

COST AND FINANCIAL STRATEGY REPORT



East-West
Transit Study
RideKC

May 19, 2023

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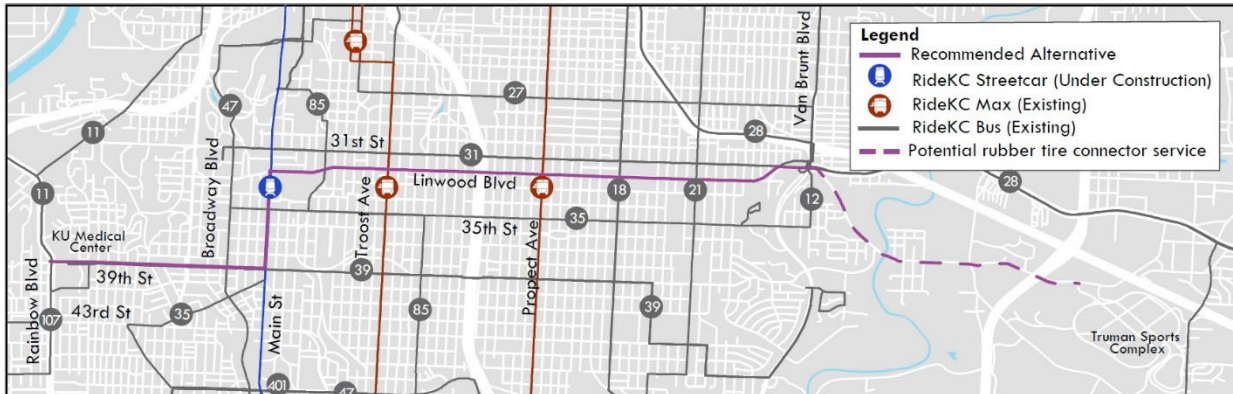
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INTRODUCTION

The preferred East-West corridor project is a streetcar operating along 39th Street, Main Street, and Linwood Boulevard with termini in the general vicinity of Rainbow Boulevard on the west end of the corridor and Linwood and Van Brunt/Hardesty Avenue on the east end, as shown in Figure 1.

Figure 1: Final Recommended Streetcar Alignment



IMPLEMENTATION TIMELINE

Development of the streetcar from feasibility study through environmental review, design, construction, testing, and start of service is anticipated to be 9-10 years based on past experience (see Figure 2). Phase 1 of project planning is complete, and advanced planning will further define technical details and a funding strategy, followed by two to three years of preliminary engineering and environmental review; two years of final design; and approximately four years for construction, testing, and commissioning of the project before it opens for service.

Figure 2: Anticipated Streetcar Implementation Process



CAPITAL COST

The capital cost of the project was estimated using an assumed cost of \$110 million to \$130 million per mile for a new streetcar alignment, and \$50 million per mile for segments that interline with the under-construction KC Streetcar Main Street Extension (these per-mile costs are expressed in 2022 dollars). The cost of new alignment is based on the per-mile cost of the Main Street Extension [1], with additional adjustments for inflation up to the current year, and to account for the uncertainty of this planning-level estimate. The resulting cost is between \$557 million to \$651 million in 2022 dollars. This is based on a 5.5 mile corridor, with 0.8 miles interlining with the Main Street Extension and 4.7 miles of new alignment. The cost includes all project phases from Project Development through construction and startup.

To estimate the total year-of-expenditure cost of the project, the total cost was divided into the various project phases based on the Main Street Extension’s cost breakdown by phase; a midyear was assumed for each phase, and inflation was applied from the base year cost (in 2022 dollars) to estimate the year-of-expenditure (YOE) cost. An inflation rate of 5% was assumed through 2026, with Congressional Budget Office forecasts averaging 2.4%-2.5% per year thereafter. The estimated YOE cost of the project is \$737.3 million to \$861.7 million. YOE cost will vary depending on project implementation timeline.

