

Summer 2010

Edition 4.0



Design Guide for the Built Environment of Behavioral Health Facilities

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and James M. Hunt, AIA, NCARB

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“The hospital plans activities to minimize risks in the environment of care.”

“Risks are inherent in the environment because of the types of care provided and the equipment and materials that are necessary to provide that care. The best way to manage these risks is through a systematic approach that involves the proactive evaluation of the harm that could occur. By identifying one or more individuals to coordinate and manage risk assessment and reduction activities – and to intervene when conditions immediately threaten life and health – organizations can be more confident that they have minimized the potential for harm.”

“The hospital manages safety and security risks.”

“Safety and security risks are present in most health care environments. These risks affect all individuals in the organization – patients, visitors, and those who work in the hospital. It is important to identify these risks in advance so that the hospital can prevent or effectively respond to incidents.”

**-- The Joint Commission
“Standards and Rationale”
*2010 Hospital Accreditation Standards***

“Listen to the patients, they’ll tell you what you need to know.”

**-- J.J., Safety Officer,
Greystone Park State Psychiatric Hospital, New Jersey**

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for the
Built Environment of
Behavioral Health Facilities:
Edition 4.0**
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INTRODUCTION

This document is intended to address the built environment of the general adult inpatient behavioral healthcare unit. Additional considerations that are *not* addressed here are required for child and adolescent patients, patients with medical care needs, geriatric patients, and some patients with diagnoses such as substance abuse and eating disorders.

This document is not a replacement for regulatory requirements, but rather augments them to detail practical means of protecting patients and staff. It is not intended to be employed as a legal “Standard of Care” which facilities are in any way required to follow.

NOTE:

Product information included in this document is intended for illustration of one or more specific items that are deemed appropriate for use in this type of facility. Comparable products by other manufacturers meeting the same design criteria may be substituted after careful comparison.

A WORD FROM THE AUTHORS

Our first edition of the *Guidelines for the Built Environment of Behavioral Health Facilities* opened as follows:

“Having spent our careers working to improve patient and staff safety, we welcome the opportunity to share our experiences with you. What we have learned is that, while a safe environment is critical, no environment of care can be totally safe and free of risk. No built environment – no matter how well designed and constructed – can be relied upon as an absolute preventative measure. Staff awareness of their environment, the latent risks of that environment, and the behavioral characteristics and needs of the patients served in that environment are absolute necessities. We also know that different organizations and different patient populations will require greater or lesser tolerance for risk; an environment for one patient population will not be appropriate for another. Each organization should continually visit and revisit their tolerance for risk and changes in the dynamics of the patient population served.”

The Design Guide continues to be based upon our experiences in the field as operators, designers, consultants, and surveyors: what we have seen that is working and what we have seen that has not worked. Since the *Guidelines* were first electronically published by NAPHS in 2003, we have received and welcomed countless suggestions, commendations, and comments. New products have been introduced while others have been withdrawn from the market, and innovation continues to provide new approaches to the conundrum of providing a therapeutic environment that is also as safe as possible. Codes have been updated to more specifically address the needs of the behavioral health patient, and reduction of patient suicide is a National Patient Safety Goal. [See www.jointcommission.org/PatientSafety/NationalPatientSafetyGoals/.]

We are grateful for how well our suggestions have been received. We hope that this latest edition of the *Design Guide* will also prove useful to the designers, operators, and clinicians who are entrusted with both the care of behavioral health patients and with the environment of care in which those patients are treated and cared for.

-continued-

Inclusion or exclusion of a product does not indicate endorsement or disapproval (nor that any product we identify is free of risk).

There may be equivalent products available: all facilities should continuously look to the marketplace to find products that are safer or more cost-effective.

As before, we have highlighted products that we have found to be both safe and able to withstand the rigors of use in the behavioral healthcare environment. However, inclusion or exclusion of a product does not indicate endorsement or disapproval (nor that any product we identify is free of risk). There may be equivalent products available: all facilities should continually look to the marketplace to find products that are safer and more cost-effective.

SHARE YOUR BRIGHT IDEAS



A continuing feature in this updated edition is the inclusion of **Bright Ideas** that are indicated by the graphic shown at the left. These are applications that we have thought of, or that have been suggested by readers, that do not require the use of any specific product, but utilize readily available items in creative ways to improve the safety of these units. Most of these **Bright Ideas** can be implemented by maintenance staff at nominal cost. We thank those who have contributed these ideas and information on new products. We encourage this kind of input and invite feedback from you, the readers. With your help, this can become a compilation of the best thinking of the industry. We promise to include more of your **Bright Ideas** in the future.

We hope that this document continues to provide a starting point in your search for resources that can enhance the safety of behavioral healthcare patients.

There continues to be a lot of attention and activity around “Suicide Prevention” and many new products are on the market and in development. Edition 4.0 is an attempt to keep up with this rapidly changing marketplace and keep you informed about these exciting new products.

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We want to express our appreciation to the following professionals who have shared their insight and experience with us and helped make this edition more helpful to other readers:

Larry Denoyer – The Menninger Clinic
Steve Linqvist – Avera McKennan Behavioral Health Services
Tom Hess – Sheppard Pratt Health System
Byron Kitagawa – Sharp Healthcare Corp.
Steve Sullivan - Britton Construction
Tim Rappold - The Good Shepherd Center
Tom Ferrel - Systems West Engineers

A WORD FROM NAPHS

THE VALUE OF FOCUSING ON THE BEHAVIORAL HEALTH ENVIRONMENT

The National Association of Psychiatric Health Systems (NAPHS) is proud to partner with authors David Sine and Jim Hunt to bring you this unique, valuable, and newly revised resource. The earlier editions of this publication were extremely well received by the behavioral healthcare field, and we appreciate the authors' efforts to incorporate new products and thinking into this fourth edition.

Whether you are involved in designing a new building, renovating space, or maintaining an existing behavioral healthcare program, this document is designed to help you think through the many aspects of the environment that can have a significant impact on patient safety.

In behavioral health care, this is particularly important as many patients are admitted because they are at risk of harming themselves or others. In every aspect of building design and maintenance, it is essential to make determinations about the built environment based on the potential risk to the specific patient populations you serve. This requires a continuous process of review and evaluation. This document is unique in that it gives you a concrete starting point for your internal discussions.

There are no hard and fast answers, and there may on occasion be conflicting state or federal requirements that you will need to discuss with your own attorneys. Some questions to consider:

- Could a patient be hurt by this aspect of the environment? Could they use it to harm someone else?
- Can staff easily navigate the environment to get to patients in need of assistance?
- Is it possible to maintain patient privacy in this environment?
- Does the environment convey a hopeful, helpful atmosphere that will contribute to recovery?

NAPHS does not endorse or recommend any specific product, nor does exclusion of a product indicate disapproval. However, we believe that it is important to share ideas that can help you in the process of continuously enhancing patient safety and improving patient care.

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GENERAL COMMENTS

1. Space Planning Considerations:

- A. **Behavioral health units and facilities should be designed to appear comfortable, attractive, and as residential in character as possible.** Every effort should be made to avoid an “institutional” look while still meeting the vast array of applicable codes and regulations and meeting the therapeutic and safety needs for patients and staff. The Planetree organization actively advocates for patient centered design and has made a significant positive impact on the general hospital therapeutic environment. However, many of its features do not adapt well to behavioral health units and hospitals. Planetree is currently conducting a pilot program that uses their principles in behavioral healthcare environments. Visit their Web site (www.planetree.com) for updates, or check back here next year for more information. The importance of this effort cannot be overstated. The recent focus on patient and staff safety has had the tendency to push the aesthetics of these units toward the appearance of a prison environment. It is important to constantly strive for the safest possible healing environment while also striving for as much of a non-institutional appearance as possible.
- B. **Nurse stations should provide the least possible barrier between staff and patients.** HIPAA (*Health Insurance Portability and Accountability Act of 1996*) privacy regulations make an “open” design increasingly challenging. Patient records, electronic or otherwise, must be protected from view of other patients, visitors, and unauthorized staff. Care must also be taken to shield computer monitors from unauthorized viewing. Areas must be provided in which clinical staff may discuss patients without being overheard by other patients or visitors. Provision should be made to accommodate storage of charts and patients’ valuables in appropriately secure areas. The advancements in electronic medical records have somewhat reduced the need to provide all of the charting-related activities and spaces in the area behind the nurse station. Since the electronic “chart” can be accessed from many locations, the area around the nurse station can be utilized for more patient-centered activities in many cases.
- C. **Gathering areas for patients near the nurse station are encouraged because patients often congregate near there to socialize.** It is far better to plan for this in the original design and to accommodate this behavior. This area should encourage comfortable seating and places for conversation, card or board games, and other quiet activities that will not be distractions for staff working in the nursing station. Television sets, CD players, etc. should not be included at these locations. Many facilities are now experiencing issues, especially with younger patient populations, regarding use of electronic devices (e.g., iPods, MP-3 players, and similar devices). Many patients like these electronics and say they help keep them calm, but the wires on the earphones can be hazardous. This is just one of many decisions that facilities will need to weigh to determine the level of risk they are willing to accept for the perceived benefit. It should always be remembered that a patient who is assessed as

safe to have the player may set it down where another patient may pick it up to gain access to the wires.

- D. **Chart rooms and other staff areas should be located so that staff members may have conversations regarding patients and other clinical matters without being overheard by patients or visitors.** Teaching hospitals that have a large number of residents and/or students making rounds will need larger spaces for confidential conversations.
- E. **Medication rooms should be sized to accommodate the number of staff that will be necessary at peak times as well as planned for future (if not current) computer systems.** HVAC and electrical systems should have sufficient capacity to accommodate the cooling load of the refrigerator, computer, automated medication systems, and the number of people who may be in the room at peak times. The medication room should also have a hand-washing sink. The room should be sized to accommodate storage of the medication cart when not in use without restricting use of the space by staff. (See “*Guidelines for Design and Construction of Hospital and Health Care Facilities - 2010;*” 2.1-2.6.6.1.)
- F. **When possible, locate service areas (such as trash rooms and clean and soiled utility rooms) so that they are accessible both from the unit and from a service corridor.** This eliminates the need for environmental staff servicing these rooms to enter the treatment areas of the unit and possibly disturb patient activities. All doors to these rooms must be kept locked at all times.
- G. **Traditional nurse call systems for patients to use to get assistance from nursing staff are not required** in behavioral health units. There are significant new developments in duress alarm systems that greatly improve safety for staff when in a threatening situation with patients. Some of these utilize sensors located in all patient-accessible areas and a device the size of a small flashlight that the staff members wear⁸⁸. If the staff feel threatened and want other staff to come in a “show of force,” a button on the bottom of the device can be pressed. If the threat is imminent and immediate assistance is required, the device can be pulled from its holder and a different alarm is sounded. Local lights outside the room are activated and a read-out at the central nurse station will give the exact location of the staff activating the alarm.
- H. When possible, have all **electrical outlets** in each patient room on a separate circuit and locate the breakers for these circuits where they are readily available to staff without entering the patient rooms. This is easily accomplished in new construction and very difficult to accomplish in remodeling projects.
- I. **All electrical circuits** having receptacles near sources of water (such as sinks, lavatories, and toilets) must be protected by Ground Fault Circuit Interrupters (GFCI). Simply replacing one receptacle on a circuit with a GFCI-equipped receptacle provides that protection for the entire circuit. It should be noted that this

can cause complications in that poorly maintained equipment (such as vacuums and floor polishers) may trip these devices. All other outlets in areas accessible to patients should be hospital grade, tamper-resistant. Making them GFCI also adds a significant level of safety for patients trying to tamper with the receptacles.

