

ADA (AMERICANS WITH DISABILITIES ACT) NOTES:

1. DRINKING FOUNTAINS AND WATER COOLERS

- A. SPOUT HEIGHT:
SPOUTS SHALL BE NO HIGHER THAN 36 IN., MEASURED FROM FLOOR OR GROUND SURFACES TO SPOUT OUTLET.
- B. SPOUT LOCATION:
SPOUTS OF DRINKING FOUNTAINS AND WATER COOLERS SHALL BE AT FRONT OF UNIT AND SHALL DIRECT WATER FLOW IN A TRAJECTORY THAT IS PARALLEL OR NEARLY PARALLEL TO FRONT OF UNIT. SPOUT SHALL PROVIDE A FLOW OF WATER AT LEAST 4 IN. HIGH SO AS TO ALLOW INSERTION OF A CUP OR GLASS UNDER FLOW OF WATER. ON AN ACCESSIBLE DRINKING FOUNTAIN WITH A ROUND OR OVAL BOWL, SPOUT MUST BE POSITIONED SO FLOW OF WATER IS WITHIN 3 IN. OF FRONT EDGE OF FOUNTAIN.
- C. CONTROLS:
UNIT CONTROLS SHALL BE FRONT MOUNTED OR SIDE MOUNTED NEAR FRONT EDGE.
- D. CLEARANCES:
(1) WALL AND POST MOUNTED CANTILEVERED UNITS SHALL HAVE A CLEAR KNEE SPACE BETWEEN BOTTOM OF APRON AND FLOOR OR GROUND AT LEAST 27 IN. HIGH, 30 IN. WIDE, AND 17 IN. TO 19 IN. DEEP. SUCH UNITS SHALL HAVE A MINIMUM CLEAR FLOOR SPACE 30 IN. BY 48 IN. TO ALLOW A PERSON IN A WHEELCHAIR TO APPROACH UNIT FACING FORWARD.
- (2) FREE STANDING OR BUILT-IN UNITS NOT HAVING A CLEAR SPACE UNDER THEM SHALL HAVE A CLEAR FLOOR SPACE AT LEAST 30 IN. BY 48 IN. THAT ALLOWS A PERSON IN A WHEELCHAIR TO MAKE A PARALLEL APPROACH TO UNIT.

2. WATER CLOSETS

- A. CLEAR FLOOR SPACE:
CLEAR FLOOR SPACE FOR WATER CLOSETS NOT IN STALLS SHALL COMPLY WITH ADAAG. CLEAR FLOOR SPACE MAY BE ARRANGED TO ALLOW EITHER A LEFT-HANDED OR RIGHT-HANDED APPROACH.
- B. HEIGHT:
HEIGHT OF WATER CLOSETS SHALL BE 17 IN. TO 19 IN. MEASURED TO TOP OF TOILET SEAT. SEATS SHALL NOT BE SPRUNG TO RETURN TO A LIFTED POSITION.
- C. GRAB BARS:
GRAB BARS FOR WATER CLOSETS NOT LOCATED IN STALLS SHALL COMPLY WITH ADAAG. GRAB BAR BEHIND WATER CLOSET SHALL BE 36 IN. MINIMUM.
- D. FLUSH CONTROLS:
FLUSH CONTROLS SHALL BE HAND OPERATED OR AUTOMATIC AND SHALL COMPLY WITH ADAAG. CONTROLS FOR FLUSH VALVES SHALL BE MOUNTED ON WIDE SIDE OF TOILET AREAS NO MORE THAN 44 IN. ABOVE FLOOR.
- E. DISPENSERS:
TOILET PAPER DISPENSERS SHALL BE INSTALLED WITHIN REACH, AS SHOWN IN ADAAG. DISPENSERS THAT CONTROL DELIVERY, OR THAT DO NOT PERMIT CONTINUOUS PAPER FLOW, SHALL NOT BE USED.

