

***Safe Bathrooms* ●●● Fixture Relationship**

For 80 years, most bathrooms have contained three fixtures: the lavatory, water closet (toilet), and bathtub. Many bathrooms today are designed to include only these fixtures. In higher priced homes, two or more areas are set aside for bathroom facilities, with each containing the three basic fixtures. In many instances, the shower stall replaces the bathtub in the second bathroom.

Generally, the pattern has been to provide an area of 30 to 40 square feet for accommodation of the three fixtures. Little regard has been given to the occupant and his anticipated movements. However, the bathroom should be designed with people, not fixtures, as the dominant theme. More maneuvering space, more counter space, better lighting, and adequate storage are required. In large families, the bathroom facilities may frequently be used by more than one person at a time. Compartmentalization of the basic bathroom fixtures and functions may be desirable

to better accommodate the present-day life style.

Bathroom safety is influenced by general planning factors, which include the size and shape of the room, location with respect to other rooms and areas, fixture type, arrangement and spacing, placement of windows and doors, and proper illumination levels. Movement past an individual or fixture requires adequate space to prevent contact and possible injury. The use and cleaning of bathroom fixtures requires sufficient clearance between opposite and adjacent fixtures or walls.

It is recognized that each particular floor plan will dictate the general layout of the bathroom and that each bathroom plan will be unique in itself. The following discussions are considerations which should be kept in mind in bathroom planning to achieve a safer, more efficient environment.



Safe bathrooms feature sufficient floor space for bathing small children or cleaning the bathtub.



Movement past an individual or fixture requires adequate space to prevent contact and possible injury.

Lavatory

With the current trend away from the wall-hung to the counter or vanity lavatory, adequate counter space for placement of toothbrush, safety razor, soap, and numerous other items is provided. In addition, the space beneath the counter level provides a useful storage facility.

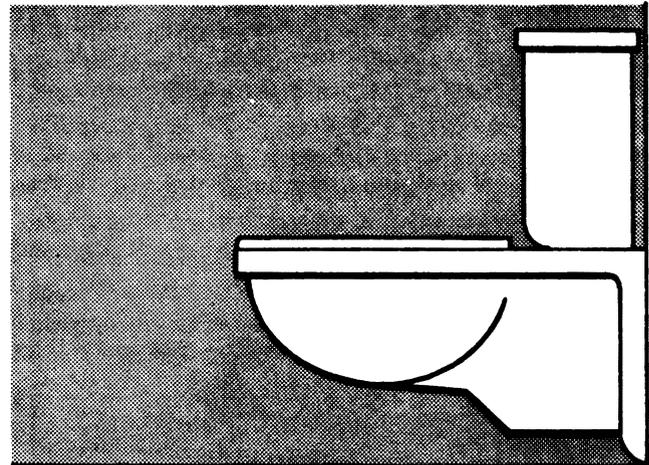
Adequate elbow room is required on both sides of the lavatory. In leaning over the fixture, adequate clearance between the posterior and the opposing wall or fixture is required. Dressing or drying requires a larger activity space than normal lavatory activities. Floor space in front of the lavatory should be ample for free movement without the possibility of collision of body members with surrounding fixtures and walls.



Floor space in front of the lavatory should allow free movement without the possibility of collision with surrounding fixtures or walls.

Water Closet (Toilet)

In the past, toilet fixtures have remained about the same size, with most changes coming in styling and operational mechanisms. One of the latest improvements in toilet design is the wall-hung unit. This unit allows for easier floor cleaning and eliminates the toe stubbing base of floor model toilets. This new type of toilet fixture requires essentially the same floor space as the standard floor-mounted design. Although minimal activity area may be provided for the toilet, it generally requires less side clearance than the other two fixtures and is often located between two walls or between a wall and another fixture. However, the free space in front of the toilet needs to be equal to or greater than the space in front of other bathroom fixtures. This free floor space is also usable for other fixtures on adjoining or opposite walls.



The wall-hung toilet is easier to clean and it eliminates the toe stubbing base of floor-mounted models.

