TRUMP INTERNATIONAL HOTEL & TOWER

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BACKGROUND

Trump Tower Chicago

Client: The Trump Organization

Architecture and Engineering: SOM

Interior Architecture: PMG Architects

Height to roof: 1,125 feet.

Height to mechanical penthouse roof: 1,170 feet

Height to top of spire: 1,362 feet

Floor area: 2,600,000 square feet

Retail space: 80,000 square feet

Residences: 472

Hotel rooms:339

Parking spaces: 1,000

Land cost: $73,000,000

Construction cost: $ 850,000,000

Concrete: 720,000,000 pounds

Concrete: 180,000 cubic yards

BACKGROUND

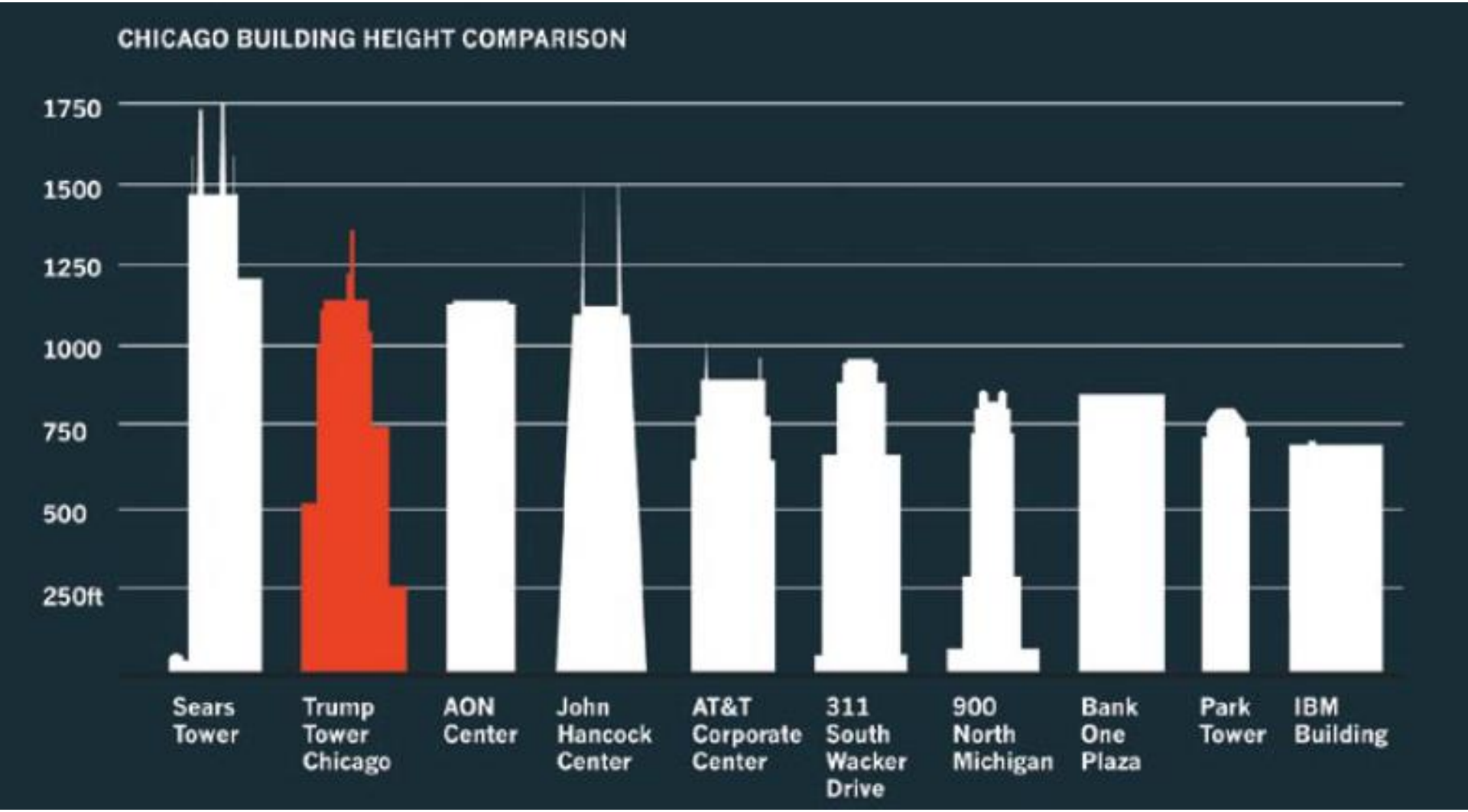

CHICAGO BUILDING HEIGHT COMPARISON
1750
1500
1250
1000
750
500
250ft
Sears Tower
Trump Tower Chicago
AON Center
John Hancock Center
AT&T Corporate Center
311 South Wacker Drive
900 North Michigan
Bank One Plaza
Park Tower
IBM Building


