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Superliner (railcar)

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The **Superliner** is a [double-decker passenger car](#) used by [Amtrak](#) on long-haul trains that do not use the [Northeast Corridor](#). The initial cars were built by [Pullman-Standard](#) in the late 1970s and a second order was built in the mid-1990s by Pullman's successor, [Bombardier Transportation](#). As delivered, the cars came in various configurations, including [coach](#), [diner](#), and [sleeper](#). State-funded routes in California use another variant of the Superliner passenger car dubbed "California Cars," manufactured by Morrison-Knudsen, or "Surfliners," manufactured by [Alstom](#).

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Superliner



Superliner I Auto Train Lounge

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History

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When funding became available for Amtrak to acquire new cars, plans were made to acquire bi-level cars based on the 1956 Budd-built *El Capitan* Hi-Levels operated by the *Atchison, Topeka and Santa Fe Railway* (which were purchased by Amtrak upon formation in 1971).^[3] The initial order of 235 Superliner I cars was placed with Chicago coachbuilder *Pullman Standard* on April 2, 1975, and later increased to 284 cars, totaling \$241 million. The first car was delivered in October 1978, and they debuted on the Chicago - Milwaukee service on February 26, 1979.^[4] The coaches were the first cars delivered, so it was not until October



Interior of Superliner I Lounge Car

Manufacturer	Pullman Company (Series I) / Bombardier Transportation (Series II)/ Morrison-Knudsen and Alstom (California Cars variant)
Constructed	1978–1981, 1993–1995, 1996, 2000-2001
Entered service	1979
Number built	479 ^[1]
Number in service	431
Number scrapped	22
Capacity	96 maximum
Operator	Amtrak
Line(s) served	<i>Auto Train, California Zephyr, Capitol Corridor, Capitol Limited, City of New Orleans, Coast Starlight, Empire Builder, Heartland Flyer, Pacific Surfliner, Pere</i>

28, 1979, that the first Superliner-equipped long-haul train, the westbound *Empire Builder*, ran from Chicago to Seattle. The last car of the order, a sleeper delivered in July 1981,^[3] was also the last car ever built by Pullman, and was named in honor of the company's founder, [George Mortimer Pullman](#).

When the Superliners began to arrive in the late 1970s, many Hi-Level coaches were converted into Coach-Dorms for crew use on Superliner trains. These were replaced in the 1990s by new Superliner II Transition Sleepers. Five *El Capitan* lounge cars were refurbished as the *Coast Starlight's Pacific Parlour* first-class lounge cars. These cars have a service bar, booths, and chairs on the upper level, and a theatre on the lower level. All other Hi-Level cars are no longer on the company's active roster.

The Superliner II fleet of 140 cars was built in 1993-94 at a cost of \$340 million by [Bombardier](#) in [Barre, Vermont](#),^[5] who acquired the designs and patents from Pullman in 1987. The introduction of these new cars permitted the use of Superliner cars on some East Coast routes, such as the *Capitol Limited* and *AutoTrain*.^[5]

Design

[Marquette](#), [San Joaquin](#), [Southwest Chief](#), [Sunset Limited](#), and [Texas Eagle](#)

Specifications	
Car length	85 ft 0 in (25.91 m)
Width	10 ft 2 in (3.10 m)
Height	16 ft 2 in (4.93 m)
Entry	Step
Doors	1 or 2 depending on car type
Maximum speed	100 mph (160 km/h), 125 mph (201 km/h) (California/Surfliner variants)
Weight	148,000 lb (67,132 kg) or 67.132 t (74.000 short tons; 66.072 long tons) gross weight for coaches (all specs ^[2])
Power supply	Head end power
Braking system(s)	Air
Gauge	4 ft 8 1⁄2 in (1,435 mm)

The Superliners were the first Amtrak car type to be equipped

[\[edit\]](#)



Top: German-designed truck from Superliner I car. Bottom: General Steel Castings truck from Superliner II car.

The Superliners were the first Amtrak car type to be equipped with an onboard [waste treatment and disposal](#) system linked to all [toilets](#). The initial design of this system retained toilet wastes until the train attained a preset speed (or a manually operated lever was moved) to dump the waste along the tracks beneath the moving train. Eventually a full-retention system was installed that stopped this practice. Initially the cars could not be worked east of Chicago because of limited overhead clearances, but by the 1980s many eastern railroads had raised clearances on their tracks to permit tri-level auto-carriers and double stack container trains, which also permitted the operation of the Superliners.^[5]

The Superliner I and Superliner II differ somewhat in interior fittings,^[6] primarily in color - the newer cars tend toward gray, aquamarine, and salmon rather than the shades of brown and orange favored on earlier cars. Externally, the two classes differ in a number of subtle respects, but they are readily distinguished by the type of truck (bogie) the car uses: Superliner I cars use a German design originally fitted with an air bag suspension (replaced with springs), while the Superliner II cars use a [General Steel Castings](#) truck of the same type used on Horizon, [Viewliner](#), and the original self-propelled 1969 [Metroliner](#) cars.

Car types

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Coach

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One hundred two Superliner I coaches were built, as were 48 Superliner I coach-baggage combination cars with a secure baggage hold instead of lower-level seating. Thirty-eight Superliner II coaches were added to the roster.^[1]

The "normal" Superliner coaches have 12 seats downstairs in addition to the 62 seats upstairs. The lower-level coach seating



Coach Class car.



is handicapped accessible (with space for a wheelchair or two) and is a special reservations category (with no additional charge). The coach-baggage combination cars have only upstairs seating. On the lower level in all coaches there are large luggage racks and, typically, four unisex toilets (one with a changing room), an accessible toilet, and a dedicated women's

restroom.

