

showed a total load of 172,900 kip, for a difference of about 0.7 percent. Figure 12–38 presents the total load above Floor 8 in the model during gravity initialization. The load increased smoothly as expected and without dynamic effects, indicating the gravity initialization duration of 4.5 s to full load was adequate.

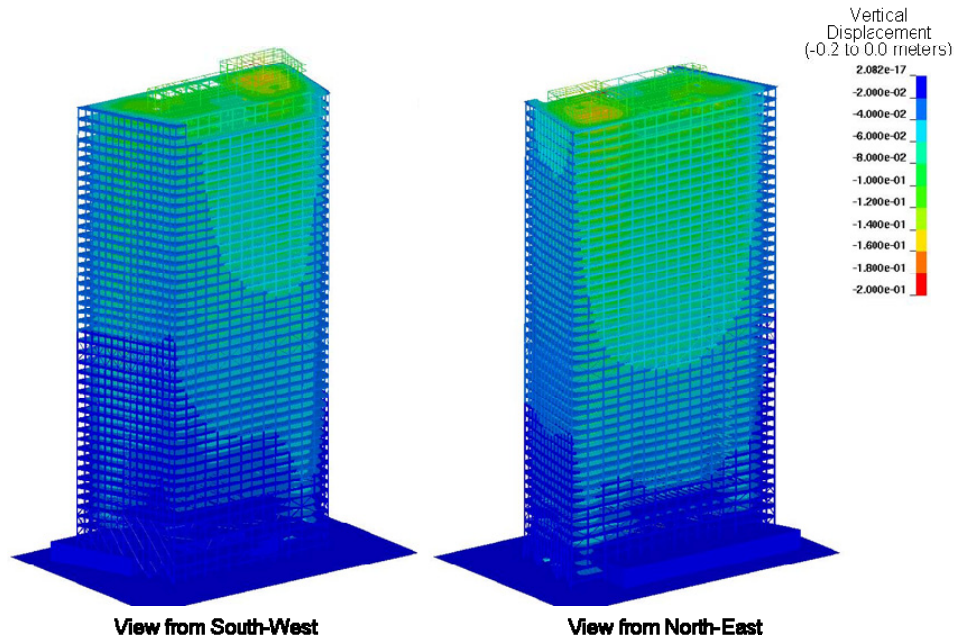


Figure 12–37. Calculated global vertical displacements after gravity initialization.

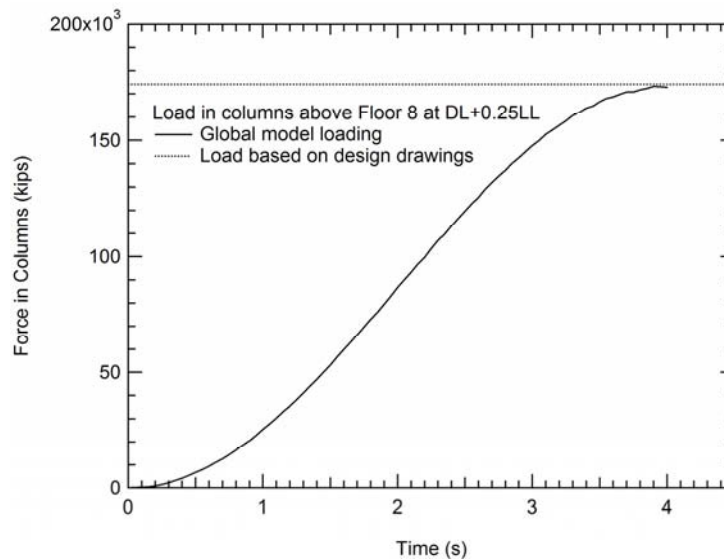


Figure 12–38. Total load history above Floor 8 during gravity initialization.

12.4.2 Building Response to Debris-Impact Damage

Subsequent to the application of the gravity loads, damage due to debris impact from the collapse of WTC 1 was applied to the global 47 story model. Figure 12–39 presents the vertical displacements due to