

## MEASURING SPACE IN CHILD CARE FACILITIES GUIDELINES

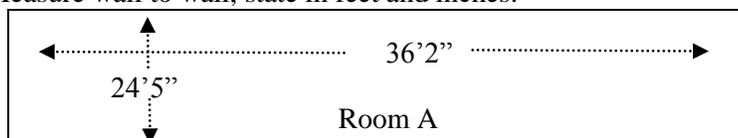
- I. All measurements for space are made in terms of single groups of children. “Group” means a unit of children together with the staff assigned to them.
- II. “Usable floor space” for a single group of children is space provided for each child that satisfies Physical Plant and Equipment – Indoor Space regulations.
- III. The space occupied by the following must be excluded in calculating usable floor space:
  - A. Corridors
  - B. Kitchens
  - C. Bathrooms
  - D. Offices and also:
    1. adult desks and filing cabinets;
    2. all adult size chairs, except one for each staff member required in the area to maintain a proper staff-child ratio. (These chairs may be rocking chairs.);
    3. piano and bench;
    4. cribs;
    5. room/area dividers.
  - E. Isolation rooms and area
  - F. Storage space, general and in particular;
    1. cabinets not freely accessible for use by children;
    2. cot storage;
    3. shelving that:
      - a. is used only for storage and not used freely by children;
      - b. holds clothing and/or possessions outside of the classroom area (in corridors, halls, cloakrooms, cubby room or storage rooms);
    4. stands or cages used exclusively to hold plants, animals, aquariums, etc.;
    5. tables used primarily for storage or display:
      - a. plants grown by adults;
      - b. science storage, not freely used by children;
      - c. water tables that are not used regularly by children.

The space occupied by the following is “usable floor space” and the space is included in calculating usable floor space:

- A. one adult sized chair for each staff member required in the area to maintain a proper staff-child ratio;
- B. waste baskets (not 20 gallon trash cans);
- C. children’s play furniture that children use actively and regularly (e.g. housekeeping refrigerator, stove, dresser, chest, etc.);
- D. all open shelves and containers used regularly and freely by children;
- E. easels that children use actively and regularly;
- F. blackboards that children use actively and regularly;
- G. large blocks on the floor that children use actively and regularly;
- H. any play thing that children use actively and regularly that also stores blocks, other toys or materials;
- I. tables and chairs that children use actively and regularly (e.g. science, water table, computers, auditory and visual activities, etc.);
- J. infant high chairs and swings;
- K. infant diapering stations.

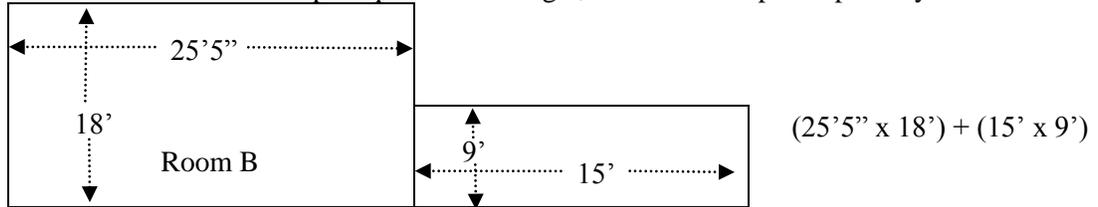
### IV. Steps for calculating usable floor space in child care centers.

- A. Find the gross square footage of the room/area.
  1. Measure wall to wall, state in feet and inches.



(24'5" x 36'2")

2. If the room/area is not a simple square or rectangle, measure each part separately.



3. Convert the inches in each measurement to a decimal number.  
 Room A – 24.42 x 36.17                      Room B – (25.42 x 18) + (15 x 9)
4. a. Multiply to find the gross square footage, carry the answer to two places.  
 b. If the room has several parts, multiply to find the areas of each part separately then add together.  
 Example – (25.42 x 18 = 457.56) + (15 x 9 = 135) + 457.56 + 135 = 592.5 sq. ft.

