



BRANCHING OUT

DESIGN INTENT FOR THE
A.J. DREXEL AUTISM INSTITUTE
MOBILE ASSESSMENT UNIT

DESIGNED BY

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INTR 799-004 ST: COMPETITION: AUTISM MOBILE
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SENSORY INTEGRATION

Autism Spectrum Disorder affects the functions of the brain responsible for social interaction and communication skills. While the spectrum is broad, sensory impairment appears to be the underlying difficulty for children with ASD. Medical advances, funding for research, community and familial education will no doubt benefit and enhance early detection and care, but to be effective and successful, the best approach falls in conjunction with thoughtful design. With the knowledge that sensory difficulties are characteristic of those with ASD, we can develop a world apart from our daily

sensory and stress overloaded environments. We can use design as guide that enhances treatment and care in safe, relaxing environments that promote opportunities to explore and interact.

Sensory systems, specifically the vestibular and proprioception senses, might exhibit themselves in varying degrees of impairment in children with ASD. Treatment with a focus on sensory integration seems to be the most beneficial as it helps the brain register senses simultaneously. With Sensory Integration as our objective, we've developed a design schematic that utilizes tactile design to develop both the vestibular and and proprioceptive senses that, in turn, engage the patient to relate to the world around them. We carefully included features, such as a muted color palettes, soft textures, defined

spaces, diffused lighting, and round volumes, that would appeal to both hyper- and hypo-reactive spectrum disorders. Storage and space definition were of paramount consideration. Ample storage space has been provided to ensure a clear and informative environment.



Branching Out: Drexel University Autism Research, provides the essential branding and graphic design that will represent the van's connection as a support system to the surrounding community. The common vine, generally too weak to grow unaided, will branch out in any direction, given they have support. This simple analogy provides the visual connection between Drexel's autism support and community awareness outreach.

INSPIRATION





FIGURE A

Therapeutic 'cuddle' swing mounts to ceiling and anchors to floor of vehicle. swinging and the comfort of being cuddled inside the swing can help to relax the child and prepare them for the session.



FIGURE C

The furry mechanical toy moves and wiggles when patted and spoken to quietly, but shuts down when a child screams or handles it roughly. The idea is to gently encourage autistic children to develop better social skills.



FIGURE F

Tactile boundary created through use of a textured rubber surface provides a sense of space and security without restricting the child's movement.

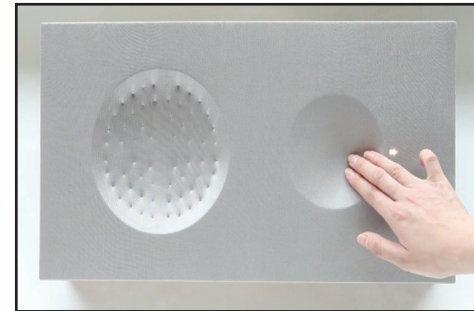


FIGURE D

Tactile speakers engage users with changing lights and sounds through the use of a soft, spherical control panel under fabric.



FIGURE G

Soft, furry, textured stool seating can be used as another relaxation tool or reward for child. stools store away in built in storage when not in use.



FIGURE B

Fiber Optic Skylight system uses sun tracking reflective cones and fiber optic cables to carry the daylight into the space. This provides natural light without distractions from the street.



