

Rail by Rail Comparison

Urban rail is different from commuter and light rail both in technology and in the reasons for its use. These factors affect cost and usability in a rail and are a major consideration by politicians and transportation experts when authoring bonds or asking for finance.



PASSENGER RAIL PROJECT

	Light rail	Commuter rail	Street car	Urban rail
Rails	Light rail runs on rails that are embedded in the street rather than on traditional railroad rails. The rails sink several feet into the street, which means that buried utilities often have to be moved when rail is laid, making light rail more expensive.	These trains are able to run on regular train tracks, so new railway routes can be made or they can just run on existing tracks. This was a factor in the passing of Austin's MetroRail, because not laying new track kept the price down.	Street cars run on rail embedded in the street in a lane that can be shared with motor vehicles. Street car rails are embedded 18 inches into the roadway, reducing the number of utilities that have to be moved, thereby reducing the cost.	Urban rail combines both street car and light rail technology. Street car technology will be used in the downtown portion of the project to allow more maneuverability for trains, while light rail technology will be used out to the airport to allow for higher speeds.
Power	Light rail uses an overhead catenary wire; these wires are installed at the same time as the track.	Like a train, these cars have their own power source, usually diesel-electric engines.	Street cars use an overhead catenary wire.	The entire urban rail system will use an overhead catenary wire.
Speed	Maximum operating speeds of light rail are slower than commuter rail at 55 to 65 mph. They run slower because they are at street level alongside vehicles.	Maximum operating speed is 79 to 90 mph.	Since street cars are able to share a lane with vehicles, the cars run at much lower speeds, 20-30 mph, for safety's sake.	Speed is dictated by the right-of-way, with trains traveling slower on Manor Road and through downtown, then picking up speed on Riverside out to the airport.
Platforms	Platforms are usually ½ to 2 miles apart. The light rail works similar to a bus, serving an urban area. Platforms are usually at street level.	Platforms are 3 to 5 miles apart. The goal of commuter rail is to get commuters across town where circulator service will get them to their final destination.	Street car systems have smaller service areas, but make more frequent stops on the line. Stops are 2-3 blocks apart with service every 8-12 minutes.	Stops will be placed closer together in areas like Manor Road, whereas on Riverside Drive stops will be farther apart.

Source: City of Austin