



Building Statistics: Part 1
Bed Tower Addition at
Appleton Medical Center

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2011 Architectural Engineering
Senior Thesis Studio

General Information

Building Name: Bed Tower Edition at Appleton Medical Center

Location: Appleton, Wisconsin

Building Occupant Name: Appleton Medical Center

Occupancy: Institutional Group 'I-2' (Hospital)

Size: 152,330 Sq. Ft.

Height: 107'-3" above grade to the high occupied floor

Number of Stories: 9 stories with basement

Start of Construction: Information was unavailable, waiting for response

Finished Construction: Information was unavailable, waiting for response

Cost: Information was unavailable, waiting for response

Project Delivery Method: Information was unavailable, waiting for response

Project Team

Owner: Appleton Medical Center

Construction Engineer: The Boldt Company

Civil: McMahon Associates

Architect: Hammel, Green and Abrahamson

Interiors: Hammel, Green and Abrahamson

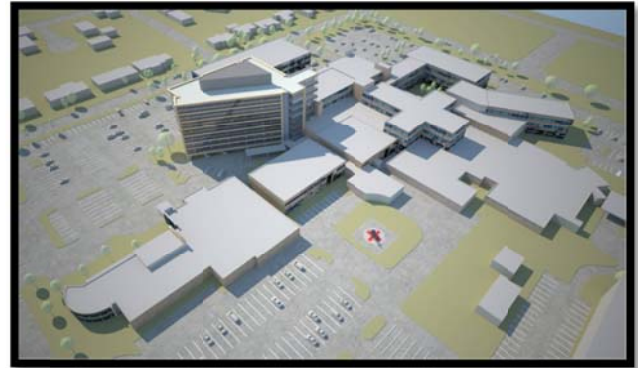
Structure: Hammel, Green and Abrahamson

Mechanical: Tweet/Garot Mechanical

Electrical: Excellence Electric

Plumbing: Bassett Mechanical

Fire Protection: J. F. Ahern Co.

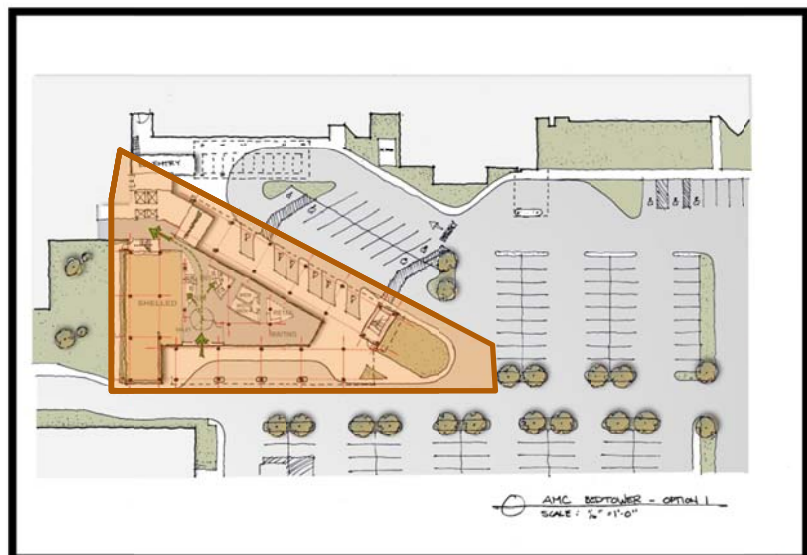


Courtesy of HGA

Architecture

The Bed Tower Addition has a unique triangular shape layout which is carried throughout all the floors of the building. The horizontal streaks of CMU along the exterior make the addition look very sleek and long. Accommodating the long streaks are large areas of glass. Both materials work together in order to show floor separation and this gives the perspective that the addition is deceptively taller than it looks.

The first floor is the lobby area which consists of the registration waiting area and registration along with a



Courtesy of HGA

mini coffee shop. The second floor is the office area which is a very large space and movable partitions. The third floor to the eighth floor consists of the patient rooms, waiting rooms, and main floor manager offices. The second through fourth floor connects to the original hospital with the fourth floor extended into the original building which was renovated.

