	<b>CITY OF DOWNEY</b> <b>COMMUNITY DEVELOPMENT, BUILDING AND SAFETY</b> 11111 Brookshire Avenue Downey, CA 90241 562.904.7142 <a href="http://www.downeyca.org">www.downeyca.org</a>		<b>WINDOWS</b>	
	<b>B</b> <small>SECTION</small>	<b>046</b> <small>NUMBER</small>	<b>2016 CRC</b>	
	01/01/2017 <small>EFFECTIVE DATE</small>		01/01/2017 <small>REVISION DATE</small>	
<b>WINDOW AND DOOR REPLACEMENTS</b>				

## **INTRODUCTION**

All Window and exterior door replacements require a building permit regardless of how they are classified. A simple floor and plot plan is required for planning review and permit issuance. Show existing window and replacement window sizes and type. Replacement windows without a Performance Energy Analysis shall comply with the Mandatory Measures Prescriptive requirements. A maximum U Factor of 0.40 and SHGC of 0.40 are required in Climate Zone 8 and Zone 9. Provide a window schedule on the plan listing the sizes, SHGC and U Factors as required by the 2016 California Energy Efficiency Code.

Additional requirements when changing a window to a sliding door are:

- Floors and landings at exterior doors. There shall be a landing or floor on each side of each exterior door. The width of each landing shall not be less than the door served. Every landing shall have a minimum dimension of 36 inches measured in the direction of travel. Exterior landings shall be permitted to have a slope not to exceed 1/4 unit vertical in 12 units horizontal (2-percent) per section **R311.3.1**.
- Floor elevations at the required egress doors. Landings or floors at the required egress door shall not be more than 1 1/2 inches lower than the top of the threshold per **section R 311.3.1**  
**Exception:** The exterior landing or floor shall not be more than 7-3/4 inches below the top of the threshold provided the door does not swing over the landing or floor. When exterior landings or floors serving the required egress door are not at grade, they shall be provided with access to grade by means of a ramp in accordance with **section R311.8** or a stairway in accordance with **section R311.7**.
- Exterior lighting required. A switch and light is required outside each outdoor entrance or exit.
- Moving the electrical wiring to allow a new door and adding the required lighting will require an electrical permit.
- Interior and exterior alterations, repairs or additions having a valuation in excess of \$ 1,000 or when one or more sleeping rooms are added or created, the entire dwelling shall be provided with smoke and carbon monoxide alarms per **CRC section R314 and R315**.
- Smoke alarms are required in all sleeping rooms, outside each sleeping area in the immediate vicinity of the bedrooms, on each floor level including basements and habitable attics. Carbon Monoxide alarms are required when fuel-burning appliances are installed and/or dwelling units have attached garages.

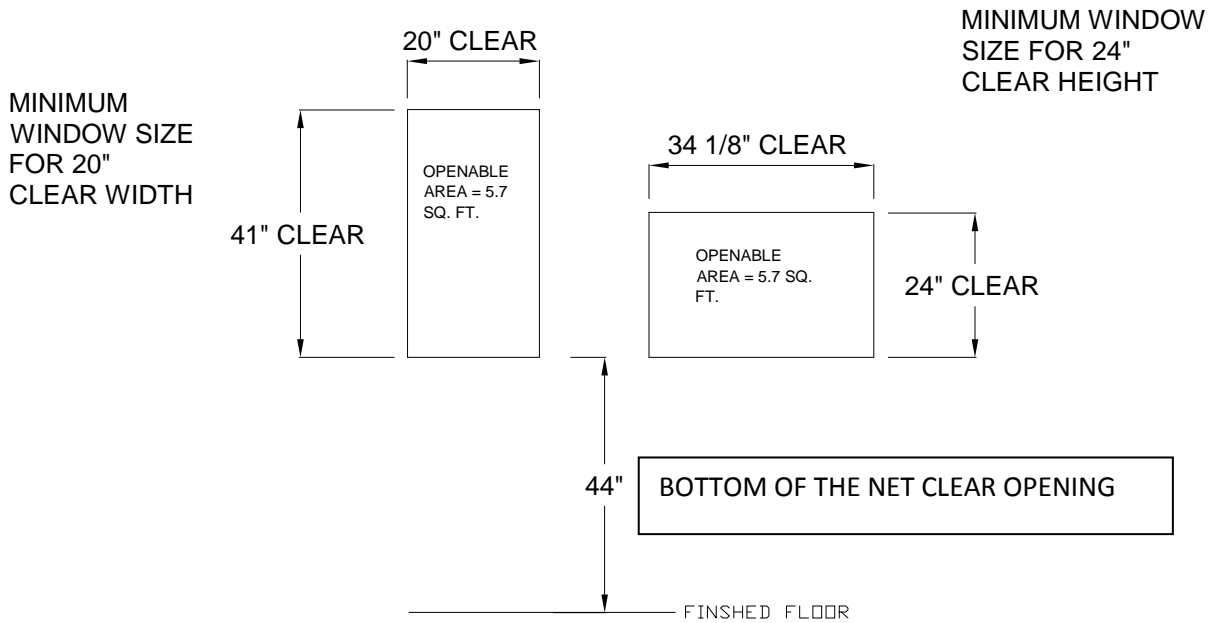
## **EMERGENCY ESCAPE AND RESCUE OPENINGS**

Basements, habitable attics and every sleeping room shall have at least one operable emergency escape and rescue opening. Where basements contain one or more sleeping rooms, emergency escape and rescue shall be required in each sleeping room.