The cost estimate in both 2022 and YOE dollars are summarized in Table 1. As compared with the rough cost range shown in the February 2023 public meeting materials, there are two key differences: first is that the Public Meeting materials presented costs in base (2022) dollars, pending development of the project's implementation timeline that allow for an estimate of YOE costs. Second, the base year 2022 per-mile costs were further refined to account for significant inflation and material cost pressures even since construction began on the Main Street Extension. The higher per-mile cost represents a more conservative and realistic range of likely cost. It should be noted that there remains significant uncertainty around inflation and material costs.

Table 1: Project Capital Cost Estimate

Phase	% of Total Cost	Base Cost , Low (2022 dollars)	Base Cost , High (2022 dollars)	Midpoint Year	Inflation Factor	YOE Cost, Low	YOE Cost, High
Construction (SCC 10-60)	55.0%	\$306.1	\$357.8	2030	1.34	\$409.2	\$478.2
ROW	0.3%	\$1.8	\$2.1	2026	1.22	\$2.1	\$2.5
Vehicles	20.7%	\$115.1	\$134.5	2030	1.34	\$153.9	\$179.8
PD	1.6%	\$8.7	\$10.1	2025	1.16	\$10.0	\$11.7
Engineering	4.6%	\$25.9	\$30.3	2027	1.25	\$32.2	\$37.7
PM	3.8%	\$21.2	\$24.8	2027	1.25	\$26.4	\$30.9
CM	5.2%	\$28.9	\$33.8	2030	1.34	\$38.7	\$45.2
Legal	0.5%	\$2.8	\$3.3	2030	1.34	\$3.7	\$4.4
Surveys	0.4%	\$2.1	\$2.4	2027	1.25	\$2.6	\$3.0
Startup	0.7%	\$4.2	\$4.9	2032	1.40	\$5.9	\$6.8
Unallocated Contingency	7.2%	\$40.3	\$47.1	2029	1.31	\$52.6	\$61.5
Total	100.0%	\$557.0	\$651.0		1.32	\$737.3	\$861.7

[1] https://kcstreetcar.org/wp-content/uploads/2019/04/SCC-Workbook-Rev-19-New-Starts_KCMO_10_190329.pdf

CAPITAL FUNDING OPTIONS

For a project of this magnitude, both federal and non-federal funding will be needed to deliver it successfully. A number of significant federal funding opportunities exist, but will also require non-federal contributions likely well in excess of \$200 million once inflation is accounted for. This section outlines both federal and non-federal funding options for further consideration as the project advances.

Capital Investment Grants – New Starts

The Capital Investment Grant (CIG) program is the primary discretionary grant program for major transit capital investments administered by the Federal Transit Administration (FTA). The CIG program is subdivided into three project categories: New Starts, Small Starts, and Core Capacity. New Starts, designated for new transit corridors with a capital cost of greater than \$400 million or a federal contribution of greater than \$150 million, would be the applicable funding category for this project. **New Starts is statutorily limited to 60% of the total project cost.** Other federal funding sources can be used together with New Starts, but the total federal share cannot exceed 80%.

Securing a New Starts grant entails a multi-year partnership with the FTA, rather than a one-time application. The process begins with a formal entry into the program, the first phase of which is Project Development (PD). Upon acceptance into PD, projects may begin incurring expenses that will eventually be counted toward the non-federal match requirements for the grant program. To ultimately qualify for a New Starts grant, the project must be rated against 9 criteria, which are grouped into two categories: project justification (consisting of 6 criteria) and Local Financial Commitment (consisting of 3 criteria). It must score as a Medium or better in both categories to be eligible for funding. The evaluation criteria are defined in the Capital Investment Grant Policy Guidance document published by the FTA [2].

The project will first be rated by the FTA against the New Starts evaluation criteria during the PD phase, and it is advisable for the Project's local sponsor to self-rate the project before submitting information to the FTA, to understand whether the project is a good fit for the program. This requires preparation of a ridership forecast, service plan, more detailed capital and operating cost estimates, and compilation of local data on land use, demographics, and supportive plans and policies. This self-rating process should begin in the advanced planning phase, prior to requesting entry to PD.

