<table>
<thead>
<tr>
<th>Project No.</th>
<th>D-48-632 (R-6058-0A0)</th>
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<tbody>
<tr>
<td>Project Director</td>
<td>L. Payne</td>
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<tr>
<td>Sponsor</td>
<td>Veterans Administration Medical Center</td>
</tr>
<tr>
<td>Decatur, GA 30033</td>
<td></td>
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<tr>
<td>Type Agreement</td>
<td>P.O. #508/D55277</td>
</tr>
<tr>
<td>Award Period</td>
<td>From 08/26/85 To 12/31/85 (Performance) 12/31/85 (Reports)</td>
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<td>Sponsor Amount:</td>
<td></td>
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<tr>
<td>Estimated:</td>
<td>This Change</td>
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<tr>
<td>Funded:</td>
<td>$7,000</td>
</tr>
<tr>
<td>Cost Sharing Amount:</td>
<td>N/A</td>
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<tr>
<td>Title:</td>
<td>Graphics Representation of Prototyped Fixtures for Disabled.</td>
</tr>
</tbody>
</table>

**ADMINISTRATIVE DATA**

1) Sponsor Technical Contact:  
Dr. R. K. Preedy  
V.A. Medical Center  
1670 Clairmont Rd.  
Decatur, GA 30033

2) Sponsor Admin/Contractual Matters:  
Ms. Kathryn Luna  
V.A. Medical Center  
1670 Clairmont Rd.  
Decatur, GA 30033

Defense Priority Rating: N/A

Military Security Classification: N/A

**RESTRICTIONS**

See Attached N/A Supplemental Information Sheet for Additional Requirements.

Travel: Foreign travel must have prior approval – Contact OCA in each case. Domestic travel requires sponsor approval where total will exceed greater of $500 or 125% of approved proposal budget category.

Equipment: Title vests with Georgia Institute of Technology

**COMMENTS:**

This Purchase Order indicates a service period of 08/26/85 thru 12/31/85 in paragraph 2 (two).
GEORGIA INSTITUTE OF TECHNOLOGY

SPONSORED PROJECT TERMINATION/CLOSEOUT SHEET

Date 11/26/86

Project No. D-48-632

School/ARCH

Includes Subproject No.(s) N/A

Project Director(s) L. Payne

Sponsor Veteran's Administration

Title Graphics Representation of a Prototyped Fixture for the Disabled

Effective Completion Date: 3/30/86

Grant/Contract Closeout Actions Remaining:

- [x] None
- [ ] Final Invoice or Final Fiscal Report
- [ ] Closing Documents
- [ ] Final Report of Inventions
- [ ] Govt. Property Inventory & Related Certificate
- [ ] Classified Material Certificate
- [ ] Other

Continues Project No. Continued by Project No. 

COPIES TO:

Project Director
Research Administrative Network
Research Property Management
Accounting
Procurement/GTRI Supply Services
Research Security Services
Reports Coordinator (OCA)
Legal Services

Library
GTRC
Research Communications (2)
Project File
Other I. Newton
A. Jones
R. Embry

FORM OCA 69.285
Report Series Contract No. 508/D55277

The service contract from the Rehabilitation Research and Development Unit at the Atlanta Veterans Administration Medical Center involved the making of illustrated renderings of the new showers designed, by the principal investigators Pascal Malassigne and James Bostrom, for disabled and elderly people. Attached are prints of these renderings.

In addition the Industrial Design program produced an exhibit for the Rehabilitation Research and Development Unit, which was used at the International Rehabilitation Week in New York City, from April 5-10, 1986.

The services involved in the preparation of this exhibit were: copy preparation, typesetting, selection of photographs, preparation of 16 black lacquered gatorboard panels and final layout of panels. In addition 16 lightweight styrene covered with black hook and loop fabric panels, were prepared to be attached on the exhibit structure. This structure was provided by the staff of the Rehabilitation Research and Development Unit.

Attached are photographs of each of the 16 exhibit panels and one overall photograph of the display.

Lee Payne
Director, Industrial Design Program
Capabilities

The Rehabilitation Research and Development Unit seeks to identify the needs of both recipients and providers of rehabilitation health care. The fabrication and clinical evaluation of new systems, products, and devices is its central mission.

In cooperation with the Georgia Institute of Technology, the Rehabilitation Research and Development Unit has developed devices, products, and systems for persons in wheelchairs, persons with speech and visual impairments and with emphasis on the needs of the elderly.

For more information, please contact:

Mr. Franklyn K. Coombs,
Director Rehabilitation Research and Development Unit
Atlanta Veterans Administration Medical Center
1549 Clairmont Road, Decatur, Georgia 30033, U.S.A.
Telephone: 404 • 321 • 5828

Toll-in shower

Designed for people who take showers in their wheelchair, this shower is smaller than other roll-in showers currently available. Interior dimensions: 123 cm x 81 cm. The shower is built in two sections to allow installation in existing spaces. Each section, the base unit and the upper unit, can pass through an 82 cm door or any door which will accommodate a wheelchair.

For people who need assistance while showering, the base unit can be used only, and a shower curtain takes the use of the wall enclosure to allow the attendant to reach over from the outside to help the person taking the shower.

A water control for the shower is a Bradley push-button device, which turns the water on for up to 10 minutes at a time. The water temperature is controlled by a Bradley pressure balanced, anti-scald valve.

An outside “Roman shade style” shower curtain is made of a water repellent fabric, and can be raised and lowered manually or with push-button controls inside and outside the shower with Silent Glass USA hardware. The push-button, motorized system is an option available for users who cannot manipulate the beaded cord.
Intelligent Controller
Programmable control for powered wheelchairs.

Investigators: Gary Kelly, David Ross and Richard Bass

- Controller characteristics customized for each user with multiple software packages.
- Silent and efficient MOSFET power stage.
- Expected retail cost at 70% of present control systems.

Joywriter Communication Aid

Investigator: Gary Kelly

Software for persons with speech and manual impairments.
Character selection through joystick.
Four user functions: writing, printing, reading, and saving.
Large Print Reading and Writing System

Inventors: Gary Kelly and Jeff Smith

Display and interface with portable word processors and computers:

- 40 character, color vacuum fluorescent display in 18 point type.

3 new bathing and showering fixtures:

Three new bathing and showering products for the home or the hospital, designed for able-bodied, disabled, and elderly people.

Inventors: James A. Bostron, M.Arch., and Pascal Malapregna, M.D., IDSA.

Very important problem commonly faced by disabled and elderly people is how to bathe or shower.

The standard shower or bathtub is impossible to use for many disabled people and many of the accessories available are not suitable for their physical limitations.

Based on research into the bathing abilities of elderly and disabled people, three new fixtures have been designed to accommodate these limitations.

1. A roll-in shower
2. A cushioned shower seat
3. A shower rail
Shower seat

Designed for people who can transfer from a wheelchair or who desire to sit down while taking a shower, the shower seat can be attached to the wall of a shower stall. It will also be available for usage in a bathtub.

The shape of the seat provides a comfortable surface which supports the body, helps the user maintain balance and makes it easier to clean between the legs and under the buttocks.

The shower can be made out of two materials, one fibreglass and the other with Ensete material covering it. The fibreglass version has a hard surface suitable for people with skin sensation. The cushioned version is soft and more comfortable, reducing the risk of skin breakdown and resulting pressure sores; it also reduces the chance of sliding off while showering. Finally the seat is available in right- and left-handed versions in shower stall or bathtub.

Shape of seat promotes comfort and safety.