



**Metropolitan  
Transit  
System**

# Vehicle Assignment Policy 2024



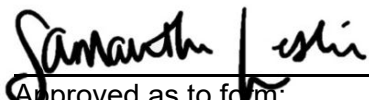
SAN DIEGO METROPOLITAN TRANSIT SYSTEM

Subject: VEHICLE ASSIGNMENT POLICY

Effective Date: July 1, 2024

SAN DIEGO METROPOLITAN  
TRANSIT SYSTEM

  
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## 1.0 Introduction

The San Diego Metropolitan Transit System (MTS) is the provider of public fixed-route bus and light rail transit services in the southern and eastern portions of San Diego County. MTS' service area is approximately 570 square miles of the **urbanized** areas of San Diego County, plus the rural areas of East County. Our total jurisdiction is 3,240 square miles, serving a population of nearly 3 million.

MTS can trace its roots back to 1886, when private companies began providing various rail transit services in San Diego. The current organization was created by the passage of California Senate Bill 101 and came into existence in January 1976 as the Metropolitan Transit Development Board (MTDB). In 2002, Senate Bill 1703 merged MTDB's long-range planning, financial programming, project development and construction functions into the regional metropolitan planning organization, the San Diego Association of Governments (SANDAG). In 2005, MTDB changed its name to MTS.

MTS directly or through private contractors operates 92 fixed bus routes, 4 light rail lines, and an Americans with Disabilities Act (ADA) complementary paratransit service. All services are coordinated by MTS, which determines the routes, stops, frequencies and hours of operation. Light rail infrastructure includes 62 stations and 65 miles of rail. Various modes of bus routes are operated, including local, urban, express, Rapid, Rapid Express, and rural services.

Federal Transit Administration (FTA) Circular 4702.1B requires that operators receiving federal financial assistance have policies ensuring the equitable distribution of vehicles and amenities as part of their compliance with Title VI of the Civil Rights Act of 1964. This document provides the policy guidelines for the distribution and operation of MTS vehicles throughout the MTS service area. It has also been distributed to MTS' outside contractors that provide transit services.

## 2.0 Buses

In Fiscal Year 2023, over 32 million riders boarded MTS bus services, and 105,000 on an average weekday. The fleet consists of over 700 buses operating on 96 fixed-routes and paratransit service. Modes operated include motorbus, commuter bus, and demand response. Approximately half of the bus service is directly operated by MTS employees. The remaining half is operated by private contractors using buses or vans provided by MTS and operating from divisions owned by MTS. ADA Paratransit service is also provided by taxicabs owned and operated by private entities. Most of the heavy-duty bus fleet is powered by natural gas, the culmination of an initiative started in 1994 to replace diesel with cleaner, alternative fuels. The last of MTS' diesel buses were retired in early 2021. As of July 2024, MTS has 25 battery electric buses (BEBs) in its fleet, the first step in a plan to convert the entire fleet to zero-emission by 2040.

### 2.1 Vehicle Categories

- 2.1.A Standard Bus: Medium or Heavy-Duty urban transit buses manufactured by New Flyer, Gillig, etc. Passenger amenities are common throughout the fleet, with only minor year-to-year variations. All standard buses are battery-electric or powered by Compressed Natural Gas (CNG).





2.1.A.1 **Standard MTS:** The largest segment of MTS' fixed-route fleet. All standard buses are 40' long. Seating is a standard transit shell seat product with fabric inserts.

2.1.A.2 **Standard Rapid:** The Standard Rapid bus differs from the Standard MTS bus by exterior branding and installation of Transit Signal Priority (TSP) transmitters. All other features and amenities are the same.



2.1.B **Articulated Bus:** Articulated transit buses are 60' long and all were manufactured by New Flyer Industries. There are three distinct fleets, all either battery-electric or CNG-powered:

2.1.B.1 **Artic Urban:** MTS branded with passenger amenities similar to MTS standard buses. These are assigned to higher volume routes that require additional capacity when added frequency isn't practical, feasible, or cost-effective.



2.1.B.2 **Artic Rapid:** Branded for Rapid service with passenger amenities similar to MTS standard buses. These are primarily assigned to Rapid routes that operate mostly on surface streets.



