

the drexel  
university recreation  
center  
philadelphia, pa

britnei godusky | lighting + electrical



building  
statistics

project  
team

size | 84,400sf  
levels | three stories above grade  
cost | \$40.2 million  
construction dates | summer.2008-winter.2009  
delivery method design-bid-build

drexel university | owner  
sasaki associates, inc. | architecture/interiors  
ewingcole | electrical/lighting  
ewingcole | structural  
ewingcole | mechanical  
turner construction | contractor

lighting  
electrical

1500kva 480Y/277 3Ø dual supply from existing campus substation.  
indoor diesel 350kw 480/277 3Ø 4W emergency generator.  
dry-type step-down transformers on each floor for appliance and lighting panels.  
primarily fluorescent lighting at 4100K, metal halide for accent in hall of fame.  
public and circulation spaces switched via relay-based building wide controls.  
energy efficient exterior induction lighting with integral photocell control.

architecture

strong lines and sharp angles are emphasized on glazing/aluminum panel  
façade, combining for a modern play on transparency and concealment.  
athletic center addition includes sports bar, gymnasium with elevated track,  
fitness centers, rock-climbing wall, racquetball courts and group fitness rooms.  
exposed concrete ceilings and columns create exposed, spacious impression.

mechanical

mechanical system operates at full occupancy 24/7 and is composed of:  
seven rooftop air handling units, four VAV and three CV,  
ranging from 1880cfm for lobby to 32,550cfm in fitness/weight room.  
three parallel boilers providing hot water for gas heating system.  
air cooled condensers in AHUs feeding blower coil air conditioning.  
system controls monitored by supervisory network on Drexel campus.

structural

structural system based entirely on reinforced concrete including:  
concrete caissons founded on rock auger refusal.  
one-way slab on grade ground floor with perimeter foundation walls.  
exposed concrete columns throughout building interior.  
additional stories and roof of structural concrete flat plate slabs.  
gymnasium roof supported by truss system, the only completely steel structure.