

Figure 3.7.2-49: SAP2000 Control Building Model

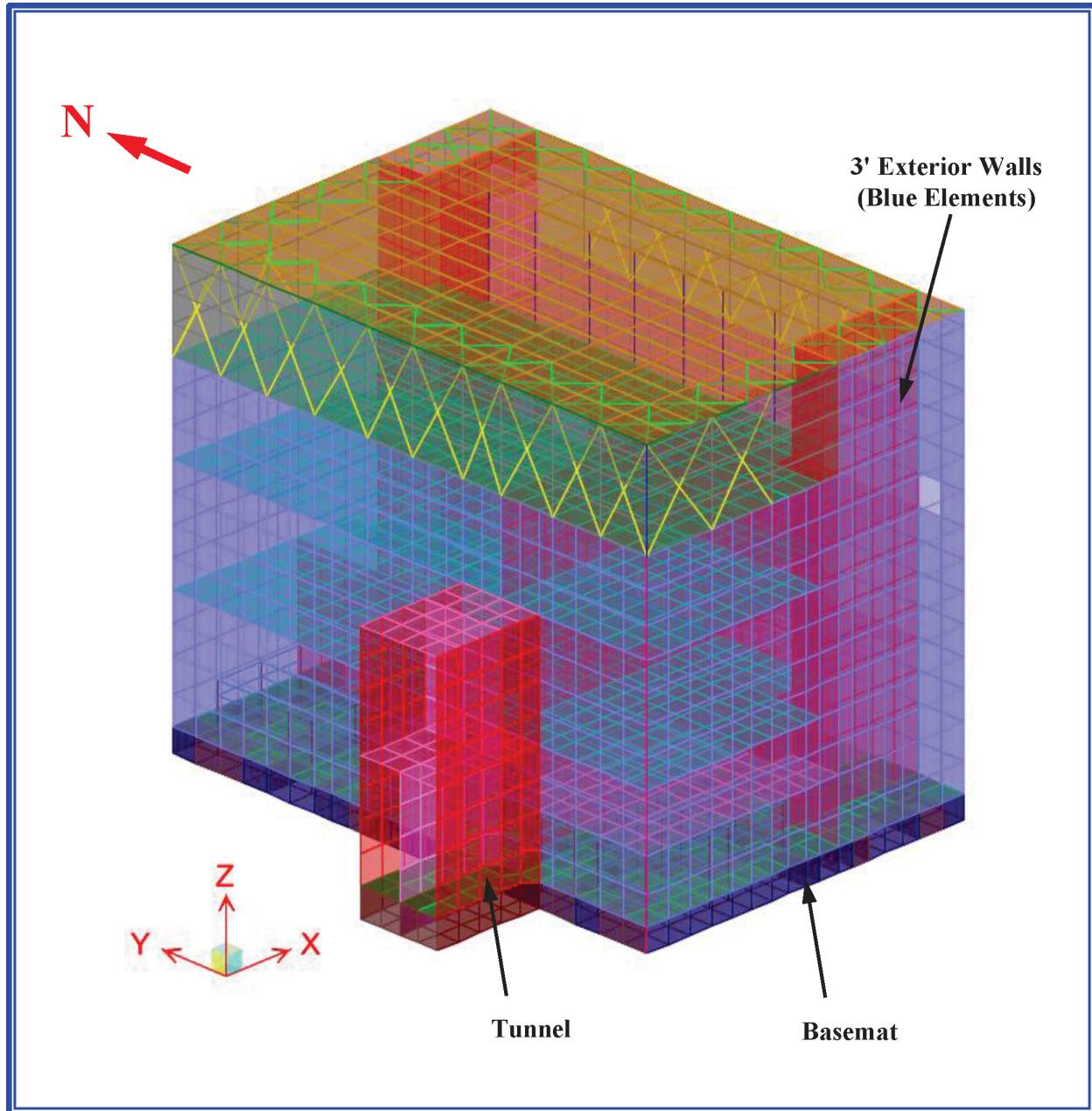


Figure 3.7.2-50: SAP2000 Control Building Model Beam Elements

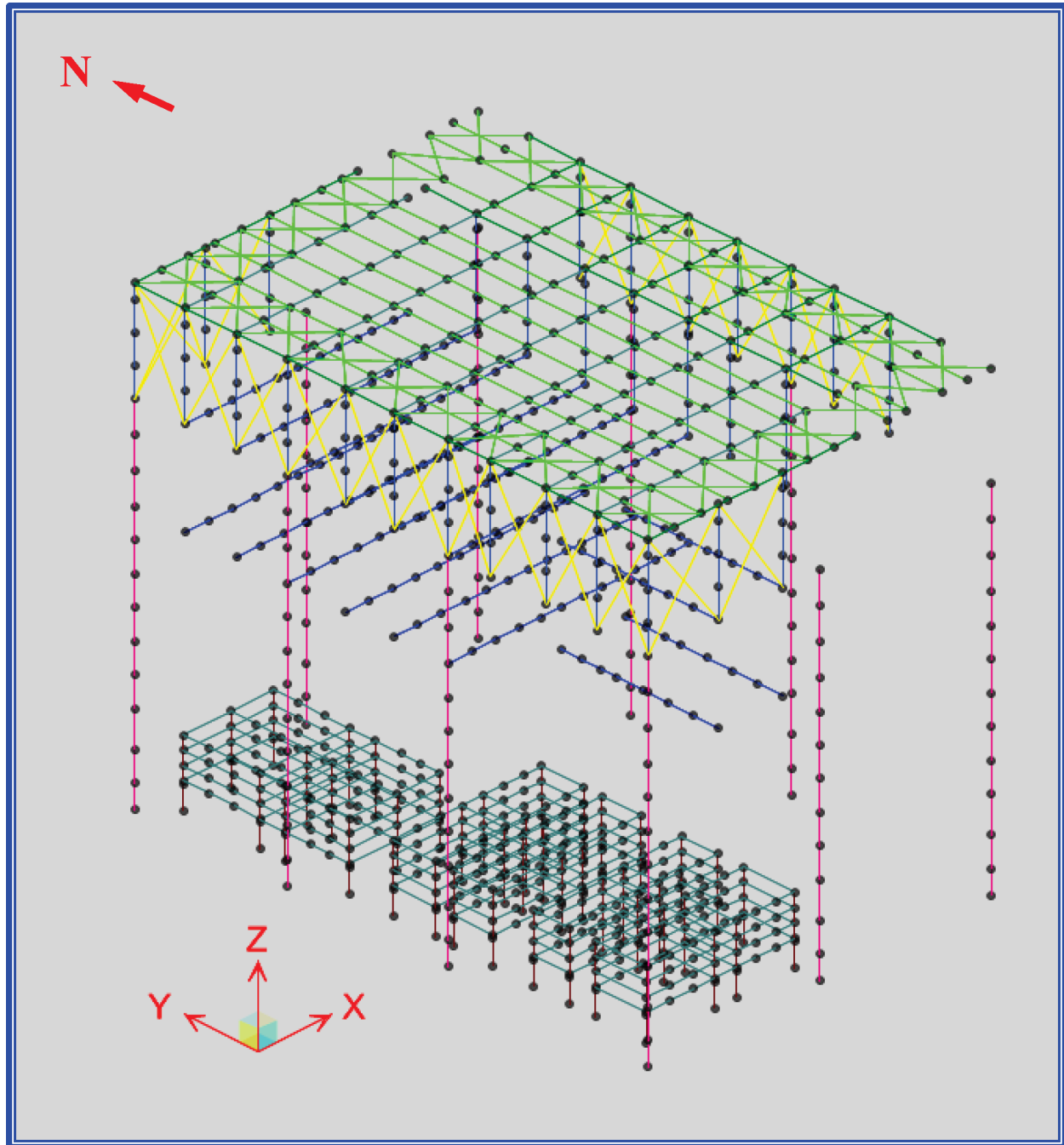




Figure 3.7.2-51: SAP2000 Control Building Model with Backfill Soil

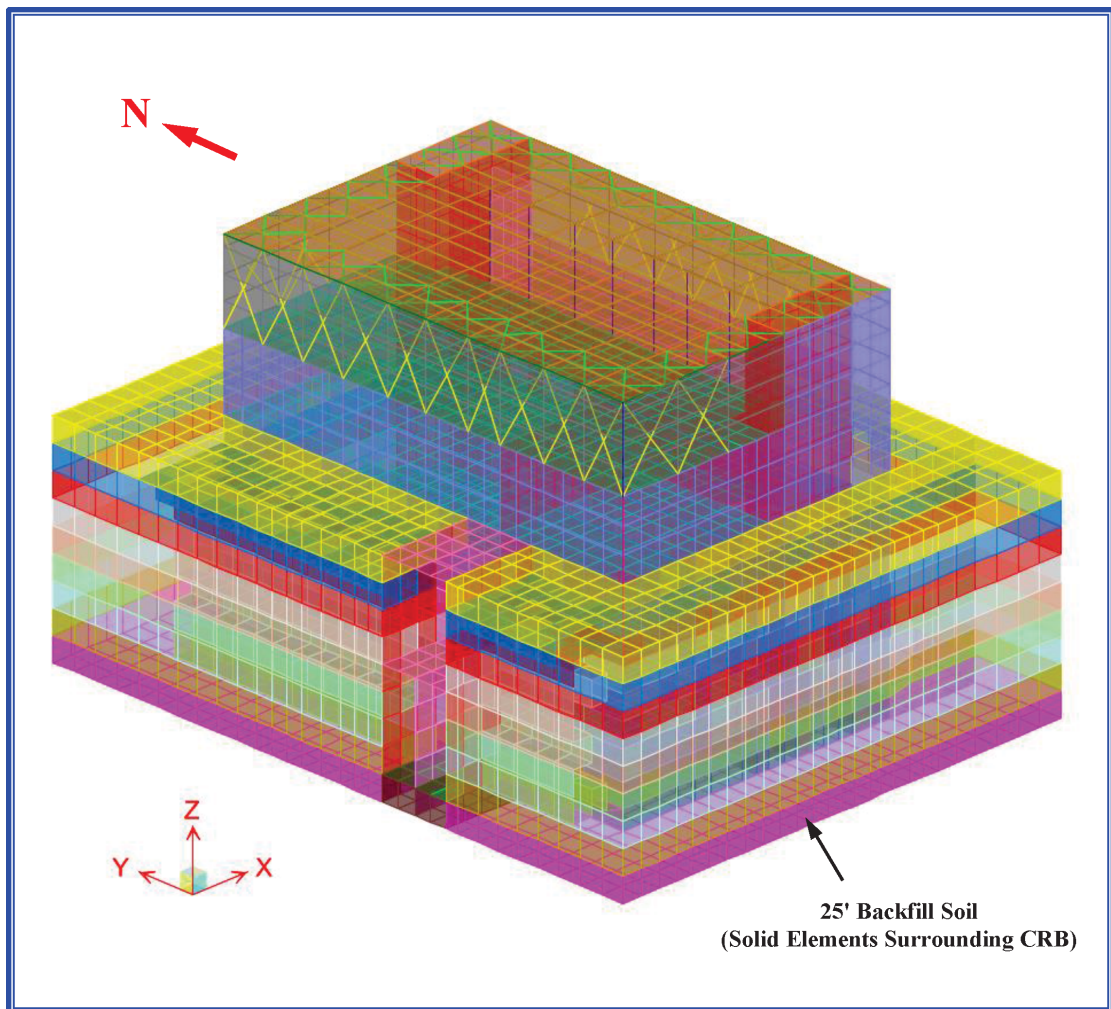


Figure 3.7.2-52: Control Building SASSI2010 Model

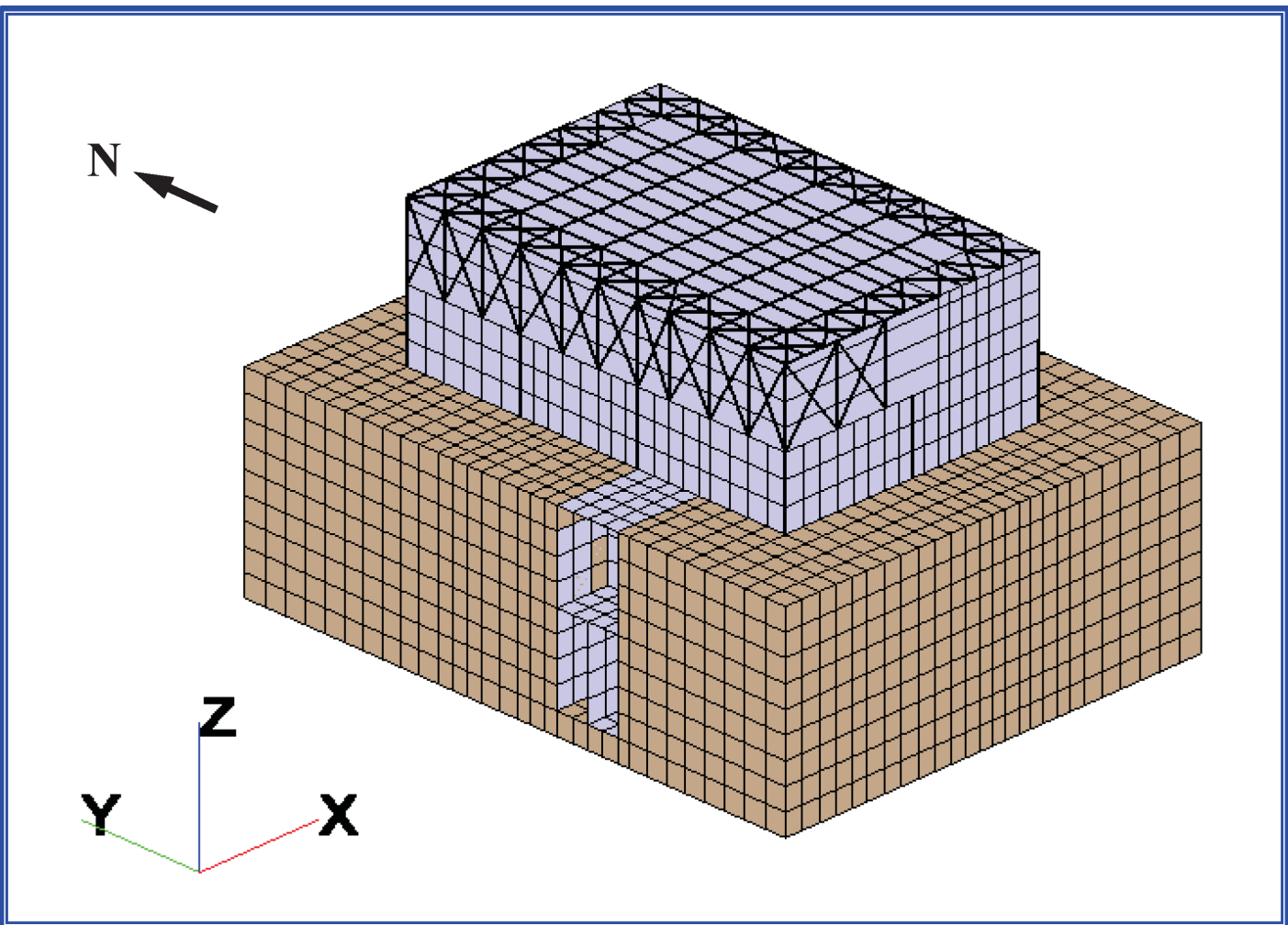


Figure 3.7.2-53: Excavated Soil of Control Building SASSI2010 Model

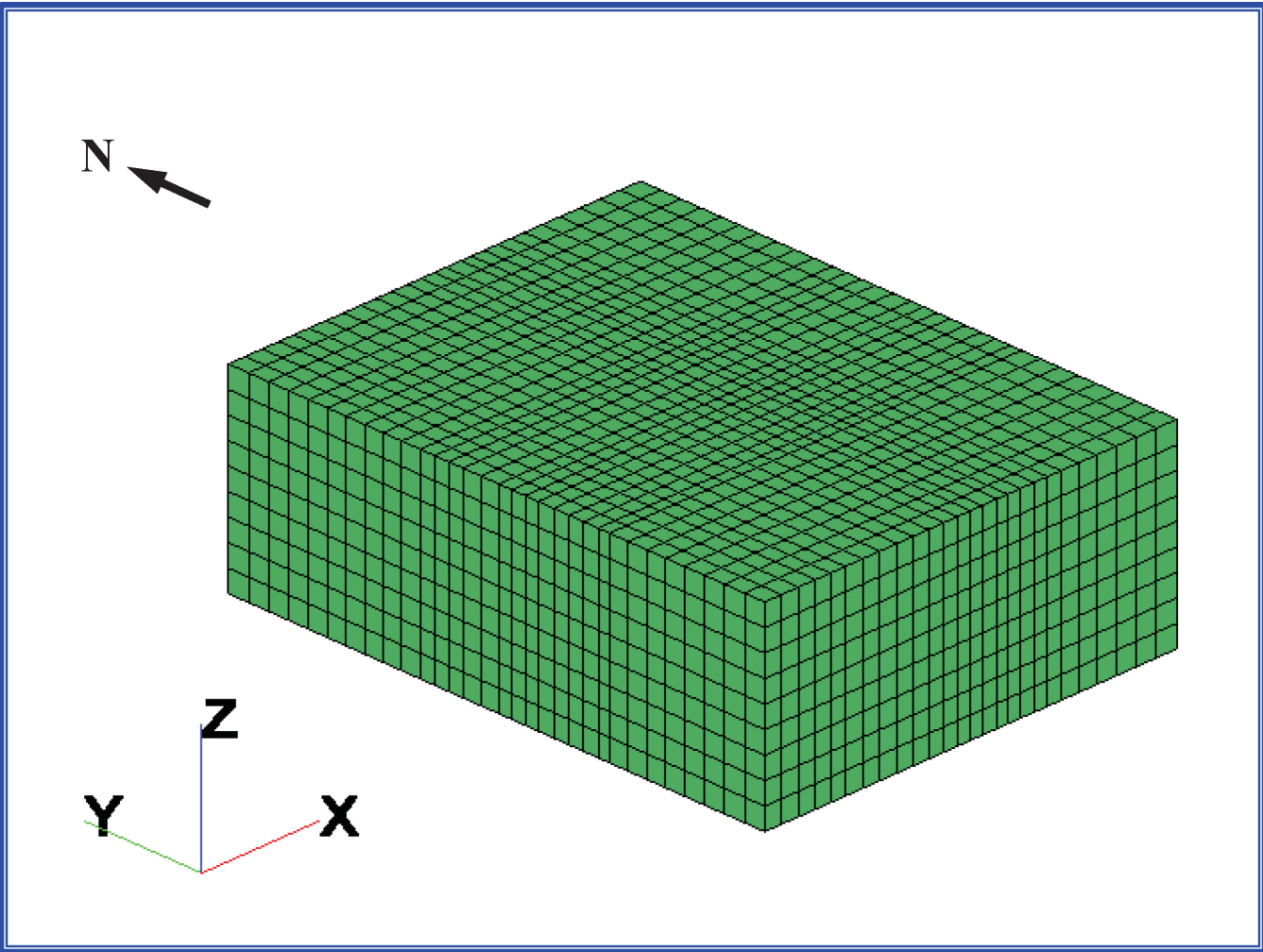


Figure 3.7.2-54: Control Building SASSI2010 Model Backfill Soil Solid Elements

