold to the Kansas City Southern Railway Company. The property was next acquired by the Kansas City and Southeastern Railways Company and then by the Kansas City and Westport Belt Railway Company incorporated on July 16, 1897. The Dodson line was operated by the KC&WBR, which leased cars and purchased power from the Metropolitan Street Railway Company from 1907. Under the terms of the franchise of July 7, 1914, the Kansas City & Westport Belt was merged with the Kansas City Railways Company; thus the Dodson line became the property of the KCR Company. See *Report . . . On the Value of the . . . Metropolitan Street Railway System*, 126-127; "The Dodson Line," *The Railwayan* 6 (January 1923), 11; "Community Freight Service," *Electric Railway Journal* 58 (1921), 242.





Route 56, at 66th and Wornall Road, c. 1950 (left) and 75th and Wornall Road, 1950 (right).
Source: Missouri Valley Room, Special Collections, Kansas City Public Library, Kansas City, Missouri.

In 1920 Kansas City Railways, who took over the assets of the MSRY (see above) recommended a plan that called to drastically eliminate movement through downtown intersections, reduce the amount of cars that were not functioning at or near capacity and reroute various lines. This plan was stated to save the city approximately \$620,000 annually. Whether or not this plan was implemented in part or totally, ridership was at its historical peak in 1922 with 136,076,541 riders. By 1927 the Kansas City Public Service Company's new franchise did not provide for any additional lines in the city as the system was considered to be overbuilt.

Independence Avenue was the first line to introduce the trolley bus, which was more economic to run than either the streetcar or bus. By 1948, "seven trolley bus lines had replaced existing streetcar lines," and "in the early months of 1954, the first of these lines was replaced with motorbuses. All [streetcar] lines were gone by 1959."³⁵

Mass Transportation and its Effect on the Growth of Kansas City

Historians and journalists who have written about the relationship of mass transportation to the growth and development of America's cities offer varied opinions. For example, urban historian and architect Dolores Hayden in her book *Building Suburbia* concludes that the transition to the electric streetcar changed the aesthetics of the urban streetscape with its numerous poles, wires and related contraptions. This, in turn, forced many from the urban centers of America and created "streetcar suburb housing" in concentric rings around the city's core.³⁶ Similarly, in Kansas City, historians Sherry Lamb Schirmer and Richard McKenzie point to mass transit development coupled with the real estate boom of the 1880s in generating an impulsive flight to the suburbs where builders constructed shoddy residences near or on streetcar lines, "to the south and more especially to the east."³⁷

³⁵ Conrad, *Kansas City Streetcars: From Hayburners to Streamliners*, 219.

³⁶ Dolores Hayden. *Building Suburbia: Green Fields and Urban Growth, 1820-2000*. (New York: Vintage Books, A Division of Random House, 2003), 75-76. Hayden reports that in Europe, owners of streetcar companies were "forbidden" to participate in land speculation, unlike America, where "land subdivision . . . was seen by businessmen as related to the electric trolley business, like 'two pockets in the same man's trousers.'" 93.

³⁷ Sherry Lamb Schirmer and Richard McKenzie. *At the River's Bend: An Illustrated History of Kansas City, Independence and Jackson County*, 99.

Of a similar tone, yet with a somewhat positive spin, contemporary journals and periodicals claim that as the streetcar system kept spreading over a wide swath of the metropolitan area, people were more inclined to move ahead of the line, so to speak. Developers built subdivisions and individual homes on speculation and with close streetcar connections many were induced to find their way to the suburbs. As described in *Manufacturer and Jobber*:

Many a man has been able to purchase a home cheaply in a new portion of the city that was touched by the extension of a division where otherwise if he did not have the proper transportation facilities at his disposal he would still be paying rent and the real estate in that section would still be looked upon as only being available for farming purposes.³⁸

Certainly the growth of Kansas City along the proposed streetcar alignment routes was strongly aligned with the development of mass transit. With the advent of the horse car lines, residents and businesses scattered along Independence, Main and 18th Street found transportation in these sparsely populated, yet newly developing neighborhoods. Overall, the horse lines provided these areas, mostly to the east of the city's core, with the only means of public transportation, affordable or not.

As horse lines converted to cable lines beginning in 1885, the existing neighborhoods grew and improved, while the city as a whole witnessed unprecedented expansion. Cable lines were responsible, to a great degree, of the success and population growth of Kansas City. Gillham's Kansas City Cable Railway Company, officially opened on June 15, 1885, was met with unbridled enthusiasm. "Everybody acknowledged its significance in binding the community together economically."³⁹ Kansas City clearly profited from Gillham's and subsequent cable lines; the population exploded to 132,716 in 1890 from 55,785 a decade before; an increase of 137%. Cable was a strong incentive for advancement, while at the same time, enhanced the vitality of established businesses located closer to the center of the city.⁴⁰

On the other hand, once electric traction took over public transportation in Kansas City, the Board of Park and Boulevard Commissioners, with George Kessler, had introduced the initial park and boulevard system, a scheme that encompassed lands to the north, east and south. The march of population soon followed this City Beautiful Movement plan and through the course of implementation, electric traction often paralleled the new boulevard routes. The influence of Kessler's plan to Kansas City, coupled with the expansion of public transportation, was profound.

Kansas City, by 1940 (17 years before the demise of the streetcar) "occupied by far the greatest area of any urban center in America in its population classification."⁴¹ Kansas City Public Service Company, who owned the mass transit franchise, served a population of approximately ½ million people spread out over "an area of nearly 100 square miles."⁴² St. Louis, Cleveland and Boston, for example, with double the population, respectively, were all dispersed over similar sized land. For that reason alone, Kansas City operated "522 miles of track, trolley lines and motor bus routes, a total substantially equal to that in most cities possessing twice her population and, therefore, twice the potential number of patrons." The large area served (including building outside the city limits), "with its low density of population may make for good living conditions, but it also presents difficult transportation conditions . . . long hauls and lowest revenue per mile of operation."⁴³

The Proposed Alignments and the Potential for Development

A reconnaissance survey of historic resources found along each of the proposed alignments for NextRailKC was conducted and the results can be found on pages 25-39. The potential for development along these alignments takes into consideration the range of historic properties, demographics, density,

³⁸ "Street Railway Facilities." *Manufacturer and Jobber* (December 28, 1907), 731.

³⁹ Conrad, 48.

⁴⁰ Conrad points out that the cable line in the West Bottoms to the stockyards was built prior to development and need. Charles Adams, the "principal owner of the stockyards" was also a prime investor in the MS Ry. See page 50.

⁴¹ "How Mass Transportation is Conducted in Greater Kansas City, the Heart of America." *Mass Transportation* 36 (November 1940), 286.

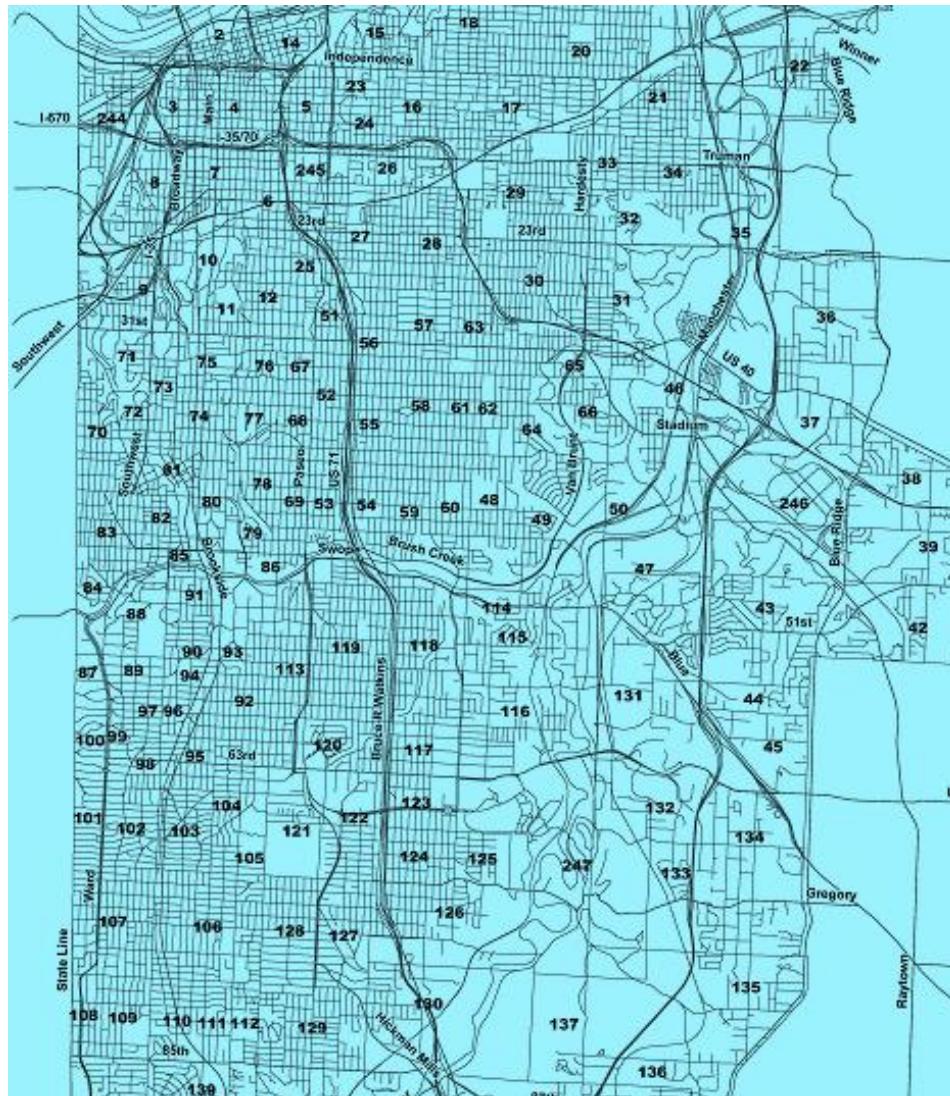
⁴² *Ibid.*

⁴³ *Ibid.*



residential neighborhoods, commercial/industrial sites and parks and boulevards. Certainly not scientific in nature, the ranking of these alignments, from 1 (the least desirable) to 5 (the most desirable) are as follows:

- Independence Boulevard: 4
- 12th Street East: 3
- 12th Street West: 3
- 18th Street: 4
- Linwood/31st Street: 2
- Main Street: 5
- Southwest Boulevard: 1
- Country Club Right of Way



Kansas City Neighborhoods Map

This map is keyed by number to the various neighborhoods within Kansas City from the Missouri River south to 85th Street and from State Line east to Raytown Road/435. Several of these neighborhoods are located within or along the eight proposed streetcar alignments. For specific neighborhood locations relative to NextRail, see the following individual charts, pages 25-39. Source: Neighborhood and Housing Services Department, City of Kansas City, Missouri. Map produced April 3, 2013.

Independence Avenue

Neighborhoods Keyed to Neighborhood Map	Boundaries	Date Established	Historic Properties / Additional Features
14: Columbus Park (5: Paseo West)	Missouri River to I-29-35-70 / Cherry to I-29-35	Late 19 th Century	Holy Rosary Historic District, roughly bounded by 5th and Campbell, 5th and Harrison and 9th E. Missouri Ave.
15: Pendleton Heights (23: Parkview)	Cliff Drive to Independence Avenue / Paseo to Chestnut	c.1870-1880	Pendleton Heights Historic District (KC Register) Terrace Park
18: Scarritt Renaissance	Cliff Drive to Independence Avenue / Chestnut to Jackson	c.1880s	Scarritt Point North Historic District (MAP [see note]), roughly along Gladstone Blvd., Windsor, Bales, Indiana, and Norledge Aves Scarritt Point South Historic District (MAP [see note]), roughly along Gladstone and Benton Blvds., and Thompson Ave. Also on Kansas City Register) Other resources: Columbus Park Neighborhood West Entrance to North Terrace Park Kansas City University of Osteopathy Christ Presbyterian Church Chestnut Trafficway Independence Boulevard Christian Church Gladstone Boulevard Benton Blvd. Perky Brothers Transfer Building Van Brunt Boulevard Thatcher School Kansas City Nut and Bolt / Armco Steel Sheffield Neighborhood Ford Plant Independence Square Independence Plaza

Independence Avenue

Neighborhoods Keyed to Neighborhood Map	Boundaries	Date Established	Historic Properties / Additional Features
Scarritt Renaissance cont.			Maple Boulevard Prospect Boulevard Belmont Boulevard The Paseo
16: Independence Plaza	Independence to I-70 / Paseo to Benton Boulevard	c. 1890-1900	Horse Drawn Fire Station: 6 th and Prospect Passantino Brothers' Funeral Home Old Home Telephone Building Speedy's: 9 th and Prospect
20: Indian Mound (includes: Budd Park/17: Lykins)	Gladstone Avenue to Independence Avenue / Jackson to Belmont	c. 1895-1900	Budd Park Northeast High School Kessler Park
21: Sheffield (22: North Blue Ridge)	Kansas City Terminal RR tracks to 12 th Street / Belmont (approx.) to Winchester	c. 1880 (incorporated to City in 1897)	<i>Oldest industrial district</i> Kansas City Nut and Bolt (Armco Steel) Ford Plant (Albert Kahn, archt.) Our Lady of Peace Church Ford/Sheffield Park

East 12th Street

Neighborhoods Keyed to Neighborhood Map	Boundaries	Date Established	Historic Properties / Additional Features
4: Central Business District (CBD)	Late 1880s/early 1900s.	<p><u>Chambers Building</u>, 25 East 12th Street, Kansas City</p> <p><u>Argyle Building</u>, 306 E. 12th St., Kansas City</p> <p><u>Boley Building</u>, 1130 Walnut St., Kansas City</p> <p><u>Mercantile Bank & Trust Building</u>, 1101 Walnut St., Kansas City</p> <p><u>Jenkins Music Company Building</u>, 1217-1223 Walnut St., Kansas City</p> <p><u>Professional Building</u> (Bryant Building), 1101-07 Grand Ave., Kansas City</p> <p><u>Bryant Building</u>, 1102 Grand Ave., Kansas City</p> <p><u>Gate City National Bank Building</u>, 111 Grand Ave., Kansas City</p> <p><u>Palace Clothing Co. Building</u>, 1126-1128 Grand Ave., Kansas City</p> <p><u>Bonfils Building</u>, 1200 Grand Ave., Kansas City</p> <p><u>Exchange Building</u>, 1201-1207 Grand Blvd., Kansas City (</p> <p><u>Curtiss Louis Studio Building</u>, 1116-1120 McGee St.,</p> <p>Additional Resources: Civic Center Illus Davis Park</p>	<p><u>Chambers Building</u>, 25 East 12th Street, Kansas City</p> <p><u>Argyle Building</u>, 306 E. 12th St., Kansas City</p> <p><u>Boley Building</u>, 1130 Walnut St., Kansas City</p> <p><u>Mercantile Bank & Trust Building</u>, 1101 Walnut St., Kansas City</p> <p><u>Jenkins Music Company Building</u>, 1217-1223 Walnut St., Kansas City</p> <p><u>Professional Building</u> (Bryant Building), 1101-07 Grand Ave., Kansas City</p> <p><u>Bryant Building</u>, 1102 Grand Ave., Kansas City</p> <p><u>Gate City National Bank Building</u>, 111 Grand Ave., Kansas City</p> <p><u>Palace Clothing Co. Building</u>, 1126-1128 Grand Ave., Kansas City</p> <p><u>Bonfils Building</u>, 1200 Grand Ave., Kansas City</p> <p><u>Exchange Building</u>, 1201-1207 Grand Blvd., Kansas City (</p> <p><u>Curtiss Louis Studio Building</u>, 1116-1120 McGee St.,</p> <p>Additional Resources: Civic Center Illus Davis Park</p>
7: Crossroads	Late 1880s	<p>Independence Avenue to I-70 / HWY 71 to Brooklyn Avenue</p> <p>245: Dundee (and Jazz Heritage) 24: Forgotten Homes</p>	c.1900

East 12th Street

Neighborhoods Keyed to Neighborhood Map	Boundaries	Date Established	Historic Properties / Additional Features
Paseo West / Dundee / Forgotten Homes, cont.			New England Apartments (<i>Apartment Buildings on the North End of the Paseo Boulevard in Kansas City, Missouri MPS</i>), 1116 Paseo Blvd. Circle Apartments (<i>Apartment Buildings on the North End of the Paseo Boulevard in Kansas City, Missouri MPS</i>), 1200 Paseo Blvd. Maine Apartments (<i>Apartment Buildings on the North End of the Paseo Boulevard in Kansas City, Missouri MPS</i>), 1300 Paseo Blvd.
17: Lykins 29: East Community Team North	See also East 18 th Street		
33: West Blue Valley 34: East Blue Valley	12th Street to I-70 / Van Brunt to I-435	c. 1890	Elmwood Cemetery , E. 12 th Street (4900 Truman Rd.)
35: Blue Valley Industrial	See also East 18 th Street		Overlap with East 18 th Street

West 12th Street

Neighborhoods Keyed to KC Preservation Map	Boundaries	Date Established	Historic Properties / Additional Features
3: Quality Hill 4: Central Business District (CBD) 8: Westside North	Mid - Late 1800S	Quality Hill roughly bounded by Broadway, 10th, 14th, and Jefferson Sts. <u>Continental Hotel</u> (<u>Hotels in Downtown Kansas City TR</u> [see note*]), 106 W 11th St. <u>Hotel Phillips</u> , 106 W 12th St. <u>Kansas City Club Building</u> , 1228 Baltimore Ave., <u>Standard Theatre</u> , 300 W 12th St. <u>West Eleventh Street Historic District</u> (MAP [see note]), Central and W 11th Sts. Additional Resources: Folly Theater (KC Reg.) Quality Hill West Historic District (KC Reg.) Cathedral of the Immaculate Conception	
244: West Bottoms	Mid - Late 1800S	<u>Marty. Albert. Building</u> (<u>Railroad Related Historic Commercial and Industrial Resources in Kansas City MPS</u>), 1412-1418 W. 12th St. <u>Kansas City Southern Railway Building</u> (<u>Railroad Related Historic Commercial and Industrial Resources in Kansas City MPS</u>), 114 W. 11th St. Additional Resources: Potential Historic District 12 th Street Trafficway Viaduct West Bottoms Industrial District	



East 18th Street

Neighborhoods Keyed to Neighborhood Map	Boundaries	Date Established	Historic Properties / Additional Features
Midtown District 7: Crossroads 6: Hospital Hill	1880 - 1940	<p>TWA Corporate Headquarters' Building, 1735-1741 Baltimore Ave.; 1740 Main St. <u>Globe Storage and Transfer Co. Building</u>, 1712 Main St. <u>Stenzel, R.O. and Co. Warehouse (Railroad Related)</u> (MPS), 1811 Walnut. <u>Corrigan, Thomas, Building</u>, 1828 Walnut. <u>City Bank Building</u>, 1801 Grand Ave. <u>Hesse Carriage Co. Building</u>, 1700 Oak St. <u>Auto Coach Building</u>, 1730-34 Oak St. <u>Kirkwood Building</u>, 1737-1741 McGee Street. <u>Montgomery Ward and Company General Merchandise Warehouse (Railroad Related)</u> (MPS), 819 E 19th St. (<i>Tension Envelope Bldg.</i>)</p> <p>Additional Resources:</p> <ul style="list-style-type: none"> Kansas City Star and Annex East Crossroads Artist Lofts Lyric Opera Stern Center Preview Studios Kansas City ATA: The Metro 	
26: 18th and Vine 27: Wendell Phillips	c. 1880- 1940s	<p><i>Also known as the "Jazz District"</i></p> <p><u>Mutual Musician's Foundation Building</u>, 1823 Highland Ave. (NHL 12/21/81) <u>Paseo YMCA (Historic Resources of the 18th and Vine Area MPS</u>; 1824 The Paseo.</p> <p>18th and Vine Historic District Roughly bounded by 18th St., Woodland Ave., 19th St. and The Paseo.</p>	

East 18th Street

Neighborhoods Keyed to Neighborhood Map	Boundaries	Date Established	Historic Properties / Additional Features
18 th and Vine cont.			Attucks School (<i>Historic Resources of the 18th and Vine Area MPS</i>), 1815 Woodland Ave. Additional Resources: The Call newspaper Office Slice Community Center
28: Washington Wheatley	18 th Street - 27 th Street / The Paseo - I-70	c. 1900	Wheatley Provident Hospital Bowers Memorial Lincoln High School (Academy) Phyllis Wheatley House Phyllis Wheatley School Holy Name Church Luther's Florist
17: Lykins 29: East Community Team North (AKA: Parade Park)	Benton Boulevard - Hardesty / Independence Avenue - I-70 (Truman and KC Terminal RR)	Mid - Late 1800s (one house dates to 1865)	Kensington Elementary School St. Paul's Theological Seminary
32: Central Blue Valley 33: West Blue Valley 34: East Blue Valley			Trailwoods Elementary
35: Blue Valley Industrial			Oldest Industrial area in KCMO (See also 12 th Street and Independence Blvd.)

31st Street / Linwood Boulevard

Neighborhoods Keyed to KC Preservation Map	Boundaries	Date Established	Historic Properties / Additional Features
Neighborhoods along 31 st Street / Linwood Boulevard	The neighborhoods that developed along the 31 st Street and Linwood route share many of the same landmarks and attributes, often claiming the same landmarks to be of great importance to their communities both culturally and socially.	c. 1905	"Additional Features" located along 31 st Street and Linwood Boulevard overlap the many communities established after 1905.
11: Union Hill 12: Longfellow / Dutch Hill 75: Broadway-Gillham 76: North Hyde Park 27: Wendell-Phillips	Moving east along 31 st Street beginning at Main ending at Prospect Avenue.	c. 1887-1905	Aines Farm Dairy Building, 3110-30 Gillham Rd. <u>Hyde Park West Historic District</u> . Old (MAP [see note]), roughly bounded by Linwood Blvd., Central, 39th St., and Baltimore St. See also: Main Street Apartment Historic District (KC Register) Additional Resources: Linwood Boulevard Gillham Plaza Colonnaded Apts. at Main Charlotte and Campbell Historic Homes Longfellow Heights
51: Mount Hope 67: Center City 51: Mount Hope 56: Key Coalition		c. 1905	<u>McConahay Building</u> (Walt Disney Studio), 1121-1131 E 31st St. <u>Woolworth, F. W. Building</u> , 3120-3122 Troost Ave. <u>Kansas City Athenaeum</u> , 900 E Linwood Blvd. Additional Resources: Nazarene Publishing Company Linwood Shopping Center St. Vincent's Catholic Church Harold Thomas Center

31st Street / Linwood Boulevard

Neighborhoods Keyed to KC Preservation Map	Boundaries	Date Established	Historic Properties / Additional Features
57: Santa Fe		c. 1893-1905	<u>Disney.</u> <u>Walt.</u> <u>House</u> and <u>Garage.</u> 3028 Bellefontaine Ave. <u>Santa Fe Place Historic District</u> (MAP [see note]), roughly bounded by 27th St., Linwood Blvd., Indiana and Prospect Aves. Additional Resources: Former Satchel Paige Residence
63: Ingleside 65: Boulevard Village 31: South Blue Valley		c. 1905	
75: Broadway-Gillham 76: North Hyde Park		c. 1905	
52: Linwood Homeowners-Ivanhoe 56: Key Coalition 57: Santa Fe 58: Oak Park Northwest 61: Palestine West and Oak Park Northeast 62: Palestine East			<u>Linwood Presbyterian Church and Home for Convalescent Employed Women</u> , 1801 Linwood Blvd., & 3212 Michigan Ave., Kansas City <u>Ivanhoe Masonic Temple</u> , 2301 E Linwood Blvd. and 3201 Park Ave., Kansas City (5/02/85) Acme Cleaning Company (KC Register) St. Regis Hotel (KC Register) Gotham Apartments (KC Register) The Aurora Apartments (KC Register) Linwood Boulevard Colonnaded Additional Resources: Mount Sinai Church Richardson School



31st Street / Linwood Boulevard

Neighborhoods Keyed to KC Preservation Map	Boundaries	Date Established	Historic Properties / Additional Features
63: Ingleside 64: Knoches Park 65: Boulevard Village		c. 1905	Lucille L. Bluford Public Library Central Middle School Greenwood Elementary Central Christian Church Former Hauck's Funeral Home 27 th & Cleveland St. Mark's Central Park Mt. Carmel Church Phyllis Wheatley Elem. School Central High School Milton Moore Elem. School Greater Corinthian Church Chelsea Park Friendship Baptist Church Van Brunt Boulevard Seton Center Sanford B. Ladd School Oak Park Jamison Temple Martin Luther King School Palestine Estates Rising Star Church Mount Vernon Church Allen Chapel Canaan Baptist Church Prince of Peace Church Palestine Community Center Benton Boulevard

31st Street / Linwood Boulevard

Neighborhoods Keyed to KC Preservation Map	Boundaries	Date Established	Historic Properties / Additional Features
Ingleside - Boulevard Village cont.			Satchel Paige Memorial Stadium YMCA at Linwood and Cleveland Linwood Park Monument at 31 st and Benton Sanford Brown Park Spring Valley Park Palestine Senior Center at 33 rd & Prospect St. Augustine Episcopal Church D. A. Holmes School Markers at Benton and 27 th and 31 st Sts. Pleasant Green Baptist Church Linwood Shopping Center Veterans Administration Hospital Abandoned National Guard Post at 31 st / Linwood /Van Brunt Industrial Area
46: Leeds			

The neighborhoods along 31st Street and Linwood Boulevard, east of Troost consist of many neighborhood associations that were established well after 1960.



Southwest Boulevard

Neighborhoods Keyed to KC Preservation Map	Boundaries	Date Established	Historic Properties / Additional Features
9: West Side South	12 th - 31 st St / Beardsley; KC Term. RR; Southwest Boulevard to Broadway	C. 1880	<p>Kansas City Terminal Railway Co. Roundhouse Historic District, 27th St. and Southwest Blvd.</p> <p><u>IMPERIAL BREWING CO. BREWERY</u> (Railroad Related Historic Commercial And Industrial Resources In Kansas City Mps), 2825 Southwest Blvd.</p> <p>Additional Resources: La Colonia Westside Historic Fire Station No. 9 Guadalupe Center Plaza de Ninos Irene H Ruiz Biblioteca Casa Feliz</p> <p>Additional Historic Properties in Neighborhood: <u>Howe, Frank M., Residence</u>, 1707 Jefferson St. <u>Guadalupe Center</u>, 1015 Avenida de Cesar Chavez <u>Peppard, Joseph Grear, House</u>, 1704 Jefferson St. <u>Sacred Heart Church, School and Rectory</u>, 2540-2544 Madison Ave. and 910 W 26th St.</p>

Main Street (Pershing To 51st Street)

Neighborhoods (West from Main moving East)	Boundaries	Date Established	Historic Properties / Additional Features
10: Crown Center 11: Union Hill 6: Hospital Hill 12: Longfellow 75: Broadway-Gillham 76: North Hyde Park 74: Hanover Place 77: Central Hyde Park 81: Old Westport 80: Southmoreland 82: Plaza Westport 85: Country Club 79: Rockhill	Main Street Corridor, including neighborhoods from Pershing Avenue - 51 st Street.		<p><u>Hyde Park East Historic District</u>, <u>Old</u> (MAP [see note]), roughly bounded Armour Blvd., Walnut St., 39th St., and Gillham Rd., Kansas City (5/27/04)</p> <p><u>Hyde Park Historic District</u> (MAP [see note]), Hyde Park, Kansas City (11/21/80)</p> <p><u>Hyde Park West Historic District</u>, <u>Old</u> (MAP [see note]), roughly bounded by Linwood Blvd., Central, 39th St., and Baltimore St., Kansas City (5/27/04)</p> <p><u>Row House Buildings</u> (boundary increase), 3401 Main, and 1-7 and 9-23 E 34th St.</p> <p><u>Row House Building</u>, 3401 Main and 1-7 E 34th St.</p> <p><u>Dean, O.H. Building</u>, 3625-3635 Main St.</p> <p><u>Kuehne-Schmidt Apartments</u> 3737-39 and 3741-43 Main St.</p> <p><u>Tocoma</u> (The Netherlands), 3835 Main St.</p> <p><u>South Side Historic District</u> (MAP [see note]), roughly bounded by 38th, 40th, Walnut, and Baltimore Sts.</p> <p>Additional Resources:</p> <ul style="list-style-type: none"> Pershing Road Katz Drugstore (KC Reg.) 39th and Main Historic District (KC Reg.) Southmoreland Neighborhood Historic District (KC Reg.) Old Hyde Park Historic District (KC Reg.) Rockhill Historic District (KC Reg.)