Superliner coach seating is unlike airplane coach-class seating. Superliner coaches have wide two-and-two reclining seats, with footrests and retractable legrests. The 50-inch (127 cm) "pitch" (distance from one seat-back to the next) of the seats makes for very comfortable and commodious seating, and near lie-flat reclining angles, but puts the footrests out of reach of many passengers. There are overhead open luggage racks but they are not suitable for bulky objects.

Thirty of the coach-baggage combinations were later converted into "smoking coaches" with a smoking lounge replacing the baggage area and the outside baggage door in the side of the car sealed shut. Since all Amtrak trains are now non-smoking throughout (with the exception of the *Auto Train*), all smoking coaches were converted back to coach-baggage cars. At least one train, the *Texas Eagle*, uses a coach-baggage car in lieu of a stand-alone baggage car. Another train, the *Coast Starlight*, uses a converted standard coach as a special "Arcade Car" (formerly dubbed the "Kiddie Car"), occupied downstairs by arcade games and token machines and upstairs by coach seats.

Of the 188 coaches of various types originally delivered, 159 are "in service" (as of late 2006), the remainder either wrecked and scrapped or wreck-damaged and awaiting either repairs or scrapping.

Sleeping car

[\[edit\]](#)

Two configurations exist for Superliner sleeping cars. Of the 125 sleeping cars,^[1] 119 are configured as below, and the remaining 6 cars are configured with all Bedrooms on the upper level.

- Upper level:
 - 5 Bedrooms (formerly known as "Deluxe Bedrooms"), on



one side of the car with the corridor on the other;
furnished with upper and lower bunks and shower-
equipped private toilet

- 10 **Roomettes** (formerly known as "Superliner Standard Bedrooms" and "Economy Bedrooms"), on both sides of the car with a central corridor; with upper and lower bunks
- 1 shared toilet for Roomette passengers
- Car-to-car passage
- Lower level:
 - 1 Family Bedroom (entire width of the car), two adult bunks and two child bunks
 - 1 Accessible Bedroom (entire width of the car), two bunks and private shower/toilet
 - 4 Roomettes
 - 3 shared toilets for Roomette and Family Bedroom passengers
 - 1 shared shower
 - luggage racks
 - vestibule (unlike single-level passenger cars with a vestibule at each end of the car, a *Superliner's* single lower-level vestibule is in the center of the car)



A Superliner bedroom in nighttime configuration.



A Superliner roomette in daytime configuration.

Lounge

[\[edit\]](#)



When originally delivered starting in 1981, Superliner I lounges were referred to as "Lounge Café" cars. These were fitted with enormous windows that wrapped upward into the ceiling, providing lateral views of scenery along the train's route. With the arrival of Superliner II cars in the 1990s, the nomenclature for all Superliner lounges with large windows became "Sightseer



A Sightseer Lounge.

Lounge". In addition to the 50 Sightseer Lounges, five cars were converted from Superliner I dining cars for [Auto Train](#) lounge service.^[1] These cars, which are only found in that train, lack the larger windows of the Sightseer Lounge cars.

Superliner lounge cars once had an electric piano downstairs (featured briefly in the movie [Continental Divide](#)). In past years, smoking was allowed during set times in the lounge car. At one time, a large mechanical filter designed to clear the air of cigarette smoke was located on the lower level. Most cars retain a small operating wet-bar on the upper level near the centrally located stairs. The operation and stocking of this upper station is coordinated by the Lead Service Attendant operating the primary snack bar on the lower level. When the upper-level station is not staffed it is frequently used for storage of paper stock and supplies. The upper lounge station is often reactivated during seasonal peak periods on long-distance trains, but only to serve light snacks like pretzels and cans of soda. This station is often staffed by an extra-board Attendant who turns back short of the full trip. On other routes, this upper bar may be used as a speaking podium for volunteer National Park Service rangers from the Trails and Rails program. The rest of the upper level is filled with a mixture of tables, swiveling chairs and loveseats facing the expansive windows located above a full-length drink-holding trough. Video monitors are located on the end walls of the upper lounge and on some overnight trains movies are shown en route. The snack bars are not open all night, and in the late evening, the lights are turned down to allow better outside viewing. Ceiling-mounted spotlights above the seats and tables may be turned on by passengers to permit reading or game playing and socializing into the evening.

Dining car

[\[edit\]](#)

Superliner [dining cars](#) have almost the entire upper level available for seating, while the [galley](#) (kitchen) occupies the entire lower level. A [dumbwaiter](#) is used to bring food and drink to the dining level, as well as to return [dishes](#), [glasses](#) and [cutlery](#) for washing. Amtrak operates 69 Superliner dining cars.^[1]



Transition Sleeper

[\[edit\]](#)



A Superliner transition sleeper with the low er-level connection to a baggage car.

Forty-seven^[1]

"transition sleeper" cars were built for use on Superliner-equipped trains.

Transition cars have been used in the past to connect single-level head end power (HEP)-equipped cars with Superliner cars or other opposing transition cars on rare occasions. High-level Coach-Dorms had half of the upstairs space devoted to coach seating and were the predecessors to the current Superliner transition dorms. These coach-dorms often had a small table that was used as an office by the conductor and his train crew.