- J. When possible, locate **water shut-off valves** in corridor walls where they are accessible from the corridor by opening a locked access door. This has been successfully accomplished during remodeling projects of existing units.
- K. When possible, **locate serviceable parts of patient-room HVAC systems** where they can be serviced without entering the patient rooms. In new construction, consideration should be given to radiant heating and cooling systems that greatly reduce the need for mechanical devices in the patient rooms.
- L. **Housekeeping rooms should be large enough to lock away the carts when not in use.** All cleaning materials must be locked inside at all times when the carts are in patient areas or corridors and not attended by staff.
- M. **Smoking areas (if provided) should be outdoors.** These can be in the form of screened-in porches using heavy stainless steel screen fabric¹⁸ similar to that specified in Level 3.H.1. below. Furniture should be metal and securely anchored in place. Provision should be made for staff observation without having to breathe the second-hand smoke. No waste baskets should be allowed in these areas. Indoor smoking is not permitted now in most facilities, and many hospitals have gone to smoke-free campuses.
- N. **At the time of this writing, the applicable standards** [*Guideline for Design and Construction of Hospital and Health Care Facilities*, published by the facility Guidelines Institute, 2010 edition] **require 100 net usable square feet per private patient room and 80 net usable square feet per patient in semi-private rooms (2.3-2.1.1.2(2)).** All requirements of the *Guidelines, NFPA 101 Life Safety Code (2009 edition)*, The Joint Commission Standards, as well as state and local regulations and building codes must be incorporated into the planning.

2. Safety:

The level of concern for the safety of patients and staff due to the design of the built environment is not the same in all parts of a behavioral health unit or facility. The level of precautions necessary depends on the staff's knowledge of the patient and the amount of supervision the patient will have while using that part of the facility. The level of concern falls roughly into five categories (with 5 being the highest level of concern):

Level 1. Staff and service areas where patients are not allowed.

Level 2. Corridors, counseling rooms, interview rooms and smoking rooms – where patients are highly supervised and not left alone for periods of time.

Level 3. Lounges and Activity Rooms – where patients may spend time with minimal supervision.

Level 4. Patient rooms (semi-private and private) and patient toilets – where patients spend a great deal of time alone with minimal or no supervision.

Level 5. Admissions rooms, examination rooms, and seclusion rooms – where staff interact with newly admitted patients that present potential unknown risks and/or where patients may be in a highly agitated condition.

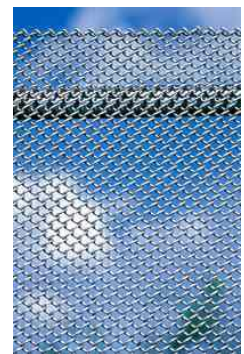
3. Outdoor Areas:

Outdoor areas (e.g. enclosed courtyards, fenced areas adjacent to the treatment unit, or simply an open campus) are considered to be of great therapeutic benefit. In all cases, careful consideration should be given to exterior landscaping and furniture in the vicinity of patient-use buildings. Trees should be located away from buildings to prevent access to building roofs. Climbable fences can permit, if not encourage, unauthorized access to windows and roofs or elopement over walls. Shrubbery should be non-toxic and low-growing. Avoid planting shrubbery close together as it can create visual barriers that patients or unauthorized visitors may hide behind. Landscape or decorative rocks that can be thrown and injure staff or other patients should not be used.

All outdoor furniture⁴⁸ should be anchored firmly in place. This is to prevent the furniture from being moved to create barricades or stacked to allow climbing over fences, into windows, or onto buildings. Levels of staff supervision for patients using outdoor areas should be carefully reviewed by the facility and be dependent the acuity and assessment of patients using the area. There are many types of furniture commercially available that can be anchored or are made of concrete or other heavy materials.



Buildings, walls, or fences may be used to establish clear boundaries and impede elopement to a degree appropriate to the patient population being served. Where patients may attempt to climb a fence, a fine mesh chain link fence fabric⁴⁹ can be installed over the existing fence material. This fabric comes in a range of sizes down to as small as 3/8” openings. This makes it more difficult to climb and the openings are too small for most bolt cutters. Care should be taken when using this material to assure that fence posts and rails are sufficiently strong to support the fabric and the additional wind loading that can occur. There has been at least one verified instance of



a patient successfully climbing a mini-mesh fence, so it is suggested that a section at the top be angled inward to further increase the difficulty of climbing.

All areas surrounding patient-use buildings and areas where staff will be walking or escorting patients at night should be well lighted. Care should be taken that exterior lights do not shine directly into patient room windows. Parking areas for staff and visitors should be well lighted and reviewed regularly for design features that encourage personal and property security. While security is generally beyond the intended scope of this document, closed circuit television monitoring and video surveillance recording of these semi-public areas (i.e., where there is no expectation of privacy) should be considered.

All manhole covers, access panels, and area drain grates should be anchored firmly in place to prevent them being removed and used as weapons or allowing patients to enter the underground piping.

NOTE: Product information included in this document is intended for illustration of one or more specific items that are deemed appropriate for use in this type of facility. Comparable products by other manufacturers meeting the same design criteria may be substituted after careful comparison.

CONSTRUCTION AND MATERIALS CONSIDERATIONS

Each of these levels of concern requires increasing attention to the built environment to reduce the potential of the patients being afforded a means of doing harm to themselves or others. These levels are cumulative, and all steps taken for lower levels are also required for a higher level. For example: all steps recommended for Levels 1, 2, and 3 are also recommended for Level 4.

Level 1. Staff and Service Areas – Compliance with all applicable codes and regulations. All unattended service areas should be locked at all times to reduce the possibility of patients entering these areas.

Level 2. Corridors, Counseling, and Interview

Rooms - Minimize blind spots in corridors where patients cannot be observed from an attended nurse’s station. All unattended counseling and interview rooms should be locked at all times to reduce the possibility of patients entering these areas. Counseling rooms and interview rooms should have a “classroom”-type lockset which requires a key to lock or unlock the outer handle, but the inside handle is always free.

- A. **Floors** – Carpet or vinyl tile meeting class A rating. Avoid patterns and color combinations that may appear to “animate” into objects that could contribute to visual misperception by patients. Anti-microbial carpet with solution-dyed yarn and moisture-resistant backing generally works well in these facilities and is available from most major carpet companies.

- B. **Walls** – Lightweight concrete block, abrasion resistant, and/or impact-resistant gypsum board^{1,99} on a minimum of 20 gage metal studs spaced at sixteen inches to center. Consult manufacturers regarding the characteristics of the specific material most appropriate for a particular installation. These products are now available from several manufacturers. A painted finish is preferred because of easy reparability and the relatively low cost of renewing or changing colors to keep up with current trends. This helps with minimizing the institutional qualities of the space and aids in providing as residential (or home-like) an ambiance as possible while meeting the institutional requirements.

C. **Ceiling** – May be lay-in acoustic tile if needed for accessibility to equipment. However, a solid ceiling is preferred in interview rooms used for patient intake and assessment purposes (see section 5a: Admissions). If a “lay-in” ceiling is used, consideration should be given to the use of clipped-in-place ceiling tiles. If clips are used, regular safety rounds should include checking to see that the clips are in place. Frequently, they do not get replaced after maintenance is performed on equipment above the ceiling.

D. **Glass**

1. **Safety glazing** - All glazing should be safety glass. The "Guidelines" Appendix A2.5-7.2.2.3e calls for glazing to pass, "The Dade County hurricane test, ASTM E1886, and ASTM E1996 as alternate impact tests." If wire glass is required by code, install ¼" polycarbonate type glazing² on side(s) to which patient has access if allowed by authority having jurisdiction.

2. **Window film** - If replacing existing glass is cost prohibitive, application of a window film security laminate^{37, 104} to existing glass may be an alternative. Additional protection may be obtained by using impact protection adhesives and a perimeter tape system to help hold the glass in the frame if broken. Claims that these window films will prevent the glass from breaking should not be relied upon in these authors' opinion.

3. **Observation mirrors** - Convex mirrors⁵⁰ installed in corridors, seclusion rooms, and other locations to assist with the observation of patients that are in locations accessible to patients should be made of a minimum 1/4" thick polycarbonate, be filled with a high-density foam, and have a heavy metal frame that fits tightly to the wall and ceiling. Additionally, the perimeter should be sealed with a pick-resistant caulking^{77,98}.

E. **Hardware**

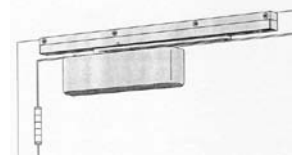
1. **Hinges** – Continuous hinges are preferred for all patient-accessible areas because they minimize possible attachment points. Barrel type^{71,95} are preferred because they are available with the top edge sloped, or "hospital tip." Geared-type continuous hinges are available with a closed-sloped top and continuous gears that resist ligature attachment²¹.



2. **Closers** – Closers are generally not required for patient room doors in most jurisdictions but may be required for other doors. When needed, it is suggested that parallel arm security-rated closers⁴ be mounted on corridor side of door away from rooms where patients will be alone or in groups be used.

3. **Locksets** – All doors in patient-accessible areas are recommended to have some type of anti-ligature lockset. There are three ways that a lockset can be used for ligature attachment: pulling down; pulling up and over the top of the door; and tying something around the latch side of the door using both the inside and outside handles(transverse). The latchbolt itself has even been used successfully as an attachment point. In these authors' opinion, the perfect solution for this dilemma does not exist at this time. Several of the better options are discussed below.

1. **Lever handle lockset**⁷ effectively deals with up and down pressure, but is susceptible to transverse attachment. This lever is considered *Americans with Disabilities (ADA)*-compliant. Several manufacturers now have similar locksets, but their quality and/or durability has not been verified at this time.
2. **Push/Pull Handle locksets**^{5, 107} installed with both handles pointing down resists pulling down and, to some extent, the transverse attachment. However, it is very susceptible to pulling up and looping something over the top of the door. This hazard can be reduced by installing an Over-the-Door Alarm as discussed later in this paper. This type of device is generally considered to be ADA-compliant.
3. **Conical knobs with flutes** are used by some facilities and resist up and down pressure and to some extent transverse attachment. These devices are not ADA compliant and require tight gripping with the fingers to turn the knob. Some models provide a textured surface in the flutes to assist with gripping the knob to pull it shut. It is sometimes necessary to provide a recessed pull on the door for use in pulling it closed.
4. **Integral system doors**⁸⁹ are available that have a nearly flush push plate on the outside that



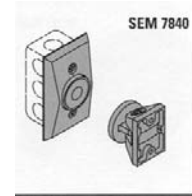
releases the continuous latch bar and a tapered pull handle that releases the latch bar from the other side. A recessed-pull handle is necessary on the push side to aid in closing the door. These doors come as an assembly including the door itself, lockset, and a continuous hinge. This assembly is very resistive to upward, downward, and transverse attachment. The over-the-door alarm is still recommended to guard against tying a knot in something and closing the door. This product is also available with an “Emergency Release Hinge” that can be unbolted and allows an in-swinging door to be pulled into the corridor in the event that it is barricaded. A standard latchbolt is not used with this system, but the top of the latching bar may still provide an attachment point. Maintenance staff will probably need to be available on all shifts to remove this door if required for emergency access. The durability of this particular assembly has not been verified.