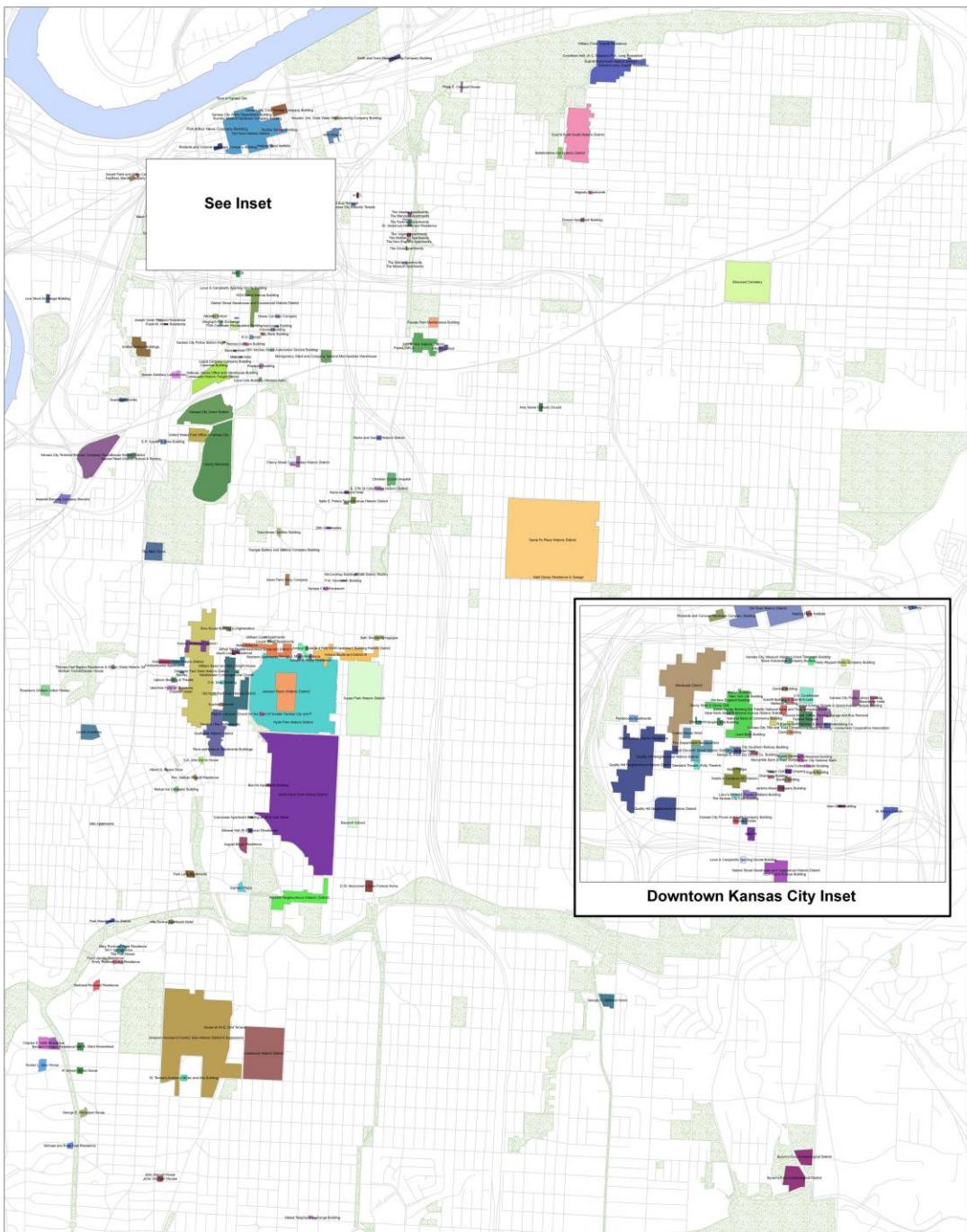
Country Club Line (51st Street to 85th Street)

Neighborhoods (West from Main moving East)	Boundaries	Date Established	Historic Properties / Additional Features
85: Country Club Plaza		c. 1910	<u>Simpson-Yeomans Country Side Historic District</u> , roughly bounded by 51 st Terr., Wornall Rd., Wyandotte and 54th Sts. (Also on KC Register) <u>Simpson-Yeomans Country Side Historic District</u> (boundary increase), general vicinity of W51 Terrace, Wornall Rd., W F7, W 57th St.
86: Park Central-Research Park		c. 1910	See above
91: South Plaza		c. 1920	See above
113: Eastern 49-63		c. 1910-1920	Kansas City Young Matrons Club House, 5 ¹ st and Oak - KC Register J.C. Nichols Residence -KC Register
93: Crestwood		c. 1920	<u>Crestwood Historic District</u> (<u>MAP</u> [see note]), roughly bounded by Oak St., the jct. of Cherry and Locust Sts., Holmes St., and 56th St.
94: Brookside		c. 1920	Brookside Shopping District
92: Western 49-63		c. 1910-1920	
96: Wornall Homestead		c. 1900	<u>Wornall, John B., House</u> , 146 W 61st Terrace (Also on KC Register)
95: Morningside		c. 1900	
103: Armour Hills		c. 1910-20	
104: Oak Meyer Gardens		c. 1910-20	
105: Holmes Park		c. 1910-1920	

Country Club Line (51st Street to 85th Street)

Neighborhoods Keyed to Neighborhood Map	Boundaries	Date Established	Historic Properties / Additional Features
106: Tower Homes / Rockhill Gardens	Gregory - 82 nd / Wornall - Troost	c. Late - 1880s	See also: Waldo Homes
110: Waldo Homes Waldo cont.		c. Late - 1800s	Waldo was an early "suburb" of Kansas City, established and the Town of Waldo pre-1900. Named after Dr. David Waldo who purchased land in 1828.
111: Rolling Meadows			
112: Rockhill Manor	79 th - 85 th / Holmes Road to Troost Avenue	c. 1900	Trolley Trail
129/130: Marlborough Neighborhoods (4) Marlborough Heights Marlborough Pride Marlborough East Marlborough South		c. 1947 annexed by Kansas City, MO	

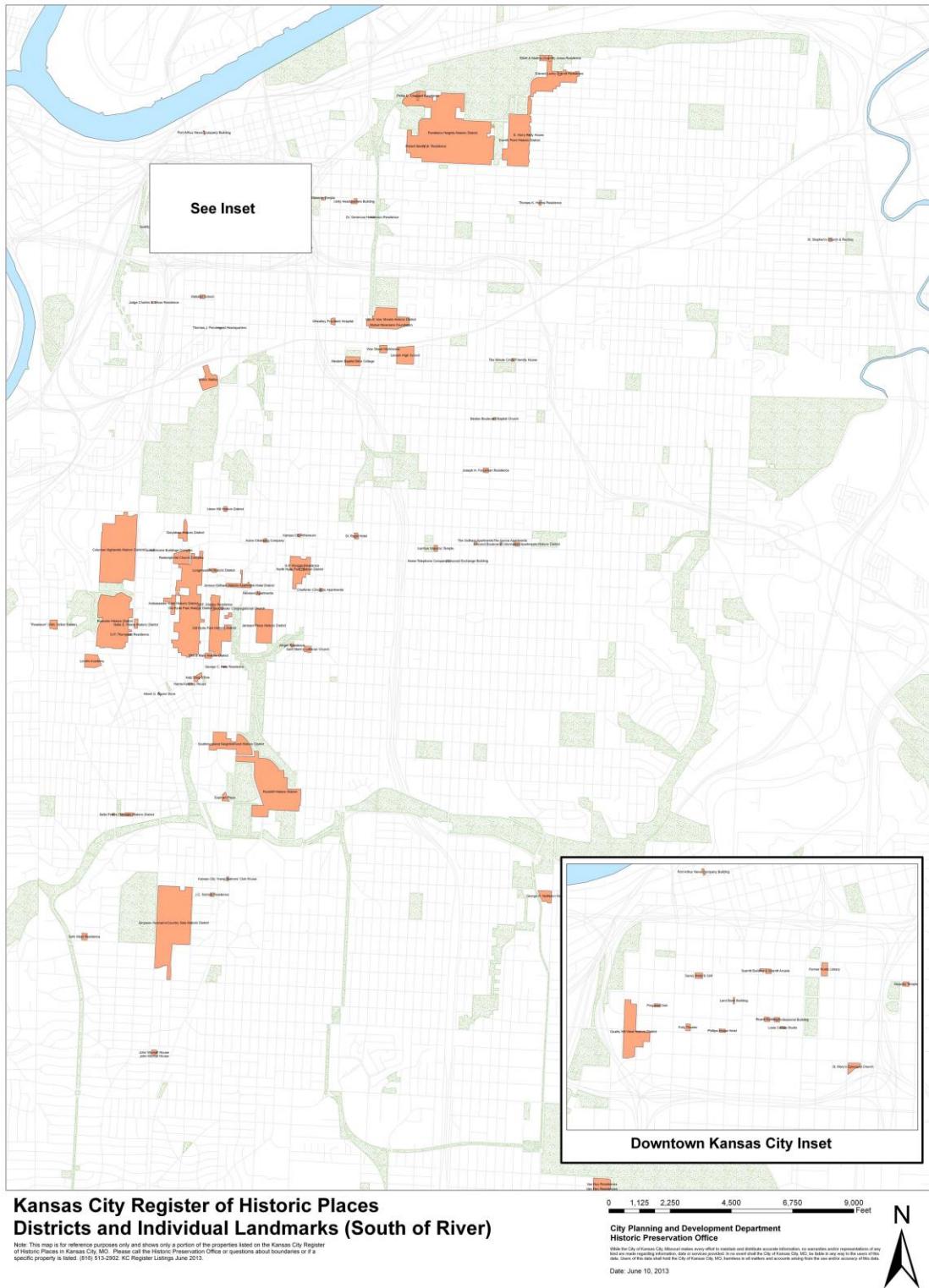




National Register of Historic Places Districts and Individual Landmarks (South of River)

Note: This map is for reference purposes only and shows only a portion of the properties listed on the National Register of Historic Places in Kansas City, MO. Please call the Historic Preservation Office or questions about boundaries or a specific property at (816) 513-2002. All National Register listings as of June 10, 2013.

0 1,100 2,200 4,400 6,600 8,800 Feet
N
City Planning and Development Department
Historic Preservation Office
While the City of Kansas City, Missouri makes every effort to maintain and distribute accurate information, no warranties or other representations of any kind are made regarding the accuracy of the information contained in this map. The map is provided "as is" without warranty of any kind. The City of Kansas City, Missouri does not warrant the map to be free from errors or omissions. The City of Kansas City, MO, has made no materials or documents arising from the use of this document available on the Internet.
Date: June 10, 2013



Appendix A:

A series of Tuttle-Ayres-Woodward Company Atlas plates published in 1925 illustrate electric traction lines on Main Street and selected east/west connections. These lines correlate to the Downtown Streetcar Starter line and the majority of the proposed alignments for the subsequent phase. Details of relative plates are of portions of Main Street (the Downtown Streetcar Starter Line) and the majority of the proposed NextRail alignments.



Independence Line as it appeared in 1925; double-track connecting with Grand Avenue (now Boulevard) and Main Street. Detail of Plate 183.

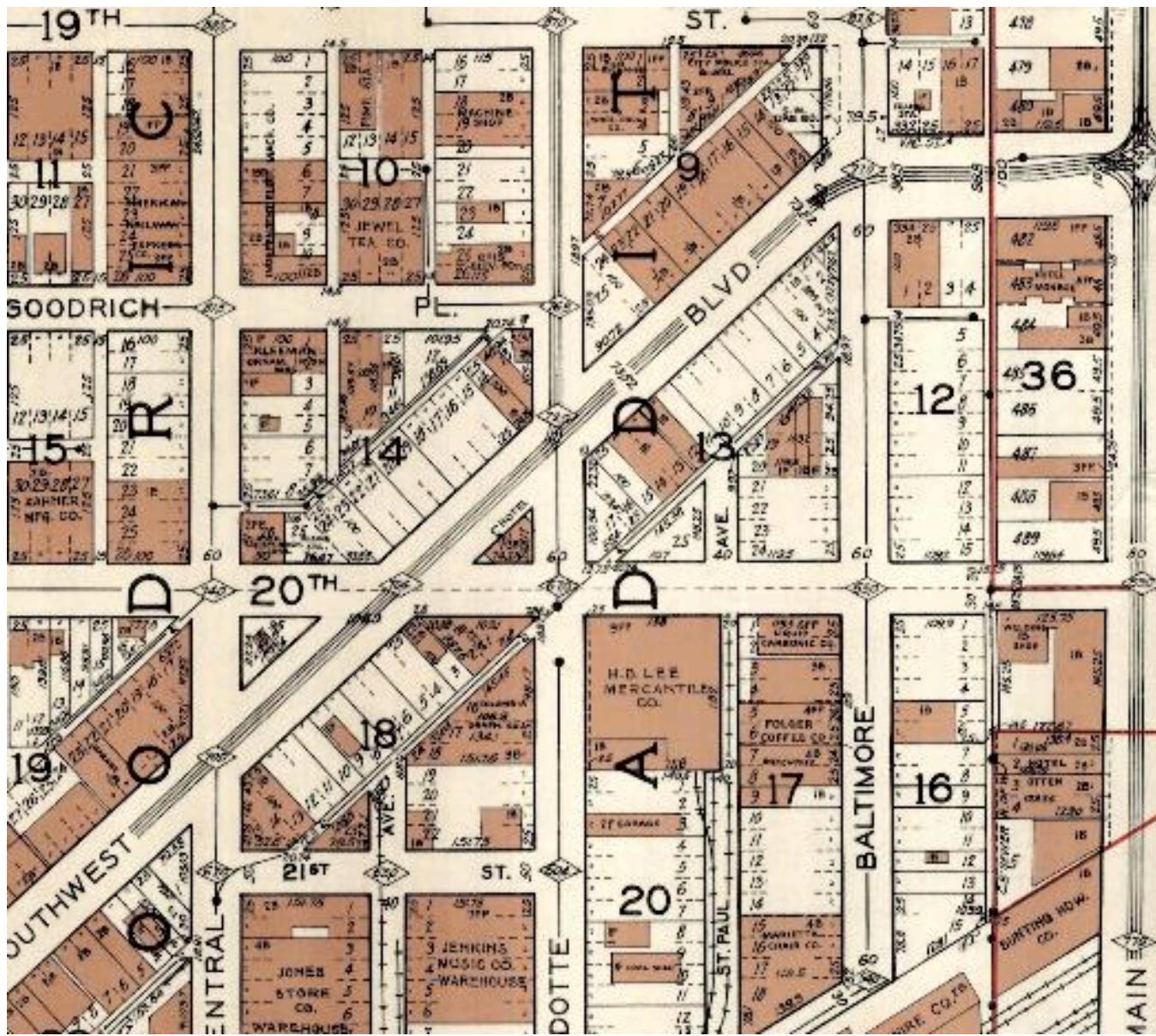


12th Street Line as it appeared in 1925; tracks connecting with all major north/south streets including Main Street. Detail of Plate 3.



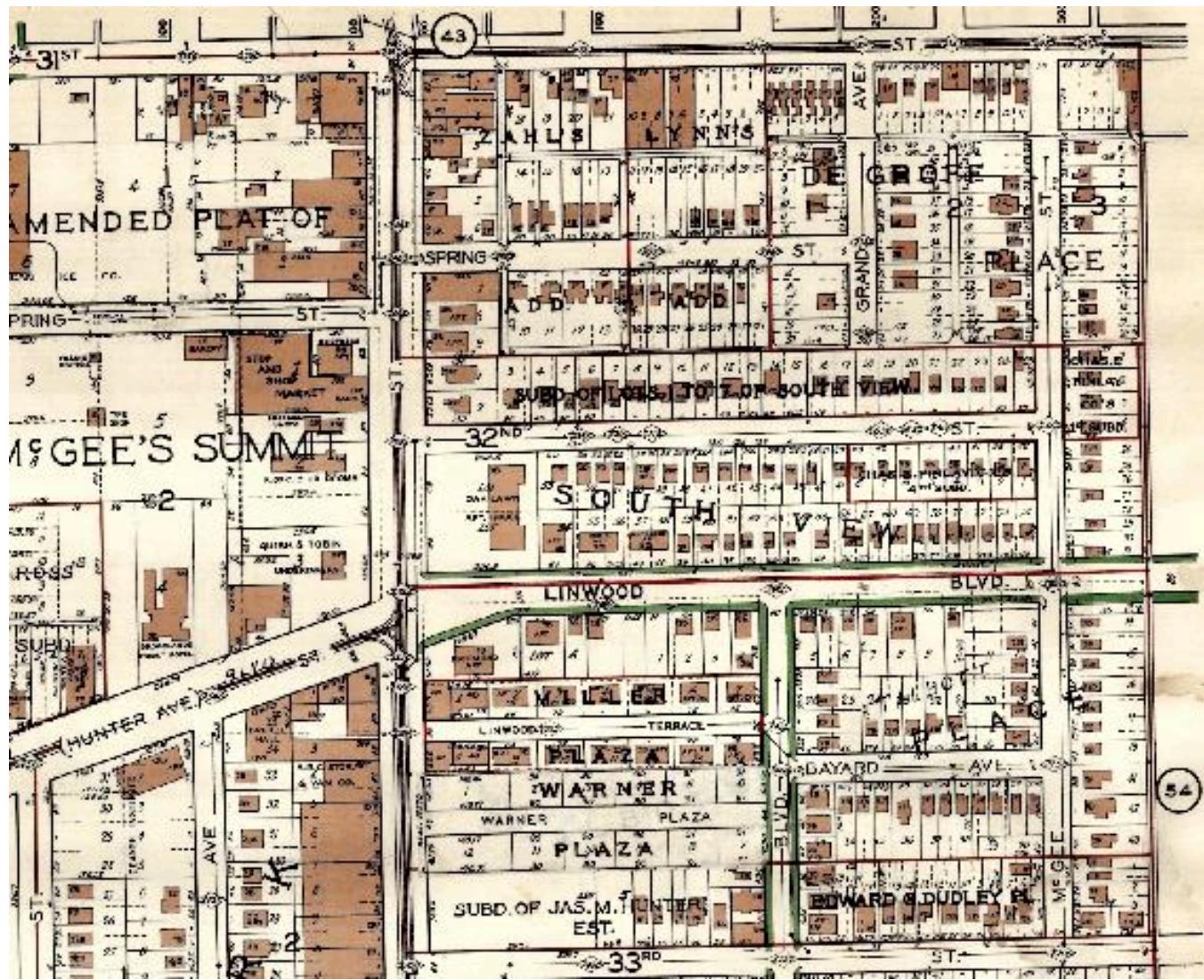


18th Street Line as it appeared in 1925. Single track connecting with all major north/south streets including Main Street. Detail of Plate 23.



Southwest Boulevard Line as it appeared in 1925. Double track originated at 19th and Main streets. Detail of Plate 23.





31st Street and Linwood Boulevard lines crossing Main Street. Detail of Plate 53.

Appendix B:

John C. Henry

Before the induction of Frank Julian Sprague's Richmond Union Passenger Railway Company (1887-1888), the first truly successful electric railway system in the United States, there were several individuals who experimented with electric traction. Leo Daft, Edward M. Bentley, Walter H. Knight, Sidney H. Short and Charles J. Van Depoele were all ambitious inventors who "developed the electric railway to the edge of practicality."⁴⁴ Noted among these men was John C. Henry, "the pioneer of electric railway in Kansas City"⁴⁵ and the first in the nation to employ the use of overhead current collection.⁴⁶ Henry's initial successful experiment took place on a track at 39th and Broadway Boulevard.⁴⁷

Born in Woodstock, Ontario, in 1848, John C. Henry immigrated in the early 1870s to Trego County, Kansas, where he prospered as a farmer. Henry, by training, was also a telegraph operator and experimented frequently in electricity. While on his farm in Wakeeney, Kansas, Henry conceived his idea of operating a car by electricity by means of an overhead trolley wire. Several historical accounts state that Henry approached a local architect by the name of Cobleigh, who prepared drawings of his invention for submittal to the United States Patent Office, Washington, D.C. Henry's immediate plans were thwarted, however, when western Kansas was hit by a grasshopper plague. Consequently, Henry lost his livestock and property.

All but bankrupt, Henry left the Kansas plains for Kansas City, Missouri, in 1880 and began work as a telegraph operator and train dispatcher for the Kansas City, Fort Scott and Memphis Railroad. During his spare time, he continued his research in electricity and in March 1884, Henry secured his first patent for a combined electric fire and police alarm.⁴⁸ In the fall of that year, Henry convinced several local capitalists to invest in his electric trolley inventions, thereby introducing Kansas City and the nation to a new form of mass transit. The new enterprise, The Henry Electric Railway Company, began experiments on December 15, 1884, with a capital stock of \$500,000.

The components of Henry's trolley apparatus, composed of a two-wire overhead system that featured a troller (roller) for current collection, were initially tested during the winter of 1884. In an article that appeared in *The Street Railway Review*, October 15, 1900, Henry wrote that he was offered the use of an old horse car and a half-mile of track between the town of Westport and the Kansas City Fair Grounds, from Walton H. Holmes, president of the Westport and Kansas City Horse Railway Company, for his trial run. The location for this landmark experiment was at 39th and Broadway; a frame building (no longer extant) near 39th Street was selected as a power house. In his own words, Henry described the undertaking:

We suspended a pair of hard drawn copper wires of No. 1 gage over the track at an elevation of about 14 feet from the ground. This wire was supported from the brackets and span wires by thin metal straps, which left the underside of the trolley wire smooth, providing an unobstructed runway for the trolley, which was a small carriage having grooved horizontal contact wheels which ran along and gripped the underside of the wire. The trolley was connected to the car by flexible wires leading from a pole or mast on the car roof, the object being to provide a flexible connection at all times with the wire which in several places was a dozen feet to one side of the track.

⁴⁴ *The Time of the Trolley*, 64.

⁴⁵ *A Civic History of Kansas City, Missouri*, 108.

⁴⁶ *The Time of the Trolley*, 60. In an obituary Henry was characterized as "one of the world's pioneer inventors of electrical apparatus for street railways." See "Death of John C. Henry," *Street Railway Journal*, 17 (1901), 578.

⁴⁷ "History of the Street Railways in Kansas City," *The Railwaysman*, 6 (February 1923), 4. The article was based on a previously published article by John C. Henry, which appeared in *The Street Railway Review* (October 15, 1900). See also Floyd C. Shoemaker, ed., "Missouri History Not Found in Textbooks," *Missouri Historical Review*, 15 (July 1921), 729.

⁴⁸ John C. Henry, "Combined Fire and Police Alarm," Patent No. 295,249, March 18, 1884. As listed in *Specifications and Drawings of Patents issued from the United States Patent Office for April 1884* (Washington, D.C.: Government Printing Office, 1884), 1153-55; 318-319 (drawings).



Our car was an open summer one with seats down the center facing outward. This construction permitted the motor to project up through the floor onto the front platform...It was supported in an iron frame with speed changing gearing somewhat similar to that used in lathes. The frame at one end had a bearing on the car axle, and was spring supported at the other [end]. The motor was regulated with a rheostat.⁴⁹

None of the company's officers and directors was brave enough to take the trial trip, so Henry rode solo. After attaining a speed of twelve miles an hour, the car jumped the track, coming to an abrupt stop high up on a bank. After damage to the car was repaired, Henry was dumped on the next run over a hedge fence alongside the track. Undaunted by the event, Henry explained that "we were usually able to get back onto the track because we had connection with both wires and could change the gearing . . . to obtain tremendous leverage."⁵⁰ In spite of these incidents, Henry's electric trolley was hailed a success by his investors.

In 1885, the same year the cable car was introduced to Kansas City, Henry filed two patents with the U.S. Patent Office that enabled him to organize a new electric traction line. One of these patents, "Speed-Changing Mechanism"⁵¹ was designed for vehicles propelled by electricity, while the second "Electric Railway" consisted of a complete description of an electric motor and car, trackway and overhead conductors, overhead support, insulator, and conduits of the system.⁵² Subsequent to obtaining these patents, Henry attempted to organize a new electric line in the fall of 1885, but on the advice of his directors, consented to continue his experiments for another year.⁵³ Then on January 23, 1886, the Henry Electric Company incorporated and received a charter, which took control of the patents made by Henry, in addition to the promotion of electrical locomotion.

After a series of successful operations of his electric inventions on a segment of the Kansas City, Ft. Scott & Gulf Railroad, Henry began the conversion of the East 5th Street horse line to electric traction, although his original investors had shifted their interests to the booming real estate market in Kansas City.⁵⁴ He succeeded, however, in organizing a new enterprise, The Kansas City Electric Railway Company, in the fall of 1886 and with financial backing, Henry leased double tracks on the existing East Fifth Street Line. By October, an engine house had been constructed with the engines and boilers in position, and cars had been delivered. But due to a city council repeal of the East Fifth Street Line's franchise, whose tracks the Kansas City Electric Railway Company had leased, the company suffered a slight delay in operation of their new electric line.

Apparently, the repeal had no effect on the implementation of the trolley line. In an 1887 issue of *The Street Railway Journal* it was reported that, "The Kansas City Electric Railway has proven a complete success." The article stated that the line carried "thousands of passengers daily . . . with four and five [summer] cars regularly...at a speed of eight miles an hour."⁵⁵ However, with the onset of winter and the increase in public sentiment for cable cars, patronage all but disappeared, and the company fell into receivership. Unable to persuade investors to back his scheme for a permanent line, Henry left Kansas City for San Diego to install his system of electrification for the new Electric Rapid Transit Street Railroad Company.

⁴⁹As quoted in *The Railwaysman*, March 1923, 3-4.

⁵⁰*Ibid.* 4.

⁵¹John C. Henry, "Speed Changing Mechanism," Patent No. 345,057, July 6, 1886. As listed in *Specifications and Drawings of Patents Issued From the United States Patent Office for July 1886* (Washington, D.C.: Government Printing Office, 1886), 363-367, 91-92 (drawings).

⁵²John C. Henry, "Electric Railway," Patent No. 345,845, July 20, 1886. As listed in *Specifications and Drawings of Patents Issued From the United States Patent Office for July 1886* (Washington, D.C.: Government Printing Office, 1886), 1504-1508, 390-391 (drawings).

⁵³July 14, 1885, Henry addressed the stockholders of the Henry Electric Railway Company about his inventions and patents. See John C. Henry, "Electric Railways," *The Kansas City Review Devoted to Science, Art, Industry and Literature*, 9 (August 1885), 25-27, for a reprint of his speech.

⁵⁴Henry stated in the May 21, 1886 issue of *The Electrician* that on "January 29, 1886, I hitched our electric car Pacinotti to a Kansas City, Fort Scott & Gulf coal car, weighing 17,500 pounds. . . Yesterday I coupled the same motor car to a Chicago, Burlington and Quincy car. . . I claim the distinction of being the first to haul regular standard gauge freight cars by electricity."

⁵⁵"Kansas City Electric Railway," *The Street Railway Journal*, 1887, 684. Several unbound pages of *The Street Railway Journal* were located in the Terence Cassidy Collection, Western Historical Manuscript Collection, University of Missouri-Kansas City. Often specific publication dates and volume numbers were not identified.

In 1889, Henry left San Diego for New York where he remained for a number of years investigating electric railroad properties and improving his traction systems. It was during these years that he attained considerable prominence as an expert to some of the largest electric corporations, including the Stanley Electric Manufacturing Company. By 1901, the year of his death, Henry had received 73 patents. In addition, there were three applications for patents on automobiles, gearless motors and series-parallel controllers which were pending in the U.S. Patent Office. After a battle with lung disease, Henry died in Denver on May 3.⁵⁶



⁵⁶ Biographical information regarding John C. Henry was gleaned from several sources, in particular: *Time of the Trolley*, 60-62; *The Railwaysman*, 6 (February 1923), 3-5; and 6 (March 1923), 3-4; *A Civic History of Kansas City*, 108-109; and "Death of John C. Henry," *Street Railway Journal*, 17 (1901), 578.



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APPENDIX 5: ENGAGEMENT SUMMARIES



CITYWIDE OUTREACH SUMMARY

Total Stakeholders Reached: 400
Total Letters of Support: 25

I. Summary: Vision for Change

Key Points:

Most of the citywide outreach conducted focused on professional organizations and transit advocacy groups in the region that were generally supportive.

- Streetcar is about creating a more comprehensive transportation system in the region
- Has the impact to revitalize urban areas and draw new development of the type that encourages more transit riders and walkability

II. Summary: Identified Concerns

Major concerns:

The largest concern for citywide transit advocates is the impact of streetcars on the existing bus service.

- Streetcar will negatively impact funding for buses and until the full build-out of the streetcar would create redundancies in transit service
- Economic development potential of the streetcar and all rail transit is not proven

III. Public Meetings Attended

Kansas City Regional Transit Alliance (August 16):

14 stakeholders

- Very supportive of the project
- Will write a letter of support

Transit Action Network (September 6):

7 stakeholders

- Concerned about need for streetcar and its potential conflicts to existing bus routes and schedules. Might be redundant
- Questions about financing and how streetcar funding would impact bus funding
- Not confident in the potential economic development impacts. Will require significant work by City on land use policy and attracting new businesses and residents

American Society of Civil Engineers (September 10): 20 stakeholders

• Hosted at UMKC

- Engineering questions about the Starter Line
- Concerned about funds for streetcar, but minimal when compared to other transportation projects in the region

Kansas City Neighborhood Advisory Committee (October 8): 18 Stakeholders

• Questions about bus service impacts

- Expressed general support

IV. Other Outreach Efforts

NextRail KC Website: 1983 Stakeholders

- Provided background to streetcars and their impact, including a FAQ section
- Project schedule and description of each phase of the project
- Provided community with information from all outreach activities including information boards, presentations and the evaluation criteria used to identify which of the 8 corridors move forward to a detailed analysis
- Regular updates on the blog about milestones and notices of progress in the project and other events

NextRail KC MindMixer: 667 Stakeholders

- Online forum identified two rounds of questions to date
- First round of questions focused on a discussion of the potential impacts and benefits of a streetcar and lead to the weighting of various evaluation criteria categories
- Second round of questions focused on key decision regarding the termini and alignments for all 8 corridors and lead to a detailed discussion on the merits of each corridor

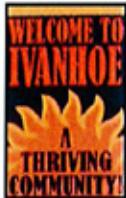
NextRail KC Facebook: 358 Stakeholders

- Provided notices of events, stories about streetcar and other grassroots outreach efforts
- Shared content with Twitter account

NextRail KC Twitter: 202 Stakeholders

- Provided immediate notification of events and updates of the project
- Shared some content with Facebook account





IVANHOE NEIGHBORHOOD COUNCIL

Nutter Ivanhoe Neighborhood Center

3700 Woodland

Kansas City, Missouri 64109

Telephone: (816) 921-6611

Fax: (816) 921-3791

E-Mail: mmay@incthrives.org

BOARD OF DIRECTORS

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Francine Nelson
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Alan A. Young

EXECUTIVE DIRECTOR

Margaret J. May

October 26, 2013

Mayor Sly James
City of Kansas City, Missouri
City Hall, 414 E 12th Street, 29th Floor
Kansas City, Missouri 64106

Regarding: NextRailKC's 8-Route Expansion Study

Dear Mayor James:

We're excited to learn that the City is looking at expansion of the streetcar lines! We consider expansion of the streetcar line a very important step in ensuring continuing progress in our city.

Please know that we strongly support inclusion of three of the routes currently under consideration: 12th Street, 18th Street, and Linwood. Each of these routes will increase access for city residents (including Ivanhoe residents) and for visitors to our revitalized downtown area to other key areas in the city.

Public transportation improvements/enhancements are essential to providing access to jobs, entertainment, and community services! Neighborhoods located to the east, west, and south of downtown will all benefit from the expansion of streetcar lines on these three routes.

We strongly encourage your positive consideration of inclusion of 12th Street, 18th Street, and Linwood in the NextRailKC study.

Sincerely,

Margaret J. May
Executive Director

"A Thriving Community"



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Facebook
[Twitter](#)

October 30, 2013

Mayor Sly James
29th Floor City Hall
414 E. 12th St.
Kansas City, MO 64106
mayor@kcmo.org

Dear Mayor James,

On behalf of the Kansas City Regional Transit Alliance, I wish to extend our support of the expansion of the Downtown Streetcar Starter Line into a true system through the proposal for the phase two expansion study, "NextRail KC", that is before you and the City Council for a vote on November 7, 2013.

The Downtown Streetcar Starter Line has changed the discussion about rail-based transit in our City, and the excitement around which corridor will be built next is evident in the most recent round of NextRail KC community meetings. For the first time in decades we have moved from talking about adding fixed rail to our transit system to breaking ground and actually building that initial segment of rail. Let's strike while the iron is hot. I attended the community meeting for NextRail KC in my own community of Waldo, and saw the excitement from my friends and neighbors. Even those who had concerns about how the extension might disrupt their lives and businesses were whole heartedly in support of the extension.

The initial phase of the streetcar, from planning to breaking ground, has moved along at an unbelievably fast pace. Please support the second phase study to expand the streetcar system and let's keep Kansas City on the map as a City that is creating a new paradigm in the growth of a dynamic transit system.

Sincerely,



Matt Kauffman

Chairman
Kansas City Regional Transit Alliance
matt@kctraction.com / 816.479.5990

Copy: Councilman Scott Wagoner, Councilman Dick Davis, Councilman Ed Ford,
Councilwoman Melba Culrs, Councilman Jermaine Reed, Councilman Jim Glover,
Councilwoman Jan Marcason, Councilwoman Cindy Circo, Councilman Michael Brooks,
Councilman Scott Taylor, Councilman John Sharp
Gunnar Hand, BNIM

INDEPENDENCE AVENUE CORRIDOR OUTREACH SUMMARY

Total Stakeholders Reached: 400

Total Letters of Support: 5

I. Summary: Vision for Change

Key points for Independence Avenue:

Overall, a majority of stakeholders and community meeting participants perceive a streetcar as a tool that will help bolster the investments that have already been made in the Northeast area. Additionally, a streetcar will encourage more development and aid in the redevelopment of the Gateway project at Independence and Paseo, which is a priority for many in the area. The removal of the blight and hotels/motels at that intersection are a major concern for the community. Related to that, a more consistent streetscape in the area will make area residents and visitors alike feel more comfortable.

