

Metropolitan Atlanta Rapid Transit Authority and Atlanta-Region Transit Link Authority

The Atlanta-Region Transit Link Authority (ATL) and Metropolitan Atlanta Rapid Transit Authority (MARTA) work collaboratively to evaluate and plan for transit asset performance and maintenance in the Atlanta region, using scenario planning and strong asset management systems.

Notable Practices

- **Metropolitan Atlanta Rapid Transit Authority (MARTA) is the first public transportation agency in the United States to receive the ISO (International Standards Organization) 55000 Certification for Asset Management.** MARTA is the first transit agency in the United States to receive the ISO 55000 certification for its Asset Management Program.¹ The ISO 55000 international standard enhances the transit operator's quality and level of service for its commuters.² The process for the certification required a comprehensive scan and evaluation of international best practices, which helped the transit agency expand the transit system while maintaining its state of good repair.³ The certification lapsed in 2021, however, MARTA's Asset Management procedures have not changed.⁴
- **The Atlanta-Region Transit Link Authority (ATL) used scenario planning to help set reasonable transit state of good repair targets.** ATL set regional transit targets using the results of a scenario planning exercise to identify project impacts on performance. Targets were based on a constrained investment scenario, one of the multiple scenarios explored.

¹ Metropolitan Atlanta Rapid Transit Authority website. [MARTA \(itsmarta.com\)](https://www.itsmarta.com)

² Ibid.

³ Ibid.

⁴ Conversation with Michael Shepherd, MARTA, June 15, 2023



Transit Planning and Coordination in the Atlanta Region

Transit planning in the Atlanta region is conducted by the **Atlanta-Region Transit Link Authority (ATL)**, individual transit providers, including the **Metropolitan Atlanta Rapid Transit Authority (MARTA)**, and the **Atlanta Regional Commission (ARC)**.

ARC serves as the regional planning commission and the metropolitan planning organization (MPO) for the Atlanta metropolitan area.

ATL was established as the regional transportation governing agency for transit providers in the Atlanta region in 2018 by the State of Georgia. ATL is the designated recipient for the Atlanta region's urbanized FTA formula fund apportionments and develops a regional transit plan for the 11 transit operators in the Atlanta region, a Group Transit Asset Management Plan for all Tier II agencies, and the Program of Projects from operators and local governments. The Program of Projects describes how FTA formula funds are allocated to the Atlanta region and includes details of funded projects.

MARTA is the 9th largest public transit agency in the United States and is a significant contributor to the economic vitality of the Atlanta region. MARTA serves a regional population of over 1.7 million people with more than 500,000 commuters utilizing their transit services per year. MARTA owns 38 rail stations served by over 340 trains over 122 miles of track. The bus system consists of over 550 transit buses that cover over 90 routes across 1,439 miles. MARTA also owns and maintains six million square feet of transit facilities including administrative buildings, rail yards and stations, and supportive equipment.

Governance

ARC is responsible for the development of the 20-year Metropolitan Transportation Plan, which is the long range transportation plan (LRTP) for the Atlanta metropolitan area. The LRTP is updated every four years and approved by the Transportation and Air Quality Committee and the recognized MPO policy board by the USDOT. The policy board consists of representatives from local and regional agencies, and citizen members representing districts within the metropolitan area. Citizen members typically serve on other regional or agency committees or have experience relevant to the LRTP.

The Georgia Regional Transportation Authority (GRTA) approves the ARC Transportation Improvement Program (TIP) for the allocation of state and federal transportation resources in metropolitan Atlanta, by executive order and Georgia State law.⁵

Tool and Analysis Methods

Asset management systems

MARTA uses a State of Good Repair (SGR) integrated asset management program to manage its

⁵ [GRTA Board of Directors - State Road and Tollway Authority \(ga.gov\)](https://www.ga.gov/garta)

fixed and rolling stock assets, produce National Transit Database (NTD) reporting for State of Good Repair data, and inform the Transit Asset Management plan (TAM).⁶

In 2019, MARTA was the first public transportation provider in the United States to receive the ISO 55000 certification, for the agency's outstanding system safety and asset management practices.

MARTA has been testing predictive maintenance models to prioritize maintenance needs, which is a shift from its previous model of a scheduled-based approach. A predictive maintenance model utilizes techniques and data tools to find defects in equipment, operations, and processes to repair them in advance of failure. These models are advantageous in asset management outcomes because:

- Asset condition assessments are enhanced.
- Asset lifespans are extended through the precise identification of maintenance requirements.
- Asset performance data is consolidated through dashboards for efficient monitoring.

Asset Management Relationship to Long Range Planning

MARTA coordinates with the Atlanta-Region Transit Link Authority to inform the Atlanta region's Metropolitan Transportation Plan.

