VEHICLE MOBILITY

Innovations in Vehicle Mobility
and Adaptive Driving Equipment

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A PHILOSOPHY OF VEHICLE MOBILITY

The Clinical Approach
WHEELCHAIR LIFTS

Limited Solution for Limited Problems
“BUMPER” LIFTS
“CRANE” LIFTS
OTHER WHEELCHAIR LIFTS
VEHICLE TYPES

From Full Size Vans to Lowered Floor Minivans and Beyond
FULL SIZE VAN

From Hippie Van to Mobility Vehicle
FULL SIZE VAN

- Options for raised roof/raised door, lowered floor, or both
- Will accommodate the largest people in the largest power chairs
- All require a lift (i.e. no ramps)
- Gas mileage sucks
- They’re huge, and harder for disabled drivers to drive
- In the midst of their extinction cycle
LOWERED FLOOR MINIVAN

The Innovation in Mobility
LOWERED FLOOR MINIVAN

- Lowering the floor provides more door height for entry and interior height for comfort/fit
- Ramp system provides easy ingress and egress
- “Kneeling” system reduces ramp angle for ease of entry and exit
- Removable front seats provide flexibility for configuration (i.e. where the wheelchair user sits)
Three available wheelchair positions.
WHY A VAN?

You should never have to adapt to your adapted vehicle.
CONVERSION TYPE

Fold-Out vs. In-Floor Ramp Styles
OTHER VEHICLE TYPES

Choices and Concerns
“ALTERNATIVE” VEHICLE CONVERSIONS

- All conversions are a geometry problem
- You must fit the geometry of the wheelchair into the geometry of the vehicle—within the parameters of the vehicle engineering.
- Size of Wheelchair vs. Space Inside Vehicle
- Alternative configurations? Driver vs. Passenger
- Has the specific conversion been crash tested?
It’s a different problem depending on the wheelchair type...
Word of Warning:
Ask *Before* You Buy!!!
ADAPTIVE EQUIPMENT

Adapting the vehicle to the user, not vice versa.
Assistive Seating
6-Way Transfer Seat
Securement Systems

- **True “Manual Tie-Downs”** (cargo straps with hooks)
- **“Self-Ratcheting” or “Self-Tightening” Straps** (Q’Straint® QRT or Sure-Lok®)
- **Electronic Securement Systems** (EZ Lock® or Q’Straint® QLK)
Manual Straps or “Tie Downs”
Self-Ratcheting or Self-Tightening Straps
Electronic Securement Systems
Programmable Hand Controls
For reference, let’s look at some Standard Hand Controls
Compare Programmable Hand Controls
Reduced Effort Steering and Braking Systems
REDUCED EFFORT STEERING AND BRAKING SYSTEMS

- “Low Effort” and “Zero Effort” Systems
- Significantly reduces the strength threshold necessary for someone to drive
- Standard Factory Steering: 35-35 ounces of effort
- “Reduced Effort” Steering: 16-26 ounces of effort
- “Zero Effort” Steering: 5-12 ounces
High Tech Driving Systems
EMC AEVIT 2.0® System
dSi Scott Driving System
Joysteer Driving System
Paravan Driving System
INNOVATIONS THAT WERE NOT DESIGNED AS ADAPTIVE EQUIPMENT

- Back-Up/Side View Cameras
- GPS Navigation Systems
- Voice Recognition Technology
WHAT’S NEXT IN VEHICLE MOBILITY?
New Vehicle Types
The Next BIG Thing?
Autonomous Vehicles
THE FUTURE IS COMING FASTER THAN YOU THINK!

Innovation Will Rule Mobility