- Connectivity is a major theme. The Northeast neighborhoods want to be connected to downtown and be thought of as a downtown neighborhood. There is a need for a streetcar to lead people into the Northeast communities of Kansas City, as well as bringing its residents to their places of employment and to downtown.
- Diversity is extremely important. The residents would like to keep the diverse feel to their community and have the streetcar not only support the existing businesses, but help to enhance and showcase them to outsiders and visitors. They do not want to see a streetcar bring in larger development that squeezes out the "flavors" of the Northeast area, but they would like it to be an economic driver to bring some larger development to help increase the tax base of the area and help to create more jobs for its residents.
- There exists public transportation ridership in the area and a streetcar is another component of the overall system and will help people be more mobile. They feel a streetcar will be used heavily along this corridor and there is a lot community support that can help with a grassroots support campaign for a streetcar. Questions exist on financing, but there is agreement that a study is needed first to get to those answers.
- A streetcar route along Independence Ave. will help connect this community to downtown,

increase the mobility of its residents, employees, and employers, and welcome in new visitors, both local and regionally, to this very diverse and historic neighborhood just east of the Central Business District.

II. Summary: Identified Concerns

Major concerns:

The most important thing a streetcar can do is connect a neighborhood to the core of the City and attract new development. Streetcars must increase transit ridership and complement the existing bus service. A significant question is how does the City plan to pay for this and to make sure the financing plan is fair and equitable. In order to ensure success, investment in a streetcar must be matched with supportive policies and focused leadership as well as community involvement.

- The Paseo / Independence Ave Intersection MUST be addressed. A majority of stakeholders feel that a project of this magnitude can, and should, assist with that eyesore of an intersection.
- The businesses along Independence Ave. are very concerned about the construction schedule for a project of this magnitude: how long will it last and how will it impact existing businesses along the route?
- The financing of this project is also an issue and question for the northeast Kansas City community. They want to know who will pay for it, how much it will cost, will they (residents and/or businesses) be taxed, will the financing plan be put to the voters, etc?
- There is a small group located in the northeast area that is opposed to a streetcar not only along Independence Ave. but in Kansas City as a whole. They are not large or organized and seem to be the only opposing group we've encountered on the Independence Corridor so far.
- How will a streetcar work within the context of an entire transit system? How does the current bus routes work cooperatively with a streetcar? What about bikes and taxi cab services as well?
- How would this route feed into the Maintenance Facility at 3rd and Grand Blvd.? What is the plan to bring this into Columbus Park?

III. Public Meetings Attended

• Community Meetings

- Columbus Park Neighborhood Board, 9/4/13
- Columbus Park Neighborhood Association, 9/18/13
- Scarritt Renaissance Neighborhood Association, 9/9/13 and 10/7/13
- Independence Plaza Neighborhood Council, 09/10/2013
- Pendleton Heights Neighborhood Board, 9/11/13

Meeting Summary:

- Pendleton Heights Neighborhood Association is supportive of the streetcar.
- “Real” Northeast opposes the streetcar plan. “Real” Northeast is composed of current and former residents of the Northeast neighborhood and includes some residents from the Indian Mound neighborhood. Many residents are supportive of an Admiral and Columbus Park streetcar line. There is PIAC funding available for an Independence Avenue and Benton Boulevard infrastructure project. The residents would like to hold off on pursuing the project until Independence Ave is chosen as one of the corridors. They don’t want to invest in the infrastructure just to have the street torn up during construction.

Meeting Questions:

- What can we do to show more support?
- What makes one corridor more attractive than the others?
- When will a decision be made?
- How much will it cost?
- Who will make the decision?
- How will this impact businesses located on Independence Avenue?

- Pendleton Heights Neighborhood Association, 10/15/13

Meeting Questions:

- What is the potential cost to us?
- How does it impact taxpayers?
- Do Historic Districts qualify better?
- Describe what is involved with putting a streetcar into a neighborhood?

- Northeast KC Chamber of Commerce, 8/26/13 and 9/24/13

- Indian Mound Neighborhood Association, 9/15/13
- Sheffield Neighborhood Association, 9/23/13
- 3rd District Community Meeting, 8/12/13 and 10/14/13

• Independence Ave. Corridor Workshop |

October 1, 2013: 50+

- Key points:

- Northeast Kansas City is worth picking for a streetcar study because the neighborhood activism is high and strong.
- Northeast Kansas City is Kansas City's first suburb.
- Neighborhoods promote business.
- Independence Avenue faces a crime problem: this is both perceived and real crime. Crime runs from lights: A streetcar would increase the presence of people focusing on the street and could potentially increase lighting.
- The additional population brought by the streetcar could push out some of the homeless population, which tends to drive petty crime.
- The Independence Avenue CID is currently training their staff to provide additional security.
- Residents were worried about the tax burden on already burdened entrepreneurs.
- One individual expressed concern about how transparent the City will be with the financial discussions and will they include residents and businesses in the conversation.
- Business occupancy is high on Independence Avenue and the immigrant population is highly entrepreneurial. The employment figures that we have shown do not consider undocumented workers.
- Residents thought that non-boutique stores, like big box retail, would be appropriate in certain areas of Independence Avenue if it were done in an urban way.
- The new retail on Wilson Rd is nice, but it is suburban and the participants



- found it to be a wasted opportunity.
- Development pressure downtown (particularly in rental housing) can expand if we “relieve the pressure” by adding a streetcar and connect that activity with downtown.
 - The diversity along Independence Avenue could be a great tourist draw, with unique restaurants and shops, if only non-residents knew about it and had a convenient way of getting to it.
 - The addition of a streetcar will support the communities’ Grassroots “green” effort already underway
 - A streetcar can address the gateway intersection into NEKC at Paseo and Independence Ave. It’s currently underutilized and an “eyesore”
 - A streetcar can increase positive activity on the street
 - A streetcar will bring people into the corridor, especially from downtown, and really showcase the diversity of this community.

**• Lincoln Building Streetcar Model Meetings:
Week of September 3, 2013:**

- 30+ individuals participated throughout the week, included residents and businesses. Scheduled meetings: Sept. 3, Guy Merola for Columbus Park; Sept. 4, KC Neat; Sept. 5, LISC; Sept. 5, Roger Reed (Indian Mound resident).
- Public Comments/Questions:
 - Charlotte, Campbell and Harrison Streets are too narrow to accommodate a streetcar; already has dual-side on the street parking
 - Route to go on Cherry Street?
 - How will the car handle the curves?
 - Van Brunt/Budd Park connection from Independence Avenue to 18th Street
 - Connect park to park
 - Elmwood a good/stable block
 - Apartment potential at storage facility at Independence Avenue and Hardesty
 - Rehab of Old Montgomery Ward building “Super Flea”
 - Lots of surface lots
 - Community Tires at Independence Ave. and Elmwood – nuisance?
 - Many residents are renters – limited community buy-in
 - Minneapolis – “honor system” ridership. Worth researching
 - What tax structure?
 - Will it generate its own revenue to be self-sufficient over time?

IV. Other Outreach Efforts

• Canvassing/Phone Outreach along the business corridor week of Sept. 30:

25+ groups

- Met with mostly the local businesses along Independence Ave: Eleos Coffee house, Dr. Ed Kendrick DDS office, Bella Realty, TRE Magazine, UMB Bank, Central Bank of KC, Northeast Chambers of Commerce and CSL Plasma. A majority was receptive to the project and had questions about the financing to support this project: will the residents and businesses in this district be taxed. They had questions about the overall timeline/schedule for a project like this and how construction would be planned.

V. Neighborhood/Organization/Business Stakeholders

• Neighborhood Associations

- Columbus Park
- Paseo West
- Pendleton Heights
- Scarritt Renaissance
- Indian Mound
- Lykins
- Sheffield
- Blue Valley

• Other Groups

- KC Neat
- NEKC Chamber of Commerce
- KC Library - Northeast Branch
- LISC
- NE News
- 3rd District Councilmembers
- 1st District Co. Wagner
- 3rd District PIAC reps
- UMB Bank
- Mattie Rhodes Center
- Della Lamb
- Northeast Community Center
- Glennon Place
- Midwest Tech. Connection
- Northeast Realty
- reStart, Inc
- Neighborhood Family Care
- Eleos Coffee house
- Dr. Ed Kendrick DDS office
- Bella Realty
- TRE Magazine
- Central Bank of KC
- CSL Plasma



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NORTHEAST COMMUNITY CENTER

September 10, 2013

To whom it may concern,

We, the Board of Directors of the Northeast Community Center most certainly believe in the power of transportation in adding to the quality of life for our neighbors, students and business stakeholders of the northeast neighborhood.

We believe that reintroducing the streetcar will provide workers, students and families with independence and convenience in their everyday lives.

The potential for future growth of businesses and available educational and cultural opportunities will improve with this access for all.

More and more residents are hoping to remain car free, and with reliable public transportation will be more likely to choose to settle in this vibrant diverse urban neighborhood.

For the Community Center, we will benefit by being more readily available to the youth of the community as well as the adults.

It is for these reasons among many, that we totally support this planning process in moving toward this new development in public transportation.

Sincerely on the behalf of the NECC Board of Directors,

Laura Shultz
Executive Director
Northeast Community Center
544 Wabash
K.C. MO 64124



Scarritt Renaissance Neighborhood Association

September 17, 2013

To Whom It May Concern:

At last night's meeting of the Scarritt Renaissance Board, we voted to support the expansion of Phase 2 of the streetcar study to include Independence Avenue.

There is a great deal of work taking place to improve the quality of life and make Independence Avenue and its surrounding neighborhoods an International Marketplace and great community in which to live, play and raise a family. Improved transportation along this corridor would be a huge asset in making our work a reality.

In addition to being a much-needed resource for the residents dependent on public transportation, streetcars have the potential of bringing commercial redevelopment to an area that has been blighted for too long and supports younger residents who hope to remain car free.

Scarritt Renaissance is in the process of raising funds for a destination playground. Having the streetcars as a way to access this playground along with other Scarritt assets such as the Kansas City Museum, Cliff Drive, the Concourse and all of the activities underway in Kessler Park would be a significant addition to our community and support goals in our LISC quality of life plan.

We urge you to include Independence Avenue in this study and return streetcars to Historic Northeast.

Sincerely,

Leslie D. Caplan
President





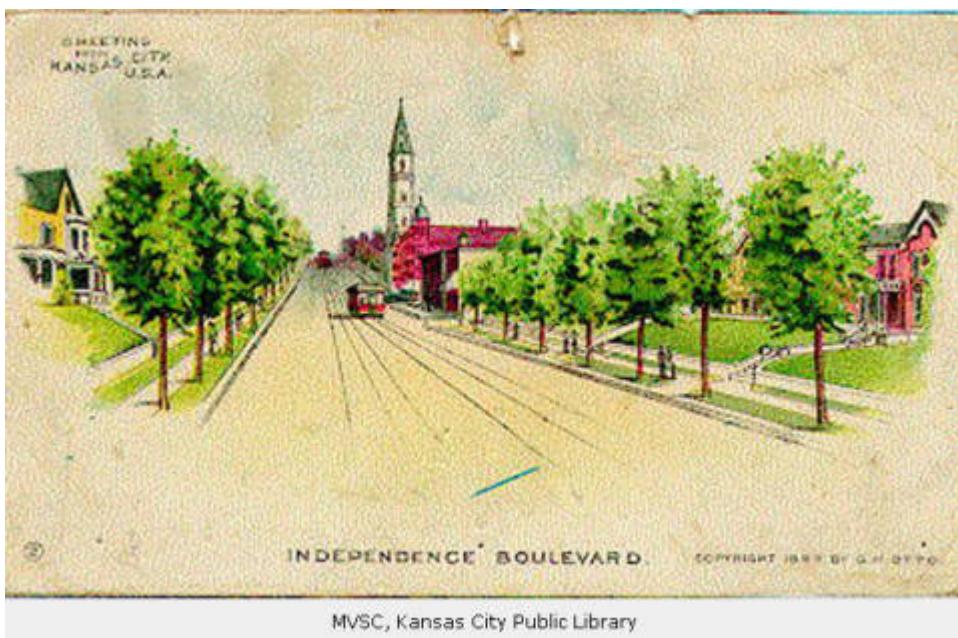
Pendleton Heights Neighborhood Association
PO Box 240196, Kansas City, MO 64124
www.pendletonheights.org

September 4, 2013

To Whom it May Concern:

The Pendleton Heights Neighborhood Association Board of Directors believes in the power of mass transportation and the accompanying infrastructure improvements to transform neighborhood corridors. We believe transportation is critical in attracting investment both commercial and residential. We are excited that Independence Avenue is included in the NextRail Streetcar expansion studies and strongly believe this corridor should be one of the top three chosen for further study. This is supported by both our history and by current demographic makeup.

Historic Streetcar on Independence Avenue in Pendleton Heights:



We see a number of benefits to this particular expansion:

- Independence Avenue was designed for streetcars and our neighborhood was built on them. The removal of the streetcar lines was a contributor in the decline of urban living and therefore of our historic neighborhood. We believe that reintroducing the streetcar will help us in the ongoing reversal of this trend. In addition, because of this history, there are no real barriers to construction along this corridor.



Pendleton Heights Neighborhood Association
PO Box 240196, Kansas City, MO 64124
www.pendletonheights.org

- The 24 bus line has one of the highest rider-ships in the city. Showing this community fully embraces public transit already as part of the live/work/play routine.
- The potential for redevelopment along Independence Blvd between River Market and Pendleton Heights is huge. We believe changes to the Paseo/Independence intersection are imminent – a transit-based development linked to Downtown by a streetcar could fit in perfectly!
- We continue to gain new residents who move to our neighborhood for the housing stock and the real sense of community – but they still want easy access to downtown. As more of our residents choose to remain car free, reliable mass transit will be increasingly important in promoting home ownership in our urban neighborhood. Affordable housing stock in Pendleton Heights makes it ideal for these first time home buyers and a Streetcar line could be a big selling point.
- A streetcar would offer urban core residents easy access to the Northeast to enjoy our unparalleled parks as well as the vibrant cultures and ethnic foods and markets not available anywhere else in the city, potentially creating an economic boom for these small businesses along the corridor.
- This expansion partners perfectly with the proposed Main Street expansion – one train can run from UMKC north through River Market and East onto Independence Avenue easing construction and operational issues and increasing reliability of the line.

While we understand all of the details regarding funding have not been solidified, we look forward to working with you throughout this research and planning process as Kansas City moves toward this exciting new development in public transportation.

Sincerely,

Pendleton Heights Neighborhood Association

CC

Mayor Sly James, Councilmember Jermaine Reed, Councilmember Melba Curls, Councilmember Scott Wagner, Councilmember Dick Davis, Councilmember Russ Johnson, Councilmember Ed Ford, Councilmember Jan Marcusson, Councilmember Jim Glover, Councilmember Cindy Circo, Councilmember Michael Brooks, Councilmember Scott Taylor, Councilmember John Sharp, City Manager Troy Schulte, Bob Langenkamp, Bobbi Baker-Hughes, Spike Nguyen, Katie Greer, Forestine Beasley, Bianca Tillard-Gates, Donna Mandelbaum, Dave Johnson, Matthew Staub, Leslie Caplan, Mark Morales, Jason Fields, Tom Ribera, Julie Lane, Dan Frueh



INDEPENDENCE AVENUE CORRIDOR WORKSHOP SUMMARY

Meeting Date: October 1, 2013

Number of participants: Approximately 50

I. Summary: Vision for Change

Key points:

Overall, a streetcar is perceived as a tool that will help bolster the investments that have already been made in the Northeast area. Additionally, a streetcar will encourage more development and aid in the redevelopment of the Gateway project at Independence and Paseo, which is a priority for many in the area. The removal of the blight and hotels/motels at that intersection are a major concern for the community. Related to that, a more consistent streetscape in the area will make area residents and visitors alike feel more comfortable.

Connectivity is a major theme. The Northeast neighborhoods want to be connected to downtown and be thought of as a downtown neighborhood. There is a need for a streetcar to lead people into the Northeast communities of Kansas City, as well as bringing its residents to their places of employment and to downtown.

Diversity is extremely important. The residents would like to keep the diverse feel to their community and have the streetcar not only support the existing businesses, but help to enhance and showcase them to outsiders and visitors. They do not want to see a streetcar bring in larger development that squeezes out the "flavors" of the Northeast area, but they would like it to be an economic driver to bring some larger development to help increase the tax base of the area and help to create more jobs for its residents.

There exists public transportation ridership in the area and a streetcar is another component of the overall system and will help people be more mobile. They feel a streetcar will be used heavily along this corridor and there is a lot community support that can help with a grassroots support campaign for a streetcar. Questions exist on financing, but there is agreement that a study is needed first to get to those answers.

A streetcar route along Independence Ave. will help connect this community to downtown, increase the mobility of its residents, employees, and employers, and welcome in new visitors, both local and regionally, to this very diverse and historic neighborhood just east of the Central Business District.

Major concerns:

- Community and Communication
 - The Paseo / Independence Ave

Intersection MUST be addressed. This project can assist with that eyesore of an intersection.

- Constant communication with the public during construction phases, especially for small businesses.
- Keep information flowing to the public "Do not leave us in the dark"
- Construction schedule: how will it impact existing businesses along the route?
- How sustainable is a streetcar?
- Financing
 - Streetcar must be affordable, perhaps free.
 - Who will pay for the streetcar? And how much?
 - Pay to go downtown, traveling to neighborhoods should be free
- Schedule and Use
 - There should be regular service and run late at night
 - Cleanliness and safety are important.
 - Maintenance of the streetcar
 - Placement of Cars and Shelters:
 - Make sure shelters/stops are well-lit and are maintained
 - What will the noise level be?
 - What is the safety and loitering like at streetcar stops? Is it similar to bus stops?
 - What is the typical cost of operation for a streetcar system?
 - What is the impact on traffic?

II. Small Group Discussions: Community Group Narrative Discussions

Group 1

• Neighborhoods:

- Another option for transit
- Connect to downtown
- Less hassle for parking
- Could lead to a reduction in crime with more people visible on the street
- Transit option at a lower fare rate since riders won't need cars
- Potential for Economic Development: Infill development and better care of existing development

• Businesses:

- Expand clients
- Different people debunk myth of area

- Try new places to eat. Shop and play
- Improve perception
- Reduce negative activity through visibility
- Willing to consider tax increase
- Higher rent and lease rates may displace some businesses.
- **City Officials:**
 - A streetcar can underscore the inclusivity of individual neighborhoods which makeup KCMO. Support the “flavors” of the neighborhoods.
 - This area has significant historical value
 - NEKC is very diverse and often different in leadership
 - Many ethnic groups

Group 2

- **Neighborhoods: A Streetcar could...**
 - Help to build a unified and cohesive streetscape, like “old main street”
 - Clean up the “nasty bits” and replace with retail
 - Immediate change and impetus to upgrade
 - Hope that the streetcar could expand city/metro side and head out to the airport and stadiums
 - Would use a streetcar for novelty and entertainment purposes as well as “work and play”
- **Businesses: A Streetcar could...**
 - Increase customer base
 - Ease of access to businesses (no need to park)
 - Increase a diverse employee base
 - Offer compensation for riding, thus saving employees money on transportation
 - Attract better retail
 - Attract basic services: salons, spas, etc.
 - Deter Crime
 - Would like more answers on financing and a study on a sales tax
- **Visitors:**
 - Connect to NEKC attractions and great food options
 - Create cohesive ID with better signage and “open windows”
 - Streetcar would help to clean up the neighborhood
 - Independence Ave. is a natural hot-spot and ready for improvements
 - Would need to either keep or increase the tax base
 - Northeast residents and businesses use transit and would use a streetcar
 - To make it succeed, we need to keep it clean and safe and supply regular service into the night.
- **City Official:**
 - Neighborhoods promote businesses
 - Recent improvements in the community have resulted in:
 - Less loitering
 - Positive use replace negative activity
 - Increase in walkability
 - The addition of a streetcar will support the communities’ Grassroots “green” effort already underway
 - A streetcar can address the gateway intersection into NEKC at Paseo and Independence Ave. It’s currently underutilized and an “eyesore”
 - A streetcar can increase positive activity on the street
 - A streetcar will bring people into the corridor, especially from downtown

Group3

- **Neighborhoods:**
 - NEKC is Kansas City’s first suburb

- Neighborhoods promote businesses
- Recent improvements in the community have resulted in:
 - Less loitering
 - Positive use replace negative activity
 - Increase in walkability
 - The addition of a streetcar will support the communities’ Grassroots “green” effort already underway
- A streetcar can address the gateway intersection into NEKC at Paseo and Independence Ave. It’s currently underutilized and an “eyesore”
- A streetcar can increase positive activity on the street
- A streetcar will bring people into the corridor, especially from downtown
- **Businesses:**
 - Streetcar will act as a traffic calming device
 - Streetcar could help connect the east and west sides of Kansas City.
 - Streetcar will encourage investment in struggling neighborhoods
 - Streetcar has the potential to lure more people back to the urban core
 - Streetcar can preserve and support small businesses. It should support the existing Independence Ave businesses.

- **Visitors:**
 - Ethnic restaurants
 - Local, unique visitor options
 - Unique shopping
 - Many local artists, galleries and a live/work environment
 - Attractions exists like the KC Museum, Entertainment, Parks + Fountains
 - Great historic significance and historic homes
 - Recreation options
 - This neighborhood is about history and already has a streetcar within its’ historical story

- **City Official:**
 - A streetcar makes an area, and city, more attractive, resulting in more tourism, more ridership, increase in residential numbers, population growth and an increase in the tax base and possible improvement in local schools.
 - Big question is how do we pay for it?
 - Federal funding will help keep more city funding in place and not take away from existing or planned city projects using that funding.
 - If you fix up the neighborhoods and no one lives there, who gets that benefit?
 - Something needs to happen; the current trajectory is not ok.
 - This is a selling point for the neighborhood – shows an investment in the community.
 - A streetcar will bread more community improvement opportunities.



Group 4

- **Neighborhoods:**

- What's good for a neighborhood, is good for the entire City and Region
- This neighborhood needs city council support
- Keep the Northeast Historic in nature
- Giant parking lots are not wanted
- What's good for downtown and the Rivermarket is good for Northeast KC
- This route will serve as a symbolic connection into downtown
- A streetcar can also lead people INTO NEKC
- It serve as a East-West connection
- A Streetcar is perceived as "neutral" in terms of socio-economic class
- A streetcar can help infill the vacant property, increase mobility, and promote more job creation.
- Support the diversity of this community - maintain, enhance and showcase this rich neighborhood.
- The study and plan is only as good as the implementation.

- **Businesses:**

- Historic district with existing small businesses and industrial businesses
 - Need to attract larger businesses
- Hardesty is a key intersection for business
 - A streetcar line to the Hardesty Food Incubator can help "unlock" this resource for NEKC
- Take to Armco, not to I435
 - The Armco area or the other side of the tracks has much more potential in acreage
- Filling up vacant storefronts makes you feel more comfortable
- A streetcar can increase commercial development in things like dry cleaners, pharmacies, and "fun stuff" like theaters, bars, restaurants, and retail (similar to Westport and 39th Street type retail).

- **Visitors:**

- Long-range: Project areas of nationalities (little Mexico, Little Italy, Chinatown, Little Mogadishu).
- Preserve and enhance the NEKC diversity
- Cultural Centers
- NEKC has Organic diversity; a streetcar would bring support from the "outside"
- Visitors help support small businesses
- Currently there are no hotels or places for visitors to stay in NEKC. A streetcar could change that investment
- TOD at Paseo/Independence Ave
- A streetcar could bring signage/wayfinding into NEKC to aide in new visitors
 - Combat the perception of safety concerns
 - Campaign to combat this perception

Group 5

- **Neighborhoods:**

- Make transportation more convenient
- Address road repair needs
- Provide transportation to jobs
- Potential infill housing
- Economic Development tool
- Streetcar can provide better access to every day amenities and adds to the overall transit system (cars-buses-bikes-streetcar)

- **Businesses:**

- A streetcar can increase walkability and foot traffic for existing and new businesses along Independence Ave
- Can provide additional affordable transportation methods for employees
- Is there room for a streetcar on the current layout of Independence Ave? Will the road need to be widened? Will there be ROW issues?

- **Visitors:**

- Use the streetcar as a growth for tourism
- A streetcar will add to the ease of transportation around town, helping connect visitors to tourist destinations.
- The Independence Corridor will need improvements to support this development: better pedestrian lighting, signage/way-finding signs, removal of blight, infill housing and full storefronts, better security like blue emergency phones. This will aide in tourists feeling more comfortable.

- **City Official:**

- Need for continual funding to keep maintained...well past the construction phase
- Develop a grassroots support for a streetcar transit system
- Develop a security plan

Group 6

- **Neighborhoods:**

- Create a transportation hub at the intersection of Paseo and Independence Ave.
- Create a redevelopment opportunity around this intersection; remove the hotels/motels

- **Visitors:**

- Will help to change perceptions of the City and expose visitors to more of Kansas City's diverse neighborhoods
- Be part of a historic neighborhood homes tour
- Connection to existing and planned interconnecting pieces (city-wise)

Group 7

- **Neighborhoods:**

- Would like to see consistency in

- streetscape i.e. Main Street
- Paseo and Independence has opportunity for redevelopment. Demolition of hotels should be replaced with neighborhood serving retail, excluding pawnshops, gun shops, pay day loan businesses to name a few.
- Residents would prefer to have Federal dollars used to fund the Streetcar as opposed to local tax increases.
- Maintenance, cleanliness and safety are of utmost importance.
- Station designs should be consistent i.e. The MAX but be mindful to not block storefronts.
- Residents would use the Streetcar to run errands, and going downtown for work or entertainment to avoid parking.
- **Businesses:**
 - Would like to see stops near their business to get riders to stop at their business and gain more visibility to potential customers.
 - The Streetcar could save businesses money by not having to pay for parking for employees.
 - The Streetcar could provide a more diverse pool of customers.
 - Having Streetcar along Independence Ave. would attract additional retailers to the corridor.
 - Their needs to be constant communication to businesses along the corridor during construction.
- **Visitors:**
 - Having Streetcar along Independence Ave. would give tourists a reason to come into the area; They are currently not as likely to ride the bus.
 - The area should be marketed as an "International Market"
 - The Streetcar would help to connect visitors to area parks, markets, restaurants, and museums.
 - Having consistent signage, clear windows in businesses and a consistent identity i.e. Main Street would make the area less intimidating for visitors.
- **City Official Perspective:**
 - The City should be considering what is the next place where considerable investments should be made.
 - Independence Ave makes sense due to its proximity to downtown and strong neighborhoods.
 - Expanding Streetcar will help to boost the tax intake for the City through higher property values.
 - Due to the hard work area residents have been putting into the area, the City needs to reciprocate.

III. Other Input: Model Facilitation & General

Comments

Termini:

- Benton Blvd (will only serve half of the northeast area)
- Hardesty Ave
- Price Chopper
- Chestnut Ave
- East Bottoms
- VanBrunt (will service more of the northeast area)
- Armco
- NOT I435

Streetcar Station Stops:

- Paseo Blvd
- Woodland Ave
- Prospect Ave
- Benton Blvd
- Monroe/Cleveland Ave
- Hardesty Ave
- Armco

Route Selection:

- Would like to connect to the Airport and the Sports Stadiums.
- Connection to Brookside would be desirable.
- Create a route along Independence Ave. that goes from the Rivermarket, through Columbus Park.

Miscellaneous

- Community Involvement:
 - As the Pendleton Heights neighborhood states: "Positivity Urban, Uniquely Eclectic" – and that's the area that a streetcar needs to support it.
 - They are willing to endure the construction phase and hassles
 - Northeast Kansas City is worth picking for a streetcar study because the neighborhood activism is high and strong.
 -
- Crime:
 - Independence Avenue faces a crime problem: this is both perceived and real crime
 - Residents have observed that crime in the Independence area is cyclical. They say that this also applies to home ownership and vacancy.
 - Residents felt that crime and vacancy were on the rise again
 - Crime runs from lights: A streetcar would increase the presence of people focusing on the street and could potentially increase lighting
 - The additional population brought by the streetcar could push out some of the homeless population, which tends to drive petty crime
 - Less crime means later hours
 - The Independence Avenue CID is currently



- training their staff to provide additional security
- CID will fight both grime and crime, consistent with the broken windows theory
- Financing:
 - Most participants wanted to speak about other issues related to the streetcar besides financing.
 - Residents mentioned the cost of the study alone
 - One said it was a “\$100 million dollar study”
 - Residents were worried about the tax burden on already burdened entrepreneurs
 - One individual expressed concern about how transparent the City will be with the financial discussions and will they include residents and businesses in the conversation.
 - Businesses:
 - Business occupancy is higher on Independence Avenue than on, say, Main Street, because the prices are right
 - The immigrant population is highly entrepreneurial
 - The employment figures that we have shown do not consider undocumented workers
 - Legalization of undocumented workers could transform Independence Avenue and encourage more entrepreneurship and activity from immigrants
 - One participant said “The Westside moved here” in the last 10-15 years
 - Current population on Independence Avenue cannot support the boutique stores that are recommended in the TPAP and desired as a residential amenity; they need people from other corridors to patronize these businesses as well as additional population living within the corridor
 - Residents thought that non-boutique stores, like big box retail, would be appropriate in certain areas of Independence Avenue if it were done in an urban way
 - It works in an urban way in other cities; it can work in Kansas City. Streetcar would help ensure that it's urban
 - The new retail on Wilson Rd is nice, but it is suburban and the participants found it to be a wasted opportunity
 - Development pressure downtown (particularly in rental housing) can expand if we “relieve the pressure” by adding a streetcar and connect that activity with downtown
 - The diversity along Independence Avenue could be a great tourist draw,



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12TH STREET CORRIDOR OUTREACH SUMMARY

Total Stakeholders Reached: Approximately 2,088:

- 528 via meetings
- 106 via intercept survey
- 75 via email/phone call
- 79 via bus outreach
- 1,300 via canvassing (105 destinations, including apartment complexes)

Total Letters of Support: 6

I. Summary: Vision for Change

Key points for 12th Street East:

Linking both Kansas City, Missouri and Kansas City, Kansas, the Historic West Bottoms has the potential to develop into one of Kansas City's hotspots. The area is characterized by recent infrastructure investments, building re-use and conversions happening slowly, and business start-ups relocating to the area to take advantage of its affordable rental rates. Including a streetcar in the Historic West Bottoms is consistent with the improvement vision for the area.

- **Residents:** Area population and business development will expand over the next decade but additional infrastructure improvements, e.g. pedestrian connections, are needed.
- **Businesses:** There is lots of vacant land in the corridor that could be transformed into mixed use developments. However, incentives and infrastructure improvements are needed to attract developers to 12th Street.
- **Tourism:** Promote historic places, connect 12th and Brooklyn to downtown, and link entertainment centers, e.g. 18th and Vine, Power and Light District, and Crown Center.
- **City Officials:** Employment centers are gone but neighborhoods remain strong. Connect residents (and neighborhoods) and change the perception of neighborhood transformation.