As of 2023, MARTA is in the process of updating its Transit Asset Management plan (TAM). As the agency develops its plan and identifies priority capital replacement projects, it plans to submit them for inclusion into the ATL Atlanta Regional Transit Plan. Projects from the ATL Atlanta Regional Transit Plan inform the ATL Priority Investment List, which is then submitted for inclusion in the LRTP.

ATL develops the Group TAM plan for Tier II transit operators in the region, which is then incorporated into the LRTP. Prior to the formation of the ATL, ARC was responsible for the development of the Tier II TAM and maintains a close relationship with ATL.⁷

All Tier II operators must prepare their own asset management reporting and seek approval through their individual Boards before coordinating with the ATL.

Asset Management Relationship to Programming

MARTA coordinates with ARC and the ATL to inform the Atlanta region's Program of Projects and the Transportation Improvement Program (TIP).

MARTA's asset management projects are funded through FTA formula funds, which are administered by ATL. Once MARTA publishes its TAM, prioritized projects from the TAM will inform the LRTP (via

⁶ Metropolitan Atlanta Rapid Transit Authority. Presentation: Asset Management "Hands-on Approach." [MARTA's Asset Management System \(dot.gov\)](https://www.marta.gov/asset-management)

⁷ ARC Interview 5/24/23

the ATL’s Regional Transit Plan), which will be used to develop the Atlanta Region Program of Projects (POP), and the TIP. The POP, prepared by the ATL, outlines which FTA formula funds including the 5337 State of Good Repair Program and the 5339 Bus and Bus Facilities Program are allocated to MARTA’s selected regional transit projects.⁸

Transit and local agencies can submit individual transit projects to ARC for TIP inclusion to be considered for FHWA funding as an alternative to FTA formula funding. ARC provides guidance for project applications on its Evaluation Framework, which notes that transit asset projects should show how they would contribute to the regional transit asset targets. Transit asset projects are also evaluated by the project’s impact on mobility and access, equity, safety, and resiliency, as shown in Figure 1.⁹

Mobility & Access		
Riders Affected	100%	30%
Equity		
Addresses Equity	100%	20%
Safety		
Addresses Safety	100%	30%
Resiliency		
Reduction of Air Pollutants	50%	20%
Asset Condition	50%	

FIGURE 1. ARC TRANSIT ASSET MANAGEMENT AND SYSTEM UPGRADES PROJECT EVALUATION SCHEME

ATL Group Transit Asset Management Plan uses a two-phased approach to prioritization with scenario planning.

ATL develops a list of prioritized projects for each Tier II transit agency in its Group TAM Plan. The TIP project solicitation webpage contains questions regarding transit asset projects that Tier II transit agencies must answer to be evaluated for funding consideration under FHWA’s federal formula funds.

⁸ Ibid

⁹ Atlanta Regional Commission TIP Evaluation Framework.
<https://cdn.atlantaregional.org/wp-content/uploads/tip-cookbook-2021.pdf>

ATL uses a screening method using criteria aligned with the ARC TIP Project Evaluation Framework and then prioritizes projects from the list based on reliability (measured by average age of the vehicles in each asset class) and mobility (measured by the proportion of annual trips by mode for each operator and the average annual mileage of each vehicle). This list of prioritized projects is further analyzed in a scenario planning process based on unconstrained and constrained funding levels, using the FTA TERM Lite tool.¹⁰ ATL and ARC hold monthly meetings to discuss priority projects, funding needs, and regional priorities, including discussions of transit asset performance and needs.

Scenario planning is used to set reasonable targets.

The ATL sets regional transit targets using the FTA TERM Lite scenario planning analysis. Each transit agency collaborated to define the weighted prioritization criteria that would feed into the transit targets. The weighted measures are as follows:

- Asset Condition (age of asset compared to ULB): 60%
- Mobility (annual trips by mode and annual vehicle mileage): 20%
- Reliability (average age by asset class relative to the average ULB): 20%

Annual performance report to the state legislature. ATL develops an Annual Report and Audit (as required by state law) which reports on transit planning, funding, and operations within the region, including performance and regional benefits. The report is submitted to the State Senate and House of Representatives Transportation Committees and the local governments within the region. The 2022 report illustrates the need for capital investments to maintain a state of good repair among worsening performance among transit assets.

The Annual Report and Audit (ARA) reviews system performance, planning and finances including evaluating transit system trends. The performance evaluation helps ATL track the quality of services to users of the transit systems, trends and opportunities for improvement, and additional investment needs.

The ATL developed the ARA and its key performance indicators by working primarily with the operator and NTD Data. ARC plans to work with the ATL/ARA to update our Regional Transit Performance Targets to meet federal MPO reporting requirements. The ATL Board and transit agencies provided feedback on data provided through the ARA to confirm the accuracy of performance trends.

¹⁰ Atlanta-Region Transit Link Authority. 2022. Group Transit Asset Management Plan. <https://atltransit.ga.gov/wp-content/uploads/2022/10/ATL-Group-Transit-Asset-Management-Plan-FY-2022-2026.pdf>