



STRUCTURAL DESIGN

THORNTON-TOMASETTI

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Transbay CAC

October 11, 2011

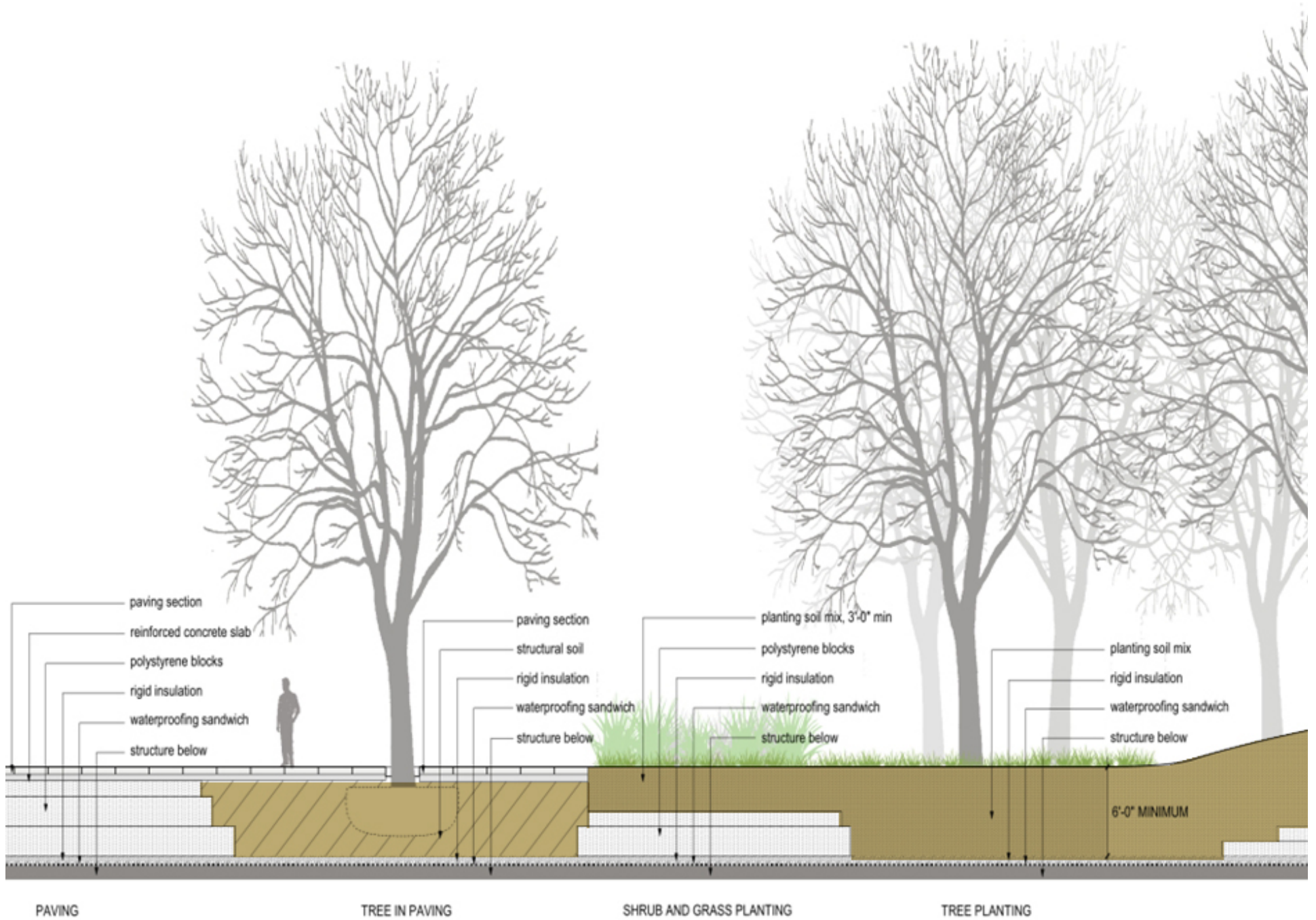
Roof Park



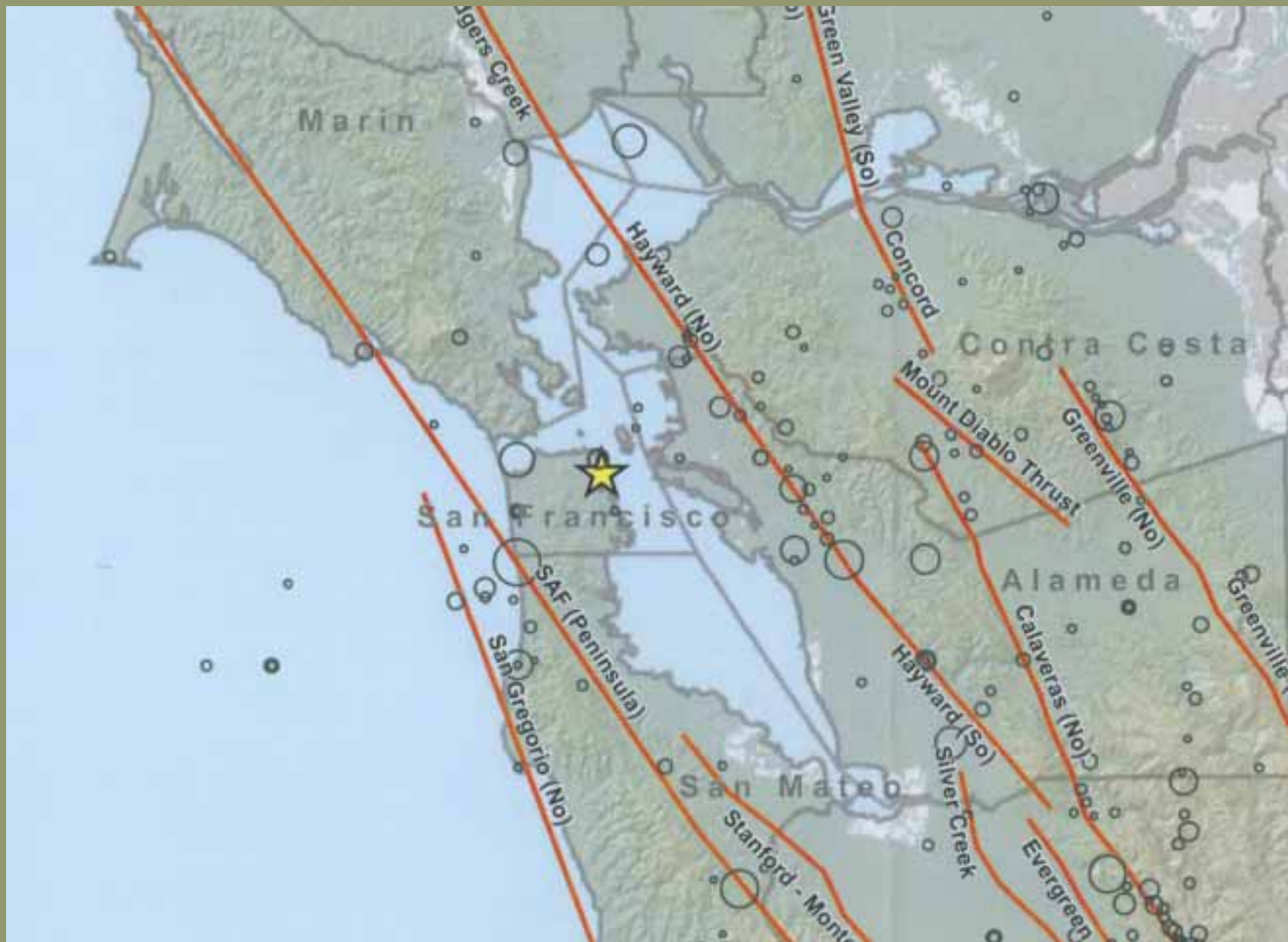
