

## DESIGN KITCHENS BY THE RULES

### I. ACCEPTED INDUSTRY GUIDELINES

#### A. Planning standard

1. National Kitchen & Bath Association
2. University of Illinois Small Homes Council

#### B. Introduced

1. In 1992 on conjunction with University of Minnesota

### II. BASIC GUIDELINES THAT APPLY TO ALL CIRCUMSTANCES

(31 Rules to guide in functional kitchens)

A. A clear walkway at least 32" wide must be provided at all entrances to the kitchen (Rule #1)

B. Clearance must be 36" for the Cabinet access

C. No entry or appliance door may interfere with work center appliances (Rule #2)

### III. WORK AISLES

A. Work aisles must be 42" wide and passageways must be 36" wide for one-cook kitchen. (Rule #3)

B. Small kitchen wall cabinet frontage: (Rule #4)

1. Kitchen under 150 sq. ft. should have 144" of wall cabinet frontage with cabinets - 12" deep & a minimum of 30" high.

2. Over countertops, adjustable shelving must be installed

3. Diagonal or pie-cut wall cabinets count as a total of 24"

a. Difficult-to-reach cabinets above the hood, oven or refrigerator do not count unless specialized storage is installed to improve accessibility.

### IV. CALCULATE CABINET FRONTAGE

A. Large kitchen wall cabinet frontage

1. A kitchen over 150 sq. ft. should have 186" of wall cabinet frontage with cabinets 12" deep/

a minimum of 30" high adjustable shelving installed over countertops

a. Diagonal or pie-cut wall cabinets count as a total of 24"

b. Difficult-to-reach cabinets above the hood, oven or refrigerator do not count unless specialized storage is installed to improve accessibility.

B. 60" of wall cabinet frontage, with cabinets 12" deep and a minimum of 30" high must be included within 72" of the primary sink centerline (Rule #5)

C. Small kitchen base cabinet frontage (Rule #6)

1. Kitchen under 150 sq. ft. should have 156" of base cabinet frontage with cabinets 21" deep

2. Pie-cut/lazy susan cabinets count as a total of 30"

3. The first 24" of a blind corner box do not count

D. Large kitchen base cabinet frontage

1. Kitchen over 150" sq. ft. should have 192" of base cabinet frontage with cabinets 21" deep

2. Pie-cut/lazy susan cabinets count as a total of 30"

3. The first 24" of a blind corner box do not count

E. Small kitchen drawer frontage (Rule #7)

1. Kitchen over 150 sq. ft. should have 165" of drawer frontage or roll-out shelf frontage.

F. Five (5) storage items must be included in the kitchen to improve the accessibility

and function of the plan. The items include, but are not limited to:: (Rule #8)

1. Interior Vertical Dividers
2. Specialized Drawers
3. Built-In Bins
4. Swing-Out Pantries

5. Drawer/Roll-Out Shelves greater than the 120" minimum for small kitchens or 165" for larger rooms.

G. Kitchen with usable storage areas in the plan, one functional corner storage must be included

(Rule #9)

H. There must be 15" to 18" of clearance between the countertop and bottom of wall cabinets

(Rule #10)

1. Standard clearance is 52 cm for metrically dimensioned cabinets

I. Small kitchen countertop frontage (Rule #11)

1. Kitchen under 150 sq. ft. should have 132" of usable countertop frontage.
2. Counter must be 16" deep to be included
3. Corner space does not count

J. Large kitchen countertop frontage

1. Kitchen over 150 sq. ft. should have 198" of usable countertop frontage
2. Counter top must be 16" deep to be included
3. Corner space does not count

## V. DIVIDED WORK CENTERS

A. No two primary work centers to be separated by a full-height, full-depth tall tower (i.e., such as oven, pantry cabinet or refrigerator) (Rule #12)

B. The overall countertop frontage recommendation is formulated by identifying isolated activity centers & minimum & recommended counter space required in each center (Rule #13)