2.1.B.3 **Artic Rapid Freeway:** Branded for Rapid service with an upgraded seating product. These are primarily assigned to Rapid routes that operate significant freeway segments, with the upgraded seating intended to improve the ride quality at higher speeds.

- 2.1.C Minibus: Single-door, high-floor, body-on-chassis cutaway buses, typically 29'-34' in length; generally fewer seats than standard buses; propane- or gasoline-powered; all are equipped with a wheelchair lift at the curbside rear. These are assigned to fixed-routes with lower ridership. They are also used on other routes during lower-demand periods such as weekends.



- 2.1.D Over-the-Road (OTR) Coach: Single-door, 45' long, high-floor highway coach; upgraded seating product and some additional passenger amenities such as parcel racks and reading lights; all are equipped with a curbside midship wheelchair lift. These are assigned to the higher-fare *Rapid Express* service on the Interstate 15 corridor.



- 2.1.E ADA Paratransit Assigned Minibus: All ADA complementary paratransit buses are Type II cutaway minibuses. There is no variation in passenger amenities from year-to-year, and vehicles are dispatched equally throughout the region based on ride demands.



- 2.1.F ADA Paratransit Assigned Vans: All ADA complementary paratransit vans are conversions of standard minivans. MTS only operates a single fleet, so all are the same year with no variation among them. The vans are dispatched equally throughout the region based on ride demands. All are wheelchair accessible.



- 2.1.G ADA Paratransit Assigned Non-MTS Vehicles: MTS' contractor for ADA Paratransit Service subcontracts with third party organizations to service a portion of the passenger trips. These fleets include taxicabs and/or transportation network company (TNC) vehicles. These vehicles are made up of a variety of standard passenger vehicles. There may be a slight variation in passenger amenities from year-to-year based on the available fleet, but all are equipped with air conditioning and heaters. MTS does not purchase, own, or maintain these vehicles. These vehicles are operated and maintained by private entities, and are dispatched equally throughout the MTS Access Service Area based on ride demands and operational efficiencies. These vehicles are not currently wheelchair accessible. See Section 2.8 of this Vehicle Assignment Policy for further information on Vehicle Assignments for ADA Paratransit.



Sample taxicab; may not be actual vehicle.

## 2.2 Zero Emission Buses (ZEBs)

The California Air Resources Board (CARB) passed the Innovative Clean Transit Rule (ICT) in 2018 that requires transit bus fleets to be converted to ZEBs by 2040. Various internal combustion engine-powered (ICE) examples in the above vehicle categories will be replaced by ZEBs over the coming years, anticipated to be primarily Battery Electric Buses (BEBs). **MTS'**

**transition plan prioritizes the deployment of BEBs in disadvantaged communities, as defined by California Senate Bill 535 using the State's CalEnviroscreen tool.**

The transition plan is a gradual conversion of all bus orders, with the last ICE bus being purchased in 2028. All ICE buses will be retired by 2040.

Challenges include the need for significant electrical grid and charging infrastructure installed at all divisions, insufficient range with current battery technology, and lack of viable BEB options on some fleet types. MTS anticipates that most of these will be resolved over the next several years as technology and availability improves, but the transition plan is a dynamic document that will be updated as new information becomes available.

The current small fleet of Standard BEBs is supported at four MTS divisions with pedestal chargers. The current fleet of articulated BEB buses is located at the South Bay Division, where they are charged using overhead gantries with drop-down pantographs that charge the buses as needed for service. This system also optimizes charging times to avoid peak periods on the grid. Planning and design are underway for the installation of the overhead gantry systems at MTS' other divisions.

