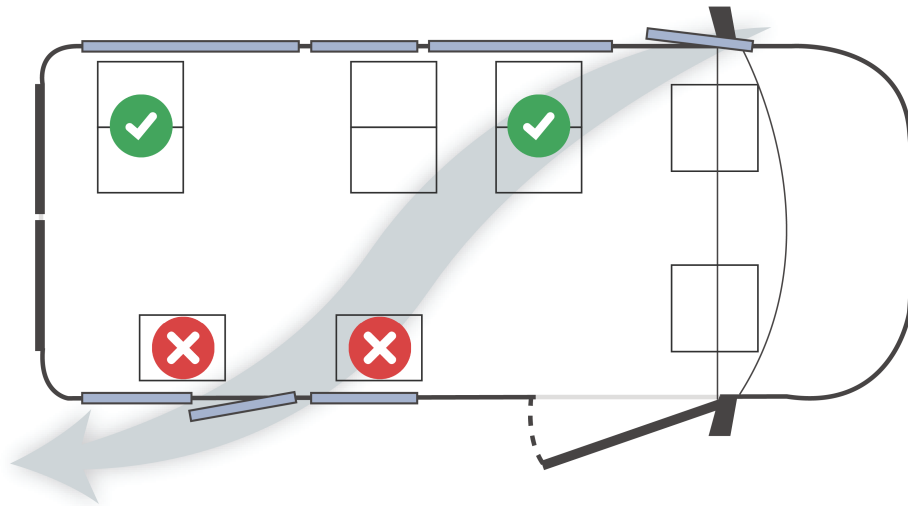


North Carolina Transit Cares

Air Management How-To Guide: Raised Roof Van

In mitigating the spread of airborne viruses in transit vehicles, properly configured air control settings and the seating arrangement of passengers are crucial factors in creating a safer operating environment.

This guide shows how to reduce the spread of airborne viruses in a typical Raised Roof Van by optimizing HVAC control settings, opening/closing certain windows, and designating ideal passenger seating locations. These recommendations were derived through engineering analyses that used smoke devices to study airflow within vehicles and show how they should be configured so that vehicular airflow moves potentially infectious particles away from passengers to the outdoors. When implemented properly and consistently in all weather, these no-cost actions will reduce the risk of COVID-19 in a Raised Roof Van.



HVAC Controls

All operators should configure the vehicle's air control settings as follows for maximum efficacy:

1. Front and rear fans on maximum fresh (outside) air
2. Left passenger window(s) closed (left is on the driver side)
3. Right passenger window(s) open

It does not matter whether the HVAC is in heating or cooling mode as long as it utilizes the maximum available fresh (outside) air, thus minimizing the recirculation of potentially harmful particles in the van and reducing the risk of infection for the operator and passengers.

Passenger Compartment

To minimize cross-contamination of airborne virus particles within the vehicle, seats indicated with a green check mark designate where passengers (one per row) wearing masks should be located. Seats indicated with a red "x" should be blocked off to prevent passengers from occupying them; passengers sitting in these locations will be "down-wind" from other vehicle occupants, and thus will be at greater risk of infection. Other open seats may be used for passengers wearing masks if more than two passengers must be carried at a time.

Driver Compartment

The operator of the vehicle has the option to either keep their window(s) closed or be cracked open one inch while in motion. Doing so will best allow for fresh air to be drawn through the cabin and contaminated air be expelled through the opened passenger windows.

For added safety, all transit operators should continue following health guidance including the proper use of masks while on the job.