1. There must be 24" of countertop frontage to one side of the sink and 18" on the other side

a. Measure only countertop frontage, not corner space

2. The 18" and 24" counter sections may be continuous, or the total of two angled sections

C. If a secondary sink is part of the kitchen

1. 3" of landing space must be provided on one side of the two sinks

D. 3" of counter space must allow from the edge of the sink to the inside corner/if more than 21" of counter space if available on return (Rule #14)

E. Two waste receptacles to be included in the plan

1. One for garbage
2. One for recyclables

F. 21" of standing room must be allowed between the edge of the dishwasher and the adjacent counters, appliances and/or cabinets that are placed at right angles to the dishwasher (Rule #16)

G. 36" of continuous countertop must be planned for the preparation center (Rule #17)

1. Preparation center must be immediately adjacent to a water source

H. The plan must allow 15" of counter space on the latch side of the refrigerator or on either side of a side-by-side refrigerator or 15" of landing space (Rule #18)

1. No more than 48" across from the refrigerator

## VI. COOKTOP CLEARANCES

A. For an open-ended kitchen configuration (Rule #19)

1. 9" of counter space is required on one side of the cooking surface and 15" on the other

B. For an enclosed configuration

1. 3" of clearance space must be planned at an end wall protected by flame-retardant surfacing material

2. 15" must be allowed on the other side of the appliance

3. Safety concerns

a. require the back of the cooking surface also be protected by a countertop extension

C. For angled installation (ranges and cooktops)

1. 12" of counter frontage must be included on each side of the appliance to meet the safety requirement

D. The cooking surface placement (Rule #20)

1. Cannot be placed below an operable window unless the window is 3" or more behind the appliance and more than 24" above

E. Landing space (Rule #21)

1. Must be 15" of landing space next to or above the oven if the appliance door opens into a primary traffic pattern

2. A 15" landing space no more than 48" across from the oven is acceptable if the appliance does not open into a traffic area

F. A kitchen with a microwave (Rule #22)

1. 15" of landing space must be planned above, below or adjacent to the microwave

2. The bottom of the microwave must be placed between counter and user eye level

(Rule #23)

a. 36" to 54" off the floor

3. All major appliances used for surface cooking (Rule #24)

a. Must have a ventilation system with a fan rated at 150 cfm minimum  
(1)50 cfm x lineal footage of hood/Source: Home Ventilating

Institute

G. There must be 24" of clearance between the cooking surface and a protected surface above, or at least 30" of clearance between the cooking and an unprotected surface above (Rule #25)

1. A microwave hood combination appliance may be lower than this 24" dimension at the back wall

H. The work triangle must total 26' or Less (Rule #26)

1. Definition: the shortest walking distance between the refrigerator, primary cooking surface and primary preparation sink

2. It is measured from the center front of each appliance.

3. The triangle may not intersect an island or peninsula cabinet by more than 12"

a. No single leg should be shorter than 4' or long than 9'

4. A second (2nd) work triangle may coincide with one leg of the primary triangle but may not cross it

a. Including a cooking appliance and a water source (either shared or separate)

I. No major traffic patterns may cross through the work triangle connecting the primary

work centers (Rule #27)

J.A kitchen with a seating area (Rule #28)

1.A minimum of 24" wide x 12" deep counter/table space must be planned for each seated diner

2.Knee space clearances:

a.30"-high table = 18" knee space clearance; 36"-high counter = 15" knee clearance; 42"-high counter = 12" knee space

3.There must be 36" of walkway space from a counter/table to any wall or obstacle behind it if the area is to be used to pass behind a seated diner (Rule #29)

a.24" of space from counter/table to any wall or obstacle behind it should be planned if the area will not be used as a walk space

K.A window/skylight area must equal 10% of the total square footage of the kitchen, or of a total living space which includes kitchen (Rule #30)

L.Ground-fault circuit interrupters must be specified on all receptacles that are within 6' of a water source in the kitchen

1.A fire extinguisher must be located across from the cooktop and smoke alarm must be included in the kitchen