## 2.3 Divisions

MTS bus service is operated from five bus divisions, with a sixth in development:

- 2.3.A Imperial Avenue Division (IAD): Directly operated by MTS. Located at 100 Sixteenth Street, San Diego, CA 92101 (Downtown San Diego); operates standard and articulated buses. Maintains CNG-powered and battery-electric buses.
- 2.3.B Kearny Mesa Division (KMD): Directly operated by MTS. Located at 4630 Ruffner Street, San Diego, CA 92111 (Kearny Mesa); operates standard and articulated buses. Fuels and maintains CNG-powered buses. Maintains CNG-powered and battery-electric buses.
- 2.3.C South Bay Division (SBD): Owned by MTS and operated by a contractor (currently Transdev). Located at 3650A Main Street, Chula Vista, CA 91911 (southern Chula Vista); operates standard and articulated buses. Maintains CNG-powered and battery-electric buses.
- 2.3.D East County Division (ECD): Owned by MTS and operated by a contractor (currently Transdev). 544 Vernon Way, El Cajon, CA 92020; operates standard buses, minibuses, and over-the-road coaches. Fuels and maintains CNG- and gasoline-powered buses, and battery-electric buses.
- 2.3.E Copley Park Division (CPD): Owned by MTS and operated by a contractor (currently Transdev). Located at 7490 Copley Park Place, San Diego, CA 92111 (Kearny Mesa); operates minibuses. Fuels and maintains propane- and gasoline-powered vehicles.
- 2.3.F Clean Transit Advancement Campus (CTAC): MTS is developing a sixth bus division that will accommodate expansion of the fleet, as well as free up space in existing divisions to add the necessary BEB charging infrastructure. The CTAC is

being designed from the ground-up as a primarily ZEB division, with no facilities planned for the fueling of ICE buses.

- 2.4 Vehicle Amenities: Passenger amenities vary by vehicle type, as shown in the table below:

Vehicle Amenity	Standard Bus	Articulated Bus	Minibus	OTR Coach	Van	Non-MTS Vehicles
Alternative Fuel-Powered	X	X	X	X		
Zero-Emissions	X	X				
Air conditioning	X	X	X	X	X	X
Lift for accessibility			X	X		
Ramp for accessibility	X	X			X	
Wheelchair Tie-Down Locations	2	2	2	2	1	
Bicycle Rack (2-3 positions)	X	X	X			
Bicycle Underfloor Storage				X		
Seating: shell seats with fabric or vinyl inserts	X	X				
Seating: standard transit padded seating			X			
Seating: upgraded high-back seats		X		X		
Seating: standard OEM seating					X	X

- 2.5 Bus Assignments by Route: Bus types are assigned by route based on the following:

2.5.A Capacity needs: Articulated buses are assigned to higher volume routes that require additional capacity when added frequency isn't practical, feasible, or cost-effective. Minibuses are assigned to the lowest ridership fixed-routes – routes which generally could not be economically operated with a larger bus.

2.5.B Route type: Vehicles are assigned by route type in the specifications below. Temporary exceptions to these assignments may be made in an unanticipated, emergency, or standby situation when service would otherwise be lost.

2.5.B.1 *Rapid* Express routes between the Interstate 15 corridor and Downtown San Diego are assigned over-the-road coaches; these routes have a higher fare and pass price accordingly.

2.5.B.2 High-demand Rapid routes are assigned Rapid articulated buses. (These may be supplemented as needed with other MTS buses for

capacity purposes.) Rapid routes or trips that operate significant freeway segments are assigned the Rapid “freeway” articulated buses, with upgraded seating intended to improve the ride quality at higher speeds.

2.5.B.3 Standard-demand Rapid routes are operated using Rapid articulated buses, Standard Rapid buses, or sometimes regular MTS-branded buses, depending on availability.

2.5.B.4 Urban Frequent routes are operated using MTS-branded articulated and standard buses.

2.5.B.5 Urban Standard, Circulator, and Rural routes are operated using MTS-branded standard buses and minibuses, depending on the capacity needs of the individual route.

2.6 Route Assignments by Division: Routes are assigned to each division based on the number and types of buses available, proximity to the service, and opportunities to complement other nearby routes for efficiency, interlining, driver familiarization, supervision, and incident response. State law limits MTS’ ability to reassign directly-operated routes to divisions operated by MTS contractors.