While many of the evaluation criteria, such as those based on ridership and land use, are passive – that is, they are measures of whether the project and its setting, as defined, are “good” candidates for a major transit investment – the Economic Development criteria is one that the local project sponsors can and must take additional action to directly influence through complementary planning processes. The project will be rated on the likelihood of producing ancillary economic development outcomes along its route, as measured by supportive plans and policies addressing growth management, transit-oriented development (TOD), zoning, station-area land use planning, and affordable housing, FTA's standards in evaluating these criteria increase as the project advances – in other words, more progress on development and implementation of supportive plans and policies is expected as the project advances toward construction. To maximize the economic development rating, supportive

[2] <https://www.transit.dot.gov/sites/fta.dot.gov/files/2023-01/CIG-Policy-Guidance-January-2023.pdf>

planning should begin even prior to entry to PD, such as the development of station-area plans, draft zoning and TOD ordinances, housing inventories, and development of anti-displacement policies. These should be included as part of the advanced planning study and continue through PD. Close coordination with the City of Kansas City, MO, and the Unified Government of Wyandotte County and Kansas City, KS, will be needed as many of the applicable policies are within the jurisdiction of local city government.

Other Discretionary Federal Grants

In addition to the CIG program, over the past 15 years the U.S. Department of Transportation (USDOT) has also received annual appropriations for competitive infrastructure grants administered through a program currently known as RAISE (and previously known as BUILD, and prior to that TIGER). While available funding levels and evaluation criteria have varied over time, currently RAISE grants may be awarded for up to \$45 million. RAISE grants have frequently been used to fund transit investments and are likely a promising potential funding source, albeit a significantly smaller one than CIG. New as of FY 2022, RAISE grants can also be awarded for planning. With a minimum award amount of \$5 million, these are significant grants for the planning phase of a project, and could be sufficient to advance the project well into PD [3].

RAISE grants require that the project provide a benefit-cost analysis (BCA); like CIG, it is advisable that the project be self-rated by the local project sponsor prior to pursuing a grant. A BCA likely requires at minimum a defensible estimate of ridership, including any mode shift from private automobiles to transit, to demonstrate the project's quantifiable benefits on metrics such as reduced crashes, reduced emissions, and reduced user cost associated with driving. Planning grants do not require a BCA (although one can still be submitted).

Transportation Development District (TDD)

The initial Kansas City Streetcar starter line and its subsequent Main Street Extension received the majority of local funding for both capital and operating costs through the creation of a Transportation Development District (TDD)[4].

- ♦ The original starter line TDD comprised a boundary of approximately 1/3-mile radius around the project, within which a 1% sales tax and a special property tax assessment were collected.
- ♦ The Main Street TDD, which replaced the starter line TDD, comprises a larger boundary in which a 1% annual sales tax is collected, and a narrower boundary in which a special property tax assessment is collected. The sales tax boundary is approximately 1.8 miles wide, running from the state line to Campbell Street or I-29; the special assessment boundary, similar to the starter line TDD, encompasses a 1/3-mile radius around the project.

A TDD may be viable as a supplemental funding source for the East-West project, but is unlikely to offer the same magnitude of funding that was available for the starter and Main Street projects, for several reasons:

[3] *The project applied for a 2023 RAISE planning grant in February, 2023.*

[4] <https://kcstreetcar.org/wp-content/uploads/2021/05/Final-TDD-Page-2021.pdf>

1. Nearly 40% of the East-West project corridor is already within the Main Street TDD's sales tax boundary; and the remaining portions of 31st Street and Linwood Avenue not currently within the boundary are largely residential with limited sales tax revenue potential.
2. Similarly, the special assessment boundary of the Main Street TDD already passes through the corridor and likely captures much of the highest-value parcels already. Extension west to the state line could generate some revenue potential; extension east would impact predominantly lower-income residential areas, both limiting the revenue potential and introducing undesirable equity outcomes.
3. The most significant property along the corridor, KU Medical Center, is both a public facility (and thereby tax exempt) and also located outside Missouri, likely requiring a separate mechanism for any potential contributions (see next section).

