

METROLINK GREEN LINE

AN ASSET OR ALBATROSS?

Les Serman

September, 2024 (revised December, 2024)

The latest proposed extension of the MetroLink light rail system, now known as the Green Line (previously the Northside Southside extension), is the result of years of study, but there are significant reasons to doubt its cost-effectiveness, financial feasibility, and benefits to the surrounding neighborhoods and the City. This brief paper discusses some of the fiscal and other challenges that raise serious questions about whether the enthusiastic rhetoric about the value and affordability of the proposal has a basis in fact.

BACKGROUND

What is now known as the MetroLink Green Line (see Figure 1), was originally conceived as part of a “systems analysis” in the late 1980s that envisioned a fully built out network of light rail routes across the St. Louis region. Studies of the Northside-Southside route were completed in 2008¹.

In 2016 Alderwoman Ingrassia introduced legislation² to allow voters to decide whether to impose a ½ cent economic development sales tax, 60% of which would go to expanding MetroLink along the route envisioned in the 2008 study. The ordinance included an exhibit that proposed an 8.9-mile portion of the route planned in 2008 to be built at a cost of \$700 million. Construction was to start in 2023. It was on that basis that voters approved the tax in 2017.

In 2018, working with the City, East-West Gateway released a study³ that resulted in a “locally preferred alternative” (LPA) running from Chippewa St. and Broadway on the south, through downtown to Fairgrounds park in north St. Louis. Unlike the current MetroLink routes that operate on exclusive rights-of-way, the proposal would primarily use current public street rights-of-way. The Green Line would utilize low-floor MetroLink vehicles in the street operating within a dedicated right-of-way area (no cars allowed) separated from traffic by a curb, except at intersections. The benefit of this approach is reduced costs. The downside is that this technology is not compatible with existing MetroLink vehicles, precluding interoperability and complicating maintenance.

¹ East-West Gateway Council of Governments. Northside Study Final Report. October 2008; Southside Study Final Report. October 2008.

