

When setting safety performance targets for the state, statisticians performed extensive analysis of the data related to each measure (i.e., traffic fatalities and severe injuries and vehicle miles traveled). South Carolina used a seven-data-point graphical analysis with a five-year rolling average. After the data points were plotted and graphical representations of the data were created, trend lines were added to predict future values. The trend lines were based on linear and non-linear equations with R-squared (i.e., best fit measure) values.

Using the models, statisticians predicted the values for the current year. Examining current and planned education and engineering safety initiatives, they estimated reductions in fatalities and severe injuries to calculate the state’s safety performance targets. Staff from the SCDOT Traffic Engineering Office also met with representatives from the MPOs and COGs to deliver a presentation on the state’s target-setting methods. The tables below shows GPATS and South Carolina baseline information, the state’s targets, and safety targets set by regional transit agencies in their safety plans.

For the 2024 performance period, GPATS has elected to accept and support the state’s safety targets for all five safety performance measures. This means GPATS will:

- Address areas of concern for fatalities or serious injuries within the region, coordinating with SCDOT and incorporating safety considerations on all projects
- Integrate safety goals, objectives, performance measures, and targets into the planning process
- Include the anticipated effect on achieving the targets noted above within the TIP, linking investment priorities to safety target achievement

2021 - 2025 SAFETY TARGETS (2019 - 2023 BASELINE AVERAGE)

	Traffic Fatalities	Fatality Rate*	Severe Injuries	Severe Injury Rate*	Non-motorized
SC Baseline	1081.6	1.775	2782.2	4.567	479.8
SC Targets	1080.0	1.782	2764.0	4.561	453.4
GPATS Baseline	112.0	1.828	339.2	5.536	58.4

2022 TRANSIT SAFETY TARGETS

Transit Provider	Mode of Transit Service	Fatalities (Total)	Fatality Rate**	Injuries (Total)	Injury Rate**	Safety Events (Total)	Safety Event Rate**	System Reliability***
CATbus	Fixed Route	0	0.00	8.5	1.44	19.5	3.32	10.527
	Demand Response/ Paratransit	0	0.00	1	0.10	3	0.30	16,002
Greenlink	Fixed Route	0	0.00	12	1.47	7	0.84	20,450
	Demand Response/ Paratransit	0	0.00	1	0.70	1	0.94	71,561

*Rates are based on the unit per 100 million vehicle miles traveled

**Rates are based on the unit per 100 thousand vehicle revenue miles

***Reliability is determined based on vehicle revenue miles/ failures

Next steps

Additional Measures Coming Soon

In the future, GPATS will need to decide whether it will support state targets or set its own targets for other federally-required performance measures related to congestion reduction, freight movement and economic vitality, environmental sustainability, and reduced project delivery delays. The performance measures will be added to this document until the next LRTP update. At that point, GPATS will fully integrate a performance-based LRTP, combining the PBPP with LRTP elements and the associated decision-making processes.

Previous Target Adoption Dates:
 October 2023 October 2020
 May 2023 October 2019
 March 2022 February 2019
 February 2021 November 2017

TRANSIT ASSET MANAGEMENT (TAM)

Transit Asset Management (TAM) plans have been employed to inform the distribution of transit funds based on the condition of transit assets, with a goal of achieving and maintaining a state of good repair for agency assets. US DOT has found that nationwide an estimated 40% of busses and 23% of rail transit is considered to be in marginal or poor condition, with a \$90 billion backlog in deferred maintenance and replacement. TAM plans allow transit agencies to monitor and manage their assets over time. They can help improve safety and increase performance and reliability. South Carolina has created a Group TAM Plan for rural transit agencies in the state, and larger transit agencies have been tasked with creating their own TAM plans to serve their differing needs.

TAM within the GPATS Region

GPATS has two transit agencies within its boundaries: Greenville Transit Authority dba Greenlink and Clemson Area Transit or CATbus. Each agency has its own needs and assets. Due to this, Greenlink and CATbus have created separate TAM plans. GPATS is not required to create a TAM plan of its own, as the MPO is only the designated recipient of FTA funds and not a transit agency.

TAM Process

Transit Asset Management involves setting performance measures for different asset classes. Agency assets are separated into four different asset categories with established performance measures. These asset categories are:

- Rolling stock
- Equipment
- Facilities
- Infrastructure

Agencies then assign each of their assets to one of these categories and begin measuring which ones have met or exceeded their useful life benchmarks. In other words, agencies are determining which assets are not in a state of good repair. This means that transit agencies are striving for low percentages. As assets age and their conditions deteriorate, performance measure values will go up due to the increased percentage of assets that have met or passed their useful life benchmark. Federal regulations require transit agencies to establish and report yearly targets, at least 5 years into the future, as an attempt to inform funding decisions.



Photograph provided by Clemson Area Transit

Transit Asset Management (TAM) Targets

As was mentioned earlier, each transit agency has different types of assets and, therefore, different needs. Generally, each asset category is split into different asset classes. For example, busses can be a general asset class under rolling stock but can also be broken into differing types of busses, such as articulated busses and cutaway busses. The table below summarizes all asset classes, and their associated targets, as listed in Greenlink’s TAM Plan and CATbus’ TAM plan. The updated Greenlink TAM targets were adopted on October 23, 2023. All funding decisions made in the TIP will consider these targets moving forward. In an effort to aid moving transit capital towards the regional targets, GPATS elected to set aside Guideshare funding specifically for transit capital projects. decisions made in the TIP will consider these targets moving forward. In an effort to aid moving transit capital towards the regional targets, GPATS elected to set aside Guideshare funding specifically for transit capital projects.



Photograph provided by Greenlink

GREENLINK TARGETS

Category	Class	Performance Measure	2024 Target
Rolling Stock	Bus	% met or exceeded ULB	50%
	Trolley Bus	% met or exceeded ULB	100%
	Cutaway Bus	% met or exceeded ULB	14%
	Van	% met or exceeded ULB	0%
Equipment	SUV	% met or exceeded ULB	40%
	Van	% met or exceeded ULB	100%
	Truck	% met or exceeded ULB	83%
	Car	% met or exceeded ULB	100%
Facilities	100 W. McBee (Terminal)	% with condition rating below 3.0 on TERM Scale	100%
	154 Augusta St (Maintenance Garage)	% with condition rating below 3.0 on TERM Scale	0%

CAT TARGETS

Category	Class	Performance Measure	2021 Target
Rolling Stock	Articulated Bus	% met or exceeded ULB	0%
	Bus	% met or exceeded ULB	20%
	Trucks and other Rubber Tire Vehicles	% met or exceeded ULB	0%
Facilities	Administration	% with condition rating below 3.0 on TERM Scale	0%