5.5 acres

Average 3 feet of soil

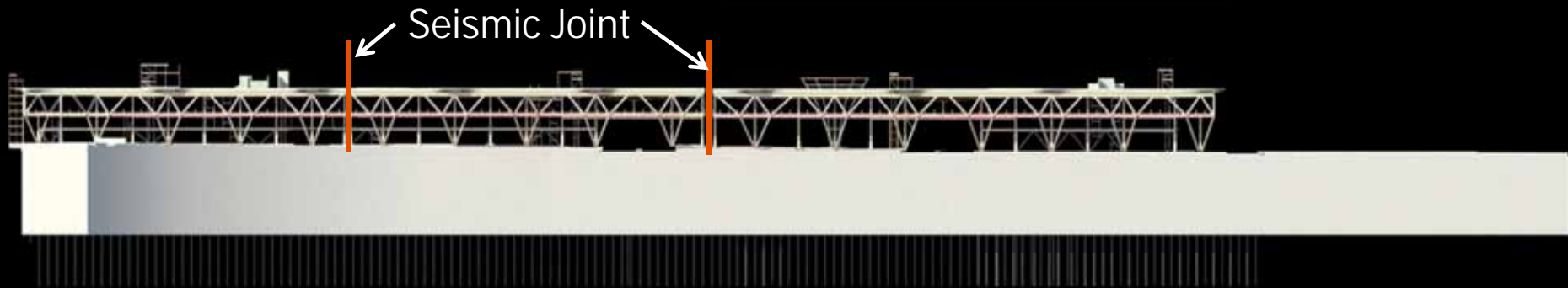
Approximately 55,000 tons



Seismicity

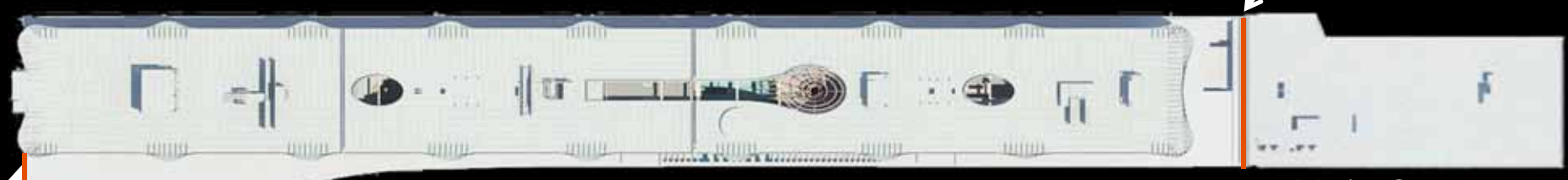


Overview



Elevation

Seismic Joint



Plan