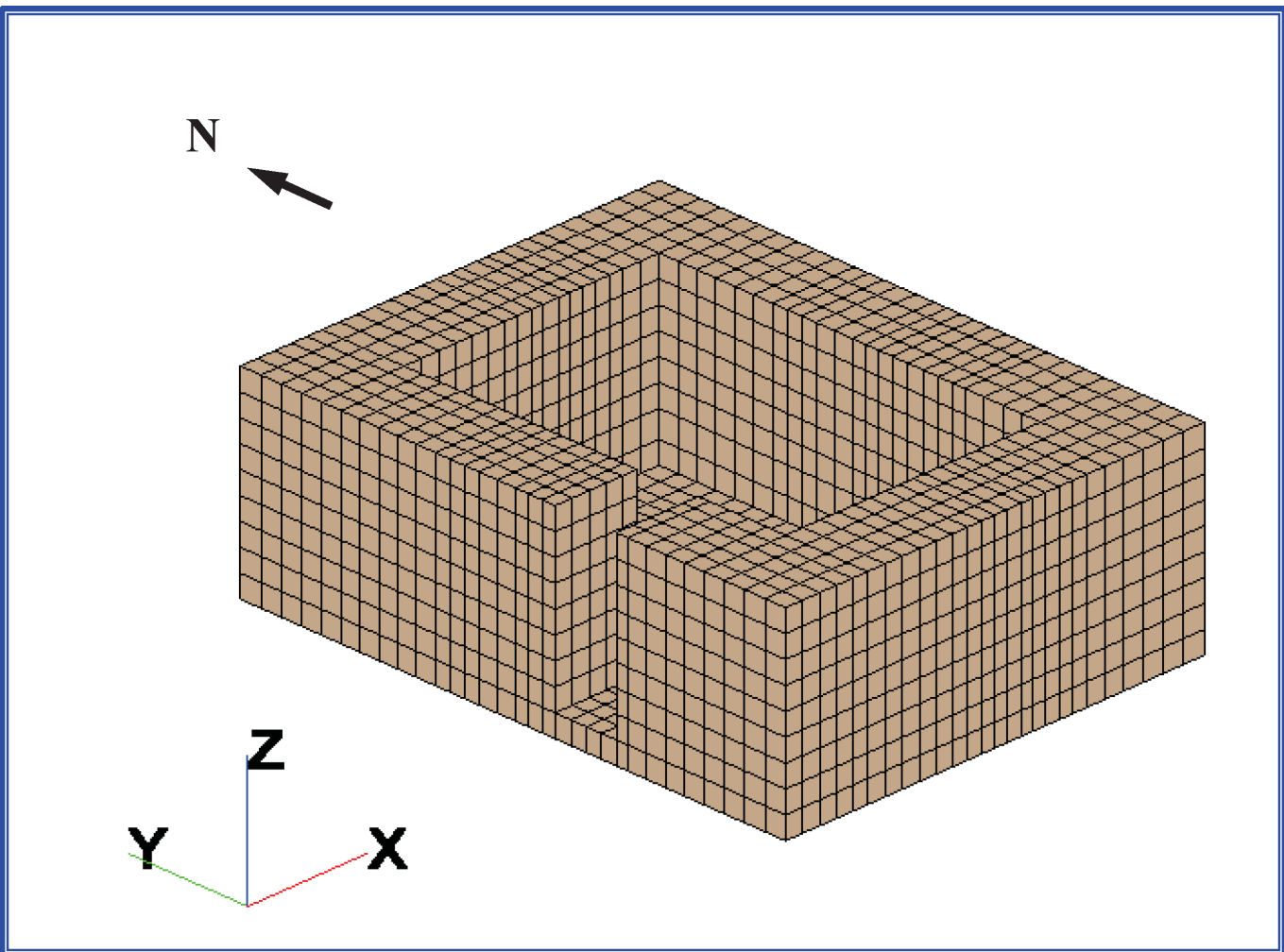
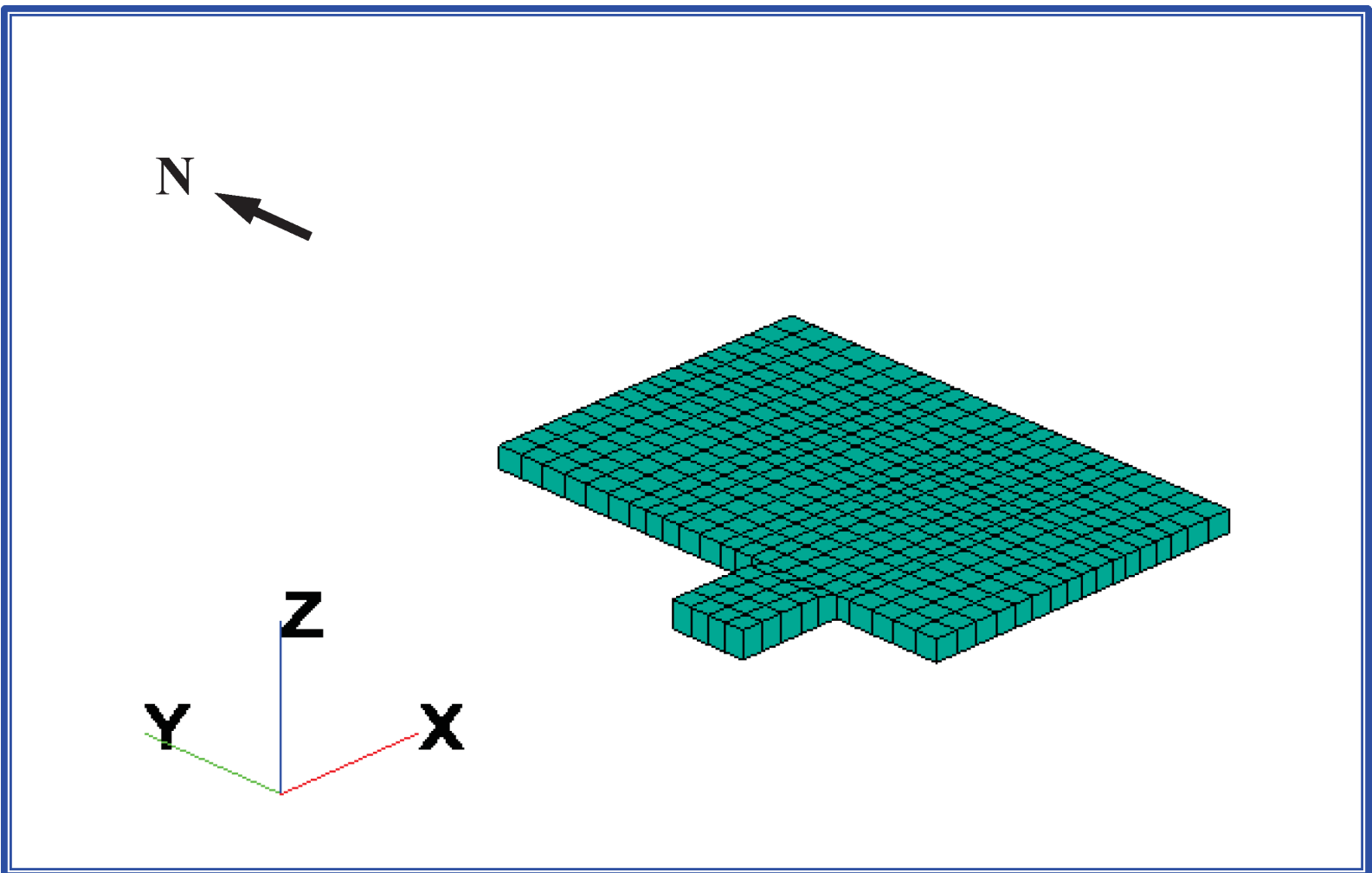




Figure 3.7.2-55: Control Building SASSI2010 Solid Elements Modeling the Basemat



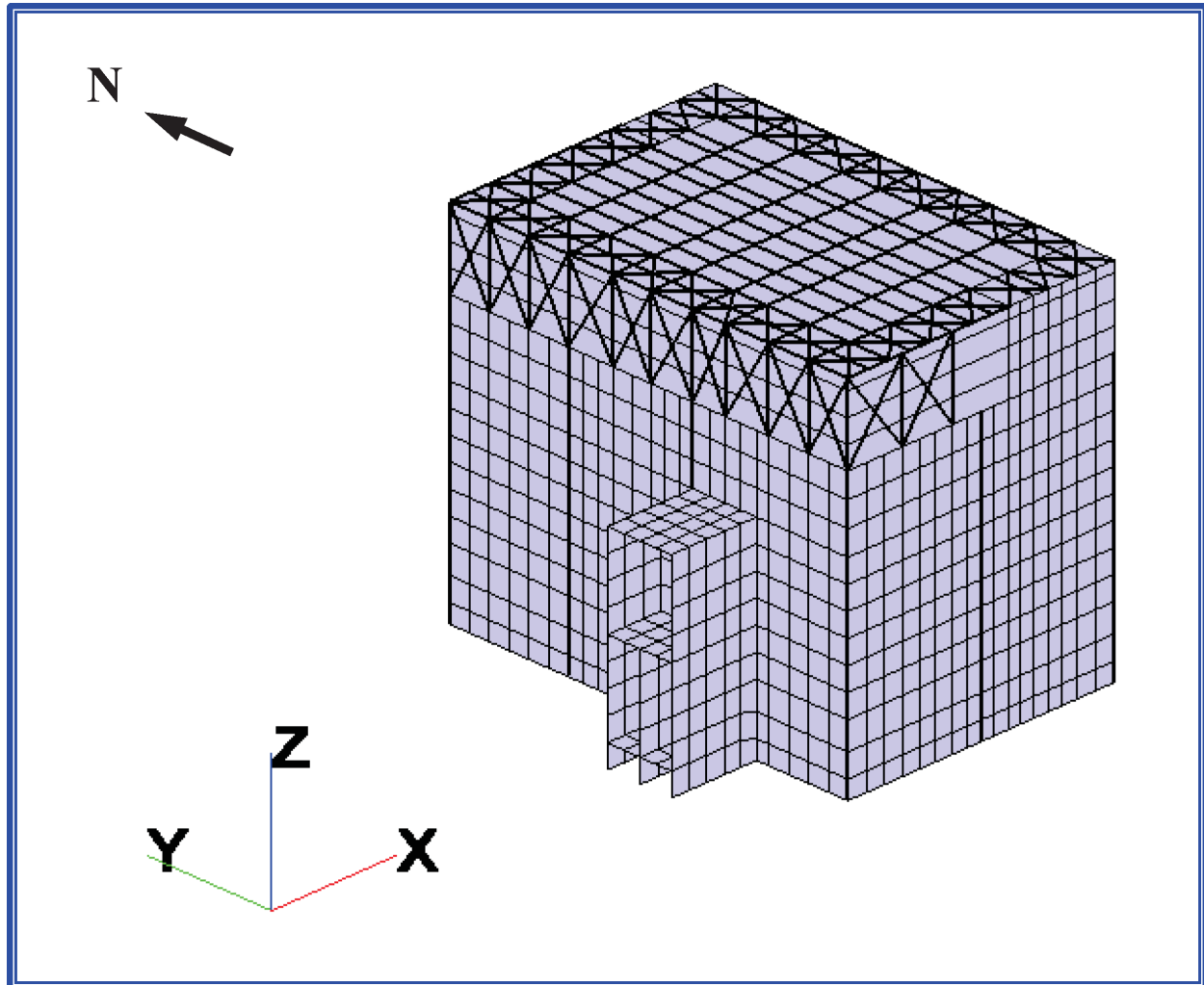
**Figure 3.7.2-56: Control Building SASSI2010 Model Shell and Beam Element**

Figure 3.7.2-57: Control Building SASSI2010 Model Beam Elements

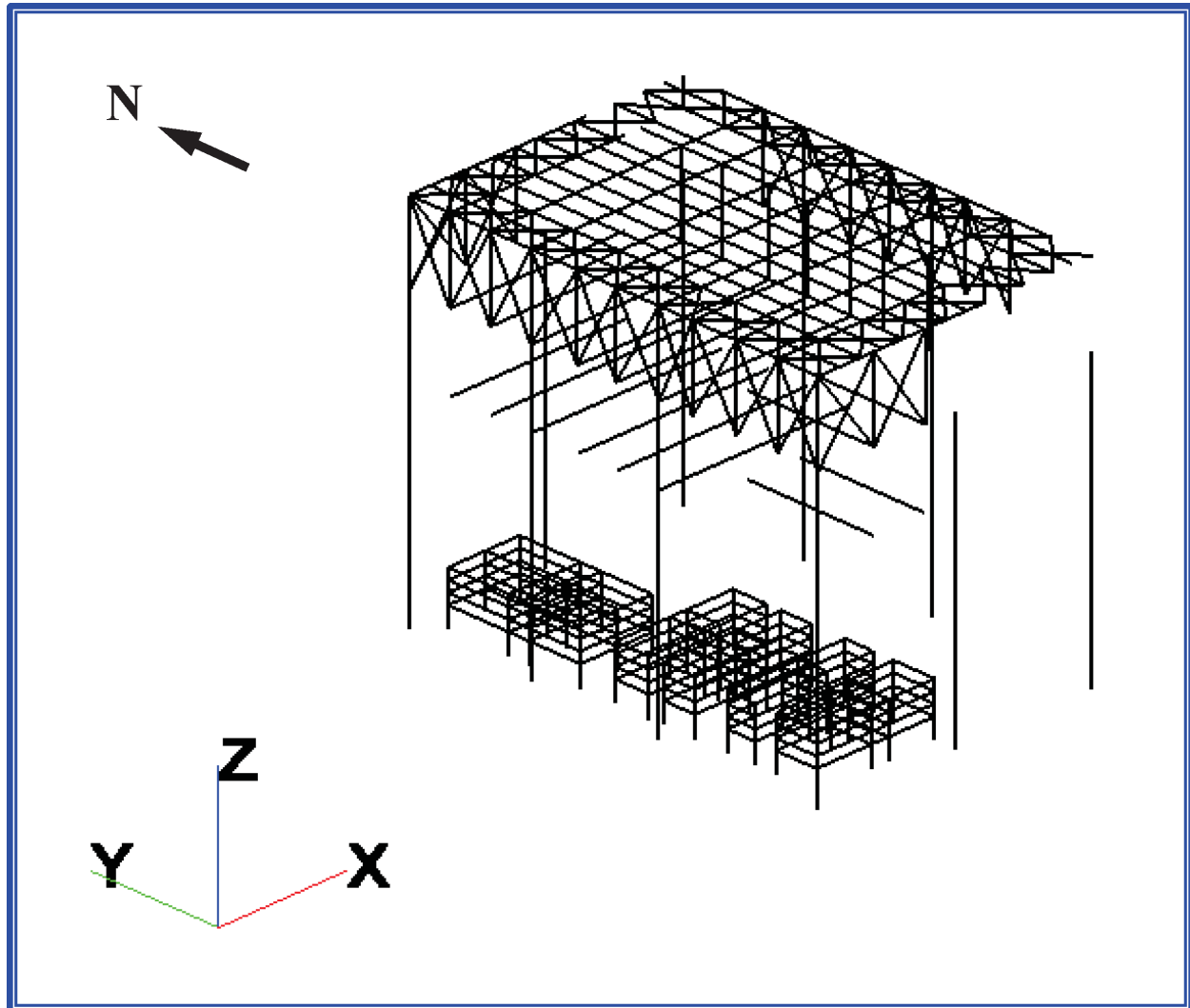


Figure 3.7.2-58: Structures and Backfill Soil of Triple Building SAP2000 Model

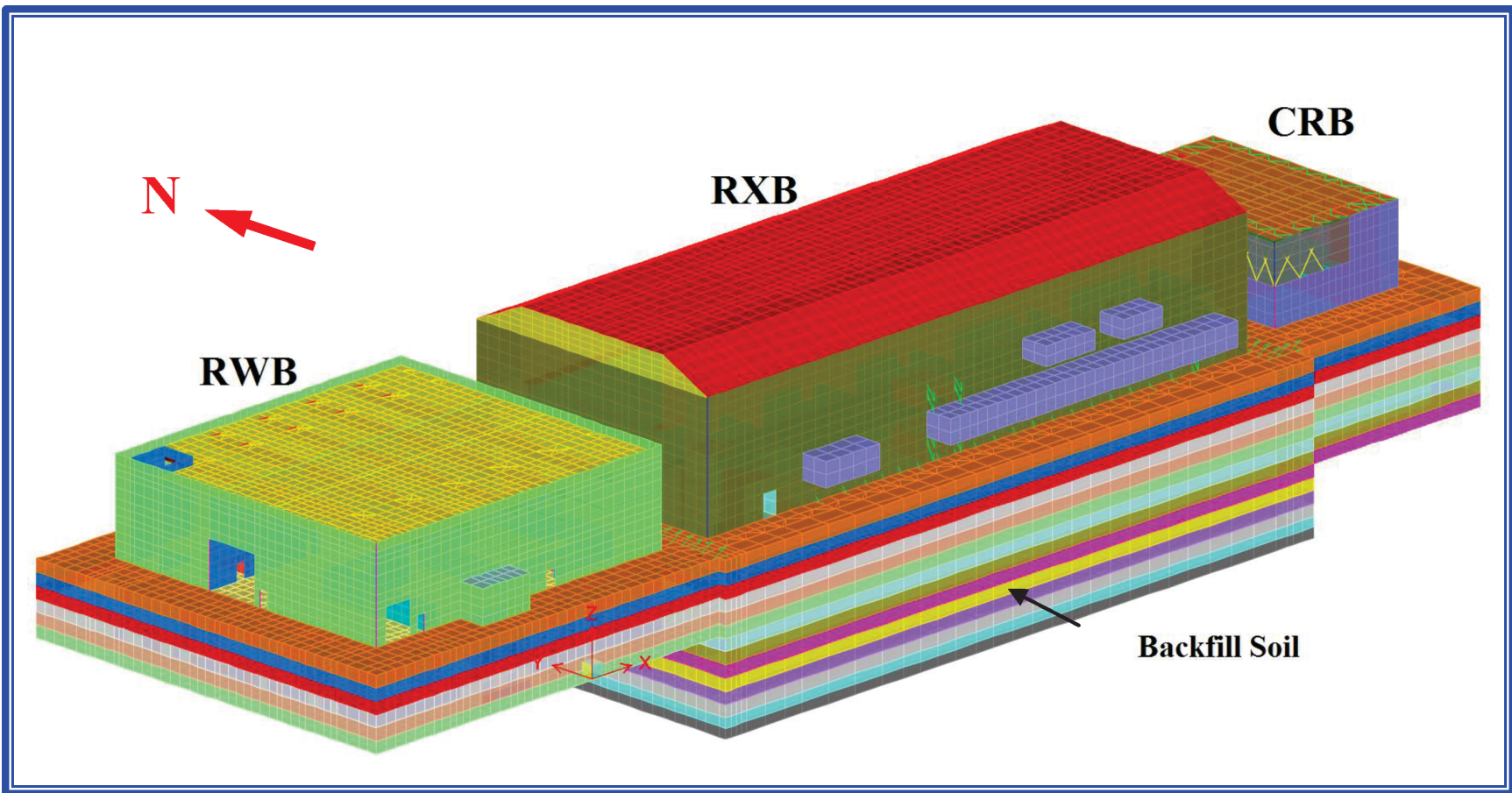




Figure 3.7.2-59: Isometric View of South Side of Triple SAP2000 Model (Looking Northeast)

