

"BLU – SOLAR"

Systems 5000: Solar Applications

Integrated Solar-Green-Roof



URBANSTRONG

Integrated Solar-Green/Blue-Roofs Maximize Your Roof's Potential

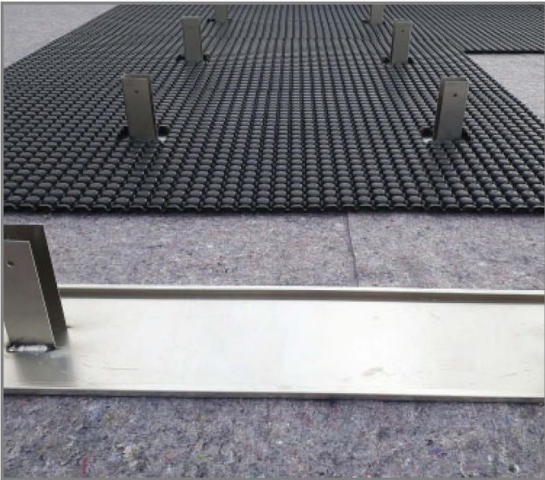
Enjoy all these benefits simultaneously in the same footprint:

- Retains stormwater to reduce need for cistern retention tanks
- Boosts ESG score
- Ballasted system, rated for NYC wind-uplift, no membrane penetrations
- Protects membrane to add 40+ years of lifespan
- Improves thermal and acoustical insulation
- Elevates quality of life with garden amenity space
- Raise property values and lease rates
- Earns 35+ LEED credits
- Air-cooling vegetation boosts solar electricity output 6-12%
- Eligible for both solar and green roof incentives

Compliance with:

- NYC LL92/94 'Sustainable Roofing Zone'
- NYC LL97 Energy Efficiency
- NYC-DEP Unified Stormwater Rule



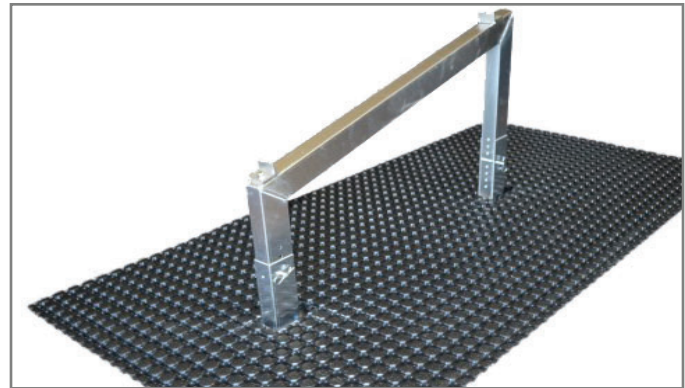




BLU-SOLAR INTEGRATED MOUNTING SYSTEM

Our Solar Integrated Mounting System consists of a drainage board, base plate, mounting frame, mounting rails, wind bracing, and clamps for securing solar modules angled at 10°, 15°, or 20° within vegetated roof systems without penetrating the waterproofing membrane. Specific to this product, it:

- is a semi-rigid waffled plastic sheet that **retains water within pockets** on the upper side, making water available to vegetation
- channels surplus water through its **bottom-sided canal system** for secure drainage
- **increases output** and prolongs the life of the photovoltaic system, when in conjunction with a vegetated roof system
- is available in inclines of **10°, 15°, or 20°**



Solar FKD Mounting Frame by



LEED Credits available for:
• Materials & Resources (MR)



• Special order product



• Individual Unit
• Full Pallet
• Full Load



• According to size of order

TECHNICAL DATA

Materials:

- Recycled HDPE (Board) & Aluminum (Frame)

Board Thickness:

- 0.98"

Board Dimensions (W x L):

- 3' 3 3/8" x 6' 6 3/4"

Board Area:

- 21.52 ft²

Board & Mounting Frame Weight:

- 9.26 lbs.

