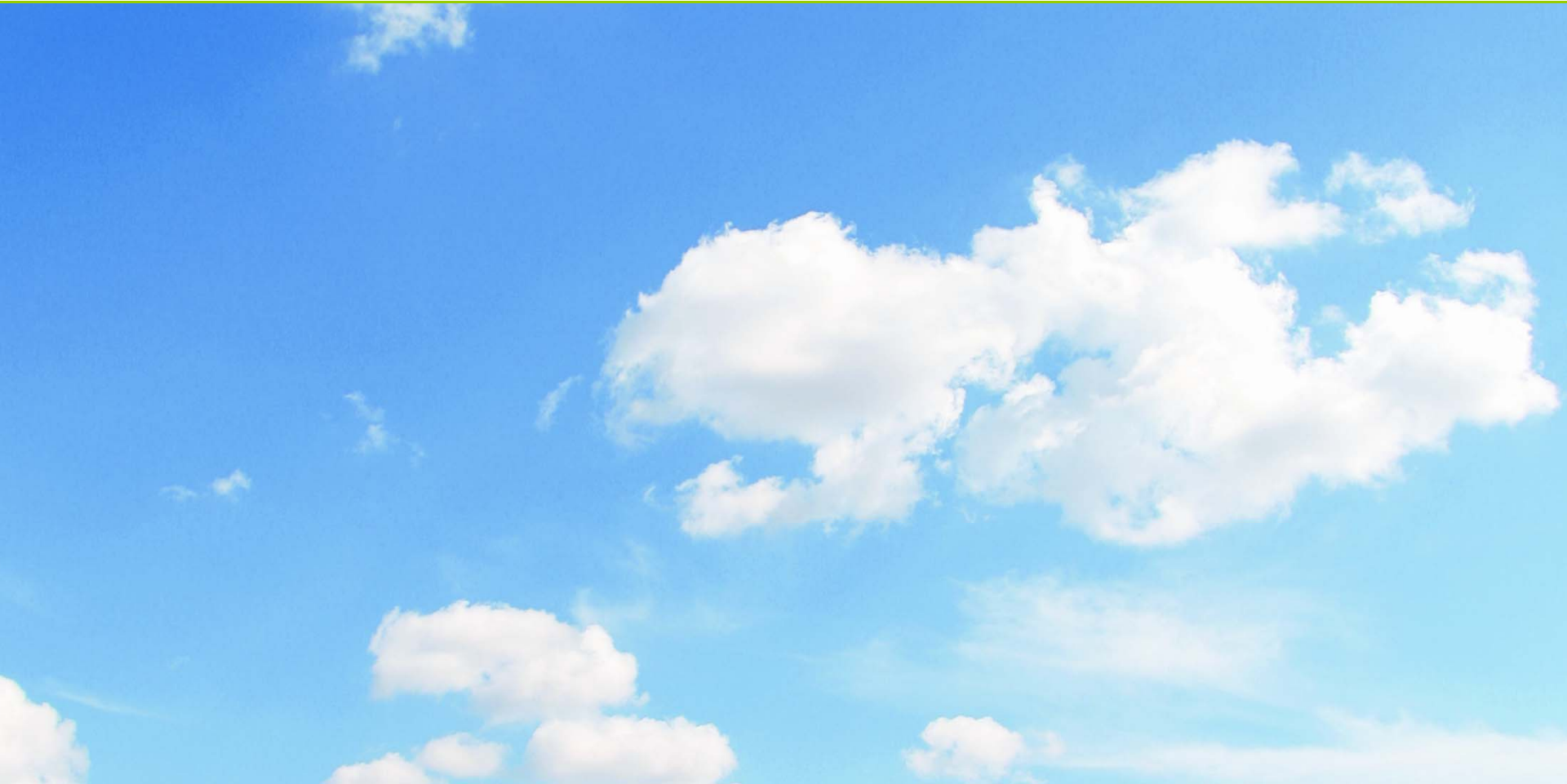


## LEED - Base Buildings: New Construction and Core & Shell



Ms. Tove Anderson, AIA, LEED®AP  
Hickok Cole Architects



## Two Sites - One Common Theme



### **1050 K Street**

143,000 sf  
Downtown Washington, DC  
LEED Gold

Developed by Lenkin Company  
& The Tower Companies



### **Commonwealth Centre, Building 2**

165,000 sf  
Fairfax, Virginia  
LEED Silver

Developed by BPG Development Company

## **Green? LEED Gold? Sounds Like Money.**

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Location and stormwater management