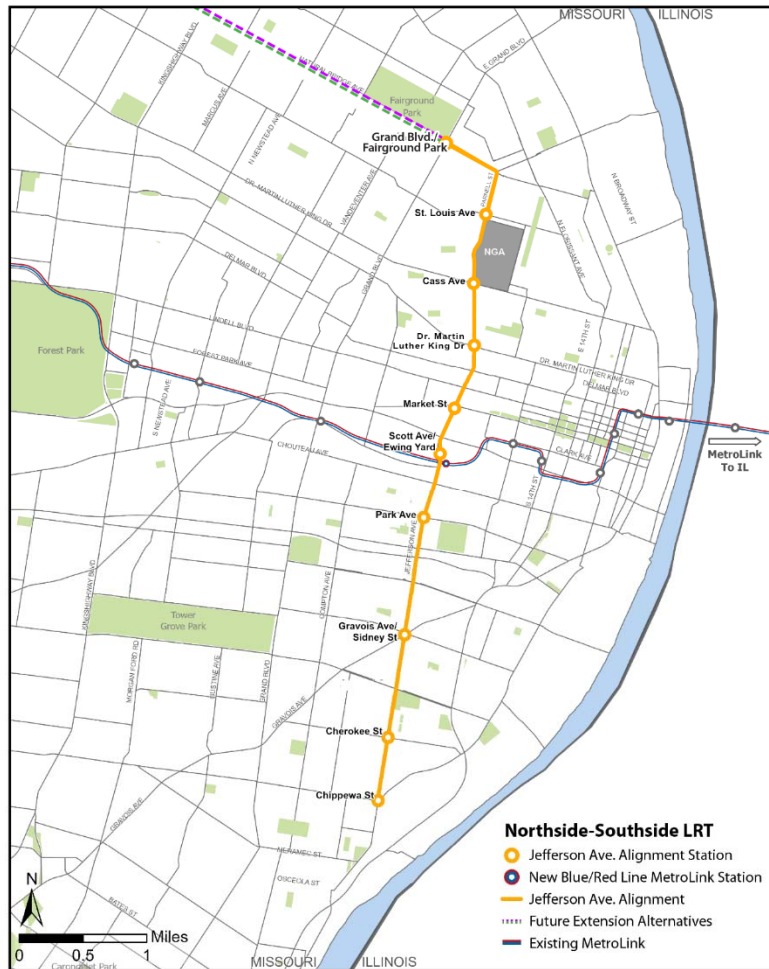
² Board Bill #227AA, December 16, 2016

³ East-West Gateway Council of Governments. Northside-Southside Study Locally Preferred Alternative Report. August 2018.

For reasons that remain unclear, and with limited formal documentation publicly available, the existing LPA was significantly modified to reduce its length from 8.2 to 5.8 miles, bypassing downtown St. Louis, and running primarily on Jefferson Ave. A transfer station would be built on the existing intersecting MetroLink route to enable transfers with the Green Line. This alternative was adopted by the East-West Gateway Council of Governments (EWG) in February 2024⁴.

Presumably, the purpose of this abrupt change in plans was to simplify the project to reduce both capital and operating costs. Offsetting those potential benefits, however, is a significant reduction in estimated future ridership and growth potential, in part due to bypassing downtown St. Louis. A comparison of the alternatives is shown in Figure 2.

Figure 1
Proposed Green Line Route



⁴ East-West Gateway Council of Governments. Revised Northside-Southside LPA - Jefferson Alignment Proposal. February 2024.

	2018 Alternative*	2023 Alternative
Project Length	8.2 Miles	5.8 Miles
Number of Stations	19 stations	10 stations
Travel Time (one way)	25 minutes	19 minutes
Avg. Daily Ridership	8,000 (2016 data ⁺)	5,000 (2019 data)
Residents within ½-mile of station areas	47,100 (2015 data)	28,900 (2020 data)
Annual O&M Cost Est.	\$17M (2017 dollars)	\$8.5M (2023 dollars)
Capital Cost Est. (2023 \$)	\$1.6B	\$1.1B

* Under the "NGA Option 2" alignment of 2018 Conceptual Design Study options

+ Under the "MOS 3-5" Build Scenario (2017 Forecast) in the 2018 Conceptual Design Study analysis

Figure 2
Comparison of Route Alternatives
(Source: East-West Gateway Council of Governments, February 2024)

The revised project was estimated to cost \$1.1 billion, although Metro has claimed that this cost estimate is conservative and may be reduced as the project advances through the design process. No detailed budget for construction or operation has yet been made publicly available, but the EWG report to its board of directors described the funding breakdown for construction shown in Figure 3. Subsequently, Metro has altered the suggested financing of the project as shown in Figure 4.

Project Costs - \$1.1 Billion		
Uses of Funds		
Construction Costs	\$	1,098,000,000
Transaction Costs		2,000,000
Total Costs	\$	1,100,000,000
Sources of Funds		
FTA Grants	\$	658,900,000 FTA = 60% maximum; FTA grants & TIFIA cannot exceed 80% of total
US DOT TIFIA Direct Loan		218,900,000 Limited to 49% of total cost
BSD Bonds		132,200,000 Required to meet the 80% test
City of St. Louis/ BSD Equity		90,000,000 Prop 1 Reserve & Defederalized Funds
Total Sources	\$	1,100,000,000

Note: Additional City dollars of approximately \$98 million are needed.

Figure 3
Source of Construction Funds Proposed by East-West Gateway
(Source: East-West Gateway Council of Governments, February 2024)

Funding Source	Share of Funding	Amount
Federal	60%	\$660
TIFIA Loan	20%	\$220
BSD Bonds	1.1%	\$12
City ARPA	3.5%	\$38.50
Unallocated		
Capital	5.4%	\$59.40
City Prop 1	10.0%	\$110
	TOTAL	\$1,100

Figure 4
Metro Proposed Revised Sources of Funding

PROJECT BENEFITS

Green Line proponents claim a wide variety of community and economic benefits. Closer examination suggests that many of these benefits are speculative, mischaracterized, or simply unlikely to materialize.