Board Compressive Strength:

- 29.00 lbs. / in² (unfilled)
- 25.38 lbs. / in² (filled)

Water Holding Capacity:

- 0.20 in³ / in² (0.122 gal / ft²)

Drainage Performance (fully saturated):

- at 2% Slope = 26.22 in³ / ft / sec

Vegetated Roofing Use:

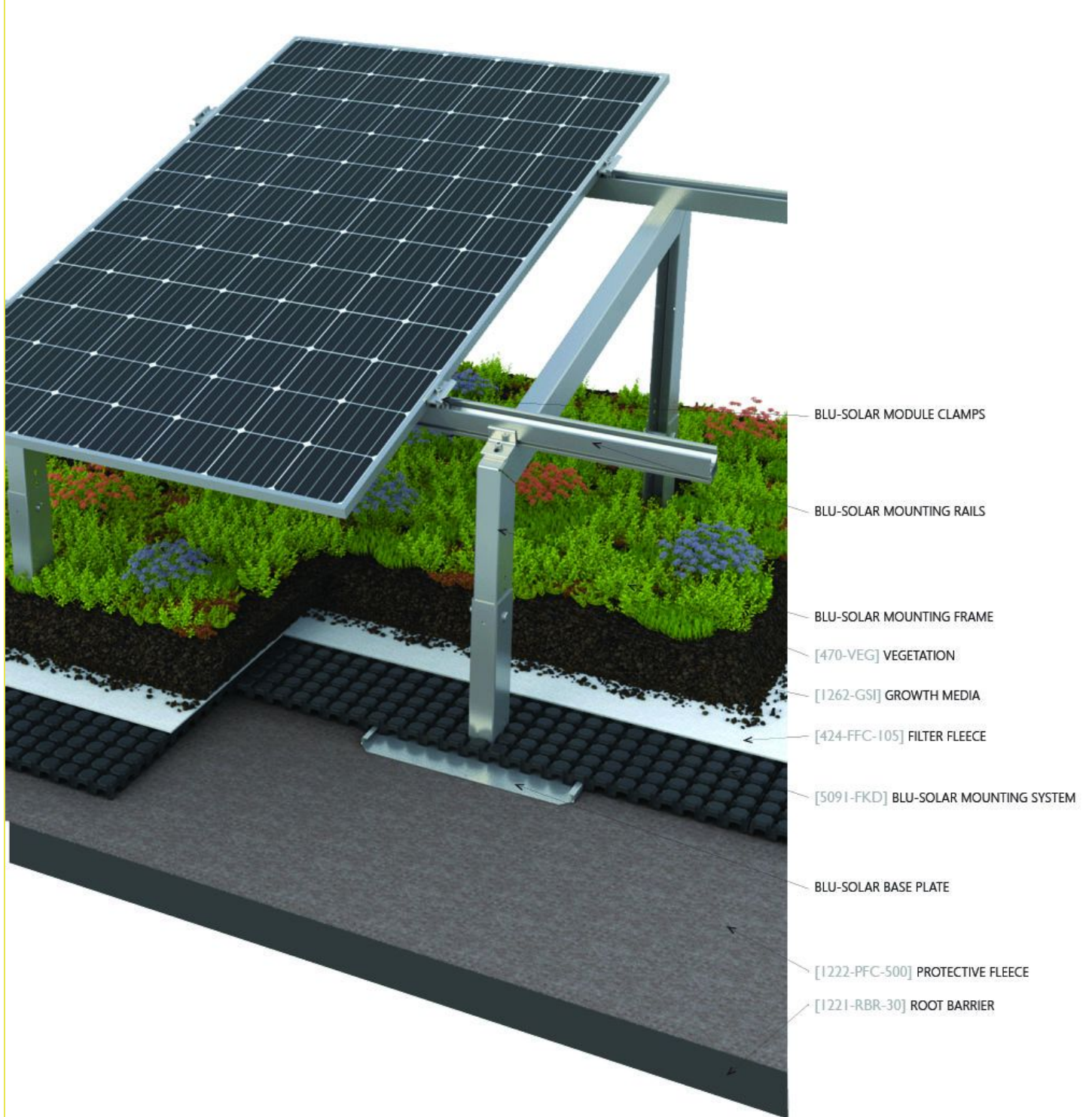
- Provides a non-penetrating solution for supporting PV modules.

