





*Our work on the 303,000-square-foot "green" garage allowed us to create a captive growing space that supports climbing plants using greenscreen® wire trellis panels and a variety of flowering vines.*

*Project: New York Botanical Garden | Architect: Ennead Architects*

*Architect of Record and Engineer: DESMAN Design Services | General Contractor: E.W. Howell*

# A change of greenery.

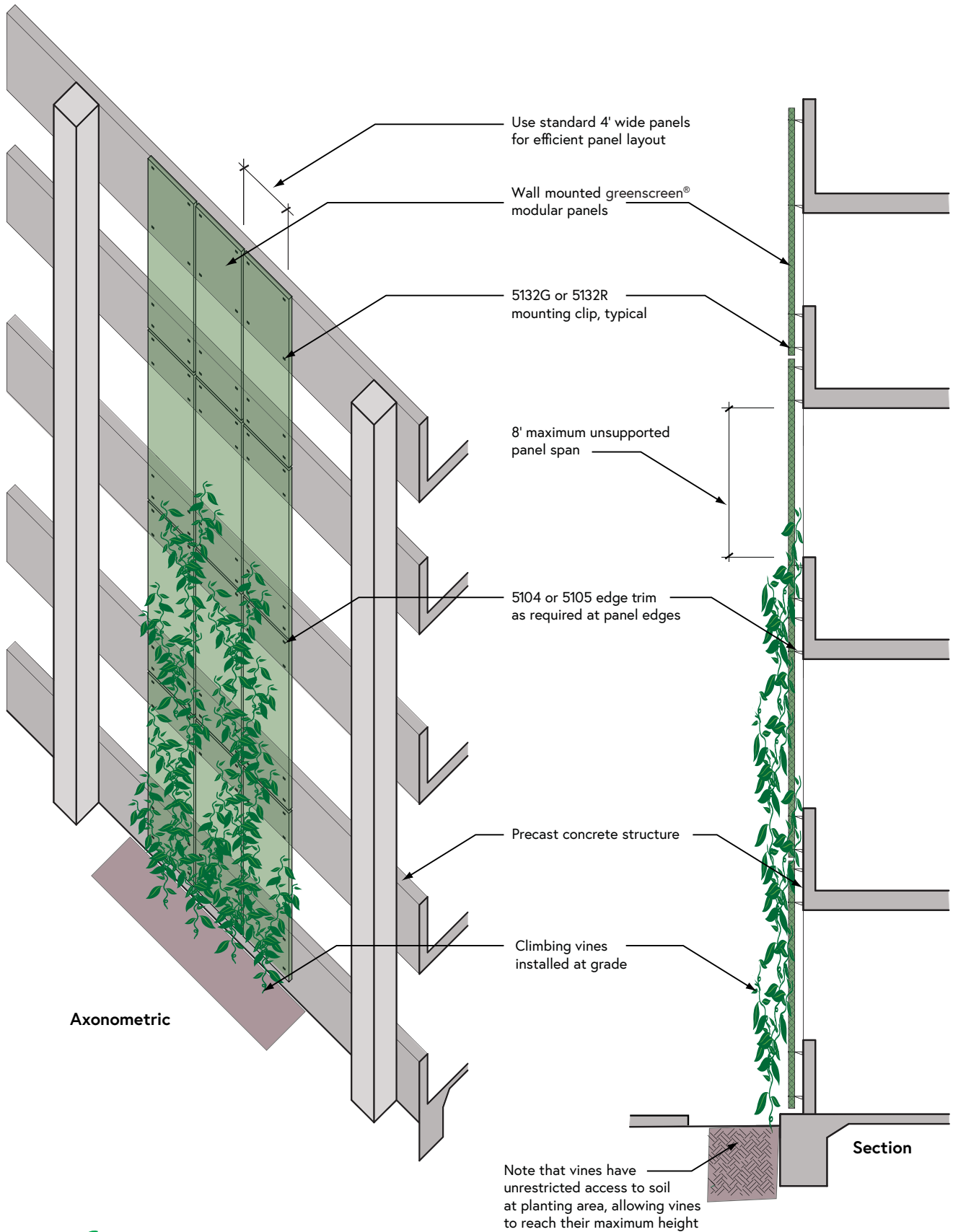
Parking structure design places an emphasis on the integration of functional, efficient, attractive and cost-effective solutions. The inclusion of sustainable products, such as greenscreen® modular panels, can be an important component in achieving these goals. The following pages illustrate six typical greenscreen® attachment details that have proven to be successful when incorporating green façades into parking structure design.

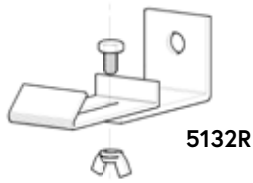
For more information related to your particular project, please give us a call at 800.450.3494 or visit our website at [greenscreen.com](http://greenscreen.com).



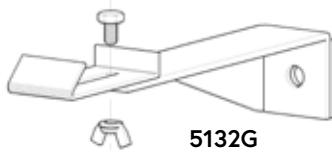
# Parking Structure Green Façade Details

## Wall Mounted

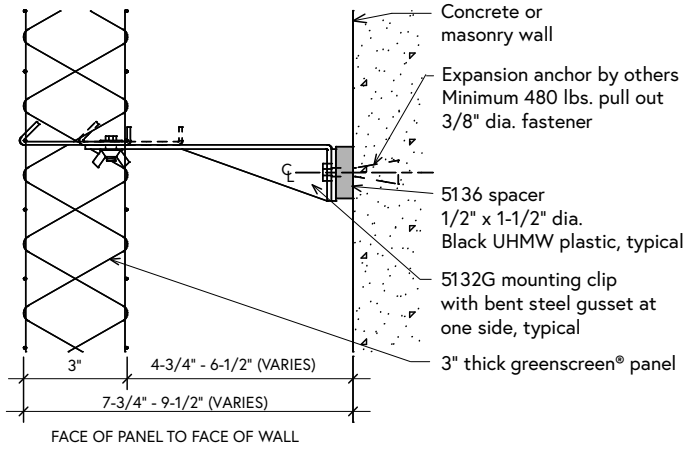




5132R



5132G



## ADJUSTABLE MOUNTING CLIPS

The 5132R and 5132G adjustable clips provide panel support for both download and uplift. The clips can mount to wall surfaces or to a steel frame. The sled with slot allows for panel adjustment and ease of installation.