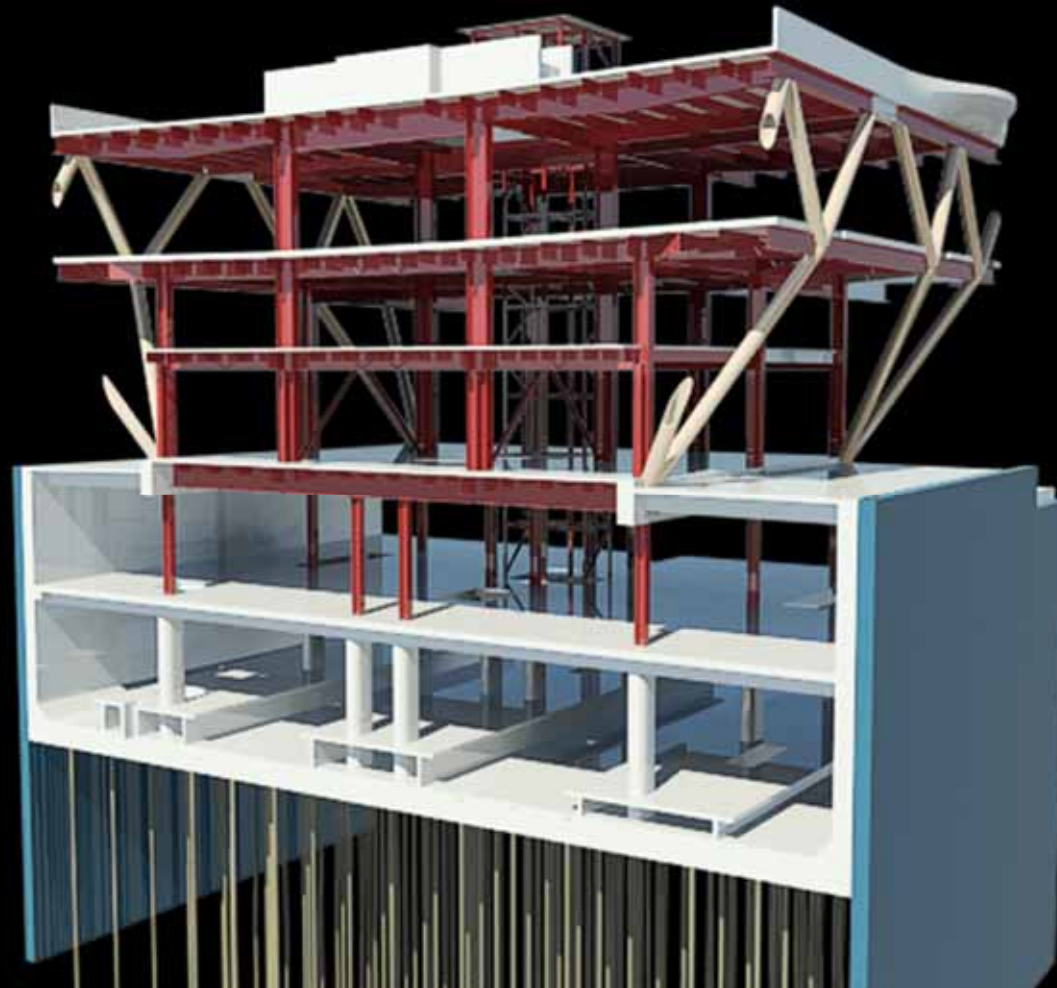
Main Street Extension

DTX

Seismic Joint



Structural Framing



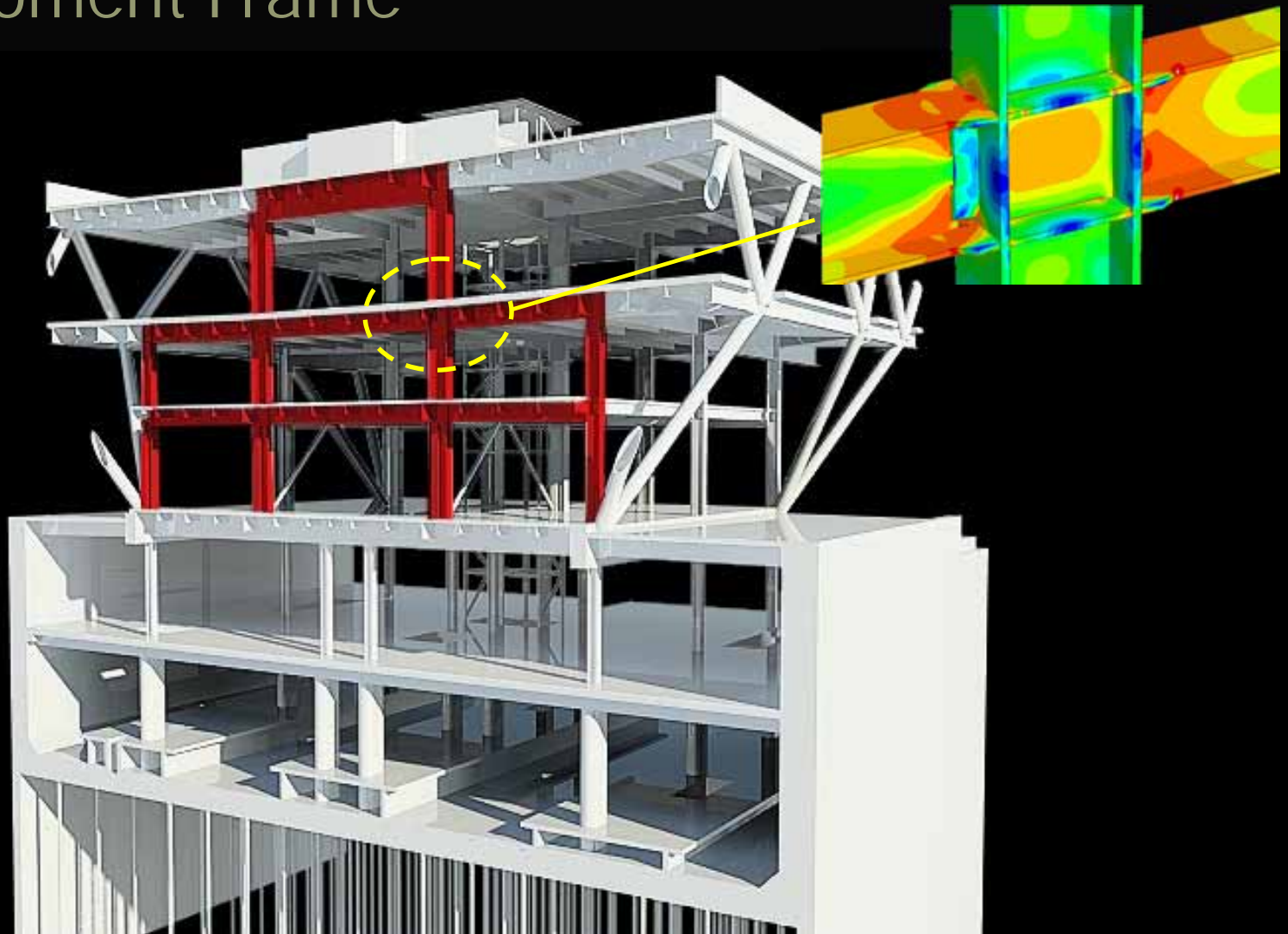
Slide 6

t1

Do not animate

ttuser, 9/21/2011

Steel Moment Frame



