

Service Policies and Standards Compliance Review FY2023 – FY2025

This is a review of Metro's compliance with specified service standards and policies under the requirements of FTA Circular 4702.1B, Chapter 4, Section 6. The review covers the period of FY2023 through FY2025. The following topics are addressed:

1. Service Availability
2. Classification of Services
3. Headway Standards
4. Loading Standards
5. On-Time Performance Standards
6. Stop Spacing Standards
7. Passenger Amenities Standards
8. Vehicle Assignment Standards

All reviews assess whether Metro has complied with its policies and standards last adopted in FY23, and whether any non-compliance is biased toward minority populations (disparate impact) or low-income households (disproportionate burden).

1. Service Availability

The adopted service availability standard is:

At least 99% of all Census tracts within Metro's service area having at least 3 HH/acre and/or 4 jobs/acre shall be within one-quarter mile of fixed route service (a bus stop or rail station).

Fixed route service provided by other operators may be used to meet this standard. The use of other operator services to meet this standard ensures maximum availability without unnecessary duplication of service.

There are 2,026 tracts within Metro's service area that meet the above thresholds of 3 HH/acre and/or 4 jobs/acre. Only seven of these tracts are not within one-quarter mile of fixed route service. This is a service availability of 99.7% which meets the standard.

Service Area Demographics – Minority Population

	Service Area	Tracts Not Served
Population	8,013,557	23,515
Minority Population	5,919,660	7,183
Minority Share	73.9%	30.5%

Service Area Demographics – Low-Income Households

	Service Area	Tracts Not Served
Households	2,787,766	8,713
Low Income Households	1,285,344	2,506
Low Income Share	46.1%	28.8%

Both the minority population share and low-income household share of the unserved tracts are less than the service area minority population and low-income household shares. Therefore, there is no disparate impact or disproportionate burden created by the unserved areas.

2. Classification of Services

The review of service policies and standards requires a determination of Minority routes and Low-income routes so that a comparison of compliance between Minority and Low-income routes and all routes may be made. If the share of Minority routes meeting a standard is an absolute 5% or more (less than the share of all routes meeting a standard), then a disparate impact on Minority routes has occurred. If the share of Low-income routes meeting a standard is an absolute 5% or more (less than the share of all routes meeting a standard), then a disproportionate burden on Low-income routes has occurred.

FTA has defined a Minority route as having one-third or more of its revenue miles operated in Census areas that exceed the service area minority share of the population. By extension, a Low-income route will have one-third or more of its revenue miles operated in Census areas that exceed the service area low income share of the population.

Metro operates 116 fixed-route bus lines. Of those analysis finds that 84 of these are Minority lines (72%), and 94 are Low-income lines (81%). Both Heavy Rail lines B and D and all four Light Rail lines (A, C, E, K) are Minority and Low-income lines. These definitions were used to stratify compliance levels in the subsequent evaluations.

3. Headway Standards

The adopted bus and rail headway standards are defined as follows and are not to be exceeded by at least 90% of all hourly periods:

Bus Headway Standards		
Service Type	Peak Max.(in min)	Off-Peak Max(in min)
Liner	12	30
Rapid	20	30
Tier 1 (Core)	10	10 - 15
Tier 2 (Convenience)	15	15 - 30
Tier 3 (Connectivity)	30	30 - 60
Tier 4 (Community)	60	60
Tier 5 (Commuter)	Varies	Varies

Rail Headway Standards

Mode	Peak Max. (in min)	Off-Peak Max (in min)
Heavy Rail	10	20
Light Rail	12	20

Compliance determination was calculated by referring to scheduled service in effect as of December 15, 2024, which represents the full implementation of the NextGen Service Plan.