FIGURE E

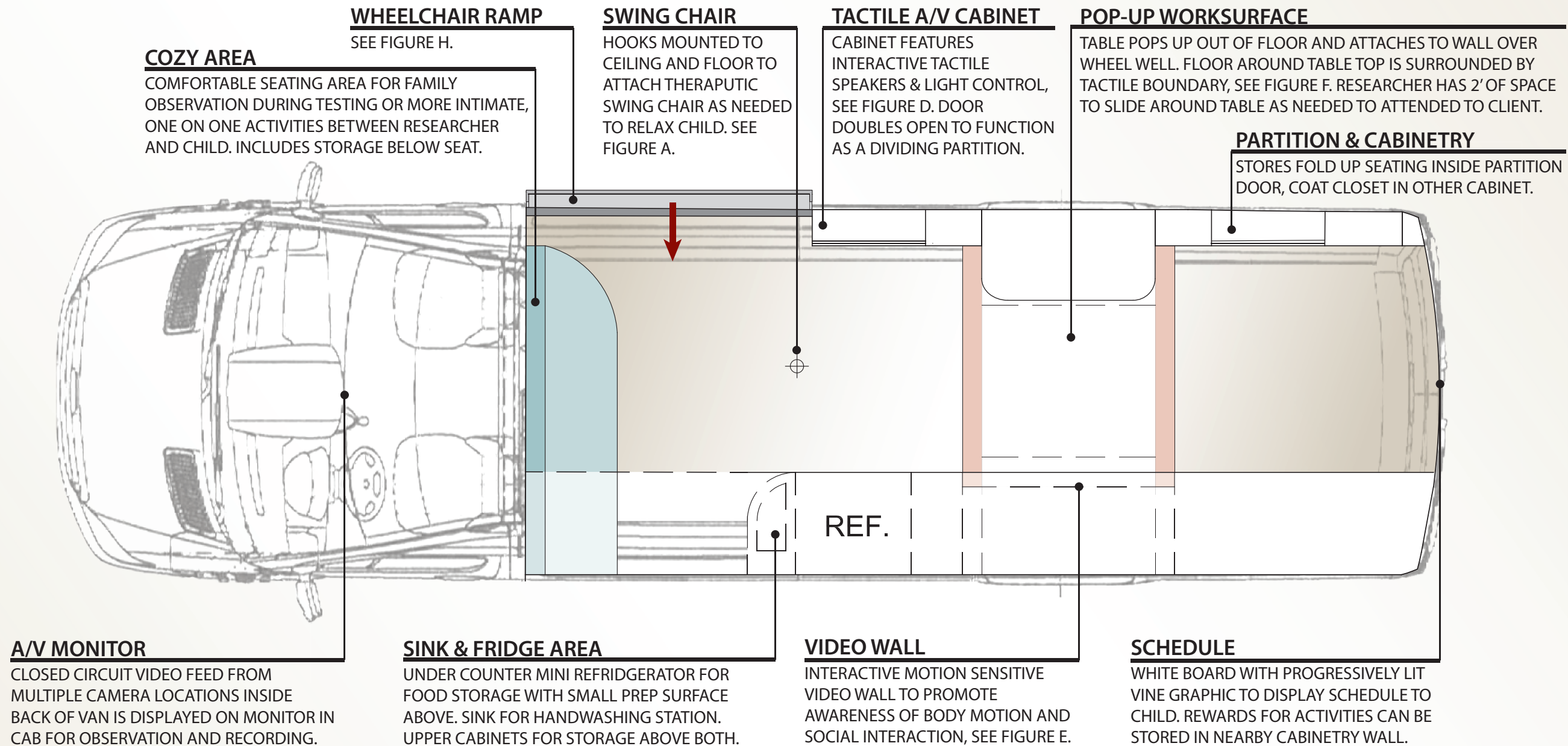
Interactive Video Motion Wall responds to the motion of the user's body. This system encourages social interaction and awareness of body movement. Graphics can be programmed to different visuals or can be used as a mirror.



