

Introduction

Project Background:

Building Name: Center For The Arts
Location and Site: Newark, Delaware
Occupant Name: University of Delaware
Occupancy or Function Type: Assembly Spaces (A-1)
Size: 92110 SF
Number of Stories: 2 Above Grade and 1 Basement

Primary Project Team:

Owner:

University of Delaware

Architects:

Ayers/ Saint / Gross Architects and Planners
<http://www.asg-architects.com>

Construction Managers:

Whiting Turner Contracting Company
<http://www.whiting-turner.com/>

MEP and Fire Protection Engineers:

Mueller Associates Inc.
<http://www.muellerassoc.com>

Structural Engineers:

McLaren Engineering Group
<http://www.mgmclaren.com/>

Civil Engineers:

Tetra Tech Inc.
<http://www.tetrattech.com>

Acoustical Consultants:

Kirkegaard Associates
<http://www.kirkegaard.com>



Recital Hall

Dates of Construction: June 2004 – August 2006
(Commissioning beginning in June 2006)

Cost Information: \$36.2 million

Project Delivery Method: Design-Bid-Build

Major National Codes:

IBC 2000 Edition
International Plumbing Code 2000 Edition
NFPA 101, Life Safety Code 2000 Edition



Orchard Street Lobby

Zoning: The University is exempt from zoning by a charter in the City of Newark. The zoning is designated UN for University. As long as the University operates as an educational facility (classrooms, etc, - CFA applies) then this exception applies.

Historical Requirements: Previously the land was a parking lot and four houses that were used by the University for offices.

Building Systems:

Building Envelope:

The building is enclosed by brick with predominately nine foot high windows on the first floor and six foot high windows on the second floor. There are wood entry doors into the main lobby of the Center for the Arts along the east side of the building. The roof above the east lobby is sloped with dormers. The visible portions of the roof from ground level are slate shingles and the flat roof over all of the performance spaces is Mod. Bitumen B.U. roof system with composite insulation.

Construction:

The Center for the Arts Building (CFA) is the second bid package in a three-bid package set. The first bid package was the adjacent parking garage and the third, yet to be designed and bid, is an additional concert hall to be added onto the southwest side of the building. Each of the performance spaces in the CFA has 2” open joint complete separation between structural systems for vibration and noise isolation.

Electrical / Lighting:

The adjacent parking garage contains a pad mounted transformer, 2500kVA 12.47kVA primary, 480Y/277V-secondary, that then supplies the CFA through an 8-way ductbank from the parking garage to an electrical manhole. There are thirteen transformers in the CFA that supply 208/120V 3-phase 4-wire power to the building. There is an emergency generator located in the parking garage to serve the emergency

and stand-by loads for the parking garage, CFA and future concert hall. The lighting in the CFA is a variety of pendant, wall-mounted and recessed fluorescent light fixtures.

Mechanical:

The CFA has six air-handling units, four dedicated for specific space: one supplies the Public Lobby, one supplies the Proscenium Theatre, one supplies the Proscenium Stage and one supplies the Recital Hall. Three of the air-handling units that service a single zone are constant volume systems and the two units that service multiple spaces are variable air volume units. The other unit is an under floor displacement air distribution system. The heating system and chilled water system are branches off the campus steam and chilled water mains.

Structural:

The structural system for the Center for the Arts Building is composite concrete on metal deck supported by structural steel. Because of the differing sizes and shapes of the performance spaces there is not a typical beam size or length throughout the building but the beams and girders are primarily wide flange. The majority of the columns in the building are W10x33's but range from W10x33 to W14x61. Under the performance spaces, there is 5" slab on grade above a 3' thick concrete mat. Under the other spaces there are the concrete spread footing and the 5" slab on grade.

Fire Protection:

The Center for the Arts Building has an automatic sprinkler system and fire alarm and detection systems. The performance spaces are protected by hydraulically designed wet pipe sprinkler system. Each floor will be a separate sprinkler zone. The performing arts theatre stage will have a proscenium curtain constructed of an approved non-combustible material. The stairwells all have one-hour fire separation. Between the basement offices and storage rooms and the performance spaces there is a 2 hour floor/ceiling rating.

Transportation:

Three staircases serve the first floor to the second floor. Two staircases serve from the basement level up to the gallery level of the Proscenium stage. There are three elevators to provide ADA accessibility to the second level.

Telecommunication:

The practice rooms on the second level are designed so that computer-synthesizing equipment can be brought in and used. There is also an electronic/computer room for mixing and recording music.