Energy Conservation Initiatives
GREEN ROOF

- Vegetative Roof Construction budget: $26 / SF
- Total Roof Area: 14,212 SF
- Vegetated: 7,710 SF (54%)
Long-lasting Green Design

- EFVM system (Electric Field Vector Mapping) to locate any potential leaks down to the size of a pin hole within a foot

- Fluid applied waterproofing membrane has no seams and self-heals any minor penetrations during installation.

- The ballast and vegetation system extends the life of this roof up to 50 years or more (data for additional time is not yet available)
Green Design – Real Impact

• Over the green roof area, 1.45 inches of water can be stored before running off (approx. 7,339 gallons total)

• The new green roof design retains 3.9 times more rain and reduces the peak run-off rate by 31%
Water Conservation

Conditions Before Efficiency Improvements:

- On a daily basis, 1,657 gallons of water are used
- During events, average usage increases to 3,582 gallons
- Existing flush valves consume a high volume of water, require high pressures and are no longer industry standard
- Replacement priorities are based upon highest water consuming fixtures

After Project:

- On a daily basis, 1,234 gallons of water are used - saving 423 gallons!
- During events, the average usage is est. to be 2,656: saving 926 gallons!
- Exceeds LEED baseline by 40%
LIGHTING IMPROVEMENTS

Lighting Controls Improvements

• Before project: No controls – lights are either on or off

• After upgrades - controls allow lighting to be adjusted on timing, schedule, and controlled via IPads

Site Lighting Improvements

• Higher wattage high pressure sodium lamping, which has poor color rendering and light output

• Use of calculations to reduce fixtures from 4 to 3

• Goal of avg. 1 foot candles while saving energy and good uniformity
LIGHTING IMPROVEMENTS

Before

After
WINDOW IMPROVEMENTS

Before

After