Weekday Headway Compliance - 116 of Bus Lines

	All Lines	Minority Lines Only	Low Income Lines Only	All Compliance	Minority Compliance	Low Income Compliance
Meets Standard	97	68	77	83%	81%	83%
Exceeds Standard	19	16	16			

Saturday Headway Compliance - 110 of Bus Lines

	All Lines	Minority Lines Only	Low Income Lines Only	All Compliance	Minority Compliance	Low Income Compliance
Meets Standard	109	77	86	99%	99%	99%
Exceeds Standard	1	1	1			

Sunday & Holiday Compliance - 110 of Bus Lines

	All Lines	Minority Lines Only	Low Income Lines Only	All Compliance	Minority Compliance	Low Income Compliance
Meets Standard	109	77	86	99%	99%	99%
Exceeds Standard	1	1	1			

Headway compliance is an issue, with a wider actual average scheduled headway (i.e. slightly longer wait between buses) than the target for 19 lines (16%) on weekdays and for one line on weekends. As most of the system is both minority and low-income lines, the percentages that achieve the standard are all within 3% of each other for weekdays, Saturdays, and Sundays/Holidays. Consequently, there are no observations of disparate impacts on minorities and disproportionate burdens on low-income lines since everything is less than the 5% threshold. Overall weekday compliance will improve with further finetuning of resources and scheduling.

4. Loading Standards

The adopted bus and rail passenger loading standards are defined as follows and must not exceed at least 95% of all hourly periods:

Bus Passenger Loading Standards

Service Type	Peak Passengers/Seat	Off-Peak Passengers/Seat
32 FT Bus	1.30	1.30
40 FT Bus	1.30	1.30
45 FT Bus	1.30	1.30
60 FT Bus	1.30	1.30

Rail Passenger Loading Standards

Mode	Peak Passengers/Seat	Off-Peak Passengers/Seat
Heavy Rail	2.30	2.30
Light Rail	1.75	1.75

Although a headway of greater than 60 minutes would be an exception to the headway standards, a loading standard is provided for such services when they occur.

Loading on the bus system is monitored every six months using quarterly APC data for maximum loads at time points. As the most recent bus load standard evaluation was performed using October 2024 through December 2024 data, the samples collected from rail ride checks were compiled for the same three months.

Bus monitoring is more extensive as all buses are equipped with APCs, and data is available for all time points along each bus route for observed maximum loads by trip. Every six months, the most recent quarterly data is evaluated to determine adherence to the adopted standards.

Bus Load Standard Monitoring

Day Type	# Trips	Within Standard	% Compliance
Weekdays	591,114	577,214	97.6%
Saturdays	84,719	83,614	98.7%
Sundays/Holidays	96,537	95,898	99.3%

In reviewing the data for the sampled period, Lines 14, 45, 105, 108, and 166 failed to meet the standard load on weekdays, Lines 62 and 115 failed to meet the standard on Saturdays, and Line 117 failed to meet the standard on Sundays. Other than these exceptions, the rest of the bus system was in conformance with the adopted loading standards. Also, extra trips are added and/or trip times adjusted on any bus line such as those listed above if the load standard has been consistently exceeded, to bring them into compliance.

Heavy rail is based on trip samples collected by schedule checkers. Checkers ride randomly selected cars on randomly selected trips and recording data for boardings and

alightings by station. Over a six-month sliding time frame, this data is aggregated to build a profile of rail ridership. This is the primary source for ridership estimation by day type and line. While only one car is monitored on any given sample trip, whether that car meets the loading standard is a surrogate for whether trains are meeting the standard. Each heavy rail ride check record was processed using Line # (determines mode and applicable # of seats), day type, trip start time (used to categorize weekday trips as peak or off-peak), and maximum accumulated load (calculated from the observations in each check).

Light rail cars are equipped with Automated Passenger Counters (APC). Data collected through use of the APCs is used for the basis of the light rail loading standard.

A rail mode is assumed to comply with the loading standards if 95% of all monitored trips conform to the standards. Data is from the period October 2024 through December 2024 which is the same time frame used for bus monitoring.