Transition sleepers feature roomette accommodations for members of the train's service crew (dining car and lounge car staff) on the upper level, and a handicapped bedroom and small crew lounge on the lower level. On most trains, the half of the upper level closest to the revenue sleepers is sold for public occupancy. Sanitary facilities (toilets and showers) are on the

upper and lower levels, along with the standard center vestibule. The "transition" in the name refers to the fact that these cars have a high-level end door and [diaphragm](#) at only one end; the other end has a short staircase from the upper level leading to an end door at the height of standard single-deck railcar end doors. Theoretically, this could be used to allow passengers passage from single-level to Superliner cars in a single train; in practice, it is only used to allow the crew on-the-road access to the locomotives or the older, single-level [baggage cars](#) still used on many Superliner trains. During the initial rollout of Superliner II equipment on the *Auto Train* in the mid-1990s, these transition cars were located in mid-consist and they allowed Superliner Coaches to be mixed with Amfleet equipment and HEP-equipped Heritage diners, domes and sleepers.



A Superliner dining car on the *California Zephyr* in 2005.

Amtrak California "California Car" and "Surfliner"

[edit]

See also: [Amtrak California#Rolling stock](#) and [Pacific Surfliner#Rolling stock](#)




This section **needs more links to other articles to help integrate it into the encyclopedia**. Please help improve this article by adding links that are relevant to the context within the existing text. (December 2012)


In 1990 California passed Propositions 108 and 116 drastically expanding funding for intercity rail within the state. With this new source of money, the state set out to specify a standardized railcar for the state that would be suitable for both intercity and commuter rail operations. The result of this effort were designs for two variations of the Superliner. While the commuter rail version was never built, 88 cars of the intercity version were built. ^[7]^[dead link] The most visible difference between the Superliner and the "California Car"/"Surfliner" is that the California Cars and Surfliners have two automatic doors per side to allow for quick unloading and loading of passengers resulting in less dwell time, instead of one manually operated door on the Superliners. Unlike the regular Superliner cars used on long-distance service, which run at a top speed of 100 mph (160 km/h), the California/Surfliner cars can run at a top speed of 125 mph (201 km/h). An effort is nearing completion to allow *Pacific Surfliners* and Metrolink commuter trains to travel at 120 mph along the corridor between San Clemente and Oceanside.

The California Cars (8000 series) were built by [Morrison-Knudsen](#) and were delivered in 1996. These cars were plagued with problems with Caltrans (the purchaser and owner of the trains) refusing the first



A 6000-series Surfliner Car on the [Pacific Surfliner](#), built by [Alstom](#). 



A [control cab](#) version of a Surfliner Car on a *Pacific Surfliner* being operated in a [push-pull](#) configuration. 

attempted delivery due to cracks in the frame forcing Morrison-Knudsen to ship the trains back to the manufacturing plant for repair. After Caltrans accepted delivery, these trains were first put in service on the *San Diegan* line (the predecessor to the *Pacific Surfliner*) and crews immediately encountered automatic doors that failed to function properly, causing delays in service. Attempted repairs failed to fix the problematic doors and door failures continued for years with doors between vestibules of train cars later failing to operate properly as well. Later, California Cars were removed from the frequent, congested, and heavily used *San Diegan* corridor service and reassigned to the less demanding *Capitol Corridor*. Shortly thereafter, the upper-level floor of these California Cars began to sag which required costly repair.

The Surfliners (6000 series) were built by [Alstom](#) and delivered in 2000-2002.^[7]^{[[dead link](#)]} These cars were designed to fulfill the earlier failed plans (the problematic California Cars) to have larger capacity, bi-level trains with automatic doors for quick loading and unloading for the busy *San Diegan* (renamed *Pacific Surfliner* at the time of car delivery). The Alstom-manufactured cars have been performing reliably from delivery to current use. In 2007, Caltrans accepted delivery of seven rebuilt Superliners (which had been damaged in accidents) for use in Amtrak California service. These cars are painted in the [Amtrak California](#) or Surfliner schemes and have had their interiors reconfigured with denser seating than a standard Superliner coach. Funding has been obligated for a new order of roughly 130 bilevel cars for Amtrak, intended for service in California and the Midwest. Amtrak California intends for two of these sets to operate on the *Pacific Surfliner* with the goal of replacing the sole Amfleet/Horizon consist currently in regular service on the line.

Safety

[\[edit\]](#)

After a 1999 collision with a gravel truck near [Limehouse, Ontario](#) in which 13 passengers and four crew members were injured on a joint [Amtrak - Via Rail](#) route (the *International Limited*) that was pulling Superliners, the [Transportation Safety Board of Canada](#) found that many of the injuries could have been prevented if the passengers and baggage in the Superliners were restrained, that emergency equipment was difficult to find and in some cases impossible to access without the proper keys, the wheelchair accessible bathrooms automatically locked when the car doors were opened and could not be opened without a special key and the sidewalls of the cars did not provide sufficient protection in a collision. The latter issue was raised with the [Federal Railroad Administration](#). Via Rail and Amtrak withdrew the

Superliner from use in Canada, using instead [Amfleet](#) or [Heritage Fleet](#) cars.^[2]

References

[edit]

1.

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[a](#)[b](#)[c](#)[d](#)[e](#)[f](#)

"Amtrak Superliner" [↗](#). [www.trainweb.org](#). Retrieved 2008-03-26.

2.