A study sponsored by Citizens for Modern Transit⁵ maintains that added economic activity to the state of Missouri triggered by spending \$1.1 billion of public money on the project will be nearly \$3 billion. That figure includes the construction expenditure and additional economic activity calculated by applying a “multiplier” to this figure to estimate how the expenditure ripples through the economy. To be clear, *this is not additional economic activity in the affected project neighborhood or even the City of St. Louis*. It is activity that may be generated in the state of Missouri by payments to construction firms, earnings for their employees, payments to material suppliers, and indirect economic activity calculated by multiplying those expenditures by a standard factor. It also does not account for the opportunity cost of using those public funds for some other purpose that might be more economically productive or beneficial.

The CMT study also suggests that the additional activity during operations will amount to about \$11.7 million a year, with about 70% of that occurring in the Missouri portion of St. Louis metropolitan area. Again, *this should not be interpreted as a direct or indirect economic benefit to the affected neighborhood or the City of St. Louis*. Moreover, as calculated later in this paper, the annual expenditures by the City of St. Louis on operations and construction financing far outweigh the additional economic activity produced by the project, much of which will go elsewhere in the surrounding counties in the region and beyond.

Project proponents also claim that the Green Line is the key to growth and prosperity for City neighborhoods that have long suffered from disinvestment. As experience has demonstrated

⁵ Saint Louis University Community Planning Lab. STL MetroLink Green Line Projected Economic Impacts. Citizens for Modern Transit. June 2024

since MetroLink was completed over thirty years ago, better transportation alone will not lead to economic growth. There has been little new economic activity in places like Kinloch and Pagedale, communities that have suffered from similar disinvestment, due to MetroLink, for example. Research shows that long-term economic growth is more closely linked to the quality of public services such as education and public safety, governance, tax policy, infrastructure, a quality workforce and supportive tax policy. These factors are likely far more important than a transportation project like the Green Line that is very limited in scope.

Perhaps the most obvious indication that the impact of the Green Line will be quite limited is the estimate of ridership. Project consultants have estimated an average daily ridership of 5,200 in the year 2031. Many of those riders are likely using public transit now, so the number of new riders to public transit is far less. In addition, the opportunity to extend the route to the north and south has apparently been foreclosed by St. Louis County officials, who indicate that it is unrealistic to expect the County to cover the considerable cost of the portion of any extension into the County that lies in the City. Without extending the Green Line beyond its initial 5.8 miles it is unlikely to add much to initial ridership estimates in the future.