Weekday Rail Load Standard Monitoring

	Weekdays		
	# Of Checks/Trips	Within Standard	% Compliance
Heavy Rail	1,076	1,075	100%
Light Rail	65,734	65,688	100%

Weekend Rail Load Standard Monitoring

	Saturday			Sundays & Holidays		
	# Of Checks/Trips	Within Standard	% Compliance	# Of Checks/Trips	Within Standard	% Compliance
Heavy Rail	981	981	100%	969	969	100%
Light Rail	11,224	11,208	100%	13,935	13,935	100%

Both modes met the standard at least 95% of the time, and each line was always found in compliance as well.

5. On-Time Performance Standards

The current on-time performance standards for the system define on-time as no more than one minute early or five minutes late when leaving a time point for bus service and at the end terminal for rail service for arrivals. Buses should be on time at least 85% of the time while heavy rail and light rail service should be on time at least 95% and 90% respectively. The one exception is Line 16 which operated on a headway-based schedule as part of a demonstration program seeing if that is a better way to operate higher frequent service bus line. The pilot period lasted 18 months (June 2023 to December 2024). Findings from the pilot indicated that it did not result in improved reliability (more consistent intervals between buses) overall. Consequently, the pilot was not continued or expanded at this stage.

Rail is currently monitored using HASTUS. Since the bus service is evaluated every six months using quarterly data, the rail evaluation was also performed on data for the months of October 2024 through December 2024.

Weekday Rail On-Time Performance

Mode	Scheduled Trips Sum	Total Delays Sum	On-Time Percentage
Heavy Rail	22,617	37	99.84%
Light Rail	57,143	693	98.79%

Saturday Rail On-Time Performance

Mode	Scheduled Trips Sum	Total Delays Sum	On-Time Percentage
Heavy Rail	4,303	0	100.00%
Light Rail	9,945	37	99.63%

Sundays & Holidays Rail On-Time Performance

Mode	# of Time Point Observations	# of On-Time Observations	On-Time Percentage
Heavy Rail	4,965	1	99.98%
Light Rail	11,665	36	99.69%

The above data shows that on-time performance for both heavy and light rail is very good and consistently exceeds the standard.

However, bus on-time performance is consistently short of the 85% objective. The following observations are based on six months of data from January 2025 through June 2025.

Bus Weekday On-Time Performance

	All Lines	Minority Lines	Low Income Lines
Avg On-Time %	76.7%	76.9%	76.8%
Lines Meeting Standard	6	6	4
Lines Failing Standard	111	79	75
% Meeting Standard	5%	7%	5%

Bus Saturday On-Time Performance

	All Lines	Minority Lines	Low Income Lines
Avg On-Time %	74.6%	75.2%	74.8%
Lines Meeting Standard	7	7	4
Lines Failing Standard	105	78	75
% Meeting Standard	6%	8%	5%

Bus Sunday & Holiday On-Time Performance

	All Lines	Minority Lines	Low Income Lines
Avg On-Time %	74.3%	75.1%	74.8%
Lines Meeting Std	8	12	11
Lines Failing Std	104	66	68
% Meeting Std	7%	15%	14%

On any given day type, non-Minority, non-low income, minority, and low income bus lines exhibit similar on-time percentages. Unfortunately, only a handful of bus lines achieve the 85% on-time standard. However, on-time performance weekdays improved by around 7% and Saturdays improved around 5%, while on-time performance (OTP) on Sundays declined by around 4% for the period surveyed. It is notable that the most recent month in the review period exceeded 80% (June 2025) thanks to Metro Service Delivery campaigning on yard and terminal departures and working to coach and mentor operators with the consistently lowest OTP. Systemwide, bus service does not meet the standard; this includes the combination of all lines, as well the categories of minority lines and low-income lines. Since most of the system is both minority and low-income lines, the percentages that achieve the standard are all within 1% of each other for weekdays, Saturdays, and Sundays/Holidays. Consequently, there are no observations of disparate impacts on minorities and disproportionate burdens on low-income lines because everything is less than the 5% threshold.

Metro also continues to review bus schedules to adjust for adequate scheduled run times and service levels. Further implementation of the NextGen speed and reliability program of new bus lanes is also expected to support improvements in on-time performance.

6. Stop Spacing Standards

The stop spacing standards state the maximum average stop/station spacing in miles by type of service, and that it is not to be exceeded by at least 90% of all routes operated.