2.7 Vehicle Assignments by Division: Vehicle types are assigned to each division based on division space capacity, and the capability of the division to fuel, operate, and maintain any specialized equipment (alternative fuels, BEBs, articulated buses, etc.). ADA Paratransit Assigned Non-MTS Vehicles do not operate from a division but instead are assigned through dispatch service organizations and are operated and maintained from a non-MTS site. Vehicles are currently assigned to the divisions according to the following table:

<b>Vehicle Category</b>	<b>IAD</b>	<b>KMD</b>	<b>SBD</b>	<b>ECD</b>	<b>CPD</b>	<b>N/A</b>
2.1.A.1 Standard MTS Bus	X	X	X	X		
2.1.A.2 Standard Rapid Bus		X				
2.1.B.1 Articulated Urban Bus	X	X	X			
2.1.B.2 Articulated Rapid Bus	X					
2.1.B.3 Articulated Rapid Freeway Bus		X	X			
2.1.C Minibus				X	X	
2.1.D Over-the-Road Coach				X		
2.1.E ADA Paratransit Minibus					X	
2.1.F ADA Paratransit Vans					X	
2.1.G ADA Paratransit Non-MTS Vehicles						X

2.8 Vehicle Assignments for ADA Paratransit: ADA Paratransit minibus, vans and Non-MTS Vehicles are assigned and routed based on the trips requested by riders each day and operational efficiencies. Since the Non-MTS ADA Paratransit vehicle fleet does not currently maintain wheelchair accessible vehicle, a review of the rider’s functional abilities is conducted prior to vehicle assignment to ensure that the appropriate vehicle is assigned (e.g. if the rider uses a wheelchair, requires a lift or ramp to access the vehicle, or requires another accessibility element only available in a minibus or van, then only a minibus or van will be assigned to service that particular trip). MTS does not



accommodate ADA Paratransit passenger preference requests for certain type or appearance of vehicles, as it would result in a fundamental alteration of MTS's operations, service and scheduling process.

- 2.9 Future Procurements: All heavy-duty buses are alternative fuel, hybrid-electric, or zero-emission. All will be zero-emission by 2040 in compliance with the ICT. Heavy-duty buses will be low-floor, except for buses used for Rapid Express, standby, or tripper services, or on special or low-ridership routes.

### 3.0 Rail Vehicles

- 3.1 Trolley Car Categories: Three different types of cars are operated:

- 3.1.A High-Floor Cars: Siemens SD100 cars with high floors, steps inside the car to access 0"-8" station platform, wheelchair and bike space at the ends of each car, and a wheelchair lift next to the driver compartment in the lead car. These cars have a flip seat that allows space for three wheelchairs. Passenger amenities are identical on all cars in this fleet, which is planned to be phased out by 2025.



- 3.1.B Low-Floor Cars: Siemens S70 and S700 cars are 70% low-floor. They include inside steps only up to seating areas at far ends of the car, wheelchair and bike space in the middle of the car, and passenger-activated ramps at two of four doors on each side of each car. Cars were manufactured between 2005 and 2024. Passenger amenities are nearly identical for all models and vintages, with minor improvements in seating configurations in later production cars. Earlier models had larger driver cabs, resulting in a longer overall vehicle length.



- 3.1.C Vintage Cars: MTS deploys three historic cars on its Silver Line loop in Downtown San Diego: two Presidents Conference Cars (PCCs) dating from 1946; and one 1980-vintage Siemens-Duewag U2 car preserved from the original San Diego Trolley fleet. These are high-floor vehicles with a wheelchair lift for accessibility.



- 3.2 Divisions: MTS operates one rail division, from which all light rail ("Trolley") service is operated: 1341 Commercial Street, San Diego, CA 92113 (Downtown San Diego).

- 3.3 Vehicle Amenities: Passenger amenities vary by car type, as shown in the table below:

<b>Vehicle Amenity</b>	<b>Low-Floor</b>	<b>High-Floor</b>	<b>Vintage</b>
Air conditioning	<b>X</b>	<b>X</b>	
Lift for accessibility		<b>X</b>	<b>X</b>
Ramps for accessibility	<b>X</b>		
Wheelchair Spaces	<b>Not limited</b>	<b>3</b>	<b>1</b>
Bicycle Spaces (limited by policy for safety)	<b>2</b>	<b>2</b>	<b>0</b>
Seating: shell seats with fabric or vinyl inserts	<b>X</b>		
Seating: standard transit padded seating		<b>X</b>	<b>X</b>

