

APPENDIX "A"

SOUND ATTENUATION STANDARDS

APPLICABILITY

These standards shall govern all new residential construction within Area 2 from the date of formal adoption of the Overflight Area.

COMPLIANCE

In order to comply with Area 2 maximum noise level standard (45 decibels), all new residential construction within Area 2 shall meet the following minimum construction specifications.

GENERAL STANDARDS

- a. Brick veneer, masonry blocks, or stucco exterior walls shall be constructed airtight. All joints shall be grouted or caulked airtight.
- b. At the penetration of exterior walls by pipes, ducts, or conduits, the space between the walls and pipes, ducts, or conduits shall be caulked or filled with mortar.
- c. Window and/or through-the-wall ventilation units shall not be used.
- d. Through-the wall/door mail boxes shall not be used.
- e. All sleeping quarters shall be provided with a sound absorbing ceiling and carpeted floors.

EXTERIOR WALLS

- a. Exterior walls, other than as described in this section, shall have a laboratory sound transmission class rating of at least STC-39;
- b. Masonry walls having a weight of at least 25 pounds per square foot do not require a furred (study) interior wall. At least one surface of concrete block walls shall be plastered or painted with heavy bridging paint.
- c. Stud walls shall be at least 4 inches in nominal depth and shall be finished on the outside with siding-on-sheathing stucco or brick veneer.
 1. Interior surface of the exterior walls shall be of gypsum board or plaster at least 1/2 inch thick, installed on the studs.
 2. Continuous composition board, plywood or gypsum board sheathing at least 1/2 inch shall cover the exterior side of the wall studs behind wood or metal siding. Asphaltic or wood shake shingles are acceptable in lieu of siding.
 3. Sheathing panels shall be butted tightly and covered on the exterior with overlapping building paper. The top and bottom edges of the sheathing shall be sealed.

4. Insulation material of at least R-11 shall be installed continuously throughout the cavity space behind the exterior sheathing and between wall studs. Insulation shall be glass fiber or mineral wool.

EXTERIOR WINDOWS AND DOORS

- a. Windows and doors, other than as described in this section, shall have a laboratory sound transmission class rating of at least STC-28;
- b. All exterior side-hinged doors shall be solid-core wood or insulated hollow metal at least 1-3/4" thick and shall be fully weatherstripped.
- c. Exterior sliding doors shall be weatherstripped with material that is compressed airtight when the window is closed so as to conform to an infiltration test not to exceed 0.5 cubic feet per minute per foot of crack length in accordance with ASTM E-283-65-T. The glass in the sliding doors shall be at least 3/16" thick.
- d. Glass in doors shall be sealed in an airtight nonhardening sealant or in a soft elastomer gasket or glazing tape.
- e. The perimeter of window and door frames shall be sealed airtight to the exterior wall construction with a sealant conforming to one of the following Federal specifications: TT-S-0027, TT-S-00230, or T-S-00153.
- f. The total area of glass in both windows and doors sleeping spaces shall not exceed 20% of the room's floor area.
- g. All operable windows shall be weatherstripped and airtight when closed so as to conform to an air infiltration test not to exceed 0.5 cubic foot per minute per foot of crack length in accordance with ASTM E - 283-65-T.
- h. Glass of fixed sash windows shall be sealed in an airtight manner with a non-hardening sealant or a soft elastomer gasket or glazing tape.

ROOFS

- a. Combined roof and ceiling construction other than described herein shall have a laboratory sound transmission class rating of at least STC-39; or
- b. With an attic or rafter space at least 6" deep, and with a ceiling below, the roof shall consist of 1/2" composition board, plywood or gypsum board sheathing topped by roofing as required. Open beam roof construction shall follow the energy installation standards for batt insulation.
- c. If the underside of the roof is exposed, or if the attic or rafter spacing is less than 6", thereof construction shall have a surface weight of at least 25 pounds per square foot. Rafters, joints, or other framing may not be included in the surface weight calculation.
- d. Window or dome skylights shall have a sound transmission class rating of at least STC-28.