

***Project:***

Demolition and Excavation Plan for Steel Furnace

***Challenge:***

A steel manufacturing plant is replacing three old furnaces with one large new one. The first step of this project was to demolish the existing furnaces and their concrete foundations and to excavate a pit for the new furnace's foundation. All this had to be accomplished inside a building while the adjacent equipment, which includes another adjacent furnace, was still in operation.

***Resolution:***

Our engineering team developed a demolition and excavation plan that provides enough room for construction to commence on the new furnace while allowing the rest of the facility to continue normal operations. This plan included a sequencing plan for concrete demolition, design of retaining walls around the excavation (including soldier piles retaining 20 feet of soil), and design of a steel pile and frame structure for temporary support of some existing building columns whose footings must be extended below their current elevations.