Key points for 12th Street West:

East-west and north-south connections that involve 12th Street are important because they link neighborhoods to downtown jobs and entertainment as well as local social services. The streetcar is an opportunity to improve 12th Street's connection to downtown and thereby the population residing and working in the surrounding area..

- **Residents:** 12th Street's close proximity to downtown provides great opportunities for economic development and job growth for the neighborhood. It would also attract young professionals who work downtown.

- **Businesses:** The area has a great built environment but it's development potential could be elevated with infrastructure improvements.

- **Businesses:** There is significant amounts of vacant land in the corridor that could be transformed into mixed use developments. However, incentives and infrastructure improvements are needed to attract developers to 12th Street.

- **Tourism:** Promote historic places, connect 12th and Brooklyn to downtown, and link entertainment centers, e.g. 18th and Vine, Power and Light District, and Crown Center.

- **City Officials:** Employment centers are gone but neighborhoods remain strong. Connect residents (and neighborhoods) and change the perception of neighborhood transformation.

II. Summary: Identified Concerns

Key Concerns:

- Want meetings to discuss potential construction impacts
- Want connections to outlying communities and destinations
- Diversity incorporated into public dollars spent
- Messaging should include information about why streetcars worked in the past
- Funding for the selected routes and impact on the neighborhood
- Potentially limited development potential and ridership on portions of 12th Street
- Need general infrastructure improvements, e.g. sidewalks and roads
- Physical challenges, e.g. railroads, viaducts, and street network, present
- City parking requirements will need to be adjusted to attract new development - Developers lack incentive to build in 12th Street area
- 12th Street is close to downtown but not considered "part of downtown"
- Integration of streetcar with current bus

system.

- Desire for north-south route and/or connection to 12th Street (loop).
- Making Kansas City a “fair city” so all residents feel connected
- Potential high cost to ride streetcar

III. Public Meetings Attended

Facilitations at Union Station from August 26 to August 30: Approximately 240 stakeholders

• Route preferences

- Extend south per closer to Grand Boulevard, already have MAX bus
- Need to serve people located in between Main Street and Grand because it's not easy for all of them, e.g. elderly, to access the starter line
- Independence Avenue: Main to Wilson Road to provide access to grocery stores
- Extend Independence Avenue route into the City of Independence, e.g. to the square, because suburbanites use park-and-ride lots and the buses; could use streetcar to experience what Kansas City has to offer
- Extend routes to surrounding cities, e.g. Blue Springs, Independence, Grandview, Raytown, Belton, Olathe, etc to meet the transportation needs of downtown workers who live in those communities
 - Extend streetcar to city centers (City Hall)
- Put expansion routes where the jobs are located
- Like idea of going south to the Plaza
- Need to travel on 17th Street - Starter line missed opportunity to connect to the Kauffman Performing Arts Center, especially since the topography from Broadway to Main is uphill
- Main Street expansion should be first, followed by Southwest Boulevard, and then west 12th Street into the Bottoms

• Stops and connections

- Want Metro bus stop at US-24/Noland Road with commuter parking in order to catch bus and then ride streetcar into downtown
 - Existing Price Chopper parking lot off Independence Avenue is scary place to park
 - Would park anywhere west of US-24/ Missouri River (near Sugar Creek) - Safety concerns elsewhere
- Make connection to VA Hospital because lots of vets ride the bus
- Put expansion stops where the jobs are located
- Create connections to the east, northeast, and northwest sides of the city (south side already has good transportation access)

- Connect to Kansas City (Kansas), Blue Springs, and north
- Work together to help pay for Wyandotte County transit connections (Quindaro and Village West/Legends shopping center)
- Add rail where transit doesn't already exist
- Support Honeywell development
- Support North Kansas City connection
- Need connection on Warwick Boulevard with stops at 38th and 39th Streets to serve residential neighborhood east of Warwick and Art Institute students before crossing into the Plaza area
- Support stadium connection
- Connect 12th and 18th Streets via a loop that spans from downtown to Wilson Road
- Want to take streetcar to Westport - Add stop at Westport Road

• Other Items

- Opened a small business at 16th Street downtown - How will implementation be funded?
 - My taxes are higher now than they were 10 months ago (streetcar transportation development district tax)
- Serve people with the greatest need first, e.g. poor, low-income, transit dependent and in the northwest, northeast, and east sides of the city
- Provide transportation for teens and non-drivers
- People have to wait too long for the bus - Always see people waiting and streetcar could relieve this
- If you want to get people downtown, provide streetcars so rich people ride transit
- Would love to ride bus or streetcar from suburbs to get faster access to downtown
- Streetcar line or bus stop that connects to rail system would make getting to events easier and reduce traffic congestion for events that out of town and suburban residents want to attend
- Streetcars help cut costs for single modes
- Make sure streetcar runs longer hours to accommodate workers' schedules that end at 6:00/6:30 p.m.
- Streetcar is a way to show what the city has to offer, e.g. River Market, Crossroads, Midtown, Westport, and Plaza
- Streetcar is novel, nostalgic, and romantic - Wait hours to ride San Francisco's streetcar
- Rail captures community and tells businesses that transit is permanent and not going to move

Downtown Neighborhood Association on August 28: 15 stakeholders

- Will there be a larger community meeting for just 12th street?



- Neighborhood association will post updates for meeting dates and locations.

Urban Summit on September 6: 25-30 stakeholders

- Diversity in public dollars spent
 - No skilled workers isn't an excuse - it's fixed rail; provide training if skills lack
 - Diversity included with expansion lines?
- "Who's on first" will kill project based on 30-year light rail experience in KC
- How much is study worth?
- Is infrastructure in place for potential expansion routes?
- What's the funding for the expansion lines?
- Want to band together to determine route that connects 12th and 18th Streets
 - Need to organize and pull for what we want so the City doesn't think we're arguing and then puts the streetcar on another street
- Economic development for who and what does it mean?
- How much will streetcar cost to ride?
- Need connections to communities farther out (light rail)
- What's the screening criteria? Is ridership included?
- Who's idea was it to bring streetcar expansion lines down these potential corridors.

Independence Plaza Neighborhood Association on September 10: 7 stakeholders

- Meetings to talk about construction impacts wanted
- Potential for economic impact - not just about getting from point A to B
- Want to know about financing, e.g. Potential tax increases on properties
 - We could be deeply impacted if 12th Street is selected - negative impacts of gentrification
- Going to be a major push for Independence
- No power to determine where the streetcar is going - can't make a change
 - Future financial people are in charge
 - Problem is with the process
- Chestnut/Independence Avenue is being redeveloped - we had a say in that and other Independence Avenue activities and development

Paseo West Neighborhood Association on September 15: 6 stakeholders

- What's KCATA's involvement?
- Why kind of historical research being done?
 - Previous system was geared to getting people to work
 - Clean and safe needs to be part of what is shared about streetcar
 - People need to understand why streetcars worked in the past - include with messaging

- KCATA could have reused existing streetcar tracks but they removed them - Could have made streetcar implementation happen faster
- Streetcars will improve efficiency and bring benefits to the neighborhood - include with messaging
- Which routes impact neighborhood most?
- How's funding happening?
- Is Downtown Council involved? What do they think about the project?

Downtown Neighborhood Association on September 25: 10-12 stakeholders

- Posted workshop dates on website
 - Working to build turnout for corridor workshops

12th Street West Corridor Workshop on October 2: 6 stakeholders

• Neighborhoods:

- West Bottoms is zoned for residential. The streetcar would connect West Bottoms residents to Central Business District jobs.
- 10 years from now, the West Bottoms will be home to more residents, artists, new businesses, and will be generating lots of activity. This area has the potential to become the 'hot spot' of Kansas City.
- Infrastructure investments are happening. The streetcar might accelerate activity, but other things must happen first. For example, the area needs infrastructure improvements.
- Difficult to get bus service.
- One-third of the West Bottoms is in Kansas; it's important to connect to Kansas City, Kansas.
- Developers need hope that something will happen. Improved infrastructure will encourage development.
- If there is no streetcar, West Bottoms residents may feel trapped due to inadequate pedestrian access.
- We need to look at what the future brings. What is the potential for the West Bottoms?
- The greatest value of this area is because it is connected to Downtown Kansas City, Missouri and Downtown Kansas City, Kansas.
- Re-branding. Want to be recognized as the 'Historic West Bottoms.'
- The streetcar supports future vision for area.
- Limited development potential on 12th Street; Genessee has more potential.
- Potential to develop significant population base in urban core.
- Easier to bring residential to established commercial centers. Difficult to bring commercial centers to established residential neighborhoods.

- Significant physical and visual challenges, such as the railroad tracks and viaducts, make pedestrian connectivity difficult.
- Important to connect 12th Street West to 12th Street East. Important to connect multiple neighborhoods.
- Look into Woodsweather or Mulberry as alternatives to the proposed 12th Street streetcar alignment.

• Businesses:

- The West Bottoms built environment is unique. Historic buildings are ready for reuse and conversions are slowly happening. Small businesses and start-ups are relocating here because of the affordable rent.
- Industrial uses may constrain area of opportunity for new development.
- Northern West Bottoms businesses are mostly distribution centers.
- Great development opportunities from 9th Street to 11th Street.
- Ample vacant land for new construction.
- Currently, no tension between industrial and other uses.
- Existing businesses are doing everything possible to support the community through marketing and special events.
- Look at Kansas City Design Center Transit Center Proposal.
- City parking requirements will need to be adjusted to attract new businesses and development.

• Visitors:

- Possible destinations include: Kemper Arena and American Royal.
- Historic buildings are bringing portrait photographer's to the area.
- The streetcar would make it easy for a visitor to get from their hotel in the Central Business District to the West Bottoms and back.
- Lack of a formal street grid can sometimes be confusing for visitors, but it also makes the area unique and should be preserved.
- Need better signage for visitors.

East 23rd Street PAC on October 7: 16 stakeholders

- We have not heard about this study yet. Why do we learn about a project too late in the process?
- How is the study funded? Are my third-district tax dollars paying for this?
- 12th Street East is a little too far. We would be more interested in a streetcar on 18th Street or 31st and Linwood.
- How will this affect current bus service?
- We have bigger problems that need to be funded first. For example, we are dealing with tire dumping on vacant/abandoned

properties. We desperately need funding for neighborhood clean-up.

12th Street East Corridor Workshop on October 2:

7 stakeholders

• Neighborhoods

- Need improved infrastructure to attract developers to the area.
- 12th Street neighborhoods are less than three minutes from the downtown core, but are not considered part of downtown. This close proximity provides great opportunities for economic development and attracting young professionals working downtown.
- Important to provide a continuous east-west connection between neighborhoods.
- How will the streetcar be integrated with the current bus system?
- Need a north-south connection at 12th Street and Prospect.
- Need a north-south connection on Woodland from Independence Avenue to 9th Street.
- Residents would ride the streetcar to avoid paying for and finding parking spaces downtown.
- Washington Wheatley neighborhood residents could get downtown by riding a north-south bus connector to the 12th Street streetcar.
- Popular destinations include: Crown Center and Power & Light district.
- People will put their car in the garage and consider alternative transportation once gas is over \$8.00/gallon. How can residents learn new habits? More importantly, how do we teach younger generations about the benefits of alternative transportation?
- What would make me want to live in the neighborhood? What would make me want to ride the streetcar? Because it would be safe, clean, and protected by the City.
- Currently, developers do not have incentives to build in the area unless supported by city; "cared for by the City" will encourage developers.
- Bringing jobs to the area will increase market rate housing and keep money in neighborhoods.
- Transportation will improve access to existing social services in the area.
- Essential to incorporate the bus system and create a north-south loop.
- How can neighborhood's establish relationships with developers so they can have input in their own community? Unfortunately, neighborhoods can't wait for developers to come to them. The first step is to get involved with the Economic Development Council.

• Businesses



- 12th Street's close proximity to the Downtown Business District could attract smaller businesses that may not be able to afford downtown rents.
 - Independence Avenue currently has the cheapest rental rate per square foot.
 - Abundance of vacant land which could be transformed into mixed-use development.
- Visitors**
- Essential to promote historic places along the corridor (12th Street and Vine).
 - 12th Street connects multiple downtown hotels and a streetcar would enable instant access. Visitors could ride the streetcar from downtown to Gates at 12th and Brooklyn.
 - What kind of security will be necessary?
 - Where would stops be? Need stops at 12th Street and Prospect, 12th Street and Benton, and 12th Street and Brooklyn.
 - Important to connect 12th Street to 18th and Vine.
 - Provide a north-south connection on Benton to Grove Park (1500 Benton Blvd)
 - How can routes loop to create easy access for visitors? Creating a loop would provide great sightseeing opportunities.
 - Need to connect entertainment centers. For example riders could have dinner at Gates (12th and Brooklyn) and go listen to jazz music at 18th and Vine.
 - If there is no loop, the city will remain isolated. It is important to connect neighborhoods.
 - To relieve downtown parking congestion, a 12th Street park-and-ride facility would be a great option for I-70 commuters.
 - Provide access for visitors in downtown hotels to 18th and Vine.
 - Important to connect dots and make all neighborhoods a part of the City.
 - Need to connect to the younger population (market, campaign, teach).
 - Need to change perceptions about neighborhood transformation.
 - Need a festival to market the community.
 - Need a spark. Businesses have left, but neighborhoods are still strong.
 - Employment centers have left Kansas City, Missouri for Johnson County. The streetcar has the potential to bring businesses back. Missouri has lost a lot of state money.
 - How do we make Kansas City a 'fair city' so that all of the residents feel connected?
 - Need marketing to help understand funding, and get more community participation.
- Streetcar Station Stops:**
- Need stops at 12th Street and Prospect, 12th Street and Benton, and 12th Street and Brooklyn.
- Route Selection:**
- Area population and business

development will expand over the next decade.

• Miscellaneous:

- How fast will the streetcar travel? Approximately 10mph.
- How many streetcars will be in operation and how frequent will they stop? Typically, 2 streetcars per mile, stopping every 10 min or 12 minutes.
- What other cities with areas similar to 12th Street have been successful, and what can we learn from these areas?
- Who is responsible for operating the Streetcar? Kansas City Streetcar Authority.

3rd District Meeting on October 14: 30 stakeholders

- Connect convention center users through 3rd District
- What do we need a streetcar for? Why are people pushing the streetcar thing?
- How many more routes are being looked at?
- 3rd District council representatives want east route
- Hard to ride bus - have to wait 30 minutes to catch bus, so just walk home
 - Want faster transit - would ride streetcar
- Is there a focus for expansion of the streetcar system?

Urban Summit on October 18: 45 stakeholders

- Based on map shading, it looks like the Country Club ROW is moving forward - True or False?
- Don't want the east side to be disregarded,
- East/west connection is important for our community
- Previous study to go south via US-71 and connect to Banister area - Important connection for our community

Northeast Chamber on October 22: 24 stakeholders

- What will the streetcars look like, e.g. metal wheeled, etc?
- Will the streetcars be hybrid-powered?

Mobile Meeting at Whittier Elementary School

BBQ on October 28 and 29: 21 stakeholders

• Comments

- Prefer that streetcars replace buses
- Have streetcar instead of bus - after
- Truman Road needs to be streetcar route
- Streetcar would be good to connect KC - So spread out
- Should have streetcars everywhere - Make sure it covers different areas, e.g. both served and not served by bus already
- Don't raise taxes - let rich folks up north pay for it and the rest of the city can ride it. Areas south of the river pay the most on

bus fares already

Mobile Meeting at Gates BBQ on October 28: 67 stakeholders

• Comments

- Want streetcar connection to Overland Park, Kansas
- Concerned that the streetcar will take up sidewalk space.
- Need a streetcar route on Prospect that has stops on Independence Avenue, 12th Street, and 18th Street.

IV. Other Outreach Efforts

Corridor Walking/Flier Distribution on August 2 and 5: 28 businesses

- General response: enthusiastic about the project
 - Restaurant Depot
 - Phillips 66 [West Bottoms]
 - Vintage Shops [West Bottoms] [Bella Patina, etc.]**
 - Marriott Hotel
 - US Bank
 - American Cancer Society
 - Kryger Glass Company
 - St. Mark Child & Family Center
 - Goodman Ace Hardware [12th & Brooklyn]
 - Barbershop [12th & Brooklyn]
 - Heart of America Market
 - Antojitos Autentico Mexican Restaurant
 - Whatsoever Community Center**
 - Palette Rack and Forklifts
 - ABC Supply Co.
 - Shop 'n' Go
 - Gates BBQ [12th & Brooklyn]
 - Hotel Phillips
 - Country Club Bank [City Center Square]
 - One Kansas City Place
 - Starbucks Coffee [12th & Main]
 - Latté Land
 - GNC**
 - T-Mobile
 - Zaina Restaurant
 - 1201 Walnut Building
 - Boveri Realty Group
 - City Hall

Phone Call - Work with the Interactive Model on August 13: 24 bus riders

- Google Master List

Bus Riding on August 21-23: 24 bus riders

- Bus is primary mode of transportation
- Ride the bus regularly to get from work to home
- Supportive of streetcars primarily because of perceived efficiency and reliability
- Would ride a streetcar if it were on 12th Street
- Feel streetcars would be more convenient than the current bus system
- Feel streetcars would be more efficient

than buses, and would operate on a tighter schedule

- Riding from 23rd & Hardesty to the Kansas City Public Library
- Would ride the streetcar if it were on 12th Street, but he has concerns about a streetcar's viability on 12th Street, given the 'limited population along 12th Street'
- Would like to see greater connectivity in a streetcar system to outlying rural areas
- Riding from home near 12th & Olive to a job interview at 14th & Walnut
- Primary interest in streetcars lies in their perceived promptness (i.e. less 'waiting'), as well as the potential for 'networking'
- Rides the bus to get to classes and temporary place of residence at the City Union Mission
- Traveling to 12th & Benton to have dinner
- Supports any activity that can improve public transportation in KC
- Boarded the bus at 12th & Woodland and was en route to see a friend and go shopping
- Would ride a streetcar if it were on 12th Street, but they have reservations about the potentially higher cost of riding
- Would like to see a streetcar system with connections to outlying areas (i.e. Walmart, North Kansas City)
- Feel streetcars would be more efficient, more reliable, and cheaper to maintain long-term
- En route to the Community Center
- Would like to see a streetcar extend to Brush Creek
- Rides the bus out of necessity, as there is only 1 car in her family
- En route to the Claremore (sp?) Community Center
- Reservations about the potentially higher cost of riding streetcar; but recognized that the cost of riding a streetcar would be significantly less than that of a taxi
- Riding the bus as a secondary means of transportation, as her car was out of commission
- Riding from Kansas to Truman Road
- Feels that a streetcar system would have greater overall passenger capacity than that of the current bus system
- Riding the bus is a secondary means of transportation, as car was out of commission
- Traveling from the downtown loop area to 23rd & Hardesty
- Feels that a streetcar on 12th Street would not provide any more benefits than the current bus system
- Feels a streetcar system would be 'faster' than the current bus system
- En route 'south'
- Rides the bus to run errands and for other



- ‘personal’ trips
- Riding the bus from home near 10th & Askew Ave to 10th & Main
- Typically rides the bus along 12th Street and up and down Main Street
- Feels a streetcar would offer a more pleasant, faster ride than the current bus system
- Riding the bus into the downtown loop area
- Rides the bus regularly
- Would take streetcar to the grocery store
- Ride transit for work and errands
- Would like high frequency on the streetcar
- Feels 12th and Prospect is a key stop (transfer point)
- Feels that 18th and Vine is a key stop (FEC location)
- Wants rail to be accessible to lots of people from different locations in the city
- Wants to take streetcar to Plaza, Vine, and downtown
- Believes 31st St./Linwood route is better because it’s faster and offers a connection to the transfer point that goes to Wal-Mart near Blue Ridge/Sterling Avenue (off I-70)
- Rides the bus all over city now
- Believes that the city doesn’t need streetcar
- Feels that putting in a streetcar will take away bus drivers’ jobs
- Surprised KCATA’s interested in streetcar project (re: potential job impacts)
- Lives in Kansas and works in the West Bottoms
- Would like streetcar on 12th Street from Genesee (employment area) into downtown
- Would ride to Gregg Center and downtown library (youth)
- Prefers 12th Street route rather than 18th Street per live closer to 12th (convenience)
- Independence Avenue bus route is busy but has lots of problems (drunkards)
- Likes north-south streetcar idea because the Prospect and Troost bus routes are packed
- Streetcar should serve major connection points - Take load off buses
- Crime/cops near 12th and Hardesty area
- Suggests gathering input at 10th and Main transit center
- Recommends streetcar operates with hours that accommodate people’s work hours
- 12th Street - Lots of workers who need service around 6:30 p.m.

Street Team Canvassing Warehouse Weekends on September 6 and 7: 21 businesses

- Good Juju
- Nook and Cranny
- Hello Sailor

- Le Fou Flee
 - don’t think need streetcar
 - Northland has more traffic
 - Any burbs have more traffic
 - 18th/Vine is dying
 - Only do it if have money to blow - Concentrate downtown and connect us - do it fast and make it viable
 - If you wait 20 years, it’ll fail
 - Help the areas in need (Vine, Botoms)
 - Like 12th Street to 18th Street connection
 - Won’t bring Northlanders downtown (concerned about traffic)
 - Listen to local news to be informed
 - Uniqueness downtown, not in suburbs
 - Won’t ride streetcar per have car (I’m 62 and drive everywhere)
 - Help northeast area - KC Museum is closed (out of money to renovate) - Neighbors are afraid to leave home
- Re: restoration emporium
- Vintage Market Place
- Online engagement is better
- Nonsuch Place Vintage Antiques
- Rag and Bone
- Studio 1404
- Grand salvage company
- Lucky Dog Vintage
- West Bottoms Antiques and Collectibles
- Sit on it
 - Retail owner needs/priorities are different than those of west bottoms businesses who operate daily
 - Streetcar system exciting
 - Makes property more valuable, creates new development
- Foundation Architectural Reclamation - manager is Patrick
- Doc’s Caboose inc train warehouse - owned by doc
- Blue Djinn
- Zen Jen massage therapy
- Hickory Dickory
- Rustic Vinage Rose
 - Old trolley line used to run out of the State Street building (DST involved - gave tours to employees twice each year, two tunnel system - one was too steep so second built below it)
- Pentimento

Conversation on September 10: 2 stakeholders

- The Garment District
 - Supportive of streetcar starter line
 - Willing to write letter of support for Next Rail
 - Need more info about starter line (connect to Inside Track)
 - Questions about screening criteria
 - Have density or ridership studies been completed?
 - Need way to connect different areas of downtown so tourists know where they

- can go once they leave the convention center/crown center area
- Get lots of business from conventions
 - Like the idea of connecting SW Blvd to 18th Street
 - Connection south to Plaza makes sense

Street Team Canvassing on September 19 and 20:

33 businesses and agencies

- Jimmy John's
- SuperStop
- Wendy's
- Tomatillos
- Snappy Stores
- Restaurant Depot
- Mamie Lee Isler Child Development Center
- Ace Hardware
- HolySmoke and Cellular
- EaLaMar's Barber & Cosmetology College
- Gates BBQ
- T-Shirt King
- Heart of America Market
- Studio 12 Salon
- Peacock Barber and Beauty Salon
- Antojitos Autentico Centro America
- La Primavera Ice Cream
- A1 Powder Coating Painting
- KC Store Fixtures
- Würth Baer Supply
- Whatsoever Community Center
- ABC Supply Co.
- Courtesy Dry Cleaners
- Salvation Army
- Lucky Dog Vintage
- Keys 4 Kids
- Rag and Bone
- Reliance Paper Co.
- Studio 1404
- Starbucks (12th & Main)
- The Kansas City Public Library
- YMCA (Quality Hill)
- Quality Hill Towers

Street Team Canvassing on October 1 and 4: 23

businesses and apartment complexes

- Jimmy John's
- The Ambassador Hotel
- Subway
- Johnny's Tavern
- Flying Saucer
- Kansas City Repertory Theater
- Tea Drop Downtown
- Cosentino's
- Crowne Plaza
- Starbuck's Coffee at Crowne Plaza
- Quality Hill Pizza Hut
- Quality Hill Quizno's/Convenience Store
- Olive Park Apartments
- Speedy's Liquors
- Church's Chicken
- Metropolitan Spiritual Church
- Convenience Store at Brooklyn and

- Truman Road
- Convenience Store at 12th and Benton Boulevard
- Apartments on Prospect between 9th and 11th Streets
- T.B. Watkins Homes
- Wayne Minor Homes
- Freeway Apartments

Street Team Bus Stop Outreach on October 7: 55 bus riders

- **12th and Prospect (5 people)**

- Will the Streetcar replace bus service on 12th Street?
- Will the Streetcar make more frequent stops? A bus every thirty minutes is not enough and discourages people from riding. People are impatient.
- I ride the 12th Street bus to connect to the Main Street Max.
- Need a bus route that travels South on Prospect.
- Ride the bus to Grand and walk to the Library at 10th and Baltimore.

- **12th and Jackson (2 people)**

- Who is paying for this study? Sidewalks and roads need improvements first. Also, illegal dumping on vacant properties needs to be addressed.
- How far will it go? It needs to go at least to Hardesty

- **12th and Grand (18 people)**

- **10th and Main (30 people)**

Street Team Intercept Surveying October 22-25 and 28-29: 106 stakeholders

- **Survey Locations**

- 12th Street from Prospect to Van Brunt
- Gates Plaza
- Commerce Bank Building area

- **Question 1: Would you be supportive of a streetcar line on 12th Street?**

- Yes (88)
- No (8)
- Unsure (10)

- **Question 2: In general, are you supportive of developing a streetcar system for Kansas City?**

- Yes (94)
- No (8)
- Unsure (4)

- **Question 3: What thoughts do you have about a potential streetcar line on 12th Street or a Kansas City streetcar system overall?**

- Streetcar system would be cool different and neat. Biggest interest is Independence Avenue - need something there - buses are crowded and 2 to 3 more are needed that go to Independence Missouri.
- Property tax increases over 10000. Hard to



- keep tenants.
- Neighborhood maintenance and cleanup needs to happen first. Property value will increase. Help people who can't afford a car
 - Great idea. It would be great to ride the streetcar and read the newspaper on the way to work.
 - Independence Ave or Truman Road would be better. More traffic than 12th street. Property on 12th street could be developed streetcar could help with that.
 - Cannot see street because it is blocked by semis from businesses across the street. Have to keep cars inside business. Must get rid of semis before building the streetcar. Don't build on Independence Ave. unsafe. 12th street would be better.
 - Sell cars - streetcar would put me out of business.
 - Would my car business out of business.
 - Would help bring people to my business on 12th
 - 12th street would be great. Too much traffic on independence. People use 12th street to get downtown
 - This idea is stupid. This is no San Francisco.
 - Lacking in mass transit this would be great for the city
 - I think it would be a good thing to bring more attention to the neighborhood
 - I work as the youth the director here at whatsoever community center and having a street car would allow easy transportation for the community around the area
 - I think public transportation is always a good thing especially since I drive 15 miles to work every day. I would like to be able to use public transportation from Overland Park KS to KCMO. Overall I would like to see this service in the Metro even if I cannot use it.
 - Would improve n'hood and help people get around better
 - Easier to and from work.
 - Waldo and independence are better options for travel Because they are heavily trafficked areas
 - Good for bringing people downtown
 - Want a connection to Waldo because would also connect to plaza and downtown. Lots of visitors want to go to plaza. Wish could go up to airport and stadium. Don't like fact no buses out to stadium anymore. Jealous of St. Louis who have light rail.
 - Gotta have streetcar all over - that's the only way it's going to work. Love the idea pf getting on one streetcar for a 30-minute ride versus getting on several buses for an hour or so just to get to the same place.
 - Would like connection to Waldo.
 - Not sure about Linwood as a corridor per ridership concerns. Independence Avenue is a good corridor. 12th Street route could take people to Gates - Would be good for other businesses too. Need VA Hospital Connection per bus doesn't run long enough - Need 24-hour service so patients can leave after hospital stay. Need route along Prospect Avenue. Would love to leave car and park and ride streetcar downtown especially since downtown parking is expensive.
 - Hard to imagine how the streetcar would operate with the bus system.
 - Something new different for KC - Keep up with other cities
 - Customers are just now coming this way (east) from downtown and are discovering what 12th and Brooklyn has to offer.
 - People take the bus - streetcar would be expensive - increase taxes
 - Want Waldo connection per streets confusing parking is a mess but Waldo/ Brookside area has nice places to visit.
 - Good alternative to car transportation.
 - 12th Street has lots of traffic.
 - Prefer that the streetcar replace the bus.
 - Have streetcar instead of bus - safer.
 - Truman Road needs a route.
 - Kansas City is so spread out - Would be good for connecting it.
 - Should have streetcars everywhere - make sure it covers different areas of the community even areas that aren't currently served by transit.
 - Streetcar is attraction that would bring more tourists to 12th Street and would help people get around faster.
 - Would bring in downtown customers to 12th street businesses; people who are in between the Greyhound buses. Big negative about the streetcar: used to run over people during winter weather (need to keep ice and snow off of tracks).
 - Need to go to suburbs also.
 - Would like it for 12th Street - Need more development along 12th Street need amenities for everyone need to provide things for millennials. Need to connect Independence Avenue and the Price Chopper on Wilson Road to 12th Street per the population near Wilson needs transportation. Need Google Fiber for Gates Plaza area.
 - Cool - Other transportation options available to resident
 - Question 4: Which tools are best for sharing information with you (select at least 1 tool)
 - Email or text messaging (43)
 - Project website (20)
 - Twitter and/or Facebook (23)

- In person (45)
 - TV, radio, and/or newspaper outlets (17)
 - Telephone call (0)

- **Question 5: If email is the best way to share information with you, please share your email address?**
 - 24 email addresses received

- **Question 6: If text messaging is the best way to share information with you, please share your cell phone number with us.**
 - 4 cell phone numbers received

- **Question 7: How would you describe yourself (select up to 3 descriptions)**
 - Homeowner (33)
 - Business owner (24)
 - Employee (58)
 - Transit rider (9)
 - Renter or lessee (16)
 - Other stakeholder (8)

- **Question 7: What is your zip code?**
 - 106 respondents

- **Other Comments**
 - Not so in favor of Waldo expansion per need to spend money on people who need transit. Not opposed to extending to Plaza per economic aspects. Need to make efficient transit available to other parts of the community.
 - Will bring more jobs! Need more people working.
 - Want streetcar connection to Overland Park, Kansas
 - Concerned that the streetcar will take up sidewalk space.
 - Need a streetcar route on Prospect that has stops on Independence Avenue, 12th Street, and 18th Street.
 - Can see a plaza connection but not necessarily eastern connections. Think streetcar is a novelty - weekend users. We have signed petitions against streetcar.
 - Want streetcar connection to Overland Park, Kansas

E-Blasts and Phone Calls: 75-person stakeholder list on Google Drive

- Project-related emails and phone calls were deployed to master list contacts for 12th Street from late July through October. Calls and/or emails related to the following:
 - Kick-off event announcement
 - Kick-off event reminder
 - Working with the model at Union Station
 - Model moved to the Lincoln Building
 - Scheduling presentations about the project
 - Corridor workshop invitation/announcement





October 28, 2013

Mayor Sly James
City of Kansas City
414 E. 12th Street, 29th Floor
Kansas City, Missouri 64106

Re: Support for a Streetcar Line along 12th Street

Dear Mayor James,

The staff and board of Kansas City Rescue Mission are excited about NextRail KC's 8-route streetcar expansion study! We understand that part of the planning process involves narrowing the eight routes under consideration to three or four. KCRM recently established the KCRM Women's Center in the Independence Plaza Neighborhood, just one block off 12th Street! As new neighbors in the district, we strongly support 12th Street's inclusion among the routes to be studied in greater detail through NextRail KC.