3. TOILET STALLS

- A. WATER CLOSETS:
WATER CLOSETS IN ACCESSIBLE STALLS SHALL COMPLY WITH ADAAG.
- B. SIZE AND ARRANGEMENT:
SIZE AND ARRANGEMENT OF STANDARD TOILET STALL SHALL COMPLY WITH ADAAG. STANDARD STALL. STANDARD TOILET STALLS WITH A MINIMUM DEPTH OF 56 IN. SHALL HAVE WALL MOUNTED WATER CLOSETS. IF DEPTH OF A STANDARD TOILET STALL IS INCREASED AT LEAST 3 IN., THEN A FLOOR MOUNTED WATER CLOSET MAY BE USED. ARRANGEMENTS SHOWN FOR STANDARD TOILET STALLS MAY BE REVERSED TO ALLOW EITHER A LEFT OR RIGHT HAND APPROACH.
- C. TOE CLEARANCES:
IN STANDARD STALLS, FRONT PARTITION AND AT LEAST ONE SIDE PARTITION SHALL PROVIDE A TOE CLEARANCE OF AT LEAST 9 IN. ABOVE FLOOR. IF DEPTH OF STALL IS GREATER THAN 60 IN., THEN TOE CLEARANCE IS NOT REQUIRED.
- D. DOORS:
TOILET STALL DOORS, INCLUDING DOOR HARDWARE, SHALL COMPLY WITH ADAAG. IF TOILET STALL APPROACH IS FROM THE LATCH SIDE OF STALL DOOR, CLEARANCE BETWEEN DOOR SIDE OF STALL AND ANY OBSTRUCTION MAY BE REDUCED TO A MINIMUM OF 42 IN.
- E. GRAB BARS:
GRAB BARS COMPLYING WITH LENGTH AND POSITIONING SHALL BE PROVIDED. GRAB BARS MAY BE MOUNTED WITH ANY DESIRED METHOD AS LONG AS THEY HAVE A GRIPPING SURFACE AT LOCATIONS SHOWN AND DO NOT OBSTRUCT REQUIRED CLEAR FLOOR AREA. GRAB BARS SHALL COMPLY WITH ADAAG.

4. URINALS

- A. HEIGHT:
URINALS SHALL BE STALL TYPE OR WALL HUNG WITH AN ELONGATED RIM AT A MAXIMUM OF 17 IN. ABOVE FINISH FLOOR.
- B. CLEAR FLOOR SPACE:
A CLEAR FLOOR SPACE 30 IN. BY 48 IN. SHALL BE PROVIDED IN FRONT OF URINALS TO ALLOW FORWARD APPROACH. THIS CLEAR SPACE SHALL ADJOIN OR OVERLAP AN ACCESSIBLE ROUTE AND SHALL COMPLY WITH ADAAG. URINAL SHIELDS THAT DO NOT EXTEND BEYOND FRONT EDGE OF URINAL RIM MAY BE PROVIDED WITH 29 IN. CLEARANCE BETWEEN THEM.
- C. FLUSH CONTROLS:
FLUSH CONTROLS SHALL BE HAND OPERATED OR AUTOMATIC, AND SHALL COMPLY WITH ADA, AND SHALL BE MOUNTED NO MORE THAN 44 IN. ABOVE FINISH FLOOR.

5. LAVATORIES AND MIRRORS

- A. HEIGHT AND CLEARANCES:
LAVATORIES SHALL BE MOUNTED WITH RIM OR COUNTER SURFACE NO HIGHER THAN 34 IN. ABOVE FINISH FLOOR. PROVIDE A CLEARANCE OF AT LEAST 29 IN. ABOVE FINISH FLOOR TO BOTTOM OF APRON. KNEE AND TOE CLEARANCE SHALL COMPLY WITH ADAAG.
- B. CLEAR FLOOR SPACE:
A CLEAR FLOOR SPACE 30 IN. BY 48 IN. COMPLYING WITH ADA SHALL BE PROVIDED IN FRONT OF A LAVATORY TO ALLOW FORWARD APPROACH. SUCH CLEAR FLOOR SPACE SHALL ADJOIN OR OVERLAP AN ACCESSIBLE ROUTE AND SHALL EXTEND A MAXIMUM OF 19 IN. UNDERNEATH LAVATORY.
- C. EXPOSED PIPES AND SURFACES:
HOT WATER AND DRAIN PIPES UNDER LAVATORIES SHALL BE INSULATED OR OTHERWISE CONFIGURED TO PROTECT AGAINST CONTACT. THERE SHALL BE NO SHARP OR ABRASIVE SURFACES UNDER LAVATORIES.
- D. FAUCETS:
FAUCETS SHALL BE LEVER, PUSH AND ELECTRONICALLY MECHANISM. IF SELF CLOSING VALVES ARE USED, FAUCET SHALL REMAIN OPEN FOR 10 SECONDS.

OPERATION. CONTROLS AND OPERATING MECHANISMS SHALL BE OPERABLE WITH ONE HAND AND SHALL NOT REQUIRE TIGHT GRASPING, PINCHING, OR TWISTING OF THE WRIST. FORCE REQUIRED TO ACTIVATE CONTROLS SHALL BE MAX 5 LBF

- E. MIRRORS:
MIRRORS SHALL BE MOUNTED WITH BOTTOM EDGE OF REFLECTING SURFACE NO HIGHER THAN 40 IN. ABOVE FINISH FLOOR.