4. **Unit entrance doors** – Provide intercom (or telephone) for communication to nurse stations from outside the unit if needed. Electronically controlled access systems that utilize electric strikes or electromagnetic locks are preferred. These may be operated by a switch at the nurse station if the door is clearly visible from the location of the release button. Care should be taken to assure that patients are not in the area when the door is released. Card readers or keypads adjacent to the door are also commonly used. These are readily available from hardware suppliers and are generally extensions of systems currently in place at most facilities.
5. **All exit doors** (including stairway doors) may be locked at all times. Exit doors may be locked with electromagnetic locks⁹ that are connected to fire alarm system and may either stay locked when the fire alarm is activated (fail secure) or release when alarm is activated (fail safe) as deemed appropriate for patient population. The acceptability of this type of hardware and its operating mode should be verified with the authority having jurisdiction at location of the facility. When extraordinary circumstances exist, a vertical

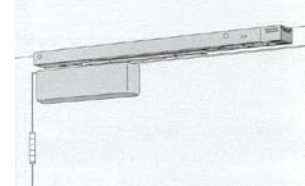


magnetic-jam strip with at least two magnetic-hold devices (1100 lb holding force) should be installed.

6. **All doors** on the unit that are required by applicable codes and regulations to have a closer, but need to be open to provide observation of patients by staff shall be provided with approved device. If the door has a standard closer, provide an accessory magnetic hold-open device¹⁰. If a new closer is being provided, it is recommended to use a closer with a built-in release¹¹ that will allow the door to close automatically when fire alarm is activated.



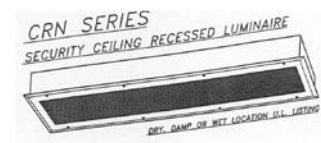
7. **All fire alarm pull stations and all fire extinguisher cabinets should be locked.** All staff on duty must carry keys for these at all times. Key should be provided with a red plastic ring or other means of providing quick identification.



8. **Lighted exit signs⁸¹** or Photoluminescent signs⁸² should be vandal-resistant and installed tight to the ceiling with a full-length mounting bracket to avoid use as a hanging device. Wall mounting these signs perpendicular to a wall is not recommended because it leaves the top exposed as a possible attachment point.



- F. **Light fixtures** – If located at a height or location that is not easily accessible to patients, these may be normal fixtures and lamps as long as staff observation from the nursing station is good and staff are in attendance, but tamper-resistant fixtures are preferred. Where they can be reached by the patients or are in areas that are not readily observable by staff, they must be tamper-resistant type⁴⁰ or have minimum ¼” thick polycarbonate prismatic lenses securely fixed in the frame, and the covers must be firmly secured with tamper-resistant screws¹². No glass components should be used in any fixture. Use of table lamps or desk lamps is strongly discouraged, but if used, must be firmly attached to the surface on which they sit. Neither incandescent light bulbs or fluorescent tubes should ever be accessible to patients.



- G. **It has been suggested that corridor light fixtures (other than minimal night lighting) be controlled at night by**

motion detectors. This would allow staff to know immediately when a patient leaves his or her room.

H. **Fire sprinklers – institutional heads**¹⁴ which will break-away under 50-pound load dropped from one inch. Another option⁹⁶ does not have the break-away feature, but appears to provide very little opportunity for attachment. This head can yield some small parts, and it is suggested that it only be used where it will be difficult for patients to reach the head.



I. **HVAC grilles and equipment** –Standard grilles with small perforations that are secured in place with tamper-resistant fasteners are generally acceptable in these areas as long as the ceilings are high enough to not be easily reachable by the patients.

J. **Window covering hardware** –

1. **Mini-blinds** mounted between layers of glass or polycarbonate are preferred because they are not accessible to patients. Care should be taken to assure that any exposed devices to control the tilt of the blinds not create a potential ligature attachment point. Exposed mini-blinds should never be used.
2. If **curtain tracks**¹⁵ are used, they must be flush mounted tight to the ceiling or soffit and must have no cords or chains. The minimum number of hook and loop (or snap) tabs should be used to limit the amount of weight that can be supported if the fabric is bunched together. This product can be used with a wide variety of window and shower curtain fabrics. It should be noted that these curtains can be easily removed and used as ligatures.



K. **Miscellaneous** –

1. No plastic trash can liners should be allowed in any space accessible to the patient. Breathable paper liners should be provided.
2. All operable windows in these areas should have opening limited to four inches²³.

3. Telephones located in corridors or common spaces for patient use should have stainless steel case^{52,97}, be securely wall mounted, have a non-removable shielded cord of minimal length (14 inches maximum), and may be equipped either with or without touch pads for placing outbound calls.
4. Cabinet pulls should be either recessed, with no protruding openings or of a closed type^{47,75}.



L. Furniture –

1. Should be easily cleaned, easily reupholstered, very sturdy, and as heavy as possible to minimize likelihood of patients throwing chairs, tables, etc. It is recommended that as much furniture as practical be built-in or securely anchored in place to prevent stacking or barricading of doors. The remaining loose items (such as chairs) can vary from high-quality wood- frame upholstered chairs^{60, 105} that resemble typical residential furniture in appearance to polyethylene rotationally-molded⁶² and sand-ballasted seating that is very institutional-looking. The selection depends on the facility's determination regarding the patient population to be served.
2. Provide lockable storage cabinets and drawers and the means to lock phones and computers away from patients.
3. All upholstery and foam used in furniture should have flame spread ratings that comply with the requirements of NFPA 101 Section 10.3.



M. All pictures and art work mounted on walls should have polycarbonate² -type glazing, and heavy frames should be screwed to the walls with a minimum of one tamper-resistant screw¹² per side. Care should be taken to reduce the opportunity of attaching ligatures to the frame or the joint between the top of the frame and the wall. The frame should be beveled to slope away from the wall, and the joint at the top should be sealed with a pick-resistant sealant^{77, 98}. Murals have been used very effectively in some facilities. These can be very effective in brightening and adding interest to corridors and day rooms. It is usually a good idea to cover



them with at least two coats of a clear sealer for protection, but patients typically enjoy these and defacing them is not usually a problem.

Level 3. Lounges and Activity Rooms

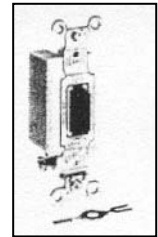
- A. **Floors** - Use sheet vinyl²⁷, vinyl tile²⁸ or seamless flooring²⁰ where wet or potentially messy activities will be conducted. Carpet should have solution-dyed yarn and non-moisture absorbing backing¹⁶.
- B. **Walls** - Same as for corridors in #2 above.
- C. **Ceiling** – Prefer non-accessible solid gypsum board ceiling. If more sound attenuation is desired, apply 1’x1’ acoustic tile to the gypsum board with adhesive. A nine-foot-high ceiling is highly desirable in that the added height makes it more difficult to reach and therefore decreases patient tampering with ceiling-mounted devices.
- D. **Glass** - Same as for corridors in #2 above.
- E. **Hardware** - Same as for counseling and interview rooms in #2 above.
- F. **Light fixtures** - Same as for corridors in #2 above.
- G. **Fire sprinklers** – Institutional type – Same as for corridors in #2 above.
- H. **HVAC grilles and equipment** –Only grilles with small perforations¹⁷ complying with the National Institute of Corrections standards,
 - 1. If other types exist and must remain, cover with heavy gauge stainless steel screen fabric¹⁸.
 - 2. If individual fan/coil type units exist and must remain, secure all access panels, grilles, and controls with tamper-resistant screws¹² and cover all supply and return air openings with stainless steel screen fabric¹⁸ or perforated sheet metal or plastic. All coverings should be securely attached with tamper-resistant fasteners.
- I. **Window covering hardware** – Same as for counseling and interview rooms in #2 above.

J. Furniture – All lounge furniture requirements listed for counseling and interview rooms in Level #2 above apply to this level also. Where movable seating is required such as dining and activity rooms, polypropylene very light-weight chairs⁷⁴ that resist breaking into sharp pieces are preferred.



K. Kitchen appliances

1. All cooking appliances (ranges, microwaves, coffee makers, etc.) should have key operated lock-out switches¹⁹ to disable the appliance.
2. Patients' access to coffee should be carefully considered by each facility's Risk Management Program. If access to this (and other potentially scalding liquids) is allowed, the location of the coffeemaker should be chosen so it is readily observable by staff. Glass coffee pots should never be available to patients. Insulated plastic dispensers are preferable.
3. All garbage disposal units should have a key operated lock-out switch¹⁹ to disable the device.
4. GFCI-protected receptacles must be provided near all sources of water including sinks.



L. Miscellaneous

1. All electrical device (switches, outlets, etc.) cover plates must be attached with tamper-resistant screws¹². Electrical cover plates for switches and receptacles should be made of polycarbonate^{91, 100} materials and secured with tamper-resistant screws.
2. All Miscellaneous requirements listed for counseling and interview rooms in Level #2 above apply to this level also.
3. Television – TV sets should *not* be mounted on walls using brackets because of the risk presented to patients. All cords and cables should be as short as possible. Consideration should be given to providing built-in TV or media centers and installing an isolation switch that staff can control. One facility utilized unused platform bed frames mounted vertically on the



wall to house television sets and conceal all wires and cables.

Level 4a. Patient Rooms

A. **Floors** – Same as lounges and activity rooms in #3 above. If some of patient population have problem with urinating on the floor, provide some rooms with seamless epoxy flooring²⁰ with integral cove base or sheet vinyl flooring with integral cove base.



B. **Walls** – Impact resistant gypsum board^{1,99} on metal studs – paint finish preferred.

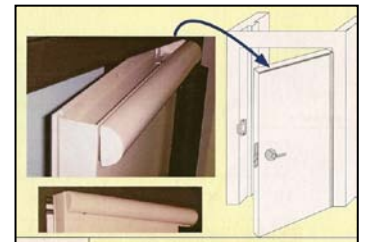
C. **Ceiling** - Non-accessible solid gypsum board ceiling - paint. Provide key-lockable access panels²² at all locations where access is required.



D. **Doors** - Strongly recommend that door to corridor swing into corridor if this can be accomplished without creating alcoves that are difficult to observe. This greatly reduces the risk of patients being able to barricade themselves in rooms. When this is difficult or impossible to accomplish in remodeling or new construction, there are still a range of options available.

