USGBC LEED Rating System

How Each Invisible Structures, Inc. Product Can be Used for Different Credits

MPR = Minimum Project Requirements
WE= Water Efficiency
SS = Sustainable Sites
MR = Materials and Resources
Grasspave2

**Grasspave2**

**MPR #1: Must Comply with Environmental Laws**

Use of Grasspave2 can help sites comply with NPDES Phase 2 Regulations regarding the amount of stormwater off-site post development. The porous pavement will allow a greater percentage of water to infiltrate on-site reducing the calculated post-development flow rate.

- **SS Credit 5.1: Site Development - Protect or Restore Habitat (1 Point):**
  
  To conserve existing natural areas and restore damaged areas to provide habitat and promote biodiversity.
  
  o Case 1: use of Grasspave2 extends the boundary of allowable site disturbance from 10 feet to 25 feet, allowing for more room to work during construction.
  
  o Case 2:
    
    - Installing Grasspave2 in areas previously developed with asphalt or concrete, and seeding with native plants, would contribute to the percent of area restored.
    
    - Installing Grasspave2 on a vegetated roof and seeding it with native plants would contribute to the percent area restored if the site were also earning **SS Credit 2: Development Density and Community Connectivity.**

- **SS Credit 5.2: Site Development - Maximize Open Space (1 Point):**
  
  To promote biodiversity by providing a high ratio of open space to development footprint.
  
  o For All 3 Cases:
    
    - Using Grasspave2 as a parking area, fire lane, grass drive, or similar will count toward the vegetated open space necessary to achieve this credit.
    
    - Installing Grasspave2 on a vegetated roof would contribute to the percent area vegetated if the site were also earning **SS Credit 2: Development Density and Community Connectivity.**

- **SS Credit 6.1: Stormwater Design - Quantity Control (1 Point):**
To limit disruption of natural hydrology by reducing impervious cover, increasing on-site infiltration, reducing or eliminating pollution from stormwater runoff and eliminating contaminants.

  o All Cases:
    • Using Grasspave2 as a parking area, fire lane, grass drive, or similar will minimize the impervious surface on-site and increase infiltration. Using Grasspave2 on a vegetated roof will minimize impervious surface on-site.

  • SS Credit 6.2: Stormwater Design - Quality Control (1 Point):

To limit disruption and pollution of natural water flows by managing stormwater runoff.

  o All Cases:
    • Using Grasspave2 minimizes impervious surfaces, increases infiltration, and reduces pollutant loads.
    • Using Grasspave2 on a vegetated roof will minimize impervious surface on-site.

  • SS Credit 7.1: Heat Island Effect - Nonroof (1 Point)

To reduce heat islands to minimize impacts on microclimates and human and wildlife habitats.

  o Option 1:
    • Use of Grasspave2 will qualify as "open grid pavements system" and can be computed toward area calculation

  o Option 2:
    • Grasspave2 can be used on a vegetated roof to cover a parking area to reduce heat absorption.

  • SS Credit 7.2: Heat Island Effect - Roof (1 Point)

To reduce heat islands to minimize impacts on microclimates and human and wildlife habitat.

  o Option 2 and 3:
    • Grasspave2 can be used on a vegetated roof to reduce heat absorption.

  • WE Credit 1: Water Efficient Landscaping (2-4 Points)

To limit or eliminate the use of potable water or other natural surface or subsurface water resources available on or near the project site for landscape
irrigation.
  o For Both Options: Option 1. Reduce by 50% (2 Points) or Option 2. Non-Potable Water Use or Irrigation (4 Points).
    • Grasspave2 can be used on a vegetated roof to collect stormwater and convey it to Rainstore3 or similar device to store for irrigation use.

• MR Credit 4: Recycled Content (1 Point)

To increase demand for building products that incorporate recycled content materials, thereby reducing impacts resulting from extraction and processing of virgin materials.
  o Grasspave2 counts as 100% Pre-consumer Recycled Material

• MR Credit 5: Regional Materials (0-2 Points)

To increase demand for building materials and products that are extracted and manufactured within the region, thereby supporting the use of indigenous resources and reducing the environmental impacts resulting from transportation.
  o Grasspave2 can qualify as long as the project is within 500 miles of Aurora, CO.

