Tram vs Automated Metro

Tram

Using the Ottawa Confederation Line as a reference with one train having four sections and a frequency of every 5 minutes for 12 trains an hour.

- One train (50m platform) is capable of carrying 300 passengers with a maximum capacity of 3,600 pphpd.
- Two trains coupled together (100m platform) is capable of carrying 600 passengers with a maximum capacity of 7,200 pphpd.
- Three trains coupled together (150m platform) is capable of carrying 900 passengers with a maximum capacity of 13,500 pphpd.

Frequencies of less than 5 minutes would affect the cross traffic at the level crossings with priority signaling. With no priority signaling the trains can have higher frequencies but would need to stop at the traffic lights the same as a car. This would increase the travel time further.

- The average speed of a Tram in a city street with traffic is approximately 15km/hr.
- The average speed of a Tram in its own lane in a city street is approximately 24km/hr.
- The average speed of a Tram with stations farther apart and fewer level crossings is approximately 30km/hr.

Metro

Using the Montreal REM Alstom Metropolis as a reference the system is designed to run up to 40 trains per hour.

- The Montreal REM four car trains (80m platform) is capable of carrying 600 passengers with a maximum capacity of 24,000 pphpd (This is not “crush” mode).

- The existing Montreal REM has an average speed of 50km/hr.