

### INTAKE, EXHAUST & RETURN LOCATIONS

#### GENERAL INTAKE

10' from property line 2009 IMC 401.4(1)

10' from center line of public way 2009 IMC 401.4(1)

10' from Xcel transformer Xcel Blue book.

10' from building environmental exhaust 2009 IMC 501.2.1(3)

10' from plumbing vents or 3' below if < 10' 2009 IMC 401.4(3)

#### GENERAL EXHAUST

3' from property lines, openings into buildings 2009 IMC 501.2.1(3)

10' from mechanical air inlets 2009 IMC 501.2.1(3)

**Type I Commercial Hood Exhaust** See figure 506.3.10, 10.1(1) and 10.1(2) for summary

**Type II Commercial Hood** 2009 IMC 506.4.2 & 501.2.1(3) Environmental Air.

#### Return Air Prohibited Sources

Machinery eqmt rm 2009 IMC 918.6(3)

Kitchen 2009 IMC 918.6(5)

Exception: > than 10' from cooking appl. Exception 2009 IMC 918.6(5)

Closet, bathroom, garage, boiler/furnace room, unconditioned attic/crawlspace 2009 IMC 918.6(5)

### Through Penetrations of Rated Assemblies

Not required - If not required then must comply with IBC 713.2 through 713.3.3

Required Ratings of Fire Dampers See 2009 IBC Table 716.3.2.1

### Through Penetrations of Rated Assemblies (cont)

**Fire Walls** fire damper required 2009 IBC 716.5.1

Smoke damper required only serves horizontal exit 2009 IBC 716.5.1.1

**Fire Barriers** 2009 IBC 716.5.2

Fire Damper Required

Exception - Not required if all below apply: building sprinklered, wall rating < 1hr, Not grp H, 26ga duct, ducted sa,ra

Smoke damper required only if fire wall serves horizontal exit 2009 IBC 716.5.2.1

**Shaft Enclosures** 2009 IBC 716.5.3

Fire/Smoke Damper required at all penetrations 2009 IBC 716.5.3

#### Fire Partitions

Fire Damper Required 2009 IBC 716.5.4

Exception - Not required if all below apply: Bldg fully sprinklered, fire caulked per 713

#### Corridors

Smoke damper required. 2009 IBC 716.5.4.1

Exception - Not required if all below apply: No openings in corridor, duct > .019

### Locate Equipment - Equip on roof.

Show Working Space around all HVAC equipment, panels and etc on plans with hatched area. 2009 IMC 306.1 & Manuf. Installation instructions.

Permanent ladder required if roof over 16'. 2009 IMC 306.5

Level walking surface if roof pitch is over 4/12. 2009 IMC 306.5

### Locate Equipment - Equip on roof. (cont)

Guard rails req'd if equip < 10' from edge of roof or 30" drop in elevation. Note this applies to RTU, Fans, roof hatches. Extend 42" high guard, 30" past equipment. Prevent 21" dia sphere. 2009 IMC 304.11

Maintenance recptacle, GFI, Same roof level and within 25' of equipment. 2009 IMC 306.5.2 in accordance with 2011 NEC 210.8(B)(3) & 210.63

Maintenance platforms req'd if slope of roof is > 3/12. If platform is over 30" above roof, a guard rail is required. 2009 IMC 306.5.1

### Locate Equipment - Indoor Equip.

Atmospheric vented appliance shall not be in: bedroom, bathroom, toilet room, storage (except sealed combustion) 2009 IMC 303.3

Appliance in Public garages suspended from the ceiling where vehicles can pass under shall be min 8' or 1' higher than the vehicle entry door, which ever is greater. 2009 IMC 304.6

Appliance in Private garages suspended from the ceiling where vehicles can pass under shall be min 6' or 1' higher than the vehicle entry door, which ever is greater. 2009 IMC 304.7

Room Access Doors - 36" wide X 80" tall. 2009 IMC 306.2