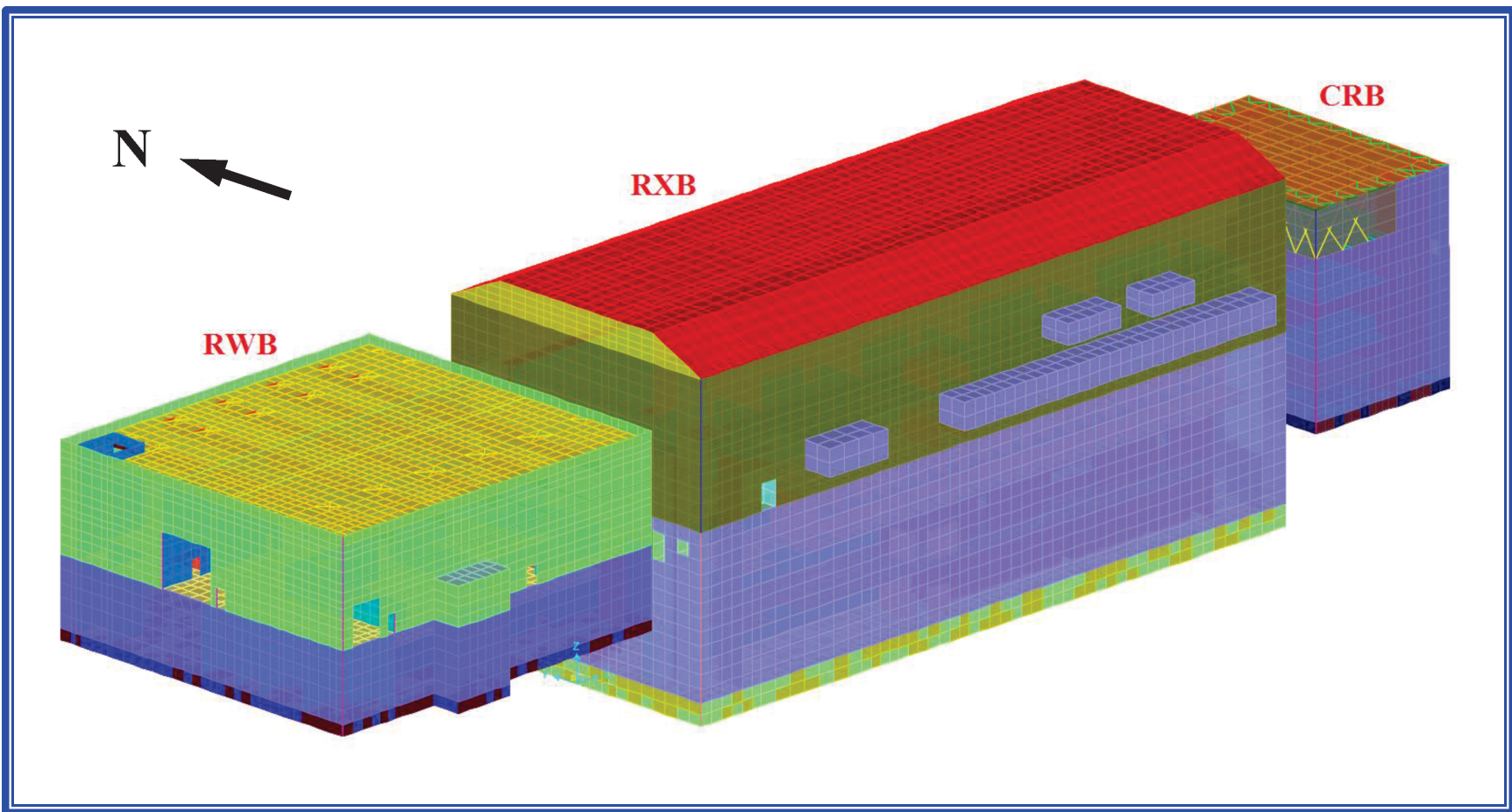


Figure 3.7.2-60: Isometric View of South Side of Triple Building SAP2000 Model (Looking Northwest)

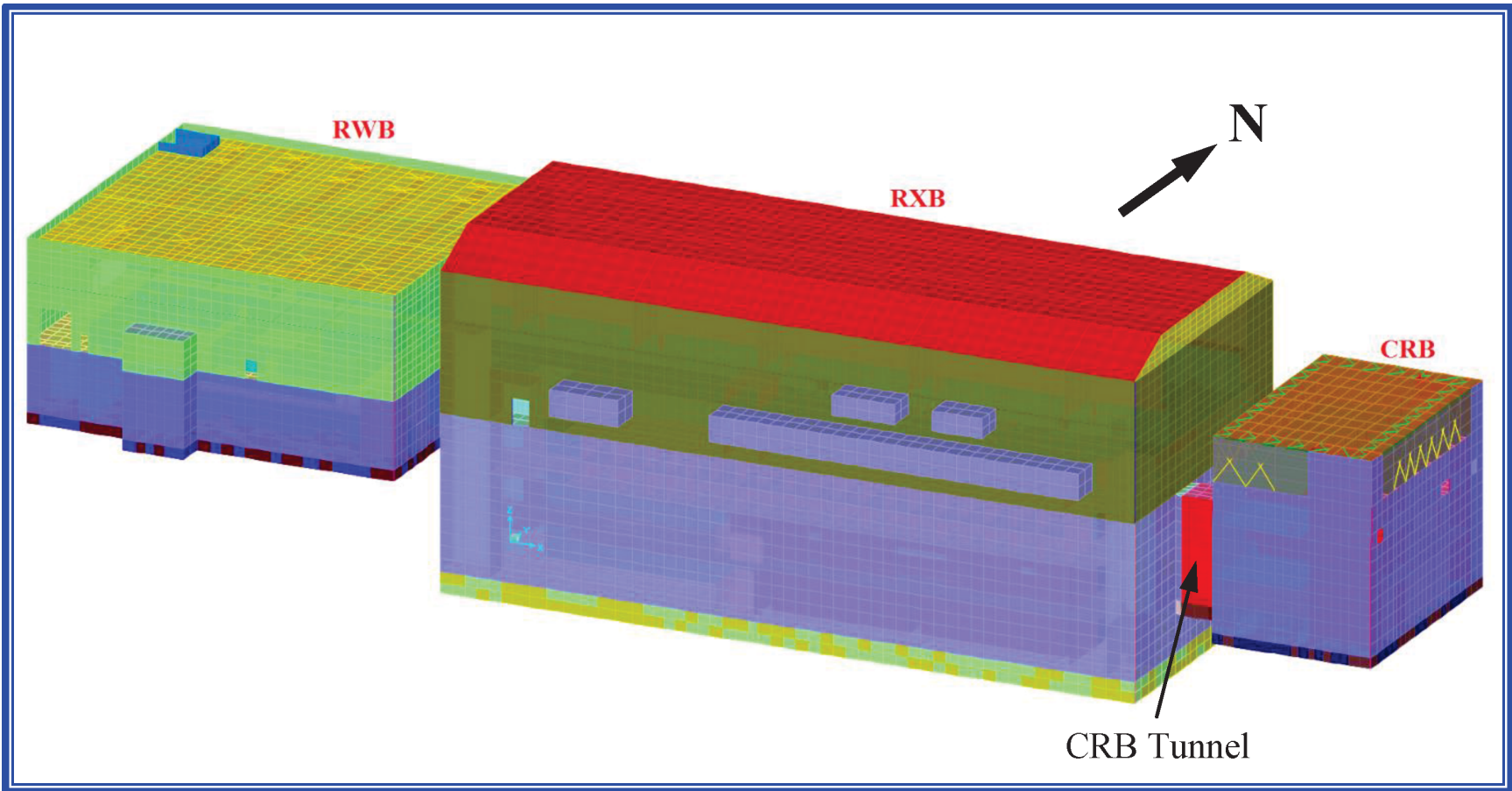


Figure 3.7.2-61: Isometric View of North Side of Triple Building SAP2000 Model (Looking Southwest)

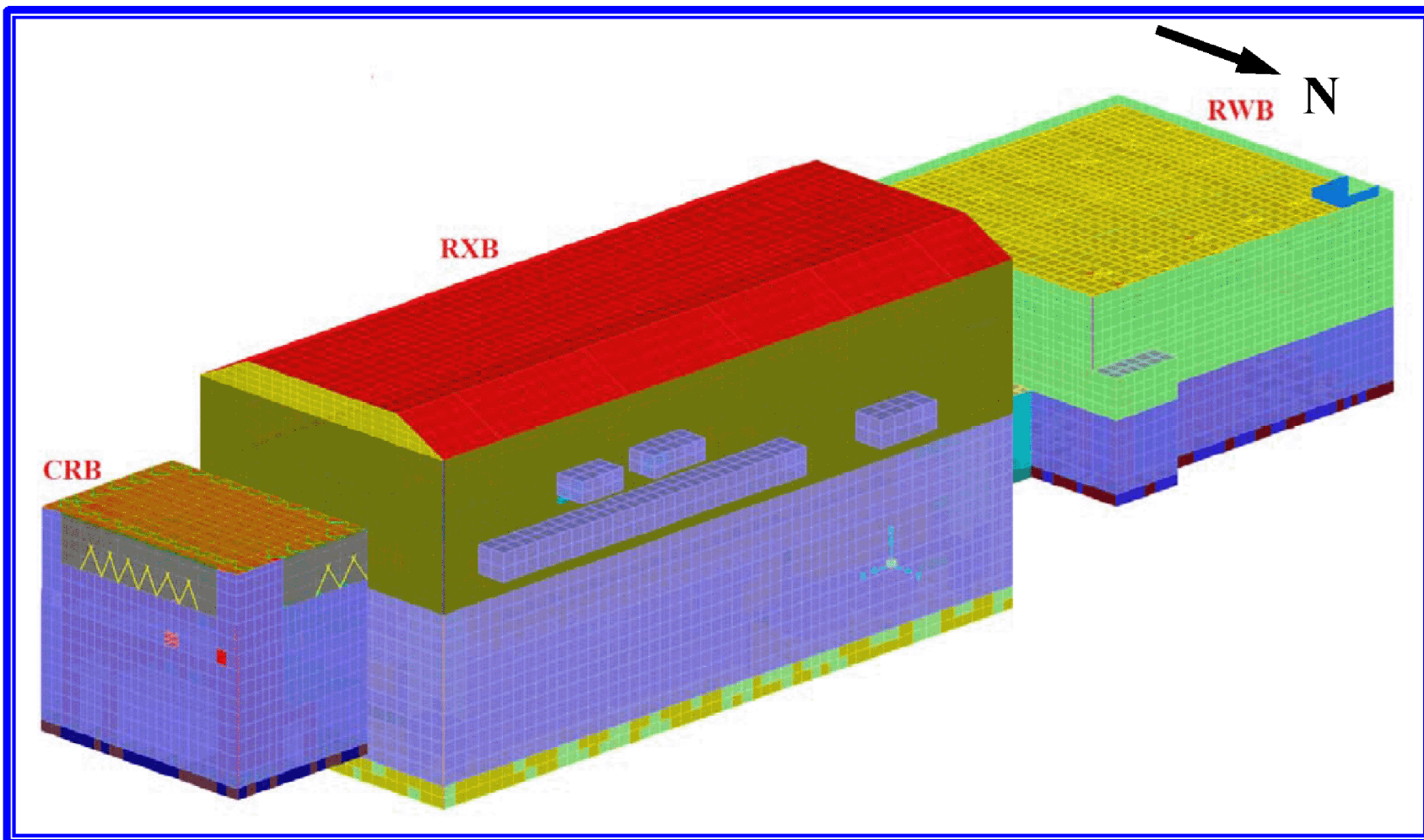




Figure 3.7.2-62: Isometric View of Backfill Soil Elements around the Three Buildings

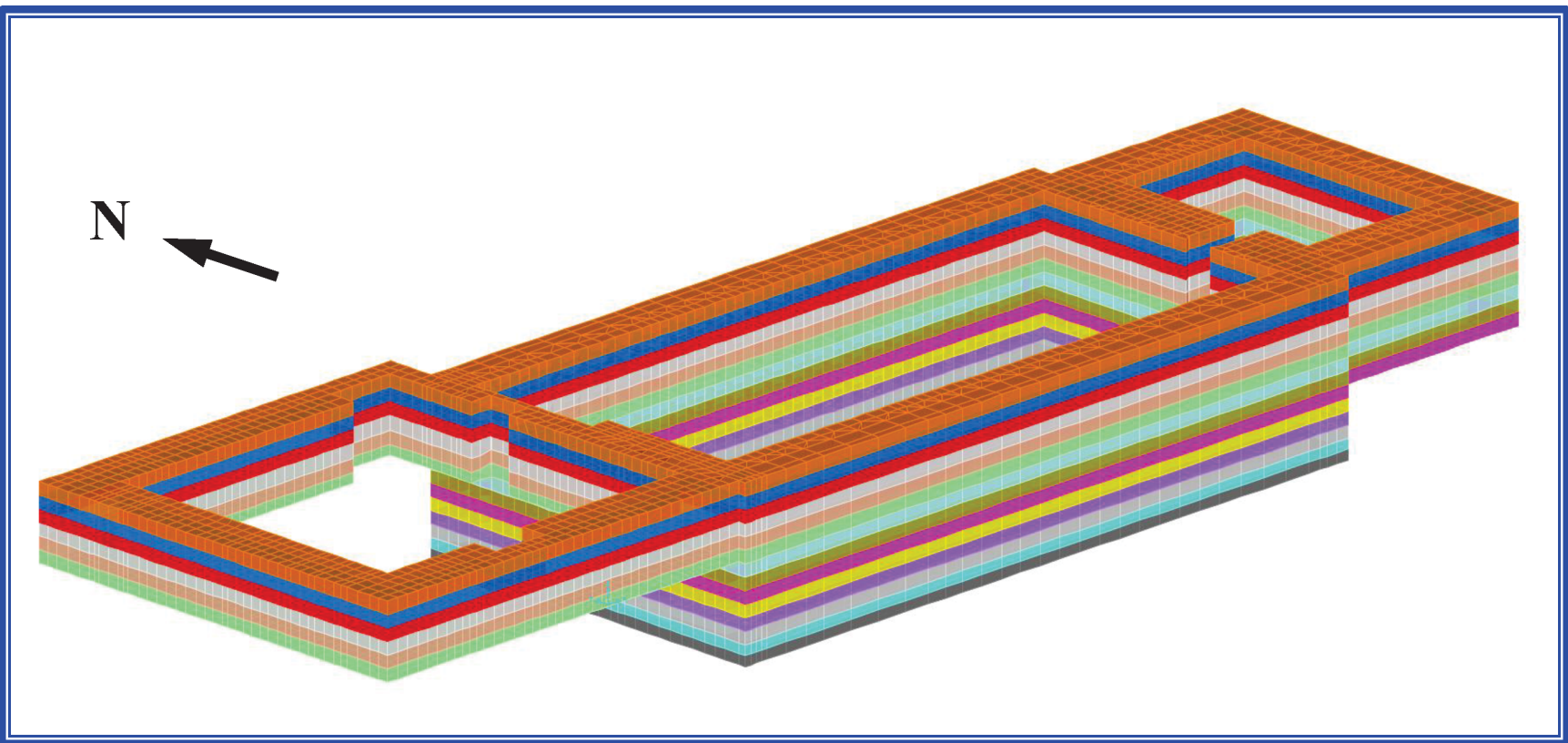
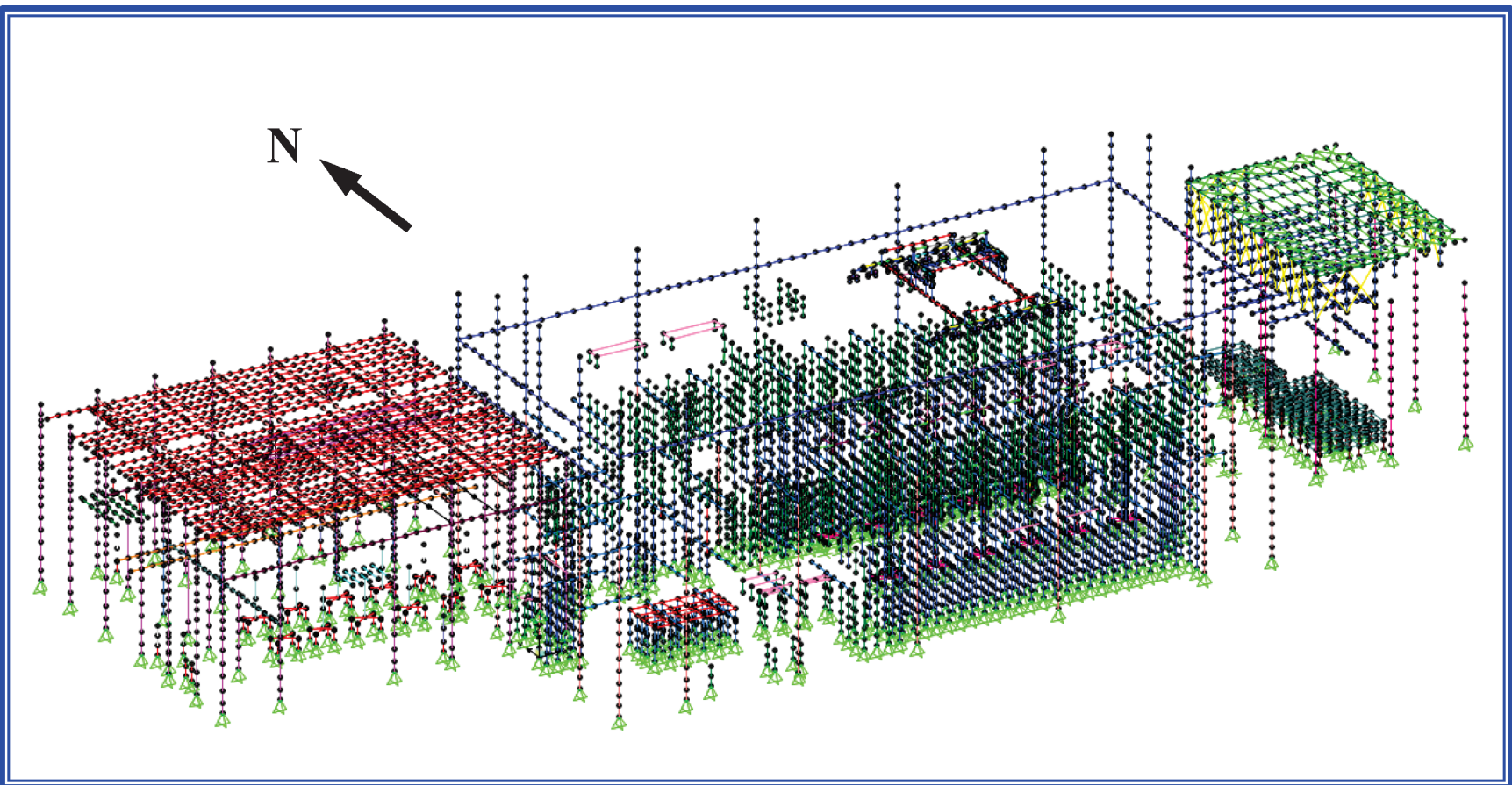




Figure 3.7.2-63: Beam Elements of Triple Building SAP2000 Model



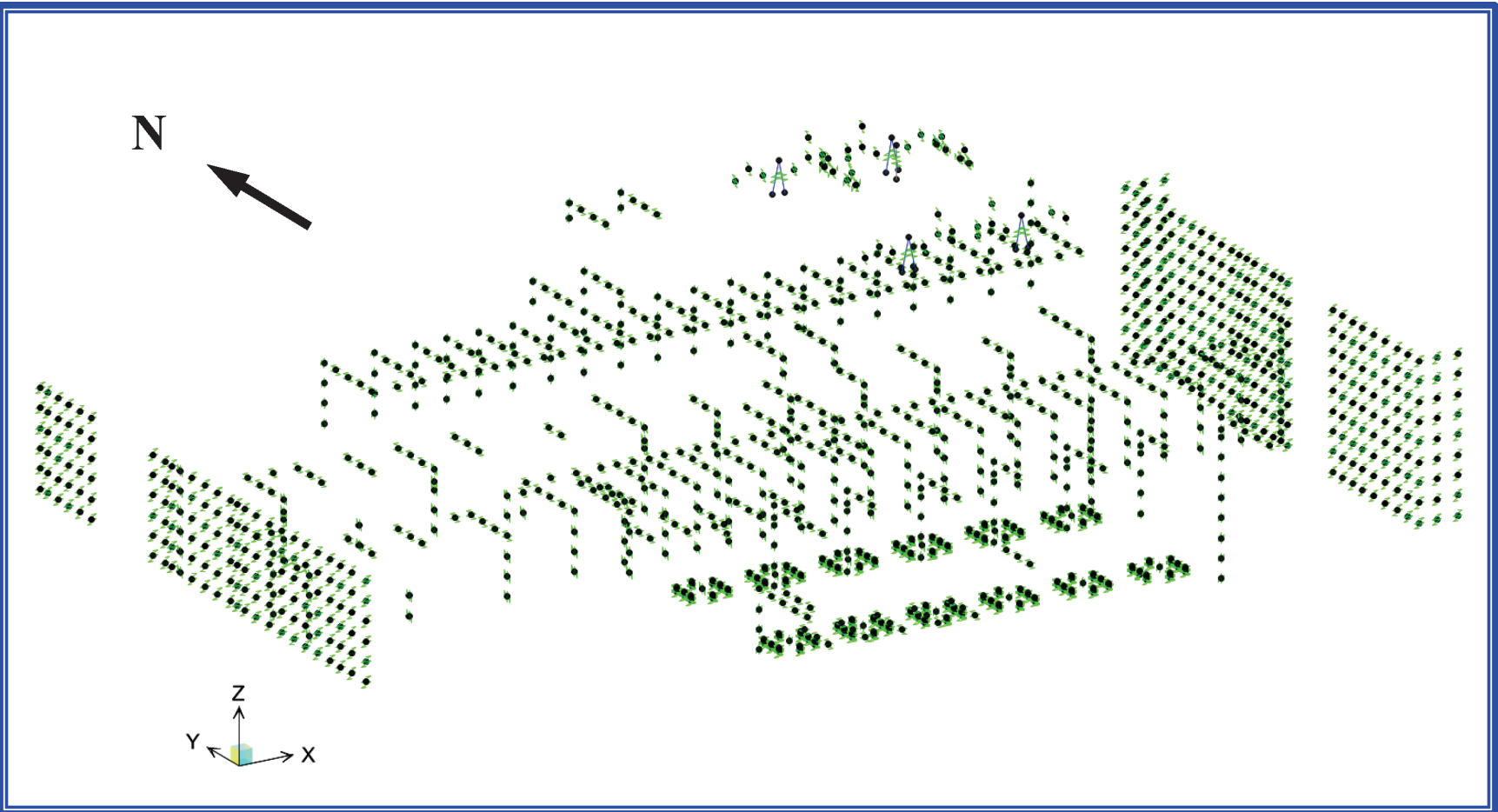
**Figure 3.7.2-64: Spring or Link Elements of Triple Building SAP2000 Model**