- The bottom of the net clear opening not greater than 44 inches measured from the floor, **and**
- Net clear opening space of 5.7 square feet, **and**
  - **Exception: Net clear opening of 5 square feet for windows at grade level.**
- Net clear opening height of 24 inches, **and**
- Net clear opening width of 20 inches, **and**
- Operational constraints. Emergency escape and rescue openings shall be *maintained free of any obstructions other than those allowed by this section and shall be operational from the inside of the room without the use of keys, tools or special knowledge.*
  - **Exception:** Group R1 occupancies provided with a monitored fire sprinkler system in accordance with **CBC section 903.2.8** and designed in accordance with **NFPA 13**, may have open-able window, permanently restricted to a maximum 4" open position.
- Window wells. The minimum horizontal area of the window well shall be 9 square feet, with a minimum horizontal projection and width of 36 inches. The area of the window well shall allow the emergency escape and rescue opening to be fully opened.
  - **Exception:** The ladder or steps required by **CBC section 1030.5.2** shall be permitted to encroach a maximum of 6 inches into the required dimensions of the window well.
- Ladder and steps. Window wells with a vertical depth greater than 44 inches shall be equipped with a permanently affixed ladder or steps usable with the window in the fully open position. Ladders or steps required by this section are exempt from the stairway requirements of **CBC section 1011**. Ladders or rungs shall have an inside width of at least 12 inches, shall project at least 3 inches from the wall and shall be spaced not more than 18 inches on center vertically for the full height of the window well.
- Bulkhead enclosures. Bulkhead enclosures shall provide direct access to the basement. The bulkhead enclosure with the door panels in the fully open position shall provide the minimum net clear opening required by **section R310.2.1**. Bulkhead enclosures shall also comply with **section R310.3.2**.
- Bars, grilles, covers and screens. Bars, grilles, covers, screens or similar devices are permitted to be placed over emergency escape and rescue openings, bulkhead enclosures, or window wells that serve such openings, provided the minimum net clear opening size complies with **CBC section 1030.4**, and such devices shall be releasable or removable from the inside without the use of a key, tool, special knowledge or force greater than that which is required for normal operation of the escape and rescue opening. The release mechanism shall be maintained operable at all times:
- Window where the opening of the sill portion of the operable window is located more than 72" above the finished grade or surface below, the lowest part of the clear opening of the window shall be a minimum of 24" above the finished floor surface of the room in which the window is located. Glazing between the floor and a height of 24" shall be fixed or have openings such that a 4" diameter sphere may not pass.
- All habitable rooms shall have windows with their total areas equaling at least 8% of the room's floor area and with their total opening area equaling at least 4% of the room's floor area.
- All windows require a California Energy Commission Certification label.

- Maintain or replace weather resistive barriers. Inspection is required to verify compliance.
- Bay windows and similar assemblies require the manufacturer's listed (UL, ICC, or equivalence) installation instructions for permit issuance.
- Glass in doors needs to be tempered glass and glass in windows need to be tempered glass if within 24 inches of a door swing or within 18 inches of the floor.

**TYPICAL OPENABLE WINDOW DIAGRAM**



**EMERGENCY ESCAPE AND RESCUE WINDOW**

**EGRESS**

**SAMPLE WIDTH / HEIGHT REQUIREMENTS FOR EMERGENCY ESCAPE AND RESCUE**

(Dimensions are inches)

WIDTH	20	20.5	21	21.5	22	22.5	23	23.5	24	24.5	25	25.5	26	26.5	27
HEIGHT	41	40	39.1	38.2	37.3	36.5	35.7	34.9	34.2	33.5	32.8	32.2	31.6	31	30.4

WIDTH	27.5	28	28.5	29	29.5	30	30.5	31	31.5	32	32.5	33	33.5	34	34.5
HEIGHT	29.8	29.3	28.8	28.3	27.8	27.4	26.9	26.5	26.1	25.7	25.3	24.9	24.5	24.1	24

**Note:** Using both the minimum sizes for width and height will not obtain the required minimum area (5.7 sq. ft.) The above chart shows the minimum area for a given width or height. This area is larger than the minimum required for ventilation

## **WINDOW INSTALLATION**

Approved corrosion-resistive flashings shall be installed shingle fashion in a manor to prevent entry of water into the wall cavity or structural framing components. All flashings shall be installed following the **Window Manufacturer's Instructions** and **ASTM 2112** and **AAMA** installation guidelines.

## **INSPECTIONS**

Inspections may be scheduled either in person at the building service counter or by telephone. The inspection request line number is **(562) 904-7141**

Inspections may be scheduled up to 3:30 PM the day before your inspection request, to be on next day for inspection. Inspections requested or received on weekends, holidays, or after 3:30 PM will be scheduled for the following business day.

Please indicate any private community gate access code with your inspection request.

The following inspections are typical for window installations.

- Framing and Window flashing.
- Stucco lath repair.
- Rough electrical, if moving outlet or adding a switch and outside light prior to covering with insulation and/or drywall.
- Interior smoke alarm and carbon monoxide detector installation(s)
- Final inspection.