Figure 1. Aerial Trump International Hotel and Tower, Chicago

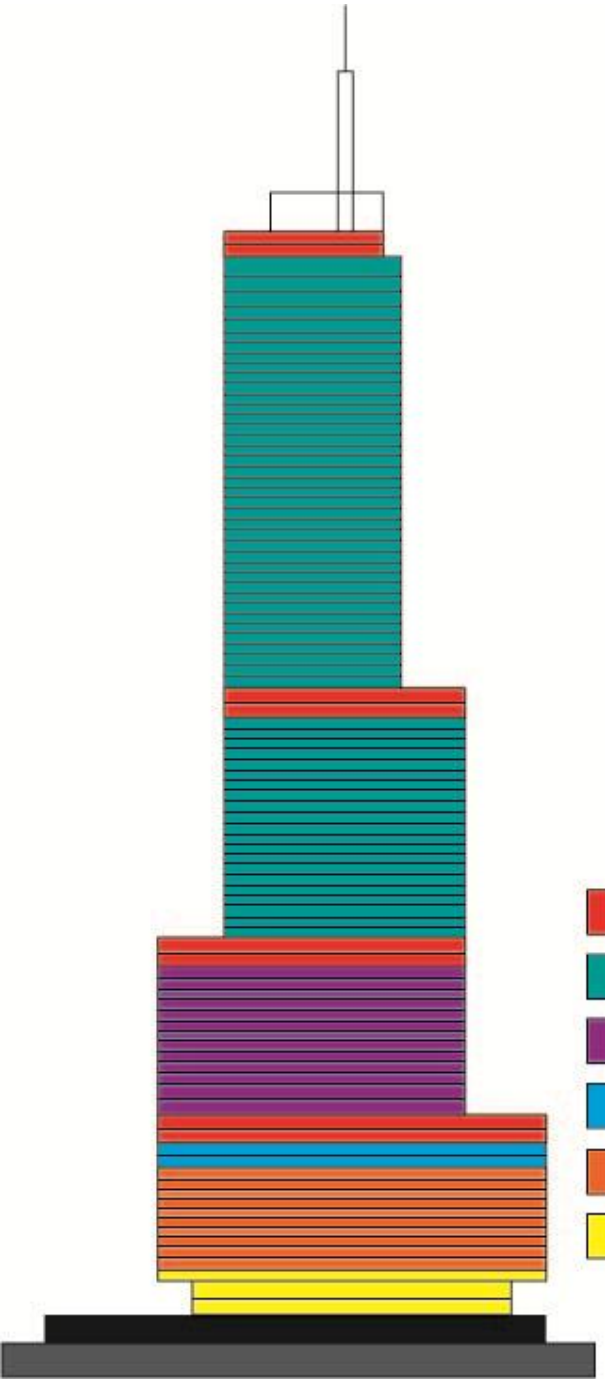
SET-BACKS

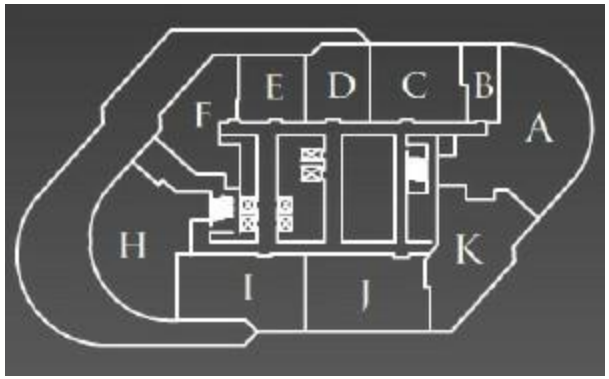
Level 16 Wrigley Building

Level 29 Marina City Tower

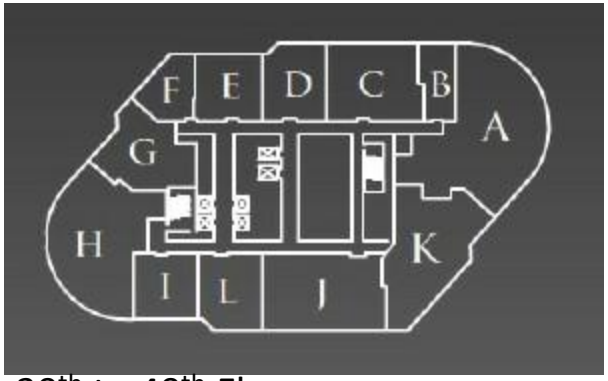
Level 51 IBM Building

