



Steelstacks Performing Arts Center

Bethlehem, Pa



Project Team

- Architect: Spillman Farmer Architects
- MEP Engineer: Brinjac Engineering
- Structural Engineer: Barry Issett & Associates
- Civil Engineer: French & Parrello

Mechanical Systems

- Mini Split System with 3 roof top Condensing units.
- Split system serving AHU for Blast furnace room
- 6 Gas-fired roof top units
- Gas-fired water tube hot water Boiler
- 4 roof top energy recover units

Electrical Systems

- 200 KW 480/277V 3-phase generator
- 3000 AMP 3-phase main breaker with tvss (transient voltage surge suppression)
- 10 transformers inside of building
- 480/277V pad mount transformer from utility

Structural System

- Concrete footings ranging fro 2' 4" to 4' 2" in depth with Precast foundation walls
- 8" thick reinforced concrete floor system with metal deck
- 8" reinforced CMU interior wall system
- Steel joist and girder grid

Project Information

- Building Owner: Artquest
- Function Type: Performing Arts Center
- Size: 67,000 square feet
- Stories: 4 above grade
- Cost: \$26 million
- Dates of Construction: January 10, 2010 to February 26, 2011 (estimated)

Architecture

Steelstacks is a dynamic art center built on the old Bethlehem Steel site, the building flawlessly integrates itself into the campus. The building consist of music cafes and theaters as well as multipurpose room that overlooks the existing blast furnaces of Bethlehem Steel.

Lighting System

The Steel Stacks building has many different lighting elements due to the wide range of activities it can accommodate. It has a combination of color changing spotlights (LED), along with recessed fluorescent lights, and pendent lights. It also has an array of outside building lights to allow for the building to glow.

Michael Dean Mechanical

<http://www.engr.psu.edu/ae/thesis/portfolios/2011/mbd5032/index.html>