John P. Mulhern
Lighting/Electrical

New Jersey Center For Science, Technology, and Mathematics Education

Project Team

Owner:	Kean University
Architect + MEP	Cannon Design, Inc.
Structural:	Schoor Depalma Engineers & Consultants
Civil Engineer:	K.S. Engineers, P.C.
CM:	Provided by University
GC:	Terminal Construction Corporation

General Building Information

Address:	Union, NJ
Size:	6 Stories, 117,000 SF
Construction Dates:	Groundbreaking September 2008
Delivery Method:	Design-Bid-Build
Overall Cost:	$45,000,000

Electrical

- Primary service provided by PSE&G at 13.2 KV
- 2500 KVA transformer in main electrical room which steps down secondary service to 480/277V, 3ϕ, 4W
- 500 KW rated diesel generator for emergency
- 3rd to 6th floor fed by 1200A bus duct at 480V and is stepped down to 208/120V with a transformer on each floor and distribution panel

Structural

- Structural steel building
- System of spread footing ranging from 4’ X 4’ to 15’ X 15’
- 5” slab on grade reinforced with 6x6 – W2.0 X 2.0 welded wire fabric
- Typical bay is 21’ X 37’8”
- 3” 20 gauge composite galvanized metal floor deck with 3 ¼” lightweight concrete topping

Lighting

- Linear fluorescent luminaire with a direct distribution is uutilized most throughout the building
- There are also many square downlights throughout the
- building
- Many fixtures have dimming capabilities
- There are many spaces with two sets of luminaires, ones with cool CCT’s and ones with warm CCT’s

Architectural

- Glass curtain wall with three different types of glass for most of façade makes it very transparent
- Double height lobby
- Partial green roof above auditorium
- Some features include executive center, 3D cave, exhibition space, and 300 person auditorium
- Roof system is composite metal deck with concrete topping with 4” rigid insulation

Mechanical

- 6 air handling units serve the building while one is is reserved for future restaurant tenant
- 300 ton rated cooling tower
- Geothermal system of 131 boreholes dug 500’ down and spaced 20’ apart
- VAV system utilized throughout building