National Codes

The main building code used was the International Building Code (IBC) 2006 with state amendments. Mechanical followed the International Mechanical Code (IMC) 2006 with state amendments. Both of the latter codes were used as a guide for the Wisconsin Commercial Building Code (WCBC). Plumbing used the Wisconsin Uniform Plumbing Code 2004. Electrical used the National Electrical Code 2005 with state amendments. The International Fire Code (IFC) 2006 as amended by the municipal code of the city of Appleton was used for the fire code.

Zoning

Zoning was determined using the Municipal Code of the City of Appleton, Wisconsin. It was published by the Order of the Common Council.

- C-2 General Commercial District
- Minimum lot area 14,000 square feet
- Minimum lot width – 60 ft
- Minimum front yard – 10 ft
- Minimum rear yard – 20 ft
- Max building height – 200 ft

Historical Requirements

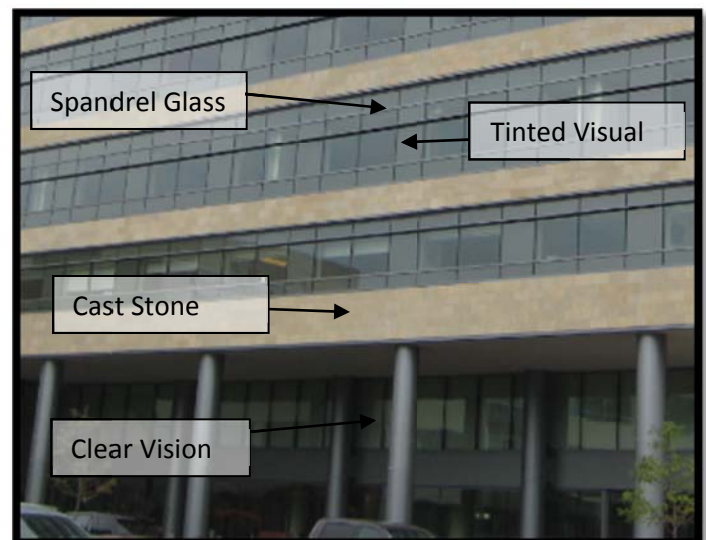
No historical requirements were specified but I am double checking with the project manager just in case.

Building Enclosure

Building Facades

The building is enclosed by two essential components, one of which is the stone façade while the other is glazing.

The stone façade is made up of mostly cast stone making up the vertical façade and limestone making an appearance as a crown to the bottom of the building. The size of each limestone and cast stone



Courtesy of HGA

masonry unit is 11-5/8 inches high by 23-5/8 inches long by 3-5/8 inches wide. The cast stone has a sandblast finish and the color is sandrift which looks like a tan-gold color. The limestone has a medium dressed finish and a blue-gray color.

There are three kinds of glazing making up the exterior of the building: 1) Clear Vision Glass 2) Tinted Visual Glass and 3) Spandrel Glass. The specifications indicate that the glazing was to be provided in order to be “capable of withstanding normal thermal movement and wind and impact loads (where applicable) without failure.”

The Clear Vision Glass is a low energy insulated glass which has a visible transmittance of 70 percent. This glass is used on the lobby exterior to allow a lot of natural light and heat gain during the day which can help the building warm up during the cold months of the year.

The Tinted Visual Glass and Spandrel Glass is combined together to make up the glazing for stairwells and patient rooms. The TVG is also a low energy insulated glass with a lower visible transmittance of 35 percent while the Spandrel Glass has a visible transmittance of 0 percent. Each have a nighttime winter U-Value of 0.29 BTU/hour/ft².

Roofing

The roofing consists of a single ply roofing membrane on top of insulation which encompasses most of the roof. The slope and insulation thickness of the roof are both different at some parts of the roof. The drawings indicate where these areas are located.

Sustainability Features

After looking through drawings it does not appear there were any sustainable features but they might not have been included with the specs or drawings. I will be double checking with the project manager on this for further use.