

GAP BETWEEN BUSES BAYS FOR INDEPENDENT SAFE BUS OPERATIONS

This page is regarding the gap between perpendicular kerbside bus stops for buses to align properly and have independent movement in and out of the bus stops.

Something that wasn't well recognised previously was that if there isn't adequate space between buses, a bus pulling in around another one won't be able to get the back door of the bus close enough to the kerb. Which then makes the customers utilising the back door forced to step down onto the road from a much higher distance, instead of directly onto the kerb (a smaller, safer step height). The higher step is a safety risk for trips and falls (with the potential for a customer to go under a bus).

DOT undertook some bus trials at Belgrave Station in October 2020 to test just how small of a gap can be allowed between two buses to get a bus aligned to within 30cm of the kerb (which is still a reasonably large step). We worked out that a bus needs a minimum of 15m gap from the nose of one bus to the rear of the next 12.5m bus, so effectively, the minimum distance between bus stop flags should be 27.5m (15m gap plus the 12.5m bus length).

So, if your buses have rear door access, the flag spacing should be 27.5m to obtain full independent movements that will allow the buses to align safely to the kerb.

There would be no issue with that same 15m gap space being utilised for other purposes (e.g., it could double as the sideroad/crossover access points etc.).

A bus can exit in a lot less distance; officially, it's 10m that should be allowed. Still, if it's a slow speed environment (60 or under), a bus can get out in 7m if space is an issue (again, that exit taper can be shared with other things like crossovers/sideroads etc.).

Note: The 15m is needed when going around a bus (which is 2.5m wide and about 3m when you include the buses mirrors), so should a bus be going around a parked cars instead, it may not need the full 15m gap (as cars being narrower than buses it will be able to start at a closer distance to the kerb), to determine the exact length practical trials should be undertaken. Further to this same point, should an indent be of greater depth, a greater pull in the distance would be required and should be determined by a practical bus trail.

Also, not all buses will require independent movement, which must be confirmed with DOT Network Planning. In such cases there is no need for the 15m gap, buses can be expected to pull up within 5m of the bus Infront.

For further details, please contact Bus Stop Relocations (DOT)
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