POLICY NUMBER: 21-5
APPROVAL DATE: October 8, 2015
SUBJECT: Multifamily Structures – Soffit Vents for Balconies & Similar Elements

This guideline is developed by the Tri-Chapter Uniform Code Committee and is intended to enhance regional consistency in application and enforcement of the Building Code. Please verify acceptance of this guideline with your local building department prior to its application.

ISSUES:
1. The Code does not specifically require ventilation (soffit vents) for enclosed exterior balconies, decks, exterior exit stairways or ramps. Should ventilation for enclosed exterior elements be required similar to those for attic or rafter spaces?
2. Should soffit vents be allowed in exterior balconies and similar elements when the fire protection of the balcony and similar elements is required either due to the type of construction or proximity of the line used to determine the fire separation distance?

CODE REFERENCE(S):

PROPOSED GUIDELINE:
Soffit vents are essential in preventing accumulation of moisture in enclosed balconies and similar exterior elements. Trapped moisture can lead to dry rot and damage to structural elements. Where the current code does not provide specific ventilation requirements, the requirements in Section 1203.2 for attic and rafter spaces should be used to provide minimum ventilation, cross-ventilation, and other ventilation alternatives for these enclosed spaces. Two continuous soffit vents with removable cover are highly recommended to provide cross ventilation for these areas and would also provide the opportunity for future maintenance inspections of structural elements.

As stated in Section 1406.3, Exception 3, balconies and similar elements on buildings of Type III, IV and V construction are permitted to be of Type V construction, and are not required to have fire-resistance rating where sprinkler protection is extended to these areas. Therefore, soffit vents can be installed under the conditions without compromising code requirements.

Soffit vents shall not be located within 5 feet of the line used to determine the fire separation distance in accordance with Section 705.2.3.

It is left to each enforcing agency to review applicable code sections and make the determination if soffit vents are permissible for buildings where sprinkler protection is not extended to these areas.
SECTION 202 DEFINITIONS

EXTERIOR WALL. A wall, bearing or nonbearing, that is used as an enclosing wall for a building, other than a fire wall, and that has a slope of 60 degrees or greater with the horizontal plane.

FLOOR AREA, GROSS. The floor area within the inside perimeter of the exterior walls of the building under consideration, exclusive of vent shafts and courts, without deduction for corridors, stairways, closets, the thickness of interior walls, columns or other features. The floor area of a building, or portion thereof, not provided with surrounding exterior walls shall be the usable area under the horizontal projection of the roof or floor above. The gross area shall not include shafts with no openings or interior courts.

SECTION 705 EXTERIOR WALLS

705.2 Projections. Cornices, eave overhangs, exterior balconies and similar projections extending beyond the exterior wall shall conform to the requirements of this section and Section 1406. Exterior egress balconies and exterior exit stairways and ramps shall also comply with Sections 1019 and 1026, respectively. Projections shall not extend any closer to the line used to determine the fire separation distance than shown in Table 705.2.

<table>
<thead>
<tr>
<th>FIRE SEPARATION DISTANCE (FSD)</th>
<th>MINIMUM DISTANCE FROM LINE USED TO DETERMINE FSD</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 feet to less than 2 feet</td>
<td>Projections not permitted</td>
</tr>
<tr>
<td>2 feet to less than 5 feet</td>
<td>24 inches</td>
</tr>
<tr>
<td>5 feet or greater</td>
<td>40 inches</td>
</tr>
</tbody>
</table>

Exception: Buildings on the same lot and considered as portions of one building in accordance with Section 705.3 are not required to comply with this section.

705.2.1 Type I and II construction. Projections from walls of Type I or II construction shall be of noncombustible materials or combustible materials as allowed by Sections 1406.3 and 1406.4.

705.2.2 Type III, IV or V construction. Projections from walls of Type III, IV or V construction shall be of any approved material.

705.2.3 Combustible projections. Combustible projections extending to within 5 feet of the line used to determine the fire separation distance, or located where openings are not permitted, or where protection of some openings is required shall be of at least 1-hour fire-resistance-rated construction, Type IV construction, fire-retardant-treated wood or as required by Section 1406.3.

Exception: Type VB construction shall be allowed for combustible projections in Group R-3 and U occupancies with a fire separation distance greater than or equal to 5 feet (1524 mm).

SECTION 1406 COMBUSTIBLE MATERIALS ON THE EXTERIOR SIDE OF EXTERIOR WALLS

1406.3 Balconies and similar projections. Balconies and similar projections of combustible construction other than fire-retardant-treated wood shall be fire-resistance rated where required by Table 601 for floor construction or shall be of Type IV construction in accordance with Section
602.4. The aggregate length of the projections shall not exceed 50 percent of the building’s perimeter on each floor.

Exceptions:

1. On buildings of Type I and II construction, three stories or less above grade plane, fire-retardant-treated wood shall be permitted for balconies, porches, decks and exterior stairways not used as required exits.
2. Untreated wood is permitted for pickets and rails or similar guardrail devices that are limited to 42 inches in height.
3. Balconies and similar projections on buildings of Type III, IV and V construction shall be permitted to be of Type V construction, and shall not be required to have a fire-resistance rating where sprinkler protection is extended to these areas.
4. Where sprinkler projection is extended to the balcony areas, the aggregate length of the balcony on each floor shall not be limited.

SECTION 1203 VENTILATION

1203.2 Attic spaces. Enclosed attics and enclosed rafter spaces formed where ceilings are applied directly to the underside of roof framing members shall have cross ventilation for each separate space by ventilation openings protected against the entrance of rain and snow. Blocking and bridging shall be arranged so as not to interfere with the movement of air. An airspace of not less than 1 inch shall be provided between the insulation and the roof sheathing. The net free ventilating area shall not be less than 1/150th of the area of the space ventilated.

Exceptions:

3. Attic ventilation shall not be required when determined not necessary by the building official due to atmospheric or climatic conditions.
4. The net cross-ventilation area shall be permitted to be reduced to 1/300, provided that at least 40 percent and not more than 50 percent of the required ventilating area is provided by ventilators located in the upper portion of the attic or rafter space. Upper ventilators shall be located no more than 3 feet below the ridge or highest point of the space, measured vertically, with the balance of the required ventilation provided by eave or cornice vents. Where the location of wall or roof framing members conflicts with the installation of upper ventilators, installation more than 3 feet below the ridge or highest point of the space shall be permitted.

1203.2.1 Openings into attic. Exterior openings into the attic space of any building intended for human occupancy shall be protected to prevent the entry of birds, squirrels, rodents, snakes and other similar creatures. Openings for ventilation having a least dimension of not less than 1/16 inch and not more than 1/4 inch shall be permitted. Openings for ventilation having a least dimension larger than 1/4 inch shall be provided with corrosion-resistant wire cloth screening, hardware cloth, perforated vinyl or similar material with openings having a least dimension of not less than 1/16 inch and not more than 1/4 inch. Where combustion air is obtained from an attic area, it shall be in accordance with Chapter 7 of the California Mechanical Code.