**Gravelpave2**

• MPR #1 Must Comply with Environmental Laws

Use of Gravelpave 2 can help a site comply with NPDES Phase 2 regulations regarding the amount of stormwater allowed off site post-development.
  o The porous pavement will allow a greater percentage of water to infiltrate on-site reducing the calculated post-development flow rate.

• SS Credit 5.1: Site Development - Protect or Restore Habitat (1 Point)

To conserve existing natural areas and restore damaged areas to provide habitat and promote biodiversity.
  o Case 1: Use of extends the boundary of allowable site disturbance from 10 feet to 25 feet, allowing for more room to work construction.

• SS Credit 6.1: Stormwater Design - Quantity Control (1 Point)

To limit disruption of natural hydrology by reducing impervious cover, increasing on-site infiltration, reducing or eliminating pollution from stormwater runoff and eliminating contaminants.
  o All Cases:
    • Using Gravelpave2 as a parking area, fire lane, or similar will
minimize the impervious surface on-site and increase infiltration.

• **SS Credit 6.2: Stormwater Design - Quality Control (1 Point)**

To limit disruption and pollution of natural water flows by managing stormwater runoff.
  o All Cases:
    • Using Gravelpave2 minimizes impervious surfaces, increases infiltration, and reduces pollutant loads.

• **SS Credit 7.1: Heat Island Effect (Non-Roof)**

To reduce heat islands to minimize impacts on microclimates and human and wildlife habitats.
  o Option 1:
    • Use of Gravelpave 2 will qualify when filled with gravel material with an SRI of at least 29.

• **MR Credit 4: Recycled Content 0-2 Points)**

To increase demand for building products that incorporate recycled content materials, thereby reducing impacts resulting from extraction and processing of virgin materials.
  o Gravelpave2 counts as 100% Pre-consumer Recycled Material

• **MR Credit 5: Regional Materials (1-2 Points)**

To increase demand for building materials and products that are extracted and manufactured within the region, thereby supporting the use of indigenous resources and reducing the environmental impacts resulting from transportation.
  o Gravelpave2 can qualify as long as the project is within 500 miles of Aurora, CO.

**Draincore2**

• **MPR #1: Must Comply with Environmental Laws**

Use of Draincore2 can help a site comply with NPDES Phase 2 regulations regarding the amount of stormwater allowed off site post-development.
  o Collecting and conveying water elsewhere for irrigation purposes with Draincore2 will reduce post-development flow rate.

• **SS Credit 5.1: Site Development Protect or Restore Habitat (1 Point)**
To conserve existing natural areas and restore damaged areas to provide habitat and promote biodiversity.

   o   Case 2:
       ■ Installing Draincore2 on a vegetated roof and seeding it with native plants would contribute to the percentage area restored if the site were also earning **SS Credit 2: Development Density and Community Connectivity**.

**SS Credit 5.2: Site Development - Maximize Open Space (1 Point)**

To promote biodiversity by providing a high ratio of open space to development footprint.

   o   For All 3 Cases:
       ■ Installing Draincore2 on a vegetated roof would contribute to the percent area vegetated if the site were also earning **SS Credit 2: Development Density and Community Connectivity**.

**SS Credit 6.1: Stormwater Design - Quantity Control (1 Point)**

To limit disruption of natural hydrology by reducing impervious cover, increasing on-site infiltration, reducing or eliminating pollution from stormwater runoff and eliminating contaminants.

   o   All Cases:
       ■ Using Draincore2 on a vegetated roof will minimize impervious surface on-site.

**SS Credit 6.2: Stormwater Design - Quality Control (1 Point)**

To limit disruption and pollution of natural water flows by managing stormwater runoff.

   o   All Cases:
       ■ Using Draincore2 on a vegetated roof will minimize impervious surface on-site.