Maximum Average Stop/Station Spacing Standards

Service Type	Average Stop Spacing
Heavy Rail	1.50
Light Rail	1.50
Liner	1.25
Rapid	0.75
Commuter (Tier 5)	1.25
Local (Tiers 1- 4)	0.25

Transit Line Average Stop/Station Spacing

Service Type	No. of Lines Meeting Standard	No. of Lines Not Meeting Standard	Service Type Average
Heavy Rail	2	0	0.99 miles
Light Rail	3	1	1.04 miles
Liner	3	0	1.09 miles
Rapid	3	0	0.63 miles
Commuter (Tier 5)	6	0	0.67 miles
Local (Tiers 1- 4)	75	29	0.24 miles

As shown above, one light rail line does not meet the standard. This is the C Line, which has average stop spacing of 1.62 miles, just above the average maximum spacing. Though it exceeds the standard, the spacing is appropriate due to the travel market for the corridor and placement in the middle of a freeway junction (I-105/I-710). Moreover, most of the line was built in 1995 before Metro had established official stop spacing standards.

In terms of local bus lines, 28% of these lines exceed the maximum average stop spacing standard. However, these occur for a number of reasons that are exceptions allowed under the policy. Reasons include:

- long stretches of parking, industrial space, freeway infrastructure, and long street-facing walls;
- greenspace (Lines 62, 120, 125, 128, 154, 161, 179, 232, 235-236, 244, 265, and 296);
- small segments of freeway operation (Line 258);
- long segments of undeveloped or vacant land (Lines 233, 260-261, 266 and 690);
- steep terrain areas with lack of demand (Lines 218, 222, and 233)
- lack of safe pedestrian crossings (Lines 62, 128, 150, 154, 158, 161, 218, 222, 265, and 601);
- lack of ADA-compliant stop locations (Lines 235-236, 237, 244, 268, and 344); or
- stop restrictions per agreement with municipal operators where there is overlapping service (Lines 233 and 344).

Overall, based on allowed exceptions, Metro's bus service is generally compliant with the average stop spacing standard.

7. Passenger Amenities Standards

The standards for passenger amenities for each rail station and off-street bus facility are presented here.

Heavy Rail Passenger Amenities Standards

Amenity	Allocation
Seating	At least 12 seats
Info Displays	At least 12
LED Displays	At least 8 Arrival/Departure screens
TVM's	At least 2
Elevators	At least 2
Escalators	At least 4 (2 up/2 down)
Trash Receptacles	At least 6

Light Rail Passenger Amenities Standards

Amenity	Allocation
Shelters	At least 80 linear feet per bay
Seating	At least 10 seats
Info Displays	At least 10
TVM's	At least 2
Elevators	At least 1 for elevated/underground
Trash Receptacles	At least 2

Bus Passenger Amenities Standards

Amenity	Allocation
Shelters	At least 6 linear feet per bay
Seating	At least 3 seats per bay
Info Displays	At least 3
Elevators	At least 1 for multi-level terminals
Trash Receptacles	At least 1 per 3 bays/2 minimum

This applies to off-street bus facilities serving 4 or more bus lines.

There are no standards for bus stops because apart from painting the curb red and erecting bus stop signage as Metro has no jurisdiction over street furniture or other appurtenances. The latter are controlled by individual cities and often contracted to third parties who support their costs through advertising revenues.

All applicable facilities are in compliance, including all three Regional Connector Stations and the nine K Line Stations that were built since the last review.

8. Vehicle Assignment Standards

Adopted vehicle assignment standards include:

- **Heavy Rail:** Maintained at a single facility

- **Light Rail:** Primarily assigned based on compatibility of vehicle controllers and rail car weight with rail line(s) served. Wherever possible, there are no more than two vehicle types at each facility.
- **Bus:** Assigned to meet vehicle seating requirements for lines served from each facility.

