Hershey Academic Support Center Hershey, PA Spring 2006 Senior Thesis



Introduction

General Introduction

The Hershey Academic Support Center is part of the Hershey Medical Center complex located in Hershey, PA and is owned by The Pennsylvania State University. Constructed from March 1999 to August 2000, The Penn State Geisinger Health System was designed as the primary occupant, but was dissolved before the building was occupied. Currently the building is in an office setting and used for auxiliary purposes of the Hershey Medical Center accommodates a total of 680 people. The building itself can be considered in two sections, an East and a West wing. The wings are structurally identical with the only difference between them found in the center connecting section. The building footprint encompasses a total area of 150,000 square feet over 5 floors. The total height of the building over 5 stories is measured as 56'-0" with the height to top of the roof including the Mechanical Penthouse being 69'-0". The project was delivered as a Guaranteed Maximum Price totaled at \$16,900,000.



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Architecture

The Hershey Academic Support Center utilizes a postmodern look of concrete and glass. The "wings" of the building form a slight angle out from the center and are clad with a repeating window pattern laced with precast concrete panels. The center of the building has a canopy leading into the main lobby, which is encased by glass and extends across the entire first floor of the building. A sheet of glass is located from the top of the canopy to the top of the building. To break up the repeating window pattern, both sides of the building sport a concrete spike that juts from either side containing a stairwell. There is a membrane roofing system with rigid insulation and metal deck underneath. This overall style of architecture fits in with the rest of the Hershey Medical Center, which provides for a uniform look amongst the area.



Primary Design Team

Owner/Developer: -Penn State University -Hershey Medical Center Architect: -WTW Architects **Structural Engineer:** -Whitney, Bailey, Cox & Magnani, LLP **Civil Engineer:** -Rettew Associates, Inc. **Project Manager:** -Jon Anthony **Project Engineer:** -Jessica Kosoff **Construction Manager:** -Barclay White Skanska **MEP & Lighting Consultant:** -Brinjac, Kambic & Associates **Geotechnical Engineer:** -Schnabel Engineering Assoc., Inc.

Electrical/Lighting System

The Electrical system used in the building is 480Y/277 Volt, 3-phase, 4wire setup. There is also 208Y/120 Volt power, which is used by some of the transformers on site as well as some of the boilers. All of the main lighting is done by fluorescent luminares with the only incandescent bulbs being used in the lobby towards the outside.

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Mechanical System

The Hershey Academic Support Building has a mechanical penthouse located above the top floor of the building. This building is cooled by four AHUs that are split between the East and West wing. Each AHU has a fan power of 42,500 CFM and is powered by 460V 3-phase power. Air is delivered to the rooms via a ductwork system and the overall system acts as an air plenum to the building. The building also utilizes a boiler/chiller system to regulate the temperature throughout the building in the summer and winter months.

Transportation System:

The Hershey Academic Support Building has two main entrances in the back and the front of the building as well as a loading dock on the right side. Each wing is serviced by its own set of stairs that jut out from the side of the building and are fire rated to code. There are two elevators and one stairwell located in the center of the building. The elevator services all 5 floors and the center stairwell provides access to the Mechanical room on the top of the building.