Roofs, orientation and energy efficiency

Base building decisions affect interior choices

Nothing operates in isolation





## Location, Location, Location



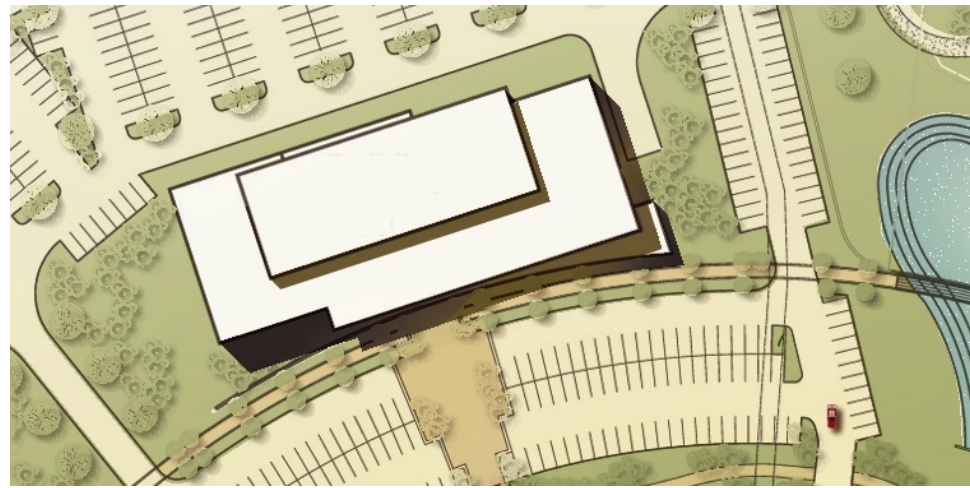
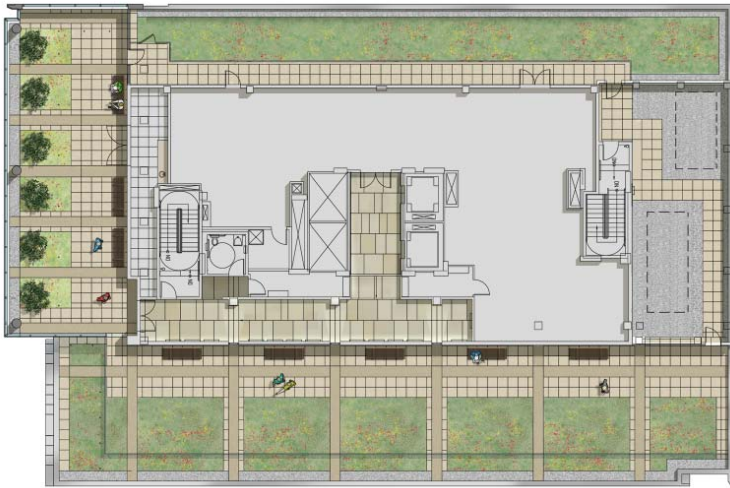
▲  
**Commonwealth Centre**  
97.60 acre complex, 7.54 acre lot  
grass swales, decentralized storm drainage system, bioretention ponds

**1050 K Street**  
50' setback, 0.31 acre lot  
bioretention plantings, cistern  
◀



sketches by Timmons Group

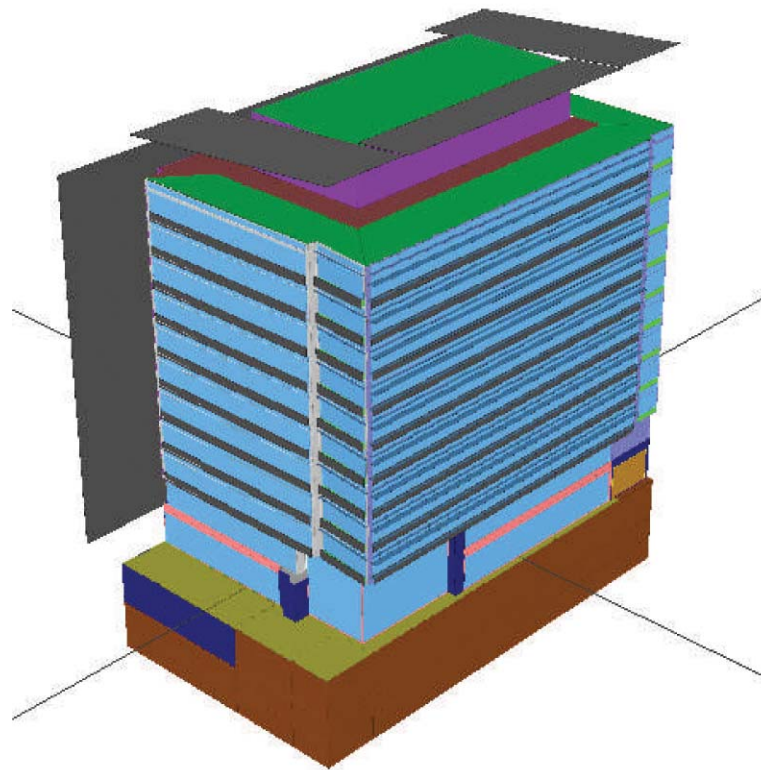
## The Roof, The Roof, The Roof is On Fire