While these standards are consistently applied, Metro has historically looked at the average age of vehicles assigned to each facility to ensure that there are “no extremes” serving any area. This is most applicable to the bus system, but data for rail is provided as well. All information provided on vehicle assignments is as of the end of FY25. Rail Fleet Services considers a rail vehicle to be like new when it undergoes its mid-life modernization program. Consequently, the average age is recalculated for vehicles for these vehicles.

Heavy Rail – Vehicle Age by Facility

Facility	Model	# Active	Average Age (years)
Div. 20 – Los Angeles	Breda A650 Base	26	32.3
	Breda A650 Option	74	26.5
		100	28.0

Light Rail – Vehicle Age by Facility

Facility	Model	# Active	Average Age (years)
Div. 11 – Long Beach	Alstom P2000	52	3.5
	Kinkisharyo P3010	42	6.6
		94	4.9
Div. 14 – Santa Monica	Kinkisharyo P3010	55	8.4
		55	8.4
Div 16 - Westchester	Kinkisharyo P3010	27	7.4
		27	7.4
Div. 21 – Los Angeles	Kinkisharyo P3010	39	8.1
		39	8.1
Div. 22 - Lawndale	Kinkisharyo P3010	27	4.3
		27	4.3
Div. 24 - Monrovia	AnseldoBreda2550Base	50	15.6
	Kinkisharyo P3010	45	6.6
		95	11.3

There are two factors to consider with the light rail assignments. First, the Anseldo Breda 2550 Base vehicles cannot be operated from Division 22 as they are too heavy for the C Line. Second, Rail Fleet Services tries to limit the number of vehicle models to two per rail division to minimize the training and part supply requirements.

Each light rail facility's average vehicle age is between 6 and 13 years which is consistently young to medium for vehicles that should have a 30-year life span. Meanwhile, Breda A650 option heavy rail cars are nearly at the end of their useful life and will be replaced once the new HR4000 vehicles are all delivered by the second half of FY26. Meanwhile, the Breda A650 option vehicles are currently undergoing a mid-life overhaul/modernization program which is expected to extend the life of these vehicles at least five more years.

Bus – Vehicle Age by Facility – Directly Operated

Division	32-foot	40-foot	45-foot	60-foot	# of Buses	Avg. Age
1		129	33	21	183	7.9
2		175			175	10.0
3		139	35		174	8.1
5		121		43	164	11.4
7		108	70	23	201	11.4
8		127	26	44	197	7.4
9		152	28		180	7.4
13		44	47	87	178	10.7
15		201		29	230	7.5
18		158	41	23	222	8.8

Bus – Vehicle Age by Facility – Contract

Division	32-foot	40-foot	45-foot	60-foot	# of Buses	Avg. Age
95	13	22	11		46	13.1
97	7	68			75	7.8

Bus – Vehicle Age Summary

	32-foot	40-foot	45-foot	60-foot	# of Buses	Avg. Age
System	20	1,444	291	270	2,205	9.1

The average fleet age by Division ranges from 7.4 years for directly operated Divisions 8 and 9, to 13.1 years for contract-operated Division 95. All average ages are within 4 years of the system average. The useful life for a bus ranges from 12 to 15 years, so, the average age of each division fleet is well within this range, but the buses at Division 95 are eligible for replacement now and buses at Division 2, 7, 8, and 13 will become eligible during the next three-year cycle. In 2019, Division 97 had the oldest average fleet. Consequently, it now has one of the youngest fleets since it was next in line to have its fleet replaced. Within the next few years, the 32-foot and 45-foot buses will be phased out. Then during the next decade, the entire bus fleet will be converted over to battery electric or hydrogen fuel cell buses. Buses for the J Line are being converted now to electric buses while the rest of Metro's bus fleet will begin transitioning by the end of FY27.

Conclusion

In conclusion, the results of the service monitoring indicate that the adopted systemwide standards are set properly. However, Metro needs to significantly improve the systemwide bus service on-time performance and to a lesser extent, headway compliance on weekdays. On-time performance will improve as more of the NextGen Speed and Reliability Program is implemented and with better service monitoring. Overall weekday compliance will improve with fine tuning of resources and scheduling.