### NOTES:

- Blade clips can also be used but allow for less flexibility in the field
- All precast mounting surfaces are typically in the same plane



Project: Fishers Place at Metro Center, Rockville, MD • Architect: HOK

# 1

## Parking Structure Green Façade Details Wall Mounted Project Examples



ABOVE:  
**HORIZON AT PLAYA VISTA**  
Los Angeles, CA

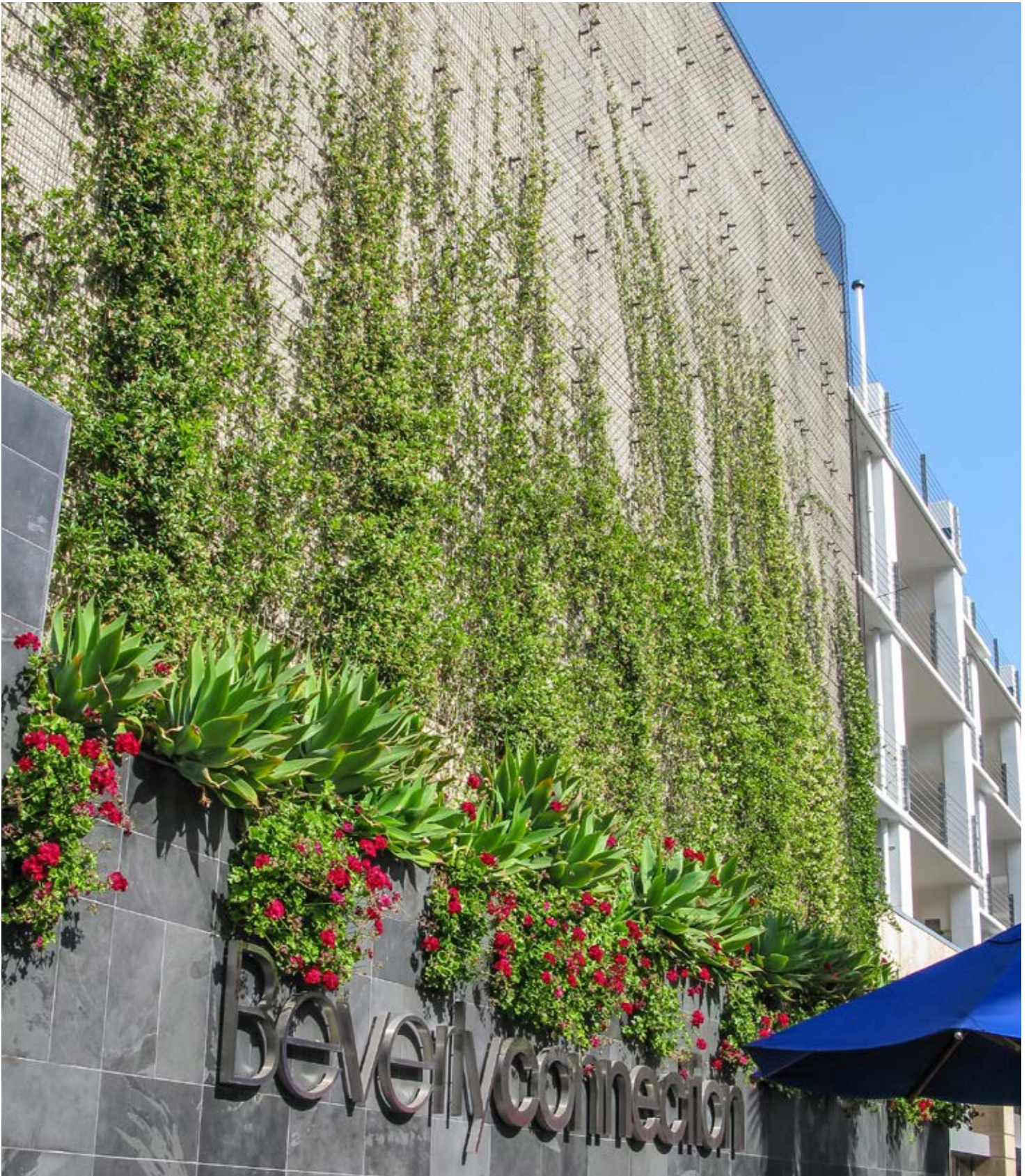
Wall mounted greenscreen® panels are used on the parking structure and store entries serving a multi-building office cluster.

*Architect: Johnson Fain/HKS  
Contractor: Morley Builders  
Installer: BAPKO Metal, Inc.*