Installation Requirements:

- Set base plates on protective fleece and place drainage boards above
- Roll out filter fleece over drainage boards
- Fasten aluminum rails to mounting frame
- Cover boards with overburden immediately to protect from UV rays & wind uplift



Blu-Solar System - with Standard Stormwater Retention

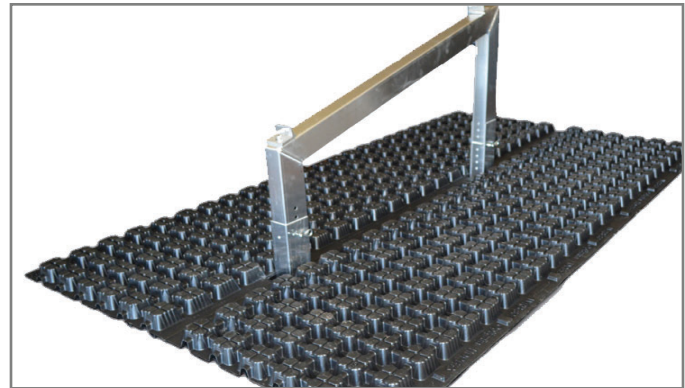




BLU-SOLAR INTEGRATED MOUNTING SYSTEM WITH RETENTION

Our Solar Integrated Mounting System consists of a drainage board, base plate, mounting frame, mounting rails, wind bracing, and clamps for securing solar modules angled at 10°, 15°, or 20° within vegetated roof systems without penetrating the waterproofing membrane. Specific to this product, it:

- is a lightweight, sub-surface **multifunctional drainage module** used with extensive greenroofs with sedum, herb, grass, and perennial vegetation
- has **90% internal void volume** that allows for a large water retention capacity
- **increases output** and prolongs the life of the photovoltaic system, when in conjunction with a vegetated roof system
- is available in inclines of **10°, 15°, or 20°**



Solar WRB Mounting Frame by



LEED Credits available for:
• Materials & Resources (MR)



• Special order product



• Individual Unit
• Full Pallet
• Full Load



• According to size of order

TECHNICAL DATA

Materials:

- Recycled HDPE (Board) & Aluminum (Frame)

Board Thickness:

- 3.15"

Board Dimensions (W x L):

- 1' 9 21/32" x 6' 5 21/64"

Board Area:

- 11.63 ft²

Board & Mounting Frame Weight:

- 9.70 lbs.

Board Compressive Strength:

- 14.5 lbs. / in²

Water Holding Capacity:

- 2.84 in³ / in² (1.77 gal / ft²)

Vegetated Roofing Use:

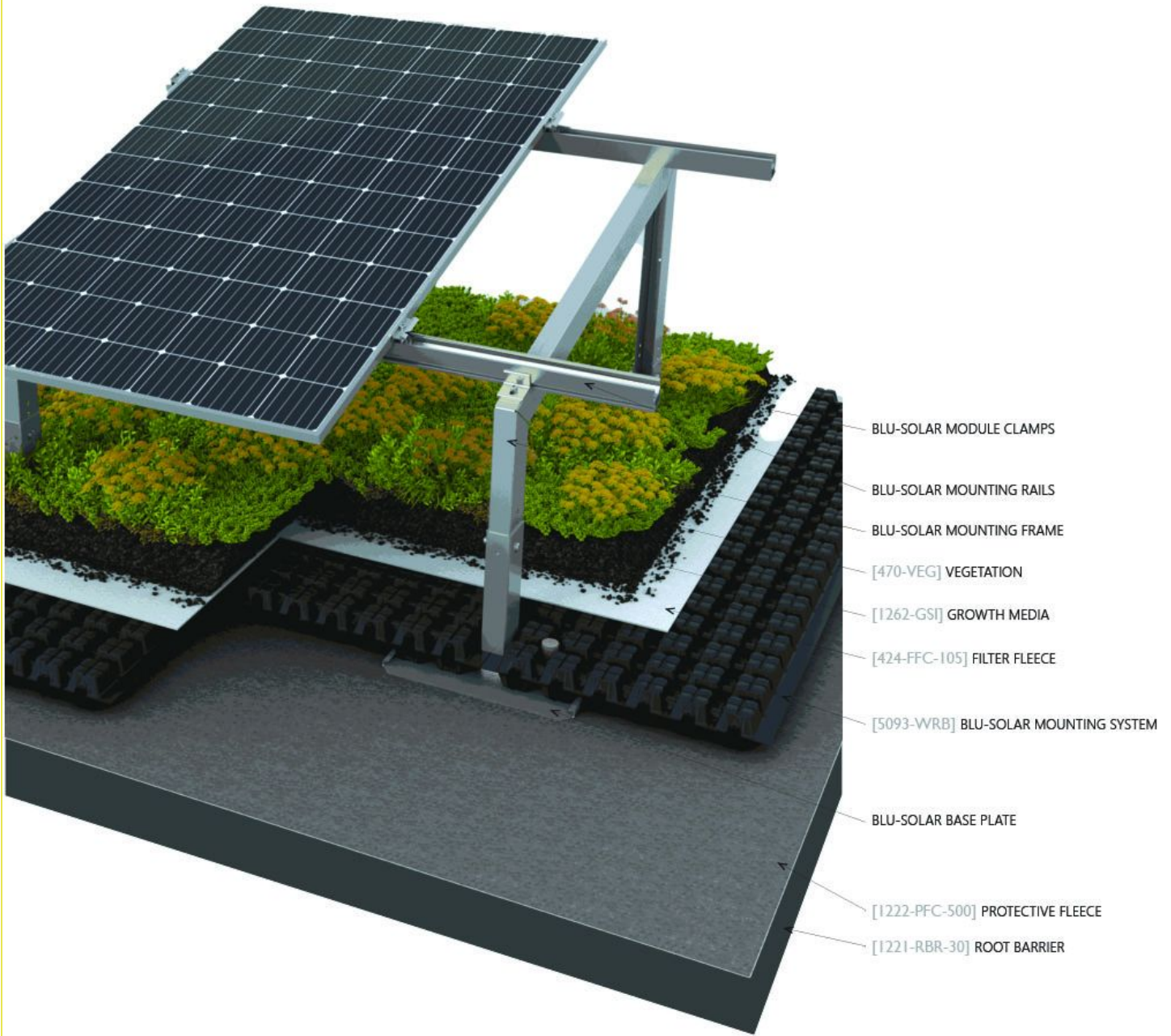
- Provides a non-penetrating solution for supporting PV modules and stormwater discharge delay

Installation Requirements:

- Set base plates on protective fleece and place drainage boards above
- Roll out filter fleece over drainage boards
- Fasten aluminum rails to mounting frame
- Cover boards with overburden immediately to protect from UV rays & wind uplift



Blu-Solar System - with Advanced Stormwater Retention



Urbanstrong offers the following services for help with your Solar-Integrated-Green Roof project:

- Plan view layout of integrated solar-green-roof racking components and panels
- Roofing system assembly drawings for all elements above the membrane
- Detail drawings for green roofing terminations at penetrations, roof drains, bulkheads, parapets, etc.
- Estimates on material cost
- Written specifications for proposed materials
- Technical Product Data Sheets for all proposed materials (incl. dimensions, weights, and fully-saturated water holding capacities to be used in stormwater retention, structural loading and wind-uplift/ballast calculations)
- Suggested options for vegetation species
- Solar study report with estimated monthly & annual electricity production
- Consulting on applicable grants, financial incentives and local laws



URBANSTRONG

Urbanstrong works with developers, property managers, and building owners looking to boost property values, reduce energy expenditures, improve occupant health and wellness, reinvest in their building assets, reduce their environmental footprint, and green their brand.

Urbanstrong offers consulting, financing, and design-build-maintenance services for living walls and several rooftop development solutions including vegetative, stormwater, solar, amenity decks or farming.

Contact us today!