FIGURE H

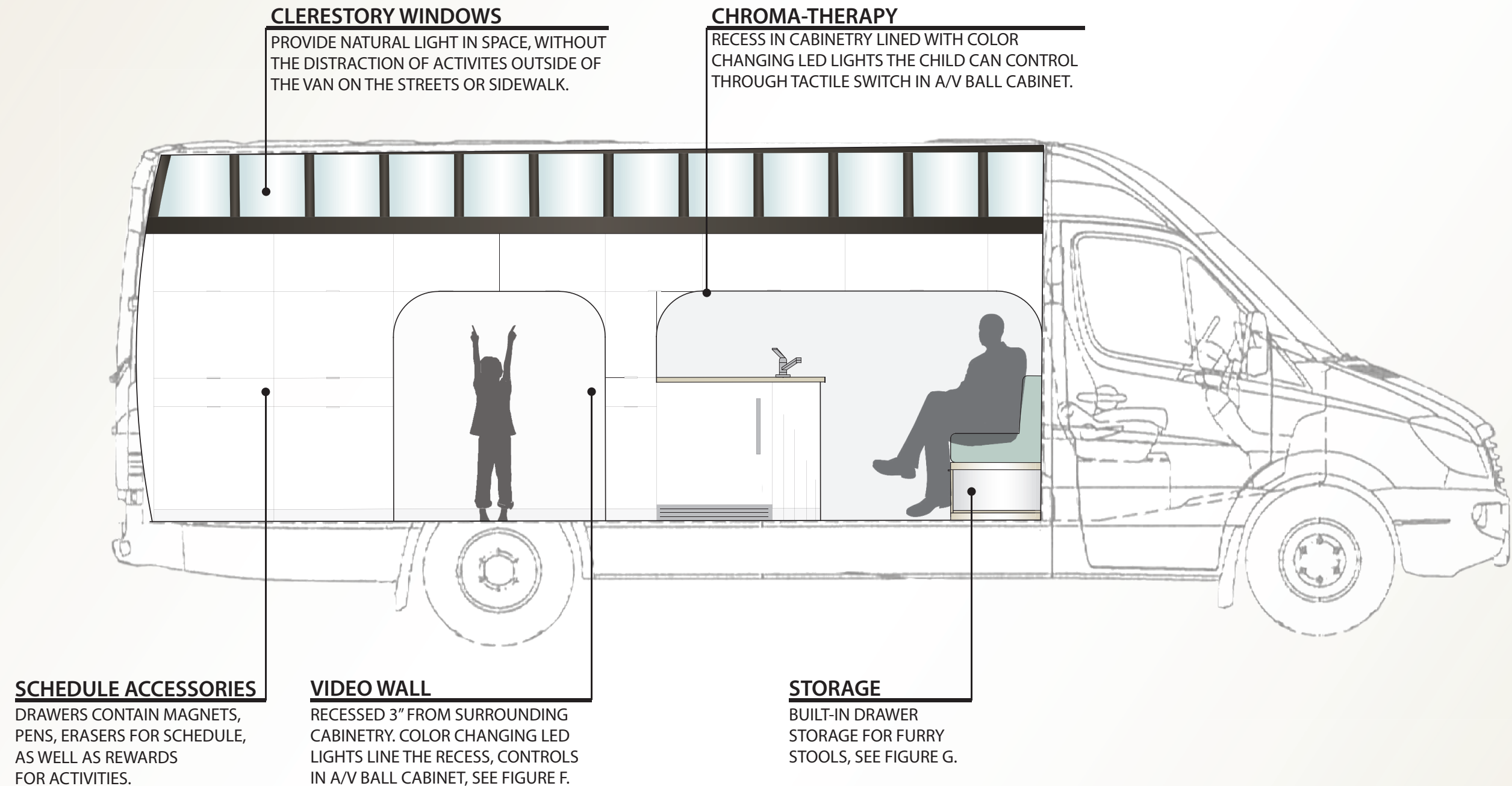
Pull out ramp allows a child in a wheel chair to access the space. Stores away under floor when not in use.