Figure 3.7.2-65: Elevation View of Triple Building SAP2000 Model Showing Separation

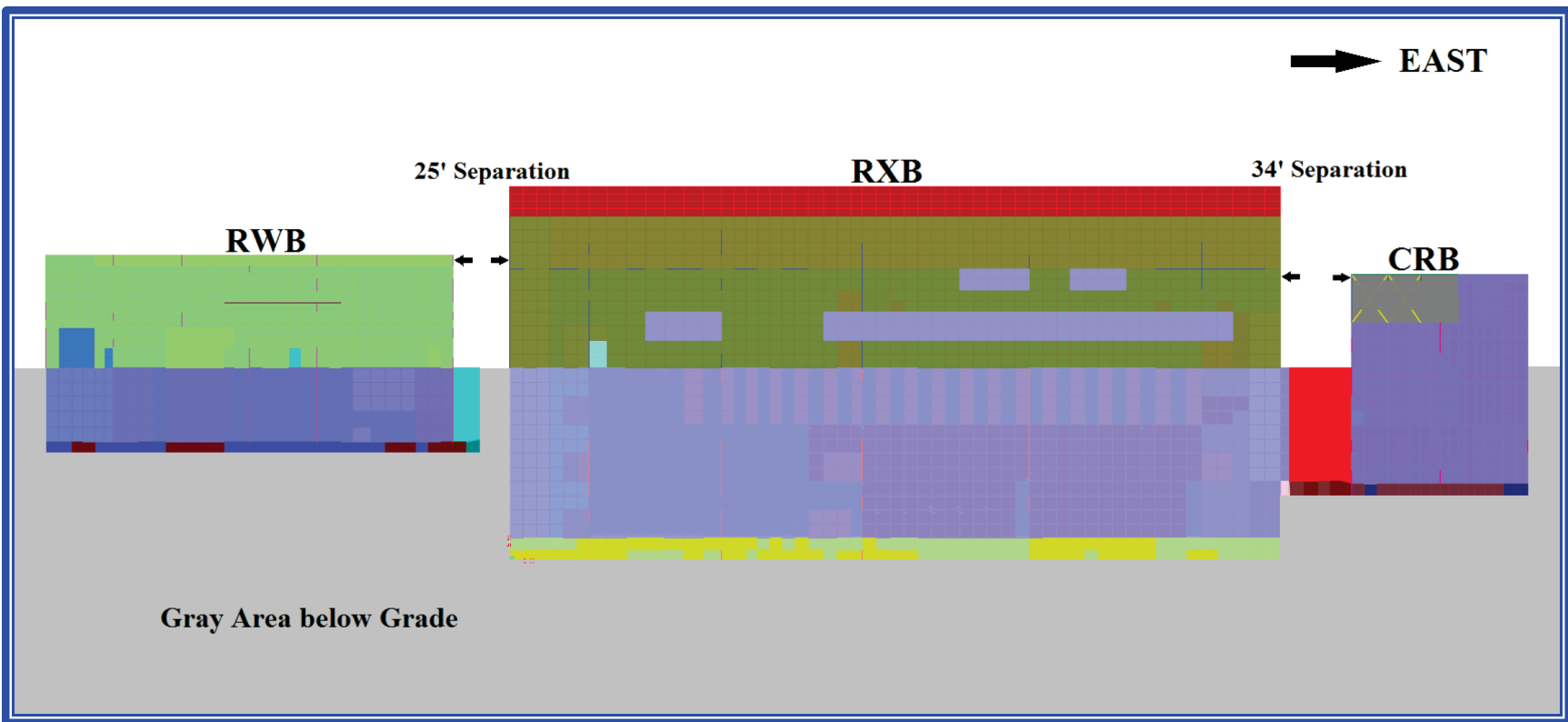


Figure 3.7.2-66: Isometric View of SASSI2010 Triple Building

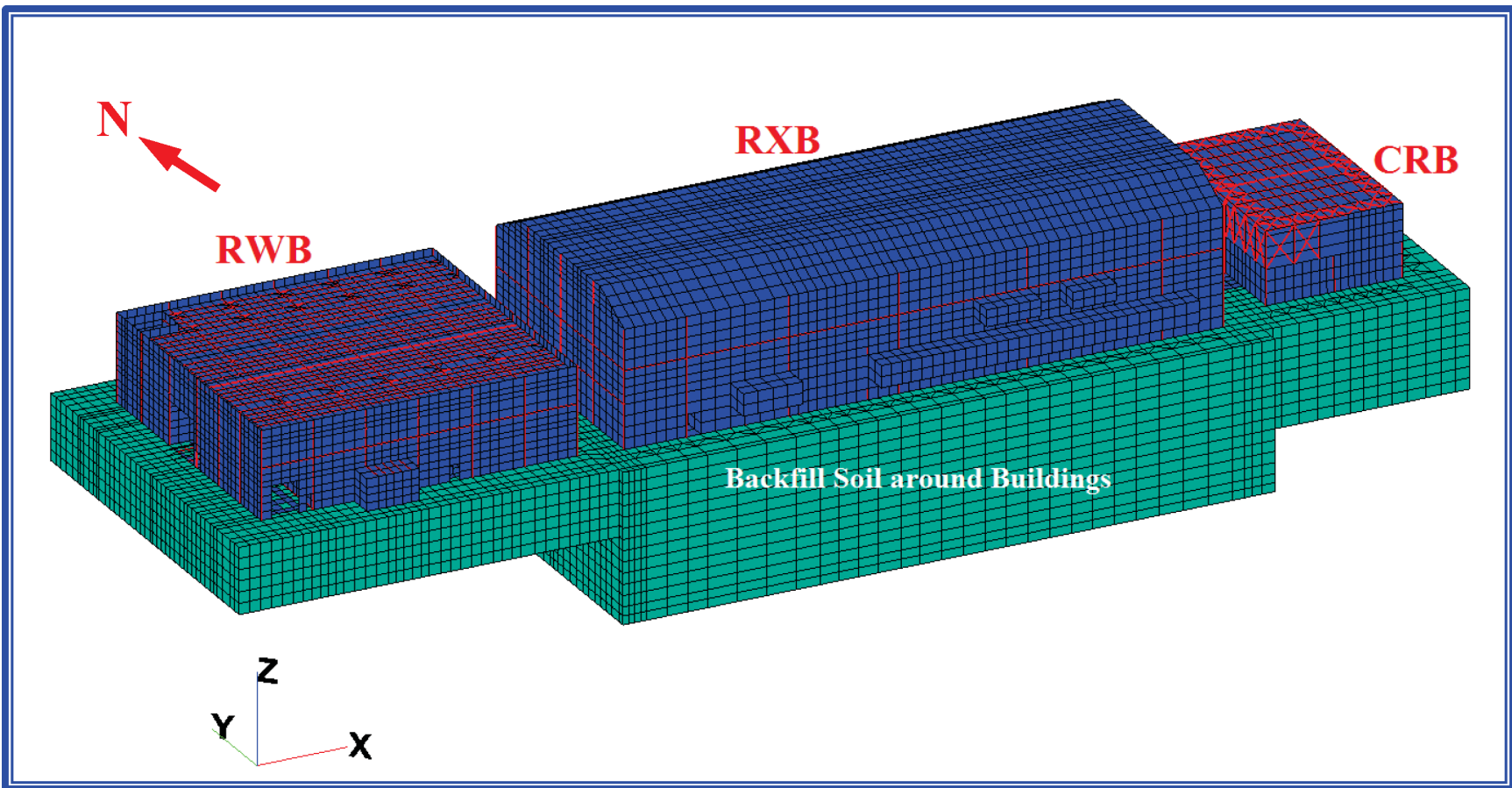




Figure 3.7.2-67: North Half View of SASSI2010 Triple Building Model

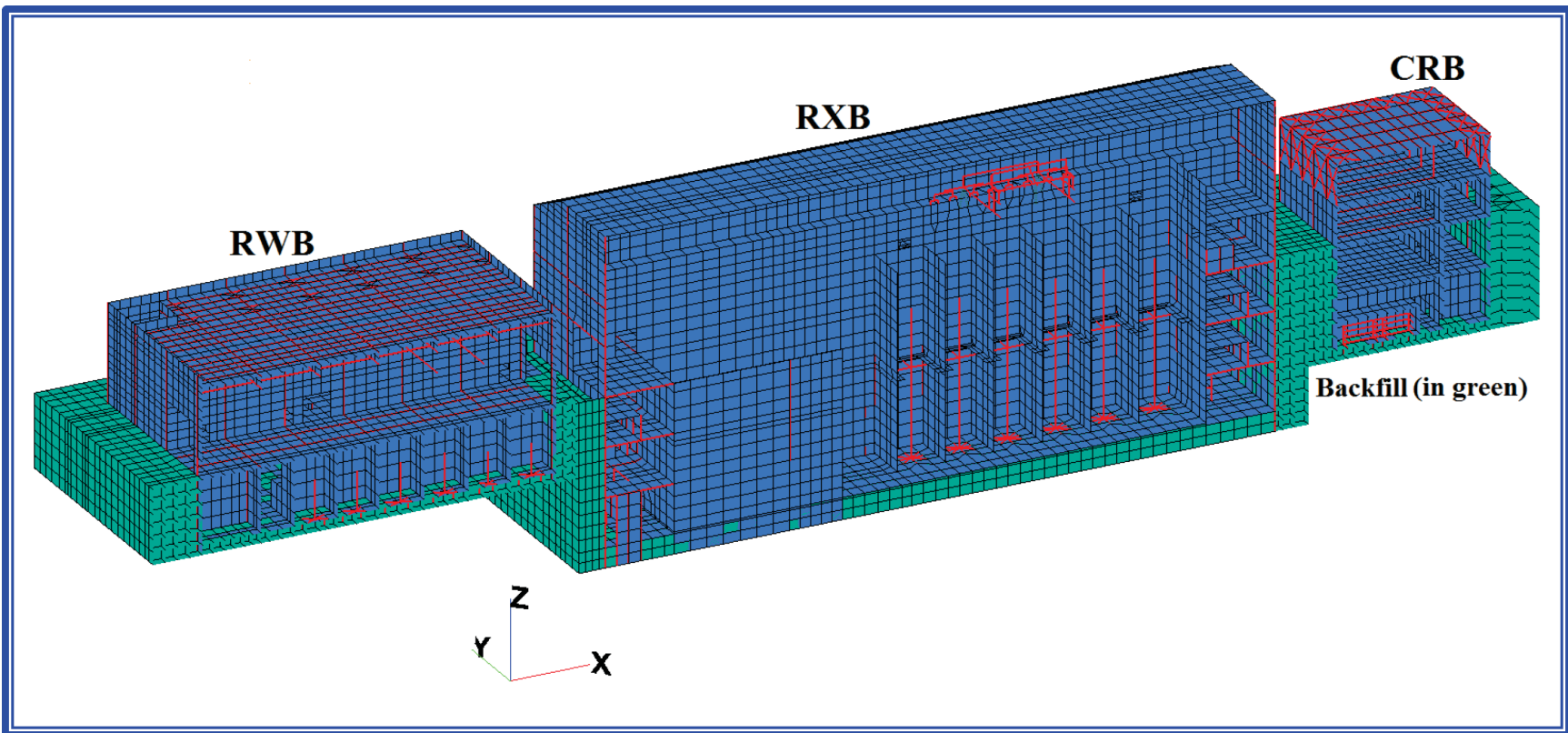


Figure 3.7.2-68: SASSI2010 Triple Building Model Shown without Backfill

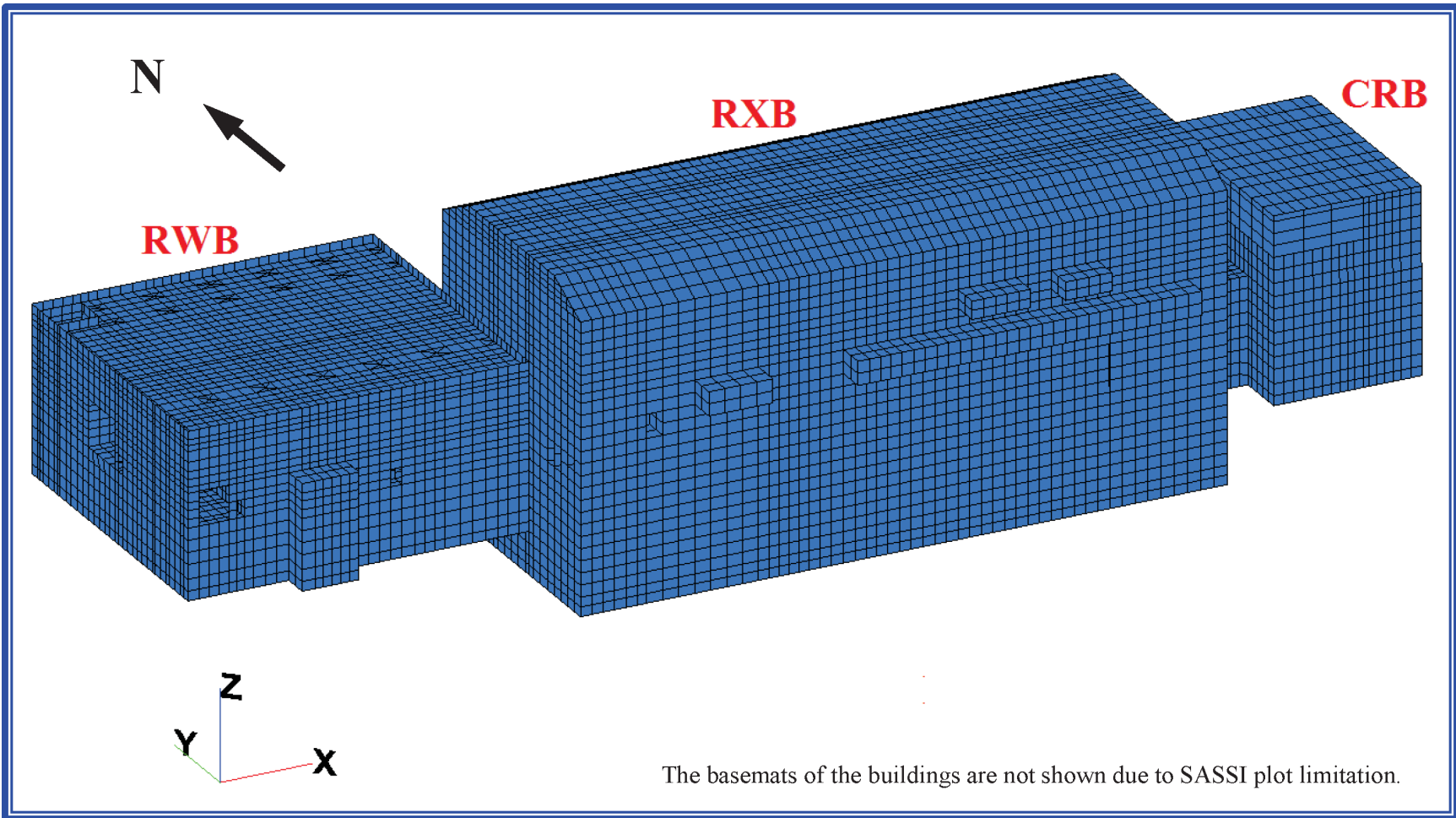
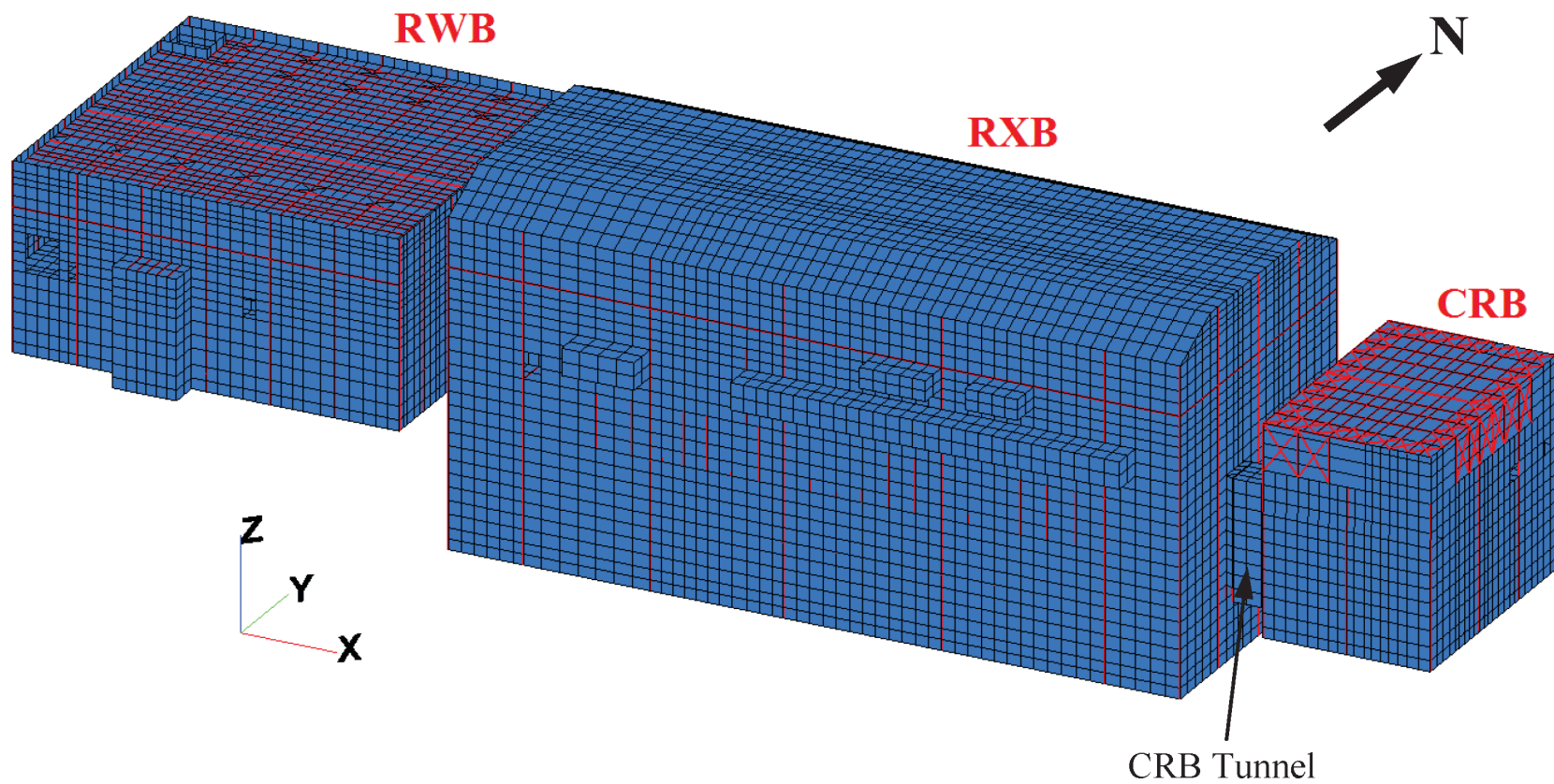
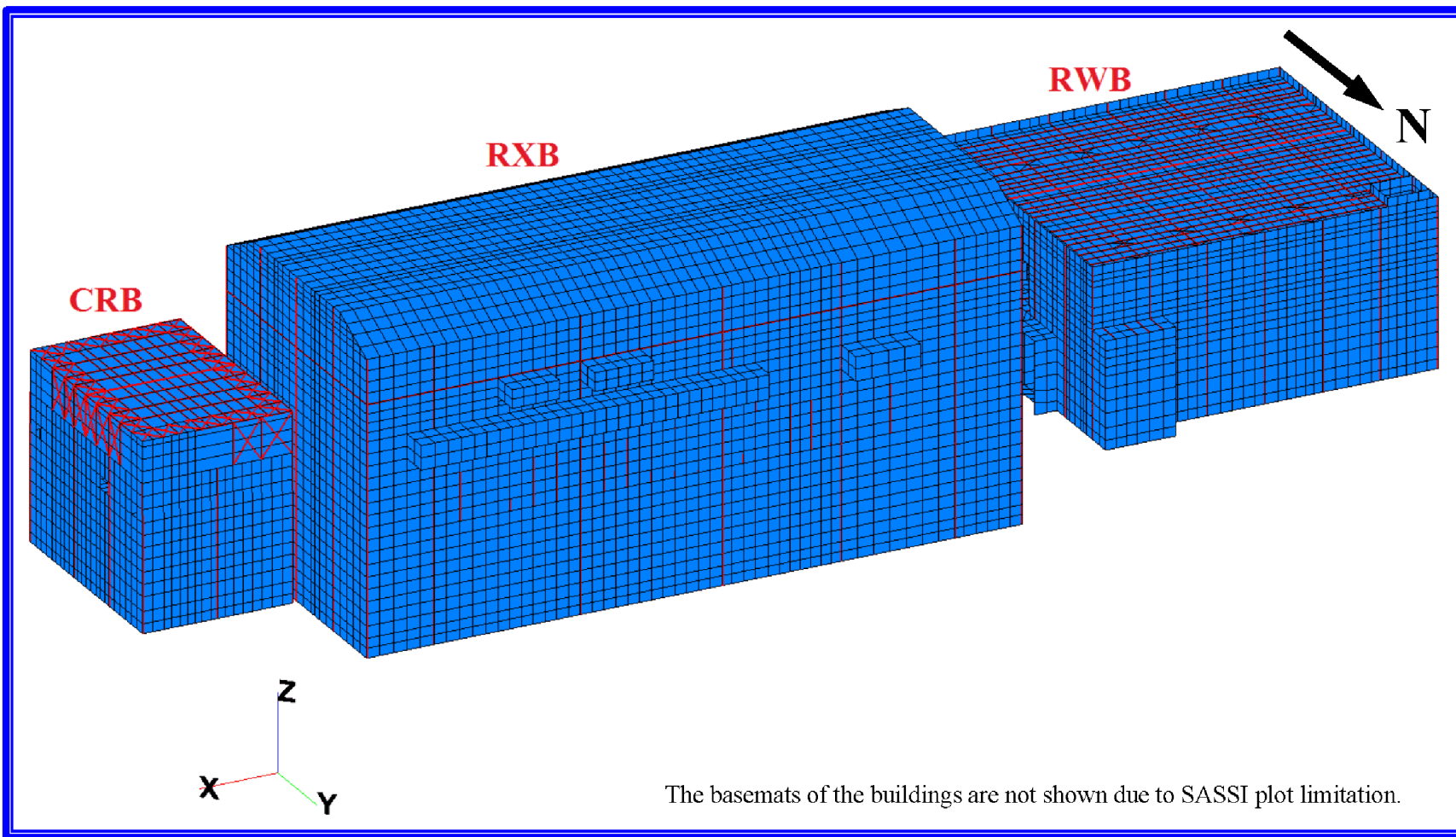