**SS Credit 7.1: Heat Island Effect - Non-Roof – (1 Point)**

To reduce heat islands to minimize impact on microclimates and human and wildlife habitats.

   o   Option 2:
       ■ Draincore2 can be used on a vegetated roof to cover a parking area to reduce heat absorption.

**SS Credit 7.2: Heat Island Effect - Roof (1 Point)**

To reduce heat islands to minimize impact on microclimates and human and wildlife habitats.

   o   Option 2 and 3:
       • Draincore2 can be used on a vegetated roof to reduce heat
absorption.

- **WE Credit 1: Water Efficient Landscaping (2-4 Points)**

  To limit or eliminate the use of potable water or other natural surface or subsurface water resources available on or near the project site for landscape irrigation.

  - For Both Options: Option 1. Reduce by 50% (2 Points) or Option 2. Non-Potable Water Use or Irrigation (4 Points)
    - Draincore2 can be used on a vegetated roof to collect stormwater and convey it to Rainstore3 or similar device to store for irrigation use.

- **MR Credit 4: Recycled Content (1-2 Points)**

  To increase demand for building products that incorporate recycled content materials, thereby reducing impacts resulting from extraction and processing of virgin materials.

  - Draincore2 counts as 100% Pre-consumer Recycled Material.

- **MR Credit 5: Regional Materials (1-2 Points)**

  To increase demand for building materials and products that are extracted and manufactured within the region, thereby supporting the use of indigenous resources and reducing the environmental impacts resulting from transportation.

  - Draincore2 can qualify as long as the project is within 500 miles of Aurora, CO.

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**Rainstore3**

- **MPR #1: Must Comply with Environmental Laws**
  Use of Rainstore3 can help a site comply with NPDES Phase 2 regulations regarding the amount of stormwater allowed off site post-development.

  - Using Rainstore3 wrapped in a non-woven geotextile will allow collected stormwater to infiltrate back into the ground, thus reducing post development flow rate.
  - Using Rainstore3 wrapped in an impermeable liner will collect stormwater making it available for non-potable reuse, thus reducing non-potable posy development flow rate

- **SS Credit 5.1: Site Development - Protect or Restore Habitat (1 Point)**

  To conserve existing natural areas and restore damaged areas to provide habitat and promote biodiversity.

  - Case 1: use of Rainstore3 with permeable cover extends the boundary of
allowable site disturbance from 10 feet to 25 feet, allowing for more room to work during construction.

Case 2:
- Installing Rainstore3 in areas previously developed with asphalt or concrete, and seeding the system over with native plants, would contribute to the percent of area restored.

SS Credit 6.1: Stormwater Design – Quality Control (1 Point)

To limit disruption of natural hydrology by reducing impervious cover, increasing on-site infiltration, reducing or eliminating pollution from stormwater runoff and eliminating contaminants.

All Cases:
- Use of Rainstore3, when installed with an impermeable liner, allows for short or long-term underground water storage for non-potable uses.
- Use of Rainstore3, when installed with a non-woven geotextile, increases infiltration and groundwater recharge.

SS Credit 6.2: Stormwater Design - Quality Control (1 Point)

To limit disruption and pollution of natural water flows by managing stormwater runoff.

All Cases:
- Use of Rainstore3, when installed with an impermeable liner, allows for short or long-term underground water storage for non-potable uses.
- Use of Rainstore3, when installed with a non-woven geotextile, increases infiltration and groundwater recharge.

WE Prerequisite 1: Water Use Reduction (REQUIRED):

To increase water efficiency within buildings to reduce the burden on municipal water supply and wastewater systems.

Use of Rainstore3, when installed with an impermeable liner, allows for short or long-term underground water storage for non-potable water sewage conveyance.

WE Credit 1: Water Efficient Landscaping (2-4 Points)

To limit or eliminate the use of potable water or other natural surface or subsurface water resources available on or near the project site for landscape irrigation.