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[a](#)[b](#)

"Crossing Collision/Derailment Via Rail Canada Inc. Passenger Train No 85 Mile 33.54, Goderich-Exeter Railway (GEXR) Guelph Subdivision Limehouse, Ontario" [↗](#). [Transportation Safety Board of Canada](#). 1999-11-09. Retrieved 2008-02-28.

3.

^

[a](#)[b](#)

Solomon, Brian (2004). *Amtrak* [↗](#). MBI Publishing Company. p. 129. ISBN 0-7603-1765-8.

4.

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Trains Magazine (Milwaukee, Wisconsin, USA: Kalmbach 1979-06). 06

5.

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[a](#)[b](#)[c](#)

Solomon, Brian (2004). *Amtrak* [↗](#). MBI Publishing Company. p. 132. ISBN 0-7603-1765-8.

6.

^

"Differences Between Superliner I and II Cars" [↗](#). [www.trainweb.com](#). Retrieved 2008-03-26.

7.

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[a](#)[b](#)

"Amtrak California - Amtrak California Locomotives and Cars" [↗](#). [www.amtrakcalifornia.com](#). Retrieved 2008-03-26.

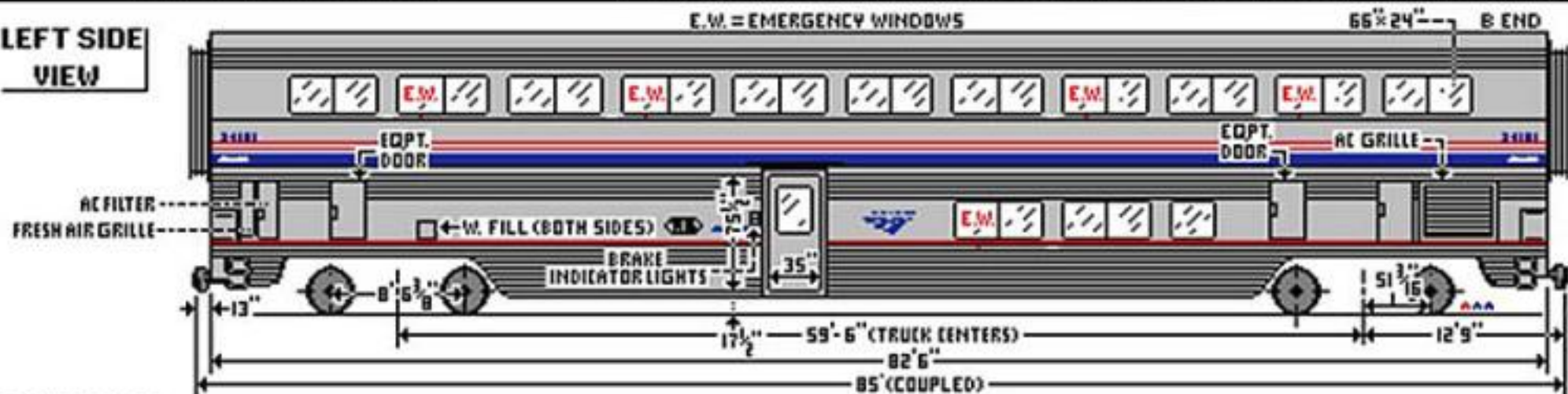
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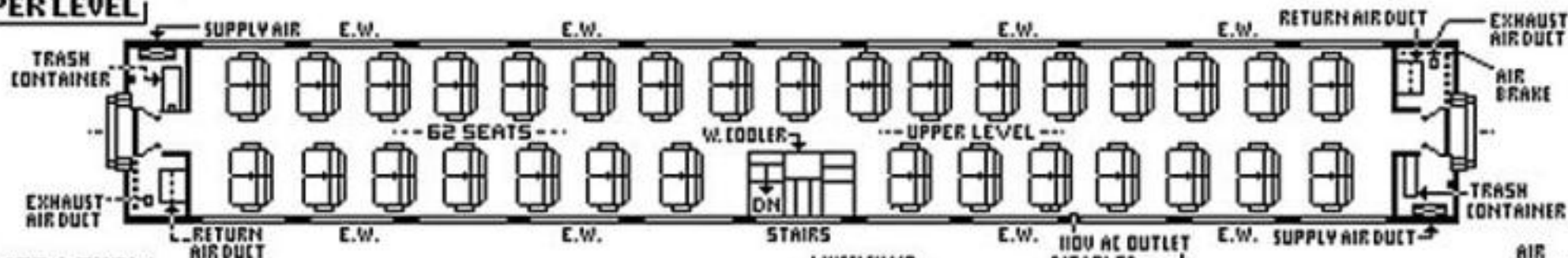
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Railcars/Trainsets	Amfleet · Horizon · Superliner · View liner · California Car and Surfliner · Talgo · Acela Express · Heritage Fleet · Auto Train Autorack ·
Diesel locomotives	GE Genesis P40DC · GE Genesis P42DC · EMD F59PHI · GE P32-8WH · EMD GP38H-3 ·
Dual-Mode locomotives	GE Genesis P32AC-DM ·
Electric locomotives	EMD AEM-7 · Bombardier HHP-8 · <i>Siemens ACS-64 (on order)</i> ·
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	<div><div>Dual-Mode</div><div>EMD FL9 ·</div></div>