INTERIOR VIEWS



MOBILE UNIT: FLOOR PLAN

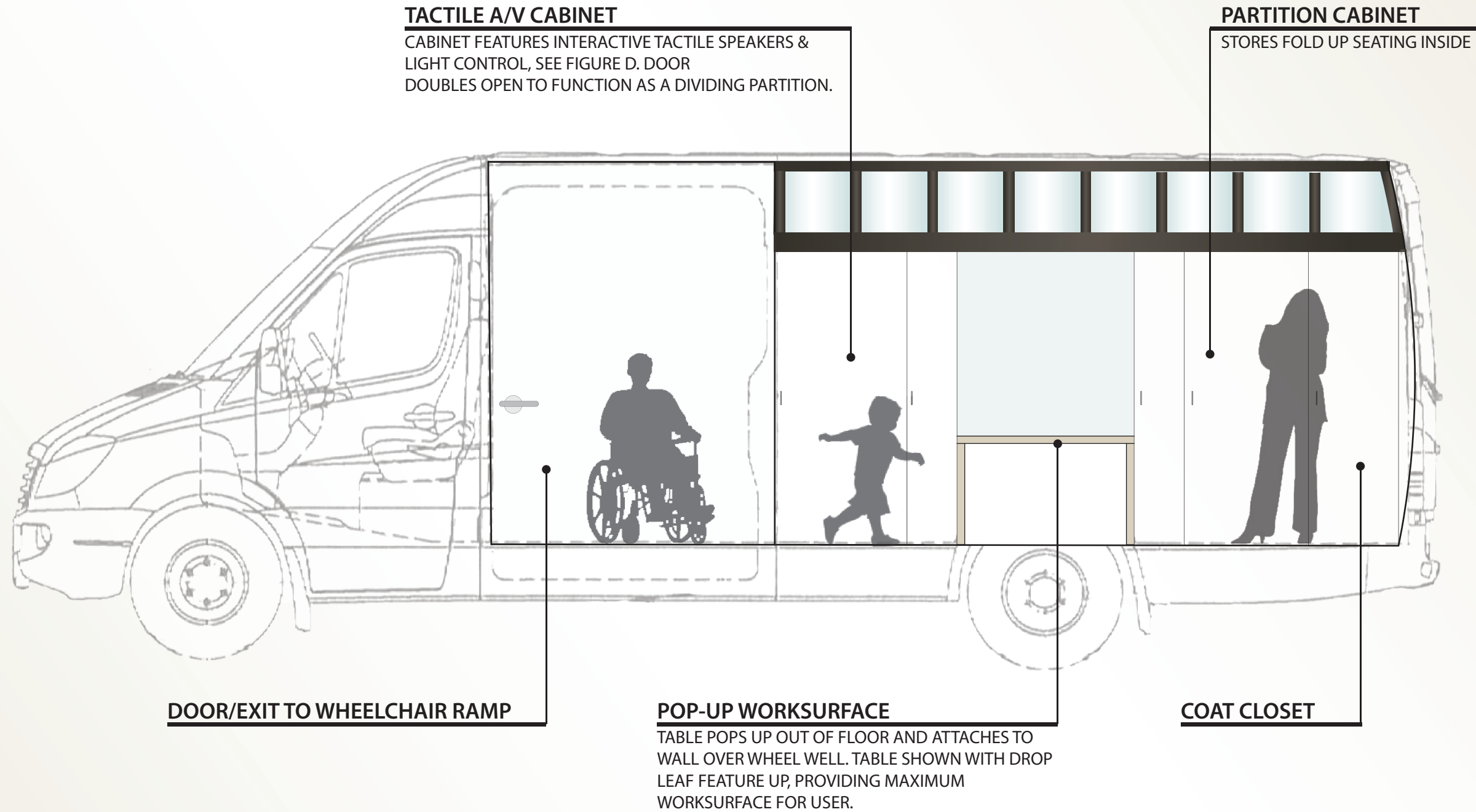
SCALE: 1/2" = 1'-0"



MOBILE UNIT: DRIVER'S SIDE ELEVATION

SCALE: 1/2" = 1'-0"

INTERIOR VIEWS

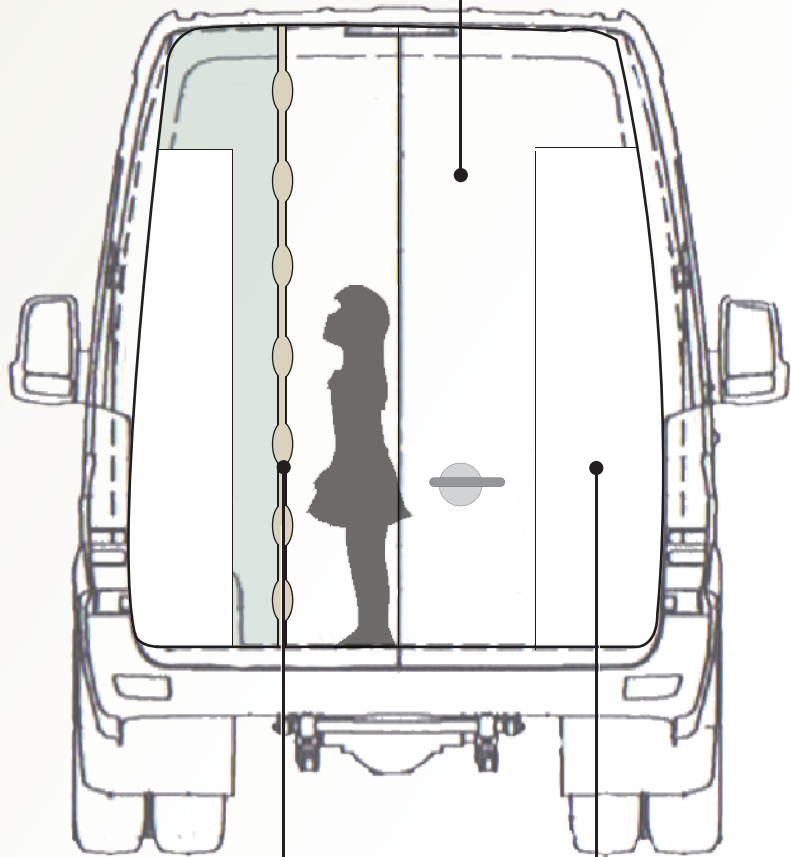


MOBILE UNIT: PASSENGER'S SIDE ELEVATION

SCALE: 1/2" = 1'-0"

SCHEDULE WALL

MAGNETIC, DRY-ERASE WHITEBOARD WALL TO BE USED FOR SCHEDULING OR ACTIVITY PURPOSES. REAR DOORS TO VAN WILL REMAIN FUNCTIONAL.



