

## Austin Coalition for Transit Fact Sheet: Light Rail and Bus Rapid Transit

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info@austintransit.org @austintransit

### Light Rail

**Light Rail** is a mode of transit service that operates in its own right of way on fixed rails. In size, speed and passenger capacity, it is in between heavy rail and streetcar. Trains can be just one car, or cars can be added to meet changing demand. Most **Light Rail** is driven by a human operator and has either high platform loading or low-level boarding.<sup>1</sup>

**Light rail** vehicles emit no pollution in the corridor. They draw power from an overhead electric line or by induction. The low rolling resistance of steel wheels and regenerative braking saves energy.<sup>2</sup> They are major investments requiring a complete street rebuild and the installation of a track bed.

Passengers per train: 140-720<sup>3</sup>

Construction cost: \$50-\$80 million per mile<sup>4</sup>



Capital Metro's Red Line is a form of diesel-fueled **Commuter Rail** and is **not** considered **Light Rail**.

### Bus Rapid Transit

**Bus Rapid Transit** is a bus that operates in a separated right-of-way dedicated for public transportation use during peak periods. **Bus Rapid Transit** emulates the services provided by rail including defined stations, traffic signal priority and frequent service.<sup>5</sup> They can be larger, articulated buses with bus-level station platforms, run in busways in the center of roads, and have off board fare collection.<sup>6</sup>



These are major investments requiring the installation of concrete busways. Most are diesel, but there are a few with hybrid and electric overhead wire power sources. There are currently no battery-powered BRT systems, but the technology is expected to improve.

Passengers per bus: 50-100<sup>3</sup>

Construction cost: \$25-\$35 million per mile<sup>4</sup>

Capital Metro's current MetroRapid service on its 801 and 803 routes is **not** considered full **Bus Rapid Transit**. This is because MetroRapid operates in **mixed-traffic** and without signal priority.

<sup>1</sup> APTA Public Transportation Ridership Report Definitions, American Public Transit Association

<sup>2</sup> Photo credit: TriMet MAX <https://trimet.org/max/> Portland, Oregon

<sup>3</sup> Project Connect Staff Update to Board, Capital Metro, October 22, 2018, slide 29

<sup>4</sup> Project Connect Update to MCAC Advisory Body, Capital Metro, February 12, 2018, slide 14

<sup>5</sup> Final Interim Policy Guidance Federal Transit Administration Capital Investment Grant Program, June 2016. Federal Transit Administration

<sup>6</sup> Photo credit: Institute for Transportation and Development Policy, BRT in Quito, Ecuador