

WHEELCHAIR ACCESSIBLE VEHICLES—MAKING THE RIGHT CHOICE

The Peterson's are a family of 6 including Mum and Dad; Julie and Rob, and their 4 children; Sophie, Tyler, Daniel and Lucy. Eldest son Tyler, 16, lives with Muscular Dystrophy and has recently acquired a new power wheelchair that he requires for his daily independence. Tyler used to be able to transfer into a passenger seating position within the vehicle, however he no longer has the strength to transfer into the vehicles seating position.

The Peterson family is now in the market for a Wheelchair Access Vehicle that will suit the whole family's needs. Requirements for the vehicle are as follows:

- 5 seating positions plus wheelchair position
- 1400mm interior height for wheelchair position
- Accessibility of vehicle to local shopping centres and other places that the family frequent
- Quick and easy access for Tyler to enter and exit wheelchair position

Julie and Rob have been working together with an Occupational Therapist to find a solution that ensures their family needs will be met. When the Peterson's visited Mobility Engineering's Assessment Centre, the following options were provided:

OPTION 1: VOLKSWAGEN CADDY MAXI—DROP FLOOR CONVERSION

The Volkswagen Caddy Maxi is a small sized van with up to 7 seating positions. Converting this vehicle to a wheelchair accessible vehicle allows the family to retain the front 5 passenger positions, with the removal of the 2 rear positions to allow rear entry and a wheelchair position for Tyler. When the wheelchair position is not in use, the original 2 rear seating positions can be reinstalled to allow for up to 7 seating positions.



In the wheelchair occupant position, the Caddy Maxi has an interior height of 1470mm. This interior height is more than adequate for Tyler and allows room for growth. The wheelchair position also comes standard with hydraulic lowering suspension for a smooth transition into position for Tyler when using the short lightweight rear entry ramp.

The wheelchair occupant position includes 4-point wheelchair restraints incl. two electric retractors for safety when entering and exiting the vehicle, and a lap sash seatbelt assembly for Tyler's safety while travelling.

The Caddy Maxi conversion has the option of an electric ramp and hatch opener, a BodyGuard system, reversing sensors and a wheelchair docking system.

The height of the vehicle is no more than your average vehicle, meaning that it is not an issue when driving into places with limited overhead height and is a relatively compact vehicle.

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The notable disadvantage of this option is that the wheelchair occupant position is in the rear, behind the other passenger seating positions. This is not the most interactive setup for all passengers, and it may be difficult to hear Tyler from the rear compartment when conversing in the vehicle. We have offered the option of an internal intercom speaker system to create more inclusive passenger interactions. This can be added at any time in the future, if the family finds it is difficult to interact with Tyler.

In this case, the Caddy is overall a versatile option that meets all the requirements of the Peterson family.

OPTION 2: VOLKSWAGEN MULTIVAN—SIDE ENTRY

The Multivan is a medium sized van with versatile configurations available for up to 5 seating positions plus a wheelchair position. Converting the Multivan to maintain as much interior room as possible, we recommend an underfloor lifter for side entry and there is the option of a rear lifter if this is preferred. The underfloor lift only removes 6cm from ground clearance rather than taking up additional space within the vehicle. The vehicle can still visit most places with restricted overhead and ground clearance heights.



The Multivan allows 5 + passenger seating positions within the vehicle, with the ability to include a wheelchair position within the configuration of the vehicle. This allows Tyler to be a part of all family conversations while travelling in the vehicle.

Unfortunately, while this conversion would appear to be quite suitable for the Peterson family, the interior height in the vehicle is a maximum of 1320mm. This would be unsuitable for Tyler's seated wheelchair height of 1300mm for which he requires a minimum of 1400mm interior height.

There are options available with the Multivan such as; wireless remote for the underfloor lift, body-guard system for the wheelchair position and docking system for wheelchair position. This type of conversion in a Multivan is typically more suited to passengers who travel in a manual wheelchair, however in some cases a power chair does work as long as the seated wheelchair height is within the scope of applicability.

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OPTION 3: TOYOTA COMMUTER—REAR ENTRY



The Toyota Commuter is a large sized van with versatile configurations available. This type of van can be paired with a rear platform lift to fit the size of most larger powerchairs.

Options available for the rear platform lift include; full platform, horizontal folding platform and vertical split platform. For the Peterson family, we recommend the horizontal folding platform because it has a wide range of platform sizes and allows greater visibility through the rear windscreen for safety when driving.

The commuter allows the Peterson family to configure the passenger seating positions within the vehicle to ensure Tyler is seated in an inclusive space. This vehicle allows up to 5 seating positions, plus a wheelchair position, allowing additional seating positions if necessary for the family.

In the wheelchair occupant position, the Toyota Commuter has an interior height of approximately 1400mm. This interior height meets the minimum requirements for head space for Tyler.

The disadvantage note with this conversion is the overall height of the vehicle. The height of the vehicle itself is 2.3m, this is approximately 30cm over the height of an average car and approximately 10cm too tall for most shopping centre car parks.

CUSTOMER'S CHOICE

After exploring all their options, the Peterson family decided to go ahead with the Volkswagen Caddy Maxi. The Volkswagen Caddy Maxi met all the requirements that they outlined in the initial discussions and was the best choice for all their family needs.

- **5 seating positions plus wheelchair position**
- **1400mm interior height for wheelchair position**
- **Accessibility of vehicle to local shopping centres and other places that the family frequent**
- **Quick and easy access for Tyler to enter and exit wheelchair position**