Moment Frame Test Setup



At the completion of 4% cycles

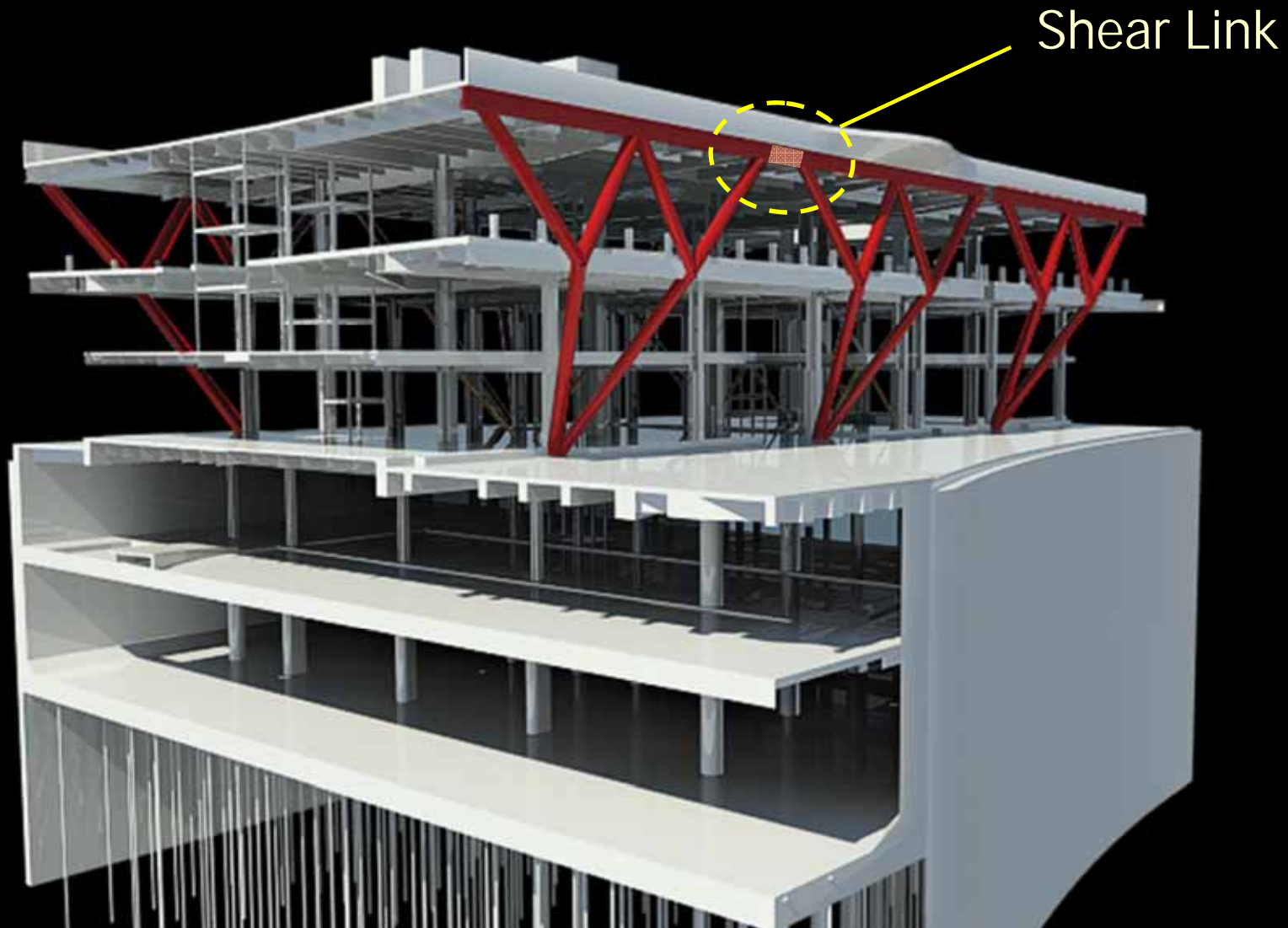
Moment Frame Test Setup

1.5 Percent
2 Cycles

Architecturally Expressive Structure

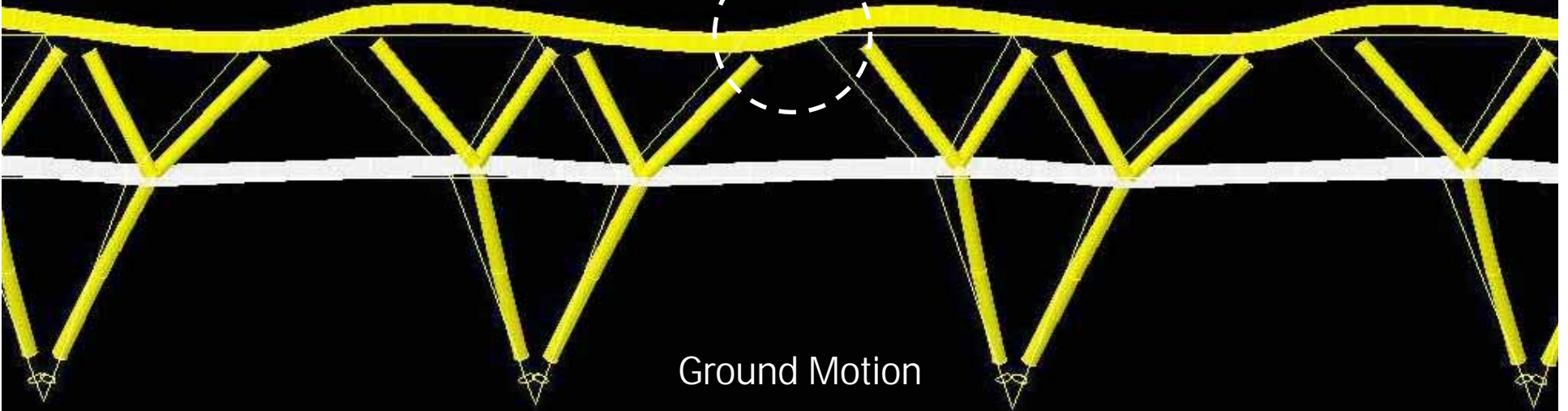
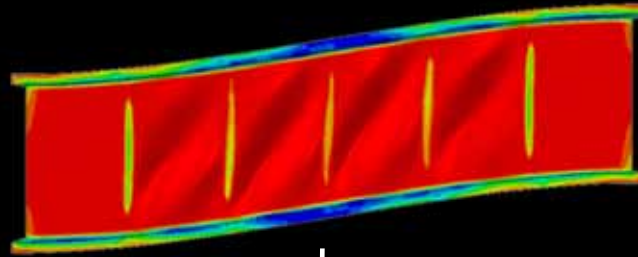


Eccentric Braced Frames



Eccentric Braced Frames

Shear Link



Ground Motion



Slide 12

B1

can we do a better graphic of this showing the frames of our model rotating?

