

THE DUNCAN CENTER
DOVER, DELAWARE

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ARCHITECTURAL ENGINEERING PROGRAM

STRUCTURAL OPTION
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FINAL REPORT
SPRING 2008





THE DUNCAN CENTER

500 W. LOOCKERMAN STREET
DOVER, DE



BUILDING INFORMATION

Building Name:	The Duncan Center
Location:	Dover, DE
Size:	76,577 SF
Height:	93'-0", 6 stories
Construction Dates:	June 2003-June 2004
Overall Project Cost:	\$10.4 million
Delivery Method:	Design-Build

PROJECT TEAM

Owner and GC:	Robert Duncan
Architect:	Jackson Architects
Structural Engineer:	Baker, Ingram & Associates
MEP Engineer:	Furlow Associates
Fire Protection Engineer:	Radius
Civil Engineer:	Braun Engineering
Geotechnical Engineer:	John D. Haynes & Associates

ARCHITECTURAL FEATURES

- Floor to floor height 14'-0"
- Premium office spaces on the 1st-4th floors for Social Security and legal and financial offices
- Reception and ballroom space, on the fifth floor, The Outlook Center
- Flexible office floor plans with exquisite lobbies on each floor leading to offices
- Free-band and floor to floor windows create a feeling of openness throughout the space to connect the building to the surrounding the landscape
- Balconies and arched penthouse to create distinctive architectural variety

STRUCTURAL SYSTEM

- Typical bay size of 24'-5"x27'-8"
- Common spaces designed for 100 PSF live load and office spaces for 50 PSF live load
- Concrete pier and deep grade beam foundations system on 16" diameter auger cast piles
- Structural steel moment frame with a composite metal deck floor system
- Cold formed steel truss roof system

MECHANICAL SYSTEM

- Heat pump heating and cooling system, typical three heat pumps per floor, with the exception of five on the fifth floor to service the Outlook Center
- 51,900 CFM closed circuit cooling tower
- Stair pressurization risers for ventilation
- Fully sprinklered building

LIGHTING/ELECTRICAL SYSTEM

- 480/277V, 3 phase, 4 wire transformer
- 1200A main distribution switchboard
- Breaker type overcurrent protection
- 200kW diesel engine emergency generator
- Mixture of fluorescent, incandescent, LED, and fiber optic halogen wall sconces and pendant 277 V interior fixtures
- Metal halide 277 V exterior fixtures



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