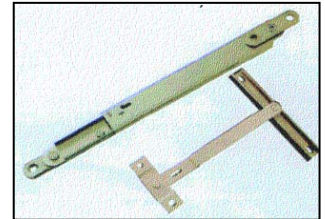
1. The door-within-a-door (sometimes referred to as a “wicket” door) has a portion of the center of the door hinged to swing into the corridor. This hinged panel is mounted on a continuous hinge, and the panel is secured with a deadbolt lock.
2. If space is available, a separate narrow (18”-24”) wide door that swings into the corridor. This smaller leaf can either be mounted in the same frames as the main door in a “double egress” configuration, or there can be a mullion between the two leaves.

The top of all tight-fitting doors provides a pinch point that allows a patient to tie a knot (in a sheet, the leg of a pair of jeans or other object), place it over the top of the door, and close the door. This provides a hanging device. One way to reduce this risk is with a pressure-sensitive device placed on the top of the door that sounds an alarm^{31, 32, 33}.



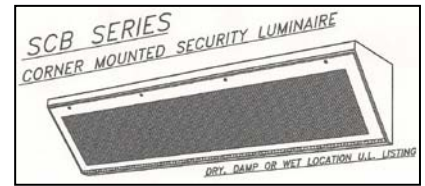
E. Glass

1. **Exterior windows** – (See Level 2.D.1 Safety Glazing above.) Advances in different types of safety glass make it worthwhile to consult an expert for advice for any specific project. The height above the ground, patient population and many other factors should be taken into account in making these decisions. Comply with all applicable codes and regulations for operable sash. Fixed windows or units equipped with sash control devices²³ that limit amount of opening and can be released using a key to full opening for evacuation purposes are preferred.
2. **Security screens** - If replacing the windows presents a prohibitive cost in remodeling work, provision of a security screen with a very sturdy steel frame designed to resist deflection with multiple key locks and equipped with heavy gage stainless steel screen fabric⁵⁸ may be used. These are very functional and secure, but create a very “institutional” appearance and can be defaced by writing obscene words with toothpaste (or other material).
3. **Mirrors** – RADIUS stainless steel framed security mirrors are preferred for patient-room mirrors, and the reflective surface may be polycarbonate, tempered glass, stainless steel, or chrome-plated steel⁸⁴. Each has durability and distortion characteristics.
4. **View windows to corridors in doors or sidelights** – Use polycarbonate² (if possible). If wire glass is required by codes, request permission from the authority having jurisdiction to install a layer of polycarbonate² on each side of the wire glass. (Wire glass can be broken and yield shards of glass that can be used as weapons.)



F. Hardware – See comments under Level 2 E above. It is highly desirable to keep vacant patient rooms locked at all times to avoid other patients entering these rooms without staff’s knowledge. Many jurisdictions do not allow the capability of locking a patient in a room. Therefore, “classroom”-type locks are recommended. These can always be opened from the inside, and the corridor side may be either locked or unlocked with a key.

G. Light fixtures – Same as in Level 2 above except that all light fixtures should be security-type fixtures⁴⁰. These do have more of an “institutional” look, but the level of patient safety provided is much higher. No glass components should be used in any fixture, and table lamps are strongly discouraged. If used, they should be anchored in place and access to the bulb limited or shatter proof bulbs should be provided and power cords shortened.



H. Fire sprinklers – Institutional type – Same as for corridors in Level 2 above.

I. HVAC grilles and equipment –

1. Fully recessed vandal-resistant grilles with S-shaped air passageways⁴¹ are recommended for all ceiling and wall-mounted grilles.
2. In new construction or major remodeling, locate individual room HVAC equipment (such as fan/coil units) in an adjacent corridor or in other location (such as an interstitial space) where they can be serviced without entering the patient’s room.
3. In existing facilities that have units located below the windows, care should be taken to secure all access panels with tamper-resistant screws. All supply and return air grilles should also be covered with perforated grilles or stainless-steel screen fabric.

J. Window covering hardware – Same as for counseling and interview rooms in Level 2 above.

K. Furniture -

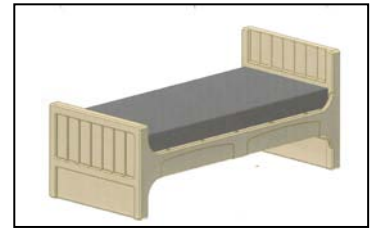
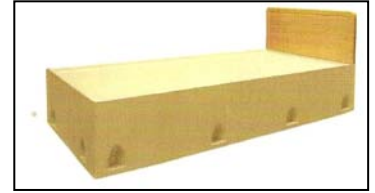
1. **Furniture** – Sturdy wood, thermoplastic or composite furniture should be bolted to the floor or walls whenever possible. Care must be taken to assure that the furniture will withstand abuse, will not provide opportunities for hiding contraband, and will resist being dissembled to provide patients with weapons. Open-front units with fixed shelves and no doors or drawers are recommended. Doors should not be provided because they can be used by patients to hang themselves. Drawers should not be provided because they can be removed by the patients and broken to use as weapons. If drawers and doors are provided, they should be lockable, and the



keys should be controlled by staff. They should have pulls that are flush⁴⁷ or cup type⁷⁵ that cannot be used for ligature attachment, and the doors should have continuous hinges. All upholstery and foam used in furniture and mattresses should have flame spread ratings that comply with the requirements of NFPA 101 Life Safety Code, Section 10.3.

2. Bed –

- a. **Non-adjustable platform beds**^{24, 26, 79} without wire springs or storage drawers are needed. It is recommended that these beds be securely anchored in place to prevent patients from being able to use them to barricade the door. If use of a portable lifting device is needed, these are available with an opening under the bed to accommodate the legs of the lift¹⁰⁸.
- b. **Mattresses** for platform beds⁶ should be specifically designed for use in these facilities and be resistant to abuse and contamination.
- c. If medical necessity is present, **manual hospital beds**²⁵ are preferred. It is recommended that the wheels of hospital-type beds be removed or rendered inoperable to reduce the opportunity of using them to barricade the door. It should be noted that the bed rails, headboard and footboard all present hazards for these patients.
- d. If **electrically operable beds** are needed to reduce risk of staff injuries (especially on geriatric units), new beds are available that will sense obstructions and reverse direction⁸. If existing beds must be used for financial reasons, use only beds that require a constant pressure on a switch located on the bed rail (not a remote control device or paddle that can be placed on the floor). If existing electric beds are to be used, provide key lockout switches on beds (or removable pigtail) so that only staff can operate the beds. All electrical cords should be secured and shortened. Key lock-out switch preferred¹⁹. It is recommended that the wheels of hospital type beds be removed or rendered inoperable to reduce the opportunity of using them to barricade the door. It should be noted that the



bed rails, headboard and footboard all present hazards for these patients.

3. Wardrobe -

Wardrobe units should not have doors and should have fixed (non-adjustable) shelves^{79, 106}. They should be securely anchored in place and have sloped tops. Wardrobes with clothes poles requiring hangers are discouraged because, while the bar itself can be made safe, the hangers themselves present serious hazards. It should be noted that the current (2010) edition of the “*Guidelines*” no longer calls for patient rooms to have accommodations for “hanging full length clothing”. The average length of stay in many facilities is now in the 7- to 10-day range, and patients no longer come with clothing that needs to be hung-up.



L. Miscellaneous –

1. **Pull cords** on nurse call and/or emergency call switches (where required or provided) shall be no longer than 12” and as lightweight as possible.
2. All Miscellaneous requirements listed for lounges and activity rooms in Level #4 above apply to this level also.
3. In new construction, or major remodeling, provide a **dedicated circuit for all electrical outlets in each patient room and bath**. This will allow power to the outlets in a specific room to be turned off if necessary for patients’ safety. Where this is not practical, the outlet may be temporarily covered. It is strongly recommended that all electrical outlets in patient rooms and patient toilet rooms be hospital grade, tamper-resistant type. It is also preferred that they be GFCI receptacles⁸⁰ to greatly reduce the risk of patients being able to harm themselves by tampering with the receptacles.

All electrical switches and outlets should be made of polycarbonate^{91, 100} to reduce the risk of being broken to obtain access to the wiring or to obtain sharp pieces



of plastic, and they should be secured with tamper resistant fasteners.

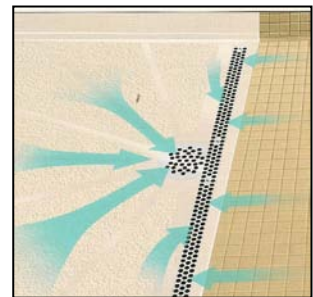
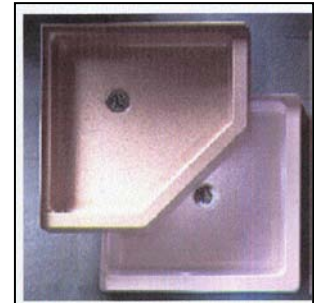
4. **Coat hangers** are not recommended. There are some made of cardboard, but (when several of them are grouped together) they can hold the body weight of some patients.
5. **Curtain cubicle tracks** should be prohibited because of the risk to patients.
6. **Telephone** – If desired, cordless phones may be provided to allow the patient to check out a phone for private conversations when appropriate. Phones should not be left in patient rooms permanently because they can be used as weapons.
7. **Television sets** should not be provided in patient rooms to encourage patients to use activity areas with other patients and allow easier supervision.
8. **Medical gas outlets** – These are not normally required for behavioral health units. If there is medical necessity or the outlets are a pre-existing condition in remodeling projects, they should be covered with panels that are lockable or are attached with tamper-resistant screws¹². These should be removed only for medical necessity of the current patient and replaced when that patient is discharged or moved. Special care must be taken in semi-private rooms to assure that access to the medical gasses does not present a safety risk to the other patient. Some manufacturers can provide these lockable covers for their outlets.
9. **Trash cans and liners** – Trash cans and liner requirements listed for counseling and interview rooms in Level #2 above apply to this level also. In choosing trash cans and liners, the potential for patient risk should always be assessed. Plastic liners should be prohibited because of their potential risk of suffocation. A substitute liner made of paper⁴⁴ may be used.
10. **Baseboards** of any kind that are applied to the surface of the wall (vinyl, rubber, wood, etc.) intended to cover the joint between the wall and floor is strongly

discouraged. They become prime targets for patients to tamper with and can be used to conceal contraband. Seamless epoxy flooring that has an integral coved base is an exception to this as long as there is no metal edge strip on the top of the base. Finishing the wall surface to the floor, sealing the joint with pick-resistant sealant,^{77,98} and painting a contrasting color stripe at the floor is preferred. In some cases wood-base material (of a minimum ¾” thickness that is adhered to the wall, secured with countersunk tamper-resistant fasteners, and sealed with tamper-resistant sealant) has been used successfully.