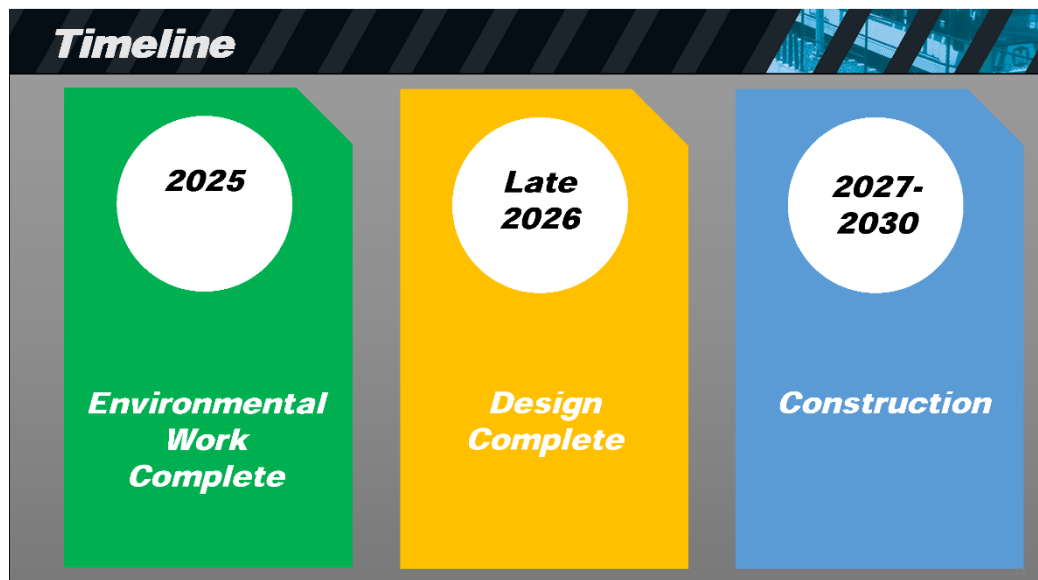


Figure 5
Proposed Project Timeline

PROJECT COSTS

A. Construction Costs

The current cost estimate to build the Green Line is \$1.1 billion in 2023 dollars. Metro officials have indicated that they expect the initial estimate to be reduced as the project moves through the design phase. No information has been publicly released to support that assertion, and while certain economies may be achieved, savings will likely be at least partially offset by increases in

construction costs over an extended period of project development, financing, and construction. The project timeline shown in Figure 3 is clearly unrealistic, based in part on the implausible assumption of securing adequate federal funding over the next few years as discussed below. No detailed construction of operating budget has yet been publicly released, although the general sources of funding are shown in Figures 3 and 4.

Federal Funding

The largest share of construction funding is projected to come from the federal government. East-West Gateway and Metro have indicated that about 60% of construction funds, or \$660 million will be a federal grant. There are 17 “new start” major transit projects currently in development nationwide seeking federal funds⁶. Fifteen of those projects were shown in the Secretary of Transportation’s FY2025 budget request to Congress⁷. The budget request for those projects was about \$3.1 billion. The remaining amount needed to fulfill the federal commitment on these 15 projects is \$20.1 billion. Notably, those 15 projects already in the federal funding “pipeline” are likely ahead of the Green Line proposal in the process of seeking a federal appropriation.

The Green Line also must survive the rigorous administrative evaluation process. Early indications are the project will rank poorly in the federal evaluation, mainly due to its low ridership and cost-effectiveness. There is also a political element to federal appropriation process. Much of the success in securing timely funding to build MetroLink was a result of the efforts of a unified, bipartisan, and influential congressional delegation advocating on behalf of the project. That unity and commitment is not present today, which will make it far more difficult to secure the needed appropriation for the Green Line.

Considering the current rate of appropriations for projects already in the appropriations pipeline it could be as much as a decade before the required amount of federal funding needed for construction is in hand.

TIFIA Direct Loan

The Transportation Infrastructure Finance and Innovation Act (TIFIA) created a federally supported loan program for transportation projects, including major transit projects. The program was modified with the TIFIA 49 initiative that increased the eligible loan amount for transit projects to a maximum of 49% of project costs. The combination of TIFIA loans and federal grants can total no more the 80% of project costs. The TIFIA program provides credit assistance to enable loans at favorable rates and terms for eligible transportation projects. The current TIFIA interest rate is 4.42%.⁸ While the loan term can be as much as 75 years, transit projects are generally limited to 35 years. Payment on the loan can be deferred by as much as five years after the completion of the project.

⁶ Federal Transit Administration. *Capital Investment Grants Dashboard*. September 2024 (www.transit.dot.gov/sites/fta.dot.gov/files/2024-09/Public-CIG-Dashboard-09-06-2024.pdf)

⁷ Federal Transit Administration. Fiscal Year 2025 Capital Investment Grants Program and Expedited Project Delivery Pilot Program - Report of the Secretary of Transportation to the United States Congress. March 2024

⁸ <https://www.transportation.gov/buildamerica/>

The Metro revised summary construction budget shows a \$220 million TIFIA loan. At current interest rates and a 35-year term, the annual payment would be about \$12.4 million. This payment would presumably be made using the proceeds of the ½ cent economic development sales tax approved by City voters in 2017 (Prop 1).