ARCHITECTURAL LAYOUT

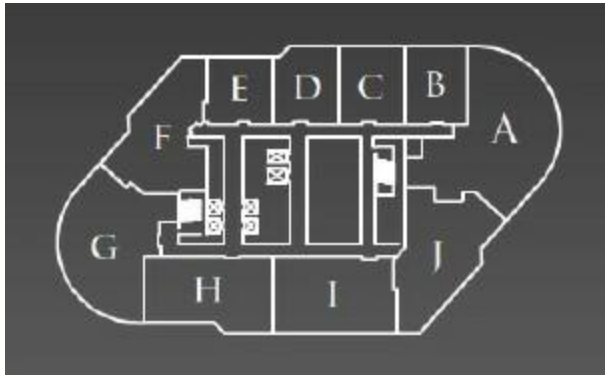




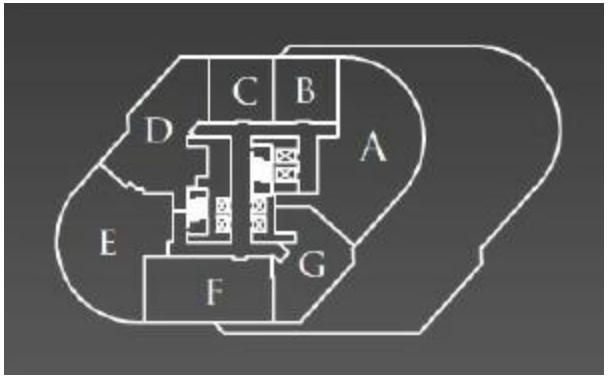
29th Floor



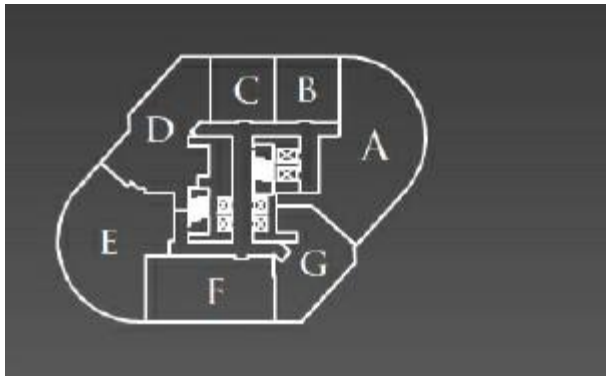
30th to 40th Floor



41th to 49th Floor

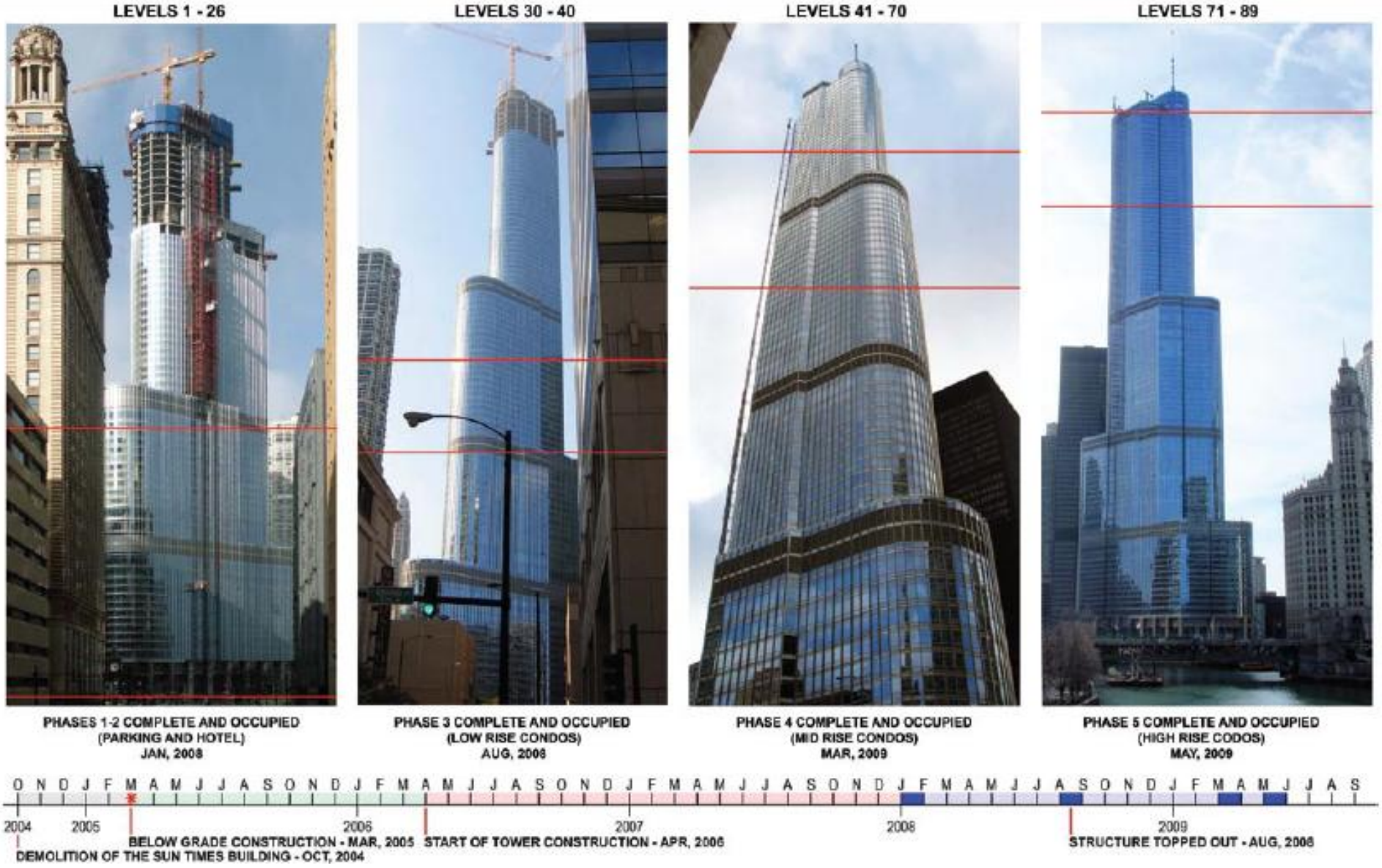


51th Floor