Level 4b. Patient Toilets

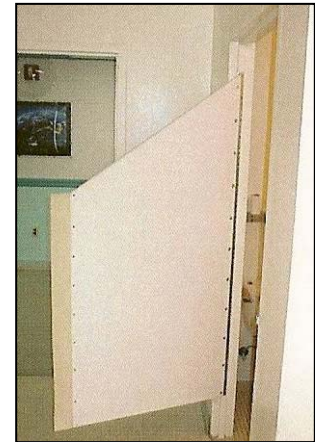
A. **Floors** – Use one of the following depending on acuity of patient population:

1. Seamless epoxy flooring²⁰ with integral cove base including shower. Do not use metal strip at top of base as this can be removed by patients and used as a weapon.
2. Sheet vinyl flooring²⁷ with integral cove base in room and ceramic tile floor in shower.
3. Ceramic tile is still frequently used and is acceptable as long as it is maintained in good condition. The use of larger pieces reduces the number of joints and generally preferred.
4. Shower floors pre-cast artificial stone shower floor²⁹.
Solid surface material floors are also available that include a trench drain¹⁰³ across the entire front opening of the stall which not only helps control water from getting into the room, but also makes the drain more difficult for patients to intentionally clog. Fiberglass shower stalls and floors are generally not durable enough. Ceramic tile may also be used for shower floors if desired.



- B. **Walls** - Use one of the following depending on acuity of patient population and budget.
1. Avonite³⁰
 2. Ceramic tile
 3. Gypsum board that is impact-resistant with mold- and moisture-resistant facing¹ with epoxy paint and ceramic tile in shower.

- C. **Ceiling** – Gypsum board with mold- and moisture-resistant facing¹ with epoxy paint.
- D. **Glass** – Mirrors, same as patient rooms in #4 above.
- E. **Door** –
1. A “**Soft Suicide Prevention Door**” (SSPDoor)⁵⁶ has been developed that eliminates many of the hanging hazards associated with a typical door. The door may be easily removed by staff and used as a shield against an attacking patient and can have a photograph printed on its faces. This door cannot be locked or latched in any manner. (Use of this product eliminates the need for the items listed under “Hardware” below.)
 2. **Sentinel Event Reduction Door**¹⁰¹ (without movable top panel) is another option. Privacy for two patient rooms can be improved slightly by installing the door a little higher than normal.
 3. A similar result can be obtained by using a **solid-core wood door**, cutting the top at an angle, and mounting is so there is a large gap at the bottom. A stainless steel channel probably will need to be installed at the cut edge on top, and the door should be mounted on a continuous hinge and provided with a ball latch and recessed pulls on both sides.
 4. Some facilities with single patient rooms are electing to remove the doors entirely from the patient toilet rooms. The practicality of this depends on the sight lines into the toilet room from the corridor door
 5. If there is a need to be able to lock patients out of the toilet room, a full door will need to be installed with similar hardware as described above and with a classroom function. With the tight-fitting door, an over-the-door alarm should also be provided^{31,32,33}.



F. **Hardware** - See Level 2 E above.

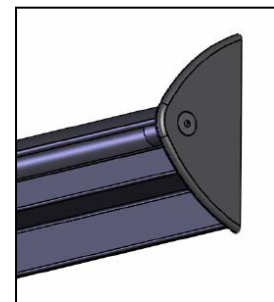
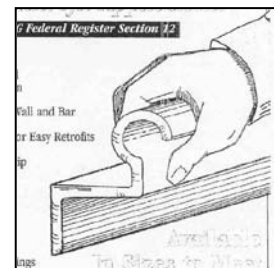
G. **Light fixtures** – Same as patient rooms in Level 4 above except that fixtures inside showers shall be water-resistant type with a sealed polycarbonate lens. No glass components should be used in any fixture.

H. **Fire sprinklers – institutional type** – Same as for corridors in Level 2 above.

I. **HVAC grilles and equipment** – Fully recessed vandal-resistant grilles with S-shaped air passageways⁴¹

J. **Miscellaneous**

1. **Medicine cabinets** should not be provided because of difficulty in observing potentially dangerous items that may be placed in them.
2. Evaluate the risk of using **robe hooks**. If you require them, they should be the collapsible type³⁴.
3. **Towel bars** should not be used. Provide collapsible hooks³⁴ for towels.
4. **Grab bars** for toilets and showers are preferred to be removable and installed only when patient have medical necessity. Grab bars should be removed when the patient with medical necessity is discharged or moved to another room. Special care should be taken in semi-private rooms to assure that access to the grab bars does not present a safety risk to the other patient. However, when this is not practical, a SafeBar^{45,61, 85} may be installed on a slight slope with one end cap on the higher end or SR Draining grab bar may be used. This provides a high degree of safety and is also self-draining and easy to clean and sanitize.



5. **Shower curtain rods** are to be avoided but, if used, should be of a tamper-resistant design and the same as curtain rods.¹⁵



Another solution that has proven effective is to take a shatter-resistant plastic sleeve (made to slip over a fluorescent tube), slit it from end to end, and use it as a shower curtain rod. It will hold minimal weight and does not give the patient a weapon to use for harming himself/herself or others.

6. **Shower curtain material** should be made of cloth treated with waterproofing⁷² so the fabric is “breathable.” No plastic shower curtains should be allowed due to risk of suffocation by patients. If water that gets out of the shower will drain to a floor drain, consideration could be given to using the SSPD⁵⁶ door mentioned in paragraph E above in lieu of a shower curtain.



7. **Pull cords** on nurse call switches (where required or provided) should be no longer than 4” and as lightweight as possible.



8. **Lavatories** – Vanity top-type lavatories⁶⁶ are preferred because they provide the patients a place to set their toothbrush, etc. and have a more residential appearance. The enclosure below should have an access panel that is secured with tamper-resistant screws in lieu of a door. This enclosure can be designed to be wheelchair-accessible, if needed.



Wall-hung lavatories are available that make it very difficult to tie anything around them.⁶³ These are made from solid surface material and have optional stainless steel or acrylic pipe covers that fit beneath the unit. If these are used, a shelf (surface-mounted or recessed) that limits attachment^{78, 13} of a ligature may be needed.



9. **Lavatory and sink faucets** provide attachment points for ligatures. Faucet and valve assemblies⁶⁶ that are made of solid surface material and have push- button water control are difficult to attach ligatures to and provide a much safer solution.



10. All **lavatory waste and supply piping** must be enclosed and should not be accessible to patients⁵⁹. Extreme care should be taken when doing this that the material is trimmed to fit tightly to the underside of the lavatory fixture to prevent the patient from using this to hide contraband.



11. **Soap dishes**⁵³ should not have handles and should be recessed.



12. Many facilities are now using **liquid soap** in patient areas. The hard plastic dispensers in use in many facilities are problematic in that they can fairly easily be pulled off of the wall and broken to provide sharp shards that can be used as weapons. One solution is a dispenser that is made of solid-surface material⁶⁷ that is commonly used for countertops and is relatively tamper-resistant. There are some commercially available stainless steel dispensers that are reasonably ligature-resistant⁸⁶.



13. **Toilets** used by these patients in new construction should be floor mounted, back outlet, back water supply type^{3,42} in lieu of wall-mounted fixtures which can be broken off of their hangers. Where wall-hung toilets exist and replacing them is not practical, a wall-hung toilet support⁶⁵ can be used if it can be secured in place so that patients cannot remove it to use as a weapon. Movable seats provide attachment points for ligatures and should be considered carefully by each hospital. The solution is to use a fixture with an integral seat as suggested above. Some facilities feel this is too prison-like and choose to accept the risk of the movable seat. China fixtures themselves can be broken (both floor- and wall-mounted) and yield large, sharp shards. Toilet fixtures made of solid surface material⁹² and powder-coated stainless steel⁵⁵ are now available and are much more resistant to breaking..

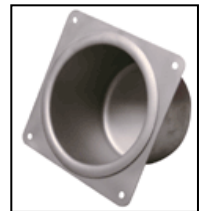


14. **Flush valves** are preferred to be recessed in the wall⁴³ and activated by a push button. Where this is not practical, the flush valve and /or all related pipes should be enclosed with a stainless steel cover⁶⁸ that has a sloped top that incorporates a push-button activator for the valve.



15. **Toilet Paper Holders**

a. Fully recessed^{51,54} stainless steel units. These have been used widely for a number of years, however, some facilities feel this creates an infection control problem because the users have to handle the entire roll.



b. Solid surface holders are available that use a foam tube to hold the roll. The manufacturer will provide extra foam tubes at no charge when needed.



c. One facility developed a custom holder (shown here) and had it fabricated by a local shop.



16. Single knob mixing valves for **shower controls** that provide minimal opportunity for tying anything around are preferred⁴⁶. An alternative is a “wall pak”⁷⁶ shower that activates with a push button and a timer. The timer prevents flooding if the shower is left on and the drain is blocked.



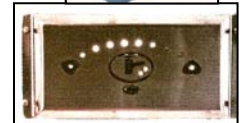
17. If it is only necessary to replace the valve handles and the valve itself in working properly, a replacement valve handle⁷⁰ that can be adapted to a variety of valves might be considered.



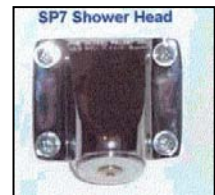
18. Another option is an infrared-controlled, “no touch” valve⁹³.



19. Provide **thermostatically limited hot water** to prevent accidental or intentional scalding in all patient-accessible toilet rooms.



20. **Shower heads** should be institutional type³⁵.

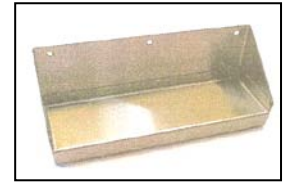


21. **Shower seats** that fold away typically have many tubes and brackets that are hazardous. If a folding shower seat is necessary, one without the tubes and brackets⁹⁴ is suggested.



22. Provide ground fault circuit interrupter (GFCI)-type electrical circuit breakers for all receptacles near sources of water such as lavatories, toilets, and showers.

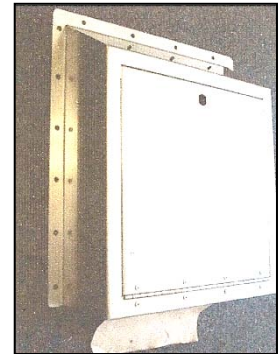
23. **Shelves** to hold miscellaneous items are often requested in shower stalls. A stainless steel suicide-resistant shelf^{78, 13} may be considered for these applications.



24. **Paper towel dispensers** in patient-accessible toilets are a concern if they have sharp edges and are not securely constructed. Some commercially available tri-fold dispensers are acceptable⁸³ in locations where high abuse is not anticipated.



25. **Existing tri-fold paper towel dispensers** may be left in use if desired and covered with heavy-duty secure cover⁸³.



Level 5a. Admissions (especially emergency admissions which frequently occur at night and on weekends). A separate room that has direct access from both outside and inside the unit should be considered for this purpose. This allows for the patient to be brought directly into the admissions area without entering the unit directly. At admission, unit staff members know very little about the new patient and his or her trigger points. A separate room avoids disrupting either the unit or the patient, due to the agitation of either. This room should be pleasant and welcoming and should be minimally furnished (with a minimum of loose pieces of furniture). The room should be large enough to allow for several staff to physically manage the patient if necessary. If possible, the admitting staff member should not be in the room alone with the patient. After the admitting process is complete, the patient can be taken through the second door and directly onto the unit.