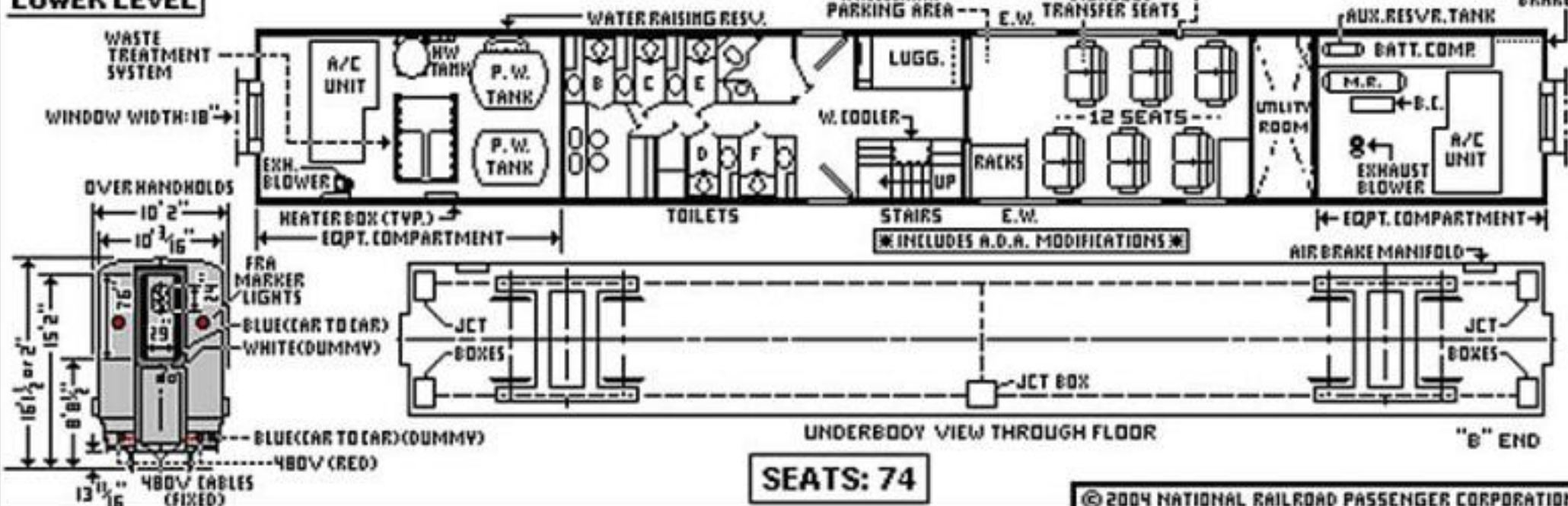
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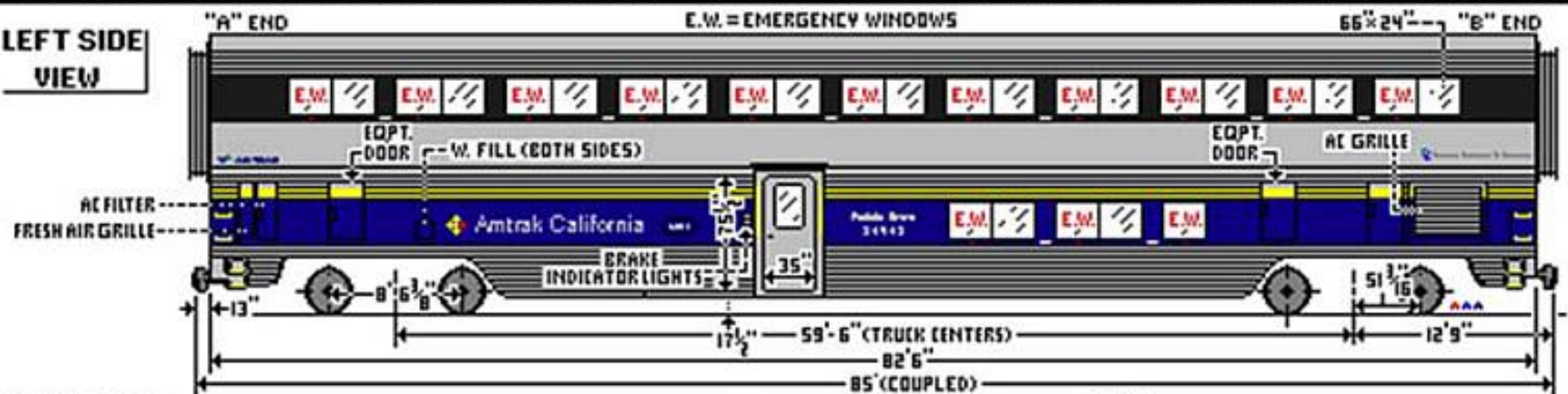
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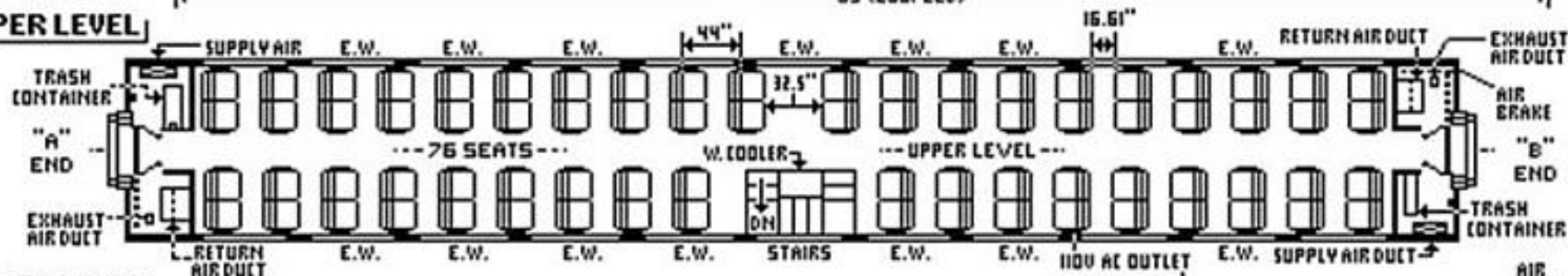