Twelfth Street was one of the original streetcar routes connecting key areas in Kansas City, contributing to its expansion and accelerating community development and improvement. Recent redevelopment activities have focused on the Kansas City Power and Light and Crossroads Districts and areas south. Now it's time to focus community revitalization efforts west and east with the development of a streetcar line on 12th Street that extends from 12th and Main Streets into the West Bottoms and the Jazz District. Such a connection would:

- Improve our neighborhood's access to jobs, community services, recreational and shopping districts.
- Complement our neighborhood's mix of warehouse and industrial businesses, restaurants, bars, retailers, flea markets, vintage clothing and furniture shops, and artist and residential conversion projects that need a transit connection to the Central Business District and Kansas City, Kansas.
- Enhance financial commitments already made for improvements to the 12th Street Bridge, Beardsley Road, a sewer overall haul in the West Bottoms, and planned residential development along Garfield from 13th to 14th Streets, 12th Street streetscaping from Troost to Prospect Avenues, and more.
- Be consistent with initiatives such as the Kansas City Design Center's recommendation to develop a multimodal transit hub located near the 12th Street Bridge, James Street Viaduct, and I-670 ramps.
- Support the guiding principles of the **Greater Downtown Area Plan** that outline the importance of reinforcing and embracing mixed-use development in the Central Business Corridor (CBC), including the West Bottoms, Downtown East, and 18th and Vine, and connecting them with a transit corridor. The plan notes the CBC should be maintained as a regional office/employment center, cultural destination, and the center of entertainment, convention, and tourism activity.

Expanding the streetcar system with a line on 12th Street is a key component of the continued successful redevelopment of our neighborhood. Please include 12th Street in NextRail KC's detailed analysis of the streetcar expansion lines.

Sincerely,

A handwritten signature in black ink, appearing to read "Julie Larocco".

Julie Larocco
Chief Development Officer
Kansas City Rescue Mission

October 24, 2013

Mayor Sly James
City of Kansas City
414 E. 12th Street, 29th Floor
Kansas City, Missouri 64106

Re: Support for a Streetcar Line along 12th Street

Dear Mayor James,

Boston Heights and Mount Hope n.a. is excited about Next Rail KC's 8-route streetcar expansion study! We understand that part of the planning process involves narrowing the 8 routes to 3 or 4 for additional study. Boston Heights and Mount Hope n.a. is strongly supportive of 12th Street being included among the routes to be studied in greater detail through NextRail KC.

In the center of the city, 12th Street was one of the first streetcar routes. It changed the character of the city's landscape, contributed to its expansion, and accelerated community development and improvement. As the city evolved, it expanded both south and east with the aid of transit lines built along major corridors that traveled, not only north and south, but also east and west. Recent redevelopment activities have focused on the Kansas City Power and Light and Crossroads Districts and areas south. It is now time to focus community revitalization efforts west and east with the development of a streetcar line on 12th Street that extends from 12th and Main Streets into the West Bottoms and the Jazz District. Such a connection would:

- Improve our neighborhood's access to jobs, entertainment, and community services.
- Compliment our neighborhood's unique mix of warehouse and industrial businesses, restaurants and bars, retailers, flea markets, vintage clothing and furniture shops, and artist and residential conversion projects that need a direct transit connection to the Central Business District and Kansas City, Kansas.
- Enhance financial commitments already made for improvements to the 12th Street Bridge, Beardsley Road, a \$2.5 billion sewer overall haul in the West Bottoms, and planned residential development along Garfield from 13th to 14th Streets, 12th Street streetscaping from Troost to Prospect Avenues, and more.
- Be consistent with neighborhood initiatives, such as the Kansas City Design Center's recommendation to develop a multimodal transit hub located near the 12th Street Bridge, James Street Viaduct, and I-670 ramps.
- Support the guiding principles of the **Greater Downtown Area Plan** that online the importance of reinforcing and embracing mixed use development in the Central Business Corridor (CBC), which includes the West Bottoms, Downtown East, and 18th and Vine, and connecting them with a transit corridor. The plan notes that the CBC should be maintained as a regional office/employment center, cultural destination, and the center of entertainment, convention, and tourism activity.

Expanding the streetcar system with a line on 12th Street is a key component of the continued successful redevelopment of our neighborhood. We whole heartedly support 12th Street being included in NextRail KC's detailed analysis of the streetcar expansion lines.

Sincerely,

Boston Heights and Mount Hope n.a.

cc: Councilmember Jermaine Reed, Councilmember Melba Curls, Councilmember Scott Wagner, Councilmember Dick Davis, Councilmember Russ Johnson, Councilmember Ed Ford, Councilmember Jan Marcusson, Councilmember Jim Glover, Councilmember Cindy Circo, Councilmember Michael Brooks, Councilmember Scott Taylor, Councilmember John Sharp, City Manager Troy Schulte, Bob Langenkamp, Bobbi Baker-Hughes, Spike Nguyen, Katie Greer, Forestine Beasley, Bianca Tillard-Gates, Donna Mandelbaum, Dave Johnson, Matthew Staub, Leslie Caplan, Mark Morales, Jason Fields, Tom Ribera, Julie Lane, Dan Frueh, Independence- Plaza Neighborhood Council, Forgotten Homes Neighborhood Association, Twelfth Street Heritage Development Corporation, Paseo West Association, Central Industrial District Association/Historic West Bottoms





October 23, 2013

Mayor Sly James
City of Kansas City
414 E. 12th Street, 29th Floor
Kansas City, Missouri 64106

Re: Support for a Streetcar Line along 12th Street

Dear Mayor James,

The Downtown Neighborhood Association is excited about NextRail KC's 8-route streetcar expansion study! We understand that part of the planning process involves narrowing the 8 routes to 3 or 4 for additional study. The Downtown Neighborhood Association is strongly supportive of 12th Street being included among the routes to be studied in greater detail through NextRail KC.

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Expanding the streetcar system with a line on 12th Street is a key component of the continued successful redevelopment of our neighborhood. We whole heartedly support 12th Street being included in NextRail KC's detailed analysis of the streetcar expansion lines. We also want to express our support of the NextRail KC study and recognize that each route has value. All expansion routes provide a connection to our neighborhood and the starter line. We support any expansion of the streetcar system in a logical manner.

Sincerely,

Lindsay Tatro
President
Downtown Neighborhood Association

cc: Councilmember Jermaine Reed, Councilmember Melba Curls, Councilmember Scott Wagner, Councilmember Dick Davis, Councilmember Russ Johnson, Councilmember Ed Ford, Councilmember Jan Marcusson, Councilmember Jim Glover, Councilmember Cindy Circo, Councilmember Michael Brooks, Councilmember Scott Taylor, Councilmember John Sharp, City Manager Troy Schulte, Bob Langenkamp, Bobbi Baker-Hughes, Spike Nguyen, Katie Greer, Forestine Beasley, Bianca Tillard-Gates, Donna Mandelbaum, Dave Johnson, Matthew Staub, Leslie Caplan, Mark Morales, Jason Fields, Tom Ribera, Julie Lane, Dan Frueh, Independence- Plaza Neighborhood Council, Forgotten Homes Neighborhood Association, Twelfth Street Heritage Development Corporation, Paseo West Association, Central Industrial District Association/Historic West Bottoms



The Arts Asylum
1000 East 9th Street
Kansas City, MO 64106
(816) 301-7444
www.theartsasylum.org

October 29, 2013

Mayor Sly James
City of Kansas City
414 E. 12th Street, 29th Floor
Kansas City, Missouri 64106

Re: Support for a Streetcar Line along 12th Street

Dear Mayor James,

The Arts Asylum is excited about NextRail KC's 8-route streetcar expansion study! We understand that part of the planning process involves narrowing the 8 routes to 3 or 4 for additional study. The Arts Asylum strongly supports 12th Street being included among the routes to be studied in greater detail through NextRail KC.

In the center of the city, 12th Street was one of the first streetcar routes. It changed the character of the city's landscape, contributed to its expansion, and accelerated community development and improvement. As the city evolved, it expanded both south and east with the aid of transit lines built along major corridors that traveled, not only north and south, but also east and west. Recent redevelopment activities have focused on the Kansas City Power and Light and Crossroads Districts and areas south. It is now time to focus community revitalization efforts west and east with the development of a streetcar line on 12th Street that extends from 12th and Main Streets into the West Bottoms and the Jazz District. Such a connection would:

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Expanding the streetcar system with a line on 12th Street is a key component of the continued successful redevelopment of our neighborhood. We whole heartedly support 12th Street being included in NextRail KC's detailed analysis of the streetcar expansion lines.

Sincerely,

Sean Hogge
Board President
The Arts Asylum

cc: Councilmember Jermaine Reed, Councilmember Melba Curls, Councilmember Scott Wagner, Councilmember Dick Davis, Councilmember Russ Johnson, Councilmember Ed Ford, Councilmember Jan Marcusson, Councilmember Jim Glover, Councilmember Cindy Circo, Councilmember Michael Brooks, Councilmember Scott Taylor, Councilmember John Sharp, City Manager Troy Schulte, Bob Langenkamp, Bobbi Baker-Hughes, Spike Nguyen, Katie Greer, Forestine Beasley, Bianca Tillard-Gates, Donna Mandelbaum, Dave Johnson, Matthew Staub, Leslie Caplan, Mark Morales, Jason Fields, Tom Ribera, Julie Lane, Dan Frueh, Independence- Plaza Neighborhood Council, Forgotten Homes Neighborhood Association, Twelfth Street Heritage Development Corporation, Paseo West Association, Central Industrial District Association/Historic West Bottoms



918 East 9th Street, Kansas City, MO 64106-3072
(816) 472-5664 • (816) 472-6127 • 24 Hour Youth Hotline (816) 309-9048
www.reStartinc.org

October 29, 2013

Evelyn E. Craig, MA, CFRE
President and CEO

Board of Directors

John Kinney, Chair
Attorney at Law

Jeff Turner, Vice Chair
Commerce Bank

Leslie Sims, CPA, Treasurer
McGladrey & Pullen, LLP

Rosemary Polk, Secretary
Assurant Employee Benefits

Timothy Stepp, M.D., Assistant Secretary
University of Kansas

Jamesetta Davis
Communication Workers of America
Local 6355

Sue Fahey
Community Volunteer

Debra Johnson
Blue Cross and Blue Shield

Heath J. Leuck, CPA
John Knox Village

Dirk Schafer
JE Dunn Construction Company

Mayor Sly James
City of Kansas City
414 E. 12th Street, 29th Floor
Kansas City, Missouri 64106

Re: Support for a Streetcar Line along 12th Street

Dear Mayor James,

reStart Inc. is excited about NextRail KC's 8-route streetcar expansion study! We understand that part of the planning process involves narrowing the 8 routes to 3 or 4 for additional study. reStart Inc. is strongly supportive of 12th Street being included among the routes to be studied in greater detail through NextRail KC.

In the center of the city, 12th Street was one of the first streetcar routes. It changed the character of the city's landscape, contributed to its expansion, and accelerated community development and improvement. As the city evolved, it expanded both south and east with the aid of transit lines built along major corridors that traveled, not only north and south, but also east and west. Recent redevelopment activities have focused on the Kansas City Power and Light and Crossroads Districts and areas south. It is now time to focus community revitalization efforts west and east with the development of a streetcar line on 12th Street that extends from 12th and Main Streets into the West Bottoms and the Jazz District. Such a connection would:

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Expanding the streetcar system with a line on 12th Street is a key component of the continued successful redevelopment of our neighborhood. We whole heartedly support 12th Street being included in NextRail KC's detailed analysis of the streetcar expansion lines.

Sincerely,

reStart Inc.

cc: Councilmember Jermaine Reed, Councilmember Melba Curls, Councilmember Scott Wagner, Councilmember Dick Davis, Councilmember Russ Johnson, Councilmember Ed Ford, Councilmember Jan Marcusson, Councilmember Jim Glover, Councilmember Cindy Circo, Councilmember Michael Brooks, Councilmember Scott Taylor, Councilmember John Sharp, City Manager Troy Schulte, Bob Langenkamp, Bobbi Baker-Hughes, Spike Nguyen, Katie Greer, Forestine Beasley, Bianca Tillard-Gates, Donna Mandelbaum, Dave Johnson, Matthew Staub, Leslie Caplan, Mark Morales, Jason Fields, Tom Ribera, Julie Lane, Dan Frueh, Independence- Plaza Neighborhood Council, Forgotten Homes Neighborhood Association, Twelfth Street Heritage Development Corporation, Paseo West Association, Central Industrial District Association/Historic West Bottoms

October 29, 2013

Mayor Sly James
City of Kansas City
414 E. 12th Street, 29th Floor
Kansas City, Missouri 64106

Re: Support for a Streetcar Line along 12th Street

Dear Mayor James,

The Sheffield Neighborhood Association is excited about NextRail KC's 8-route streetcar expansion study! We understand that part of the planning process involves narrowing the 8 routes to 3 or 4 for additional study. The Sheffield Neighborhood Association is strongly supportive of 12th Street being included among the routes to be studied in greater detail through NextRail KC.

In the center of the city, 12th Street was one of the first streetcar routes. It changed the character of the city's landscape, contributed to its expansion, and accelerated community development and improvement. As the city evolved, it expanded both south and east with the aid of transit lines built along major corridors that traveled, not only north and south, but also east and west. Recent redevelopment activities have focused on the Kansas City Power and Light and Crossroads Districts and areas south. It is now time to focus community revitalization efforts west and east with the development of a streetcar line on 12th Street that extends from 12th and Main Streets into the West Bottoms and the Jazz District. Such a connection would:

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Sincerely,

Sheffield Neighborhood Association President
Mark Morales

cc: Councilmember Jermaine Reed, Councilmember Melba Curls, Councilmember Scott Wagner, Councilmember Dick Davis, Councilmember Russ Johnson, Councilmember Ed Ford, Councilmember Jan Marcusson, Councilmember Jim Glover, Councilmember Cindy Circo, Councilmember Michael Brooks, Councilmember Scott Taylor, Councilmember John Sharp, City Manager Troy Schulte, Bob Langenkamp, Bobbi Baker-Hughes, Spike Nguyen, Katie Greer, Forestine Beasley, Bianca Tillard-Gates, Donna Mandelbaum, Dave Johnson, Matthew Staub, Leslie Caplan, Mark Morales, Jason Fields, Tom Ribera, Julie Lane, Dan Frueh, Independence- Plaza Neighborhood Council, Forgotten Homes Neighborhood Association, Twelfth Street Heritage Development Corporation, Paseo West Association, Central Industrial District Association/Historic West Bottoms



12TH STREET EAST CORRIDOR WORKSHOP SUMMARY

Meeting Date: October 8, 2013

Number of participants: 7

I. Summary: Vision for Change

Key points: East-west and north-south connections that involve 12th Street are important because they link neighborhoods to downtown jobs and entertainment as well as local social services. The streetcar is an opportunity to improve 12th Street's connection to downtown and thereby the population residing and working in the surrounding area.

- **Residents:** 12th Street's close proximity to downtown provides great opportunities for economic development and job growth for the neighborhood. It would also attract young professionals who work downtown.
- **Businesses:** There is lots of vacant land in the corridor that could be transformed into mixed use developments. However, incentives and infrastructure improvements are needed to attract developers to 12th Street.
- **Tourism:** Promote historic places; connect 12th and Brooklyn to downtown, and link entertainment centers, e.g. 18th and Vine, Power and Light District, and Crown Center.
- **City Officials:** Employment centers are gone but neighborhoods remain strong. Connect residents (and neighborhoods) and change the perception of neighborhood transformation.

Major concerns:

- Integration of current bus system with streetcar.
- Desire for north-south route and/or connection to 12th Street (loop).

II. Small Group Discussions:

Community Group Narrative Discussions

Group 1

• Neighborhoods:

- Need improved infrastructure to attract developers to the area.
- 12th Street neighborhoods are less than three minutes from the downtown core, but are not considered part of downtown. This close proximity provides great opportunities for economic development and attracting young professionals working downtown.
- Important to provide a continuous east-west connection between neighborhoods.
- How will the streetcar be integrated with the current bus system?

- Need a north-south connection at 12th Street and Prospect.
- Need a north-south connection on Woodland from Independence Avenue to 9th Street.
- Residents would ride the streetcar to avoid paying for and finding parking spaces downtown.
- Washington Wheatley neighborhood residents could get downtown by riding a north-south bus connector to the 12th Street streetcar.
- Popular destinations include: Crown Center and Power & Light district.
- People will put their car in the garage and consider alternative transportation once gas is over \$8.00/gallon. How can residents learn new habits? More importantly, how do we teach younger generations about the benefits of alternative transportation?
- What would make me want to live in the neighborhood? What would make me want to ride the streetcar? Because it would be safe, clean, and protected by the City.
- Currently, developers do not have incentives to build in the area unless supported by city; "cared for by the City" will encourage developers.
- Bringing jobs to the area will increase market rate housing and keep money in neighborhoods.
- Transportation will improve access to existing social services in the area.
- Essential to incorporate the bus system and create a north-south loop.
- How can neighborhood's establish relationships with developers so they can have input in their own community? Unfortunately, neighborhoods can't wait for developers to come to them. The first step is to get involved with the Economic Development Council.

• Businesses:

- 12th Street's close proximity to the Downtown Business District could attract smaller businesses that may not be able to afford downtown rents.
- Independence Avenue currently has the cheapest rental rate per square foot.
- Abundance of vacant land which could be transformed into mixed-use development.

- **Visitors:**

- Essential to promote historic places along the corridor (12th Street and Vine).
- 12th Street connects multiple downtown hotels and a streetcar would enable instant access. Visitors could ride the streetcar from downtown to Gates at 12th and Brooklyn.
- What kind of security will be necessary?
- Where would stops be? Need stops at 12th Street and Prospect, 12th Street and Benton, and 12th Street and Brooklyn.
- Important to connect 12th Street to 18th and Vine.
- Provide a north-south connection on Benton to Grove Park (1500 Benton Blvd)
- How can routes loop to create easy access for visitors? Creating a loop would provide great sightseeing opportunities.
- Need to connect entertainment centers. For example riders could have dinner at Gates (12th and Brooklyn) and go listen to jazz music at 18th and Vine.
- If there is no loop, the city will remain isolated. It is important to connect neighborhoods.
- To relieve downtown parking congestion, a 12th Street park-and-ride facility would be a great option for I-70 commuters.
- Provide access for visitors in downtown hotels to 18th and Vine.

- **Elected Official:**

- Important to connect dots and make all neighborhoods a part of the City.
- Need to connect to the younger population (market, campaign, teach).
- Need to change perceptions about neighborhood transformation.
- Need a festival to market the community.
- Need a spark. Businesses have left, but neighborhoods are still strong.
- Employment centers have left Kansas City, Missouri for Johnson County. The streetcar has the potential to bring businesses back. Missouri has lost a lot of state money.
- How do we make Kansas City a ‘fair city’ so that all of the residents feel connected?
- Need marketing to help understand funding, and get more community participation.

- Area population and business development will expand over the next decade.

Miscellaneous:

- How fast will the streetcar travel?
Approximately 10mph.
- How many streetcars will be in operation and how frequent will they stop? Typically, 2 streetcars per mile, stopping every 10 min or 12 minutes.
- What other cities with areas similar to 12th Street have been successful, and what can we learn from these areas?
- Who is responsible for operating the Streetcar? Kansas City Streetcar Authority.

III. Other Input: Model Facilitation & General Comments

Termini:

- No discussion.

Streetcar Station Stops:

- Need stops at 12th Street and Prospect, 12th Street and Benton, and 12th Street and Brooklyn.

Route Selection:



MAIN STREET CORRIDOR OUTREACH SUMMARY

Total Stakeholders Reached: Approximately 456

Total Letters of Support: 1

I. Summary: Vision for Change

Key points for 12th Street East: Residents generally agree that Main Street makes the most sense as one of the first round of expansion routes since it connects downtown and Crown Center to UMKC and the Plaza. There is strong agreement that connecting UMKC and the proposed downtown arts campus would be beneficial to the entire city. Residents envision a revitalized Main Street with newly-developed residential and businesses. They see Main Street becoming a more pedestrian and bike friendly street and less dependent on automobiles.

- Main links downtown, Plaza, UMKC, Westport
- Hop on it and get to all those
- Use it for play mainly, great for bar hops
- Good for students at UMKC, Hospital Hill workers
- Can make Main Street really strong
- Main Street is a “killer” route, because its in the middle

II. Summary: Identified Concerns

Key concerns: The greatest concern lies in how neighborhoods can be protected, in terms of land use policy and development guidelines, as a streetcar line develops. While people want to see more development and redevelopment on Main Street, they fear neighborhoods will have to give up other things so that the city can fund the streetcars. Some people on Main Street have concerns that imminent domain will be used to take property at transit nodes. There is also a strong sentiment that the Main Street MAX already works well, so perhaps the streetcar line is not necessary as a mode of transportation. There is another concern that some small businesses could go out of business during construction.

- Big concern – how to protect neighborhoods as Main Street is redeveloped
- Concern: streetcar on Main may increase demand for high density apartments around Armour, etc. that could be a threat to neighborhoods because it could lead to the destruction of single family homes
- Broadway businesses don't want streetcars because they would reduce automobile traffic and hurt business
- Old Hyde Park resident – concern from last planning for light rail, plans showed circles around nodes, referred to in neighborhoods as “bombing maps” – concern about imminent domain being used as nodes

as “bombing maps” – concern about imminent domain being used as nodes

- What will you have to take away to do this?
- Disenfranchise property owners while building
- Will put some small business out of business during construction
- People have bikes to travel these areas
- Main Street already works fine with the MAX
- Concern: streetcar on Main may increase demand for high density apartments around Armour, etc. that could be a threat to neighborhoods because it could lead to the destruction of single family homes

○

III. Public Meetings Attended

Union Hill Neighborhood meeting: [45]

- Universal support for Main Street
 - But come out of Crown Center on Gillham and connect to Main later. Much development potential on that section of Gillham but not that section of Main
 - Main links downtown, Plaza, UMKC, Westport
 - Hop on it and get to all those
 - Use it for play mainly, great for bar hops
 - Good for students at UMKC, Hospital Hill workers
 - Can make Main Street really strong

Midtown Plaza area plan steering committee Oct.

2: [approximately 30]

(Note: the steering committee includes neighborhood presidents, business leaders and representatives of important institutions in Midtown, who are meeting to develop a new Midtown Plaza area plan).

- Make sure trolley track trail can include both streetcars and current trail uses
- Main Street line needs to go to UMKC, stop at Plaza around America Century
- Stop at Holiday Inn site, could be redeveloped
- Important to go east/west as well as north south – to be equitable
- 43rd Street – problem with traffic going in and out of Berbelia
- Old Hyde Park resident – concern from last planning for light rail, plans showed circles around nodes, referred to in neighborhoods as “bombing maps” – concern about imminent domain being used as nodes
- Need to have urban design guidelines and

- policies to protect neighborhoods
- Redevelopment brought about by streetcar should meet the Midtown Plaza plan guidelines
- Big concern - how to protect neighborhoods as Main Street is redeveloped
- Nodes - = opportunity for more density
- The "heart and soul" of the revival of Midtown has been the restoration of single family homes
- Concern: streetcar on Main may increase demand for high density apartments around Armour, etc. that could be a threat to neighborhoods because it could lead to the destruction of single family homes
- Broadway businesses don't want streetcars because they would reduce automobile traffic and hurt business
- Need better east/west connections
- City is pushing this group to spell out where more dense development is wanted and where it is not wanted
- City planners are developing a map showing neighborhoods that need the most help versus those that need the least help

Troost Alliance meetings July 24, Sept. 4, Sept.

25: [approximately 70]

- Offered information, told participants how to give comments online, invited to public meetings

Midtown Plaza Plan meeting Sept. 18:

[approximately 120]

- Offered information, told participants how to give comments online, invited to public meetings

MainCor luncheon August 15, Sept. 4:

[approximately 75]

- Offered information, told participants how to give comments online, invited to public meetings

4th District Neighborhood Presidents meeting

August 29: [approximately 40]

South Plaza neighborhood meeting Oct. 20, 2013:

[approximately 25]

- South Plaza neighborhood is in general in support of the streetcar coming to the Plaza or to the trolley track trail, according to President Keith Spare
- Bus rider says pick a route and be as direct as possible
- Main Street is a good spine
- Bumpouts on Main Street are a mess, get rid of them
- Start from downtown and go to the Plaza
- would cut down on traffic in neighborhoods
- easy to add feeders to UMKC, especially if they do the arts campus
- would help with business development
- City should not be in the streetcar business,

some other entity like the ATA should manage the system

Volker Neighborhoods Meeting Oct. 17, 2013

[approximately 25]

- A regular meeting convened by UMKC for the neighborhoods that surround it.
- General support for project

MainCor Board of Directors, Oct. 16 (10 participants)

- Overall support for streetcars on Main Street
- The MainCor board reiterated the issues and concerns submitted by Diane Burnette

IV. Other Outreach Efforts

Main Street Day Cyclovia booth/model demonstration: (56 REACHED)

- Routes
 - Main Street 11111
 - Airport 1111
 - Linwood to stadium111
 - 12th Street east and west to KCK
 - 18th Street
 - Independence Avenue
 - definitely need east-west route
 - should go to Bannister Mall area
 - historical sites should be priority destinations
 - Main Street is a "killer" route, because its in the middle
 - Eventually Belton
 - Main Street to the Plaza – strong backbone to branch off from
 - UMKC
 - 39th to KU Med
 - Main Street route should start on Broadway, jog over to Main at Linwood, and back over to Broadway to pick up Westport
 - Plaza
 - Johnson County
 - Stop at 75th and Wornall
 - Broadway and Ward Parkway
 - Sprint Center
 - 45th and State Line, to the starter village, needed there
- Why streetcar is important
 - the next level of public transit. Less cars, more walking and bikes
 - 39th Street and Independence
 - Main Street could use revitalization
 - Cities that have public transportation are better
 - To get people to work
 - Community improvement on the east side
- Making it work
 - need to stop the most times possible
 - very important to stay on schedule – some buses, like the Broadway 47, are not



- reliable
- o run late in evening
- o need bike racks in the front
- o need place to put suitcase or groceries
(young couple uses a rolling suitcase for grocery shopping)
- o need to solve east-west problem
- Downside to streetcars or why they're not needed
 - o what will you have to take away to do this?
 - o Disenfranchise property owners while building
 - o Will put some small business out of business during construction
 - o People have bikes to travel these areas
 - o Main Street already works fine with the MAX

Canvassing of Main Street businesses:

[approximately 50]

- Offered information, told participants how to give comments online, invited to public meetings

Individual meetings:

- Phil Goode, business owner, Property owner on Main Street:
- Federal Reserve Bank, Mark Horan, Federal Reserve Bank director of facilities
- UMKC Bob Simons
- MainCor, Diane Burnett





University of Missouri – Kansas City
Student Government Association Senate
Resolution 09302014001

A BILL COMMITTING SGA'S SUPPORT OF THE KC STREETCAR

WHEREAS, The University of Missouri - Kansas City Student Government Association has shown its commitment to making public transportation accessible to its students in the past; and

WHEREAS, UMKC had been previously referred to as a 'streetcar college'; and

WHEREAS, the streetcar system is a public amenity that will improve corridor accessibility through transit to better connect students to the City's major activity and employment centers; and

WHEREAS, the streetcar system would elevate the quality and functioning of the region's transit system, encourage pedestrian traffic, promote economic growth and alleviate vehicular congestion; and

WHEREAS, the current plan includes a route which would travel near UMKC; and

WHEREAS, students would be able to take the streetcar between campuses, Downtown Arts, Hospital Hill, and Volker; and

WHEREAS, the Streetcar System will prove to be a vital resource to students on this urban campus;

THEREFORE BE IT RESOLVED, the Student Government Association commits its support for the Streetcar project and current proposal.

Respectfully Submitted Amy Johnson, BSSG Senator, President Pro Tempore
 Caleb-Michael Files, ASSC Senator, Chief of Staff



University of Missouri – Kansas City
Student Government Association Senate
Resolution 09302014001

A BILL COMMITTING SGA'S SUPPORT OF THE KC STREETCAR

Senate Vote Results

Votes for: 19
Votes Against: 1
Abstained: 4

A handwritten signature in blue ink, appearing to read "Benjamin Campero".

Benjamin Campero
President, Student Government Association

A handwritten signature in blue ink, appearing to read "Mel Tyler".

Mel Tyler
Vice Chancellor of Student Affairs
and Enrollment Management

10-14-2013

Date

10-16-2013

Date



MAIN STREET CORRIDOR WORKSHOP SUMMARY

Meeting Date: October 10, 2013

Number of participants: 25

I. Summary: Vision for Change

Key points: [Participants expressed a strong support for Main Street as the most logical first expansion route. One spoke of Main Street as the backbone of the future system. They envision a Main Street that is much more walkable and has less traffic, with cleaner air. Kansas City in general would become a more urban place. They also imagine that a longer Main Street route would continue the resurgence of downtown and the Crossroads by connecting them to the Plaza, art museums and other amenities. Many believe that a link to UMKC is a major reason to choose the Main Street route, and that the movement of students from the Volker campus to a downtown campus will add vibrancy to the city.

- **Residents:** Neighborhood participants said a Main Street route would connect neighborhoods and create a greater sense of community. They picture residents have a less stressful life as they have more time to read or work during their commute on a streetcar. They see people having more household income as they are able to get by with only one car or no cars per household, and that housing values would increase. They also think streetcars would attract more of the creative class to the Main Street corridor, adding vibrancy to neighborhoods. As the streetcar line develops, they foresee streetscape improvements along Main. Some residents said they support the Main Street route because it is a first step toward a Country Club right-of-way route. They see a robust use of the lines by UMKC students, contributing to a connection between a downtown arts campus and the Volker campus.
- **Businesses:** Participants spoke of new types of businesses springing up, and “auto-oriented” businesses becoming less common. They also picture an increase in businesses that serve the needs of local residents and can be reached by streetcar or foot. They like the idea of farmer’s markets, small businesses and more mixed-use development. They think more restaurants would serve the route. They also envision current surface parking lots being redeveloped and adding to the economy.
- **Officials:** The vision for visitors is that it will be easier for them to travel to main attractions around the city, especially those near the Main

Street route. They think more people would venture out of downtown hotels and see the city when they come to visit. There would be more visitors moving around the city.

Major concerns:

- How much residents will be asked to pay for it, and what they will have to give up to get the streetcar.
- Concern about conditions during construction.
- In terms of equity, many say there must also be an east-west route.
- Main Street MAX is already very efficient, so that makes a streetcar less necessary on Main
- Many think there is a major need to connect KU Medical Center to the lines.