BGibbons, 9/15/2011

EBF Test Results: Deformed Configuration

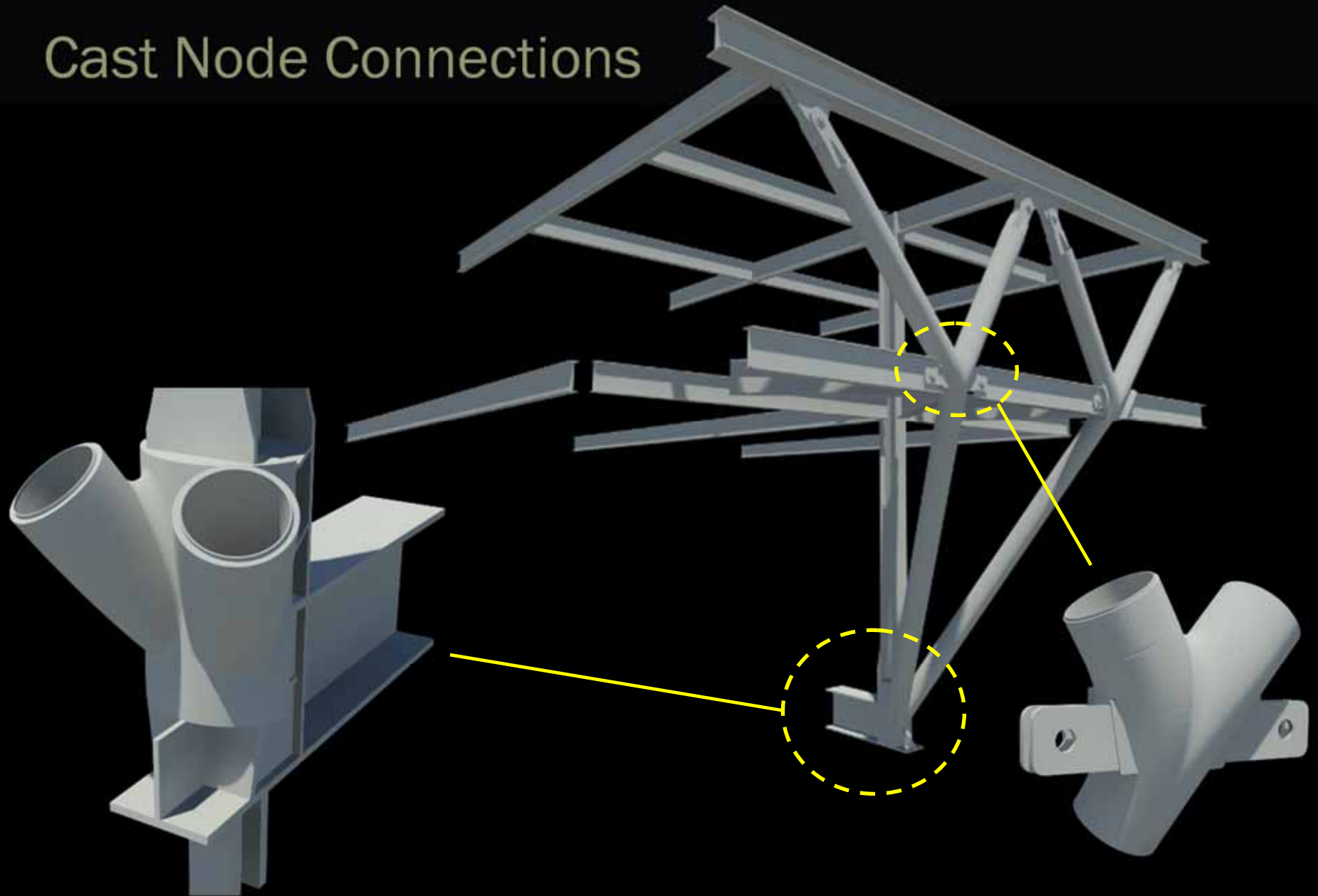


at $\gamma_{total} = +0.08$ rad.