OPPOSITE PAGE:  
**BEVERLY CONNECTION**  
Los Angeles, CA

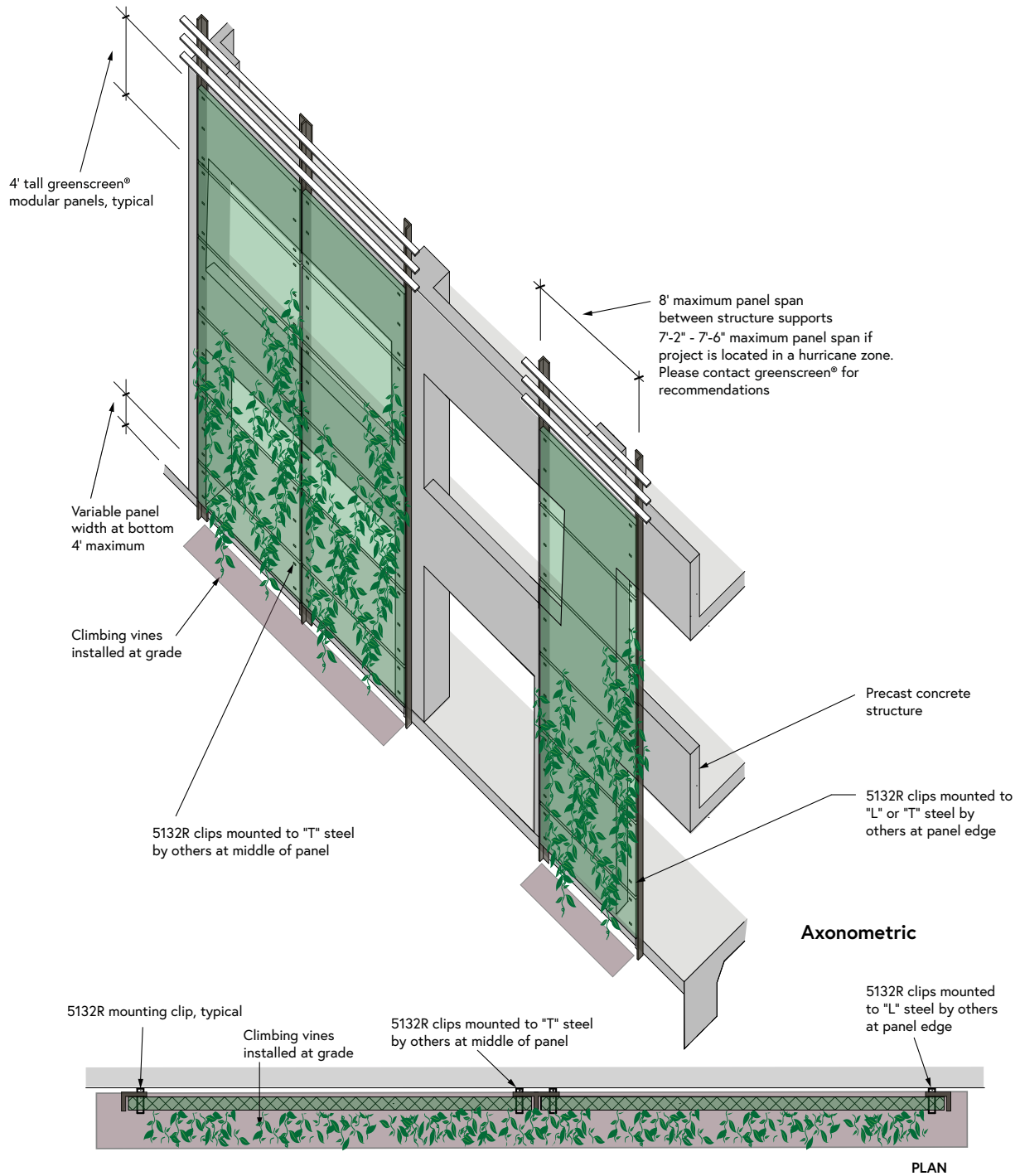
A parking structure is enhanced with a greenscreen® green façade. Modular panels are wall mounted and vines grow from above grade planters.

*Architect: Gensler  
Contractor: Shakman Construction Company*



## Parking Structure Green Façade Details

### "T" & "L" Support Steel



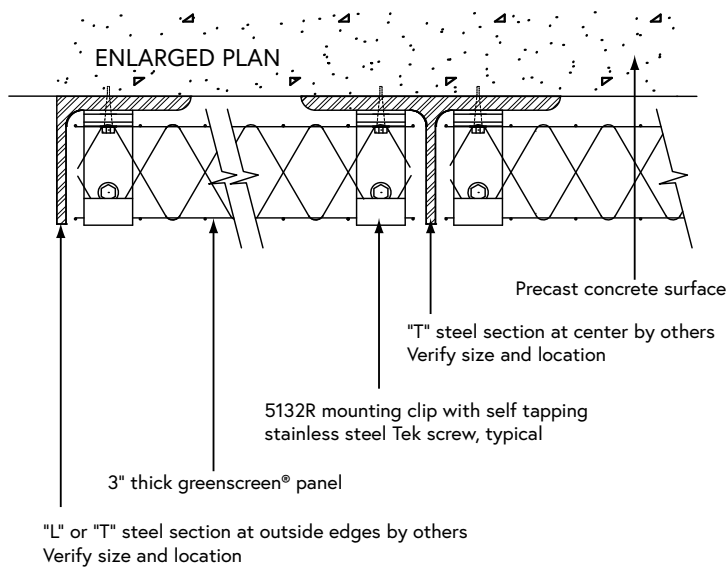
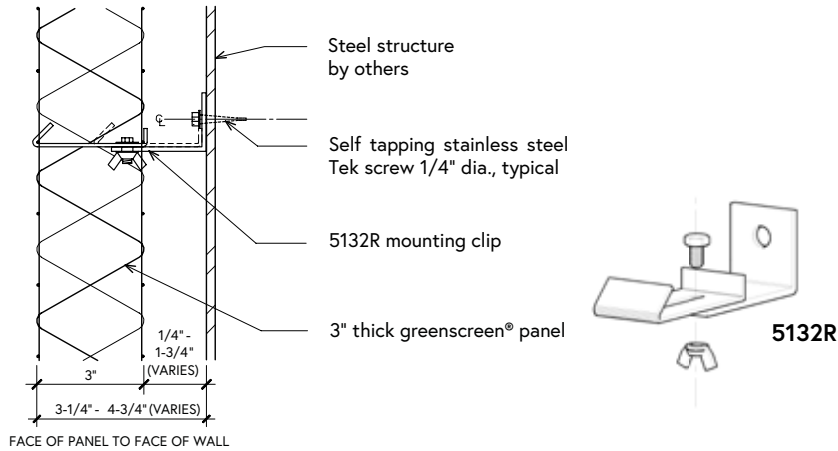


## 5132R CLIP MOUNTED TO VERTICAL STEEL BY OTHERS

The 5132R clip provides panel support for both download and uplift. The clip can mount to wall surfaces or to a steel frame.

### NOTES:

- 4' tall greenscreen® panels mounted horizontally to steel "L" and "T" sections
- 5132R used for attachment to steel support structure
- Steel "L" and "T" sections are sized, provided and installed by others
- No panel edge trim required for this layout; allows for maximum value engineering



Close-up of 5132R clip mounted to "T" steel by others with twining Honeysuckle Vine

# Parking Structure Green Façade Details

## "T" & "L" Support Steel Project Examples



ABOVE:

### **U.S. CENSUS BUREAU HQ**

Suitland, MD

greenscreen® panels with structural steel by others are used to create green façades for two large GSA parking structures.

