



**University of Notre Dame**  
**Stayer Center**  
**South Bend, Indiana**

The Stayer Center for Executive Education, at the Notre Dame University Mendoza College of Business, is designed as a three story steel-framed classroom building, and was completed in early 2012. The building includes a large multipurpose room on the first floor, large second and third floor flat and tiered classrooms, a large lounge area, and several small breakout rooms, offices, and other support spaces throughout the building. The full basement includes large mechanical rooms, unfinished shell space for future classrooms or offices, and a tunnel which connects the building to the campus utility tunnel system.

The architectural floor plan at each level typically required large column-free spaces, and did not provide locations for steel braced bays. In order to work within the architectural constraints, the building contains steel columns around the perimeter, and very few interior steel columns. The two elevator shafts were designed as reinforced concrete, in order to provide interior gravity support for the floor and roof framing, and all of the lateral resistance for the building. The architectural exterior elevations required the roof to slope down to a typical eave elevation which is below the elevation of the third floor ceiling, which made traditional flat bottom chord and overbuild framing systems impractical. The design was accommodated structurally by providing steel roof beams and horizontal tie beams above the third floor ceiling.

The masonry veneer and cmu backup, which were required by the University, together with the complex architectural arrangement of bay windows, large arched openings, and inset door and window conditions, required special attention to the structural support of these elements. Miscellaneous steel framing, arched precast concrete lintels, and careful attention to locations of horizontal masonry relief and vertical joints allowed the exterior wall conditions to be achieved. The Revit Structure model was an important tool in producing the structural documents and in coordinating with the architectural and mechanical systems.