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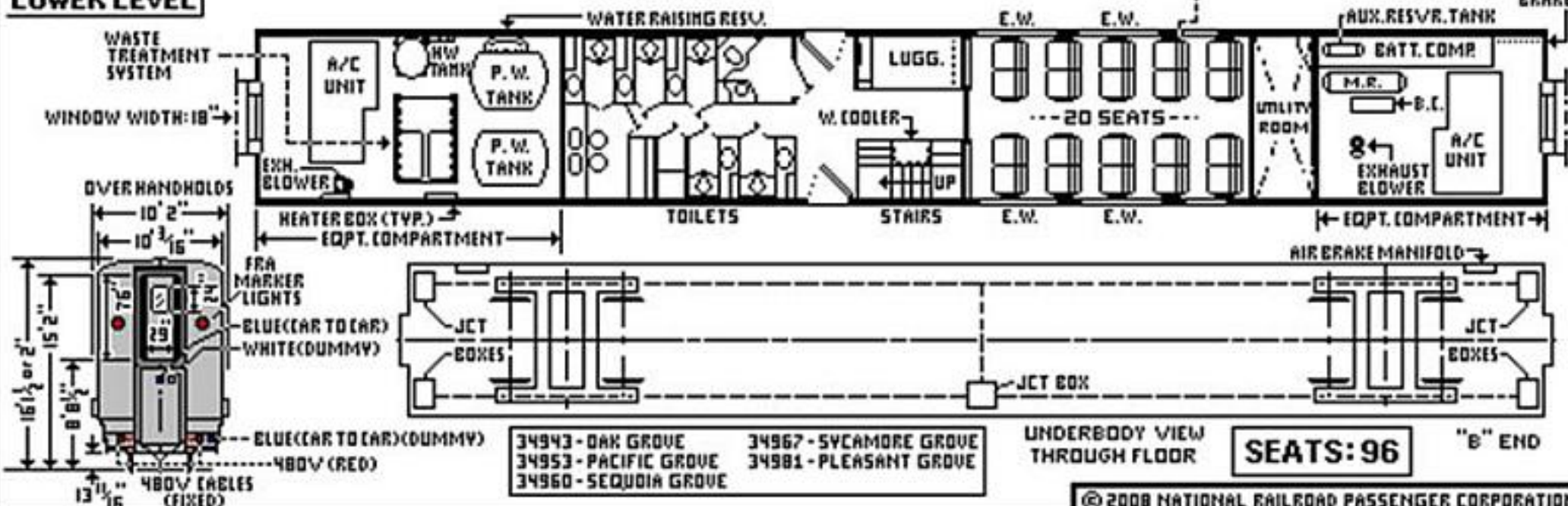
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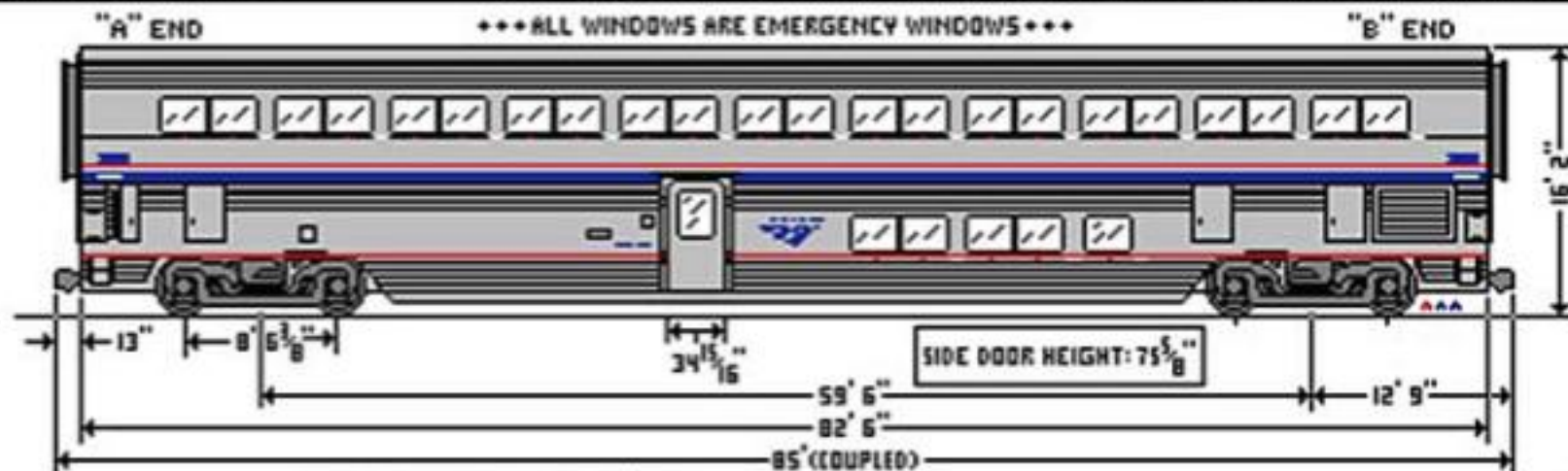
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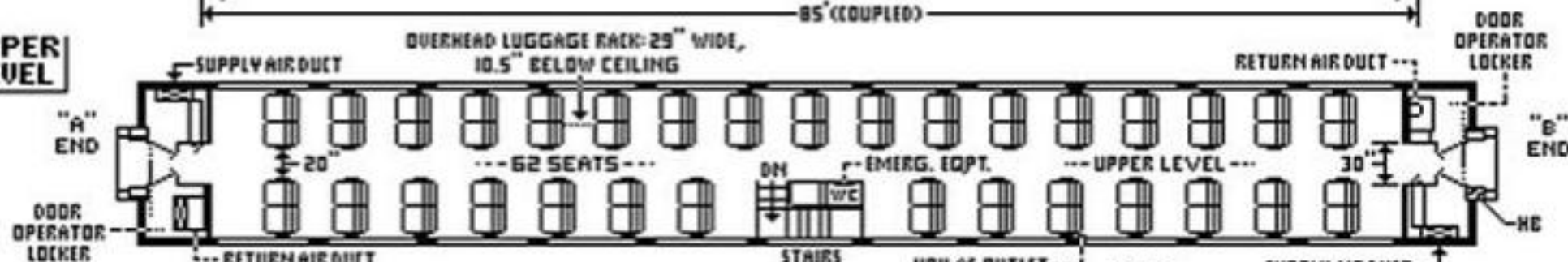