For Both Options: Option 1. Reduce by 50% (2 Points) or Option 2. Non-Potable Water Use or Irrigation (4 Points)
- Use of Rainstore3, when installed with an impermeable liner, allows for short or long-term underground water storage for irrigation use.

WE Credit 2: Innovative Wastewater Technologies (2 Points) To reduce wastewater generation and potable water demand while increasing the
local aquifer recharge.
  o Option 1:
    • Use of Rainstore3, when installed with an impermeable liner, allows for short or long-term underground water storage for non-potable water sewage conveyance.

  • WE Credit 3: Water Use Reduction: To further increase water efficiency within buildings to reduce the burden on municipal water supply and wastewater systems.
    o Use of Rainstore3, when installed with an impermeable liner, allows for short or long-term underground water storage for non-potable water sewage conveyance

  • MR Credit 4: Recycled Content 0-2 Points: To increase demand for building products that incorporate recycled content materials, thereby reducing impacts resulting from extraction and processing of virgin materials.
    o Rainstore3 counts as 100% Post-consumer Recycled Material

  • MR Credit 5: Regional Materials (1-2 Points): To increase demand for building materials and products that are extracted and manufactured within the region, thereby supporting the use of indigenous resources and reducing the environmental impacts resulting from transportation.
    o Rainstore3 can qualify as long as the project is within 500 miles of Aurora, CO

**Slopetame3**

  • MPR #1: Must Comply with Environmental Laws - use of Slopetame2 can help a site comply with NPDES Phase 2 regulations regarding the amount of stormwater allowed off-site post-development.
    o Slopetame2 can reduce erosion and soil migration, allow for biofiltration of stormwater runoff, and recharge the ground water reducing the post development flow rate.

  • SS Credit 5.1: Site Development - Protect or Restore Habitat (1 Point)

To conserve existing natural areas and restore damaged areas to provide habitat and promote biodiversity.
  o Case2:
    • Installing Slopetame2 in areas previously developed with asphalt or concrete, and seeding with native plants, would contribute to the percent of area restored.

  • SS Credit 5.2: Site Development - Maximize Open Space (1 Point)

To promote biodiversity by providing a high ratio of open space to development footprint.
  o For All 3 Cases:
    • Use of Slopetame2 will increase the vegetated open space necessary to achieve this credit.

  • SS Credit 6.1: Stormwater Design- Quantity Control (1 Point)
To limit disruption of natural hydrology by reducing impervious cover, increasing on-site infiltration, reducing or eliminating pollution from stormwater runoff and eliminating contaminants.
  • All Cases:
    • Use of Slopetame2 will protect stream channel from excessive erosion

**SS Credit 6.2: Stormwater Design - Quality Control (1 Point)**

To limit disruption and pollution of natural water flows by managing stormwater runoff.
  • All Cases:
    • Use of Slopetame2 can be used in vegetated swales to reduce imperviousness and promote infiltration and thereby reduce pollutant load.

**MR Credit 4: Recycled Content (1 Point)**

To increase demand for building products that incorporate recycled content materials, thereby reducing impacts resulting from extraction and processing of virgin materials.
  • Slopetame2 counts as 100% Pre-consumer Recycled Material

**MR Credit 5: Regional Materials 0-2 Points)**

To increase demand for building materials and products that are extracted and manufactured within the region, thereby supporting the use of indigenous resources and reducing the environmental impacts resulting from transportation.
  • Slopetame2 can qualify as long as the project is within 500 miles of Aurora, CO.

**Beachrings2**

**SS Credit 5.1: Site Development - Protect or Restore Habitat (1 Point)**

To conserve existing natural areas and restore damaged areas to provide habitat and promote biodiversity.
  • Case 1:
    • Use of Beachrings2 anywhere on site would not classify as site disturbance. Great for use as walkway or ADA accessible surface.
thereby supporting the use of indigenous resources and reducing the environmental impacts resulting from transportation.

- Beachrings2 can qualify as long as the project is within 500 miles of Aurora, CO.