- 3.4 Trolley Assignments by Line: Trolley cars are assigned primarily based on four factors:
- 3.4.A Station infrastructure limitations: Low floor cars require a minimum 8" station platform height in order for the ramp to maintain an ADA-compliant slope. All stations on all four lines now have 8" platforms. Most Trolley stations can accommodate four-car trains, except for 12th & Imperial, City College, Fifth Ave, Civic Center, Courthouse, and America Plaza, which can only accommodate three-car trains.
- 3.4.B Fleet constraints: When additional cars are needed for a full peak schedule, low-floor cars may be supplemented with a high-floor car in the middle of three-car consists. Some occasional tripper and special event trains may operate with all-high-floor consists until the retirement of the SD100 fleet, anticipated in 2025..
- 3.4.C Vintage Car constraints: Due to their high floor and limited capacity, the three vintage cars are used only on the Silver Line loop in Downtown San Diego, where they supplement other existing services. Two of the vintage vehicles only have an operating cab on one side, and can therefore can only operate in one direction and limiting them to loop services.
- 3.5 Future Procurements: Except for vintage cars, all Trolley cars will be a minimum of 70% low-floor; existing high-floor cars will be replaced by low-floor cars upon retirement.

### 3.6 Trolley System Map:



## 4.0 MTS Fleet List (as of 7/1/2024)

Division	Quantity in Fleet	Fleet Series	Year	Make	Model	Vehicle Policy Category	Power/Fuel	MTD Fleet ID #
<b>Motorbus - Directly Operated</b>								
KMD	24	1900	2023	New Flyer	Xcelsior XN60	Artic Rapid Fwy	CNG	NEW
IAD	5	1600	2021	Gillig	Low-Floor	Standard MTS	BEB	382015
IAD	2	1600	2020	Gillig	Low-Floor	Standard MTS	BEB	390000
IAD	38	1700	2020	Gillig	Low-Floor	Standard MTS	CNG	389398
IAD	26	1800	2020	New Flyer	Xcelsior XN60	Artic Urban	CNG	389397
KMD	2	1500	2019	New Flyer	Xcelsior XE40	Standard MTS	BEB	382015
KMD	10	1400	2017	Gillig	Low-Floor	Standard Rapid	CNG	355845
KMD	23	200	2015	Gillig	Low-Floor	Standard MTS	CNG	344586
KMD	13	1300	2015	New Flyer	Xcelsior XN60	Artic Urban	CNG	344585
KMD	12	900	2014	Gillig	Low-Floor	Standard MTS	CNG	338442
KMD	8	1100	2013	New Flyer	Xcelsior XN60	Artic Rapid Fwy	CNG	54438
IAD	18	1200	2013	New Flyer	Xcelsior XN60	Artic Rapid	CNG	54438
IAD	26	800	2013	Gillig	Low-Floor	Standard MTS	CNG	338441
IAD	31	700	2012	New Flyer	C40LFR	Standard MTS	CNG	49048
IAD	21	600	2011	New Flyer	C40LFR	Standard MTS	CNG	49047
<b>TOTAL:</b>	<b>259</b>							
<b>Motorbus - Purchased Transportation</b>								
CPD	24	3400	2024	Starcraft	AllStar	Minibus	Propane	NEW
SBD	12	7550	2022	New Flyer	Xcelsior XE60	Artic Rapid Fwy	BEB	400299
SBD	38	2200	2022	Gillig	Low-Floor	Standard MTS	CNG	400298
SBD	32	2600	2021	Gillig	Low-Floor	Standard MTS	CNG	400297
SBD	5	2790	2020	Gillig	Low-Floor	Standard MTS	CNG	390015
SBD	2	1500	2019	New Flyer	Xcelsior XE40	Standard MTS	BEB	395913
ECD	2	1500	2019	New Flyer	Xcelsior XE40	Standard MTS	BEB	295913
ECD	6	8350	2019	Gillig	Low-Floor	Standard MTS	CNG	382016
SBD	7	2780	2018	Gillig	Low-Floor	Standard MTS	CNG	375609
ECD	3	3500	2018	Starcraft	Allstar XL	Minibus	Gasoline	375611
SBD	17	7500	2017	New Flyer	Xcelsior XN60	Artic Rapid Fwy	CNG	355848
SBD	10	7400	2017	New Flyer	Xcelsior XN60	Artic Urban	CNG	355848
SBD	36	2100	2017	Gillig	Low-Floor	Standard MTS	CNG	355847
CPD	29	3100	2016	El Dorado Nat	AeroElite 320	Minibus	Propane	350599
ECD	38	8300	2016	Gillig	Low-Floor	Standard MTS	CNG	344589
ECD	13	8200	2015	Gillig	Low-Floor	Standard MTS	CNG	344588
SBD	14	2000	2015	Gillig	Low-Floor	Standard MTS	CNG	344588
SBD	38	2400	2014	Gillig	Low-Floor	Standard MTS	CNG	338448
SBD	18	2300	2013	Gillig	Low-Floor	Standard MTS	CNG	344588
ECD	6	2300	2013	Gillig	Low-Floor	Standard MTS	CNG	344588
SBD	22	2900	2012	New Flyer	C40LFR	Standard MTS	CNG	54442
SBD	5	2900	2011	New Flyer	C40LFR	Standard MTS	CNG	n/a
<b>TOTAL:</b>	<b>377</b>							
<b>Commuter Bus - Purchased Transportation</b>								
ECD	24	8530	2020	MCI	D4500	OTR Coach	CNG	390001
<b>TOTAL:</b>	<b>24</b>							
<b>Demand Response - Purchased Transportation</b>								
CPD	14	3700	2019	Dodge	Grand Caravan	ADA Van	Gasoline	396365
CPD	35	3630	2018	Starcraft	AllStar	ADA Minibus	Propane	375388
CPD	25	3200	2017	Starcraft	AllStar	ADA Minibus	Propane	355846
CPD	46	3300	2016	Starcraft	AllStar	ADA Minibus	Propane	350597
<b>TOTAL:</b>	<b>120</b>							
<b>Light Rail - Directly Operated</b>								
SDTI	67	5000	2019	SDU	S70US	Low-Floor Car	EP	376580
SDTI	65	4000	2011	SDU	S70US	Low-Floor Car	EP	49044
SDTI	11	3000	2005	SDU	S70	Low-Floor Car	EP	25813
SDTI	33	2000	1995	SDU	SD100	High-Floor Car	EP	25812
SDTI	1	1001	1980	SDU	U2	Vintage Car	EP	382272
SDTI	1	529	1946	SLC	PCC	Vintage Car	EP	43778
SDTI	1	530	1946	SLC	PCC	Vintage Car	EP	347023
<b>TOTAL:</b>	<b>179</b>							