Private Contributions

The academic medical center campus of The University of Kansas Health System and KU Med are the anchor institutions on the West end of the corridor and major employers for the entire region. Because nearly the entire Kansas portion of the project corridor is within the KU Med campus, and because the campus is exempt from traditional property assessments (such as through a TDD or CID), the institutions represented on campus will be considered for sourcing private contributions to the capital costs of the project. The target private contribution amount for the Kansas portion may be derived through a formula, such as in proportion to the length, capital cost, or contributing ridership. A similar approach will be explored if additional regional employers are identified within the project corridor.

New Regional Funding Source Recommended

As the region evaluates potential expansion of its regional transit system and the potential to replace piecemeal current funding with a dedicated multicounty, bi-state funding source such as a new sales or property tax dedicated to transit, this Project should be considered as a likely investment of that new funding source. Such investment could contribute to the capital cost, operating cost, or both.

CAPITAL FUNDING MILESTONES

To meet the timeline shown in Figure 2, each subsequent phase should be scheduled and funded to avoid gaps and delays – a more detailed project development schedule and funding strategy will be developed in advanced planning.

Project development is likely to require approximately \$10 to \$11 million, including advanced planning of planning, NEPA, preliminary engineering, and coordination with the FTA (assuming a New Starts grant). Federal grants may be available to cover planning, including RAISE planning grants of \$5 million or more. Final Design will require an additional \$30 to \$40 million to bring the project to the start of construction, plus additional soft costs for project management, ROW acquisition, etc. While project development and final design expenses are eligible to be counted toward the local match for a federal New Starts grant, they would need to be initially funded through non-New Starts sources and only eligible for reimbursement after the project secures a full funding grant agreement (FFGA), with reimbursement payments coming through annual appropriations during (and potentially continuing after) the construction phase.

If pursuing New Starts funding, the project will need to identify and **secure at least 30% of its total local match by the end of the Project Development phase, or potentially \$120 million or more by 2026 2027**. The project would need to **secure its full local match by the end of Final Design (2028 2029), potentially another \$280 million or more**, prior to obtaining the FFGA [5].

OPERATING COST

In current year dollars, the estimated annual operating and maintenance (O&M) cost of the project is approximately \$8 million per year (2022\$). This rough order of magnitude estimate is based on the following operating assumptions:

- ◆ 15 minute headways for 12 hours per day and 30 minute headways for an additional 7 hours per day, 7 days per week.
- ◆ Average operating speed in revenue service of 12.5 miles per hour.

Applying a 20% operating contingency and an assumed annual inflation rate of 5% through 2026 and Congressional Budget Office forecasts averaging 2.4%-2.5% per year thereafter, the likely opening day annual O&M cost, assuming a 2032 service launch, is approximately \$10.3 million/year.

Operating Funding Options

Federal funding is generally not available for ongoing O&M costs, so it is assumed that streetcar operations would need to be locally funded.

O&M costs for the current Streetcar and the under-construction Main Street Extension come primarily from the aforementioned TDD. Additionally, the City of Kansas City provides approximately \$2 million/year toward O&M costs from the City's Public Mass Transit (PMT) Sales Tax – this tax also funds a substantial portion of the KCATA bus system.

The East-West streetcar likely will also require a mix of O&M funding sources, potentially including:

- ◆ A new regional transit funding tax (multi-county sales, property or income) is recommended to help fund the capital and operating costs of an East-West Streetcar extension.
- ◆ Expansion of the TDD may be considered, with the caveats described previously in the Capital Funding Options section of this report (see page 3). It may be more appropriate as an O&M funding source than for capital costs, given the limitations on funding potential.
- ◆ The Kansas City PMT Sales Tax may be utilized, especially if operating efficiencies can be identified with existing east-west bus service currently operating in the project corridor and funded by this same source.
- ◆ A direct contribution to cover Kansas-side operating costs may be obtained through intergovernmental agreement between the Kansas City Streetcar Authority and the Unified Government of Wyandotte County and Kansas City, Kansas (UG), and/or KU Medical Center. This is similar to how KCATA currently provides service in Wyandotte County through agreement with the UG.

[5] These estimates assume a 50% local match on an \$800 million total project cost.