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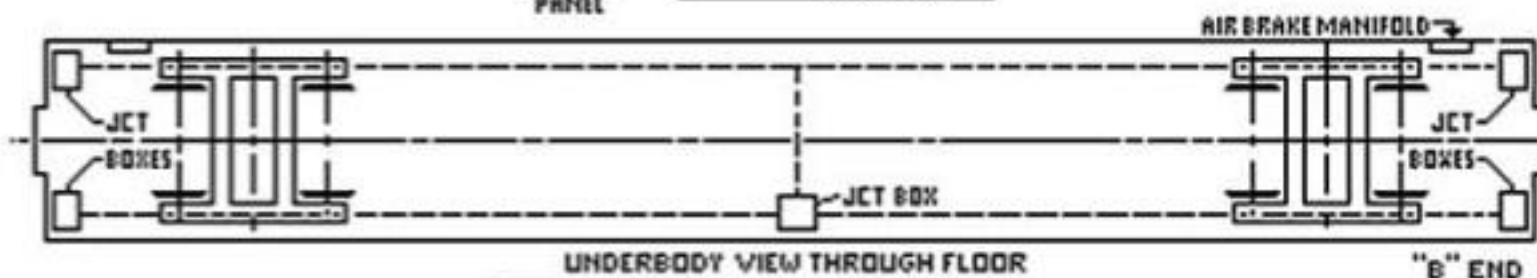
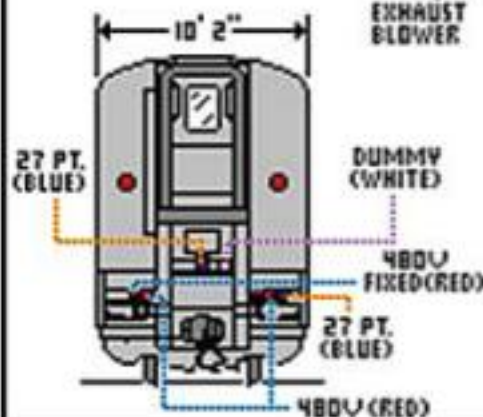
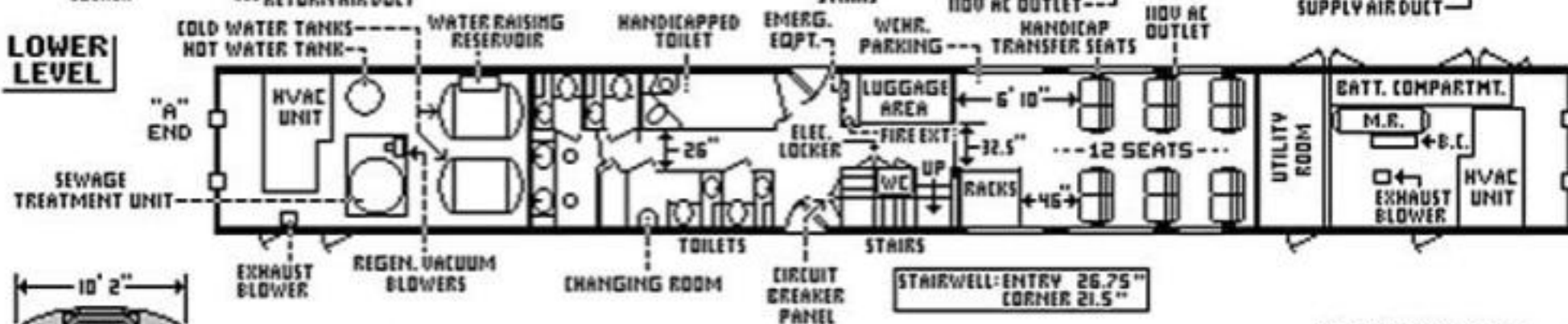
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UPPER LEVEL