- A. **Floors** - Same as activity rooms and lounges in Level #3 above.
3. **Walls** - Same as patient rooms in Level #4 above.
4. **Ceiling** - Same as patient rooms in Level #4 above.
5. **Glass** –
 1. Same as corridors in Level #2 above.
 2. Provide small (12”x12” or 4”x24”) view window in door to patient unit.
 3. If privacy is desired on occasion, panels are available that can be changed from 50% transparent to 100% frosted by turning a key⁷³.
6. **Hardware** - Same as corridor in Level #2 above.
7. **Light fixtures** - Same as corridor in #2 above.
8. **Fire sprinklers – institutional type** – Same as corridor in Level #2 above.
9. **HVAC grilles** - Fully recessed vandal-resistant grilles with S-shaped air passageways⁴¹
10. **Window covering hardware** – Same as corridor in Level #2 above.



11. Furniture –

1. This room should have a built-in desk or table that is firmly attached to the floor or walls and contain a lockable file drawer for forms and a lockable box drawer for pens, pencils, staplers, etc. All loose items should be kept in drawers and out of sight.
2. The computer, printer, and telephone should be located so they are not easily reached by the patient.
3. Seating should be heavy-weight as discussed above^{60,62}.

12. Miscellaneous -

1. All Miscellaneous requirements listed for corridors in Level 2 above apply to this level also.
2. An emergency call button should be provided so the staff may summon additional staff if necessary.
3. “Baseboards” same as patient rooms in Level 4 above.

Level 5b. Seclusion Rooms – should be no less than 7 feet wide and no greater than 11 feet long and designed to minimize blind spots where patients cannot be observed by staff without entering the room. A minimum of a 9' ceiling height is preferred. The distance of the seclusion room from the nurse's station needs to be considered. The goal is to avoid excessive distance so that staff can be readily available as needed. The door should open directly into an Anteroom to separate these activities from the other patients as well as provide access to a patient toilet to be used by these patients without entering the corridor.

A. **Floor** – Continuous sheet vinyl with foam backing and heat-welded seams³⁶.

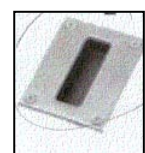
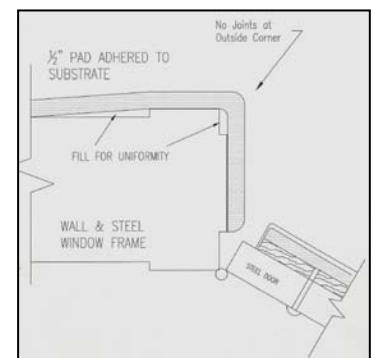
13. **Walls** – Impact resistant gypsum board¹ over 3/4" plywood on 20 gauge metal studs at 16" on center with Deco Coat⁵⁷ finish. If wall padding is desired, a Kevlar-faced product⁶⁹ or a heavy, heavy vinyl material with a 1 1/2" thick foam backing¹⁰² may be considered.

14. **Ceiling** – Impact resistant gypsum board^{1,99}, painted at 9'-0" minimum height.

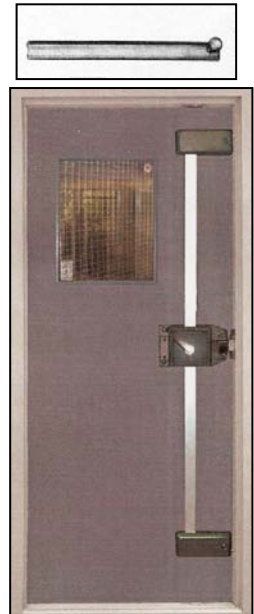
15. **Glass** – All glazing exposed to patients should be polycarbonate². Care must be taken on the size of the individual pieces and the amount of recess in mounting frames that an impact to the center of the piece will not cause it to flex to the extent that it comes out of the frame. If exterior windows exist in seclusion rooms, the glazing should be replaced with polycarbonate whenever possible. If replacement is not feasible, either security laminate³⁷ or polycarbonate² may be applied to cover the glass and keep the patient from having access to broken glass.

16. **Doors** – Commercial-grade steel doors that are a minimum of 3'-8" wide and frames hinged to open out of room with a polycarbonate² view window not to exceed 100 square inches.

17. **Hardware** – No exposed hardware in the room except for a flush pull on door³⁸.



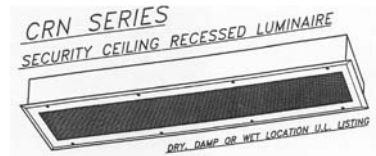
The Anteroom side shall have three surface bolts which may be individual bolts³⁹ or included in one piece of hardware with a single lever to operate all three⁶⁴. For jurisdictions that require that patients not be locked in seclusion rooms without being under constant supervision, this device is available in a model that must be physically held in the locked position and automatically unlocks when pressure is released.



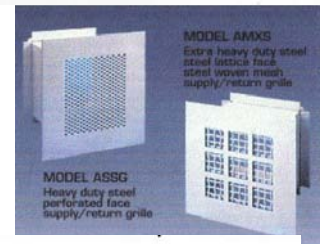
18. **Light fixtures** – Fully recessed, moisture resistant, vandal resistant fixtures⁴⁰ in ceiling are recommended.

19. **Fire sprinklers—institutional type** – Same as for corridors in Level 2 above.

I. **HVAC grilles** – Fully recessed vandal-resistant grilles with S-shaped air passageways⁴¹



J. **Thermostats** should be digital-type mounted on wall in Anteroom with sensors in return air ducts serving the room.



K. **Miscellaneous** –

1.No electrical outlets, switches, thermostats, blank cover plates, or similar devices are permitted inside these rooms.

2.Toilets same as Toilets in Level 4B above or prison-type⁵⁵ stainless steel fixtures combining toilet and lavatory are preferred by some facilities. These are now available in powder-coated finishes in a variety of colors.



3.“Baseboards—” No baseboards should be used in these rooms.

4.Install a convex mirror same as for glass in Corridors in Level 2 above. Locate the mirror in the upper corner of the room and opposite the seclusion room door. Make sure the mirror can be seen when viewing it from the window in the door. By installing this mirror, you are now providing staff with a 360-degree view of the room prior to opening the door. Care shall be taken to assure that the attachment is secure so the patient will not be able to remove it and have a weapon

L. **Window covering hardware** – No window covering material or hardware should be accessible to the patient.

An option would be electronically controlled blinds or shades behind polycarbonate². If chosen, controls should be by electric switches located outside the room.

SUMMARY

Thoughtful consideration of these design elements and materials by design professionals and healthcare professionals can result in a very aesthetically pleasing environment, which will enhance the treatment process and help maximize safety for all patients, staff, and visitors.

APPENDIX

1. Abrasion resistant wallboard

National Gypsum Hi-Abuse Brand Wallboard

National Gypsum Company
2001 Rexford Road
Charlotte, NC 28211
1-800-628-4662

<http://www.nationalgypsum.com>

- Impact-resistant wallboard

National Gypsum Hi-Impact Brand Fire Shield Wallboard

National Gypsum Company
2001 Rexford Road
Charlotte, NC 28211
1-704-365-7300

<http://www.nationalgypsum.com>

2. Polycarbonate sheet glazing

GE brand “Lexan” MR10 Sheet with Margard II UV and Abrasion-Resistant Coating

GE Structured Products, GE Plastics
One Plastics Avenue
Pittsfield, MA 01201
1-800-451-3147

<http://www.geplastics.com>

3. Toilet fixture – floor mounted, back outlet

American Standard; Neolo 2531.016 Elongated Flush Valve Bowl, Floor Mounted, Back Outlet, Concealed Back Spud Bowls, integral seat

American Standard P. O. Box 6820
1 Centennial Way
Piscataway, NJ 08855-6820
1-800-442-1902

<http://www.americanstandard-us.com>

4. Security arm door closers

LCN 4510T Series Security Track Closer

Ingersoll-Rand
Architectural Hardware
LCN Division
P.O. Box 100
121 West Railroad Avenue
Princeton, IL. 61356-0100
1-815-875-3111

<http://www.lcnclosers.com>

5. Push/pull latches
Sargent Lock Company; 114 Hospital Latches for Push-Pull Doors
Sargent Manufacturing Company 100 Sargent Drive
P. O. Box 9725
New Haven, CT 06536-0915
1-800-727-5477
<http://www.sargentlock.com>

6. Behavioral Health Mattresses
Derby Industries; Secure Care Pinnacle Mattresses
Derby Industries
24350 State Road 23 South
South Bend, IN 46614
866-233-4500
www.derbyindustries.com

7. Anti Ligature Lockset
Stanley Hardware SE-1 Anti Ligature Lockset
Stanley Hardware
480 Myrtle Street
New Britain, CT 06053
1-800-337-4393
http://www.stanleysecuritysolutions.com/files/SPSL_VA.pdf

8. Electrically adjustable hospital bed
Stryker; S3 Med/Surg Bed
Stryker
3800 East Centre Avenue
Portage, MI 49002
1-800-787-9537
www.stryker.com

9. Electromagnetic lock
Dynalock Corp. series 2011 Full Size Series
DynaLock Corporation
705 Emmett Street
P.O. Box 9470
Forestville, CT 06011-9470
1-877-DYNALOCK
<http://www.dynalock.com>

10. Magnetic hold open device
LCN SEM7800 Series
Ingersoll-Rand
Architectural Hardware
LCN Division
P.O. Box 100
121 West Railroad Avenue
Princeton, IL. 61356-0100
1-815-875-3111
<http://www.lcnclosers.com>

11. Sentronic closer
LCN Fire/Life Safety Series Sentronic closer
Ingersoll-Rand
Architectural Hardware
LCN Division
P.O. Box 100
121 West Railroad Avenue
Princeton, IL. 61356-0100
1-815-875-3111
<http://www.lcnclosers.com>

12. Tamper-resistant screws
Tamperproof Screw Company, Inc.
Tamperproof Screw Company, Inc.
30 Laurel Street
Hicksville, NY 11801
516-931-1616
<http://www.tamperproof.com>

13. Recessed shelf
Norix Group Inc.; Recessed Stainless Steel Shelf
Norix Group, Inc.
1000 Atlantic Drive
West Chicago, IL 60185
1-800-234-4900
<http://www.norix.com>

14. Institutional fire sprinkler head
Reliable Automatic Sprinkler Company, Inc.; Model ZX-QR-INST
The Reliable Automatic Sprinkler Co., Inc.
525 N. MacQuesten Parkway
Mt. Vernon, NY 10552
1-800-431-1588
<http://www.reliablesprinkler.com>