*Architect: SOM/HKS Architects*

*Landscape Architect: Mahan Rykiel Assoc./EDAW*

*Contractor: Skanska USA Building Inc.*

*Installer: Manufab*

OPPOSITE PAGE:

### **HOUSTON MEMORIAL GARAGE**

Houston, TX

"T" steel frame provides structural support for greenscreen® panels. Note that the "T" steel is provided by others.

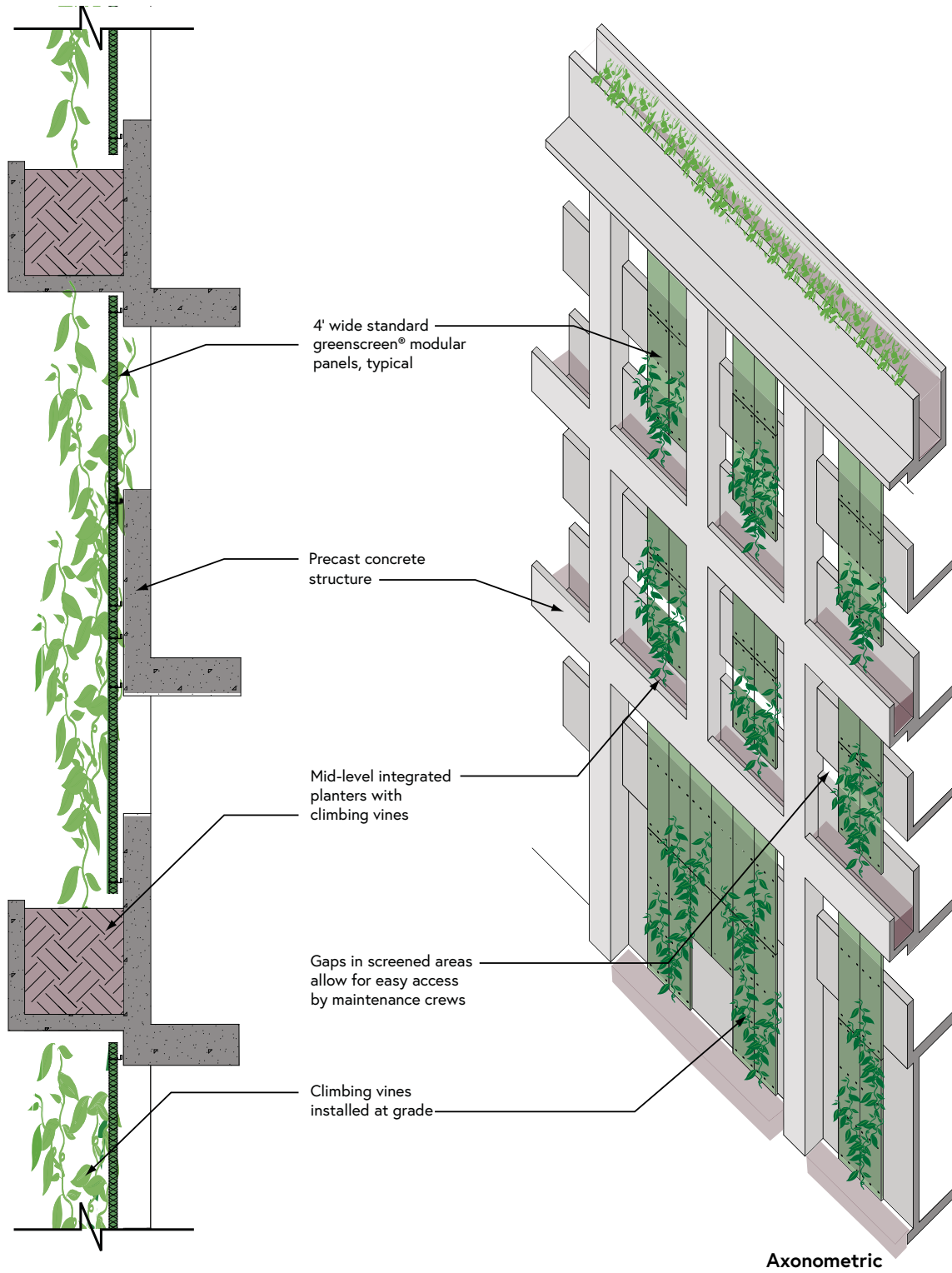
*Architect: Morris Architects*

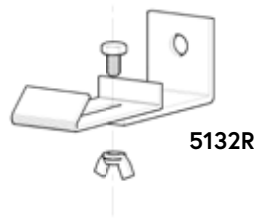
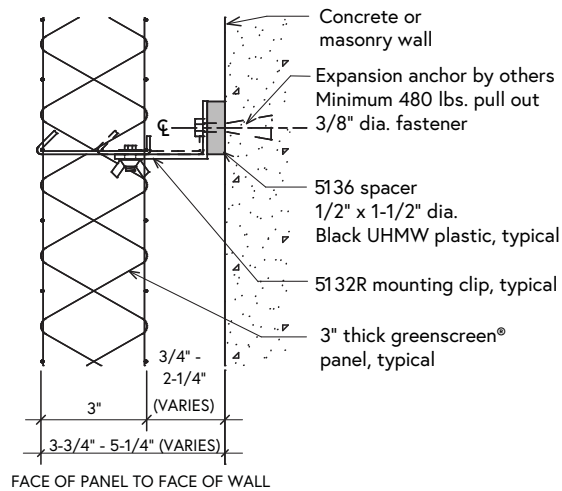
*Landscape Architect: MetroNational*

*Contractor: Multiple 2002-2014*



## Parking Structure Green Façade Details Integrated Planters





## ELEVATED PLANTER CONSIDERATIONS

When considering elevated planters, keep in mind the following for best results:

- Integrate planters into the design and structure of the façade from the beginning of the design process
- Allow for maintenance access from the interior of the garage
- Planter will require irrigation and drainage
- Vines will typically grow 3 to 5 times the depth of the soil. For a 2' deep planter, vines could be expected to grow 6' to 10' tall. For a 3' deep planter, vines could be expected to reach a height of 9' to 15'



Project: Seminole Casino Coconut Creek, FL • Architect: Friedmutter Group • Contractor: Moss Anderson

# 3

## Parking Structure Green Façade Details Integrated Planters Project Examples



ABOVE:  
**3RD STREET  
PARKING STRUCTURE**  
Beverly Hills, CA

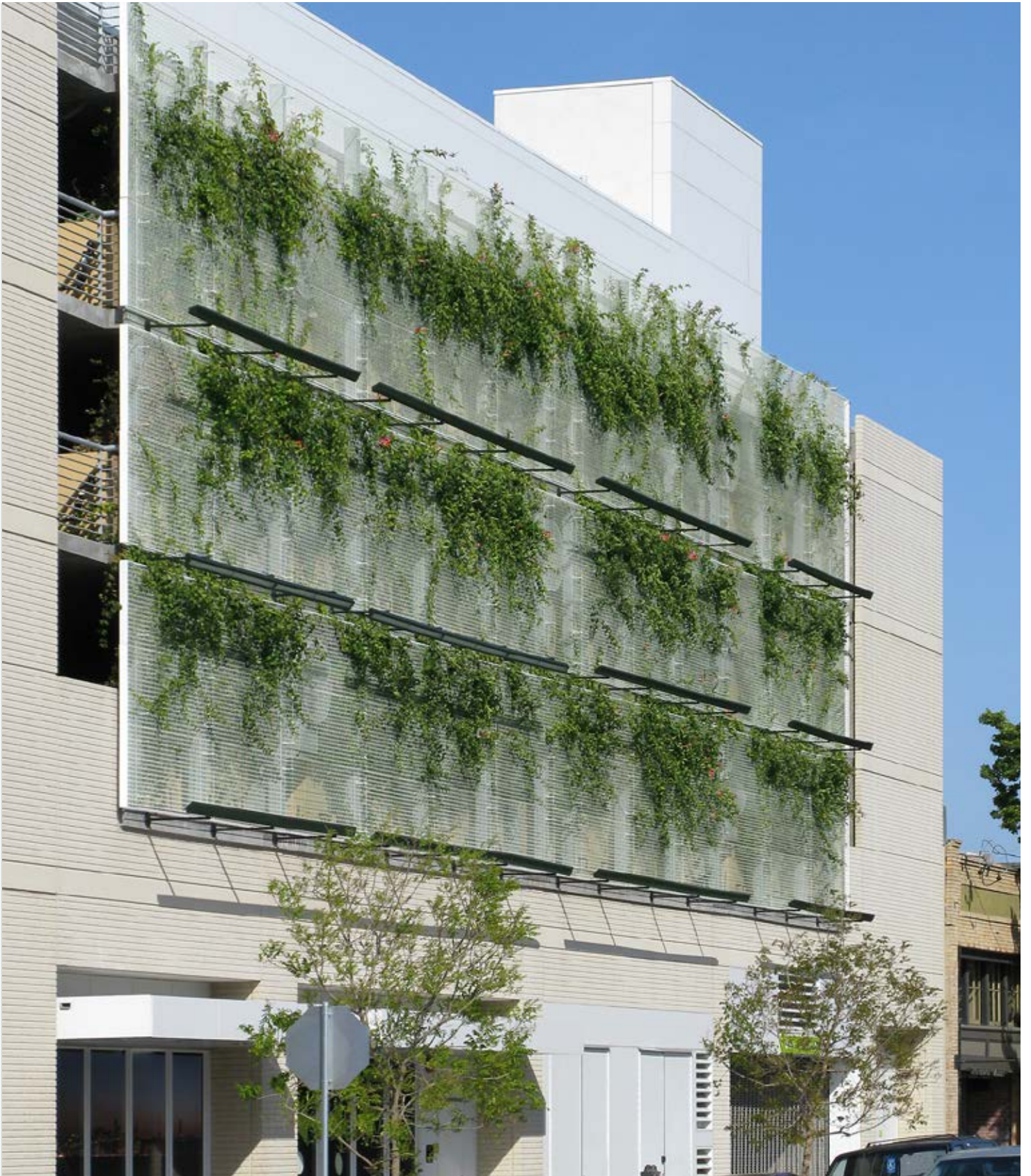
Precast planters integrated into the façade and planted with a mix of bougainvillea and jasmine.

*Architect: International Parking Design  
Contractor/Installer: Bomel Construction*

OPPOSITE PAGE:  
**THE ELLINGTON**  
Oakland, CA

Planters located behind the greenscreen® panels on the precast surface at every level with integrated lighting by others.