- Heat island effect
- Alternatives:
  - Reflective roof
  - Green roof
- Cost factors
- Amenity base



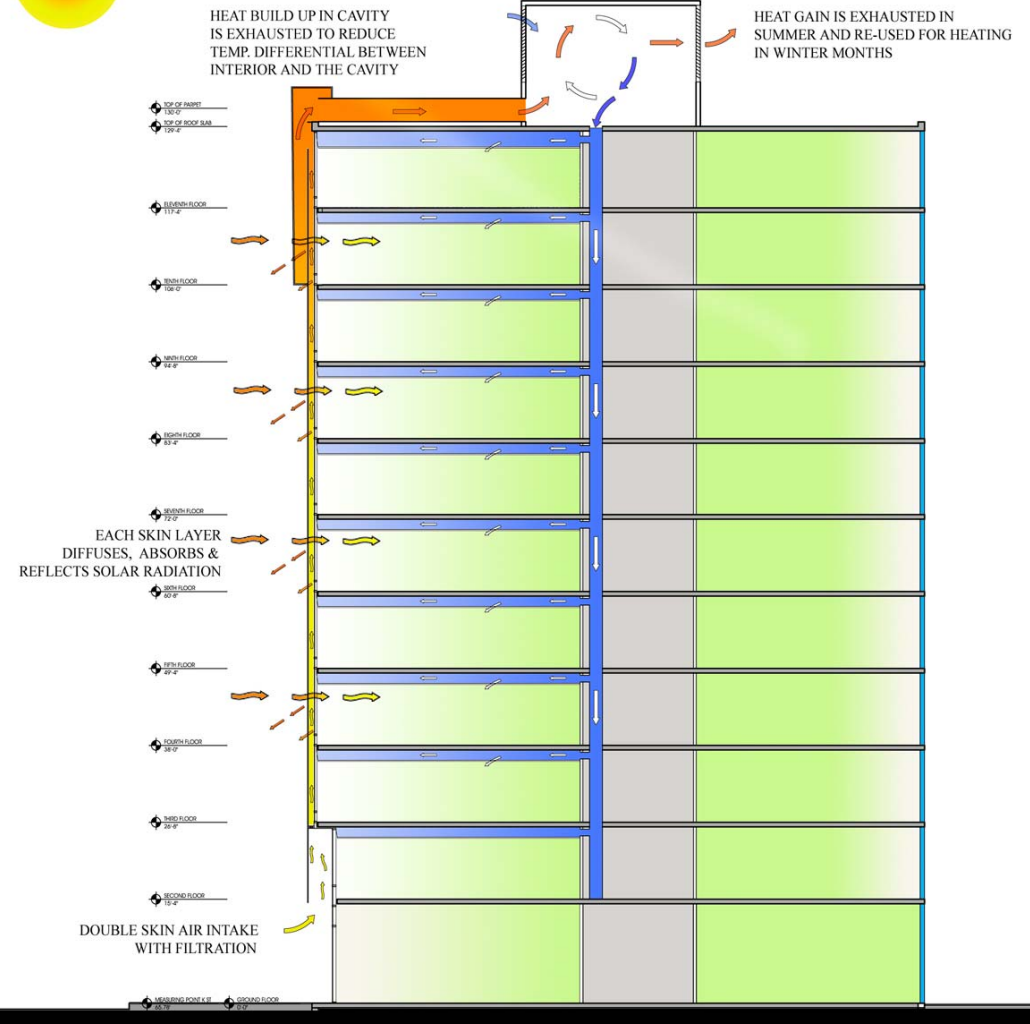
## America's Next Top Model



Color Legend	
Undgrd wall-C	
Belgrd Slab-C	
Retail Slab-C	
Storefront Wall 03-C	
Conc. Wall-C	
Floor slab-C	
Panel wall-C	
N. curtain wall Frame-C	
W. curtain wall Frame-C	
ballast roof-C	
Green Roof-C	
Air-wall-C	
Metal roll-up door	
Core wall-C	
Ceiling tile	
ASHRAE metal Ewall-C	
ASHRAE 90.1 Glazing	
Viracon VE 1-2M	
Sill with ceramic frit	