15. Curtain track – flush mounted
Imperial Fastener Company, Inc.; IFC-69 Jiffy curtain track and ‘safety tabs’
Imperial Fastener Company, Inc.
1400 SW 8th Street
Pompano Beach, FL 33069-9794
954-782-7130
<http://www.imperialfastener.com>
16. Carpet
Lees Tenure Broadloom; Product Number L3106
Lee’s Carpets
3330 W. Friendly Avenue
Greensboro, NC 27410
336-379-3897
<http://www.leescarpets.com>
17. Perforated air grilles
Carnes; Stamped, Perforated Diffuser; see catalog D-22
Carnes Company
448 South Main Street
Verona, WI 53593
608-845-6411
<http://www.carnes.com>
18. Stainless steel screen fabric
McMaster-Carr; Type 304 Stainless Steel, Standard Grade Woven Wire Cloth
McMaster-Carr Supply Company
P.O. Box 4355
Chicago, IL 60680-4355
1-630-833-0300
<http://www.mcmaster.com>
19. Key operated electric switches
Hubbell Locking Type Switch #5Z724
Hubbell, Inc.
584 Derby Milford Road
Orange, CT
<http://www.hubbell.com>

20. Seamless floors

Dex-O-Tex Cheminert “K” Flooring

Dex-O-Tex
Division of Crossfield Products Corp.
140 Valley Road
Roselle Park, NJ 07204
1-908-245-2800
<http://www.dexotex.com>

21. Continuous hinges – gear type

Hager – Roton Hinges

Hager Hinge Company
139 Victor Street
St. Louis, MO 63104
800-255-3590
<http://www.hagerhinge.com/catalog/default.asp?c=25>

22. Access panel – lockable

J. L. Industries, Inc. Standard SP Security Panel with mortise prep

J.L. Industries, Inc.
4450 West 78th Street Circle
Bloomington, MN 55435
1-612-835-6850
<http://www.jlindustries.com>

23. Life safety window hardware

Truth Hardware; Limit Device

Truth Hardware
700 West Bridge St.
Owatonna, MN 55060
1-800-866-7884
<http://www.truth.com>

24. Platform bed

Norix Group Inc.; Roto Cast Series

Norix Group, Inc.
1000 Atlantic Drive
West Chicago, IL 60185
1-800-234-4900
<http://www.norix.com>

25. Manually adjustable hospital bed

Stryker; Psych Bed

Stryker
3800 East Centre Avenue
Portage, MI 49002
1-800-787-9537
www.stryker.com

26. Patient room furniture

Hill-Rom, Harbor Glen Series

Hill-Rom
Batesville, IN 47006
1-812-934-7777
www.hill-rom.com

27. Sheet vinyl flooring

Armstrong World Industries, Inc. Commercial Flooring, vinyl, homogeneous

Armstrong World Industries, Inc.
P.O. Box 3001
Lancaster, PA 17604
1-877-ARMSTRONG
<http://www.armstrong.com>

28. Vinyl floor tile

Armstrong World Industries, Inc. Commercial Flooring, vinyl composition tile

Armstrong World Industries, Inc.
P.O. Box 3001
Lancaster, PA 17604
1-877-ARMSTRONG
<http://www.armstrong.com>

29. Shower floor basin

The Swan Corporation, Swanstone Solid Surface Shower Floors

The Swan Corporation
One City Centre, Suite 2300
St. Louis, MO. 63101
1-314-231-8148
<http://www.theswancorp.com>

30. Synthetic wall material
Avonite Solid Surface Wall Panels
Avonite
1945 Highway 304
Belen, NM 87002
1-800-4-AVONITE
<http://www.avonitesurfaces.com>
31. Over door alarm
Securitech Group, Inc.: SEDA Over Door Alarm
54-45 44th Street
Maspeth, NY 11378
1-800-622-5625
<http://www.securitech.com>
32. Over door alarm
The Door Switch
11772 Westline Industrial Drive
St. Louis, MO 63146
314-373-7214
<http://www.thedoorswitch.com>
33. Over door alarm
Door Control Services, Inc; Top Door Alarm
Door Control Services, Inc.
321 VZ County Road 4500
Ben Wheeler, TX 75754
800-356-2025
www.doorcontrolservices.com/topdooralarm
34. Robe hook – break-away
Odd Ball Industries; SP6 Robe/Towel Hook
Odd Ball Industries Mfg. Co., Inc.
P.O. Box 376
Greenlawn, NY 11740
1-631-242-8482
<http://www.oddballindustries.com>

35. Shower head – institutional
Odd Ball Industries; SP7 Shower Head with Quick Disconnect Hand Held Shower
Odd Ball Industries Mfg. Co., Inc.
P.O. Box 376
Greenlawn, NY 11740
1-631-242-8482
<http://www.oddballindustries.com>
36. Seclusion room floor material
Lonseal, Inc. LonFloor plain, smooth
Lonseal, Inc.
928 East 238th Street, Building A
Carson, California 90745
1-800-832-7111
<http://lonseal.com>
37. Security Glass Laminates
ACE Security Laminates, 200 Series – High-end Safety
Ace/Security Laminates, Inc.
200 Isabella St., Ste. 500
Ottawa, ON, Canada
K1S 1V7
1-888-607-0000
<http://www.smashandgrab.com>
38. Flush mounted door pull
Stanley Hardware cast, flush door pulls
Stanley Hardware
480 Myrtle Street
New Britain, CT 06053
1-800-337-4393
<http://www.stanleyworks.com>
39. Surface mounted slide bolt
Stanley Hardware CD4060 solid brass 6inch long surface bolts
Stanley Hardware
480 Myrtle Street
New Britain, CT 06053
1-800-337-4393
<http://www.stanleyworks.com>

40. Light fixture

The L. C. Doane Company; CRN Series with polycarbonate external lens TP door fasteners

The L.C. Doane Company
P.O. Box 975
Essex, CT. 06426
1-860-767-8295
<http://www.lcdoane.com>

41. Air grilles –

Anemostat Products Model SSV42, SSV49 and SSV432 – Supply/Return Grille, Heavy Duty with "S" Channel Design

Anemostat Products
P.O. Box 4938
1220 Watson Center Road
Carson, CA. 90745
1-310-835-7500
<http://www.anemostat.com>

42. Toilet fixture – floor mounted, back outlet

Eljer; Newark Flush Valve Bowl 111-0527 Elongated Flush Valve Bowl, Floor Mounted, Back Outlet, Concealed Back Spud Bowls, integral seat

Eljer Plumbingware, Inc.
14801 Quorum Drive
Dallas, TX 75254
1-800-423-5537
<http://www.eljer.com>

43. Recessed flush valve

Sloan Valve Company Regal 153 & WB-1-A Easy Access Wall Box

Sloan Valve Company
10500 Seymour Avenue
Franklin Park, IL 60131-1259
1-800-9-VALVE-9
<http://www.sloanvalve.com>

44. Trash can liner

Sani-Liner ®

Wisconsin Converting
Green Bay, WI
1-800-544-1935
<http://www.wisconsinconverting.com>

45. Grab bar

Cascade Specialty Hardware; Safebar

Cascade Specialty Hardware, Inc.
1413 Lincoln Avenue
Vancouver, WA 98660
3690-823-3995
www.safebarinc.com

46. Shower valve

Odd Ball Industries; SP-10 Shower Valve

Odd Ball Industries Mfg. Co., Inc.
P.O. Box 376
Greenlawn, NY 11740
1-631-242-8482
<http://www.oddballindustries.com>

47. Flush cabinet pulls

Sugatsune America, Inc.; UT-105/S

Sugatsune America, Inc.
18101 Savarona Way
Carson, CA 90746
800-562-5267
www.sugatsune.com

48. Outdoor furniture

Norix; Hilltop Outdoor Furniture

Norix Group, Inc.
1000 Atlantic Drive
West Chicago, IL 60185
1-800-234-4900
<http://www.norix.com>

49. Security fencing

Fence Factory; Miniature Mesh

Fence Factory
1606 Los Angeles Ave.
Ventura, CA 93004
1-800-613-3623
<http://www.fencefactory.com>

50. Convex mirrors

Norix Group Inc.; Duarvision, Model QD18

Norix Group, Inc.
1000 Atlantic Drive
West Chicago, IL 60185
1-800-234-4900
<http://www.norix.com>

51. Toilet paper holder

Odd Ball Industries; SP-5 Toilet Paper Holder

Odd Ball Industries Mfg. Co., Inc.
P.O. Box 376
Greenlawn, NY 11740
1-631-242-8482
<http://www.oddballindustries.com>

52. Stainless steel wall phones

TWAcComm.com; Ceeco Stainless Steel Wall Phone Model #SW-321-X

TWAcComm.com
Oceanview Promenade
101 Main Street, 3rd Floor
Huntington Beach, CA 92648
1-877-892-2666
<http://www.twacomm.com>

53. Soap dish

Norix Group Inc.; Recessed Soap Dish

Norix Group, Inc.
1000 Atlantic Drive
West Chicago, IL 60185
1-800-234-4900
<http://www.norix.com>

54. Toilet paper holder

Norix Group Inc.; Model ITP-110

Norix Group, Inc.
1000 Atlantic Drive
West Chicago, IL 60185
1-800-234-4900
<http://www.norix.com>

55. Prison toilet
Acorn Engineering Company; Penal-Ware 1426FA Series
Acorn Engineering Company
P.O. Box 3257
City of Industry, CA 91744
1-800-488-8999
<http://www.acorneng.com>
56. Patient toilet door
Soft Suicide Prevention Door
Kennon Products, Inc.
Sheridan, WY
307-674-6498
<http://www.suicideproofing.com>
57. Deco Coat
Sto-ex, Inc.; DecoCoat
Sto-ex, Inc.
3932 N Greenbrooke Dr. SE
Kentwood, MI 49512
1-800-782-3162
<http://www.sto-ex.com>
58. Kane Security Screens
Kane Manufacturing Corporation
Kane Manufacturing Corp.
515 North Fraley Street
Kane, PA 16735
1-800-952-6399
<http://www.kanescreens.com>
59. Truebro Lav Shield
Truebro, IPS Corporation
Truebro
202 Industrial Park Lane
Collierville, TN 38017
http://truebro.com/lav_shield.html
60. Upholstered seating
Norix Group Inc.; Sierra Series
Norix Group, Inc.
1000 Atlantic Drive
West Chicago, IL 60185
1-800-234-4900
<http://www.norix.com>

61. Grab bar
Northwest Specialty Hardware; Safebar
Northwest Specialty Hardware, Inc.
503-557-1881
www.northwestsh.com
62. PVC molded seating
Norix Group Inc.; Roto-Mold
Norix Group, Inc.
1000 Atlantic Drive
West Chicago, IL 60185
1-800-234-4900
<http://www.norix.com>
63. Lavatories
Bradley Corporation - Model SS-IN Express Lavatory System
Bradley Corporation
PO. Box 309
Menomonee Falls, WI 53052
1-800-BRADLEY
<http://www.bradleycorp.com>
64. Seclusion room door locks
Securitech – Seclusion Room Time-Out Lock
Securitech
54-45 44th Street
Maspeth, NY 11378
1-800-622-5625
<http://www.securitech.com>
65. Wall-hung toilet support
Big John Products, Inc.; Big John Toilet Support
Big John Products, Inc.
8533 Canoga Avenue, Suite D
Canoga Park, CA 91304
1-866-366-0669
www.bigjohntoileseat.com
66. Lavatory faucet
Norva Plastics – Suicide Prevention Patient Sink Faucet
Norva Plastics, Inc
3911 Killam Ave.
Norfolk, VA 23508
800-826-0758
www.norvaplastics.com