BSD Bonds

The Bi-State Development Agency has issued bonds in the past that are secured by sales taxes generated from the following voter approved measures:

- Prop A - One-half of a cent sales tax collected in St. Louis County, enacted in 2010, primarily used to fund transit operating activity with the remainder applied to capital.
- Prop M - One-quarter of a cent sales tax collected in St. Louis City and County used for mass transit development and operations.
- Prop M2 - One-quarter of a cent sales tax collected in St. Louis City, approved in 1997 and began collecting in 2010 with the passage of the St. Louis County Prop A tax, used for operations and capital development.

The revised summary construction budget for the Green Line shows \$12 million in BSD bonds. Metro has indicated that those bonds would be secured by Prop 1 revenues. Assuming the same generous terms as the TIFIA loan, it would require about \$770,000 annually to service those bonds.

City ARPA Funds

It appears that the City has committed as much as \$33 million in ARPA (“pandemic relief”) funds toward the project, although the Metro revised funding summary shows \$38.5 million in ARPA funds. Presumably, that number would be adjusted when the final project cost is determined.

Unallocated Capital Funds

The source of these funds is unclear, but it may be regional funds currently set aside by Metro.

Proposition 1 Sales Tax

The City has accrued a substantial balance of funds from the MetroLink portion of the 2017 sales tax (Prop 1). The FY24 ending balance of the transit portion of the 2017 Economic Development sales tax is \$82.5 million, with revenue accumulating roughly at the rate of \$15.6 million annually. While there was substantial growth in this sales tax fund in recent years as the City emerged from the pandemic, taxable sales in the City have been flat through the first six months of 2024. Metro has assumed substantial growth in City sales taxes in future years, perhaps based on atypical post-pandemic growth in taxable sales, to pay added operations and maintenance cost and service debt related to the Green Line. A more reasonable expectation would be growth of 2-3% annually in taxable sales.

B. Operating and Maintenance Costs

As shown in Figure 2, the consultants to East-West Gateway estimated the annual operating and maintenance costs for the Green Line to be \$8.5 million annually in 2023 dollars. Metro believes that the cost estimate is high and can be substantially reduced, especially in the early years of operation, perhaps to as little as \$4 million annually. That cost would be paid from Prop 1 funds from the City. While maintenance costs will likely be lower in the early years of Green Line operation, especially as vehicles and other equipment will be new and may be covered by manufacturer guarantees, provisions must be made for growth in operating costs over time. While Metro has mitigated growth in transit operating costs in recent years, that is primarily related to reductions in service resulting from the pandemic and from labor shortages. That is not sustainable over time.

CONCLUSION

Two important questions need to be addressed to make an informed decision about whether the Green Line is a good investment for the City of St. Louis:

- Can the City afford to pay for the construction and operation of the Green Line without compromising existing transit service and other city services?
- Are the economic and community benefits of the Green Line sufficient to outweigh the costs of building and operating the Green Line?

The principal source of local funding for the Green Line is the Prop 1 sales tax, which has a current balance of \$82.5 million and brings in about \$15.6 million a year. In addition, it appears that \$33 million in ARPA funds have been committed by the City to the project. It is reasonable to expect taxable sales in the City to grow about 3% a year. The demand on those funds will be approximately \$12.4 million annually to service the TIFIA loan, \$770,000 annually to service BSD bonds, and \$4 - \$8.5 million for annual operating and maintenance costs. The total of those costs is between \$17.2 and \$21.7 million, which is likely beyond the annual proceeds from the Prop 1 tax.