6. SHOWER STALLS

- A. SIZE AND CLEARANCE:
1. SHOWER STALL SHALL BE 36 IN. BY 36 IN.
- B. SEAT:
1. A SEAT SHALL BE PROVIDE IN SHOWER STALLS AND SHALL BE MOUNTED 17 IN. TO 19 IN. FROM BATHROOM FLOOR AND SHALL EXTEND FULL DEPTH OF STALL. SEAT SHALL BE ON WALL OPPOSITE CONTROLS. STRUCTURAL STRENGTH OF SEATS AND THEIR ATTACHMENT SHALL COMPLY WITH DETAILS, SEE STRUCTURE DRAWINGS.
- C. GRAB BARS:
1. GRAB BARS SHALL BE PROVIDED AS SHOWN.
- D. CONTROLS:
1. FAUCETS AND OTHER CONTROLS SHALL BE LOCATED AS SHOWN. CONTROLS, FAUCETS AND SHOWER UNIT SHALL BE MOUNTED ON SIDE WALL OPPOSITE SEAT.
- E. SHOWER UNIT:
1. A SHOWER SPRAY UNIT WITH A HOSE MINIMUM 60 IN. LONG THAT CAN BE USED BOTH AS A FIXED SHOWER HEAD AND AS A HANDHELD SHOWER SHALL BE PROVIDED.
EXCEPTION: IN UN-MONITORED FACILITIES WHERE VANDALISM IS A CONSIDERATION, A FIXED SHOWER HEAD MOUNTED AT 48 IN. ABOVE SHOWER FLOOR MAY BE USED IN LIEU OF A HANDHELD SHOWER HEAD.
- F. CURBS:
1. IF PROVIDED, CURBS IN SHOWER STALL SHALL BE NO HIGHER THAN 1/2 IN..
- G. SHOWER ENCLOSURES:
1. IF PROVIDED, ENCLOSURES FOR SHOWER STALLS SHALL NOT OBSTRUCT CONTROLS OR OBSTRUCT TRANSFER FROM WHEELCHAIRS ONTO SHOWER SEATS.

7. HANDRAILS, GRAB BARS, AND SHOWER SEATS.

- A. SIZE AND SPACING OF GRAB BARS AND HANDRAILS: DIAMETER OR WIDTH OF GRIPPING SURFACES OF A HANDRAIL OR GRAB BAR SHALL BE 1-1/4 IN. TO 1-1/2 IN. OR SHAPE SHALL PROVIDE AN EQUIVALENT GRIPPING SURFACE. IF HANDRAILS OR GRAB BARS ARE MOUNTED ADJACENT TO A WALL. SPACE BETWEEN WALL AND GRAB BAR SHALL BE 1-1/2 IN.. HANDRAILS MAY BE LOCATED IN A RECESS IF RECESS IS A MAXIMUM OF 3 IN. DEEP AND EXTENDS AT LEAST 18 IN. ABOVE TOP OF RAIL.
- B. STRUCTURAL STRENGTH: STRUCTURAL STRENGTH OF GRAB BARS, AND SHOWER SEATS, FASTENERS, AND MOUNTING DEVICES SHALL MEET FOLLOWING SPECIFICATION:
1. BENDING STRESS IN A GRAB BAR OR SEAT INDUCED BY MAXIMUM BENDING MOMENT FROM APPLICATION OF 250 LBF SHALL BE LESS THAN ALLOWABLE STRESS FOR MATERIAL OF GRAB BAR OR SEAT.
2. SHEAR STRESS INDUCED IN A GRAB BAR OR SEAT BY APPLICATION OF 250 LBF SHALL BE LESS THAN ALLOWABLE SHEAR STRESS FOR MATERIAL OF GRAB BAR OR SEAT. IF CONNECTION BETWEEN GRAB BAR OR SEAT AND ITS MOUNTING BRACKET OR OTHER SUPPORT IS CONSIDERED TO BE FULLY RESTRAINED, THEN DIRECT AND TORSIONAL SHEAR STRESSES SHALL BE TOTALED FOR COMBINED SHEAR STRESS, WHICH SHALL NOT EXCEED ALLOWABLE SHEAR STRESS.
3. SHEAR FORCE INDUCED IN A FASTENER OR MOUNTING DEVICE FROM APPLICATION OF 250 LBF SHALL BE LESS THAN ALLOWABLE LATERAL LOAD OF EITHER FASTENER OR MOUNTING DEVICE OR SUPPORTING STRUCTURE, WHICHEVER IS SMALLER ALLOWABLE LOAD.
4. TENSILE FORCE INDUCED IN A FASTENER BY A DIRECT TENSION FORCE OF 250 LBF PLUS MAXIMUM MOMENT FROM APPLICATION OF 250 LBF SHALL BE LESS THAN ALLOWABLE WITHDRAWAL LOAD BETWEEN FASTENER AND SUPPORTING STRUCTURE.
5. GRAB BARS SHALL NOT ROTATE WITHIN THEIR FITTINGS.

