

# Pennsylvania State Employees Credit Union Corporate Headquarters



## STATISTICS

location | harrisburg, pa  
size | 234,000 sq.ft.  
stories | 3 above grade  
construction | August 2011 - August 2013  
Cost | \$54.6 million  
Delivery Method | design-bid-build

## BUILDING TEAM

owner | Pennsylvania State Employees Credit Union  
cm | Quandel Construction Services  
architect | Crabtree, Rohrbach & Associates  
mep | BALA Consulting Engineers  
civil | Kurowski & Wilson Engineers Consultants  
lighting | Grenald Waldron Associates  
structural | Centerpoint Engineering Inc  
codes | Protection Engineering Group

## ARCHITECTURE

- clean, modern aesthetic brings outside in through large glass curtain walls, views, and sustainable materials
- multi-use structure with offices, daycare, conference center, and fitness center

## STRUCTURAL

- exposed steel structure consisting of W12 shapes with various weights
- foundation consists of spread footings and strip footings
- raised floor system on top of composite metal deck system
- lateral resistant system consisting of ordinary steel concentrically braced frames in East-West direction and ordinary steel moment frames in North-South direction

## MECHANICAL

- 17 air handling units with a total of 307,750 SCFM
- two hot water boilers with an MBH of 2,250
- one steam boiler with an MBH of 4,125
- exhaust heat recovery unit with a capacity of 3,260

## ELECTRICAL

- primary selective distribution system with two service entrances
- double-ended main substation with two switchboards and a fire pump substation with additional switchboard
- mechanical and lighting panels operate 480Y/277V and receptacles and other loads operate on 208Y/120V
- two emergency generators, which include a 2,500kW diesel generator for normal building loads and a 800kW microturbine generator for data center loads
- microturbine generator operates in parallel with utility

## LIGHTING

- variety of LED, linear fluorescent, metal halide, and halogen sources
- daylight integration, occupancy, and vacancy controls
- programmable control system

sarah wujcik | lighting + electrical | 2012 ae senior thesis

<http://www.engr.psu.edu/ae/thesis/portfolios/2012/SJW5121/index.html>