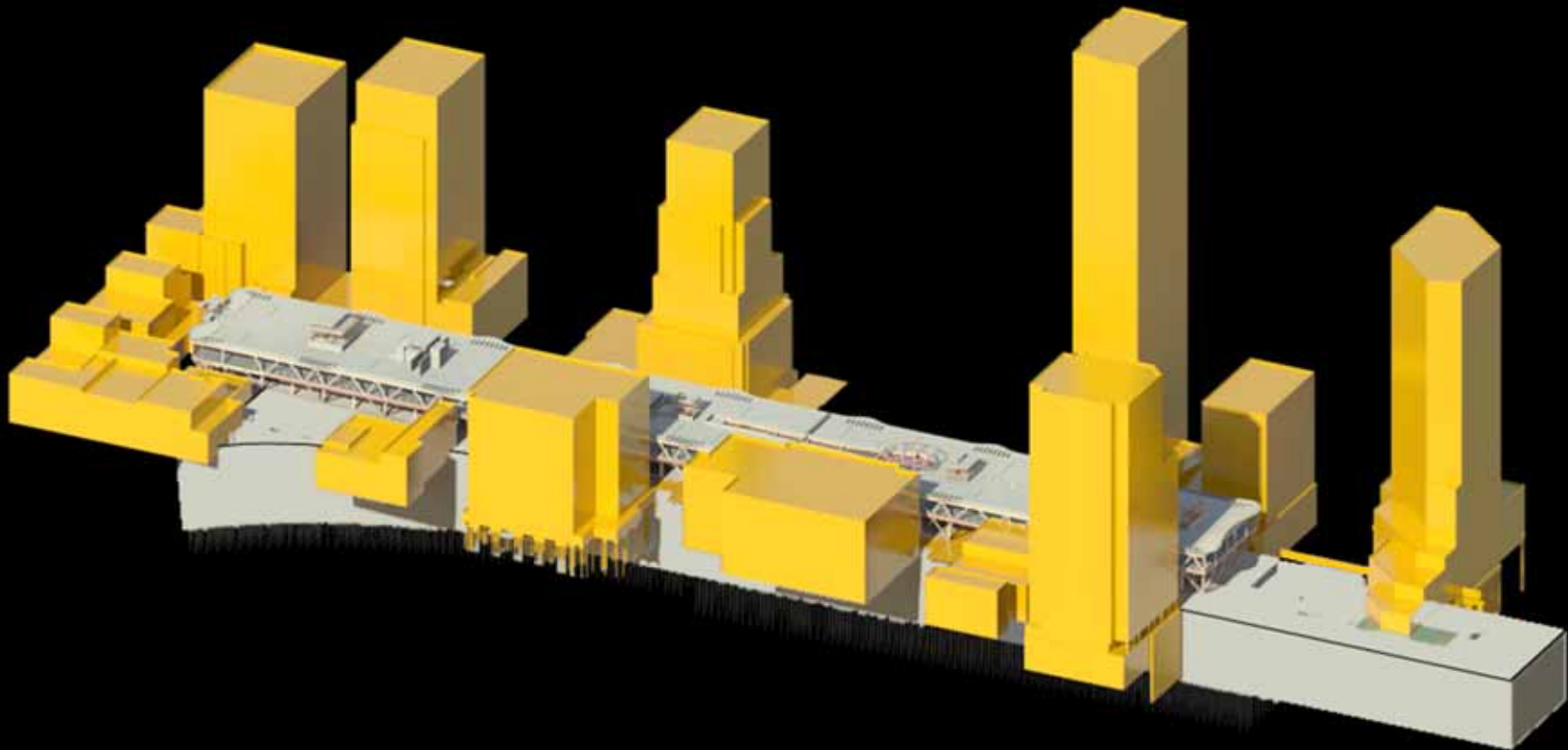


at $\gamma_{total} = -0.08$ rad.