Figure 3.7.2-69: SASI2010 Triple Building Model Showing South Side of Three Buildings (Looking Northwest)



The basemats of the buildings are not shown due to SASI plot limitation.

Figure 3.7.2-70: SASSI2010 Triple Building Model Showing North Side of Three Buildings (Looking Southwest)





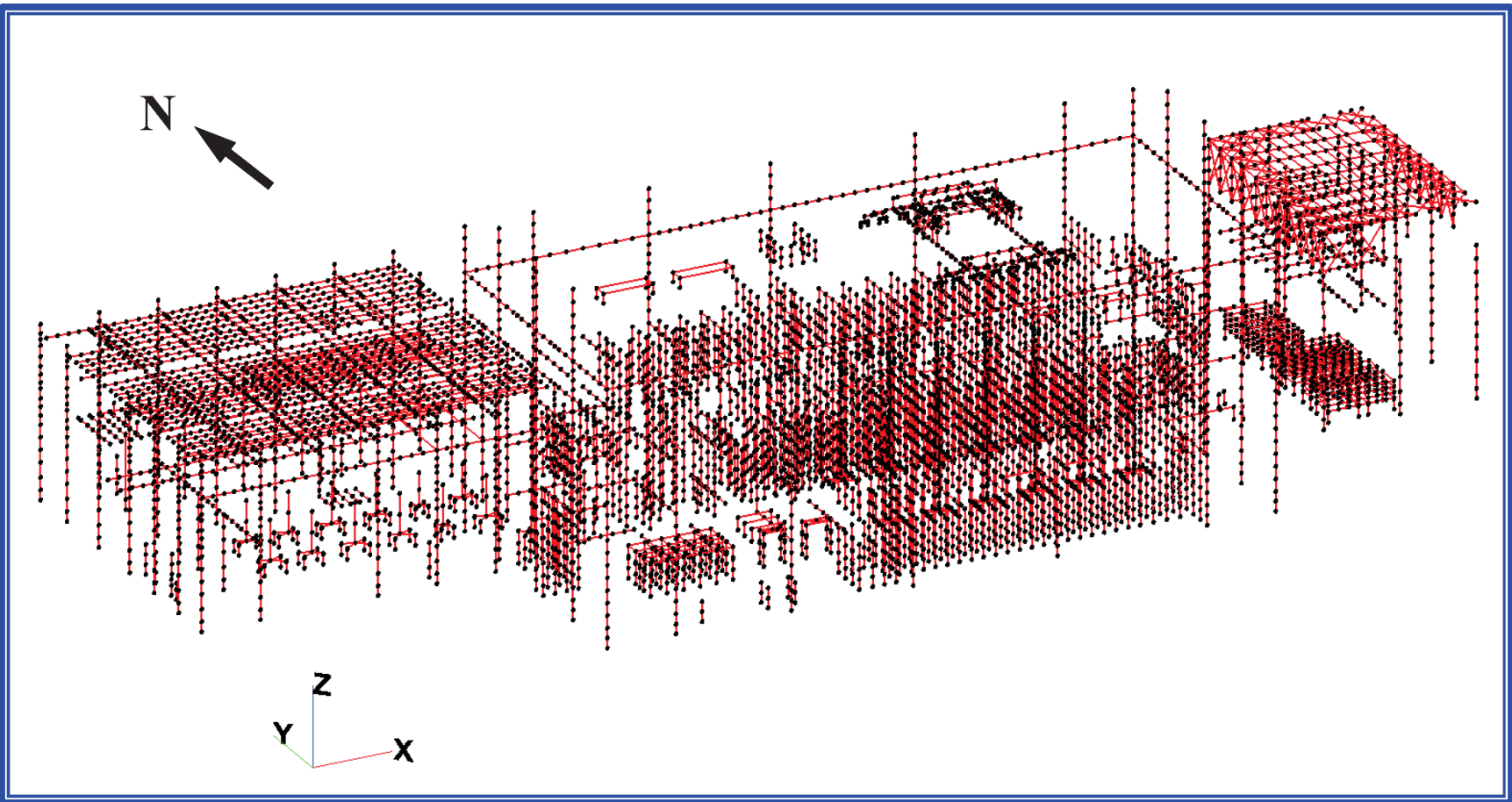
**Figure 3.7.2-71: Beam Elements of SASSI2010 Triple Building Model**

Figure 3.7.2-72: Excavated Soil Solid Elements of the SASSI2010 Triple Building Model

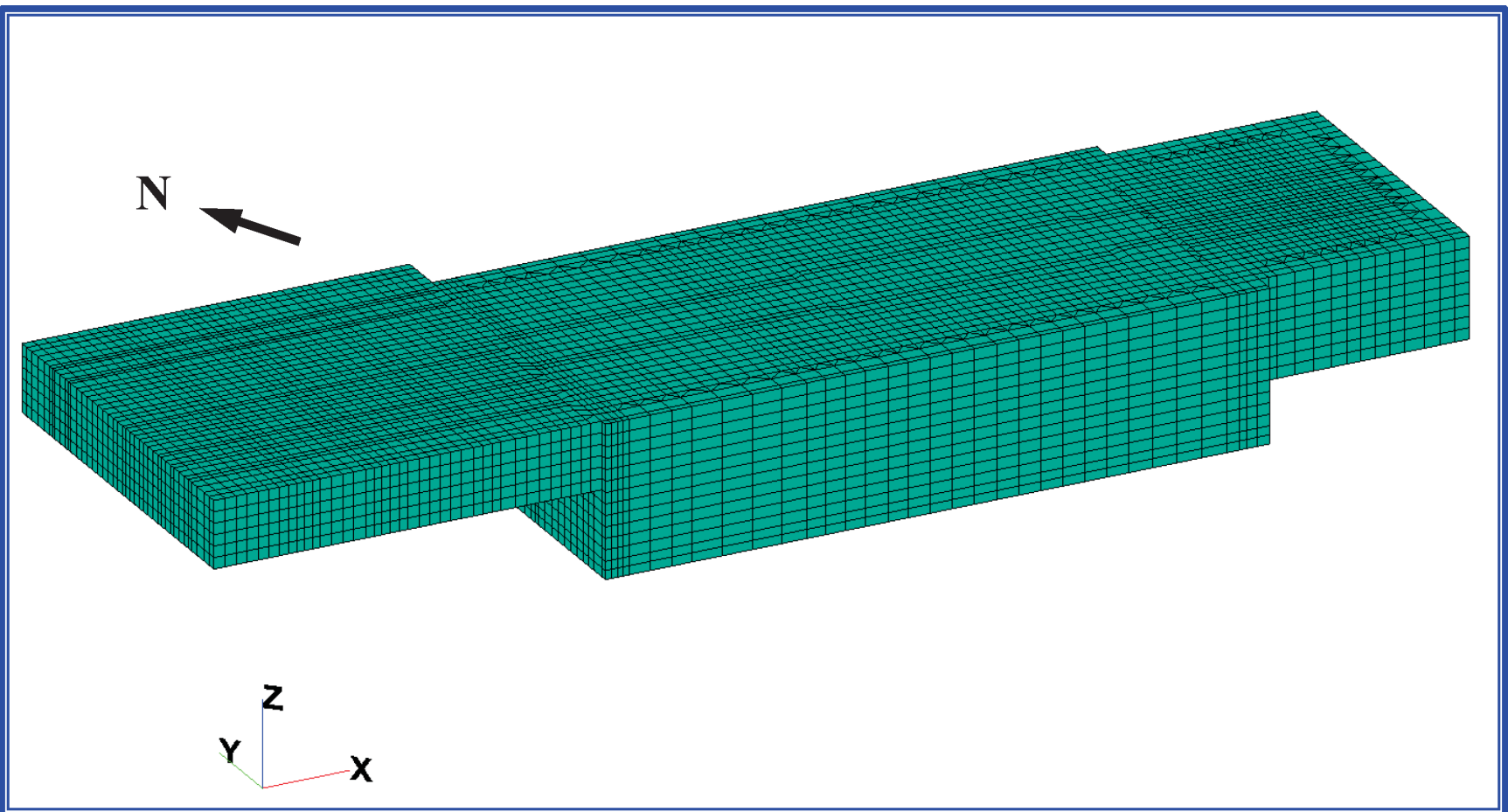




Figure 3.7.2-73: Backfill Soil Solid Elements of the SASSI2010 Triple Building Model

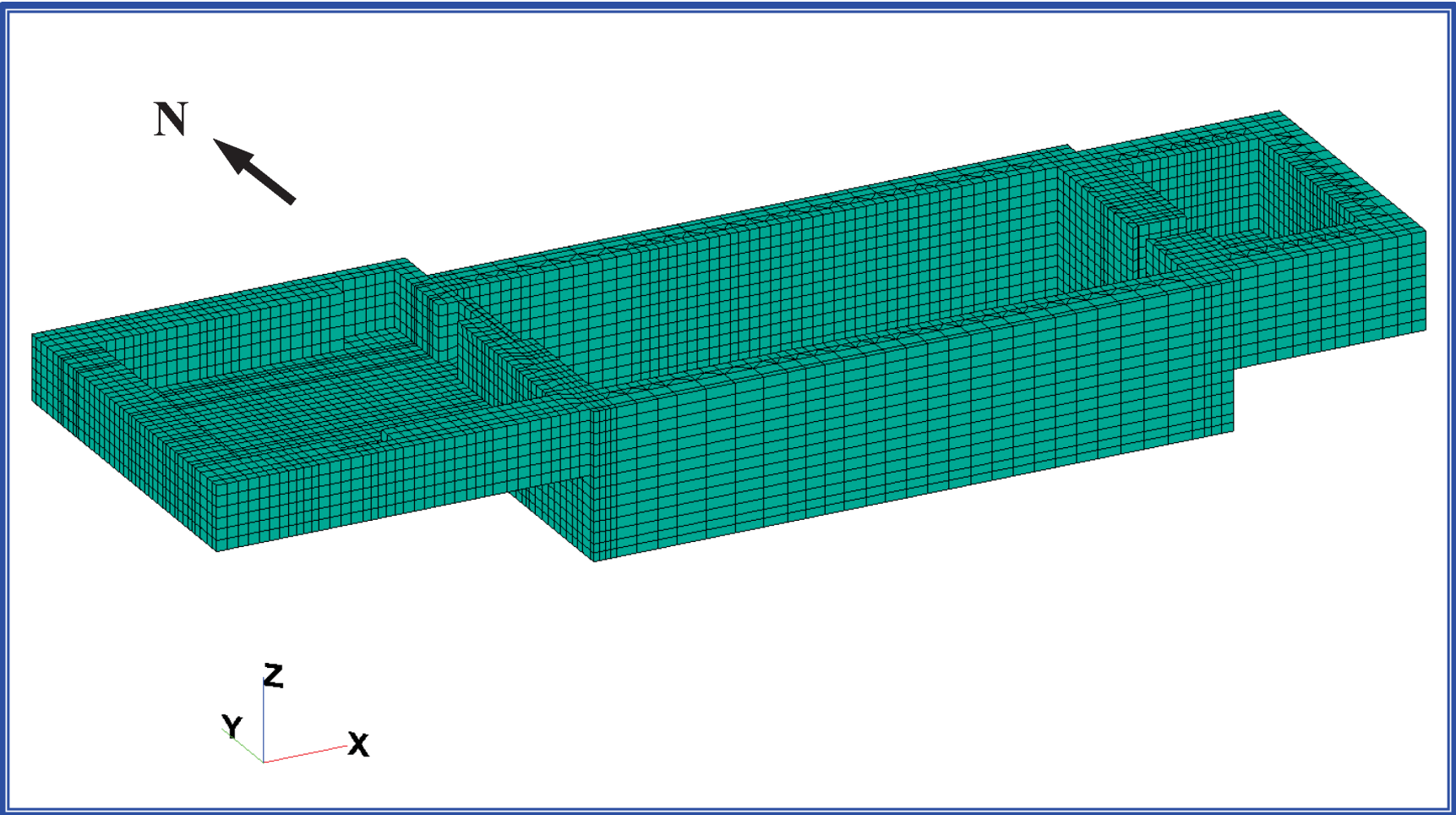
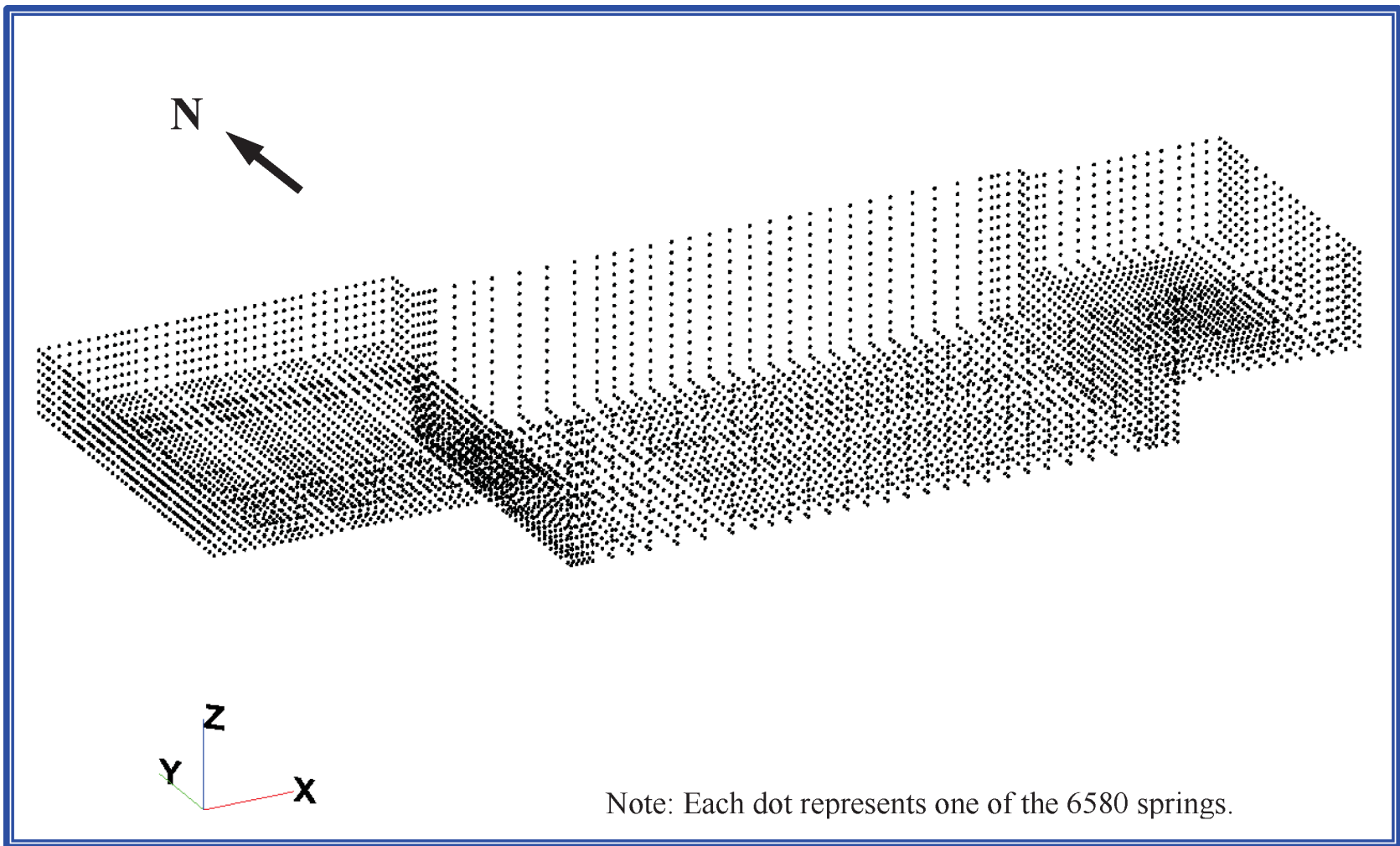
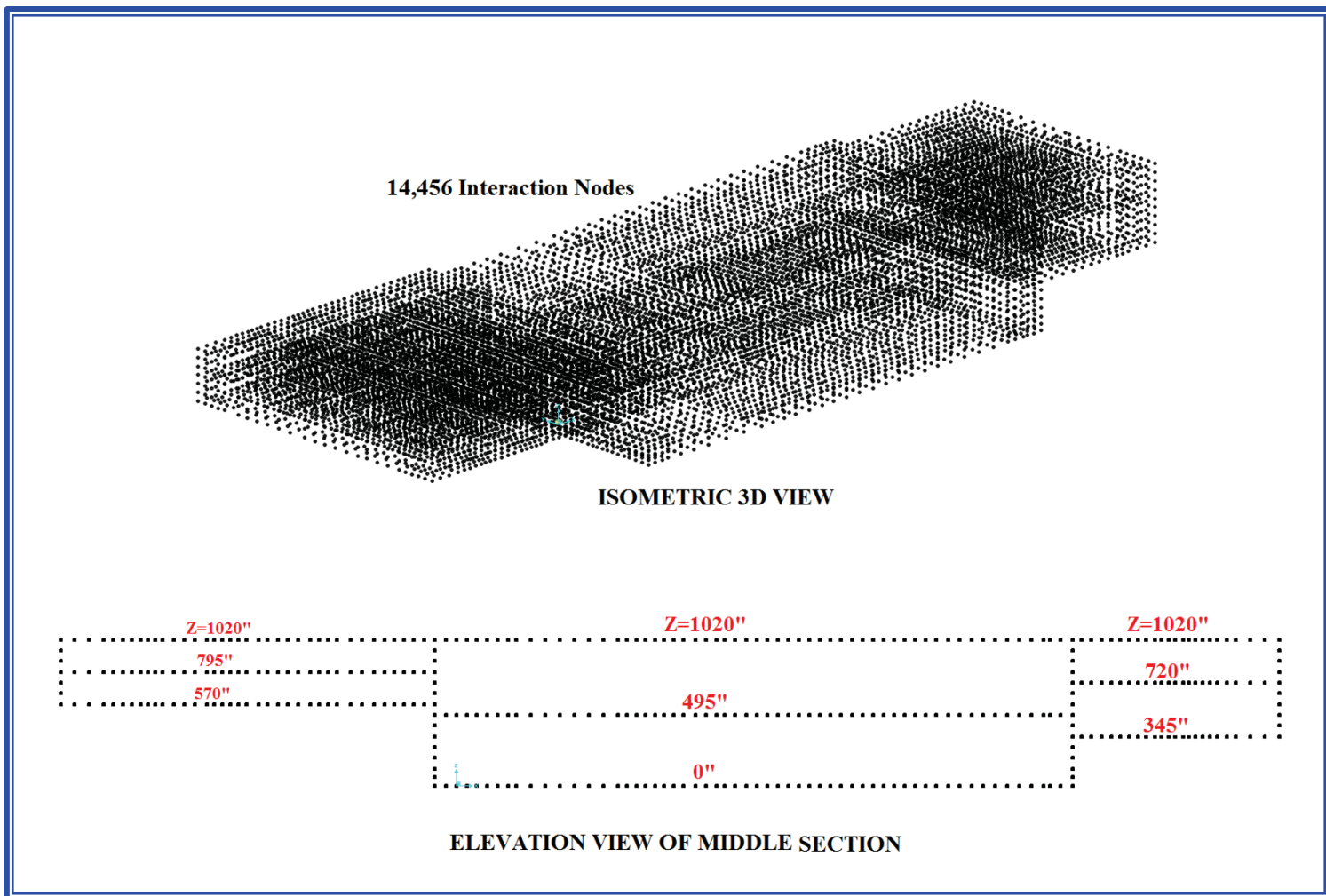


