

# ASTM International's Green Roof Activities

An Update as of 31 Oct 06

(presented as an US EPA teleconference)

Michael F Gibbons, FCSI, CCPR

Chairman - ASTM Green Roof Task Group

# ASTM's ORGANIZATION

- Task Group
- Subcommittee
- Main Committee
- Diversity & Inclusion is Important

# The Beginning

- 2000 - task group organized (E06.71.07)
- Under Subcommittee E06 - Building Sustainability
- 25 members: architects, scientists, roofing contractors, manufacturers, academicians

# Current Technology

Plants

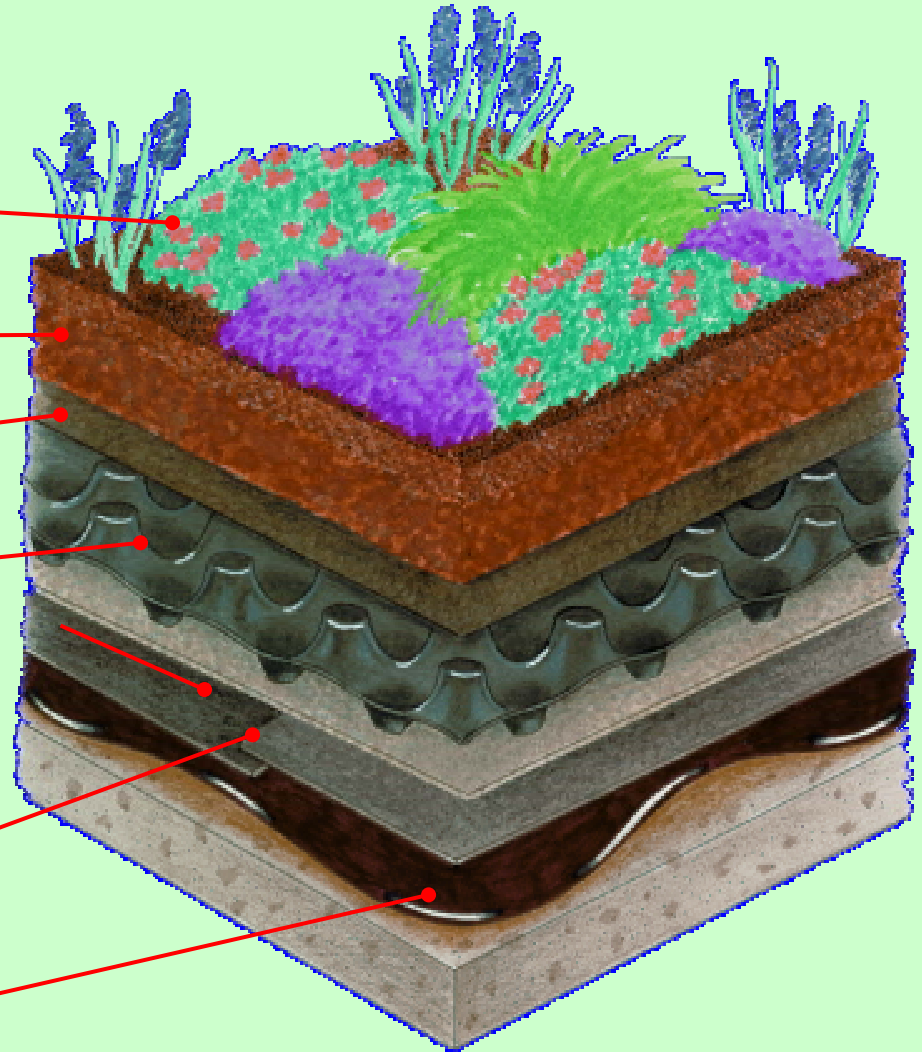
Lightweight soil

Filter fabric

Water drainage/  
retention &  
aeration layer(s)

Root barrier/protection

Quality waterproofing



# The Challenges

- Design - what do you include?
- Intensive vs Extensive
- Membrane
- Root Barrier
- Drainage & Water Retention

# The Challenges (cont.)

- Insulation
- Filter Fabric
- Growing Media
- Plants
- Irrigation

# The Beginning (cont.)

- Used German FLL as an outline & guide
- “Divide and Conquer”
- Smaller pieces make it easier to get consensus

# CONSENSUS ORGANIZATION

(therefore compromise)

- All standards are balloted at three levels:
- Task Group
- Subcommittee
- Main Committee



# VOTING

- Every valid negative vote must be adjudicated at each level:
  - withdrawn
  - voted non-persuasive
  - suggested changes incorporated

# ASTM = COMPROMISE

- Every valid negative vote must be adjudicated at each level:
  - withdrawn
  - voted non-persuasive
  - suggested changes incorporated
- THEREFORE, APPROACH THEM AS MINIMUM REQUIREMENTS

After each proposed standard has  
been approved at all levels:

- Submitted to ASTM staff
- Accepted by staff & legal
- Published (usually 3 - 6 months later)

# Current Standard Available from ASTM

**E2396-05** Standard Test Method for Saturated  
Water permeability of Granular Drainage Media  
[Falling-Head Method] for Green Roof Systems

All current standards are available for purchase from:

[astm.org](http://astm.org)

# Current Standard Available from ASTM

E2397-05 Standard Practice for Determination  
of Dead Loads and Live Loads Associated with  
Green Roof Systems

# Current Standard Available from ASTM

**E2398-05** Standard Test Method for Water  
Capture and Media Retention of Geocomposite  
Drain Layers for Green Roof Systems

# Current Standard Available from ASTM

**E2399-05** Standard Test Method for Maximum  
Media Density for Dead Load Analysis of Green  
Roof Systems

# Current Standard Available from ASTM

**E2400-06** Standard Guide for Selection,  
Installation, and Maintenance of Plants for Green  
Roof Systems



# Proposed Standards under development (5) New

WK4236 Practice for Assessment of  
Green Roofs

# Proposed Standards under development (5) New

**WK7319** Guide for Use of Expanded Shale,  
Clay or Slate (ESCS) as a mineral component  
in Growing Media for Green Roof Systems

# Proposed Standards under development

The balance of our work is on revisions to the existing standards cited earlier

I invite you to join my group:

**E06.71.07 Green Roof  
Systems**

next meeting: 15 April 2007 in Norfolk, VA

**Michael F. Gibbons, FCSI, CCPR**  
**Chairman - ASTM Green Roof Task**  
**Group**

**President:**

**Architectural Systems, Inc.**

**4470 Spring Valley Road**

**Dallas, TX 75244**

**voice: 972-960-8726**

**[archsyst1@aol.com](mailto:archsyst1@aol.com)**

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[archsyst1@aol.com](mailto:archsyst1@aol.com)