Further clouding the question of affordability is the assumption that \$660 million will be forthcoming from the federal government in a timeframe and amount sufficient to enable construction as soon as 2027. The project must first undergo a required evaluation by the Federal Transit Administration, and early indications are that the project will rate very low due to poor cost-effectiveness. In addition, the area's congressional delegation is unlikely to be unified in support of the project, which makes securing annual appropriations more difficult. Given those challenges, the backlog of projects currently awaiting construction funds, the historical level of federal appropriations, and an incoming federal administration that is intent on reducing federal spending, it is extremely unlikely that funding will be forthcoming in sufficient amounts to meet the proposed schedule.

Significantly reducing the cost of the project and stretching out the construction schedule can help to mitigate the fiscal challenges, but it would be difficult to expect that a cost reduction could be achieved in an amount necessary to sufficiently reduce the fiscal risk to the City. Rising construction costs over time will also tend to offset cost savings. Earlier cost estimates were made in 2023 dollars. Ultimately, construction cost estimates must be made corresponding to the years of construction. Operating and maintenance costs will also increase over time, which further contribute to the fiscal risk to the City.

Will the project produce sufficient benefits to justify the significant cost to the City? According to the CMT economic study, the project will produce about \$11.7 million annually in additional economic activity when fully operational, about 70% of which will occur in the Missouri portion of the St. Louis region, and far less in the City of St. Louis. The City will be responsible for annual payments of at least \$17.2 million and perhaps as much as \$21.7 million, \$33 million contributed in ARPA funds, and as much as \$100 million in accumulated Prop 1 revenues. From a cost/benefit standpoint, this is an incredibly bad deal for the City.

The most often claimed benefit is economic growth in surrounding neighborhoods. *It is beyond dispute that the neighborhoods that would be served by the Green Line are badly in need of investment and sustainable growth.* There is much rhetoric and official enthusiasm about how the extension of MetroLink into those neighborhoods will be “transformative”. Experience demonstrates that is highly unlikely to happen. The best strategy for long-term economic growth is to create improved conditions to encourage investment by residents and businesses in such areas as public safety and education, infrastructure, a quality workforce, effective governance, tax policy, owner-occupied housing, and other factors. Transportation is important, but that alone won’t make a material difference in the economic prospects of communities that need help. The estimate of only 5,200 daily riders, many of whom already use public transit, should be a clear indication that the benefit to the community will be very limited.

Unlike previous MetroLink projects, the Green Line doesn’t span jurisdictions that share fiscal responsibility and risk. The entire financial burden falls on the City. Nor does it have the support of a unified bipartisan congressional delegation that is key to federal appropriations. In fact, the opportunity to make this into a regional project by extending the route to the north and south to penetrate more populous areas is very unlikely considering the statements from St. Louis County officials expressing opposition to such extensions. It is therefore highly likely that the Green Line will be a short “orphan” route using low floor vehicles that are incompatible with the existing MetroLink service.

Ultimately, the crucial question to answer is whether it is worth as much as a billion dollars to serve 5,200 future riders, a figure comparable to some bus routes in the City. The ancillary benefits of the Green Line are largely speculative and aspirational and don’t remotely approach the costs to be incurred by the City. Even if the fiscal risk to the City could somehow be mitigated, the question remains: is this a sensible investment for the City, especially given the massive fiscal commitment and the other demands on City finances?

The City of St. Louis has already committed substantial sums to planning and engineering studies without the benefit of a transparent planning process, public scrutiny, and the information necessary to make such an important decision. *If a goal is to create economic growth in neighborhoods that have undergone historic disinvestment, there are likely more cost-effective, efficient, and proven strategies to accomplish that goal. And if a goal is to provide more sustainable transportation options for City residents and businesses, there are more sensible options that could benefit far more people at a lower cost.*

The purpose of this paper is to encourage some long overdue candid discussion of the decision by the City of St. Louis to continue to spend large amounts of local tax money on a project that will have largely undefined benefits while incurring substantial fiscal risk to the City. It is not too late to change course, but more information is needed before coming to any conclusion. Based on the limited information now available, though, it is hard to conclude that it is sensible for the City to underwrite a large and continuing investment in the Green Line MetroLink project.