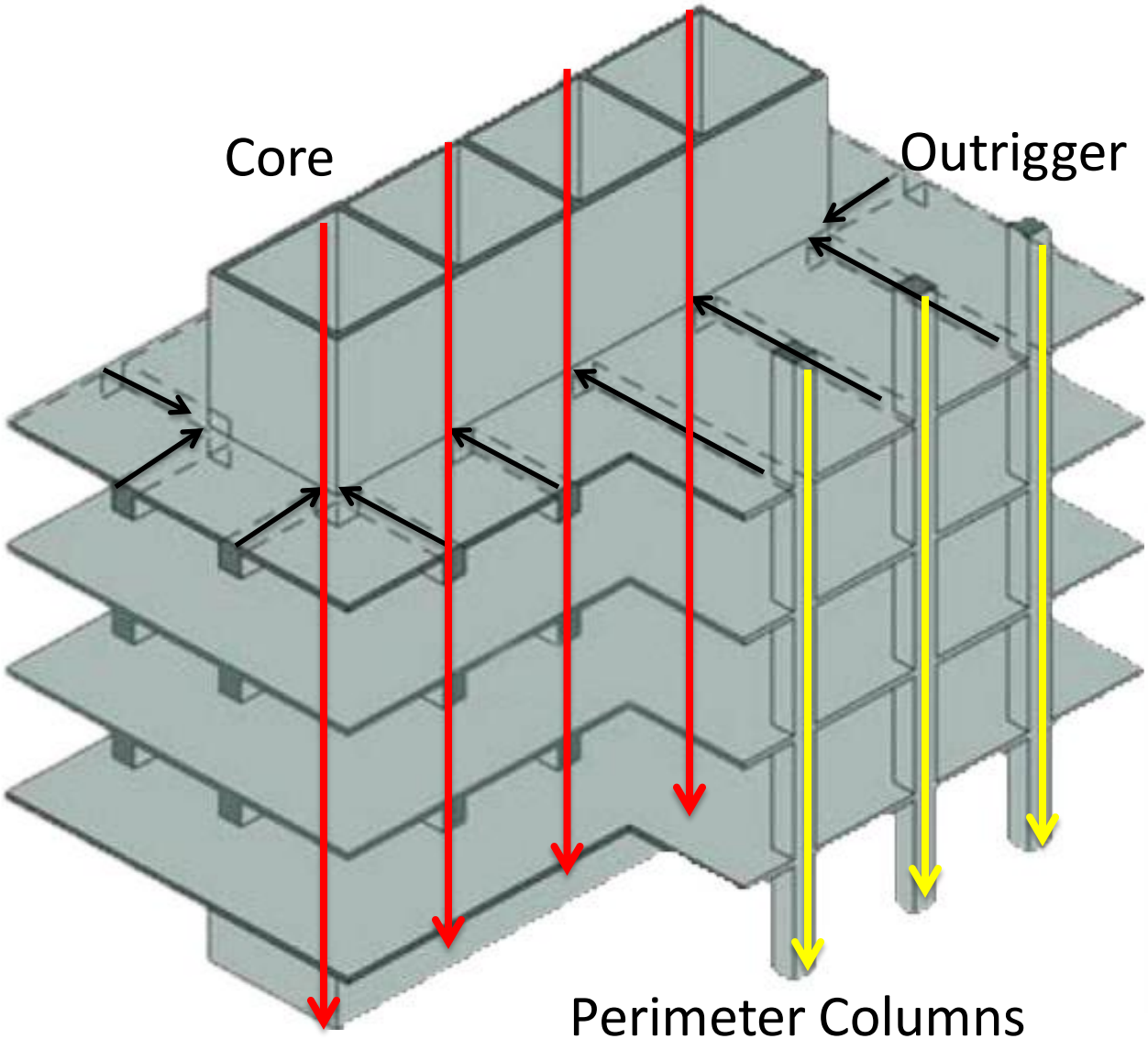


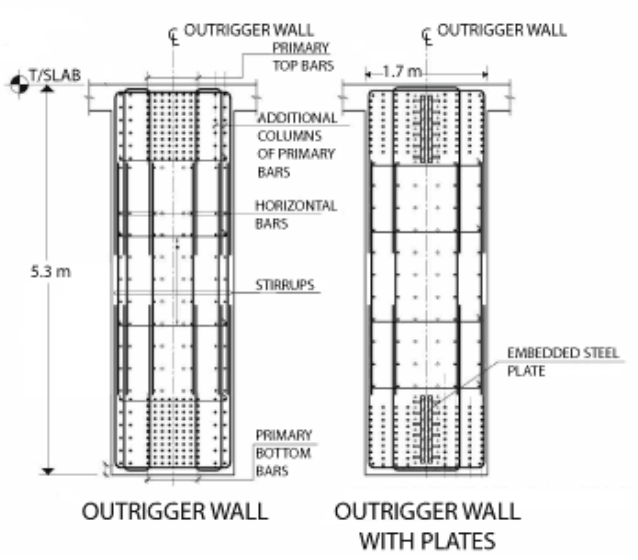
52th to 65th Floor

ARCHITECTURAL LAYOUT



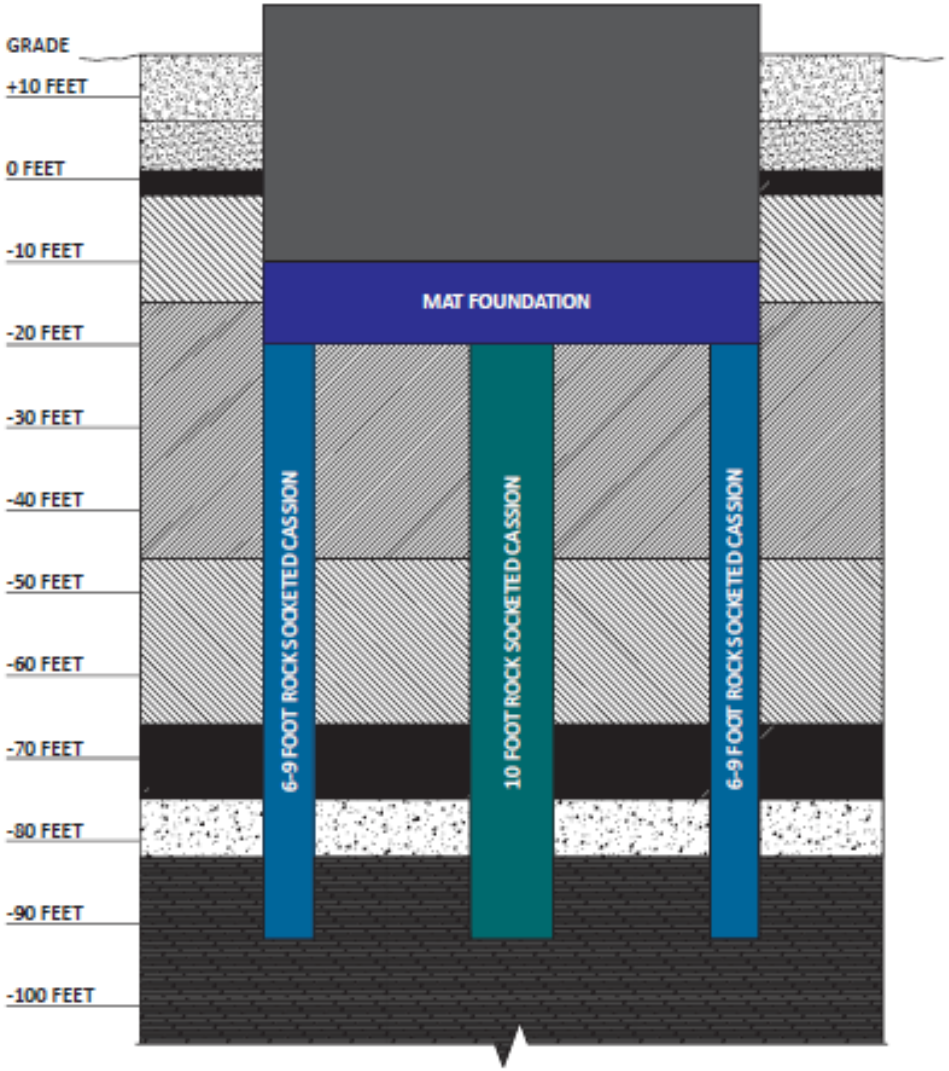
EXAMPLE STRUCTURAL SYSTEM





MAIN STRUCTURAL SYSTEM

FOUNDATIONS AND SOIL CONDITIONS



Mat with rock socketed caisson foundation

FOUNDATIONS AND SOIL CONDITIONS

Large crane attachment drill augering 8ft diameter caisson shaft to rock

Rock socket drilling with air-operated downhole hammer tool

FOUNDATIONS AND SOIL CONDITIONS

Rock is reduced to sand and gravel by downhole hammer tool .