## 5.0 Forward Look

- 5.1 Buses: In September 2020, the Board of Directors approved the ZEB Rollout Plan for submittal to CARB, and the MTS ZEB Transition Plan. The ZEB Transition Plan will be updated as needed to keep current with the MTS fleet and charging infrastructure. The MTS Board of Directors has indicated a desire to accelerate the fleet conversion to the extent practicable. Primary challenges at this point are the capital cost of the ZEBs, at nearly double the cost of an equivalent ICE-powered bus, and the speed at which the charging infrastructure can be brought on-line at the different divisions.

Each division will have a master plan developed that includes a future layout and schedule of the charging improvements. Implementation of the charging infrastructure will be phased to allow for conversion as fleets assigned to each division are retired and replaced with new ZEBs. The schedule for Phase 1 at each division is currently planned as follows:

- SBD = 2023 (open)
- IAD = 2026
- KMD – 2027
- ECD = 2028
- CTAC = 2029 (division opens)

Improvements in Phase 2 and beyond will be developed according to the division master plans and the needs at each division as the fleet is converted.

- 5.2 Trolleys: MTS is in the process of converting its light rail fleet to all cars that are 70% low-floor. To increase accessibility, the high floor fleet that dates back to the 1990s will be retired. A current procurement of new low-floor cars is underway, and MTS anticipates being able to retire its final (non-vintage fleet) high-floor car in 2025.

In an effort to reduce disposal costs and waste, MTS endeavors to find a home for its retired railcars to extend their lives, rather than send them to a landfill or recycler. Former San Diego Trolley cars are now featured at various transit museums around the country. And most notably, the city of Mendoza, Argentina, has implemented a new light rail system of its own, entirely using former San Diego Trolley U2 and SD100 cars.