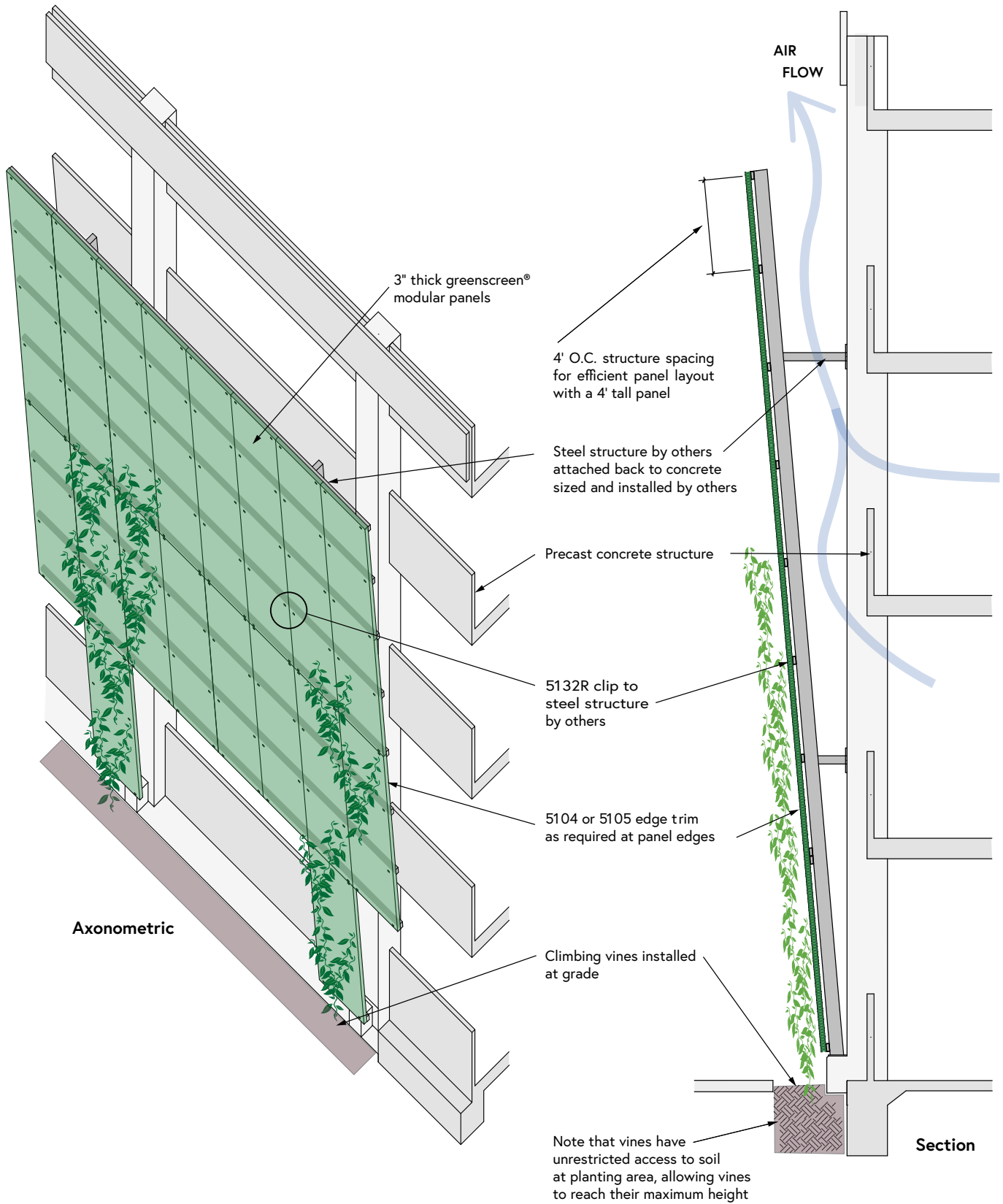
*Architect: Perkins&Will  
Contractor: Swinerton Builders  
Installer: C.E. Toland & Son*



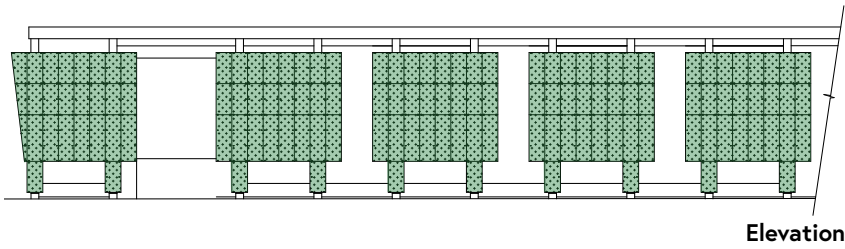
# 4

## Parking Structure Green Façade Details

### Steel Structure Attached to Precast





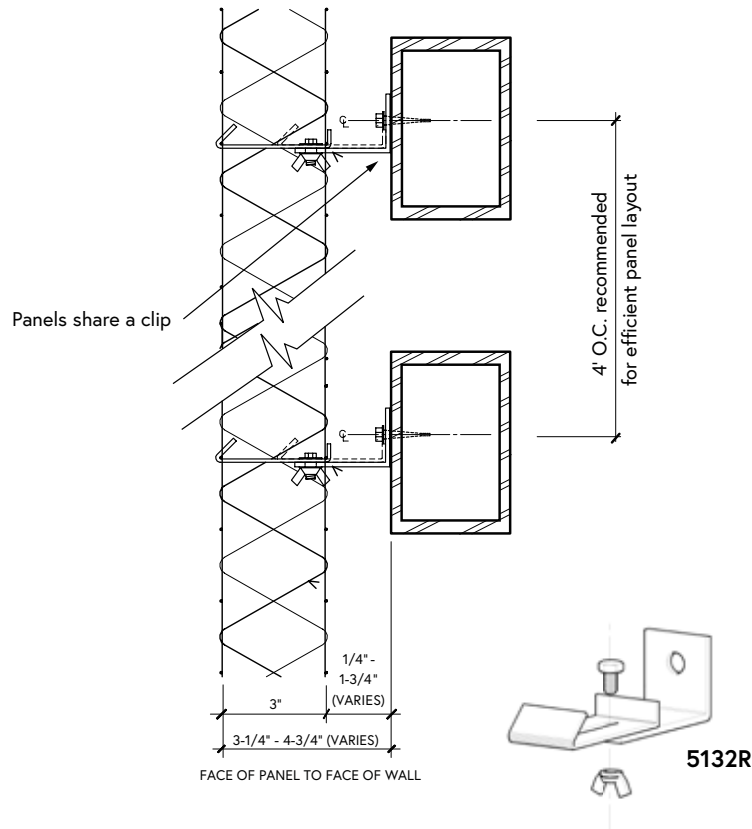


### 5132R ADJUSTABLE CLIP

The 5132R adjustable clip provides panel support for both download and uplift. The clip can mount to wall surfaces or to a steel frame. The sled with slot allows for panel adjustment and ease of installation.

#### NOTES:

- 4' wide greenscreen® panels mounted to structure by others
- Steel support structure sized, provided and installed by others



Project: California State University, Fullerton, CA • Architect: AC Martin Partners, Inc.

# 4

## Parking Structure Green Façade Details Steel Mounted Project Examples



ABOVE:  
**WORLDMARK ANAHEIM**  
Anaheim, CA

greenscreen® can camouflage adjacent parking structures with wall mounted, modular trellis panels.