Bathtubs, Showers, and Combinations

The bathtub is perhaps the most changed of the bathroom fixtures over the past years. These changes have

been primarily in styling, shape, and size. Today's bathtub comes in various colors, materials, and shapes, and even

sunken tubs are easily available, if desired. Bathtub/shower combinations are a standard bathroom fixture. Shower stalls have found favor in second or third bathroom locations in the home. Although a shower stall is desirable to supplement the bathtub, the bathtub is considered more essential than a shower if only one of them can be provided. The bathtub is required for small children and elderly people. Also, women seem to prefer the bathtub over the shower. Today, the most common, economical compromise is the bathtub/shower combination.

Unlike the other bathroom fixtures, the bathtub and shower stall does not require use space around the fixture, since the normal usage is within the fixture, the only exception being on the entrance side. Entering and leaving the bathtub, drying one's self, putting on a bathrobe, and perhaps bathing a baby in a bathinette all require a certain amount of free floor space between the fixture and its surroundings. The common practice of cleaning the bathtub or bathing small children requires the individual to face the side of the tub in a kneeling position. This activity requires adequate spacing.

The free floor space in front of each fixture is only part of the required maneuvering space, since many activities occur in the bathroom which require more than the space needed just for the use of the fixtures. Two of the activities performed in the bathroom that require perhaps the largest clear activity space are dressing and drying one's self. A minimum free floor space of 2 feet, 6 inches by 3 feet, 6 inches is required for dressing. This area may be located adjacent to any of the three fixtures and, therefore, overlap the free floor space required in front of each other fixture.

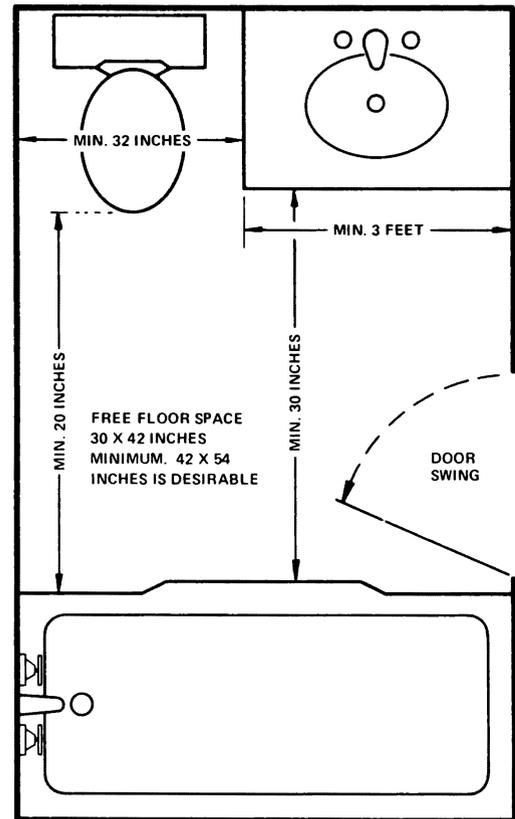
A safer, better quality bathroom will provide an increased floor space of 1 foot in each direction over the average minimum space usually allotted, to allow for freedom of activity.

RECOMMENDATIONS:

To provide a safer, more comfortable bathroom, the following fixture spacing relationships are recommended:

- A countertop, vanity, or a space at least 3 feet long for each lavatory.
- A free floor space at least 2 feet deep in front of the lavatory.

- A space 3 feet wide if toilet is located between two walls.
- A space 28 inches wide if toilet is located between bathtub and lavatory or vanity.
- A space 32 inches wide if toilet is located between a wall and another fixture.
- Clearance at least 20 inches deep in front of toilet. A larger clearance is desirable.
- A free floor space at least 30 inches deep in front of bathtub or shower stall.
- A free activity space at least 30 by 42 inches within the bathroom. A space 42 by 54 inches is more desirable.



Minimum spacing between fixtures in a bathroom designed for safety.

Before building, consult the BOCA code.

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Prepared by Helen L. Wells, Housing Specialist

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