



KMHC Assisted Living



Conceptual West Elevation

Apex Engineering & Management, Inc. was retained by the architect of record, Architecture Technology, to provide complete structural engineering services for this project. Apex also provided budgeting at various stages of design. Kalkaska Memorial Health Center – Assisted Living Building has combination of (34) independent-assisted care residential units and kitchen, dining and activity spaces to serve the tenants. The new facility is connected to the existing dialysis center with a covered canopy with drive through capability.

The structural system is very complex with many mixed foundation, wall framing and roof framing systems interlaced into this building.

The foundation consists of both basement area and slab on grade construction. The basement is approximately 12,000 square feet with the slab on grade roughly 5,000 square feet. Reinforced concrete walls form the basement and provide support for steel columns and bearing walls above.

Ground level and second floor framing is a structural steel post and beam system in-filled with steel joist, metal deck and reinforced concrete floors. Exterior walls are cold formed studs and headers, both bearing and non-bearing in nature.

The roof framing is also a mixed system consisting of flat steel joist with metal deck and cold formed steel rafters and trusses. Lateral stability is provided by (2) reinforced CMU stair-elevator shafts and cold formed shear walls.

PROJECT PROFILE

Project:	Kalkaska Memorial Health Center Assisted Living Building
Location:	Kalkaska, MI
Architect:	Architecture Technology
Contractor:	Hallmark Construction Traverse City, MI
Project Type:	Assisted Living
Structural	Structural steel Metal Deck-Concrete Steel joist CMU bearing walls Light gauge roof trusses
Building size:	41,840 SF
Completion date:	May 2009



Building under construction



Building under construction