*Architect: Ankrom Moisan  
Landscape Architect: LRM Landscape  
Architecture  
Installer: The Bratton Corporation*

OPPOSITE PAGE:  
**ISSAQUAH TRANSIT CENTER**  
Issaquah, WA

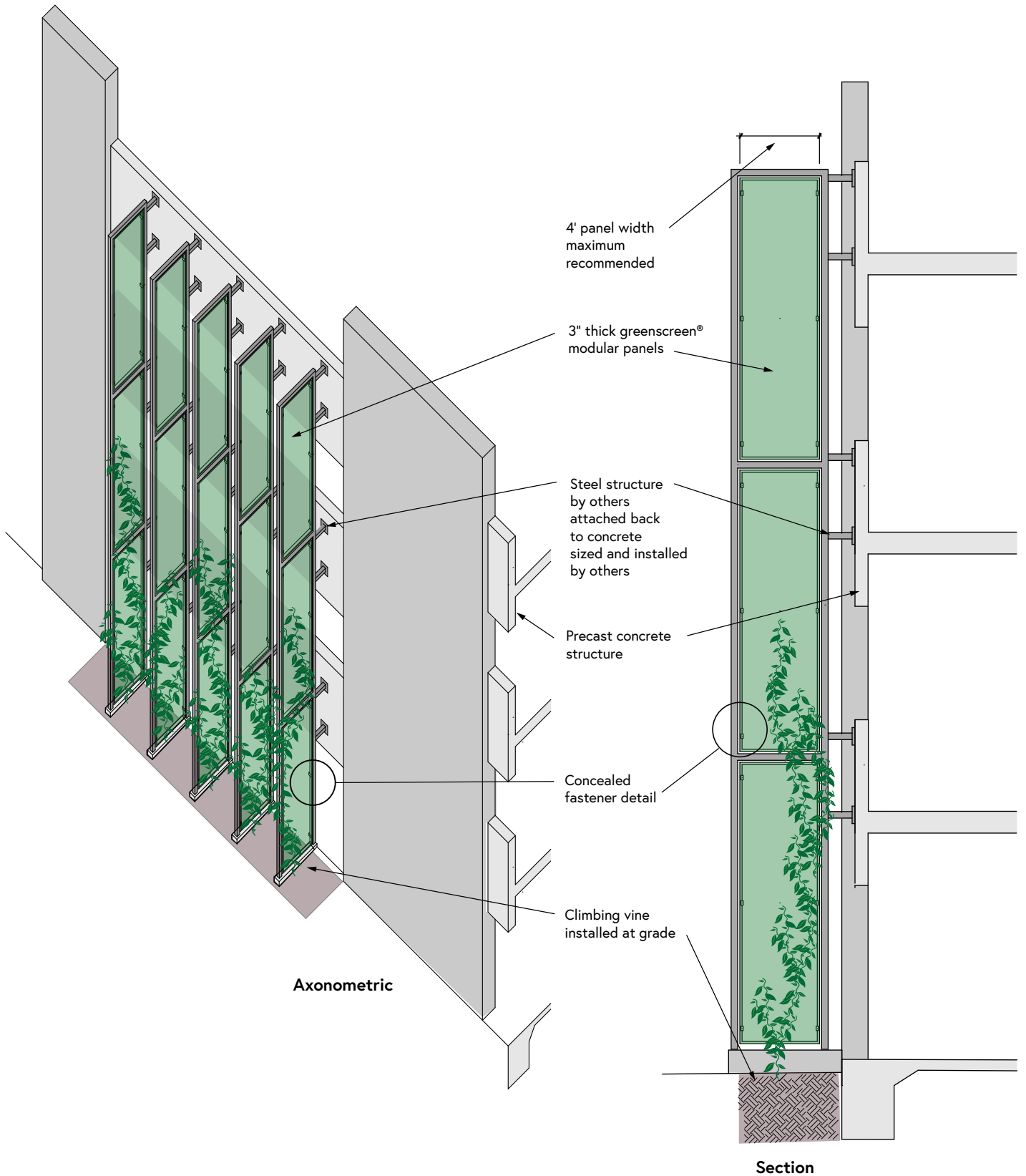
Structural steel supports are provided by others.

*Architect: MBT Architecture  
Contractor: KPFF  
Installer: Harbor Pacific Contractors*