II. Small Group Discussions: Community Group Narrative Discussions

Group 1

• Neighborhoods:

- Streetcars will bring density and economic expansion.
- Armour Hills bus lines further to the south are not well used. Want to support rail on Main Street because it will help lead to rail on Country Club right of way.
- Main Street will have less vehicular traffic and more walking and transit.
- The streetcar will lessen the need for auto traffic.
- The streetcar could create a sense of community. People would talk to each other more.
- Streetscape improvements would follow.
- “This is not about automobiles. It is about people.”
- Make streetcar use affordable for students.
- Streetcars can provide a higher quality of life.
- Would mean a change for the better to a more urban and people-centered lifestyle.
- The bus can be a rough ride while the streetcar would be smoother.
- Streetcars would draw additional riders over the bus.
- Bus ridership would increase as people become more transit-oriented.
- UMKC now tells students at orientation that they don’t need a car. Free bus passes draw 800 UMKC student riders a day.

- o Concern about how we will pay for it.
 - o What has to be given up to get the streetcar?
 - Finance with a larger and wider TDD.
 - Neighborhoods will resist the use of PIAC for the streetcar. Use of PIAC funding could lead to opposition.
 - o Pedestrian facilities will become more necessary.
 - o People will have more time in their day.
 - o Could have one-car families as opposed to 2 car families.
 - **Businesses:**
 - o Service stations and car washes, other drive-up businesses would be encouraged to go elsewhere by economic forces.
 - o The streetcars would promote growth downtown and might bring downtown back.
 - **Visitors:**
 - o Main Street- wide ridership range, people who can use bus to get to Main Street.
 - o System needs to connect to different key places in the city, not just home to work.
 - o PIAC funds - concerns
 - May take money away from small-scale neighborhood improvements.
 - PIAC is a popular system for residents who want to positively change their neighborhoods.
 - Small-scale projects will become more important when streetcar comes.
 - **City Officials:**
 - o Connect activity nodes -cohesiveness of city.
 - o Support “Big 5” goals.
 - o Help to drive city growth.
 - o Attracts and retains talent – creative class.
 - o Regional investments would be best – less burden on local business.
- Group 2**
- **Neighborhoods:**
 - o No cars saves \$7000 a year.
 - o Change- more vibrant, more diversity, more business, more interest.
 - o Houses increase in value, more renovation and vacant space infill
 - **Businesses:**
 - o Streetcar attracts mix of service businesses that is needed.
 - o Improves safety with more eyes on the street.
 - o Surface parking lots will become developments.
 - o Big condos built along commercial on ground floor.
 - o Smaller shops, small farmers markets.
 - o Line will help with diversity.
 - o 31st, 39th strips could come alive – vacant land now.
 - o Lower age and raise income of residents –
- concern that it could push out the poor.
 o Hospital Hill workers could reach jobs.
- **Visitors:**
 - o Visitors more likely to use streetcars than buses.
- Group 3**
- **Neighborhoods:**
 - o Story: uniqueness of Midtown and other areas, preserved while system is developing, connect to places outside the corridor.
 - o More opportunities: restaurants and services.
 - o Saturday morning and evenings, just hop on streetcar.
 - o Efficient system to help reduce congestion.
 - o Concerned about conditions during construction.
 - **Businesses:**
 - o Attract other stable businesses.
 - o Turn the corridor into more mixed use.
 - o Low cost of ridership.
 - o Integrate bus pass and streetcar pass.
 - o Financing TDD – small business.
 - o Nervous about transition from cars to transit.
- Group 4**
- **Neighborhoods:**
 - o More development.
 - o More variety.
 - o Provide alternatives.
 - o Economic value to residential properties: few tenants and higher rents?, homes as an investment.
 - o Main is a concrete street, no on bike plan, petition to add?
 - o Narrow sidewalks.
 - o Other streets should take traffic.
 - o Eliminate one way streets.
 - **Businesses:**
 - o What is tomorrow’s market? Streetcar creates the opportunity.
 - o Allows businesses to make money in a new way.
 - **Visitors:**
 - o Better connection for the visitor.
 - o Convention center connections to hotels.
 - o Allow people to venture out.
 - o Mobility when friends/relatives come to town.
 - o MAX is hard to navigate.
 - o Buses are unpredictable, uncomfortable to ride, hot bumps.
 - o All big destinations on Main Street.



III. Other Input: Model Facilitation & General Comments

(Comments from: Main Street Cyclovia, kickoff, Union Station, neighborhood meetings)

Streetcar Station Stops:

- UMKC stop should be in front of Whole Foods
- Historical sites should be priority destinations
- Plaza

Route Selection:

- Main Street (5)
- Airport (4)
- Linwood to stadium (5)
- 12th Street east and west to KCK
- 18th Street
- Independence Avenue (3)
- Definitely need east-west route
- Main Street is a “killer” route, because its in the middle
- Eventually Belton
- Main Street to the Plaza – strong backbone to branch off from
- UMKC (offer discounted passes with enrollment, as with buses now)
- 39th to KU Med (2)
- 43rd street to state line
- Main Street route should start on Broadway, jog over to Main at Linwood, and back over to Broadway to pick up Westport
- Johnson County
- Stop at 75th and Wornall (farther south it goes, the more riders it gets)
- Use trolley track trail for a route, with trail on side
- Broadway and Ward Parkway
- Sprint Center
- 45th and State Line, to the starter village, needed there
- To Plaza, to West Bottoms, one of the east west routes
- 39th and Troost, Independence, SW Boulevard
- UMKC is a key anchor for the whole system
- Main Street first, then branches off Main
- Most supporters along Main
- City Market to Plaza
- Broadway route would hit more places
- Maybe Broadway instead of Main, Main already has the MAX
- Connect the new UMKC Conservatory to Main
- Hit Broadway – Westport is a key stop
- Need to go down Broadway and Main
- I want it to go where transit people need it. We already have the Main Street MAX so we don't need it on Main Street
- UMKC has lots of international students who don't drive - connect them to downtown
- Good for teenagers to be able to get around
- Students would take downtown from UMKC
- Many votes for going to KU Med
- Go to KU Med – turn from Broadway
- But come out of Crown Center on Gillham

and connect to Main later. Much development potential on that section of Gillham but not that section of Main

- Main links downtown, Plaza, UMKC, Westport
- Hop on it and get to all those
- Use it for play mainly, great for bar hops
- Good for students at UMKC, hospital hill workers
- Can make main street really strong

Why streetcar is important

- The next level of public transit. Less cars, more walking and bikes
- 39th Street and Independence
- Main Street could use revitalization
- Cities that have public transportation are better
- To get people to work (4)
- Community improvement on the east side

Making it work

- Need to stop the most times possible
- Very important to stay on schedule - some buses, like the Broadway 47, are not reliable
- Run late in evening
- Need bike racks in the front
- Need place to put suitcase or groceries (young couple uses a rolling suitcase for grocery shopping)
- Need to solve east-west problem

Downside to streetcars or why they're not needed

- What will you have to take away to do this?
- Disenfranchise property owners while building
- Will put some small business out of business during construction
- People have bikes to travel these areas
- Main Street already works fine with the MAX
- Sales taxes are regressive
- If do it, should go to citywide vote

Miscellaneous

- East-west transit connections
 - 39th not frequent enough
 - MAX on 39th
 - 47th
 - synchronize schedules
- Topography is a bike/pedestrian challenge.
 - bike share at stops
 - funding issues, include as a TDD
- Main is a concrete street, not on bike plan, petition to add?
- Narrows sidewalk.
- Other streets should take traffic.
- Eliminate one-ways?
- Accessibility is the key
- For equity and other reasons, we have to do something for areas east of Main and south of Independence Avenue/Linwood



12TH STREET WEST CORRIDOR WORKSHOP SUMMARY

Meeting Date: October 2, 2013

Number of participants: 6

I. Summary: Vision for Change

Key points: Linking both Kansas City, Missouri and Kansas City, Kansas, the Historic West Bottoms has the potential to develop into one of Kansas City's hotspots. The area is characterized by recent infrastructure investments, building re-use and conversions happening slowly, and business start-ups relocating to the area to take advantage of its affordable rental rates. Including a streetcar in the Historic West Bottoms is consistent with the improvement vision for the area.

- **Residents:** Area population and business development will expand over the next decade but additional infrastructure improvements, e.g. pedestrian connections, are needed.
- **Businesses:** The area has a great built environment but it's development potential could be elevated with infrastructure improvements.
- **Officials:** Key destinations are the American Royal, Kemper Arena, and the Central Business District. However, the street network is confusing and better signage is needed.

Major concerns:

- Limited 12th Street development potential; Genessee may have greater potential.
- Physical challenges, e.g. railroads, viaducts, and street network.

II. Small Group Discussions:

Community Group Narrative Discussions

Group 1

• Neighborhoods:

- o West Bottoms is zoned for residential. The streetcar would connect West Bottoms residents to Central Business District jobs.
- o 10 years from now, the West Bottoms will be home to more residents, artists, new businesses, and will be generating lots of activity. This area has the potential to become the 'hot spot' of Kansas City.
- o Infrastructure investments are happening. The streetcar might accelerate activity, but other things must happen first. For example, the area needs infrastructure improvements.
- o Difficult to get bus service.
- o One-third of the West Bottoms is in Kansas; it's important to connect to Kansas City, Kansas.

- o Developers need hope that something will happen. Improved infrastructure will encourage development.
- o If there is no streetcar, West Bottoms residents may feel trapped due to inadequate pedestrian access.
- o We need to look at what the future brings. What is the potential for the West Bottoms?
- o The greatest value of this area is because it is connected to Downtown Kansas City, Missouri and Downtown Kansas City, Kansas.
- o Re-branding. Want to be recognized as the 'Historic West Bottoms.'
- o The streetcar supports future vision for area.
- o Limited development potential on 12th Street; Genessee has more potential.
- o Potential to develop significant population base in urban core.
- o Easier to bring residential to established commercial centers. Difficult to bring commercial centers to established residential neighborhoods.
- o Significant physical and visual challenges, such as the railroad tracks and viaducts, make pedestrian connectivity difficult.
- o Important to connect 12th Street West to 12th Street East. Important to connect multiple neighborhoods.
- o Look into Woodsweather or Mulberry as alternative's to the proposed 12th Street streetcar alignment.

• Businesses:

- o The West Bottoms built environment is unique. Historic buildings are ready for re-use and conversions are slowly happening. Small businesses and start-ups are relocating here because of the affordable rent.
- o Industrial uses may constrain area of opportunity for new development.
- o Northern West Bottoms businesses are mostly distribution centers.
- o Great development opportunities from 9th Street to 11th Street.
- o Ample vacant land for new construction.
- o Currently, no tension between industrial and other uses.
- o Existing businesses are doing everything possible to support the community through marketing and special events.

- o Look at Kansas City Design Center Transit Center Proposal.
- o City parking requirements will need to be adjusted to attract new businesses and development.
- **Visitors:**
 - o Possible destinations include: Kemper Arena and American Royal.
 - o Historic buildings are bringing portrait photographer's to the area.
 - o The streetcar would make it easy for a visitor to get from their hotel in the Central Business District to the West Bottoms and back
 - o Lack of a formal street grid can sometimes be confusing for visitors, but it also makes the area unique and should be preserved.
 - o Need better signage for visitors.

III. Other Input: Model Facilitation & General Comments

Termini:

- No discussion.

Streetcar Station Stops:

- No discussion.

Route Selection:

- No discussion.

Miscellaneous:

- No discussion.



18TH STREET CORRIDOR OUTREACH SUMMARY

Total Stakeholders Reached: Approximately 350
Total Letters of Support: 7

I. Summary: Vision for Change

Key points for 12th Street East: A majority of stakeholders and community meeting participants expressed the strong desire for the City to forge ahead with a streetcar and transit study that includes 18th Street and the 18th and Vine District. The eastside of 18th Street has especially felt disconnected from the recent developments occurring in the Crossroads community and downtown, and they feel a connector, such as a streetcar, will stitch them back to the westside of 18th Street.

The neighborhoods along 18th Street, especially east of Oak Street, are ready for more investment in their community: commercial, residential, and mixed-use. They feel that they have the history and culture to support both development and tourists and welcome any opportunity to be included in the City's plan for redeveloping the eastside. The stakeholders we met with are ready and willing to be active partners with the City. Main links downtown, Plaza, UMKC, Westport

- Connectivity is the main theme - Opportunity to overcome barriers and reconnect the 18th and Vine area to the Crossroads district and downtown.
- Consider a combined route with 18th Street and Southwest Boulevard.
- A streetcar along 18th Street would enhance east-west transit connectivity that is currently lacking. Consider connections between 18th Street and other east-west routes, including connecting to neighborhoods east of the 18th and Vine area.
- The streetcar could help solidify the 18th and Vine District as a destination.
- There is a need and desire for a large number of retail shops and entertainment destinations like restaurants and clubs in the 18th and Vine District.
- This development, along with the streetcar, will complete the investment in this district that started long ago.

II. Summary: Identified Concerns

Key concerns: A majority of stakeholders and community meeting participants expressed concern over the financial aspects of a streetcar project in Kansas City and how it would be paid for. There were questions about if money for this project would be taken away from other, possibly

more necessary, basic service projects. Though a majority was on board with support, they would like answers to the potential tax implications or payment structure before the project gets too far down the road. In most segments of this community, the residents and small businesses would not be able to handle a new tax or a tax increase so they are cautious about the financial implications on their own wallets.

Another concern included the belief that such a development and investment could actually happen within this community. Most neighborhoods have been promised plans, studies and projects in the past, that have not come to fruition. They question the validity that this amount of money and investment could occur in their community. Big concern - how to protect neighborhoods as Main Street is redeveloped

- The investments in both the Crossroads District and the 18th and Vine area have not yet reached their full potential.
- There is an abundance of vacant land and historic buildings to support new activity (entertainment, commercial and business) and residents.
- Concerns about funding and potential taxes to support this project.
- There were some concerns about the need for basic services and would those come about through the development of a streetcar system, such as new curbs and gutters, improved sidewalks, improved parking, etc.

III. Public Meetings Attended

Community Meetings

- Urban Summit 9/6/13 and 10/18/13
- Blue Valley Neighborhood Association, 9/19/2013
- Jazz District Compact Group, 9/16/13, 15+ in attendance
- Paseo West Neighborhood Association, 9/25/13
- 3rd District Community Meeting, 8/12/13 and 10/14/13, 25+ in attendance (combined)
- Washington Wheatley, 10/21/13: 20+ in attendance
- Wendell Phillips NA President (John James), 9/5/13

Lincoln Building Streetcar Model Meetings: Week of September 3, 2013:

30+ individuals participated throughout the week, included residents and businesses. Scheduled meetings: Sept. 3, American Jazz Museum; Sept. 5, LISC; Sept. 5, Roger Reed (Son of original architect of the redesign of the Lincoln Building).

- Public Questions/Comments:
 - How large is the car?
 - Are there fixed rail or overhead lines?
 - How many can it accommodate?
 - What is the technology for the driver?
 - Stations and stops?
 - Is there a larger depot spot?
 - Park and rides?
 - How does it work with the metro?
 - St. Louis and Atlanta lines as an example
 - Frequent stops to accommodate ADA and elderly population?
 - Make fares inexpensive? Or free?
 - 18th Street ties to Truman Road?
 - Use of KCATA property?
 - How will the streetcar be funded?

18th Street Corridor Workshop | September 26, 2013: 25+

- Key points:
 - Connectivity was a main and central theme throughout all work groups.
 - First, instead of the 18th and Vine district feeling/being disconnected from the rest of the city, participants want the streetcar to give a sense of connectedness to other neighborhoods, east and west, and to downtown and the Central Business District.
 - Secondly, they want to see small retail and service-type businesses (dry cleaners, corner grocery stores, etc.) spring up along the route to serve residents. Participants said there is adequate housing, so the need is for additional businesses and services to attract more residents. Perhaps build more storefronts and residential above.
 - As far as development, some discussion included the need for multiple museum attractions in this district to enhance it as a destination, and not just one. There is a need and desire for a large number of retail shops and entertainment destinations like restaurants and clubs. The belief is that this will make it a true center of life and activity that attracts people of all demographics on weekdays and weekends. The streetcar could help all of this development as it can help legitimize the district as a destination. This development, along with the streetcar, will complete the investment in this district

that started long ago.

◦ This district also has a tourism factor and is a “destination” and residents, businesses and organizations alike would like to capitalize on that. They feel a streetcar line along 18th Street will help bring more visitors and developers into the Historic Jazz District.

- Public concerns:

◦ The number one concern was financial. This project has to be affordable for this community to handle, whether that is to ride or the cost and financing structure for building the route.

IV. Other Outreach Efforts

Streetcar Model Facilitation Meetings

At the conclusion of the 18th Street Corridor Workshop on September 26, the entire length of the 18th Street Streetscape Model was placed in a storefront property at 18th and Vine. This allowed the model and related discussion to happen organically as this was a space open to the public and in the Historic Lincoln Building.

Street Canvassing Outreach along the business corridor: 25+ groups

The number one question was will there be a tax to support this project. Many were upset about being taxed for the light rail project approved on Main Street.

Neighborhood/Organization/Business Stakeholders

- Jazz District Compact Group
- Jazz District Redevelopment Council
- Black Economic Union
- The Gem Theater
- Pat Jordan
- Negro Leagues Baseball Museum
- The American Jazz Museum
- Neighborhoods United
- KC Star (Mike Hendricks)
- Wendell Phillips NA
- Washington Wheatley NA
- Santa Fe NA
- KCMO CDE
- ICG, Inc.
- Priority Printing
- Longfellow Neighborhood
- Eco Abet
- NAACP KCMO Branch
- Beacon Hill Neighborhood
- Service Law Firm
- Triple 777 Construction
- CJJ
- Mutual Musicians Foundation
- Gregg Klice Community Ctr.
- Black Chamber of Commerce
- KC Friends of Alvin Ailey
- Sanctuary WS
- All About Images



- 180V Barber & Salon
- Know Joey Foundation
- Paseo Baptist Church
- The CO-OP
- My Craft Creations Playhouse
- LISC
- Standard Sheet Metal
- World Wide Distribution Network
- Quantum Computing Solutions
- Neighborhoods United
- Midwest Contract Services
- Life Design Photography
- Higher M-Pact
- Jason Cooley (KCPD)
- Full Employment Council
- The KC Call Newspaper (Eric Wesson)
- Pioneer College
- Gerald Dunn
- Janitorial Company on 18th Street
- Urban League Of Greater KC
- Centennial United Methodist Church
- Parade Park Homes, Inc.
- Lincoln High School
- Faultless Starch
- Black Archives of Mid-America

Businesses along 18th Street from Oak St to Charlotte:

- Grinders
- Krzyzanowski Photography Bill
- Golf Store
- Floral Shop Manager
- MKS Pipe & Valve
- Armpit Glassworks
- Couples Bastille Artist Studios
- Arabyhair
- Print Shop
- Tent and Awnings Store
- Machine Shop
- The Lyric Opera



10-21-2013

To Whom it May Concern,

I am writing on behalf of the Washington Wheatley neighborhood to strongly urge you to advance the 18th Street Corridor in the Streetcar Expansion Study (NextRail KC) - and, specifically, a streetcar stop in our neighborhood - as we believe that there are numerous benefits to this particular route.

The eastside of Kansas City's connectivity has been severely neglected. Divided by numerous highways, railroad tracks and industry, a streetcar connecting us to the westside, will help stitch us back into the fabric of downtown Kansas City.

The 18th Street community has seen recent growth as a result of the burgeoning arts community in the crossroads district and the vibrant museum and jazz scene along 18th and Vine. The streetcar will stitch these two elements together and make one continuous and vibrant arts corridor, connecting businesses, residents and culture. We believe that transportation is a crucial element in the continued commercial and residential growth efforts along 18th Street.

Finally, the 18th Street community has a large portion of its residents and employees depending on public transportation for their daily commute. The addition of a Streetcar line along 18th would be hugely beneficial.

On behalf of all the residents of Washington Wheatley, thank you for your consideration of the 18th Street expansion, and we look forward to working with you throughout the planning and research process.

Sincerely,

A handwritten signature in black ink, appearing to read "Marlon Harmon".

CC

Mayor Sly James, Councilmember Jermaine Reed, Councilmember Melba Curls, Councilmember Scott Wagner, Councilmember Dick Davis, Councilmember Russ Johnson, Councilmember Ed Ford, Councilmember Jan Marcason, Councilmember Jim Glover, Councilmember Cindy Circo, Councilmember Michael Brooks, Councilmember Scott Taylor, Councilmember John Sharp, City Manager Troy Schulte, Bob Langenkamp



18th & Vine Jazz District Compact NextRail Streetcar Expansion Study

October 25, 2013

The 18th & Vine Jazz District Compact strongly supports the Streetcar Expansion Study and the benefits of increased economic development surrounding improved public transportation. We enthusiastically believe that the 18th Street corridor is the ideal choice to be one of the top three corridors selected for further study.

The 18th & Vine Jazz District Compact includes the American Jazz Museum, Black Archives of Mid-America, Black Chamber, Black Economic Union, Full Employment Council, Gregg Klice Community Center, Jazz District Apartments, Jazz District Redevelopment Corporation, Kansas City Friends of Alvin Ailey, Mutual Musicians Foundation, Negro Leagues Baseball Museum, The Call, businesses and residents in the Jazz District.

The historic 18th and Vine Jazz District is the African-American cultural district in Kansas City. It earned the name, "Jazz District" during the period from 1920 to 1940 when it became the center of jazz music. People could attend performances by jazz greats such as Charlie Parker, Count Basie, Ella Fitzgerald, Louie Armstrong and Jay McShann. The 18th and Vine neighborhood was important to the evolution of jazz, a truly American art form. The Streetcar Expansion to the 18th Street corridor could serve to increase the vitality of the neighborhood reminiscent of the hey day of the Jazz District.

The selection of the 18th Street Corridor would potentially provide the following benefits:

1. The heart of the Jazz District is located about two miles southeast of downtown Kansas City. It has beautiful vistas of the downtown skyline as well as a direct connection to the Crossroads Arts District. We believe that the 18th Street corridor line connection to the Crossroads and Southwest Boulevard will be a powerful east-west connection, linking both destination and activity centers.
2. The 18th Streetcar line would continue to help attract new residents. There has been a significant increase in new residents in the past ten years due to new residential housing developments including Jazz District Apartments, Jazz District Townhomes, The Monarch Apartments and Apartments at Highland Place, Vine Street Lofts and the renovation of Basie Court. We believe that the Streetcar expansion would make more feasible single family housing development in the area immediately south of the Jazz District up to 27th Street.
3. The Jazz District currently has over 300,000 visitors annually to the museums and other cultural amenities in the Jazz District. The 18th Street Streetcar expansion line will provide an easy and attractive way for visitors to come and experience the district. We expect to see a major increase in the number of visitors to the Jazz District, since the 18th & Vine Jazz District is on many visitor's "must see" list.
4. Most importantly, we expect that the 18th Street Streetcar expansion would help attract new small businesses and help existing small businesses grow and sustain themselves. Additional small businesses in the Jazz District means more much needed jobs for local neighborhood residents.





The Black Economic Union
of Greater Kansas City

A community and economic development corporation

October 24, 2013

To Whom It May Concern,

As President of the Black Economic Union and owner and operator of the Historic Lincoln Building and the Heritage Business Park II, I am writing to strongly urge you to advance the 18th Street Corridor in the Streetcar Expansion Study.

The Black Economic Union's work is to rebuild a strong economic base in our community by stimulating small business development; and implementation of the Vine Street District Plan designed to return housing and commercial development opportunities to our community. A streetcar route along 18th Street and into the Historic Jazz District would help us continue our efforts to build commercial and residential opportunities for our residents and businesses.

A streetcar route along 18th Street will connect the 18th and Vine District to the Crossroads District, creating a continuous and vibrant arts corridor, connecting businesses, residents and culture. We believe that a comprehensive transit system is a crucial element in the continued commercial and residential growth efforts along 18th Street.

On behalf of the Black Economic Union, thank you for your consideration of a study for a 18th Street Streetcar expansion, and we look forward to working with you throughout the planning and research process.

Sincerely,


Chester Thompson, President
Black Economic Union

Cc:

Mayor Sly James, Councilmember Jermaine Reed, Councilmember Melba Curls, Councilmember Scott Wagner, Councilmember Dick Davis, Councilmember Russ Johnson, Councilmember Ed Ford, Councilmember Jan Marcason, Councilmember Jim Glover, Councilmember Cindy Circo, Councilmember Michael Brooks, Councilmember Scott Taylor, Councilmember John Sharp, City Manager Troy Schulte, Bob Langenkamp

Historic Lincoln Building

1601 East 18th Street, Suite 300 • Kansas City, MO 64108
Phone 816.471.1080 • Fax 816.474.5805

Marcus Williams, President
Triple 777 Construction, LLC.
Historic 18th and Vine District
1601 E. 18th Street, Ste. 200L
Kansas City, Missouri 64108

October 25, 2013

To Whom it May Concern,

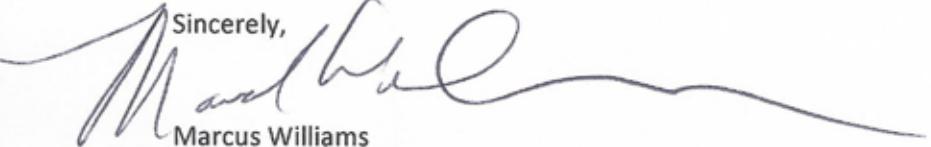
In 2003, I formed Triple 777 Construction, LLC., a certified MBE/DBE/SLBE and Section 3 business located in the heart of Kansas City. I have been very fortunate to grow my business and diversify in the services we provide not only within the jurisdiction of Kansas City, but in the states of Missouri and Kansas.

As a small business owner, I chose to open up shop in the Historic 18th and Vine District, a community that is vibrant in its culture, diversity and businesses. It is because of this passion I have for this community that I am writing to strongly urge you to advance the 18th Street Corridor in the Streetcar Expansion Study (NextRail KC) - and, specifically, a streetcar stop in our community. The benefits are numerous for the residents, visitors and businesses located here.

The eastside of Kansas City's connectivity has been severely neglected. Divided by numerous highways, railroad tracks and industry, a streetcar connecting us to the Central Business District will help stitch us back into the fabric of downtown Kansas City.

A streetcar route along 18th Street will also connect the 18th and Vine District to the Crossroads District, creating a continuous and vibrant arts corridor, connecting businesses, residents and culture. We believe that a comprehensive transit system is a crucial element in the continued commercial and residential growth efforts along 18th Street.

On behalf of all the employees of Triple 777 Construction, LLC, thank you for your consideration of the 18th Street expansion, and we look forward to working with you through out the planning and research process.

Sincerely,

Marcus Williams
President, Triple 777 Construction, LLC.

CC

Mayor Sly James, Councilmember Jermaine Reed, Councilmember Melba Curls, Councilmember Scott Wagner, Councilmember Dick Davis, Councilmember Russ Johnson, Councilmember Ed Ford, Councilmember Jan Marcason, Councilmember Jim Glover, Councilmember Cindy Circo, Councilmember Michael Brooks, Councilmember Scott Taylor, Councilmember John Sharp, City Manager Troy Schulte, Bob Langenkamp

GEM CULTURAL AND EDUCATIONAL CENTER

October 29, 2013

To Whom it May Concern,

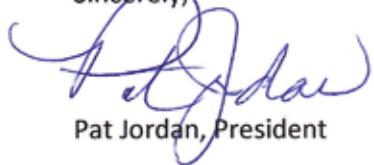
I, Pat Jordan, am writing to strongly urge you to advance the 18th Street Corridor in the Streetcar Expansion Study (NextRail KC) - and, specifically, a streetcar stop in the 18th & Vine community - as we believe that there are numerous benefits to this particular route.

The eastside of Kansas City's connectivity has been severely neglected. Divided by numerous highways, railroad tracks and industry, a streetcar connecting us to the westside, will help stitch us back into the fabric of downtown Kansas City. The 18th Street community has seen recent growth as a result of the burgeoning arts community in the crossroads district and the vibrant museum and jazz scene along 18th and Vine. The streetcar will stitch these two elements together and make one continuous and vibrant arts corridor, connecting businesses, residents and culture. We believe that transportation is a crucial element in the continued commercial and residential growth efforts along 18th Street.

Finally, the 18th Street community has a large portion of its residents and employees depending on public transportation for their daily commute. The addition of a Streetcar line along 18th would be hugely beneficial.

Thank you for your consideration of the 18th Street expansion, and we look forward to working with you throughout the planning and research process.

Sincerely,



Pat Jordan, President

CC

Mayor Sly James, Councilmember Jermaine Reed, Councilmember Melba Curls, Councilmember Scott Wagner, Councilmember Dick Davis, Councilmember Russ Johnson, Councilmember Ed Ford, Councilmember Jan Marcason, Councilmember Jim Glover, Councilmember Cindy Circo, Councilmember Michael Brooks, Councilmember Scott Taylor, Councilmember John Sharp, City Manager Troy Schulte, Bob Langenkamp

October 29, 2013



where it lives

To Whom It May Concern,

I am writing on behalf of the American Jazz Museum to strongly urge you to advance the 18th Street Corridor in the Streetcar Expansion Study (NextRail KC) - and, specifically, a streetcar stop in our neighborhood - as we believe that there are numerous benefits to this particular route.

The eastside of Kansas City's connectivity has been severely neglected. Divided by numerous highways, railroad tracks and industry, a streetcar connecting us to the Westside, will help stitch us back into the fabric of downtown Kansas City.

The 18th Street community has seen recent growth as a result of the burgeoning arts community in the crossroads district and the vibrant museum and jazz scene along 18th and Vine. The streetcar will stitch these two elements together and make one continuous and vibrant arts corridor, connecting businesses, residents and culture. We believe that transportation is a crucial element in the continued commercial and residential growth efforts along 18th Street.

Finally, the 18th Street community has a large portion of its residents and employees depending on public transportation for their daily commute. The addition of a Streetcar line along 18th would be hugely beneficial.

On behalf of the board and administration of the American Jazz Museum, thank you for your consideration of the 18th Street expansion, and we look forward to working with you throughout the planning and research process.

Sincerely,

Chief Executive Officer
American Jazz Museum

CC

Mayor Sly James, Councilmember Jermaine Reed, Councilmember Melba Curls,
Councilmember Scott Wagner, Councilmember Dick Davis, Councilmember Russ Johnson,
Councilmember Ed Ford, Councilmember Jan Marcason, Councilmember Jim Glover,
Councilmember Cindy Circo, Councilmember Michael Brooks, Councilmember Scott Taylor,
Councilmember John Sharp, City Manager Troy Schulte, Bob Langenkamp



NEGRO LEAGUES Baseball Museum

Discover Greatness!

10-24-2013

To Whom it May Concern,

I am writing on behalf of the Negro Leagues Baseball Museum to strongly urge you to advance the 18th Street Corridor in the Streetcar Expansion Study (NextRail KC) - and, specifically, a streetcar stop in our neighborhood - as we believe that there are numerous benefits to this particular route.

The eastside of Kansas City's connectivity has been severely neglected. Divided by numerous highways, railroad tracks and industry, a streetcar connecting us to the westside, will help stitch us back into the fabric of downtown Kansas City.

The 18th Street community has seen recent growth as a result of the burgeoning arts community in the crossroads district and the vibrant museum and jazz scene along 18th and Vine. The streetcar will stitch these two elements together and make one continuous and vibrant arts corridor, connecting businesses, residents and culture. We believe that transportation is a crucial element in the continued commercial and residential growth efforts along 18th Street.