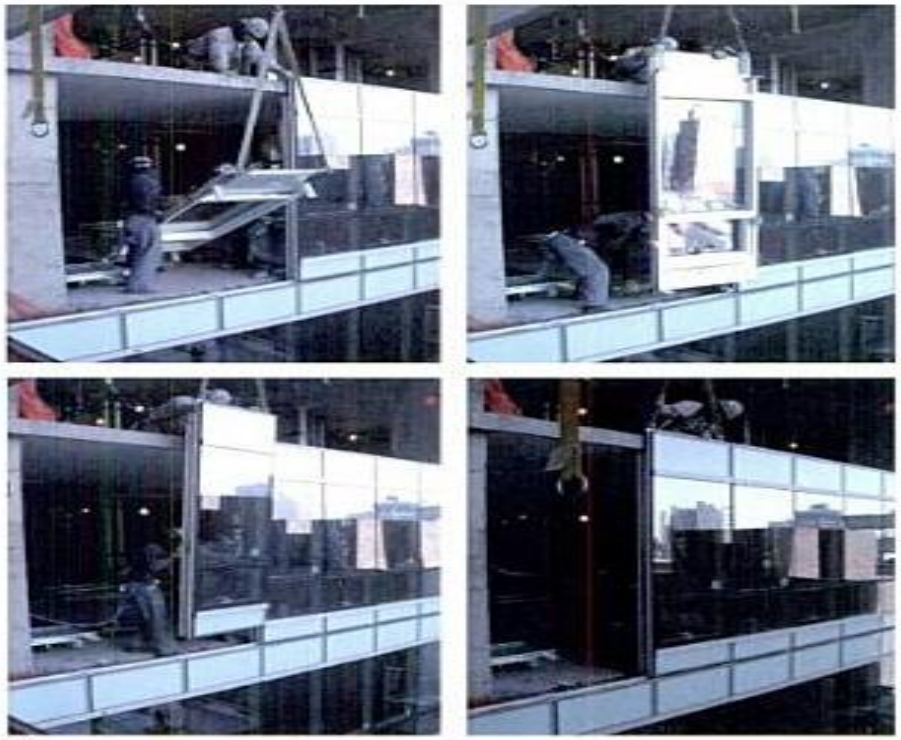
Three truckloads and 30 cubic yards of concrete discharged in 60 seconds into 10ft diameter Tower caisson