# Parking Structure Green Façade Details

## Steel Fins Structure Attached to Precast

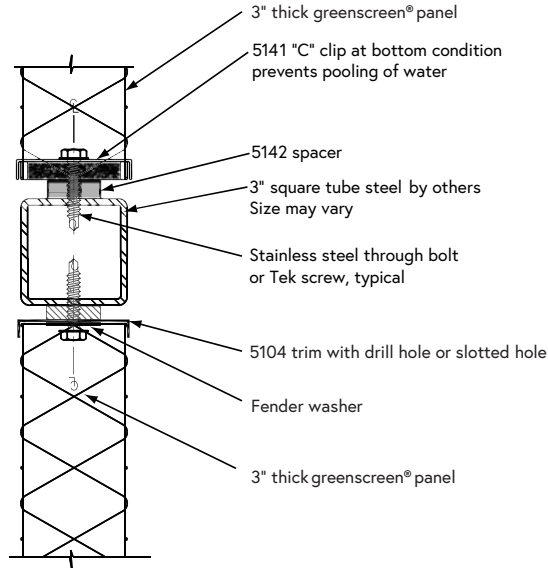


## CONCEALED FASTENER

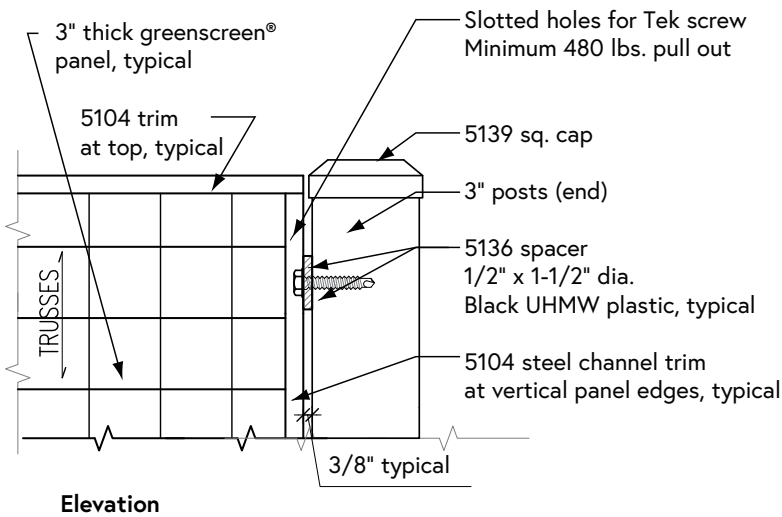
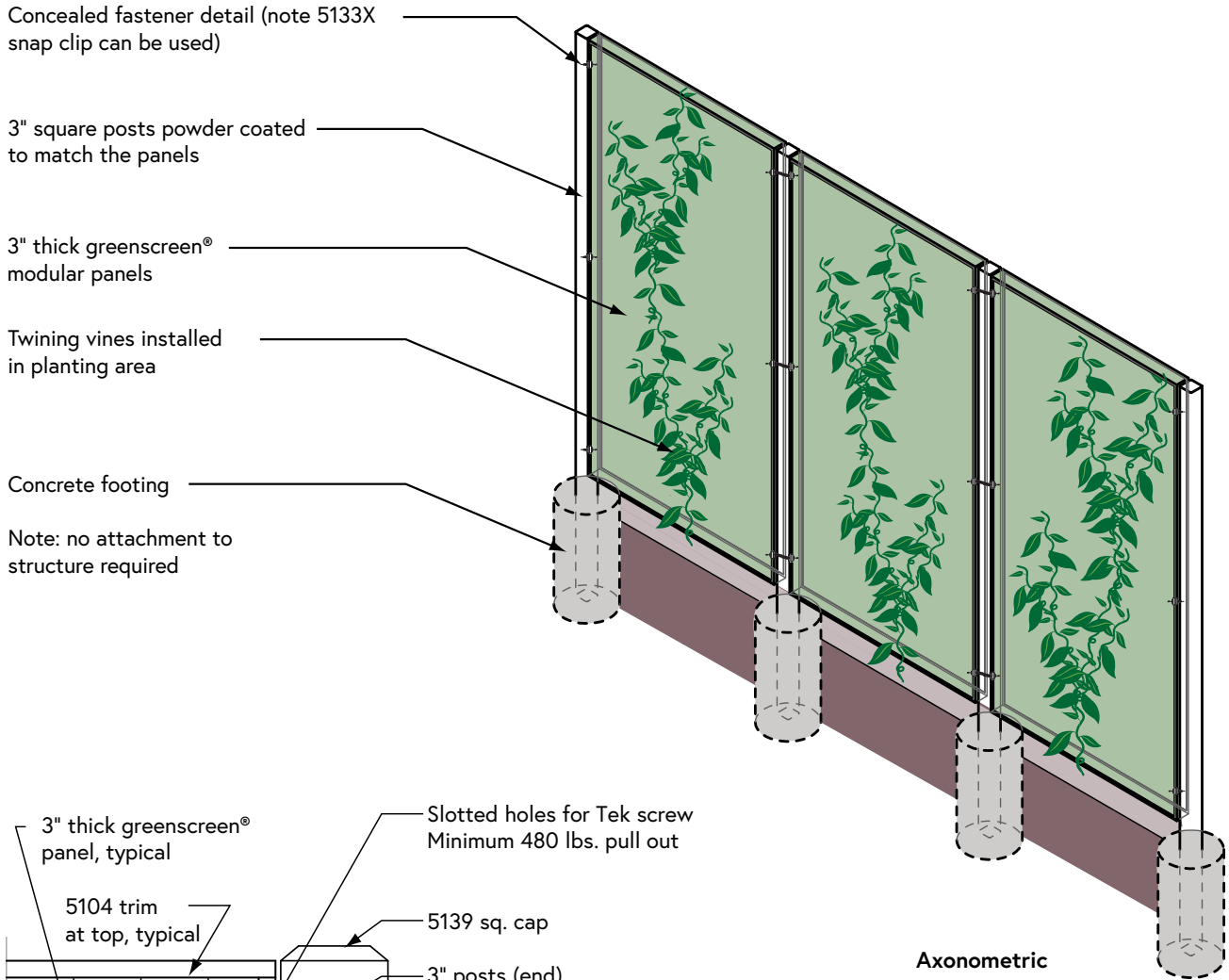
The greenscreen® concealed fastener can be used to mount to a concrete wall or steel frame at a head, jamb or sill condition. Panel edge trim required.

### NOTES:

- greenscreen® modular panels panels mounted to structure by others
- Standard concealed fastener used for attachment to steel
- Steel support structure sized, provided and installed by others
- Panel edge trim required
- Allows for maximum airflow



Project: LDS Institute at Arizona State University Parking, Tempe, AZ • Architect: Architekton • Installer: Skyline Steel • GC: Layton Construction



**CONCEALED FASTENER DETAIL**



*Project: Rockville Town Square, Rockville, MD • Architect: WDG • Contractor: The Whiting-Turner Contracting Company  
Installer: Metal Sales & Services, Inc.*

# greenscreen® Parksmart Certification Standard Credit Contributions

As a company, greenscreen® believes that it is important to identify and promote key initiatives that will help generate an awareness of the larger issues of sustainable design, green infrastructure and policy development. To this extent, greenscreen® has been proactive in its support and participation in projects that utilize third party verified sustainability certifications, such as the Parksmart Certification, USGBC LEED v4 BD+C New Construction Rating System (November 2014) and The Sustainable SITES Initiative® v2 (2015). To help promote green façade incorporation into these programs, greenscreen® provides the following resources for green building design disciplines:

- Measure 5: Sustainable Purchasing Program
- Measure 10: Construction Waste Management
- Measure 11: Regional Materials for New Construction, Rehabilitation and Retrofit
- Measure 13: Reused, Repurposed or Recycled Materials



**greenscreen®**   
Engineering Nature.

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