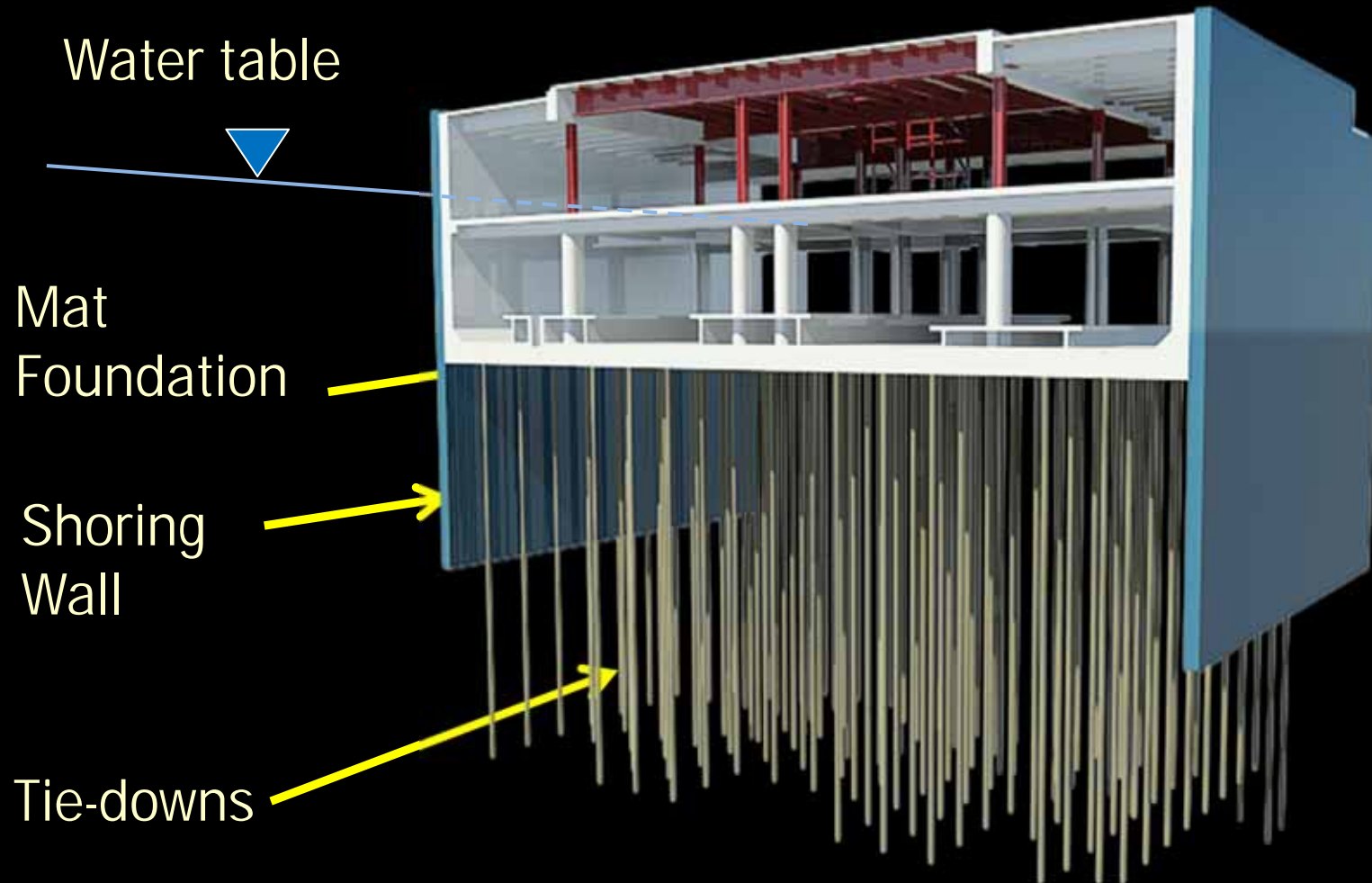
Cast Node Connections



Adjacent Buildings



Shoring, Foundation & Train Box



Slide 16

B2

animate this slide to sequentially show:

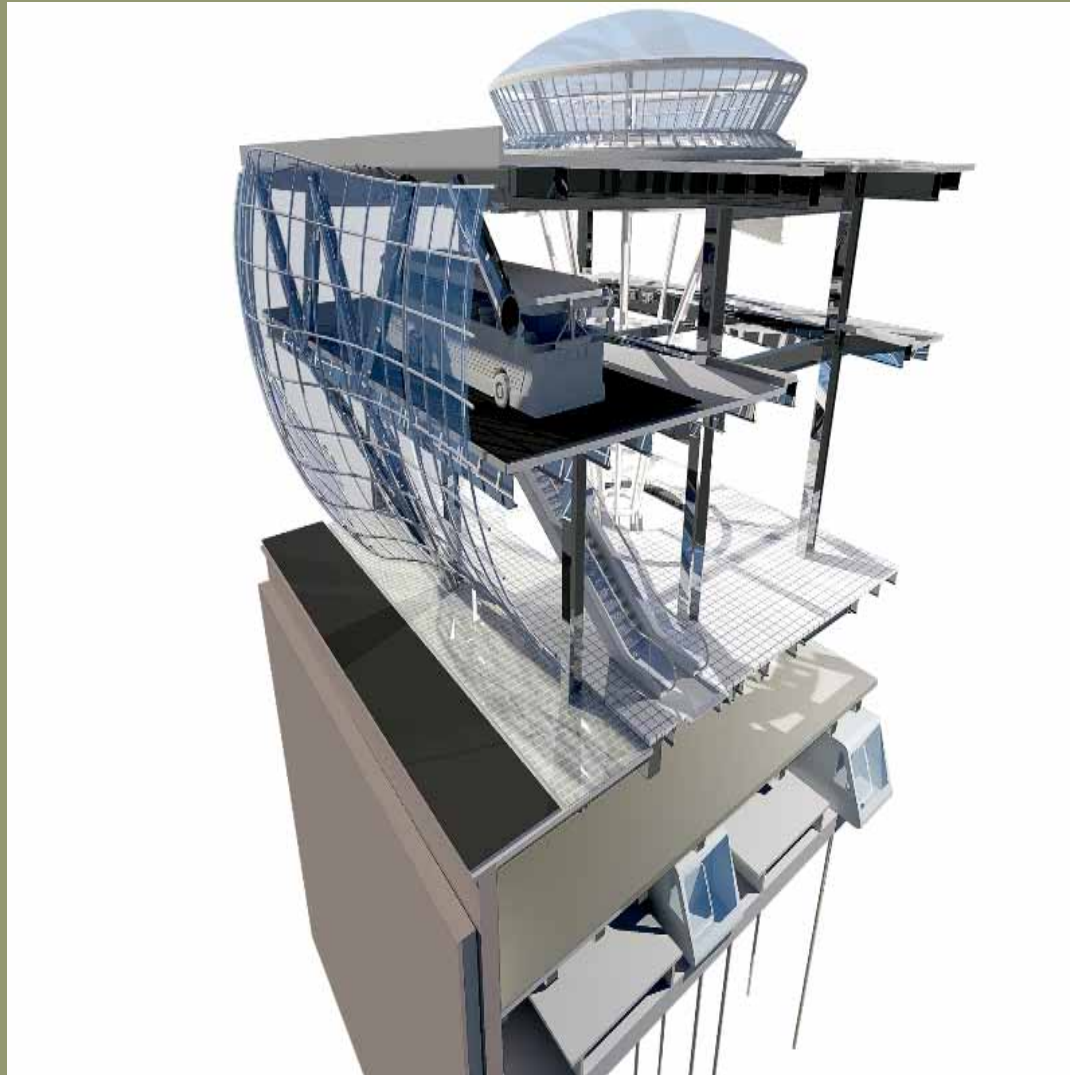
1. shoring walls
2. Mat slab (& shoring)
3. Lower concourse and columns

THEN ON A NEW SLIDE:

4. Steel frame & concrete ground floor slab
5. Steel superstructure

SHOW SHORING WALLS IN SAY BLUE, CONCRETE IN GREY; STEELWORK IN RED PRIMER

BGibbons, 9/15/2011



Slide 17

t2

Do not animate

ttuser, 9/21/2011