INLIAD BRANCH GRAPHIC

GRAPHIC TO MATCH EXTERIOR OF VAN, AND CAN BE USED AS BULLET POINTS FOR SCHEDULE ITEMS. BRANCH IS INLAID WITH A TEXTURAL FABRIC.

SCHEDULE ACCESSORIES

DRAWERS IN CABINETY CONTAIN MAGNETS, MARKERS & ERASERS FOR SCHEDULE WALL. ALSO CAN HOLD REWARDS FOR ACTIVITIES.

FIBER OPTIC SKYLIGHT

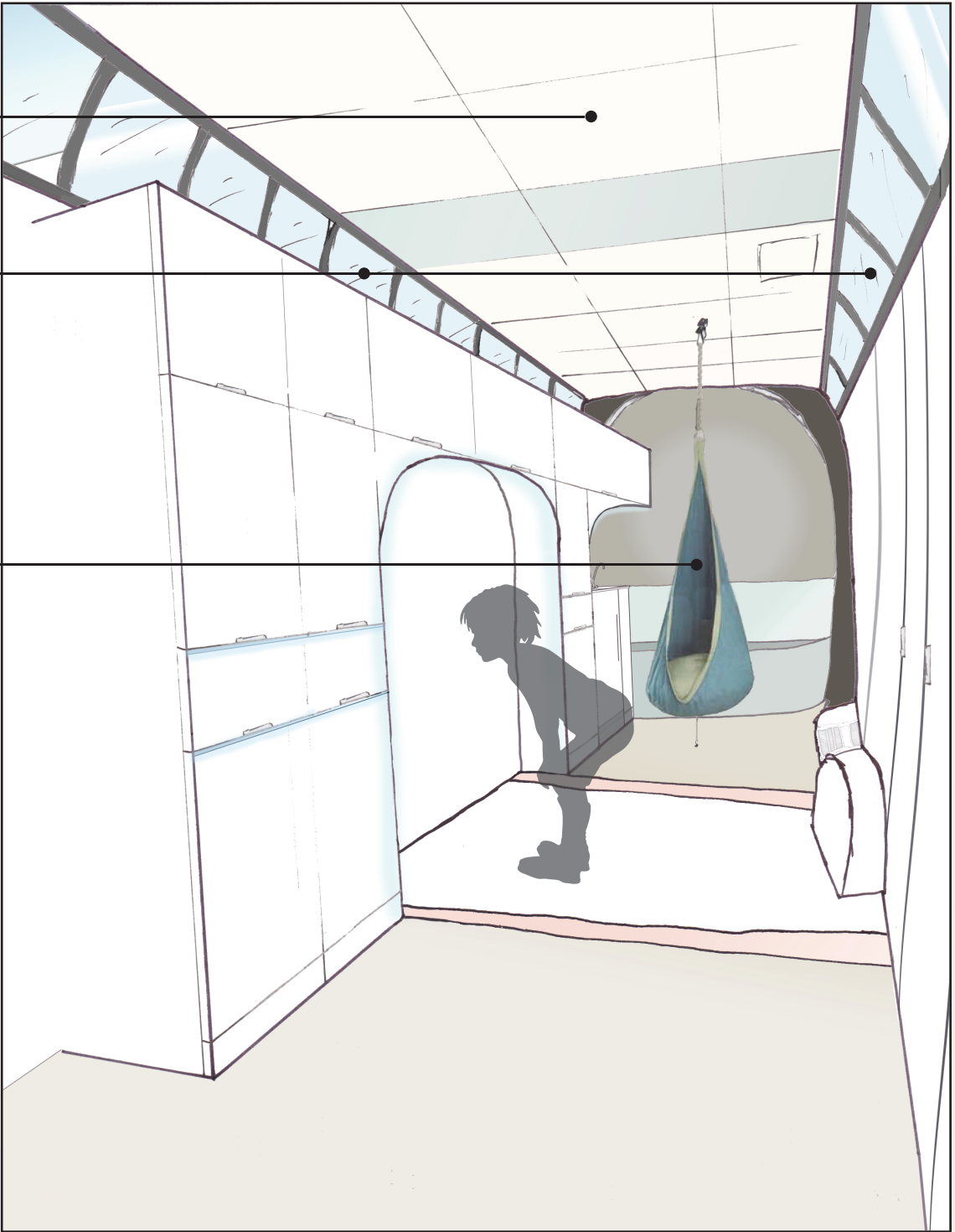
PROVIDES NATURAL DAYLIGHT INTO SPACE, SEE FIGURE B.