B. Next, make a list of the items/areas to be deducted (see page 1).

1. Find the square footage of each item/area. Remember, you want to find how much floor space each item/area takes up therefore height is not a factor.

**SAMPLES:**

Room A - Cots (stacked) -  $5' \times 18'' = 5 \times 1.5 = 7.5$   
 Adult's storage cabinet -  $3' \times 1' = 3 \times 1 = 3$   
 Handwashing sink -  $4' \times 18'' = 4 \times 1.5 = 6$

Room B - Cribs (6) -  $6(30'' \times 53'') = 6(2.5 \times 4.42) = 6 \times 11.05 = 66.3$   
 Adult's storage cabinet -  $3' \times 1' = 3 \times 1 = 3$

2. Once to square footage of each item is determined, add to find the amount of total deductions.

<b>SAMPLES:</b>		<u>Room A</u>	<u>Room B</u>
	Cots	7.5	Cribs (6)                      66.3
	Storage Cabinet	3	Storage Cabinet            + 3
	Sink	+ 6	Total <u>69.3</u>
	Total	<u>16.5</u>	

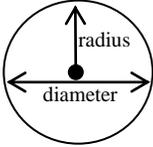
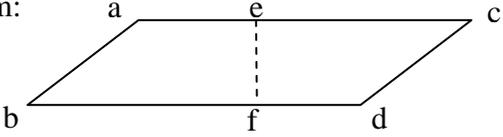
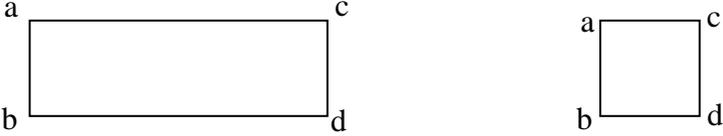
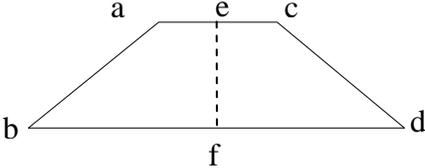
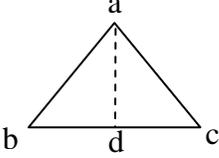
3. Subtract the deduction total from the gross square footage to find the usable floor space.

<b>SAMPLES:</b>		<u>Room A</u>	<u>Room B</u>
	Gross Square Footage	883.27	Gross Square Footage            592.5
	Total Deductions	- 16.50	Total Deductions                - 69.3
	Usable Floor Space	<u>881.77</u>	Usable Floor Space <u>523.2</u>

4. Divide the usable floor space amount by 35 to find the number of children which may be cared for in the room or partitioned area. Always keep in mind the age of the children that will use the space. Even if the room measures for a capacity of 25 it may only be licensed for 20 if it will be or is used for 3 or 4 year olds. Be sure to note on your worksheet or the floor plan the age/s served in each area.

**SAMPLES:**                      Room A -  $881.77 / 35 = 25.1 = 25$  children  
Room B -  $523.2 / 35 = 14.9 = 15$  children, but limited to 6 by group size

## BASIC FORMULAS OF MEASUREMENT

1.	Circle:		
$3.14(\pi) \times \text{radius (squared)} = \text{area}$			
2.	Parallelogram:		
$\text{base (bd)} \times \text{height (ef)} = \text{area}$			
3.	Rectangle and Square:		
$\text{height (ab)} \times \text{base (bd)} = \text{area}$			
4.	Trapezoid:		
$\frac{1}{2} \text{ height (ef)} \times \text{sum of two bases (ac + bd)} = \text{area}$			
5.	Triangle:		
$\frac{1}{2} \text{ base (bc)} \times \text{height (ad)} = \text{area}$			

INCHES TO DECIMAL CONVERSION CHART						
INCHES	DECIMAL EQUIVALENT	INCHES		INCHES	DECIMAL EQUIVALENT	INCHES
1	.08	1		7	.58	7
2	.17	2		8	.67	8
3	.25	3		9	.75	9
4	.33	4		10	.83	10
5	.42	5		11	.92	11
6	.50	6		12	1.00	12