## Model Rendering: Northwest

Energy model provided by EMO Energy Solutions



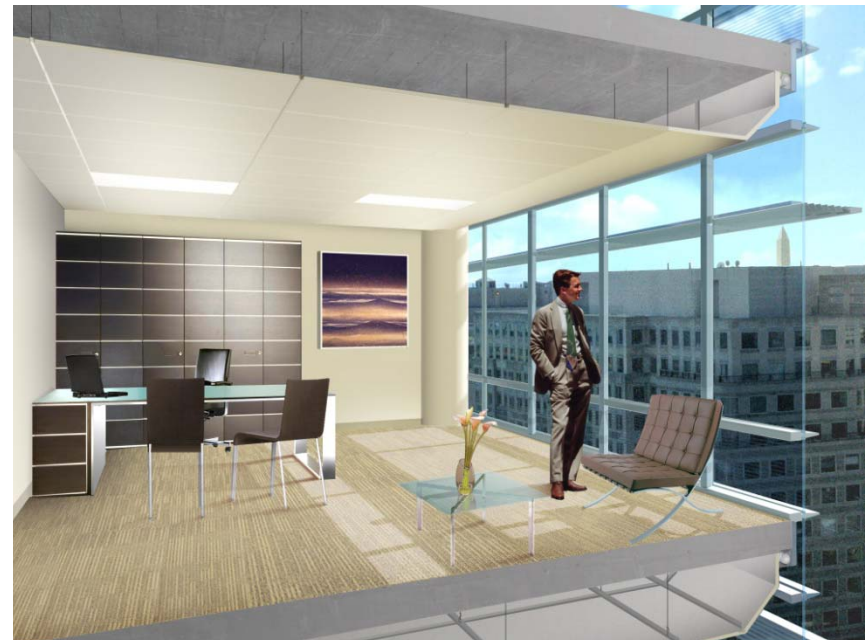
# To Dirty the Air is Human

Indoor environmental quality

90% of people's time is spent indoors

Strategies to improve built environment

- Daylighting
- Views to outdoors
- High end filters
- Low VOC materials
- Controllability of building systems





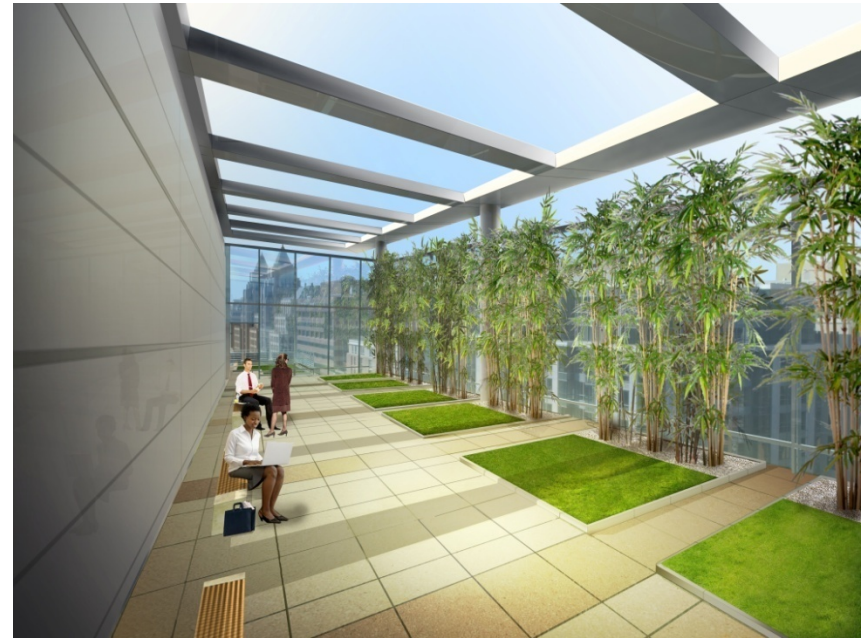
# Synergies

Multiple benefits from one tool:

Building skin  
Lighting selection  
Daylighting  
Green roof



**Mechanical equipment**



**Green roof**



Reduced heat island  
Stormwater management

## **Green:** It's Better than Yellow and Blue Put Together

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Cost

Marketability

Social responsibility