LOWER LEVEL



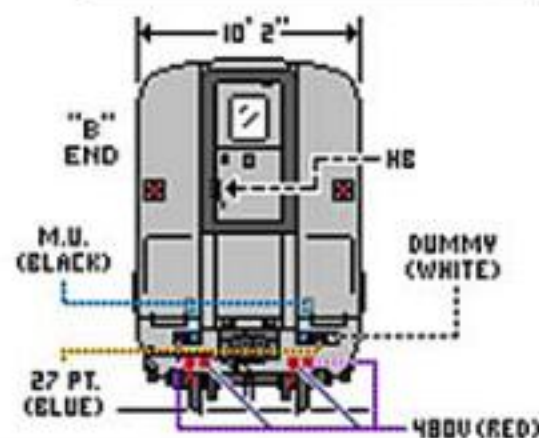
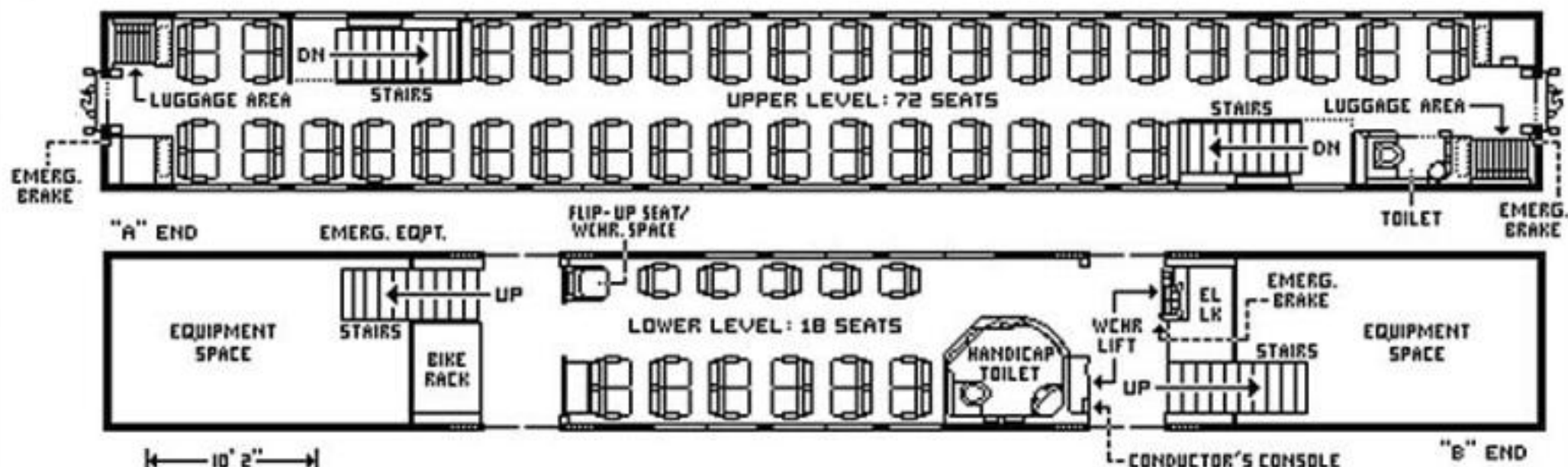
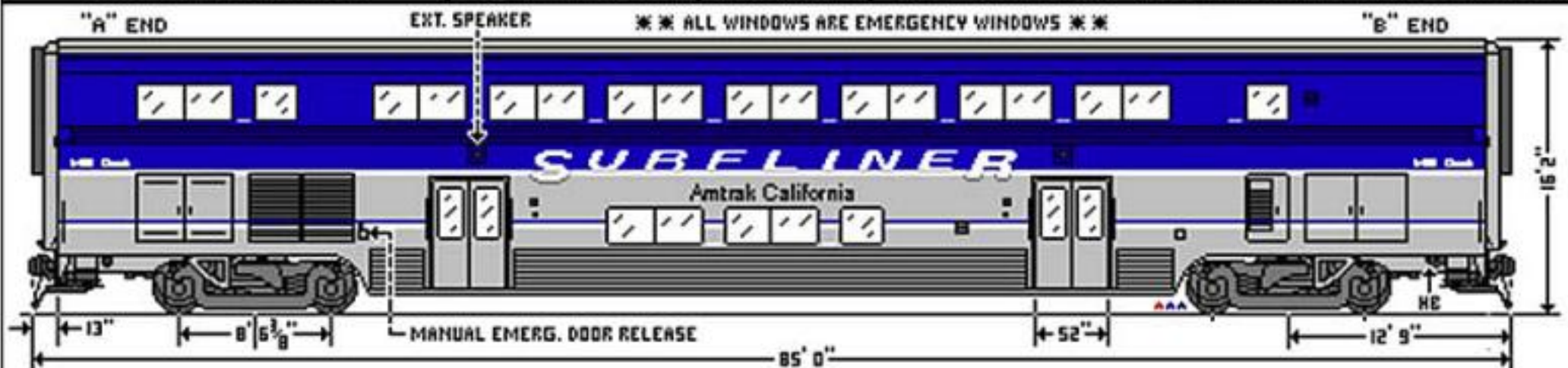
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SURFLINER COACH

Eqpt. Code: OC

125 MPH

Car Nos: 6400-6414, CalTrans 6451-6453



6451 - OCEAN BEACH
6452 - MISSION BEACH
6453 - PACIFIC BEACH

SIDE DOORWAY WIDTH : 52"
SIDE DOORWAY HEIGHT : 76"

SEATS: 90