MINIMUM RESIDENTIAL SECURITY RECOMMENDATIONS

1. EXTERIOR DOORS
   a. Swinging Doors
      Except for vehicular access doors, all exterior swinging doors, doors to individual dwelling units and office suites, and doors leading from garages to building interiors, should comply with ASTM F476-84, Grade 30, or the California Model Building Security Code (CMBSO) relating to swinging doors.

   General Information -
   Solid Core Wood Doors. All exterior wood doors should have a solid core and be a minimum of 1-3/4 inches thick.

   Hollow Core Doors. Hollow core doors should be considered only as interior privacy doors and not as exterior security doors.

   Metal Doors. The thickness of the sheet metal used in the construction of a metal door should be no thinner than 22 gauge.

   Dutch Doors. Dutch doors should have a slide bolt interlocking the upper and lower halves of the door, unless separate deadbolt locks are used to secure both halves of the door.

   French Doors or Double Doors. To secure double doors, one of the doors must be made stationary by header and threshold bolts. The active door should be secured to the inactive door by using a deadbolt lock (see below). The glass should be protected as outlined below in “Glass in Exterior Swinging Doors.”

   Glass in Exterior Swinging Doors. It is not recommended that glass be used in any exterior door, or within 40 inches of any door lock. If glass is used in exterior doors, or is within forty (40) inches of any door lock, it should be protected by a burglary-resistant material comparable to polyester sheets (4 mil or thicker) applied to the glass. Other recommended materials are polycarbonate plastic, or protective metal grill.

   Horizontal Blocking of Door Frames. Where applicable, exterior door frames should have horizontal blocking placed between the door frame and the first stud, and for one stud space beyond on each side of the door opening at the door lock height.

   b. Sliding Doors
      Sliding Door assemblies should comply with ASTM: F842-83, Grade 30, or the California Model Building Security Code (CMBSO) relating to sliding doors.

   General Information -
      The movable section of the door should be on the inside of the fixed portion of the door.
Removable pins or locks should be installed on the inside of all sliding glass doors at ground level. The mounting screws for the lock casing should be inaccessible from the outside.

Sliding doors should be constructed so that when the door is locked, it cannot be lifted from the frame in the closed position. Metal screws or spacers in the upper track can prevent upward movement.

c. Garage-Type Doors
All garage-type doors (rolling overhead, swinging, sliding, or accordion type) should, when not controlled or locked by electric power operation, be secured as follows:

**Slide Bolts.** Doors should be equipped on the inside with slide or vertical bolts at either the top or bottom of the door, or both sides of the bottom of the door, depending on whether the door opens vertically or horizontally.

**Padlocks.** If there is no passage from the garage to the rest of the structure, a hasp and padlock can be attached to the outside of the door. Padlocks should have a hardened steel shackle locking both at heel and toe, a minimum five-pin tumbler operation, and a key that can’t be removed when in an unlocked position. The hasp should be attached to the door and door frame with bolts that can’t be removed from the outside.

d. Storm or Screen Door
These doors are flimsy in construction and should not be relied on for security.

2. LOCKS
A single or double swinging exterior door should be equipped with a single cylinder deadbolt lock, which has been tested in accordance with ANSI/BHMA A156.-1984, Grade 2.

**General Information**
Deadbolt locks should have at least a one-inch throw which will penetrate the strike plate at least 3/4 of an inch.

Deadbolt locks should have all metal parts, with a tapered, freely rotating cylinder guard. The cylinder should have a minimum of five pin tumblers, and should be connected to the inner portion of the lock by connecting steel screws of at least 1/4 inch in diameter.

A combination Dead Latch and Deadbolt, where both the bolt and latch can be retracted with a single action of the inside knob, can be substituted, provided it meets the above criteria for deadbolt locks.

3. STRIKE PLATE -- DOOR FRAME AREA
Strike plates should be attached to wood with not less than four No. 8 by three-inch steel screws, with a minimum of 3/4 inch penetration into the stud. Strike plates, when attached to metal, should be attached with not less than four No. 8 machine screws. In wood frame construction the open space between the door jamb and studding should have a solid wood filler extending not less than twelve inches above and below the strike plate.

4. HINGES -- DOOR FRAME AREA
Door hinges, which are exposed to the exterior, should be equipped with non-removable hinges, or a mechanical interlock to stop removal of the door by removing the hinges. In wood frame construction the open space between the door jamb and studding should have a solid wood filler extending not less than six inches above and below the area in the middle that corresponds to the strike plate.
Hinge plates should be attached to wood with not less than three No. 8 by three-inch steel screws, with a minimum of 3/4 inch penetration into the stud. Hinge plates, when attached to metal, should be attached with not less than three No. 8 machine screws.

5. **DOOR VIEWERS**
   Exterior doors should be equipped with a door viewer with a field of view of not less than 180 degrees, if they do not have a glass insert.

6. **WINDOWS**
   Window assemblies designed to be opened shall comply with ASTM F588-85, Grade 20, or the California Model Building Security Code (CMBSO) relating to window assemblies.

   **General information -**
   - **Double-hung windows.** The recommended method of securing double-hung windows is drilling and pinning the sashes together at the corners with the equivalent of a 16P nail.
   - **Sliding glass windows.** See the section on sliding glass doors. Similar devices and methods are applicable.
   - **Basement windows.** If the basement is not used as a living space or bedroom, it is recommended that bars or metal grills be installed across the frame of the windows. Construction or design of grills should include the following:
     - Bars of 1/2" diameter, 5" on center, or
     - Steel straps of 1/2" by 1/4" flat steel, 5" on center, or
     - Mesh or expanded steel screen at least 16 gauge thick with openings less 2" wide.
   - **Casement (Outswing) Windows.** Remove the handle so if someone breaks the glass, there is no mechanism to open the window. Replace worn hardware.
   - **Louvered Windows.** Louvered windows are easily pried apart or removed from frame. It is recommended they be replaced with solid glass, covered with burglary-resistant material, or epoxied to the frame.

7. **LIGHTING**
   Care should be given to provide adequate lighting to the exterior of the residence, particularly in areas offering concealment. The address should be illuminated during hours of darkness making it viewable from the street.

8. **LANDSCAPING**
   Avoid the placing of landscaping plants, which may offer concealment to a potential burglar. Existing plants should be trimmed or removed to expose doors, windows and basement access.

9. **ALARMS**
   The decision to install an alarm system must take into account what is to be protected vs. the cost of the system. The Portland Police Bureau requires an alarm user permit for any alarm that is intended to solicit a police response within the City of Portland boundaries.

10. **SMOKE DETECTORS**
    Smoke detectors should be located in the corridor giving access to the room(s) used for sleeping purposes. Batteries need to be checked periodically.