Figure 3.7.2-74: Rigid Soil Springs between Backfill and Free Field Soils of the SASSI2010 Triple Building Model



**Figure 3.7.2-75: Interaction Nodes for Soil Impedance Calculation**

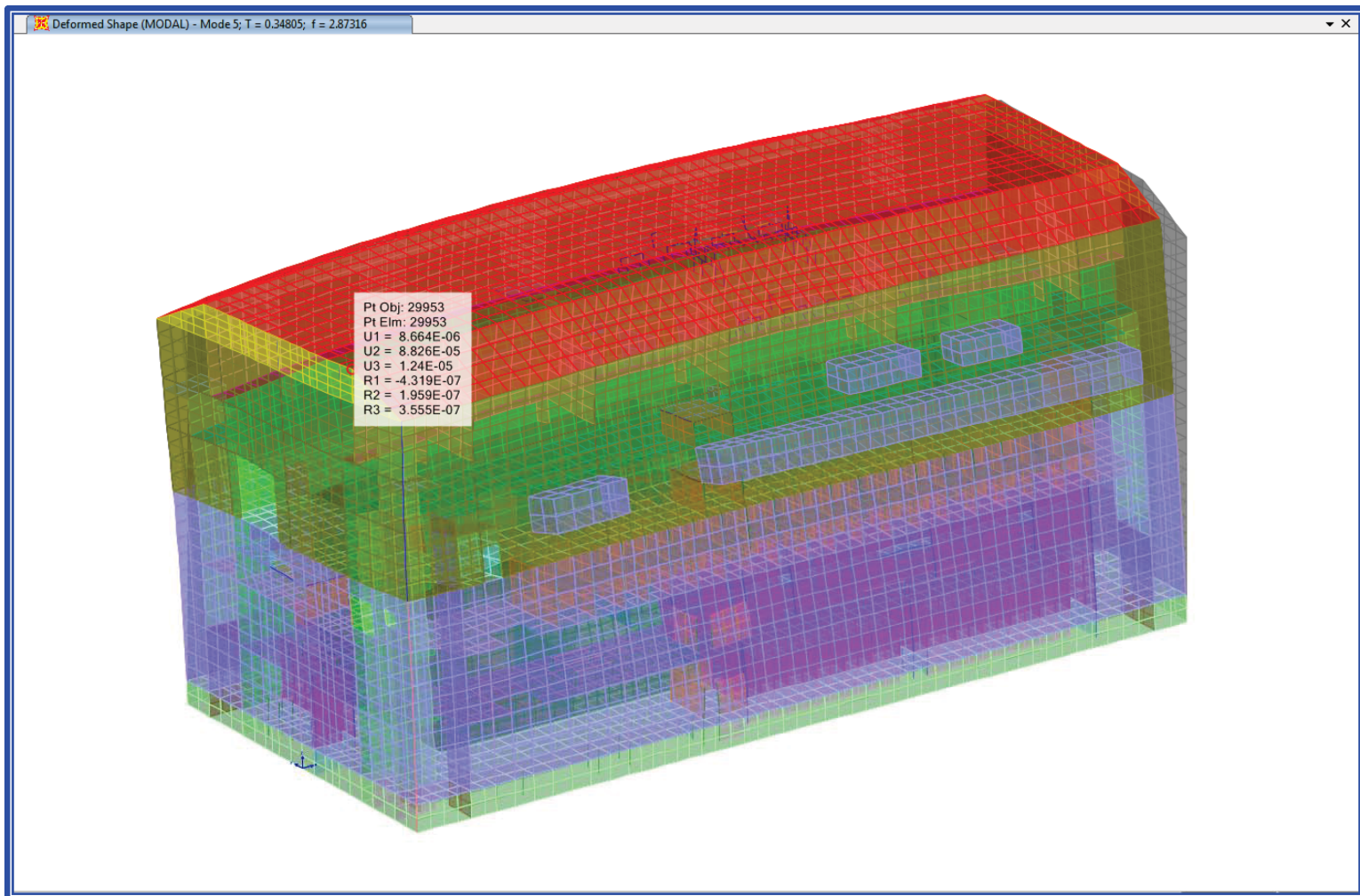
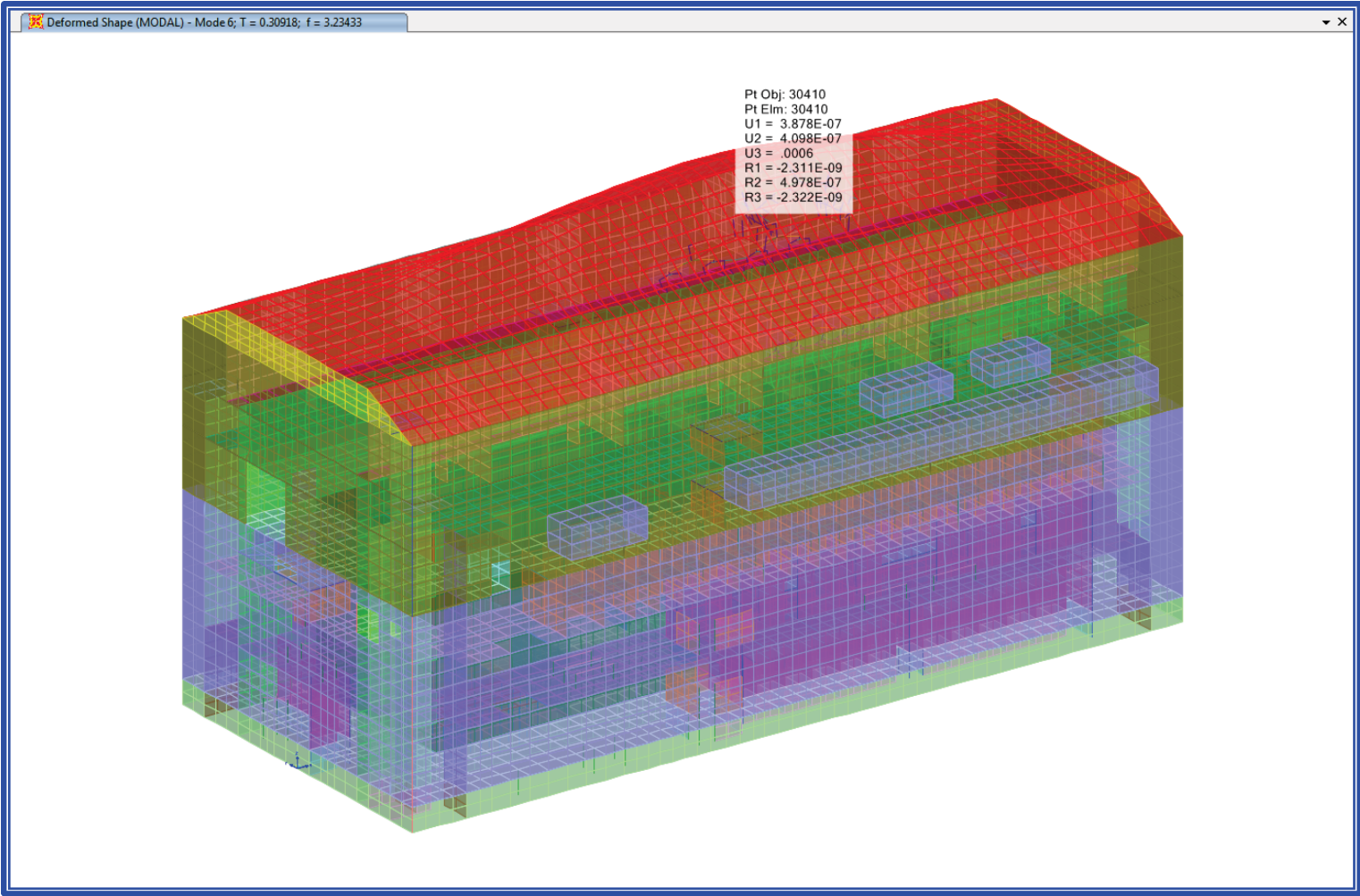
**Figure 3.7.2-76: Reactor Building Cracked Model - Modal Shape - (Mode 5)**



Figure 3.7.2-77: Reactor Building Cracked Model - Modal Shape - (Mode 6)





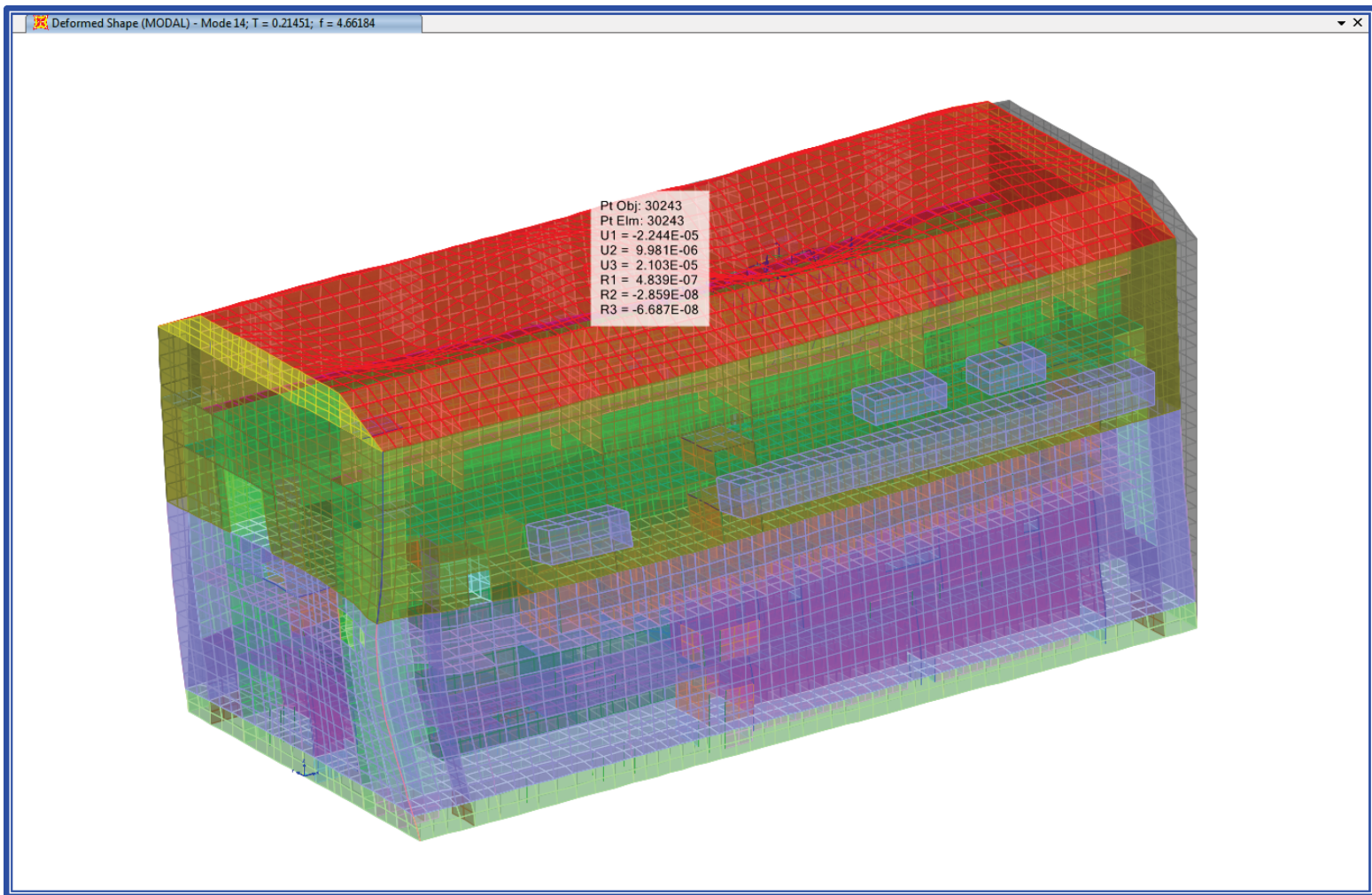
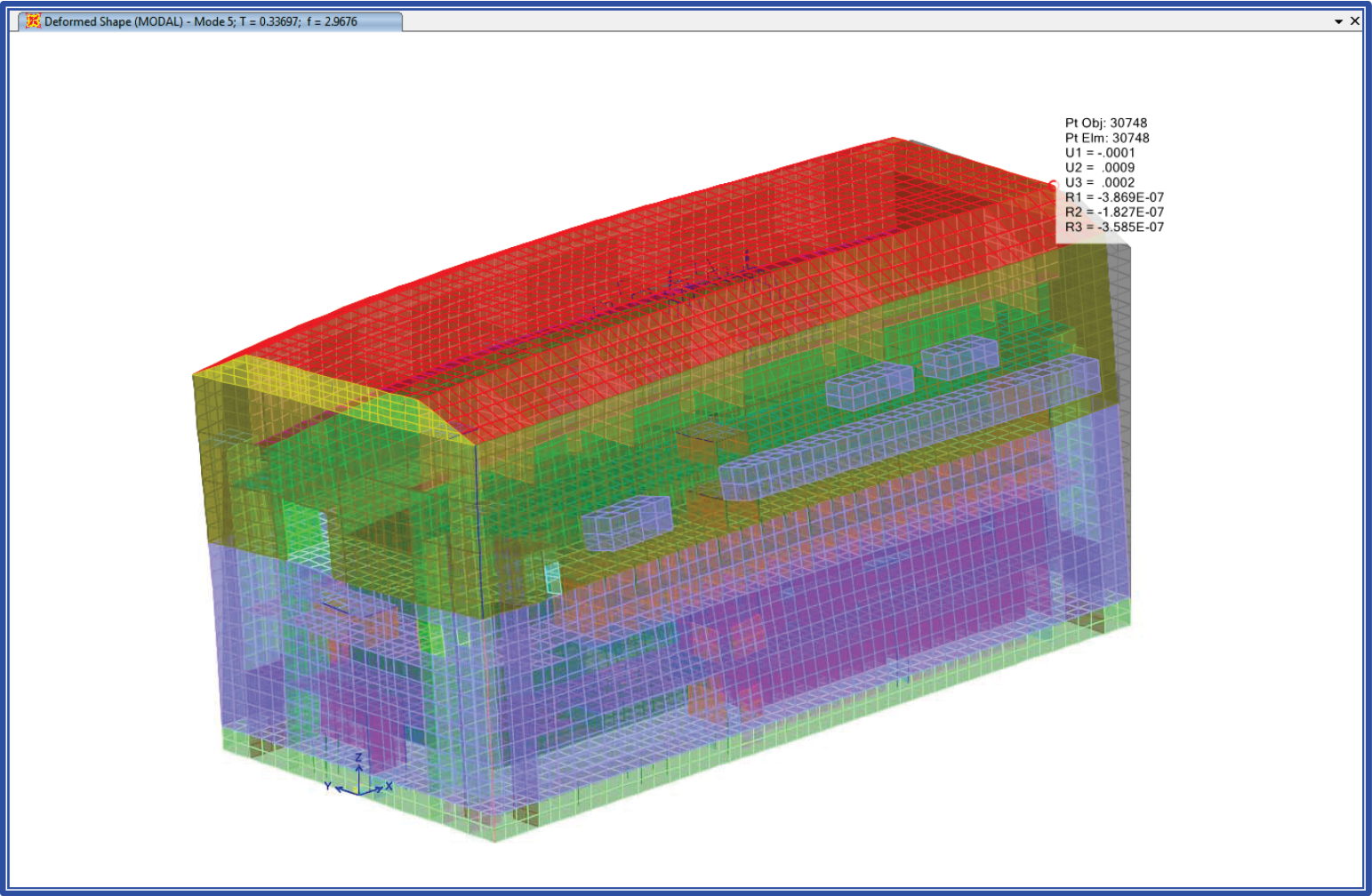
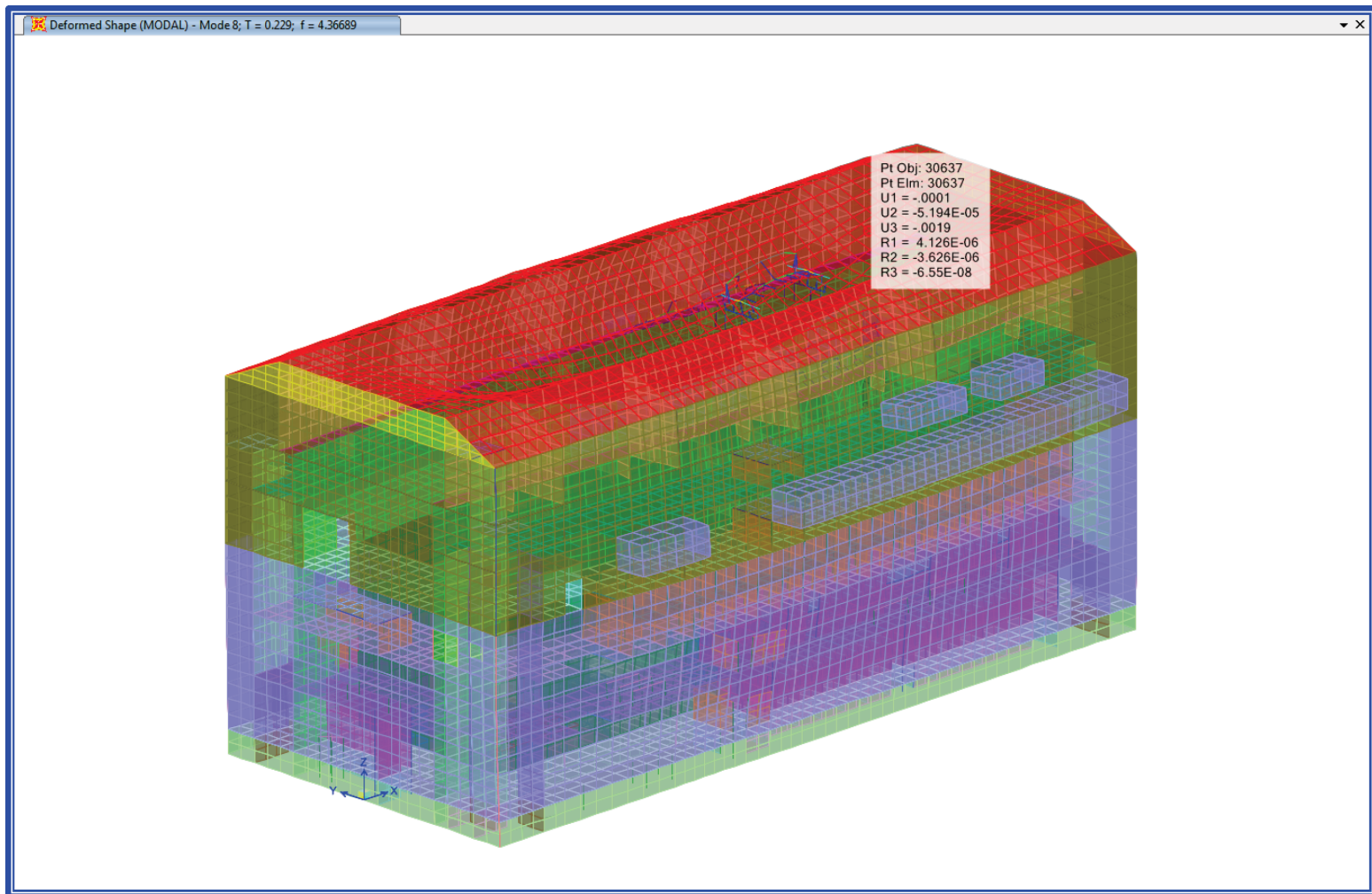
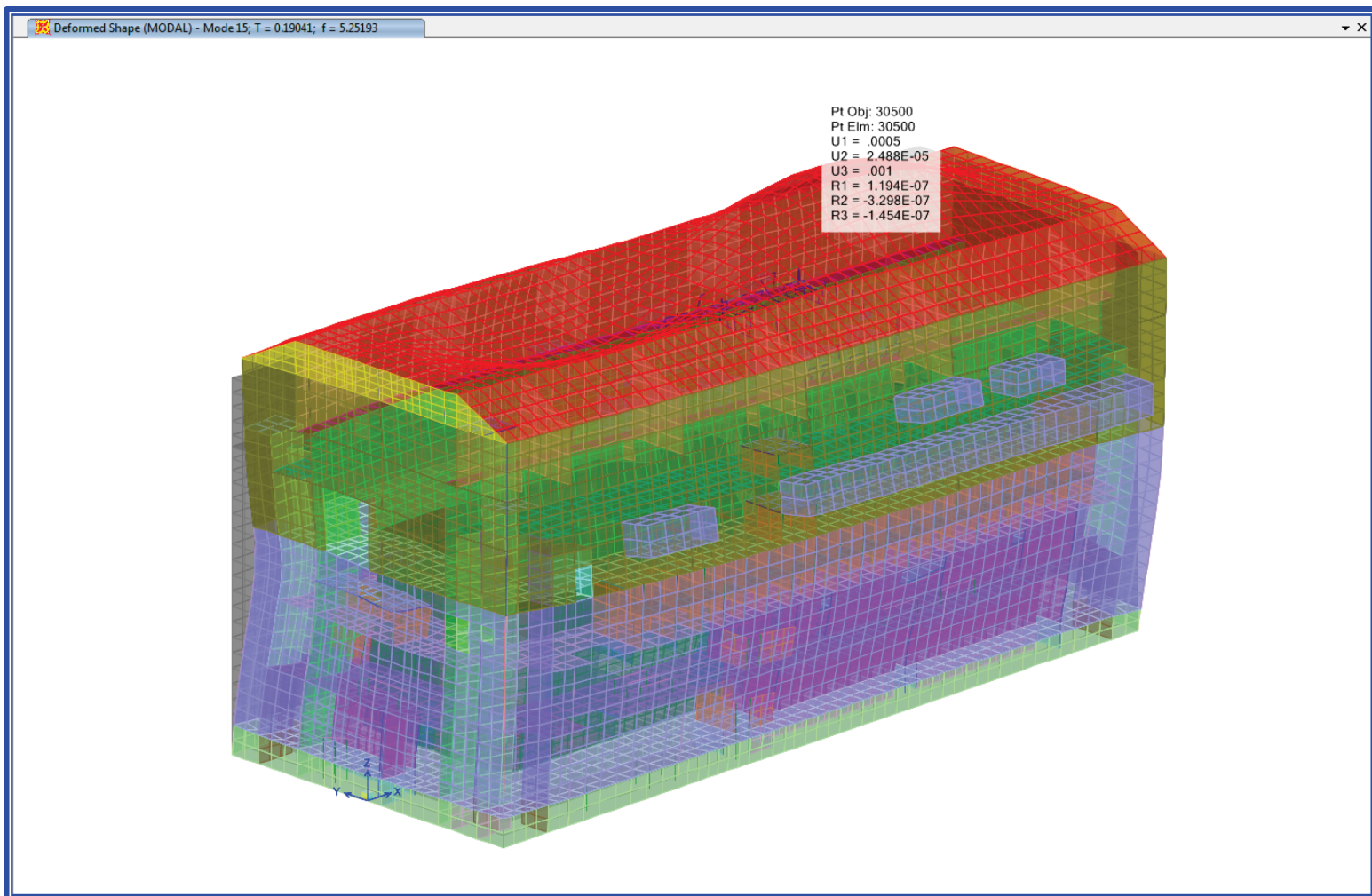
**Figure 3.7.2-78: Reactor Building Cracked Model - Modal Shape - (Mode 14)**

