
Beneficial Design – Examples of... Designing Beyond the Norm to Meet the Needs of All People

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Beneficial Design

Designing Beyond the Norm to Meet the Needs of All People

Research
Design
Education

Beneficial Designs' Mission Statement

Beneficial Designs works towards universal access through research, design, and education. We believe all individuals should have access to the physical, intellectual, and spiritual aspects of life.

Beneficial Designs' Mission Statement

We seek to enhance the quality of life for people of all abilities, and work to achieve this aim by developing and marketing technology for daily living, vocational, and leisure activities.

Employees and Consultants

Machine Shop

Wheelchair Testing

Design of Consumer Products

Product Development
Assessment of Products
Universal Design of Products

Product Development

Mainstream Products
Opportunity for Universal Design
Adaptive Products
Personal Technologies
Activity Specific Technologies

Balance Dimension

Physical
Intellectual
Spiritual

Variety of Recreational Opportunities

Sociological Dimension

Dependence (example)
Independence (example)
Interdependence (example)

Personal Technologies

Activity-Specific Technologies
Environmental Technologies

Activity-Specific Technologies

Arroya Sit Ski

Mono Ski

Available from several companies

Bi Ski

Dynamic Seating Spring Assist

Cross Country Ski

Pax Back

Available from BES Rehab Ltd

Piano Pedal Pusher

Do it yourself design specifications

Manual Vehicle Hand Controls

Available for purchase

Dynamic Seating

Hiking Chair

Hand Bike

Contoured Seating

Seat Cushion Testing

ISO and RESNA standards

SKELI

Used for Standards testing

ASLI Prototype

HipGrip

Available from Bodypoint

FlexRim Ergonomic Pushrim

Available from Spinergy

GripRim

Adaptive Canoe Seating

Available from Chosen Valley Canoe
Accessories

Wave Ski

Environmental Technologies

Things that do not move

Small Watercraft Launch Areas

Water Trail Access Information

Tools and Technology for Accessible Trails

Universal Trail Assessment Process

(UTAP) – 1200 people trained

Key UTAP Information

Length, Grade, Width, Surface,
Cross slope, Features & Facilities
Training available from BD

High Efficiency Trail Assessment Process (HETAP)

USDA SBIR Phase II

Equipment available from BD

Developed Outdoor Recreation

Assessment Process (DORAP)

Under development at BD

Outdoor Constructed Features

Bench, Camp Shelter, Cooking
Surface/Grill, Fire Ring, Wood
Stove/Fireplace, Outdoor Rinsing
Shower, Parking Area, Picnic Table,
Pit Toilet, Tent Pad/Platform, Toilet
Building, Trash/Recycling
Receptacle, Utility/Sewage
Connection, Viewing Area at
Overlooks, Viewing Scope, Water
Spout

Trail Access Information

Signage available from BD

www.trailexplorer.org

Develop Standards for Trail and Sidewalk Design

Architectural Barriers Act Outdoor
Recreation Access Guidelines

ADA Recreation Trail

Grade

8.33% for 200 feet

10% for 30 feet

12.5% for 10 feet

Cross Slope

5% maximum

Rest Areas

60 inches length, 5% slope

Surface

firm and stable

Width

36 inches minimum

Surface Testing

ASTM F 1951–99

Standard specification for determination
of accessibility of surface systems under
and around playground equipment
Testing available from BD

Rotational Penetrometer

Objective surface measurement device
Available from Beneficial Designs

Surface Stabilizers Gravelpave2

Pedestrian Right of Way Assessment Process (PROWAP)

Wireless Measurement Devices

Measuring Process

GIS Data

Mapping

Services available from BD

Universal Design of Fitness Equipment (UDFE) Standards

Accessible “mainstream” fitness equipment

Low Step-up Height Design

Grip Bars

Weight Pin Color Contrast

Weight Pin Gripability

Control Panel Contrast

ASTM standard now published

Development of Uniform Standards for Cognitive Technologies

Goal—Increase Access to Technology
for People with Cognitive Impairments
RESNA draft standard in process

Amusement Park Wheelchair Access

Accommodates Wheelchair

Accommodates Transfer

Development of Transfer Devices

Design services available from BD

Aircraft Seating

The Problems with Boarding Chairs

Aircraft Aisle Chair

Aircraft seating issues

PVA funded development project at BD

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