Finally, the 18th Street community has a large portion of its residents and employees depending on public transportation for their daily commute. The addition of a Streetcar line along 18th would be hugely beneficial.

On behalf of all the Negro Leagues Baseball Museum, thank you for your consideration of the 18th Street expansion, and we look forward to working with you throughout the planning and research process.

Sincerely,

A handwritten signature in blue ink, appearing to read "Bob Kendrick".

Bob Kendrick

President

CC

Mayor Sly James, Councilmember Jermaine Reed, Councilmember Melba Curls, Councilmember Scott Wagner, Councilmember Dick Davis, Councilmember Russ Johnson, Councilmember Ed Ford, Councilmember Jan Marcason, Councilmember Jim Glover, Councilmember Cindy Circo, Councilmember Michael Brooks, Councilmember Scott Taylor, Councilmember John Sharp, City Manager Troy Schulte, Bob Langenkamp



WENDELL PHILLIPS NEIGHBORHOOD ASSOCIATION

10-21-2013

To Whom it May Concern,

I am writing on behalf of the Wendell Phillips neighborhood to strongly urge you to advance the 18th Street Corridor in the Streetcar Expansion Study (NextRail KC) - and, specifically, a streetcar stop in our neighborhood - as we believe that there are numerous benefits to this particular route.

The eastside of Kansas City's connectivity has been severely neglected. Divided by numerous highways, railroad tracks and industry, a streetcar connecting us to the westside, will help stitch us back into the fabric of downtown Kansas City.

The 18th Street community has seen recent growth as a result of the burgeoning arts community in the crossroads district and the vibrant museum and jazz scene along 18th and Vine. The streetcar will stitch these two elements together and make one continuous and vibrant arts corridor, connecting businesses, residents and culture. We believe that transportation is a crucial element in the continued commercial and residential growth efforts along 18th Street.

Finally, the 18th Street community has a large portion of its residents and employees depending on public transportation for their daily commute. The addition of a Streetcar line along 18th would be hugely beneficial.

On behalf of all the residents of Wendell Phillips, thank you for your consideration of the 18th Street expansion, and we look forward to working with you throughout the planning and research process.

Sincerely,



John P. James
President

CC

Mayor Sly James, Councilmember Jermaine Reed, Councilmember Melba Curls, Councilmember Scott Wagner, Councilmember Dick Davis, Councilmember Russ Johnson, Councilmember Ed Ford, Councilmember Jan Marcason, Councilmember Jim Glover, Councilmember Cindy Circo, Councilmember Michael Brooks, Councilmember Scott Taylor, Councilmember John Sharp, City Manager Troy Schulte, Bob Langenkamp,

18TH STREET CORRIDOR WORKSHOP SUMMARY

Meeting Date: September 26, 2013

Number of participants: 25

I. Summary: Vision for Change

Key points: Participants wanted two things: First, instead of the 18th and Vine district feeling/ being disconnected from the rest of the city, they want the streetcar to give a sense of connectedness to other neighborhoods and to downtown.

Connectivity was a main and central theme throughout all work groups.

As far as development, some discussion included the need for multiple museum attractions in this district to enhance it as a destination, and not just one. There is a need and desire for a large number of retail shops and entertainment destinations like restaurants and clubs. The belief is that this will make it a true center of life and activity that attracts people of all demographics on weekdays and weekends. The streetcar could help all of this development as it can help legitimize the district as a destination. This development, along with the streetcar, will complete the investment in this district that started long ago.

Secondly, they want to see small retail and service-type businesses (dry cleaners, corner grocery stores, etc.) spring up along the route to serve residents. Participants said there is adequate housing, so the need is for additional businesses and services to attract more residents. Perhaps build more storefronts and residential above.

• Residents:

- o Participants would like to see their neighborhoods connected to neighborhoods in other parts of the city.
- o In terms of housing, they think the businesses should come first and that would bring new residents. They seem to be fine with the existing and new housing in development.
- o One resident said she already goes over to the restaurants on SW Boulevard and a streetcar would increase that connection between these two parts of town.

• Businesses:

- o Participants would like to see businesses that would attract foot traffic.
- o Would like to see services, like it used to be, from the KC Call newspaper and head east and west on 18th Street.
- o Would like to be able to get on a streetcar at Parade Park Apartment complex and head downtown.

- o Participants see the potential for the Streetcar to attract investors like it has downtown.
- o Consensus among the group that they want to see small businesses develop, in addition to services like neighborhood markets and convenience stores
- o Connectivity is a big plus – connection to downtown.
- o One resident expressed the hope that the 18th and Vine area would start to be seen as a part of downtown rather than a separate area.
- o There is the desired hope that banks would fund more business startups because fixed rail was located on their route. A streetcar and transit is seen as a permanent positive plus for business growth

• Visitors:

- o Would like to attract people from downtown hotels to come to 18th and Vine.
- o Parking is already an issue, so would make it easier for tourists.
- o One resident said when he goes to other cities, he goes to the attractions that are along public transit routes.
- o Would bring people from suburbs of Kansas City into area, if they could park downtown and ride.

Major concerns:

- The number one concern was financial: This project has to be affordable for this community to handle, whether that is to ride or the cost and financing structure for building the route.

II. Small Group Discussions:

Community Group Narrative Discussions

Group 1

• Neighborhoods:

- o "This project would be an excellent opportunity to connect us as one community rather than having divisions. One community, one downtown that will make everyone benefit from the city center and not just sections."

• Businesses:

- o Participants want the development of more small businesses and services for

- neighborhoods like markets, grocery stores, food vendors, etc.
- Participants want to see the growth of jobs in the “dead zone” between 18th and Vine and Main Street.
 - **Visitors:**
 - The streetcar would improve the 18th and Vine destination as a destination and better connect it to Main Street, the Crossroads and Southwest Boulevard and Downtown.

Group 2

- **Neighborhoods:**
 - Having the streetcar is an opportunity for new housing and rooftops south of 18th Street
 - The streetcar would lead to more investment dollars in the district
- **Businesses:**
 - There may be some push back on who bears the cost and the tax burden
 - The streetcar could lead to increased opportunity for home ownership and increase transit ridership. Both will be good for businesses.
- **Visitors:**
 - Visitors would benefit in a connection between 18th and Vine and the central business district and other tourism districts throughout Kansas City.
 - The streetcar could improve the impression or perception of “safety” in the 18th and Vine district. With the City investing in a project like this in the 18th and Vine district, it can send a message that it is a desirable entertainment hub.
 - A direct connection that captures the visitors to the convention center and the crossroads area and brings them to the 18th and Vine area would especially beneficial to this area and to tourism in general.
 - The streetcar should be a direct connection with as little transfers and confusing navigation as possible.

Group 3

- **Businesses:**
 - If the streetcar brings a lot of people in cars who want to jump onto the streetcar and go somewhere else, it would be good to have some parking lots that are outside of the 18th and Vine business area so that people won’t use parking spaces intended for customers.
 - If there are huge spikes in property taxes or special assessments, that could be hard for businesses and small businesses that are already investing so much to stay competitive. They may be forced to raise their own prices and pass that along to their customers/clients.

- We don’t want to drive the existing small businesses out of the district
- Can the first streetcar line generate some income to help offset the costs?
- If the streetcar is free, how do you keep undesirable folks from riding around for free on the streetcar all day?
- We want to keep the Crossroads development moving east to fill the gap between that district and 18th and Vine.
- A connection to the new UMKC downtown campus would be good.

- **Visitors:**

- 18th and Vine and the Crossroads are two districts that are already national tourist destinations. Let’s build on that and work on infill.
- Develop more retail with residential above the storefronts, yet keep to the Crossroads recommended height limits.

III. Other Input: Model Facilitation & General Comments

Termini:

- Post office
- Cleveland
- Renaissance Housing
- Cross I-70, at least to Cleveland

Streetcar Station Stops:

- Prospect, because of community college
- Brooklyn
- Woodland
- 18th and Vine
- Arthur Bryant’s
- 18th and Woodland
- Paseo

Route Selection:

- Consider a 18th Street and Southwest Boulevard Combined Route
- Consider a route that connects the 18th and Vine district to Downtown as well as neighborhoods EAST of the district



Miscellaneous:

- People depend on transit to get to Full Employment Council and community center
- Development already happening at 19th and Vine
- Senior Housing at Paseo – needs transit
- Development needed around 71 Highway
- Develop a transit connection to KU Med Center because 8000 people work there
- Southwest Boulevard (about connecting the two routes)
 - The big thing for these folks would be the connection of neighborhoods to other neighborhoods



SOUTHWEST BOULEVARD CORRIDOR OUTREACH SUMMARY

Total Stakeholders Reached: Approximately 296

Total Letters of Support: 0

I. Summary: Vision for Change

Key points: On Southwest Boulevard, the streetcar is seen as an economic development tool that will connect the Westside to the Crossroads Arts District and Downtown. The streetcar will not only break down some of the physical and psychological barriers that currently separate the Westside from the rest of the City, but would also remove the stigma of being perceived as an unsafe community adding new investment and foot traffic to the area. The streetcar can unlock the development potential of the Westside by connecting the north and south halves of the community, the north side of which has seen recent revitalization, and transforming the underutilized and vacant parcels into more residential density. With its unique mix of light industrial, residential and local & ethnic businesses, a streetcar on Southwest Boulevard could create a new transportation and vibrant commercial corridor, Plaza, UMKC, Westport

- Hop on it and get to all those
- Use it for play mainly, great for bar hops
- Good for students at UMKC, Hospital Hill workers
- Can make Main Street really strong
- Main Street is a “killer” route, because its in the middle

II. Summary: Identified Concerns

Key concerns: Southwest Boulevard is primarily lined with small, ethnic businesses.

- Many small businesses are concerned about a potential tax to fund a streetcar expansion
- Construction impacts from the streetcar will impact business traffic
- A streetcar may be incompatible for the more industrial uses on Southwest Boulevard that value connection to the highways
- Parking on Southwest Boulevard will be diminished by a new streetcar

III. Public Meetings Attended

Southwest Boulevard Advisory Committee

Members (August 23): 3 Stakeholders

- Outreach on the corridor must be bilingual
- Past streetscape improvements removed street parking, and further erosion of on-street parking is a concern of small businesses
- Westside wants to change, grow and be more diverse, and a streetcar will drive future

development

- Ethnic businesses are less engaged and will need special attention

Crossroads Community Association Infrastructure Committee (September 16): 1 Stakeholder

- Still some heartburn about TDD funding the Downtowns Streetcar starter line
- Concern about how future extensions will impact funding of starter line
- Concern about impact on small business owners
- City needs to plan now for land use and other policy changes to promote economic development around streetcar

Southwest Boulevard Corridor Workshop (October 7): 47 Stakeholders

- Land use policy must be in place to encourage the type of development we expect from streetcar
- Connect Westside, an “authentic urban experience”, to the rest of the City and region
- Reduce parking need
- Encourage greater night life in the region and connect Southwest Boulevard to that nightlife on a “party train”
- Increase transportation options and complement existing north-south bus routes
- Corridor should go east to 18th & Vine and west to KU Medical Center
- How will financing effect residents and local businesses?
- How will construction impact business?
- Fear that development attracted by the streetcar might negatively impact neighborhood character
- The corridor is in a low spot and has issues with flash flooding

IV. Other Outreach Efforts

Business to Business Outreach: 234 Stakeholders

- Provided notification to businesses and stakeholders along the corridor of the project and process, and drove attendance of corridor workshop.

1 on 1 Meetings: 5 Stakeholders

- Meeting with Boulevard Brewery
- Meeting with DST
- Meeting with Westside CAN
- Meeting with Hispanic Economic Development Corporation
- Meeting with Westside Housing Organizations





We're Better Together

Westside Community Action Network

Neighbors + Businesses + Social Services + Faith Groups + Government Together

2130 Jefferson Street, Kansas City, MO 64108

O: 816.842.1298 – Fax: 816.842.1241

Email: info@westsidecan.org www.westsidecan.org

November 5, 2013

Mayor James and Council Members
City, KCMO
414 E. 12 Street,
Kansas City, MO 64108

Re: Streetcar Expansion

The Westside Community Action Network enthusiastically supports the expansion of the streetcar beyond the starter line in particular the Main Street and Independence Avenue routes.

Many of us have lived or travelled in cities with incredible multi-modal transportation systems. Others of us have travelled to Cities that have recently added streetcars to their public transportation mix and are well aware of the neighborhood and economic development that ensued. Diverse and new housing options, new retail and commercial businesses, those bottom line items that give residential urban life quality and vibrancy.

The WCAN Center also supports an east/west expansion line that connects the 18th & Vine historic area, the heart of the Crossroads/Freighthouse district and the Westside historic neighborhoods. These neighborhoods would greatly contribute to and be a benefit to the overarching downtown/midtown living experience as well as the convention/tourist experience.

A streetcar to the 18th & Vine historic district would attract new development, offer retail an opportunity to attract convention and visitor dollars lending financial stability to the area with the goal of financial independence from public subsidies from the various City funds. The Westside neighborhood is traditional urban development – we are the new urbanism - authentic, walkable, urban residential neighborhood in all that is wonderful about City/urban living. The Westside has greatly improved coming a long way towards being a neighborhood that is an asset to the City rather than a liability. However, to reach our full potential in contributing to the financial and communal well-being of the City and to maximize, energize and incentivize the urban residential experience; in order to attract diverse housing options to replace our decrepit and un-viable housing stock, to expand and enhance our retail and commerce and to fully occupy vacant early and mid-19th/20th century manufacturing structures with 21st century commerce or housing we need to be better served by public transportation that appeals to the demographics and market. That mode of transportation is the streetcar.

Thank you for inviting me to participate on the Next Rail Advisory Committee. The process and experience has been inclusive, educational, exhaustive and detailed – very positive.

Sincerely,

Lynda M. Callon
Director



SOUTHWEST BOULEVARD CORRIDOR WORKSHOP SUMMARY

Meeting Date: October 7, 2013

Number of participants: 46

I. Summary: Vision for Change

Key points: One of the major issues for the Southwest Boulevard corridor and the Westside neighborhood is the physical/psychological barriers created by I-35 and the railroads. A streetcar can help minimize these barriers and provide a permanent east-west link between the Crossroads and the Westside. This connection can both improve Westside residents' access to necessities and amenities throughout the city, and open up Southwest Boulevard businesses to an expanded customer base from out of town visitors and residents of other neighborhoods. Business development will expand over the next decade but additional infrastructure improvements, e.g. pedestrian connections, are needed.

- **Residents:** Participants said that a streetcar could benefit them and their neighborhood by providing a better public transportation connection to the rest of the city. They expressed the need for a more reliable and timely transit service for them to access groceries and essential health and social services Downtown and in different parts of Midtown. This connection could first; help residents who are dependent on public transportation get around more efficiently, and second; reduce automobile dependence for people who rely heavily on their car. Another major point that residents discussed is how a streetcar could reduce the need for parking in the area. With strategic park and ride services, residents hoped that a streetcar could encourage visitors not to park on their residential streets during First Fridays and other events.
- **Businesses:** Many participants in the workshop were local business owners, and were for the most part very supportive of a streetcar on Southwest Blvd. They said that by establishing a more legible transportation connection to the neighborhood, a streetcar could encourage customers to come to Southwest Blvd. who normally would not visit so often. Participants identified these potential customers as people visiting the city and staying Downtown and around Crown Center, as well as residents of other Kansas City neighborhoods and suburban areas south of the city. Despite their overall support of the project, participants were very concerned about what sort of cost burden small businesses might

have to endure in order to finance the system.

- **Visitors:** Participants identified the fact that Kansas City neighborhoods outside of Downtown and the Crossroads are difficult for visitors to navigate. They said this difficulty is due to "dead zones" created by highways, railroads, and under-developed areas which create perceived barriers which visitors are less likely to cross. Participants said that a streetcar, more so than a bus, can encourage visitors to come to the Westside because they know exactly where the rails will carry them, and exactly how to get back home. Participants said that a system of pedestrian-scale way finding signs and other pedestrian amenities could greatly improve the legibility of the city, and help businesses in the Southwest Blvd corridor capture business from the multitude of people who visit the city for conferences and events. One participant said that visitors to cities want "authentic urban experiences," and said that the Westside neighborhood and areas around Southwest Blvd are the best places near Downtown and Crown Center to experience that.

- **Officials:** Workshop participants called for a need to pair new city development code with streetcar implementation. One fear of residents and business owners shared was that of development following the streetcar which would negatively impact neighborhood character. They called for regulating against skyscrapers, big-box retail stores, and chain retail stores and restaurants that could beat out local businesses.

Major concerns:

- How will financing effect residents and local businesses?
- How will construction impact business?
- Fear that development attracted by the streetcar might negatively impact neighborhood character.
- The corridor is in a low spot and has issues with flooding.

II. Small Group Discussions: Community Group Narrative Discussions

Group 1

- **Neighborhoods:**

- o Great to eliminate parking minimums
 - o Need to think bigger: system/region
 - o Is the expense worth it?
 - o How can we stop “bad” development from moving in and taking over the neighborhood?
 - o Whole neighborhood should vote, not just people who live/own property on SWB
 - o Have plans to regulate how development and redevelopment happens after streetcar comes in
 - o Make streetcar easy to access from neighborhoods and places of interest
 - o Frequency of service is extremely important
 - **How long do you have to wait for transfer to bus or other streetcar?
 - o Connect to necessities for normal life, not just entertainment
 - Grocery
 - Courthouse
 - City hall
 - Healthcare
 - o **Have a system that works together
 - **Businesses:**
 - o Will increase customers if system works, not just one line or lines that aren't connected
 - o Connect other neighborhoods, not so much the suburbs
 - **Visitors:**
 - o ***PEOPLE WANT “AUTHENTIC URBAN EXPERIENCES”
 - SWB is that for people visiting downtown
 - o Make the city more legible/easy to navigate
 - Details that work with streetcar to help people find their way
 - Streetscape, signage
 - *Pedestrian-oriented
- Group 2**
- **Neighborhoods:**
 - o Would cut down on car dependence
 - Could get rid of car or go to one car family
 - Boutique shops
 - More shops
 - More restaurants and bars
 - Remove warehouses
 - o Concerns
 - What is the cost to the local business and residents?
 - Would expect to incur costs to pay for an amenity
 - o Opportunity/Benefits
 - Want to connect to downtown and destinations
 - Looking forward to better transit service
 - Would also increase walking and biking
 - Route Considerations
- Would want it to go further down SWB into Kansas
 - Bridges add challenges
 - Jurisdiction can be an excuse
 - Need to get municipalities to work together
 - Changing culture
 - Is the city trying to change culture around cars via investment?
 - Denver is an example of streetcars and bike lanes
- **Businesses:**
 - o Affordability
 - “Can I compete with a business that has lower costs?”
 - Denver example – there are growing pains from growing too fast
 - Concern about car visitors from suburbs clogging businesses’ parking lots
 - Need to have adequate park and ride lots and supporting infrastructure
 - Streetcars and light rail are different
 - Streetcars augment street and encourage walking
 - Affordability for existing business
 - Business disruption
 - Other cities have given assistance to businesses to make it through construction
- **Visitors:**
 - o 18th and Vine through the Westside have a lot of dead zones
 - o Streetcars seem like a secure way to get to destinations
 - o 18th and SWB connect many destinations
 - o Could be simpler
 - o Visitors are more comfortable with rail than bus because you know where you are going
 - o Would make easier to get to businesses
 - o East/West connection would be nice
 - o SWB and 18th and Vine would help these districts be more self-sustaining
 - o Benefits for visitors
 - Riders know it will stop
 - Dead zones will fill in with time
 - Turn into friendly mixed use environment
- **City Officials:**
 - o Can there be policies that help business mitigate their concerns
 - o Policies that maximize investment such as requiring higher density
 - *revisit zoning
 - o Example of Denver sets a great example of City leadership
 - How can we emulate?
- Group 3**
- **Neighborhoods and Businesses:**
 - o Coming to eat
 - Some visitors, some tourists



- Show KC what the Westside is
 - Explore KC
- Small businesses
- KU Med
 - Creates anchor for the corridor
- Increase transit options
 - Mobility
 - Access Sprint Center and other major events
- Reduce parking needs
 - Access to city
 - River Market, Westport, Brookside
 - Open options
- No east-west transit connections currently
 - Frequency is an issue
 - Physically more appealing than a bus
- Compliment bus service
 - Feeder busses
 - Education
 - Integrated system
- **Visitors:**
 - Tourists stuck in hotels downtown and Civic Center
 - Opens potential
 - Exploration/encourages looking around
 - Highway construction has changed Summit St.
 - Real estate
 - Starter line changed dynamics
 - MAX “Party Bus”
 - Streetcar booze cruise
 - No one wants to drive home drunk
 - Most urban experience in Kansas City with a level
 - Break stigma of safety in Westside
 - Increases street life

III. Other Input: Model Facilitation & General Comments

Termini:

- Streetcar should connect to the University of Kansas Medical Center and Kansas City, KS in general.

Streetcar Station Stops:

- No discussion.

Route Selection:

- No discussion.

Miscellaneous:

- The Kansas City streetcar needs to be a part of an overall transit system which connects neighborhoods with each other and the rest of the city: places of employment, places of interest, food, essential health and social services, entertainment, etc. If the streetcar fails to enhance the ability for public transit to efficiently get people where they want to go, and does not improve Kansas City's pedestrian experience, the project is a failure.
 - A streetcar can help break perceived barriers which separate Southwest Blvd and the Westside from the rest of the city.
 - Streetcar should also:
 - Have free wi-fi
 - Be a late night “Party Train” for nightlife, and to reduce drunk driving



31ST ST / LINWOOD BOULEVARD CORRIDOR OUTREACH SUMMARY

Total Stakeholders Reached: Approximately 553

Total Letters of Support: 0

I. Summary: Vision for Change

Key points: In the Linwood/31st Street Corridor, streetcars are seen as a way to get people without a means of transportation to shopping areas that are currently hard to access. People point out that 31st and Prospect is already a major transportation hub in the city. It is also seen as an important way for people to get to work and to other city amenities like museums. Residents think young people would use the streetcars and that might encourage them to stay in this area of the city rather than moving away. They also see the opportunity for increased development along the corridor. They especially like the idea that streetcars could provide frequent service to get people to grocery stores, especially on weekends and in the late evening.

- people want to go to grocery stores - biggest need
- people would like to get to WalMart and other businesses on 40 Highway
- several grocery stores are being planned for the area and streetcars should take people to those places
- needs to go west to downtown to get people to jobs
- would bring more development on 31st
- 31st would instill pride and development in shops there and in north and south crossing routes
- getting to stadium
- Important for stadium workers to be able to get to stadiums.
- "Once the wheels start moving, people will come back."
- From eastern neighborhoods, can get to Plaza, Nelson-Atkins, downtown, get anything you need - it's a convenient location
- Streetcars would benefit Kansas City tremendously - would help get young people back
- 31st and Prospect is the transportation hub of the city. Putting a streetcar there would tap into the heart of the inner city
- It would be good IF I brought jobs and development, big manufacturers We need something to create jobs
- We need things for young people to do, might help with that

II. Summary: Identified Concerns

Key concerns: The major concern about streetcars

in this area is that the city has other more pressing needs such as housing, jobs and repairing infrastructure. Some say the city isn't big enough to need a streetcar system, or that buses already provide adequate service.

- Many small businesses are concerned about a potential tax to fund a streetcar expansion
- Construction impacts from the streetcar will impact business traffic
- A streetcar may be incompatible for the more industrial uses on Southwest Boulevard that value connection to the highways
- Parking on Southwest Boulevard will be diminished by a new streetcar

III. Public Meetings Attended

Key Coalition Neighborhood Meeting:

[approximately 30]

- What routes makes the most sense?
 - o Main Street
 - o 18th Street because it connects Crossroads and 18th and Vine
- How far should the Linwood/31st Route go?
 - o at least to Van Brunt
 - o further than Van Brunt
- Key issues for Key Coalition
 - o many people ride the bus, and bus routes are spotty on Sundays
 - o should be comparable to buses in terms of cost
 - o people want to go to grocery stores - biggest need
 - o people would like to get to WalMart and other businesses on 40 Highway
 - o several grocery stores are being planned for the area and streetcars should take people to those places
 - o needs to go west to downtown to get people to jobs
 - o needs to coordinate with Troost Max (which ATA is considering)
- Linwood versus 31st
 - o Linwood
 - o 31st Street bus runs more frequently
 - o if its going to go out east, has to go on Linwood
 - o there are more businesses on Linwood

Ivanhoe Neighborhood Meeting Sept. 28: [50]

- Offered information, told participants how to give comments online, invited to public meetings

Union Hill Neighborhood meeting: [45]

- Division on 31 or Linwood, more favor 31sts
 - 31st too narrow and a lot of car traffic, use Linwood
 - More residents on Linwood
 - 31st developed along streetcar line
 - 31st has light commercial, good for streetcar
 - would bring more development on 31st
 - 31st would instill pride and development in shops there and in north and south crossing routes
 - Skip both lines, nothing over there
 - Concern about congestion at Main if 31st used
 - 31st and end at stadiums
 - Linwood or Armour lines best for residential use

Linwood Business Group Meeting: [50]

Troost Alliance meetings July 24, Sept. 4, Sept. 25: [approximately 70]

- Offered information, told participants how to give comments online, invited to public meetings

Linwood Corridor Business meeting Sept. 4: [approximately 12]

- Offered information, told participants how to give comments online, invited to public meetings

Midtown Plaza Plan meeting Sept. 18:

[approximately 120]

- Offered information, told participants how to give comments online, invited to public meetings

MainCor luncheon August 15, Sept. 4:

[approximately 75]

- Offered information, told participants how to give comments online, invited to public meetings

IV. Other Outreach Efforts

Canvassing of Linwood/31st Street businesses: [56]

- Visited all businesses on potential route, Offered information, told participants how to give comments online, invited to public meetings

Bluford Library Model Facilitation: Oct. 9, 2013

10:30 a.m. to 6:30 p.m. (70)

- Overall routes
 - Main street
 - Should go to Overland Park and Independence
 - Prospect 2
 - East west routes should be 39th, 47th, 63rd
 - 27th Street

- Troost
- South to Swope Parkway, Truman Corners, from northland to downtown
- Downtown
- To 71 Highway from downtown, need to go further east
- Needs to be 24 hours
- Needs to go to Raymore because there are no buses

- Linwood versus 31st Street as the route

- Linwood because its flatter
- Linwood because it is wider 2
- Not Linwood
- 31st is bigger and has more businesses
- Linwood 3
- A Linwood and 31st Street loop

- Stops

- Bluford library

- Other comments

- Against streetcars 2
- Neutral 1
- City should fix bridges before adding streetcars
- Waste of money - city isn't that big
- Waste of money - buses work fine 2
- Put money into housing, rehab old buildings and create jobs first
- Put money into small businesses instead
- It would be good IF I brought jobs and development, big manufacturers
- Bus rider who had to sell his car, good because it would add to mobility
- Faster than the bus
- People want to go to WalMart
- We need something to create jobs
- We need things for young people to do, might help with that

Individual meetings:

- Carol Edwards, ED Oak Park neighborhood
- Hope Care Center - Executive Director Chris Jehle
- VA Hospital - Director of Security and Public Affairs Director Gwenna Greer
- Kansas City Sports Authority, Jim Rowland
- Metropolitan Missionary Baptist Church, Rev. Hartsfeld
 -



31ST STREET / LINWOOD BOULEVARD CORRIDOR WORKSHOP SUMMARY

Meeting Date: September 30, 2013

Number of participants: 14

I. Summary: Vision for Change

Key points: Participants envision the Linwood/31st Street Corridor remaining a mixed income and mixed use area as a streetcar line would develop there. They think the area would prosper because of a better connection to downtown jobs and amenities, and imagine more development occurring along the line. They would most like to see the streetcar connecting residents to a grocery store as well as hard-to-reach shopping destinations like Wal-Mart. They like the idea of connecting the medical services at the VA Hospital with those on Hospital Hill. Finally, many think visitors would like to travel to the stadiums on a streetcar, and also see potential for connecting residents who live on the corridors to arts and museums.

- **Residents:** Residents see the potential for redevelopment of neighborhoods along this line as well as the creation of small new service businesses that serve people within walking distance. They think neighborhoods would benefit from the connection to downtown jobs. While they already have bus service on the corridor, residents say they need expanded service on weekends and later in the evenings to allow residents to freely travel to work and leisure activities.
- **Businesses:** Residents again and again mentioned the need for transportation to and from grocery stores as a key concern for this area. They would also like to be able to access hard-to-reach shopping destinations like Wal-Mart. As the streetcar developed, they would like to see nodal development at the stops, and would hope that service-type businesses would spring up to serve local residents. They would also like to see residents able to ride streetcars to jobs downtown and elsewhere.
- **Visitors:** The biggest wish residents have for this line is for it to allow residents and visitors to travel to the sports stadiums. They also like the opportunity for both groups to be connected to universities, arts and museums and the airport. They also think people coming to the VA Hospital would appreciate having public transportation available. .

Major concerns:

- Residents are concerned a streetcar line could lead to gentrification
- Some say the city should focus on housing and jobs before spending money on transportation.

II. Small Group Discussions:

Community Group Narrative Discussions

Group 1

• Neighborhoods:

- Connection to downtown/Sprint Center.
- More development.
- How do you preserve affordability and neighborhood character?
- How do we follow up with proper land use policy?
- East-West thoroughfare of development.
- Concern about unhealthy gentrification.
- Retain mixed-use and mixed-income neighborhood.
- Case study review.
- Preserve and enhance culture/existing conditions
- “Gentrification” can lift everyone up if correct policies are in place/applied.
- Large housing stock in this corridor.
- Equity-Equity-Equity.
- Kind/type/diversity/quality of development.

• Businesses:

- Bring me a Trader Joes (Aldi)
- Food desert
- Service industry: Doctors, dentists, lawyers, veterinarians
- Nodal developments at intersections/stops
- Walkability
- Safety and crimes
 - More people walking around reduces crimes
 - Worse on MAX lines due to concentration
 - More people living/interested in corridor

• Visitors:

- Make it to the stadiums
- Connect to arts district/museums
- Connect to universities
- Travelers don't want to rent cars
- Airport to downtown then connect to streetcar system
- Connect to VA hospital

• Miscellaneous

- Why is bus better?
- Put bikes on the train
- Stroller friendly/handicap accessible, especially if going to VA hospital
- Chiefs tailgaters
- Veterinarian: Bring your dog/cat to the vet day

III. Other Input: Model Facilitation & General Comments

Termini:

- At least to Van Brunt
- Further than Van Brunt

Streetcar Station Stops:

- Many people say it must go to the stadiums
- There is a bus transit hub at 31st and Van Brunt, use it as transport hub to the stadiums.
- Three said it must stop at bars like those at Martini Corner
- Bluford library.