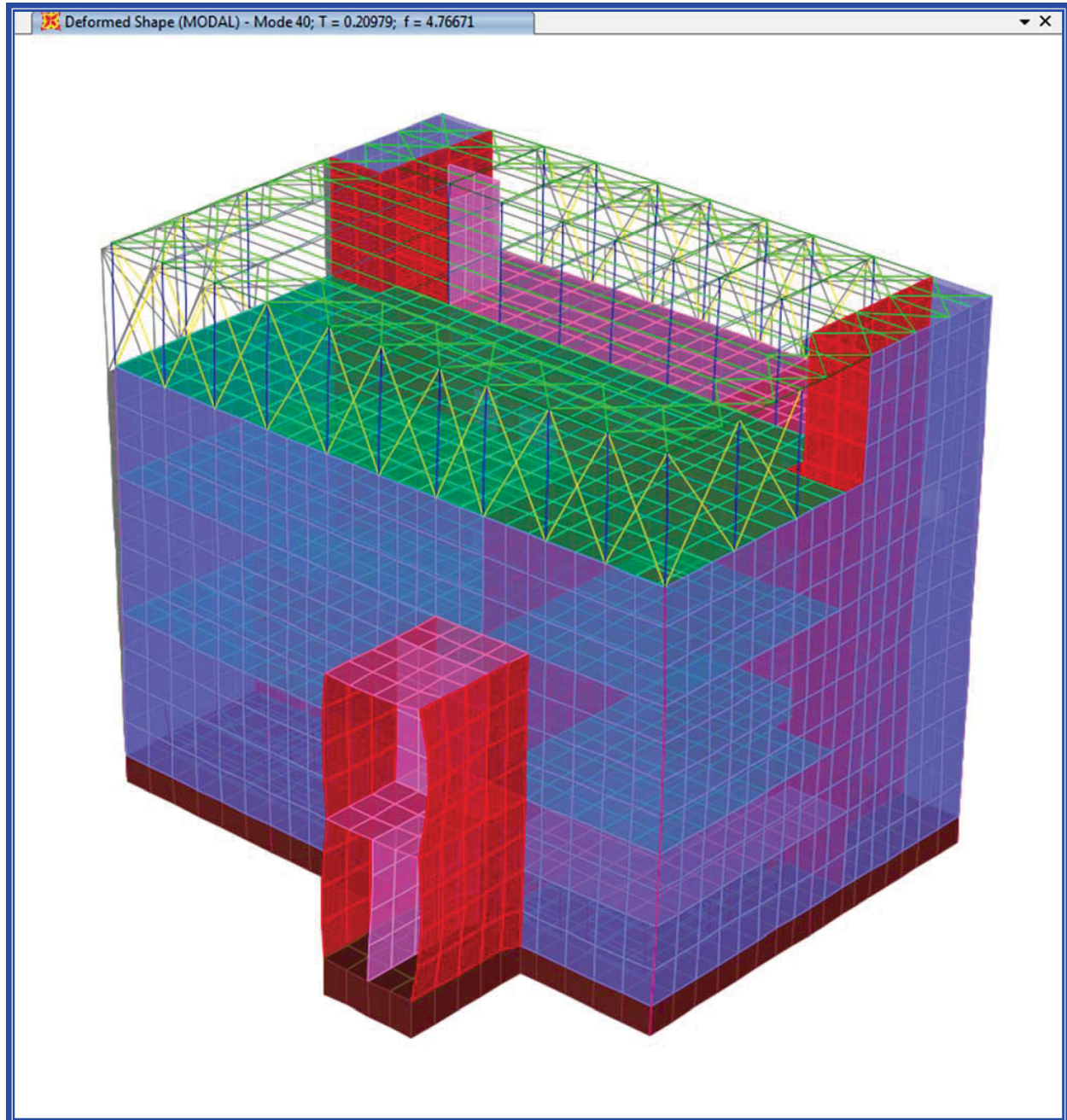
Figure 3.7.2-79: Reactor Building Uncracked Model - Modal Shape - (Mode 5)



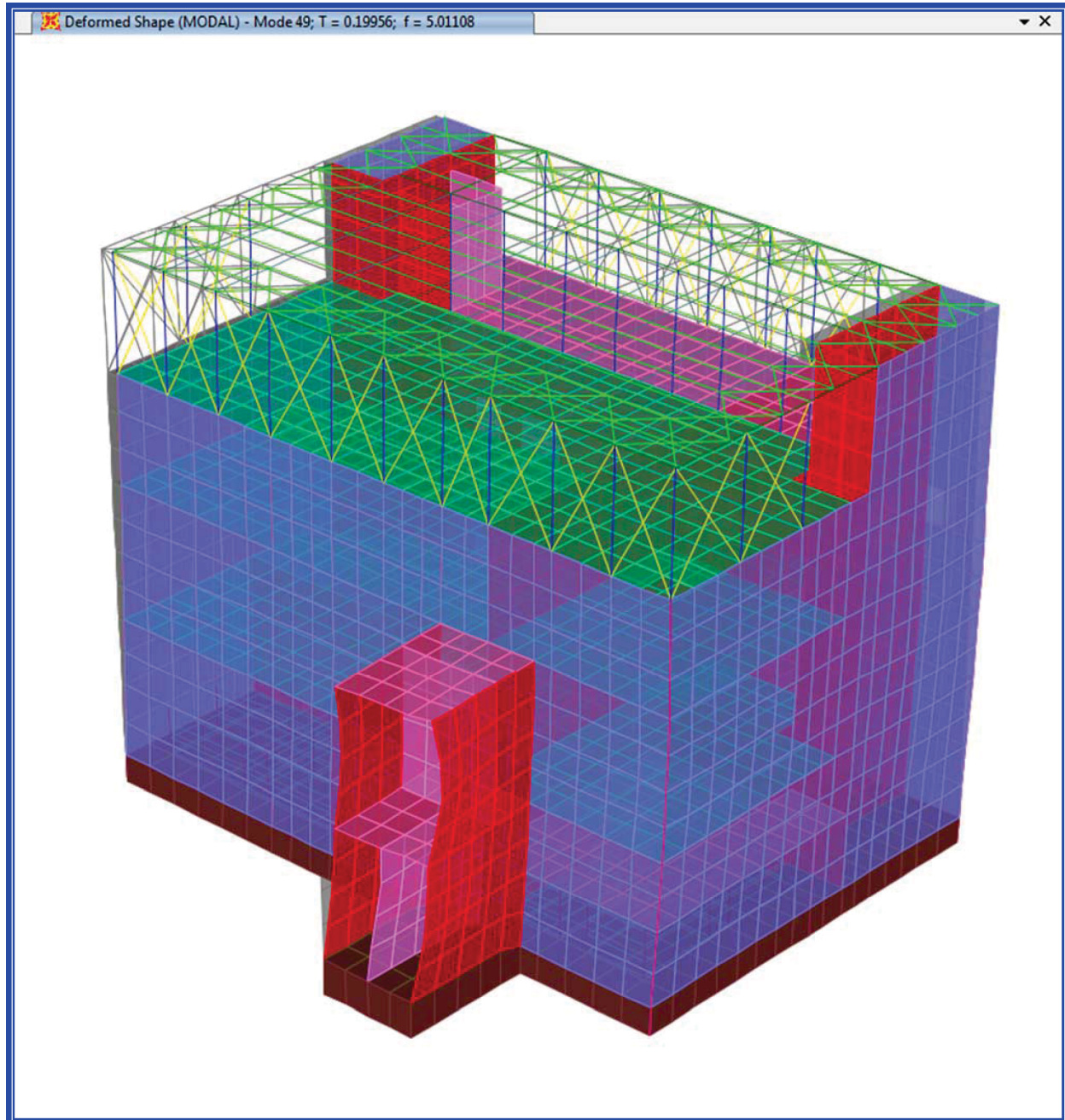
**Figure 3.7.2-80: Reactor Building Uncracked Model - Modal Shape - (Mode 8)**

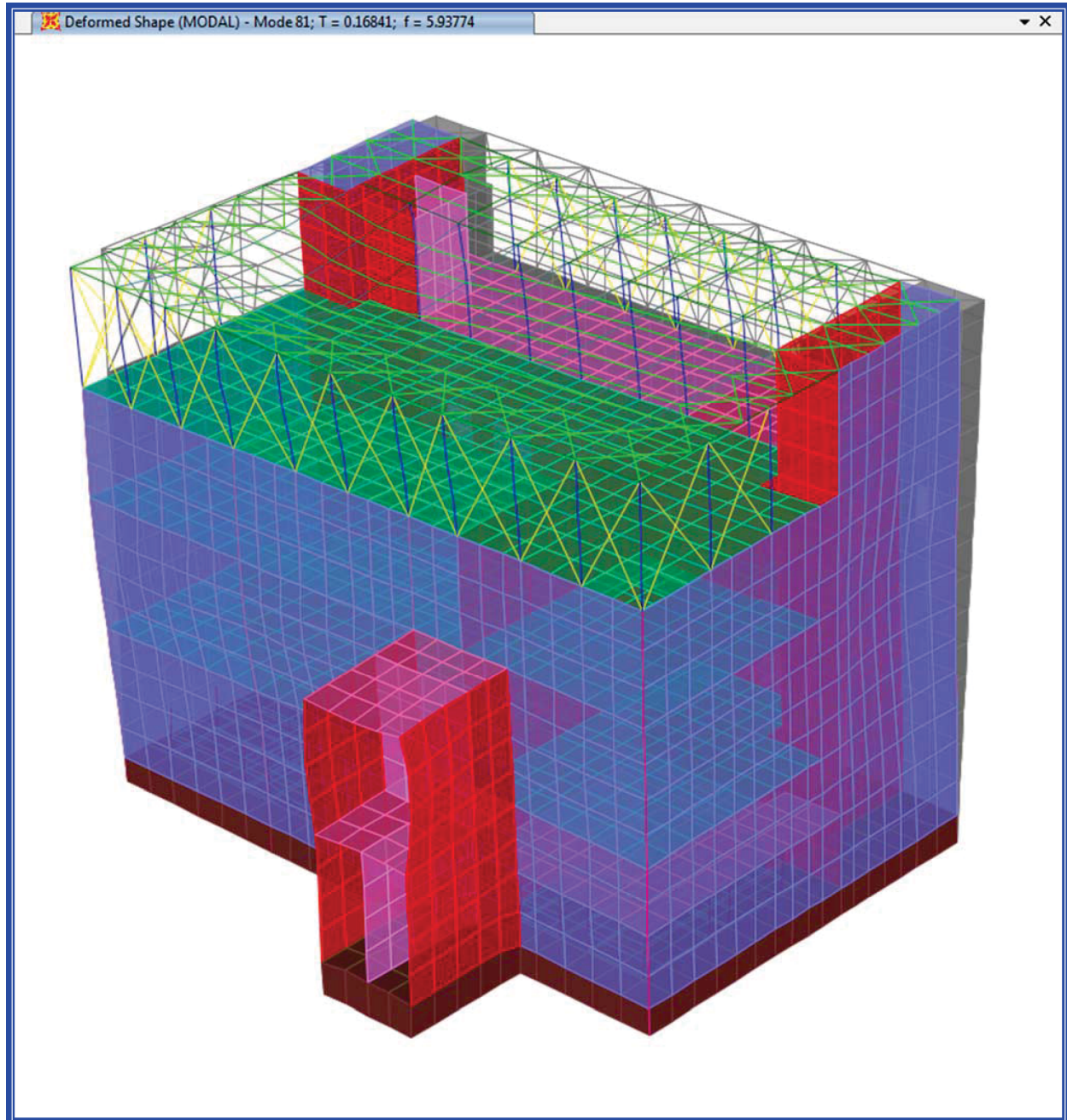


**Figure 3.7.2-81: Reactor Building Uncracked Model - Modal Shape - (Mode 15)**

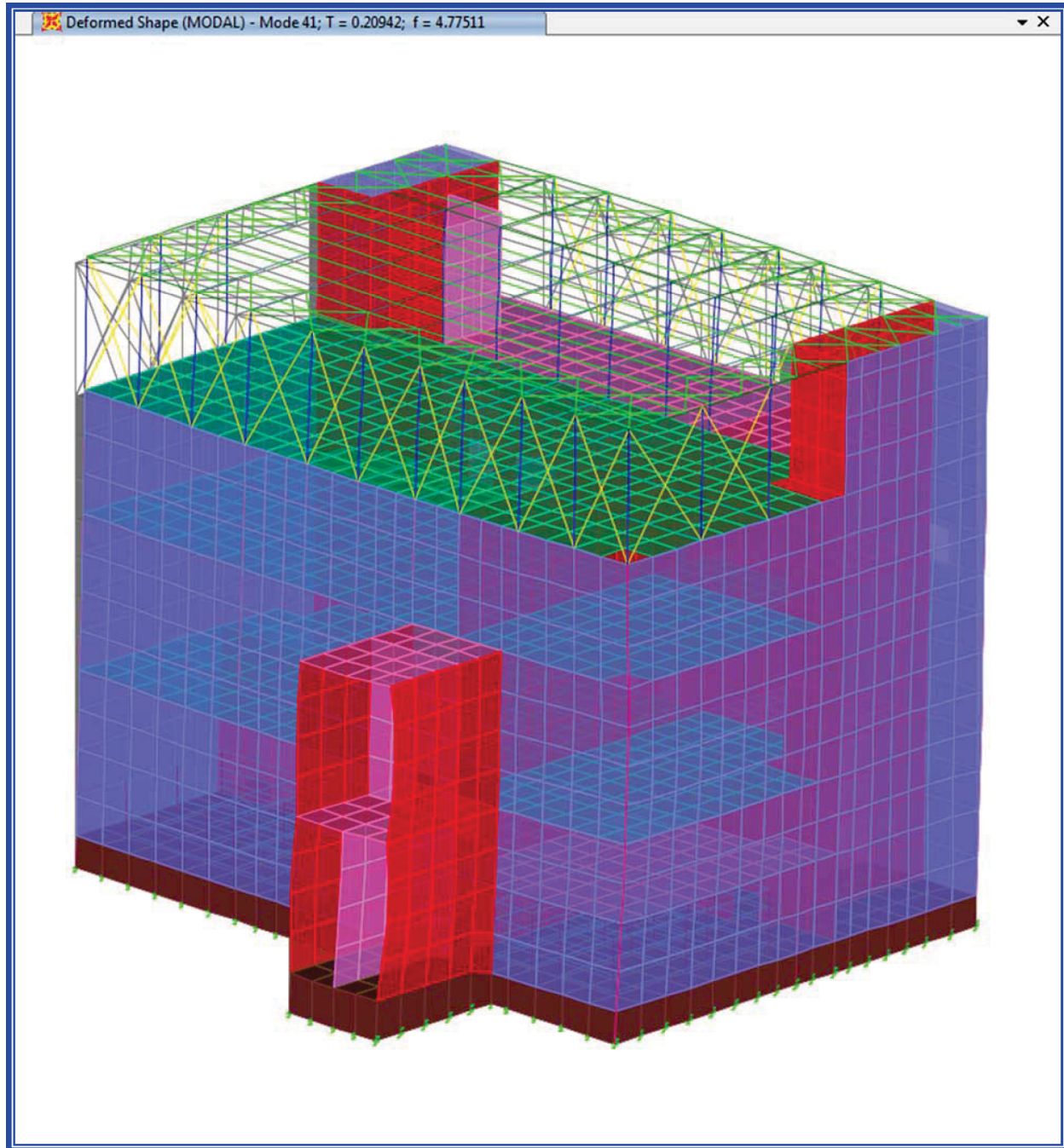
**Figure 3.7.2-82: Control Building Cracked Model - Modal Shape - (Mode 40)**