CLERESTORY WINDOWS

ALLOW LIGHT IN AND VIEWS OF SKY BUT BLOCK OUT DISTRACTING ACTIVITIES ON THE STREET AROUND VAN.

THERAPY SWING

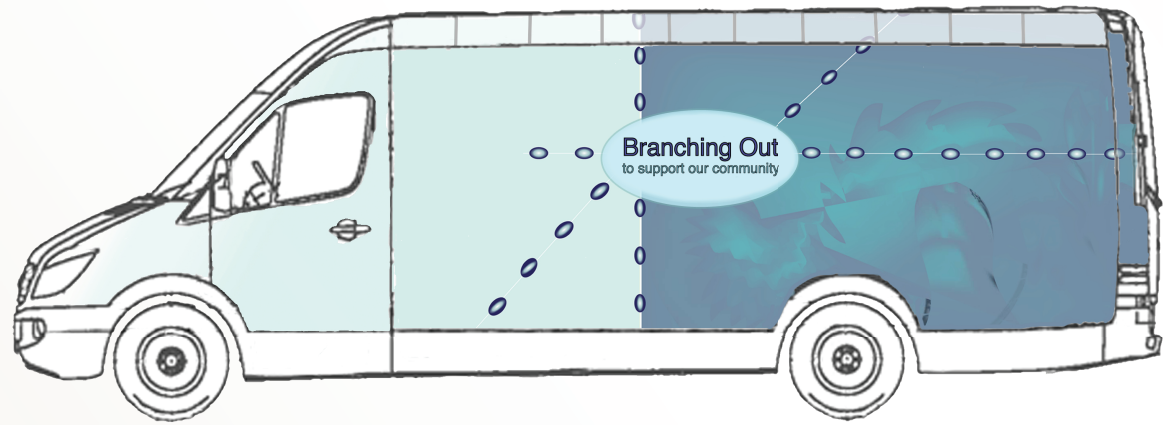
DETACHABLE SWING INSTALLS TO HOOK IN CEILING AND ANCHOR ON FLOOR. CAN BE USED TO RELAX AND PREPARE CHILD FOR SESSION, SEE FIGURE A.



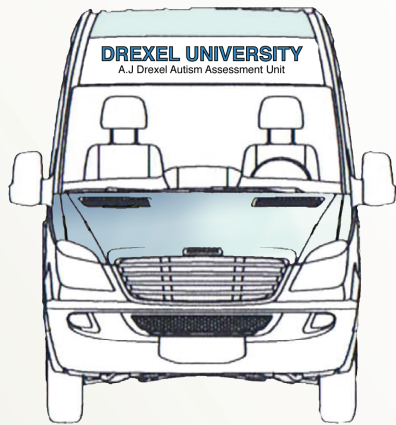
MOBILE UNIT: REAR DOORS ELEVATION

SCALE: 1/2" = 1'-0"

EXTERIOR VIEWS



SIDE ELEVATION



FRONT ELEVATION

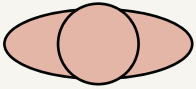


REAR GRAPHIC

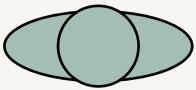
OCCUPANCY OPTIONS LEGEND:



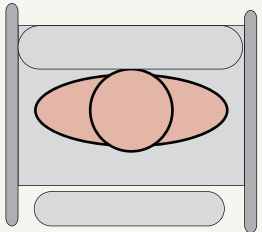
OBSERVER OR PARENT



CHILD



ASSESSOR



CHILD IN WHEELCHAIR



PARTITION WALL

MOBILE UNIT: EXTERIOR GRAPHICS

SCALE: 1/4" = 1'-0"

OCCUPANCY OPTIONS

NOT TO SCALE