ADAAG = AMERICANS WITH DISABILITIES ACT ACCESSIBILITY GUIDELINES.

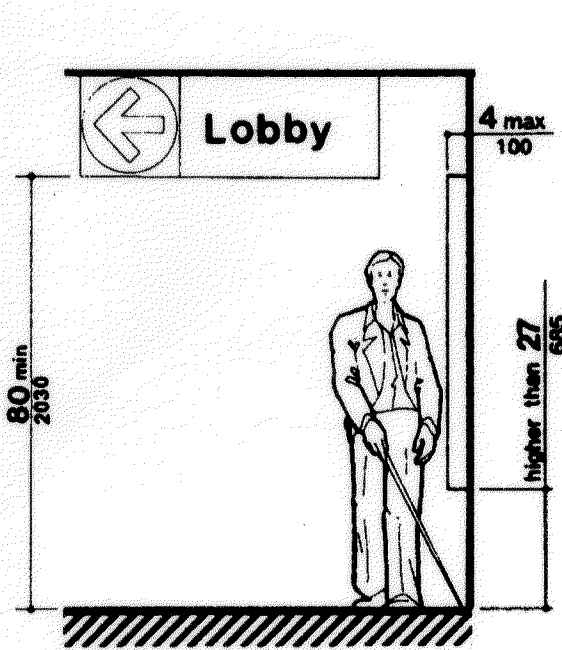


Fig. 8 (a)
Walking Parallel to a Wall

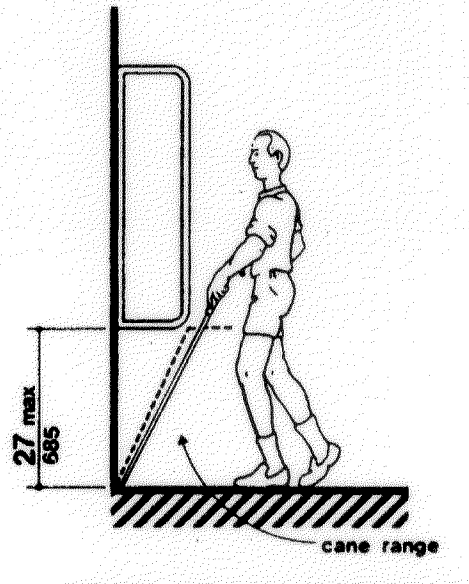
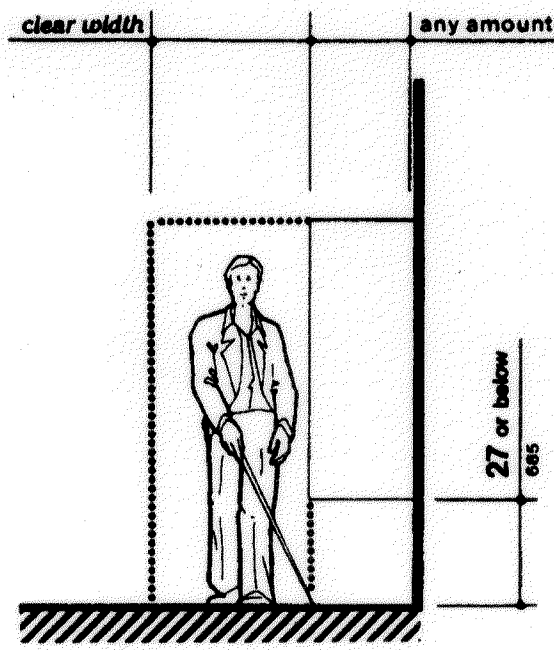
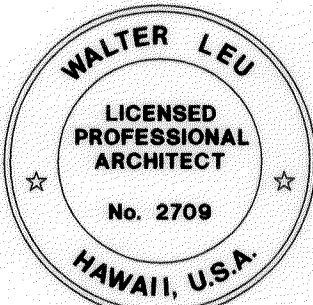


Fig. 8 (b)
Walking Perpendicular to a Wall

Fig. 8
Protruding Objects



THIS WORK WAS PREPARED BY
ME OR UNDER MY SUPERVISION

Walter Leu

GEN. STANDARD INSTALLATION

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

ADA NOTES
MOLOKAI BASEYARD
MOLOKAI INDUSTRIAL PARK
Project No. HWY-M-05-98

Scale: As Noted Date: SEPT. 13, 2001

SHEET No. A8.3 OF A8.3 SHEETS

SURVEY PLOTTED BY	DATE
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