403.2.1 TYPES OF CONSTRUCTION
THE FOLLOWING MODIFICATIONS TO THE MINIMUM FIRE RESISTANCE RATING OF THE BUILDING ELEMENTS IN TABLE 601 SHALL BE AS FOLLOWS: 1. HIGH RISE BUILDINGS 420' (128,000 MM) OR GREATER IN BUILDING HEIGHT SHALL BE CONSTRUCTED OF TYPE IA CONSTRUCTION.

403.3 ELEVATOR LOBBIES
ELEVATOR LOBBIES SHALL BE PROVIDED IN ACCORDANCE WITH SECTION 708.14.2

403.7 OUTDOOR AIR INTAKES.
FOR HIGH-RISE BUILDINGS, OUTDOOR AIR INTAKES SERVING SPACES ABOVE THE SECOND SLAB:

**CODE:**
- Link Beam
- Vertical Continuity
- Shear Walls Beyond
- Steel Rebar
- Steel Columns erected first, followed by shear pour
- Shear wall shrinks the higher it climbs
- Caisson w/ concrete and steel column
- 20 x 42
- 24 x 24
- W18
- W21
- W24
- W30

Intersection of office floors and core floors. The office’s metal decking ties into the foundation wall, while the 6" core walls remain inside the core. Mesh is laced where columns pierce the slabs to tie into beams below.

Note: the strongest metal decking flooring orientation is perpendicular to Beam.

Note: Floor rebar within concrete pours for strength and stability.

Belt Truss Connection Detail
Intersection steel beams cut/welded and bolted together to create secure connection at trusses and throughout tower

**CONSTRUCTION PROCESSES**

**FAN & SMOKE PURGE DISTRIBUTION**

**COOLING SYNTHESIS**

**MECHANICAL SYNTHESIS**

**NOW MECHANICAL**

**RETURN**

**OUTSIDE AIR DISTRIBUTION**

**MACH 2 MECHANICAL**

**ELEVATORS**

**MECH F62**

**48 F SETBACK**

**2 F MECH. LOBBY/ GROUND**

**STORY AND SERVING SPACES GREATER THAN 10,000 SQUARE FEET (929M^2) OF FLOOR AREA SHALL BE LOCATED IN ACCORDANCE WITH SECTION 401.5 OF THE NEW YORK CITY MECHANICAL CODE.**

**CH.5, 909.1.1**

SMOKE CONTROL SYSTEM, MECHANICAL, AN ENGINEERED SYSTEM THAT USES MECHANICAL FANS TO PRODUCE PRESSURE DIFFERENCES ACROSS SMOKE BARRIERS OR THAT ESTABLISHES AIRFLOW TO LIMIT AND DIRECT SMOKE MOVEMENT