Route Selection:

- More people picked 31st over Linwood, but not by that much.
- Some said start on 31st and cut over to Linwood at Gillham.
- Others said start at 31st and cut over at Troost
- Reasoning for the cut overs is to tap development on 31st and then go over to Linwood to serve apartment buildings for transit.
- Two said run it on 31st because Linwood involves the Parks Department and that will make project 5 times harder.
- Many said 31st route offers more opportunity for infill development
- Two suggested putting a streetcar line on Prospect.
- 31st and Gillham to Benton.
- 31st Street - VA Hospital, link from Hospital Hill
- Linwood because it's flatter
- Linwood because it is wider
- Not Linwood
- 31st is bigger and has more businesses
- A Linwood and 31st Street loop
- 31st too narrow and a lot of car traffic, use Linwood
- More residents on Linwood
- 31st developed along streetcar line
- 31st has light commercial, good for streetcar
- would bring more development on 31st
- 31st would instill pride and development in shops there and in north and south crossing routes
- Skip both lines, nothing over there
- Concern about congestion at Main if 31st used
- 31st and end at stadiums
- Linwood or Armour lines best for residential use

Miscellaneous:

- Purpose of streetcars is economic development.
- Purpose is development and restoring density to city.
- Purpose is all development, can move people on buses.
- Inner city biz owner says project is unrealistic,

too many social, crime and cultural problems in eastern corridor. Says people should talk to those who live there, work there or do business there.

- Against streetcars
- Neutral
- City should fix bridges before adding streetcars.
- Waste of money - city isn't that big.
- Waste of money - busses work fine
- Put money into housing, rehab old buildings and create jobs first.
- Put money into small businesses instead.
- It would be good IF it brought jobs and development, big manufacturers.
- Bus rider who had to sell his car, good because it would add to mobility.
- Faster than the bus.
- People want to go to Wal-Mart.
- We need something to create jobs.
- We need things for young people to do, might help with that.
- 31st has light commercial, good for streetcar
- Would bring more development on 31st
- 31st would instill pride and development in shops there and in north and south crossing routes.
- many people ride the bus, and bus routes are spotty on Sundays
- should be comparable to buses in terms of cost
- people want to go to grocery stores - biggest need
- people would like to get to Wal-Mart and other businesses on 40 Highway
- several grocery stores are being planned for the area and streetcars should take people to those places
- needs to go west to downtown to get people to jobs
- needs to coordinate with Troost Max (which ATA is considering)



COUNTRY CLUB RIGHT OF WAY CORRIDOR OUTREACH SUMMARY

Total Stakeholders Reached: Approximately 348

Total Letters of Support: 3

I. Summary: Vision for Change

Key points: A streetcar on the CCROW would connect the City's most stable residential neighborhoods to its two largest employment Centers, the Country Club Plaza and Downtown. While there is limited development opportunities on the northern half of the corridor, new development demand brought on by the streetcar has the potential to encourage the redevelopment of underutilized parcels and surface parking lots. South of Brookside in the Waldo and then Marlborough communities, there is significant opportunity for the neighborhood revitalization and infill development. The community sees a dramatic potential to transform this portion of its commercial corridor to more pedestrian-friendly uses as it becomes a hybrid trail-oriented and transit-oriented district. While concerns persist around financing of the line, a streetcar along the CCROW could extend the corridor's stability farther south, encourage reinvestment and stand ready for further expansion south to the redevelopment of the old Bannister Mall site.

- A streetcar running in the right of way should be designed to preserve the trail
- Provided that technical difficulties can be resolved, there is preference for an alignment in the existing right of way
- If we're looking at where to spend millions of infrastructure dollars, it seems to me we should look where we have the best chance of attracting major, quality development — and that's where we have a lot of land in strong hands
- Relaxing the number of parking spots required for new (and existing businesses) along the streetcar route will promote new development, encourage streetcar utilization, and improve the experience for pedestrians

II. Summary: Identified Concerns

Key concerns: The Country Club Right-of-Way Corridor has general support for a streetcar expansion with a growing level of support the farther south down the route. This is also reflective of the potential economic impacts of a streetcar along the line south of Gregory and more so south of 75th Street in Waldo. While neighborhoods closer to the Country Club Plaza are already feeling development pressure, those communities south of 75th Street look to the streetcar to transform their neighborhoods and strengthen

their connection to Downtown. Parking is a major issue for business owners along the corridor, and they will seek to preserve and potentially expand their parking supply in the areas that will be directly served by a streetcar. For trail users, the impacts of a streetcar in the space that has become a linear park is of great concern not just for safety, but aesthetic reasons. All residents are concerned about how the project will be locally financed and increasing their tax burden.

- Businesses in the corridor are concerned about losing parking or making parking more difficult in Brookside and Waldo commercial areas
- Residents are concerned with noise and safety issues with the streetcar possibly bringing property values down for homes adjacent to the line
- Businesses are also concerned with the short-term impacts that construction will have on customer access
- Most importantly, participants were concerned about how a streetcar system would be paid for, and how much of the financial burden they would have to bear
- With strong north-south focus of the corridor there is an equity issue with the east side potentially not receiving streetcar in Phase 2 construction

III. Public Meetings Attended

Armour Hills Homeowners Association (August 20): 9 Stakeholders

- Concerned with overall cost of expansion
- Questions about the impact on the community in terms of economic development
- See Impact in Waldo and Marlborough, but Brookside and Plaza built-out
- Questions about the negative impact on adjacent neighborhoods
- Concerns with sharing the Trolley Trail
- Could make city nationally competitive and draw young professional and businesses

Brookside Merchants Association (September 6): 18 Stakeholders

- Concerned about how the project would be paid for
- Questions about route alignment into Brookside
- How would this impact parking?

South Kansas City Alliance (September 9): 35 Stakeholders

- Huge economic impact for south Kansas City
- Study should continue from 85 & Prospect to 95th and Blue Ridge Road
- Millions in public infrastructure investment in the region
- A streetcar can influence the type of development that is to come

St. Andrew's Episcopal Church Infrastructure Committee (September 12): 12 Stakeholders

- Concerned about tax burden on church
- Interested in development potential of adjacent youth center
- Questions about the a modern streetcar and the modal choice of the City
- Understand the economic argument, but more concerned about potential conflicts with existing bus service
- How is this any different than a bus?
- Will invite its members to Corridor Workshop

Oak Meyer Garden Homeowners Association (September 17): 7 Stakeholders

- Concerns about the cost of the project
- Not sure if this is the right need for the community
- Understand that it will rebuild inner city
- Will invite members to the Corridor Workshop

Armour Fields Homeowners Association (September 18): 1 Stakeholder

- Concerned about potential conflicts with Trolley Trail
- Generally supportive of mode, but not sure if neighborhood would ride it
- Concerned about the cost of the project and how it would be paid for

Southtown Council (September 18): 60 Stakeholders

- Just an update at the beginning of the monthly luncheon
- Invited everyone to the Corridor Workshop

Southern Communities Coalition (September 18): 45 Stakeholders

- Supportive of Streetcar
- Request extension into Bannister Mall complex and Hillcrest be considered
- Many complexities of bringing the streetcar to these communities
- Understand huge impact on development and type of development with streetcar

Christ Community Church (September 19): 7 Stakeholder

- Supportive of streetcar
- Would connect Brookside church with downtown church location
- Understand economic development impacts
- Supportive of great equalizer in mobility

Countryside Homeowners Association (September 19): 6 Stakeholders

- Opposed to streetcar
- Believe it is a complete waste of taxpayer money
- Do not believe City Council can make such a big decision without a vote of the people
- Concerned about cost of project and how it would be paid for

Marlborough Community Coalition (September 24): 13 Stakeholders

- Concern about funding for the streetcar and impact on local businesses
- Will write letter of support
-

Southtown Council Board (September 26): 10 Stakeholders

- Questions about oversight and governance structure of streetcar
- Need for accountability
- Concern about financing

Waldo Property Owners (September 26): 10 Stakeholders

- Questions about coordination with bus service
- Concerns about financing
- Expressed general support for Waldo and small businesses
- Would drive traffic and customers to the area
- Questions about how a train would attract new ridership

KCATA Country Club Right-Of-Way Advisory Committee (October 1): 25 Stakeholders

- Concern about trolley track trail being compromised. Committee passed a resolution supporting the preservation of the trail if/when a streetcar is built
- Concern about financing
- Concern about safety of trail users with an adjacent streetcar
- Generally supportive of the right-of-way being used for its intended purpose
- Streetcar could connect community to Downtown and better support future development of Waldo/Brookside

Country Club Right-of-Way Corridor Workshop (October 9): 77 Stakeholders

- A streetcar would reduce the need for parking and encourage more foot traffic
- Increase in property values with such a large public investment and increased development pressure and density at commercial nodes
- Benefits of streetcar in terms of economic development most prevalent south of 75th Street
- Real "Starter Line" should go from Downtown to Marlborough
- Connection should go to new Cerner development at Bannister Mall site
- Attract new businesses and residents from all



over the region and draw new talent to Kansas City

- Businesses in the corridor are concerned about losing parking or making parking more difficult in Brookside and Waldo commercial areas
- Residents are concerned with noise and safety issues with the streetcar possibly bringing property values down for homes adjacent to the line
- Businesses are also concerned with the short-term impacts that construction will have on customer access
- Most importantly, participants were concerned about how a streetcar system would be paid for, and how much of the financial burden they would have to bear

Country Club District (October 13): 6 Stakeholders

- Travel time to Downtown from CCROW vs. bus a concern

Tower Homes Homeowners Association (October 17): 13 Stakeholders

- Expressed support for the streetcar, Main Street Corridor and CCROW extension
- Discussed potential impacts to trail users



Southern Communities Coalition

6103 E. 109th St. Kansas City, Mo. 64134

816-966-0855

September 27, 2013

REF: STUDY OF THE EXTENSION
FOR THE COUNTRY CLUB LINE

The Southern Communities Coalition , an umbrella organization of Homes Associations, neighborhood groups and concerned individuals in both the 5th & 6th Districts are asking for your support to put more money in the study for the above to go past 85th Street all the way to 95th & Blue Ridge Blvd.

We know you are very much aware of the two (2) large developments being proposed for this area and it is crucial that this study be done. Let's not cut corners, we need to act now. You have the community's support!

Thank you.


Carol McClure,
Co-Chairman


Jerry Carter,
Co-Chairman

cc: Cindy Circo, ProTem, 5th Dist.-at-lg.
Michael Brooks, 5th Dist. Councilman
John Sharp, 6th Dist. Councilman
Scott Taylor, 6th Dist.-at-lg. Councilman

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Michael Brooks, 5th Dist. Councilman
John Sharp, 6th Dist. Councilman
Scott Taylor, 6th Dist.-at-lg. Councilman

3-TRAILS VILLAGE COMMUNITY IMPROVEMENT DISTRICT

RESOLUTION OF THE BOARD OF DIRECTORS ("BOARD") OF THE 3-TRAILS VILLAGE COMMUNITY IMPROVEMENT DISTRICT ("DISTRICT") TO EXPRESS SUPPORT FOR THE KANSAS CITY STREET CAR LINE STUDY AND TO ADVOCATE FOR AN EXPANSION OF THE STUDY TO INCLUDE IN THE STUDY AN EXTENSION OF THE LINE FROM 85TH AND PROSPECT TO EAST BANNISTER ROAD AND BLUE RIDGE BOULEVARD

WHEREAS, the District, was formed on July 7, 2002, by Ordinance Number 020753, and amended by Ordinance Number 050769 on July 3, 2005 adopted by the City Council, is a public body created under the authority of the "Missouri Community Improvement District Act, "Section 67.1401, et seq., Rs Mo., as amended (the "Act") and is transacting business and exercising powers granted by the Act;

WHEREAS, the City of Kansas City Missouri has successfully launched a two mile street car starter line from the River Market to Union Station and is taking steps to expand and extend the street car line along several "corridors" of the City, a prime corridor study being from Union Station South on Main to the Country Club Plaza and the University of Missouri at Kansas City (UMKC), and;

WHEREAS, the study is including an extension of the prime corridor from the Country Club Plaza/UMKC then South along the Country Club Right-of-Way to 85th and Prospect, and;

WHEREAS, the Board has determined that an extension of the Street Car Line from 85th and Prospect to East Bannister Road and Blue Ridge Boulevard would be beneficial to the District and to several redevelopment efforts in the surrounding area totaling more than 2,000 acres;

WHEREAS, Section 67.1451 of the Act authorizes the Board of Directors to act on behalf of the District;

NOW THEREFORE BE IT RESOLVED, by the Board of Directors of the District:

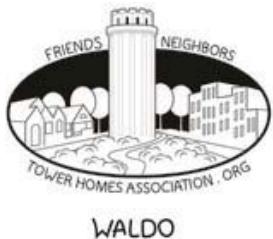
1. That the Board hereby expresses its support for the Union Station to Country Club Plaza/UMKC thence on the Country Club Right-of-Way to 85th and Prospect street car line study;
2. That the Board urges the study to include expansion of the street car line from 85th and Prospect to East Bannister Road and Blue Ridge Boulevard.
3. The Chairman is authorized and directed to take any further action necessary to carry out the purpose and intent of this Resolution.
4. This Resolution shall take effect immediately.

Adopted this 21st day of October 2013.

Lou Austin, Chairman



ATTEST: *Michael Graf*
Michael Graf, Secretary



Tower Homes Association

P.O. Box 16401 ■ Kansas City, MO 64112-6401 ■ 816.559.7012

www.TowerHomesAssociation.org

Mayor James
29th Floor, City Hall 414 E. 12th Street
Kansas City, Missouri 64106-2795
P: 816.513.3500

The Tower Homes Association would like to state our complete support for the Country Club Right of Way transforming to once again operate as a streetcar line. There are many benefits a streetcar line serving our neighborhood has. We see the greatest of these being economic development potential of the corridor, the many established and growing neighborhoods it will serve and the connections to many diverse uses.

The economic development potential of the CCROW and our neighborhood is obvious. Our main core at 75th and Warnall continues to be a major destination for our community and now even visitors beyond those of our neighborhood. As you move south that quickly changes and filled storefronts turn into used car dealers, empty lots and vacant buildings. With the installation of a streetcar system there is no doubt in our minds that this will transform this area of town and further strengthen established businesses. The greatest development potential of them all will be if the streetcar runs connects to the Cerner site. This is likely the greatest opportunity of any other streetcar line. As proven by the new Cerner development at Village West, their employees want a more urban community to live in. Waldo and the surrounding neighborhoods will be a great option for these employees. Even without the streetcar line we expect to see a big impact on our neighborhood and our friends in Marlborough, a rebirth certainly compounded with the addition of a streetcar.

In addition to the growth of our area businesses we have seen a surge of young couples and families moving into our neighborhood. Waldo's draw for these individuals is its historic character, locally owned businesses and pedestrian friendly nature. The addition of a streetcar would help to further attract new neighbors.

The CCROW in our opinion is the most diverse of those being studied. It connects major shopping and entertainment hubs with the Plaza, Brookside, and Waldo. The CCROW serves many small business hubs, industrial areas, groceries, and the potential for major job centers with Cerner. It connects thriving residential areas and ones with great opportunity for growth. Lastly, it will support two of our cities Major Universities, Rockhurst and UMKC, many public amenities including two libraries and churches.

Tower Homes Association is very excited to see streetcar development happening in our city regardless. We hope to see the development of a true starter line, one extending from downtown to 85th and Warnall. This would be a very health spine for the rest of the system to be established from and one that will greatly enhance our community.

Best Regards,

Joshua Hemberger
THA President





406 E Bannister Road, Suite F
Kansas City, MO 64134-3028
Phone: 816-761-7660
Fax: 816-761-7340
www.southkcchamber.com

November 4, 2013

Dear Kansas City Council Member,

I am writing you today to show our organization's support for using the Country Club Right-of-Way (CCROW) as a future route for the Kansas City Streetcar Project, NEXTRAIL KC, and to urge you to please vote YES to further study Country Club Right-of-Way in Phase 2 of Kansas City's Streetcar project.

Along with the Downtown Starter Line and the Main Street Corridor, extending the Kansas City Streetcar down the Country Club Right-of-Way would create the North-South Backbone of the city, connecting this area of the city to jobs, businesses opportunities, entertainment and services.

CCROW runs along several major key nodes of commercial and educational districts including South Plaza, UMKC, Crestwood, Brookside, Waldo, Marlborough, which could benefit from the development opportunities. Much of this area, especially further south is just ripe for commercial economic development with vacant commercial land and buildings that are perfect opportunities for quality economic development, bringing in jobs and tax revenues to the city. The residential areas adjacent to the CCROW are densely populated with single family homes, rental property and multi-family units that could all benefit from the increase in walkability options and access to other areas of the city adding to the quality of life in our neighborhoods. Of course preservation of the Trolley Track Trail along with the KC Streetcar route is of utmost importance to this goal of walkability.

This route would also create the path to eventually connect with the Southland, past the Bannister Federal Complex to Bannister and I-435 where there are billions of dollars of development planned from companies such as Cerner and the proposed Stowers' Oxford on the Blue development, among others.

Thank you for considering the Country Club Right-of-Way for the future of the Kansas City Streetcar Project. If you need to contact me for any reason I can be reached at vwolgast@southkcchamber.com or 816-761-7660.

Sincerely,

Vickie Wolgast
President





CENTER PLANNING & DEVELOPMENT COUNCIL

WORKING TOGETHER FOR QUALITY DEVELOPMENT

547 E. 101st Ter
Kansas City, Missouri 64131

November 2, 2013

City Council
City Hall
Kansas City, Missouri 64106

Members of the Council:

The Center Planning and Development Council, an umbrella group of homes and neighborhood associations in the southwest part of Kansas City is in full support of a study for an extension of the streetcar line along the Country Club Right of Way.

It is important to have a north-south spine to serve our area of the City. The Country Club line has already been used for rail transit in the past and would be a good beginning to eventually connect to the Cerner development at Bannister Road.

People in this area are excited about the possibility of the extension and hope this is one of the chosen areas.

Sincerely,

Carol Winterowd
Carol Winterowd, President
Center Planning and Development Council





15 E Dartmouth Road | Kansas City, MO 64113 | info@armourhills.org | armourhills.org

ARMOUR HILLS HOMES ASSOCIATION **BOARD**

TIFFANY MOORE President
DAVID PUCCI Treasurer
GINO SERRA Secretary
MARY HUTCHISON Code Enforcement
MISTIE CAESTECKER Director

November 5, 2013

Mayor James
City Council Members
414 East 12th Street
Kansas City, Missouri 64106

Dear Mayor James and Council Members,

The Armour Hills Neighborhood supports further study of the Country Club Right-of-Way (CCROW) for use as a streetcar line and asks that you advance this corridor into Phase II as part of a comprehensive approach that includes neighborhoods along both east-west lines and north-south lines.

As an historic JC Nichols neighborhood of nearly 1100 homes and properties, Armour Hills has maintained its community fabric for nearly 100 years. The strength of this fabric comes from the people that have chosen to live in our walkable neighborhoods, shop at locally-owned businesses, and enjoy the amenities along the Country Club Right-of-Way Corridor. These amenities include the Trolley Trail, a key neighborhood feature that will continue, sharing the right-of-way with the streetcar line, exemplifying a healthy, sustainable network of walking, biking, and transit opportunities. This network can improve the quality of our neighborhood, reduce traffic-related challenges, and reconnect the City in a fashion that we have not seen in 50 years.

We believe the return of transit to the CCROW will ensure that Armour Hills and other neighborhoods along this Corridor continue to be vibrant and attract new generations of families and homeowners that seek well-connected, walkable, urban neighborhoods. We also believe the potential long-term reinvestment in existing commercial districts will improve the overall aesthetic and value in areas that have long suffered from access and traffic challenges, bringing new interest to the original streetcar nodes of Brookside, Waldo, 85th Street, and beyond.

The CCROW Corridor has traditionally voted in support of transit initiatives and believes in the value of reaching as many neighborhoods as possible with the Phase II study. While we also believe the CCROW Corridor should be considered an essential part of the system, it will be most successful in combination with east-west lines that connect neighborhoods, communities, and cultural centers across the City.

Returning streetcar service to Kansas City is the right thing to do. Our city is permanently oriented around nodes that began as streetcar stops, a people-centric approach that continues to be relevant to this day. We applaud the decision by Mayor James, Council Members, and our Civic Leaders to reinvest in our transit network and look forward to the day when a modern streetcar once again travels along the CCROW to reach important destinations throughout the Kansas City region.

Sincerely,



Tiffany Moore
President, Armour Hills Homes Association
president@armourhills.org

cc:

Mr. Troy Schulte
Mr. Mark McHenry
Ms. Sherri McIntyre
Mr. Terry Leeds
Mr. Robert Langenkamp
Mr. Dick Jarrold, KCATA
Mr. Vince Gauthier, BNIM



COUNTRY CLUB RIGHT OF WAY CORRIDOR WORKSHOP SUMMARY

Meeting Date: October 9, 2013

Number of participants: 77

I. Summary: Vision for Change

Key points: Participants at the Country Club Right of Way corridor workshop were for the most part very supportive of a streetcar in their corridor. There were many conversations about resident and business concerns regarding the specifics about streetcar implementation: how the City will finance a streetcar project, how the streetcar will impact parking in areas where parking is already short, and safety and noise issues created by streetcar vehicles which could impact property values and quality of life. A major point was residents' desire to maintain the quality of the Trolley Track Trail in the parts that the streetcar might travel through. Overall, participants at the workshop saw the streetcar as a great opportunity for greater north-south connection in the city that can reduce automobile dependence and encourage a more pedestrian and community-centered lifestyle. More than just being a more reliable and attractive means of transportation around the city, participants thought a streetcar can help build equity for properties along the corridor and help convert the city into a city of transit users and not car users.

- **Residents:** Participants saw a streetcar in the Country Club Right of Way primarily as a new commuting option which will attract a different clientele than bus service, and help convert people who usually rely on their automobiles into public transit riders. As well, participants identified a streetcar in their neighborhoods as a major transportation investment that can help with walkability and increase property values.

Participants noted that a streetcar is a much more accessible mode of transportation for the elderly and people with disabilities, meaning that it will help residents age in place and not have to move when they get older.

Participants also noted that the future Cerner office complex will be built near the southern end of the proposed corridor, and suggested that the streetcar connect their neighborhoods to what will soon be a major employment center for the city.

Finally, participants saw a streetcar in the right of way as a service that students at UMKC, Rockhurst University, and Webster University can use, and suggested possible extensions east of the corridor to serve these schools.

- **Businesses:** According to the conversation,

a streetcar would be a great opportunity for local businesses to expand their customer base and gain more exposure to streetcar riders. An increase in streetcar ridership could reduce the number of automobiles coming to commercial nodes in Brookside and Waldo where parking is very limited.

However, participants were concerned about the fact that if not properly designed, a streetcar could reduce a significant amount of parking in these areas, and cause harm to businesses. As well, participants were concerned with how financing the streetcar might cause financial burdens on area businesses.

- **Visitors:** Primarily, participants said that a streetcar could help bring people who are visiting Kansas City and staying closer to downtown out of the city center to experience what southern parts of the city have to offer.

Major concerns:

- Residents are concerned a streetcar line could lead to gentrification
- Some say the city should focus on housing and jobs before spending money on transportation.

II. Small Group Discussions:

Community Group Narrative Discussions

Group 1

• Neighborhood

- Bike/pedestrian Friendly
 - Public, shared parking
 - Cost
 - Fewer cars/parking lots
- Community atmosphere
 - Not car dependent
 - Urban feel
 - More development, business growth
 - Fill in strips, consolidate retail
 - Commercial and small scale mixed use (like Portland)
 - 51st/main, 63rd mixed use (in the past)
- Property values increase
 - Walkable access
 - Noise issue near residences (63rd and Meyer, example)
 - Example: bus line on Oak, Holmes

◦ Aging in place

- naturally occurring retirement

- community
 - o Density
 - Enough people compared to midtown/downtown?
 - o Rethinking trips
 - Ease of mobility for trips
 - Shopping
 - **Businesses**
 - o Increased traffic
 - Pedestrian traffic
 - o Parking
 - Structured
 - Management
 - To-from, how are we getting there?
 - o Logistics of streetcar turn-arounds
 - o Frequency of route
 - Increase with ridership?
 - o Why not the MAX/Bus
 - Shifts
 - Express line?
 - o Wi-fi on vehicle
 - **Visitors:**
 - o Increased revenue
 - o AIRPORT CONNECTIVITY
 - o Knowledge and access
 - o Time spent from airport to neighborhoods
 - o Decreases travel expenses
 - o Conferences, art fairs and events
 - Shuttles and coaches are wasteful
 - Eliminate cabs needed
 - Decrease drunk driving
 - o How is it electrified?
 - o Hours of operation
- Group 2**
- **Neighborhood**
 - o Attractive and easy to go downtown
 - o Bad weather, use for walkers
 - o Great for home sales
 - o Where do park and ride lots go?
 - o Impact on trees/aesthetics
 - o Would want specifics on how trail and rail are configured
 - o Parking on Brookside
 - o Brookside pinch point
 - How trail and parking are accommodated
 - o Properties close to route increase in value
 - o Don't create park and ride in heart of corridor
 - At end of route
 - o Security concerns
 - Real and perceived
 - Well lit and secure stops
 - **Business Perspective**
 - o Increased traffic
 - Pedestrian traffic
 - o Parking
 - Structured
 - Management
 - To-from, how are we getting there?
 - o Logistics of streetcar turn-arounds
 - o Frequency of route
- Increase with ridership?
 - o Why not the MAX/Bus
 - Shifts
 - Express line?
 - o Wi-fi on vehicle
 - **Visitors:**
 - o Waldo, Brookside, South Plaza
 - o Work hard today to get visitors
 - Streetcar signal to travel past plaza
 - Go to the end of the line just to see what is there
 - Cerner employees going other direction
 - **City Officials:**
 - o This corridor is the backbone of the city
 - o Preserve history and visitors
- Group 3**
- **Neighborhood Changes:**
 - o Down zoning – commercial nodes streetcar stops
 - o Double track if possible
 - o Concerned about tree removal
 - o Concerns about property tax burden on residents
 - o Pedestrian connections important
 - o Strengthen neighborhoods and property values
 - o Concerned about noise
 - o Concerned about crossings with children
 - o Maintain park-like feel of corridor
- Group 4**
- **Neighborhood**
 - o Concerns
 - What is the time frame?
 - Will the streetcar line become a barrier?
 - Parking: Will it take way parking at Brookside/Wornall?
 - *Plan for additional strategic parking structures (park and ride)
 - Streetcar station a tunnel underneath parking?
 - *need to reeducate KC to use public transit
 - Streetcar should use Brookside BLVD
 - o Don't go through heart of Brookside - **South part of corridor**
 - o Bannister mall area
 - Bring commerce and investment
 - Employment center
 - But have to get through Brookside/Waldo first
 - **UMKC**
 - o Destination parking in the area
 - **Waldo**
 - o School at 76th and Wornall
 - Vacant, use for parking?
 - Convert transit users
 - o Millennials more receptive to public transit



- o Validate streetcar ride with receipts?
- o Streetcar is an amenity/ service which attracts next generation's "best and brightest"
- **Visitor**
 - o Conventions
 - Connects downtown to more places to stay, entertain
 - Makes city easy to navigate
- **Streetcar stops:**
 - o 51st, 55th, 59th, 63rd, 75th, 79th, 85th
 - o Around a mile apart?

Group 5

- **Streetcar**
 - o Connection for UMKC and Rockhurst/ Webster
 - Brookside and Waldo
 - o Promotes diversity and eclectic nature
 - Connects diversity
 - o Accessibility
 - o Get people out of their cars
 - Need more pedestrian traffic
 - Multiple stop visit
 - o Connect visitors to Waldo
 - o Legitimate transportation changes your perception
 - Safety
 - Stigma around busses
 - o Place-based communities
 - Walkable communities
 - o Extends to South KC
 - Cerner, where City is growing
 - o Webster University connection
 - o Multi-modal connections
 - o Prioritize east-west connection
 - 18th street and SWB
 - Independence, 12th, 18th
 - o Research center
 - o Greatest impact 75th south
 - o Transform car-based economics on Wornall
 - o Revitalization
 - 15,000 Cerner jobs, connect to Cerner
 - Influence type of development
 - o Demographic shift
 - Millennials and baby boomers
 - o Reduce need for parking
 - o Developed areas need amenities too
 - Connect "spenders" to rest of the city
 - o Type of development
 - Mixed uses
 - o Streetcar is only game in town/ no commuter rail
 - o Equity and fare shares
 - don't concentrate amenities
 - o close cross streets to make it more efficient
 - o bring more people
 - more business activity
 - draws more shoppers
 - o businesses don't want parking taken away
 - understand impact on parking

- o coordination with KCATA
- **Lightning Round**
 - o Diversity mix
 - o Attention to emerging small businesses development
 - Revitalize stock of buildings
 - o UMKC and Rockhurst students to use this
 - o Must connect to Cerner
 - o Main street anc CCROW has most potential to connect residences to employment
 - o Focus on revitalization vs. gentrification
 - Not displacement but spreading of wealth
 - o Starter line ends at 85th and Prospect
 - Finish starter line???
 - o Some push back if we can only do north-south
 - Still need east-west/equity
 - o East-west needs to occur
 - o Start at end of Independence ave
 - Walkability and struggling neighborhoods
 - o Can go to KS and MO
 - I want this because I want to ride it

Group 6

- **Resident Perspective**
 - o Home values
 - o Noise
 - Continuous track
 - If on ROW, horn?
 - If on street, flows w/traffic
 - o 24 hours?
 - Different schedule for different lines
 - o Want easy way to commute and get to destinations with driving and parking
- **Business Perspective**
 - o Hard track bringing businesses to door
 - o Lack of parking made up by ridership
 - o New exposure
 - o Businesses developed along corridor because of original streetcar
 - o Open office space available to connect to on 85th
 - Sees people walking 85th a lot
 - o Take commuting traffic off of other north-south thoroughfares to do shopping/ eating along the way
 - o Impact on uses (less car lots)
 - o Connects east-west bus routes more efficiently
- **Visitor Perspective**
 - o Cab fare from airport is very high
 - o Passes to ride
 - o New destinations opened
 - One line, many nodes
 - Where do you direct tourists?
 - Union St.
 - Crossroads
 - BBQ
 - Plaza
 - Waldo
 - Brookside

- **Opportunity**
 - Ripple effects from nodes of activity into neighborhoods
 - Property values change
 - Seasons, salt, maintenance
 - “Usability” whole experience
 - Turnoff if a city is hard to figure out
 - Forward and back or loop system
 - Borrow back our old cars to ride the line?
- **City Officials**
 - Quality of life
 - Questioning personal choices
 - Walkability
 - Equity
 - Ridership
 - Expanding the walkability and connectivity of multiple neighborhoods

III. Other Input: Model Facilitation & General Comments

Termini:

- Reach out to new Cerner development and Bannister Mall area
- Or begin incrementally
 - Brookside
 - Waldo
 - 75th
 - Bannister Mall

Streetcar Station Stops:

- Stops at 51st, 55th, 59th, 63rd, 75th, 79th, 85th
- Around one mile apart

Route Selection:

- Participants suggested using Brookside Blvd. instead of going through the heart of the Brookside commercial district.

Miscellaneous:

- Pros/Opportunities
 - Ability to access Plaza/downtown without car
 - Urban feel in neighborhood
 - Progressive for KC
 - Connectedness in the corridor
 - ROW
 - Maintained for transit
 - Lower cost
 - Access FROM downtown
 - Allow people to explore city
 - Increased prop. Values in surrounding area
 - Investment for property
 - Changed traffic patterns
 - Especially if using CCROW
- Cons/Challenges
 - *adjacent to residences
 - Property values
 - **Business parking minimums
 - Cost
 - Residents and small business owners tax burden?
 - Change in traffic pattern
 - Traffic in Plaza/Midtown





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