67. Soap dispenser

Norva Plastics – Soap Dispenser

Norva Plastics, Inc
3911 Killam Ave.
Norfolk, VA 23508
800-826-0758

www.norvaplastics.com

68. Stainless steel flush valve cover

Bradley Corporation – Model No. 7905-31 Flush Valve with Cover modified to have sloped top

Bradley Corporation
P. O. Box 309
Menomonee Falls, WI 53052
800 BRADLEY

www.bradleycorp.com

69. Wall padding

Padded Surfaces

Padded Surfaces
5323 W. Minnesota Street
Indianapolis, IN 46241
888-243-8788

www.pddedsurfaces.com

70. Shower valve control handle

Weizel Security; 834-S40 SafeSupport Retrofit Shower Knob

Weizel Security
P.O. Box 276
Blaine, WA 98231-0276
800-308-3627

www.securingshospitals.com

71. Continuous hinges – barrel type

Markar Architectural Products, Inc; FM-3500, stainless steel edge mount, hospital tip security hinge

Markar
260 Santa Fe Street
Pamona, CA 91767
800-872-3267

<http://www.markar.com/products/>

72. Fabric shower curtains

Vita Futura

Vita Futura
215 Willowick Avenue
Tampa, FL 33617
206-666-4583
www.vitafutura.com/curtains/fabric

73. Vision Panels

Vistamatic, LLC.; Vision Panels, key operation

Vistamatic, LLC
7351 Wiles Road, Unit 202
Coral Springs, FL 33067
866-466-9525
www.Vistamatic.com

74. Light weight seating

Norix Group Inc.; Integra Series

Norix Group, Inc.
1000 Atlantic Drive
West Chicago, IL 60185
1-800-234-4900
<http://www.norix.com>

75. Cabinet pulls

Top Knobs – Mayfair cup pull attached with tamper resistant fasteners

My Knobs.com
19-22 45th Street
Astoria, NY 11105
866-695-6627
www.myknobs.com

76. “Wall Pak” shower

Acorn Engineering, Penal-Pak Wall Shower

Acorn Engineering Company
P.O. Box 3257
City of Industry, CA 91744
1-800-488-8999
<http://www.acorneng.com>

77. Pick-resistant sealants
Sika Corporation; Silkaflex-2c NS
Sika Corporation
201 Polito Avenue
Lyndhurst, NJ 07071
800-933-7452
www.sikainfo@silka-corp.com
78. Suicide-resistant shelf
Norix; Suicide Resistant Stainless Steel Shelf
Norix Group, Inc.
1000 Atlantic Drive
West Chicago, IL 60185
1-800-234-4900
<http://www.norix.com>
79. Patient room furniture
Blockhouse Contract Furniture Company; Vista Casegoods
Blockhouse Contract Furniture Company
3285 Farmtrail Road
York, PA 17406
800-346-1126
www.blockhouse.com
80. Hospital-grade receptacles
Hubbell Incorporated; Hospital Grade GFCI Receptacles
Hubbell Incorporated
Wiring Device-Kellems
185 Plains Road
Milford, CT 06461
800-255-1031
www.hubbell-wiring.com
81. Exit signs, lighted – vandal-resistant
Chloride Systems; Caliber Series
Chloride Systems
272 W. Stag Park Service Road
Burgaw, NC 28425
910-259-1000
www.chloridesys.com

82. Exit signs - photoluminescent

Access Products Inc.; Photoluminescent Exit Sign, Model EX424246-100G

Access Products Inc.
241 Main Street, Suite 100
Buffalo, NY 14203
888-679-4022
www.us.ecoglo.com

83. Paper towel dispenser

Weizel Security; Paper Towel Dispenser Model 817-S45

Weizel Security
P. O. Box 276
Blaine, WA 98231-0276
800-308-3627
www.securingshospitals.com

84. Security mirrors

American Specialties, Inc.; Roval Inter-Lok stainless steel framed mirror

American Specialties, Inc.
441 Saw Mill River Road
Yonkers, NY 10701
914-476-9000
www.americanspecialties.com

85. Grab bars

Weizel Security; Safe Grab Bar and Self-Draining Grab Bar

Weizel Security
P. O. Box 276
Blaine, WA 98231-0276
800-308-3627
www.securingshospitals.com

86. Liquid soap dispenser

Saniflow; Soap Dispenser Medigel

Saniflow Corp.
2655 Le Jeune Road, Suite 810
Coral Gables, FL 33134
1-877-222-9125
www.saniflo.com

88. Wireless duress alarm

Pinpoint, Inc.; Instant Alarm 5000

Pinpoint, Inc.
2100 Southbridge Parkway, Suite 650
Birmingham, AL 35209
205-414-7541
www.david.bivin@pinpointinc.com

89. Emergency release hinge door

Total Door; Emergency Release Hinge Door

Total Door
6145 Delfield Dr.
Waterford, MI 48329
800-852-6660
<http://total-door.com>

91. Polycarbonate electrical coverplates

Mulberry; Unbreakable Endura Molded of Lexan Resin

Mulberry
2199 Stanley Terrace
Union, NJ 07083
201-688-8850
<http://www.mulberrymetal.com>

92. Solid surface toilet fixture

Wallgate Products; Solid Surface WCs

Wallgate Products
44(0)1722-744-594
<http://www.wallgate.com/products.php?product=wcs>

93. Shower control valve

Armstrong Hot Water Group; brainwave Model DMV2-Individual Shower with optimal stainless steel control panel

Armstrong Hot Water Group
221 Armstrong Blvd
Three Rivers, Mi 49093
269-279-3602
<http://armstronginternational.com>

94. Shower seat

Norix; ADA Shower Seat

Norix Group, Inc.
1000 Atlantic Drive
West Chicago, IL 60185
1-800-234-4900
<http://www.norix.com>

95. Continuous hinge

Ives, Ingersoll Rand; 700 stainless steel full mortise pin and barrel with hospital tip

Ives
2720 Tobey Dr.
Indianapolis, IN 46219
877-613-8766
www.ivesinfo@irco.com

96. Fire sprinklers

Tyco Fire and Building Products; Raven Fire Sprinkler Head

Tyco Fire And Building Products
451 N. Cannon Avenue
Lansdale, PA 19446
215-*362-0700
www.Tyco-Fire.com

97. Stainless steel wall phones

Allen Tel Products, Inc.; Model GB306V-14 (with key pad)

Allen Tel Products, Inc.
30 TVS Drive
Henderson, NV 89014
702-855-5700
www.allentel.com

98. Pick-resistant caulk

Pecora Corporation; DynaFlex SC

Pecora Corporation
165 Wambold Road
Harleysville, PA
800-532-6688
www.pecora.com

99. Impact-resistant gypsum board
USG; SHEETROCK® Brand Abuse-Resistant Gypsum Panels
USG
800-874-4968
www.usg.com
100. Electrical device covers - polycarbonate
AZ Partsmaster; lexan wall plates
AZ Partsmaster - Corporate Headquarters
15 N. 57th Drive
Phoenix, AZ 85043
(602) 233-3580
www.azpartsmaster.com
101. Patient toilet door
Norva Plastics, Inc.; Sentinel Event Reduction Door
Norva Plastics, Inc
3911 Killam Ave.
Norfolk, VA 23508
800-826-0758
www.norvaplastics.com
102. Wall padding
Marathon Engineering Corporation; Gold Medal Safety Padding
Marathon Engineering Corporation
5615 2nd Street West
Leigh Acres, FL 33971
239-303-7378
www.goldmedalsafetypadding.com
103. Shower floors
Watermark;
Watermark
2969 armory Drive, Suite 400
Nashville, TN 37204
615-291-6111
www.watermarksolidsurface.com
104. Window film
3M; Scotchshield Ultra or ACE Security Laminates; 200 Series
3M Specified Construction Products Department
3M Center Building 225-4S-08
St. Paul, MN 55144
800-480-1704
www.3m.com/windowfilm

105. Lounge furniture

Blockhouse Contract Furniture Company; Endurance Series

Blockhouse Contract Furniture Company

3285 Farmtrail Road

York, PA 17406

800-346-1126

www.blockhouse.com

106. Patient room furniture

Norix Group Inc.; Attenda Series

Norix Group, Inc.

1000 Atlantic Drive

West Chicago, IL 60185

1-800-234-4900

<http://www.norix.com>

107. Push/pull locksets

Glynn-Johnson; HL6SeriesPush/ Pull Latches

Glynn-Johnson

2720 Tobey Drive

Indianapolis, IN 46219

877/613-8766

<http://glynnjohnson.ingersollrand.com/>

108. Platform bed - lift accessible

Norix; Sleigh Bed

Norix Group, Inc.

1000 Atlantic Drive

West Chicago, IL 60185

1-800-234-4900

<http://www.norix.com>

ABOUT THE AUTHORS

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ABOUT NAPHS

The National Association of Psychiatric Health Systems (NAPHS) advocates for behavioral health and represents provider systems that are committed to the delivery of responsive, accountable, and clinically effective prevention, treatment, and care for children, adolescents, adults, and older adults with mental and substance use disorders. The NAPHS vision is of a society that values and maximizes the potential of all its citizens by helping them to achieve overall health. To achieve healthy communities, behavioral health will be recognized, respected, and allocated resources with fairness and equity. Through NAPHS representation within accreditation organizations – for example, with representatives on both the Hospital and Behavioral Health Professional and Technical Advisory Committees of The Joint Commission – NAPHS is able to provide input into and advance warning of regulatory and accreditation developments that affect behavioral healthcare providers.

DEFINITIONS / RESOURCES

Americans with Disabilities Act (ADA). The *Americans with Disabilities Act* gives civil rights protections to individuals with disabilities similar to those provided to individuals on the basis of race, color, sex, national origin, age, and religion. It guarantees equal opportunity for individuals with disabilities in public accommodations, employment, transportation, State and local government services, and telecommunications. See www.ada.gov/.

Guidelines for Design and Construction of Hospital and Health Care Facilities – 2010. This book is published by the American Institute of Architects' (AIA's) Academy of Architecture for Health and the Facility Guidelines Institute. For information on purchasing this book, visit the Store page on the AIA Web site at www.aia.org.

Health Insurance Portability and Accountability Act of 1996 (HIPAA). The Office for Civil Rights within the U.S. Department of Health and Human Services (HHS) enforces the HIPAA Privacy Rule, which protects the privacy of individually identifiable health information; the HIPAA Security Rule, which sets national standards for the security of electronic protected health information; and the confidentiality provisions of the Patient Safety Rule, which protect identifiable information being used to analyze patient safety events and improve patient safety. See <http://www.hhs.gov/ocr/privacy/>.

The Joint Commission. See www.jointcommission.org for their standards.

National Fire Protection Association (NFPA). Publishes the *NFPA 101®: Life Safety Code®*, 2009 Edition, which is available at http://www.nfpa.org/catalog/product.asp?pid=10109&order_src=A291. For more on NFPA or links to new publications, see www.NFPA.org.

National Institute of Corrections. See <http://www.nicic.org/>.

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