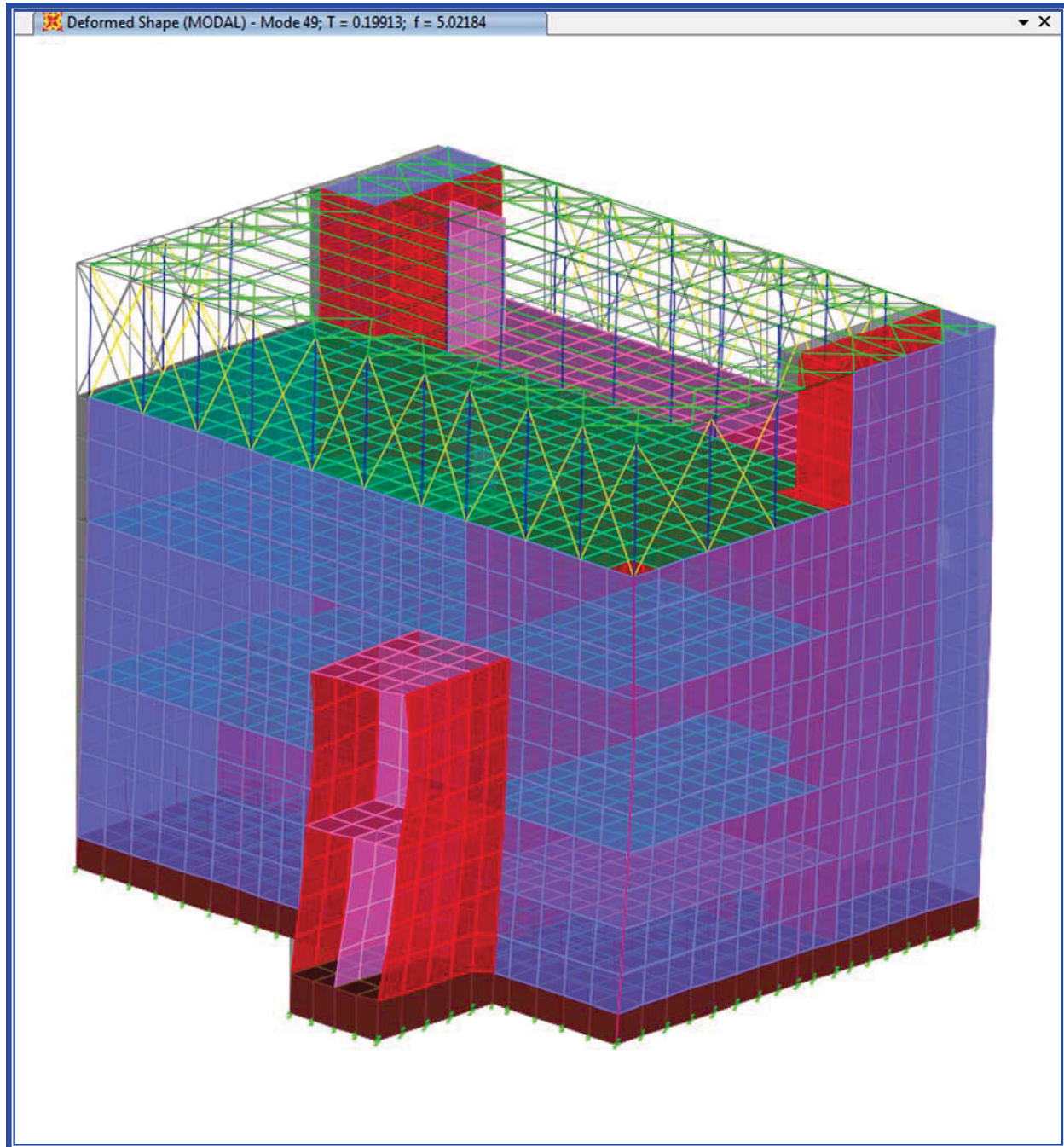


**Figure 3.7.2-83: Control Building Cracked Model - Modal Shape - (Mode 49)**

**Figure 3.7.2-84: Control Building Cracked Model - Modal Shape - (Mode 81)**



**Figure 3.7.2-85: Control Building Uncracked Model - Modal Shape - (Mode 41)**

**Figure 3.7.2-86: Control Building Uncracked Model - Modal Shape - (Mode 49)**



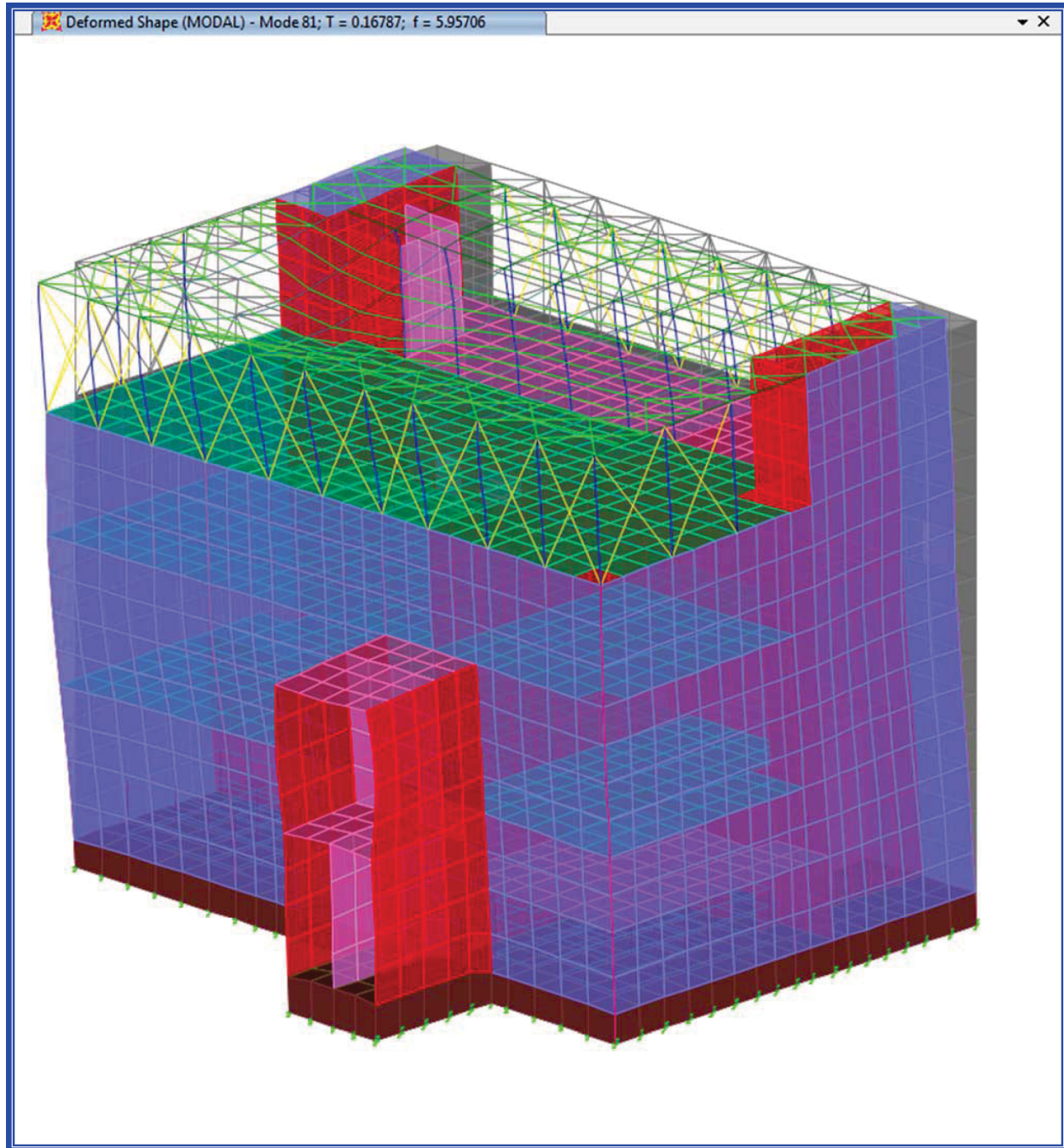
**Figure 3.7.2-87: Control Building Uncracked Model - Modal Shape - (Mode 81)**



Figure 3.7.2-88: Flow of Files among SASSI2010 Modules

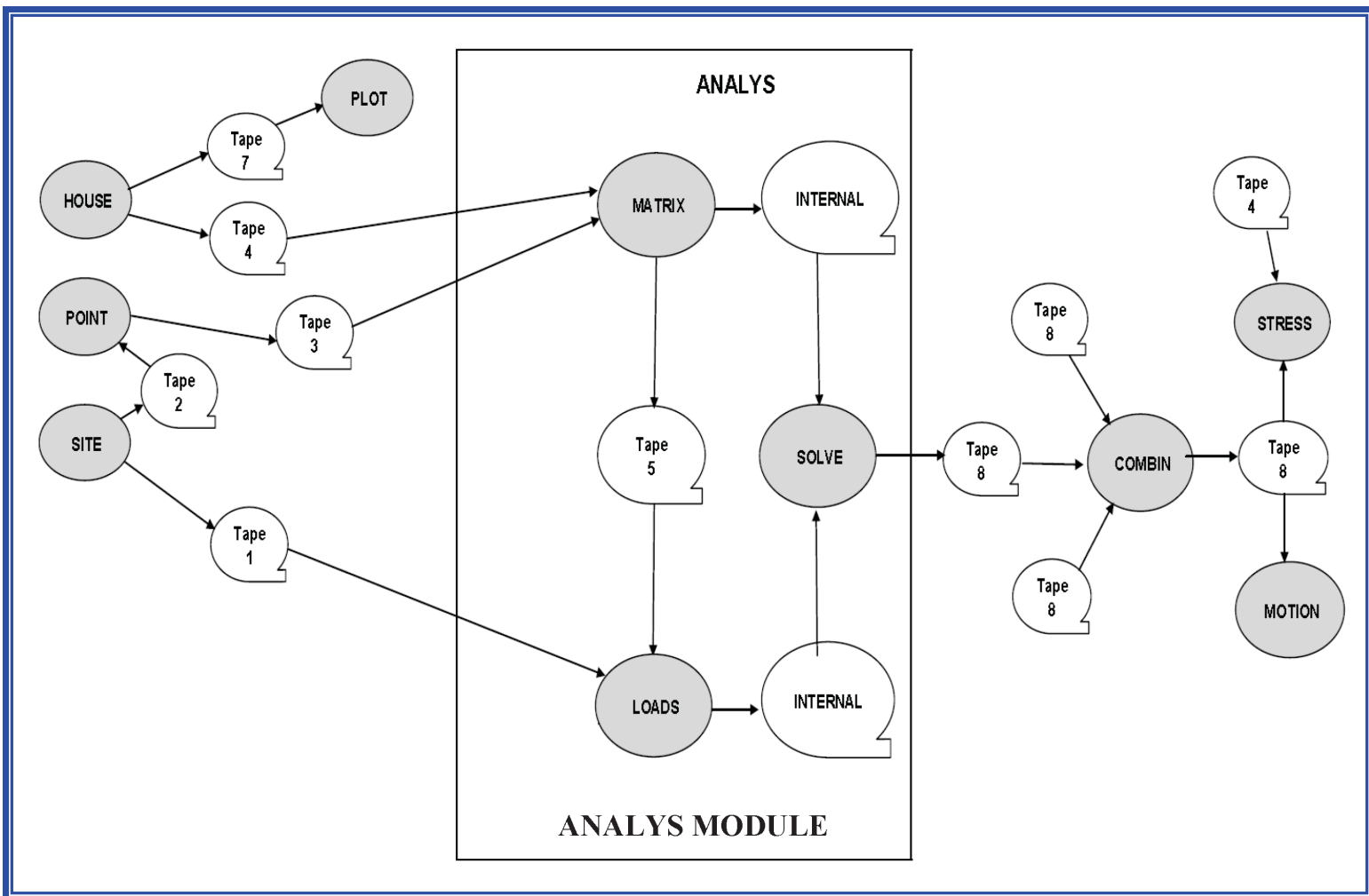


Figure 3.7.2-89: Four I, J, K, and L Nodes and 1 through 5 Output Locations of Thick Shell Element

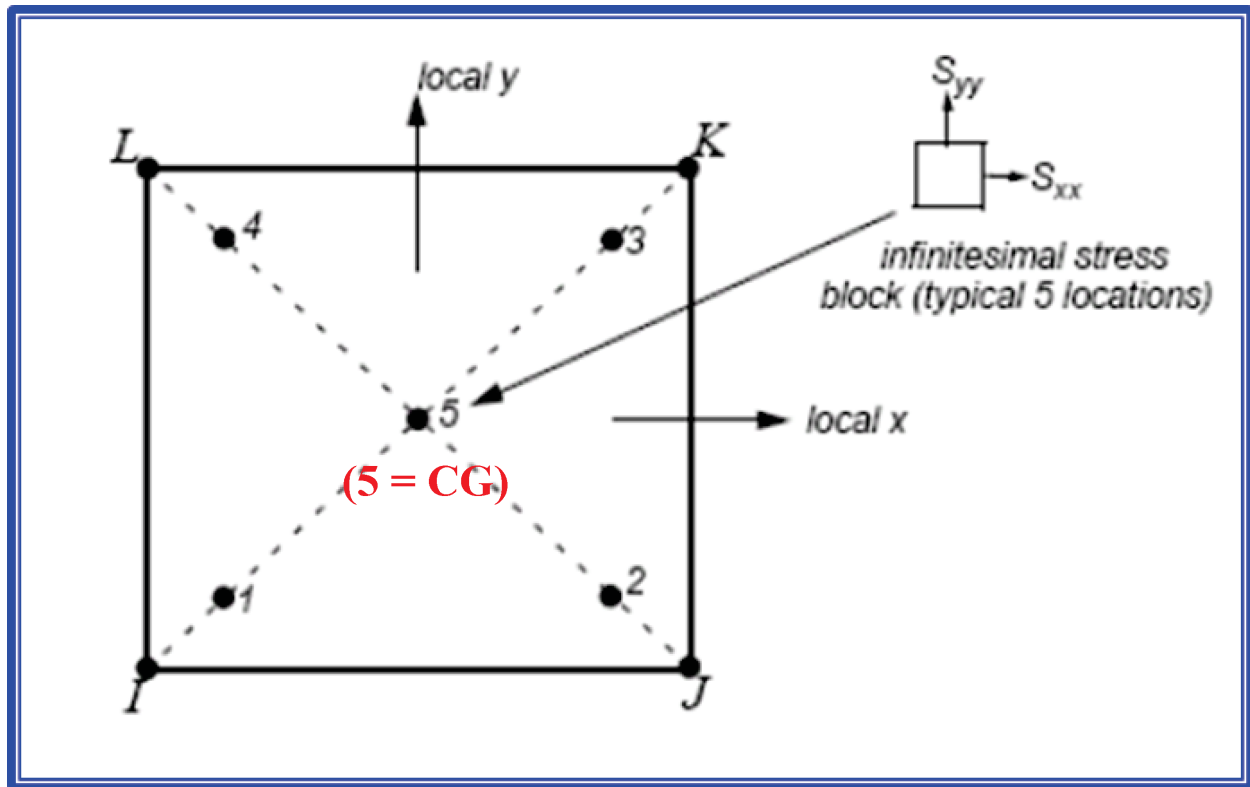


Figure 3.7.2-90: SASSI2010 Shear and Moment Resultants

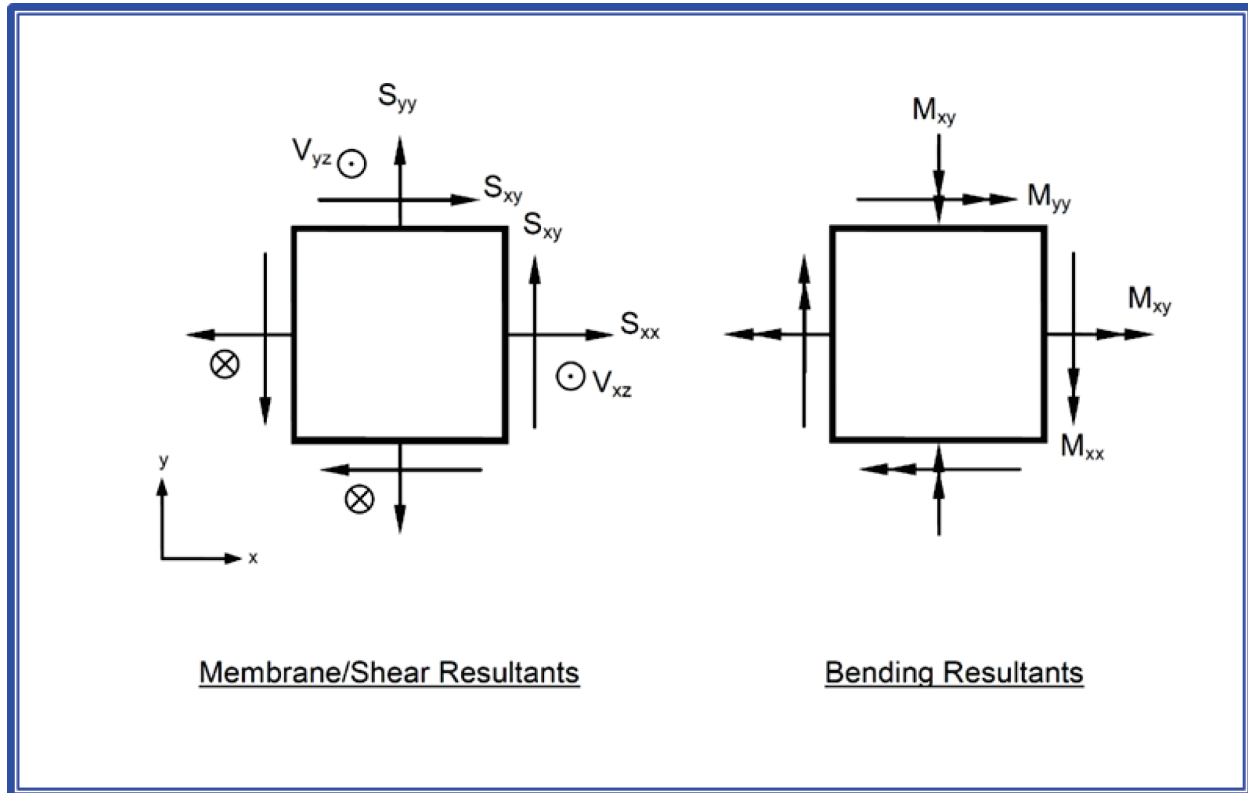


Figure 3.7.2-91: SASSI2010 Beam Element Local Axes for Forces and Moments