FOUNDATIONS AND SOIL CONDITIONS

Installation of 10ft diameter permanent casing for Tower rock caisson

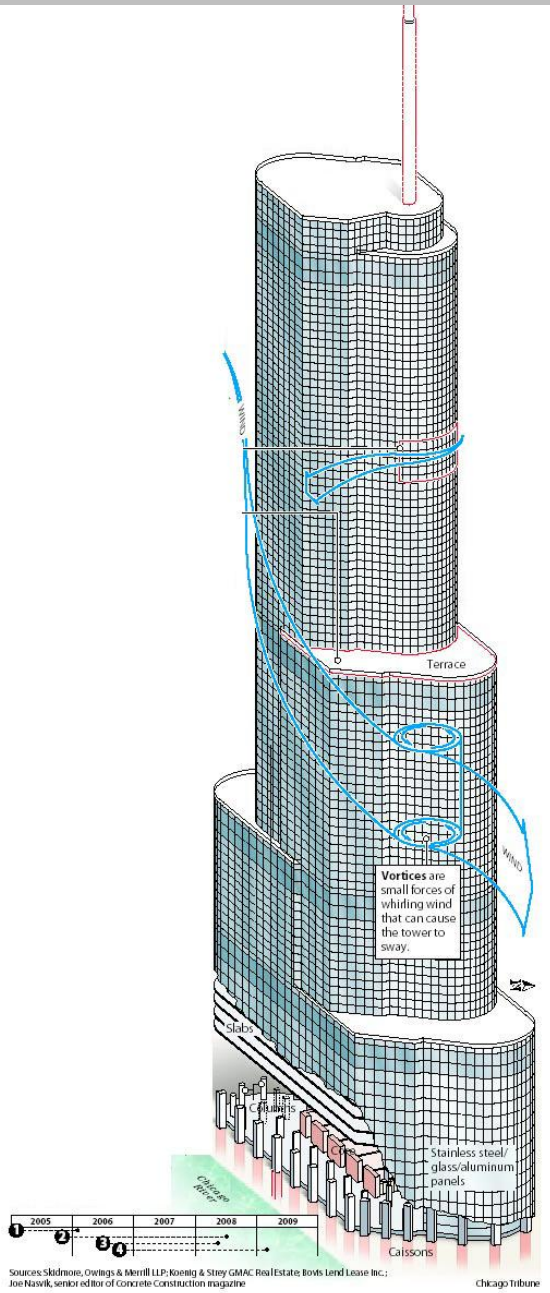
Preparation to pour tower core mat

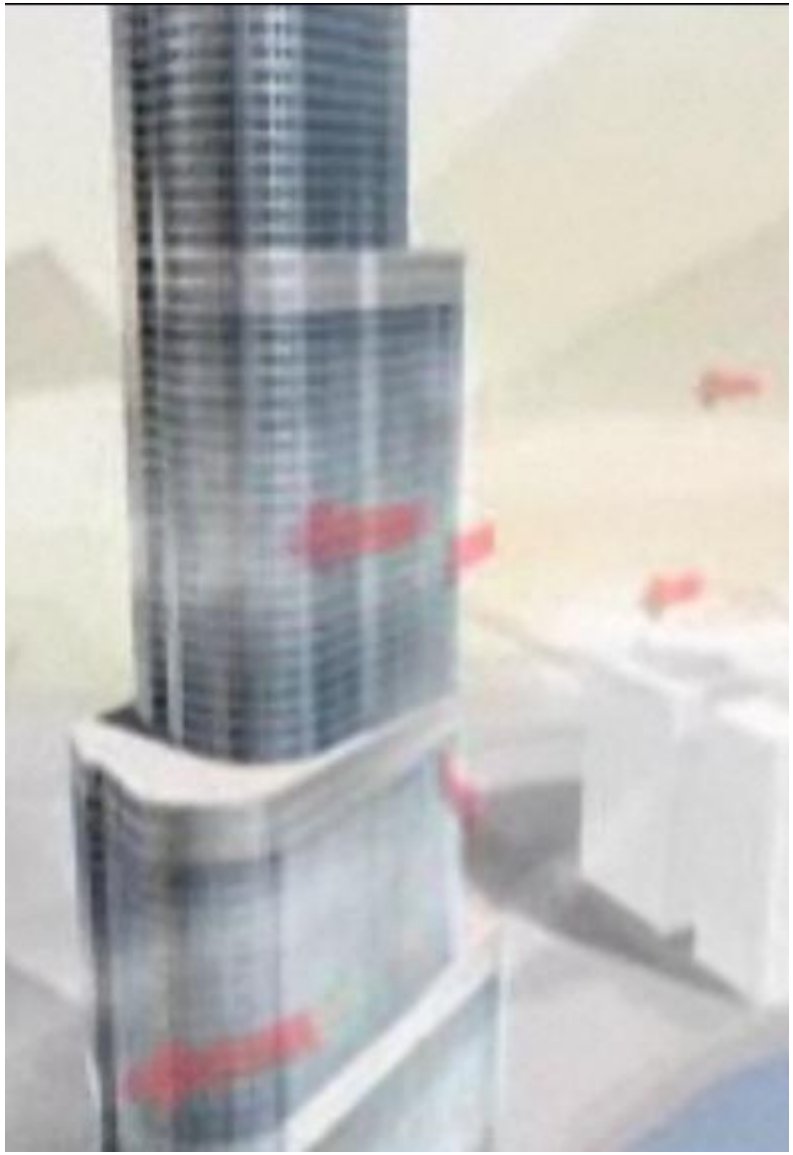
CURTAIN WALL SYSTEM



5.7

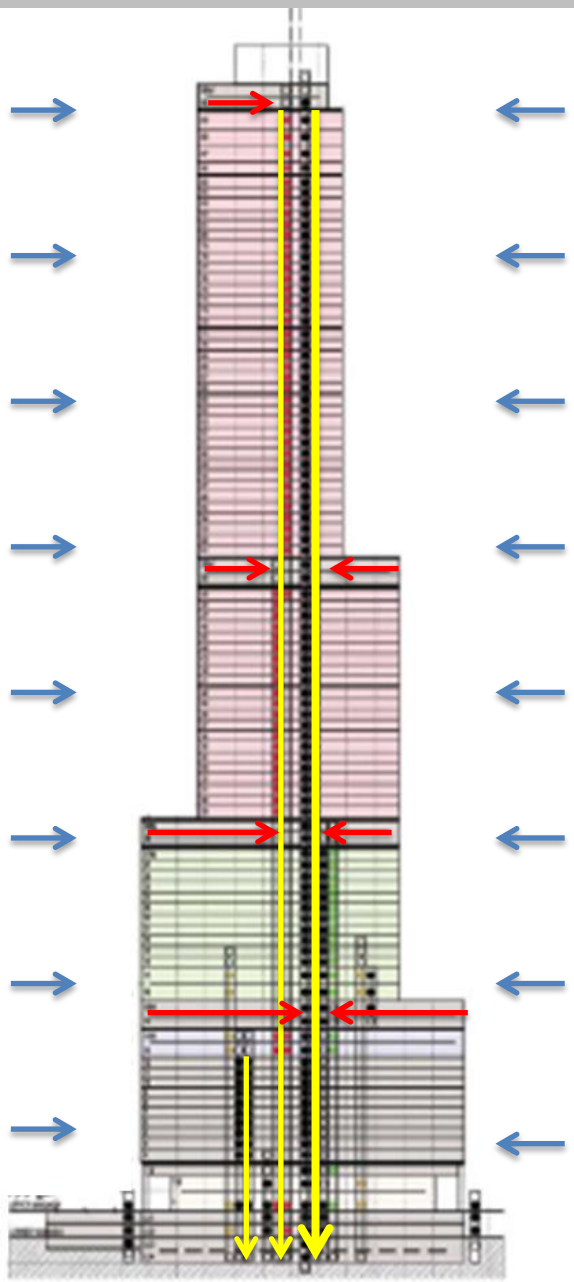
WIND LOADS



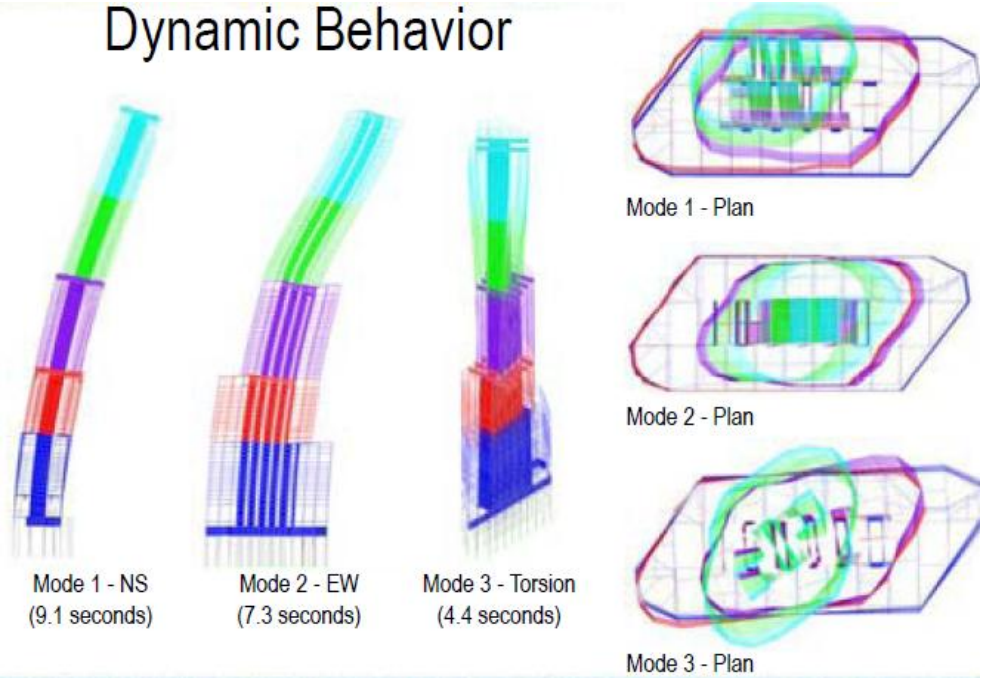


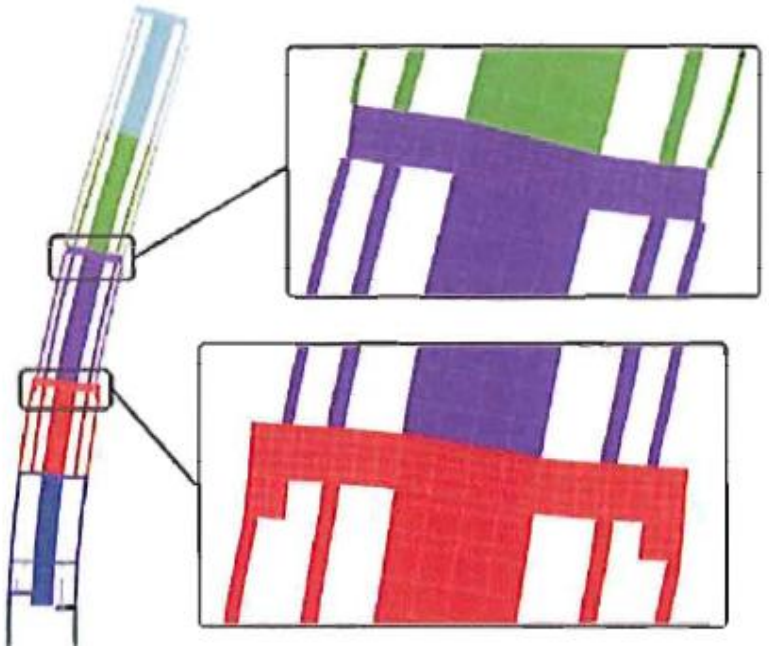
http://dsc.discovery.com/videos/build-it-bigger-trump-tower-animation-1.html

LOAD TRACING



DYNAMIC BEHAVIOR





BUILDING COMPLETION ACHIEVMENTS

Tallest building in the world with an all-concrete structure

Tallest mixed-use building in Chicago, U.S., North America

2nd tallest building in Chicago, U.S., North America

8th tallest building in the world

4th tallest building mixed-use in the world

Highest residential floor in Chicago, U.S., North America

2nd highest residential floor in the world

Tallest building constructed in the U.S. in 35 years, since the Sears Tower in 1974